LEROY SOMER®

91 en - 04.2007 / m

PUMPS
Technical catalogue

Contents

See contents detailed

DELIVERY DATES FOR PRODUCTS IN THIS CATALOGUE

YOU CAN DETERMINE THE DELIVERY DATE OF YOUR PRODUCT WITHOUT HAVING TO PHONE

The G.A. (Guaranteed Availability) and F.A.C. (Fast Assembly Centre) services enable you to determine the dispatch date instantaneously.

Products on	**white background**	G.A.: dispatch within 24 hours*
		* dispatch same day if ordered before 12 noon
Products on	**light green background**	F.A.C.: dispatch within 48 hours
Products on	**dark green background**	Manufacturing timescales to be agreed with your usual contact

MAXIMUM quantities per order and per pump type

	HOUSING	BORE HOLES	INDUSTRY
G.A.	3	1	1
F.A.C.	1	-	1

Contents

Contents

The hydraulic characteristics of all the pumps given in this catalogue are guaranteed:
- to comply with international standard ISO 2548 Class C, for series production pumps;
- for de-aerated water, at a temperature of 20°C, having a viscosity of 1 mm^2/s or 1° Engler and a density of 1.

Standards and certification

SAFETY REQUIREMENTS

Within the context of the European Directives relating to the protection of people, animals and equipment, the electropumps are subject to:

- "machinery" Directive, ref. 89/392/EEC, as amended
- "electromagnetic Compatibility" Directive, ref. 89/336/EEC, as amended
- "low Voltage" Directive, ref. 73/23/EEC, as amended

The fact that the products conform to the essential requirements of these Directives is shown by the CE mark on their nameplates and/or packaging and documentation.

The precautions to be taken are given in the "installation and maintenance" instructions accompanying each electropump.

QUALITY REQUIREMENTS

All activities resulting in the final version of the products conform to the requirements of ISO 9000.

REGULATORY REQUIREMENTS

The design of LEROY-SOMER electropumps incorporates current standards relating to the profession. List of principal standards used:

Reference		Title
International	France	
IEC 34-1	NFC 51 111 51 120 51 200	Electrical rotating machines: ratings and operating characteristics
IEC 34-5	NFC 51 115	Electrical rotating machines: classification of degrees of protection provided by casings of rotating machines
IEC 34-8	NFC 51 118	Electrical rotating machines: terminal markings and direction of rotation
IEC 34-9	NFC 51 119	Electrical rotating machines: noise limits
EN 60 335-1	NFEN 60 335-1	Safety of electrical household appliances and the like. General specifications.
EN 60 335-2-41	NFEN 60 335-2-41	Safety of electrical household appliances and the like. Particular regulations for pumps for liquids with a temperature not exceeding 35°C.
EN 292-1	NFEN 292-1	Safety of machines. Fundamental concepts, general design principles. Basic terminology, methodology.
EN 292-2	NFEN 292-2	Safety of machines. Fundamental concepts, general design principles.
EN 733	NFEN 733 NFE 44 111	PN 10 centrifugal pumps with axial suction with support under pump body. Nominal operating point, main dimensions, designation system. Corresponds to German standard DIN 24255.
ISO 2548		Centrifugal, mixed-flow and axial-flow pumps. Acceptance test code. Class C.

Reference	Title
	GERMANY
DIN 5440	Pumps. Cooling pumps for machine tools. Rated flow, dimensions.
	USA
NEMA MG 1-18	Submersible motors for 4”, 6” and 8” bore hole pumps.

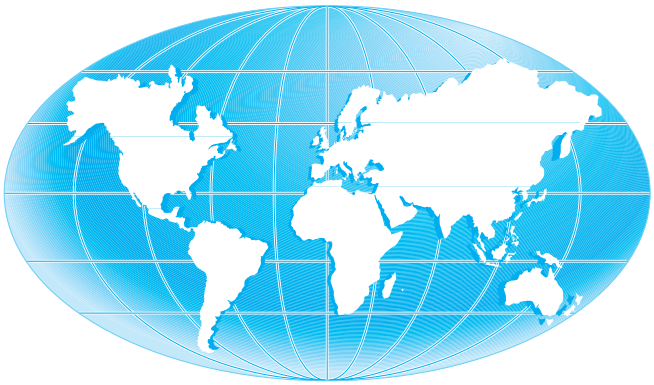
Presence

INTERNATIONAL PRESENCE

470 sales outlets and service locations ensure that LEROY-SOMER has a strong commercial presence throughout the world. Establishments are fully integrated into the country.

They are made up of nationals who know the industrial requirements, commercial practices and current standards.

The extent of the product range means the company encounters customers with highly diverse requirements and ways of expressing them.

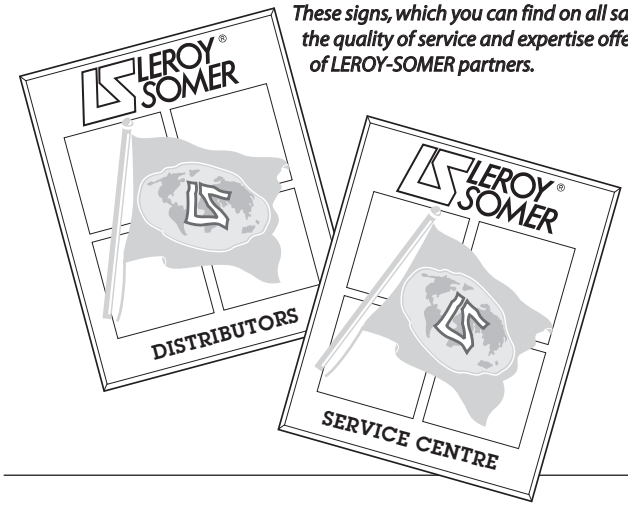


LEROY-SOMER NETWORKS

Satisfying the needs of USERS of LEROY-SOMER products requires a comprehensive and qualified organisation in the field.

This organisation is structured around:

- 25 commercial branches specialising in dealing with manufacturers, design offices and consultancies. These provide advice, prepare specifications and put in place technical solutions complying with local or international standards.
- 16 commercial branches specialising in dealing with industrial users. These provide sales promotion, training, approval of technical offers and organisation of service in conjunction with a network of approved partners.



These signs, which you can find on all sales points, represent the quality of service and expertise offered by the network of LEROY-SOMER partners.

- **Ideal local availability**
- **Commissioning and maintenance**
- **Troubleshooting, repair and servicing on site**
- **Repair and servicing in the workshop**
- **Information and training on site or at the CFE (LEROY-SOMER's approved Training Centre)**

Field of expertise

EXPERTISE IN DRIVES

LEROY-SOMER's long experience and know-how as an electric motor manufacturer are a guarantee of an optimised drive for obtaining best performance in the following areas:
- Slip
- Efficiency (energy saving)
- Mechanical strength
- Noise level
- Starting torque
- Isolation
- Temperature rise and thermal reserve

EXPERTISE IN CONSTRUCTION

Control over products from production of their specification until they are put on the market enables LEROY-SOMER to incorporate new standards, new materials and new techniques.



- Production of moulds for thermoplastic components
- Injection of thermoplastic components



- Casting of cast iron or bronze components
- Machining of components on machining centre

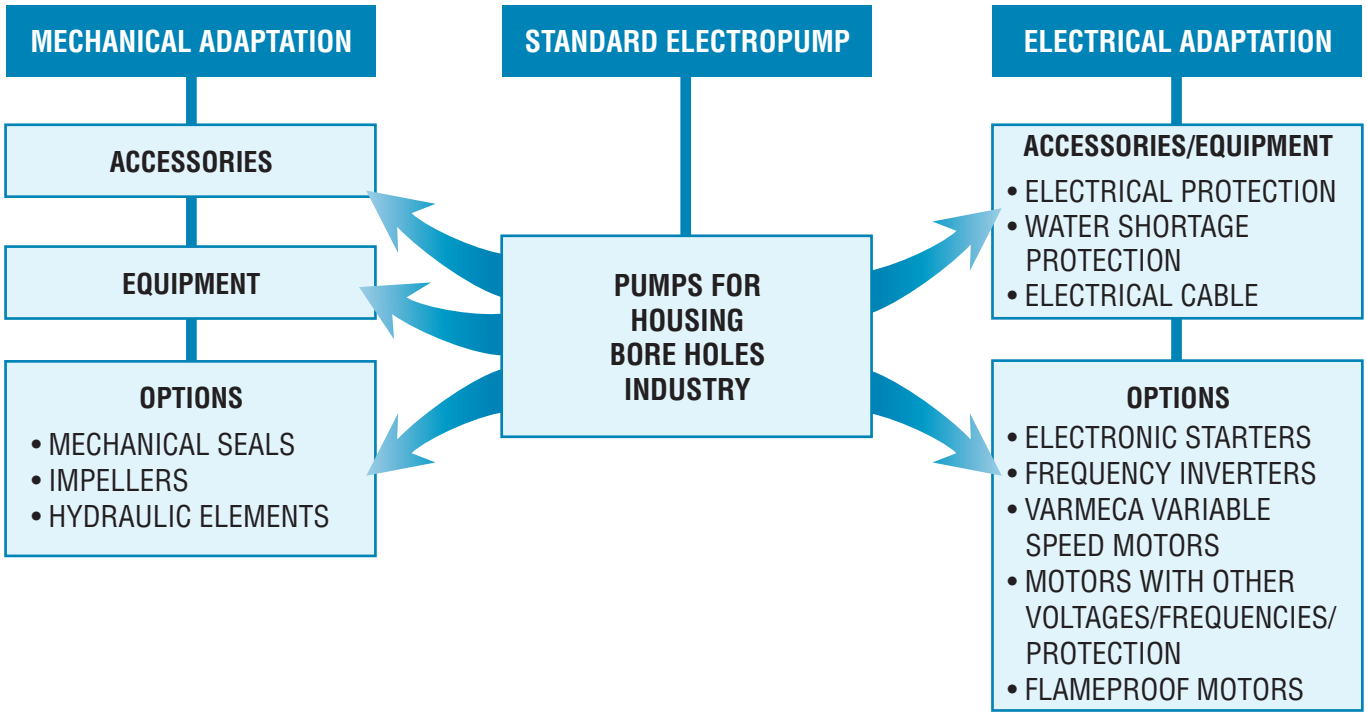


- Pump assembly
- Pump testing on test bed

Adaptation

ADAPTATION POSSIBILITIES

In each product description, a summary chart enables you to identify simply the mechanical or electrical adaptation possibilities.
Coded adaptations appear in the PRODUCTS, ACCESSORIES, EQUIPMENT and COMPATIBILITY CHART sections.
For non-coded adaptations, please consult the LEROY-SOMER specialists.



COMPATIBILITY CHART

The compatibility chart shows you whether the pump you have selected can pump the desired liquid:

STD: The electropump in its standard version can pump the desired liquid.

A B C or D: The electropump can pump the desired liquid, with a technical adaptation. A, B, C or D corresponds to a tariff supplement.

?: Please consult the LEROY-SOMER technical specialists.

: The electropump cannot pump the desired liquid.

NOTE: For any other pumped liquid, please consult the LEROY-SOMER technical specialists.

Pumps with drives incorporating electronic components

LEROY-SOMER specialists are at your disposal to study incorporating electronics into your pumping systems in the INDUSTRIAL, COMMUNAL HOUSING and IRRIGATION fields.

ELECTROPUMPS INCORPORATING ELECTRONIC COMPONENTS (VARMECA)

Multistage pump
with submersible hydraulic unit
PV-PIV series

Stainless steel vertical
multistage pump
MIV series

Horizontal
single-stage pump
LS series

Advantages

• Energy saving
- Adapting the electrical power to the user's requirements

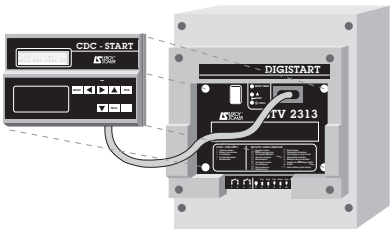
• Operational safety
- Unpriming detection
- Limiting of water hammer
- Flow rate automatically adapted in the event of overload
- Indication of operating states (automatic running, maximum flow, unpriming, etc.)

• Built-in pressure regulator
- Built-in sensor power supply (24 V DC / 30 mA)
- Sensor breakage detection
- Automatic valve closed detection
- Direct reading of pressure and reference via console

• Protection
- IP 55 protection of the electropump incorporating electronic components (IP 65 as an option)

• Conformity with standards
- Built-in filter for conformity with the EMC Electromagnetic Compatibility Directive
- CE marking under the Low Voltage Directive
- UL approved

ELECTRONIC STARTERS AND FREQUENCY INVERTERS



DIGISTART
electronic starter

DIGIDRIVE SK and PROXIDRIVE
variable speed drive

• Production of assemblies (enclosure with protective devices)

• Tests on a test bed

• Installation / commissioning

• Training / maintenance

• Process improvement / project engineering

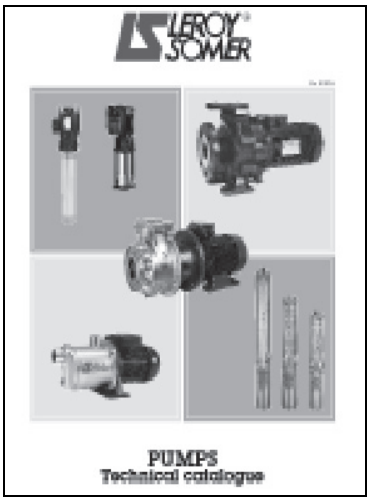
Sales aids

DOCUMENTATION

The Pump catalogue: your working tool

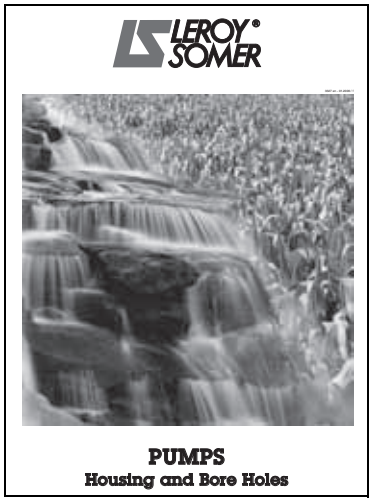
Technical catalogue presenting all the HOUSING, BORE HOLE and INDUSTRY pumps together with their accessories.

- Technical description of the products
- Selection curves and data
- Product availability



Advertising leaflets for:

- HOUSING / BORE HOLES



Other technical catalogues that can be sent to you on request:
- Transient operation
- Variable speed control
- Induction motors

LEROY-SOMER's Training and Exhibition Centre (CFE)

The training courses at the CFE, a department of LEROY-SOMER, are given by a team of experienced instructors from its network of engineers and sales engineers.

Programmes organised at different levels have been designed to ensure that constant progress can be made in acquiring skills and knowledge.

The training courses offered can include:

- Revision courses on hydraulics
- Product knowledge
- Selection and determination
- Definition of an installation
- Faults and remedies
- Dismantling / repair
- Starting controllers / frequency inverters

These training courses are equipped with practice benches enabling simulation of a large number of configurations and situations under real conditions. They can also be decentralised to a location of your choice.
The quality of the training courses given by LEROY-SOMER's CFE has been given recognition by the FIEE (Federation of Electrical and Electronic Industries).

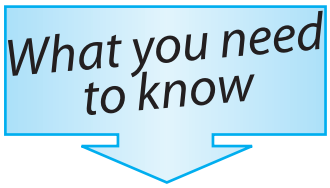
PUMPS

General information

As an extension to its ranges of drives, LEROY-SOMER offers a range of four main families of pumps incorporating the most recent European standards and meeting the requirements of HOUSING, BORE HOLES and INDUSTRY:

- Single-stage surface pumps
- Multistage surface pumps
- Submersible pumps for 4“ and 6“ bore holes
- Pumps for technical use

Selection method



FLOW RATE

The flow rate is the amount of water obtained at the output of the pump in a given time. This amount is expressed in cubic metres/hour (m^3/h) or litres/minute (l/min).

A few basic values:

Example of daily consumption

- Per person . . . . . 80 to 100 l
- Per bath . . . . . 100 to 150 l
- Per WC flush per person . . . . . 30 l
- Washing a motor vehicle . . . . . 100 l
- Per head of large livestock . . . . . 80 l
- Per head of small livestock (pig, calf, sheep) . . . . . 20 l
- Per m^2 of garden to be watered . . 4 to 8 l

The flow rate of the pump is obtained by spreading the daily consumption over two to three hours of operation.

Housing:

- Standard single-family dwelling or second home 1 bathroom, 1 hose tap . . . . . 2 to 2.5 m^3/h
- "Comfort" single-family dwelling 2 bathrooms, household appliances 2 hose taps. . . . . 3 to 3.5 m^3/h
- Rural dwelling with vegetable garden watering. . 2.5 to 4 m^3/h
- Agricultural establishment of medium size . . . . . 4 to 6 m^3/h

Sprinkler systems:

- Turning sprinkler . . . . . 500 to 1,000 l/h
- Circular sprayer . . . . . 1,000 to 1,300 l/h
- Rotary sprinkler 20/27 . 1,000 to 3,300 l/h
- Rotary sprinkler 33/42 . 1,000 to 5,000 l/h
- Oscillating sprinkler . . . 1,000 to 1,500 l/h
- Sprinkler . . . . . 1,000 to 1,500 l/h

PRESSURE

Working pressure: as its name indicates, this is the water pressure in bars (or kg/cm^2) necessary at the point of use (tap, machine input, etc.).

CAUTION:
Unlike flow rates, working pressures do not add together. For two sprinklers each requiring 1.5 bar in simultaneous operation, the working pressure will still be 1.5 bar.

Working pressure example:

Housing:

- Supply for a dwelling . . . . . 1.5 to 3 bar
- Hose tap / Miscellaneous use . . . . . 1.5 to 2 bar
- Washing tap . . . . . 5 to 6 bar

Sprinkler systems:

- Turning sprinkler . . . . . 0.8 bar
- Circular sprayer . . . . . 2 bar
- Rotary sprinkler . . . . . 0.4 bar
- Oscillating sprinkler . . . . . 3 bar

Irrigation:

- Professional irrigation . . . 6 bar and over

HEAD LOSSES

Any liquid conveyed inside pipework is subject to constraints and friction referred to as "head losses". These head losses are expressed in metres of head of water (MHW) and are related to the cross-section of the pipe, the conveyed flow rate and the temperature of the water.

CAUTION:
The head loss is a very important factor. It is best to avoid too long lengths of small-diameter pipework, and watch out for scaling in old pipework.

Pipe selection
To determine the size of the pipework according to the flow rate, use the following table.

Pipe dimensions	20/27 3/4”	26/34 1”	33/42 11/4”	40/49 11/2”	50/60 2”	60/70 21/4”
Flow rate m^3/h	0.7	1.5	3	4	8	10

Pipe dimensions	66/76 21/2”	80/90 3”	102/114 4”	125	150	175
Flow rate m^3/h	15	20	36	60	90	140

According to the size of the pipes and the flow rate, the table below can be used to determine the head losses.

Example:

- Flow rate: 2 m^3/h
- Pipework diameter: 1" (26/34)
- Pipework length: 50 m

☞ Head losses per metre of pipe: 90 mm or 0.09 M.H.W.

☞ Total head losses: 0.09 x 50 = 4.5 M.H.W.

Head losses
In new pipes in millimetres of head of water per metre of pipe.

Flow rate in m^3/h	15/21 1/2"	20/27 3/4"	26/34 1"	33/42 1" 1/4	40/49 1" 1/2	50/60 2"	60/70 2" 1/4	66/76 2" 1/2	80/90 3"	102/114 4"	125	150	175
0.2	15	3	-	-	-	-	-	-	-	-	-	-	-
0.5	100	20	5	1	-	-	-	-	-	-	-	-	-
0.7	200	40	10	2	-	-	-	-	-	-	-	-	-
1	400	80	21	5	2	-	-	-	-	-	-	-	-
1.5	-	170	50	10	5	1	-	-	-	-	-	-	-
2	-	330	90	20	9	3	-	-	-	-	-	-	-
3	-	-	210	45	22	6	3	1	-	-	-	-	-
4	-	-	320	76	35	10	6	2	1	-	-	-	-
5	-	-	-	130	60	18	9	4	2	-	-	-	-
6	-	-	-	170	80	25	13	5	3	-	-	-	-
7	-	-	-	250	120	35	17	7	3	-	-	-	-
8	-	-	-	330	140	45	23	10	5	1	-	-	-
9	-	-	-	-	190	57	28	12	6	2	-	-	-
10	-	-	-	-	230	70	35	15	7	2	-	-	-
12	-	-	-	-	330	100	50	22	10	3	1	-	-
15	-	-	-	-	-	150	79	34	16	5	2	-	-
20	-	-	-	-	-	260	140	60	28	8	3	1	-
30	-	-	-	-	-	-	315	135	63	19	6	2	1
40	-	-	-	-	-	-	-	240	112	33	11	4	2
50	-	-	-	-	-	-	-	375	175	52	17	7	3
60	-	-	-	-	-	-	-	-	250	76	24	10	4
70	-	-	-	-	-	-	-	-	340	102	33	13	5
80	-	-	-	-	-	-	-	-	-	134	43	17	6
100	-	-	-	-	-	-	-	-	-	210	68	26	10
150	-	-	-	-	-	-	-	-	-	-	153	58	22

- For plastic pipes, multiply these values by the coefficient 0.7.
- For elbows, non-return valves, foot valve, strainer, allow 2 metres of imaginary length of pipe for each accessory.

Selection method

What you need to know

DECIDING ON THE PRODUCT

• To decide upon an electropump, it is essential to know:

- The flow rate (Q) in m^3/h
- The TMH in M.H.W.

• Determining the Total Manometric Head (TMH)

This is calculated by summing:

SSH: Static Suction Head. This is the difference in level between the lowest water and the axis of the pump. It is expressed in metres.

+ SDH: Static Discharge Head.
This is the difference in level between the axis of the pump and the highest distribution point.
It is expressed in metres.

+ Pa: Head losses in the suction pipework.

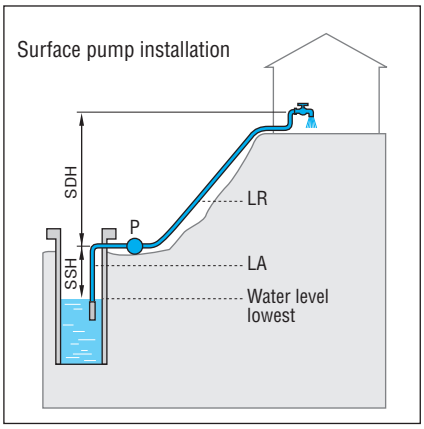
+ Pr: Head losses in the discharge pipework.

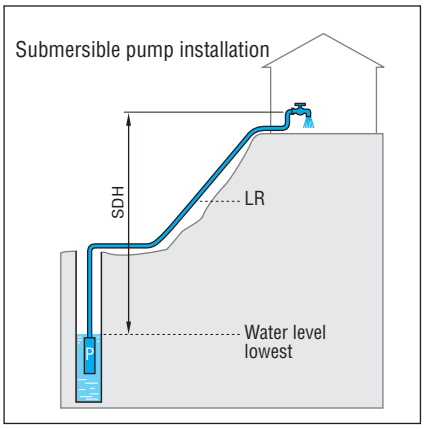
+ P: Working pressure.

For calculating the manometric head, all values must be expressed in metres of head of water (M.H.W.).
To do this, use the conversion: 1 bar = 10 metres of head of water.

CAUTION:
You must always check that the suction capacity of the pump is greater than the MSH.

Reminder: MSH (Manometric Suction Head) = SSH (Static Suction Head) + Pa (head losses in the suction pipework).





CALCULATION EXAMPLE (surface pump)

• Desired characteristics:
- Flow rate: 2 m^3/h
- Working pressure: 2 bar = 20 m

• Data:
SSH = 3 m; LA = 7 m
SDH = 4 m; LR = 60 m

• Recommended size of the pipework:
1" 26/34

• Head losses in the pipework per metre of pipe:
90 mm = 0.09 m

• Manometric Suction Head (MSH):
- SSH + suction head losses
- 3 m + (0.09 x 7) = 3.63 m

• Manometric Discharge Head (MDH):
- SDH + discharge head losses + working pressure
- 4 m + (0.09 x 60) + 20 = 29.40 m

• Total Manometric Head (TMH):
- MSH + MDH
- 3.63 m + 29.40 = 33 m

Therefore it is necessary to have a pump providing a flow rate of 2 m^3/h for a total manometric head (TMH) of 33 M.H.W.

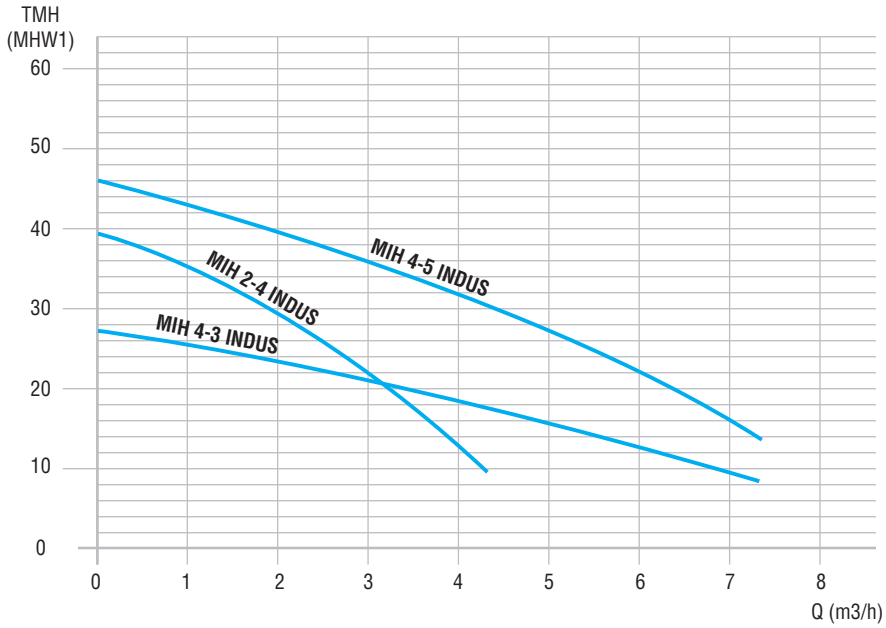
Selection method

What you need to know

ELECTROPUMP SELECTION

Once the flow rate and pressure characteristics have been determined, use these 2 values with the curves or table to define the most suitable electropump.

Selection by curve



Selection example:
For the calculation example given on the previous page, the MIH 2-4 INDUS pump is the most suitable.

Selection by table

Rated flow: 2 to 4 m³/h

Type	Product code	Flow rate in m³/h	0	1	2	3	4	5	6	7	kW output	Current in A 1-ph 230 V	Current in A 3-ph 230 V	Current in A 3-ph 400 V
MIH 2-4 M INDUS	T 150 PC 07	TMH in MHW[1]	39	35	**29**	22	13	-	-	-	0.45	2.9	-	-
MIH 2-4 T INDUS	T 150 PC 08		39	35	**29**	22	13	-	-	-	0.45	-	2.1	1.2
MIH 4-3 M INDUS	T 150 PC 09		27	25	23	21	**19**	16	13	10	0.45	2.7	-	-
MIH 4-3 T INDUS	T 150 PC 10		27	25	23	21	**19**	16	13	10	0.45	-	2	1.2
MIH 4-5 M INDUS	T 150 PC 11		46	42	39	35	**31**	27	22	16	0.75	5	-	-
MIH 4-5 T INDUS	T 150 PC 12		46	42	39	35	**31**	27	22	16	0.75	-	3.5	2

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW).

SELECTION ADVICE

The curves or tables show the operating ranges of the electropumps.

However it is recommended:

- Not to use the pumps at their minimum flow rate so as not to cause overheating of the motor;

- To centre the point of use around the rated operating point of the electropump: this value, shown in bold in the table, corresponds to the characteristics of the pump at its maximum efficiency.

Example:

Rated operating point of MIH 2-4 INDUS pumps (choose the point of use around this point)

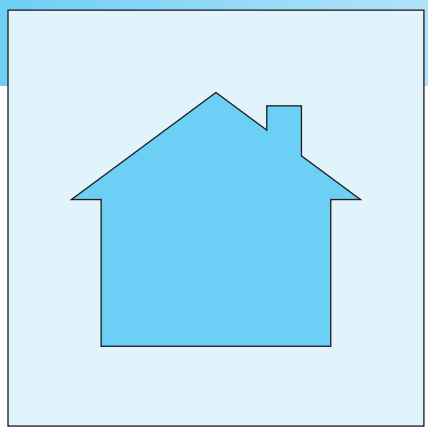
Rated flow: 2 to 4 m³/h

Type	Product code	Flow rate in m³/h	0	1	2	3	4	5	6	7	kW output	Current in A 1-ph 230 V	Current in A 3-ph 230 V	Current in A 3-ph 400 V
MIH 2-4 M INDUS	T 150 PC 07	TMH in MHW[1]	39	35	**29**	22	13	-	-	-	0.45	2.9	-	-
MIH 2-4 T INDUS	T 150 PC 08		39	35	**29**	22	13	-	-	-	0.45	-	2.1	1.2
MIH 4-3 M INDUS	T 150 PC 09		27	25	23	21	**19**	16	13	10	0.45	2.7	-	-
MIH 4-3 T INDUS	T 150 PC 10		27	25	23	21	**19**	16	13	10	0.45	-	2	1.2
MIH 4-5 M INDUS	T 150 PC 11		46	42	39	35	**31**	27	22	16	0.75	5	-	-
MIH 4-5 T INDUS	T 150 PC 12		46	42	39	35	**31**	27	22	16	0.75	-	3.5	2

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW).

Rated operating point of MIH 4-3 INDUS and MIH 4-5 INDUS pumps (choose the point of use around this point)

Housing



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MAXIMUM quantities per order and per pump type

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F.A.C.	1	-	1

CALYPSO
Sump pumps

General information

Submersible sump pumps for clear water

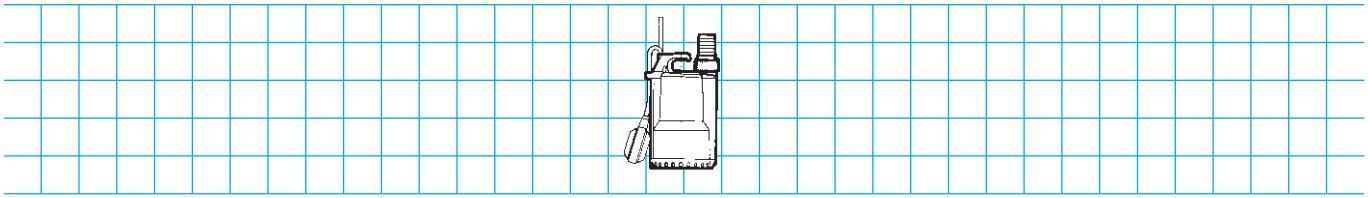
Applications
- Removal of infiltration water or rainwater
- Drainage and evacuation of flooded cellars, garages and rooms

Conditions of use
- For clear and very slightly contaminated water
- Maximum water temperature in continuous use: 40 °C
- Maximum discharge diameter: ø 10 mm
- Maximum operating pressure: 1 bar
- Maximum submersion depth: 3 m
- Motor electrical power supply:
  • Single phase 230 V ± 10% – 50 Hz
- System for automatic run and stop by float
- Electropump supplied with 5 m power supply cable and standard plug (2 pins + earth)

Description of CALYPSO sump pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- Single phase 230 V ± 10% – 50 Hz with automatic reset thermal protection incorporated in the winding - Class F
Electrical cable	HO 5 RNF	
Float		For automatic run and stop of the electropump
Pump body	Synthetic material	
Impeller	Synthetic material	
Shaft	X33 Cr 13 stainless steel	
Mechanical seal	Graphite/alumina	Double sealing of the shaft by lipseal and oil chamber
Screws	X2 Cr Ni 18.10 stainless steel	

Mounting position

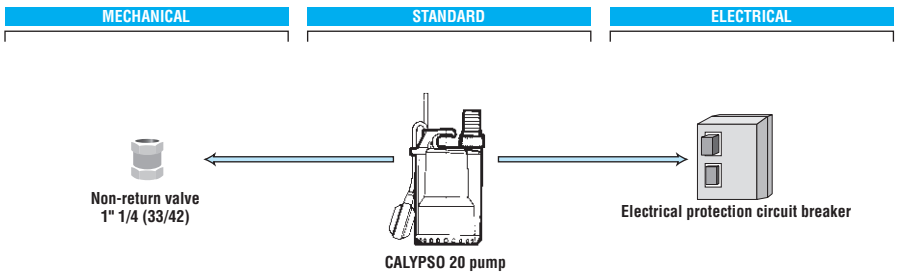


Only possibility

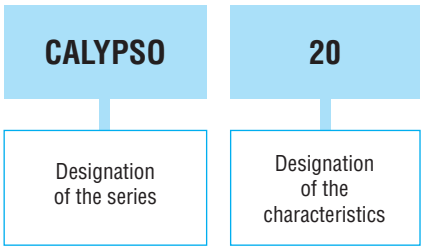
CALYPSO
Sump pumps

A

Adaptation possibilities



Designation / Coding



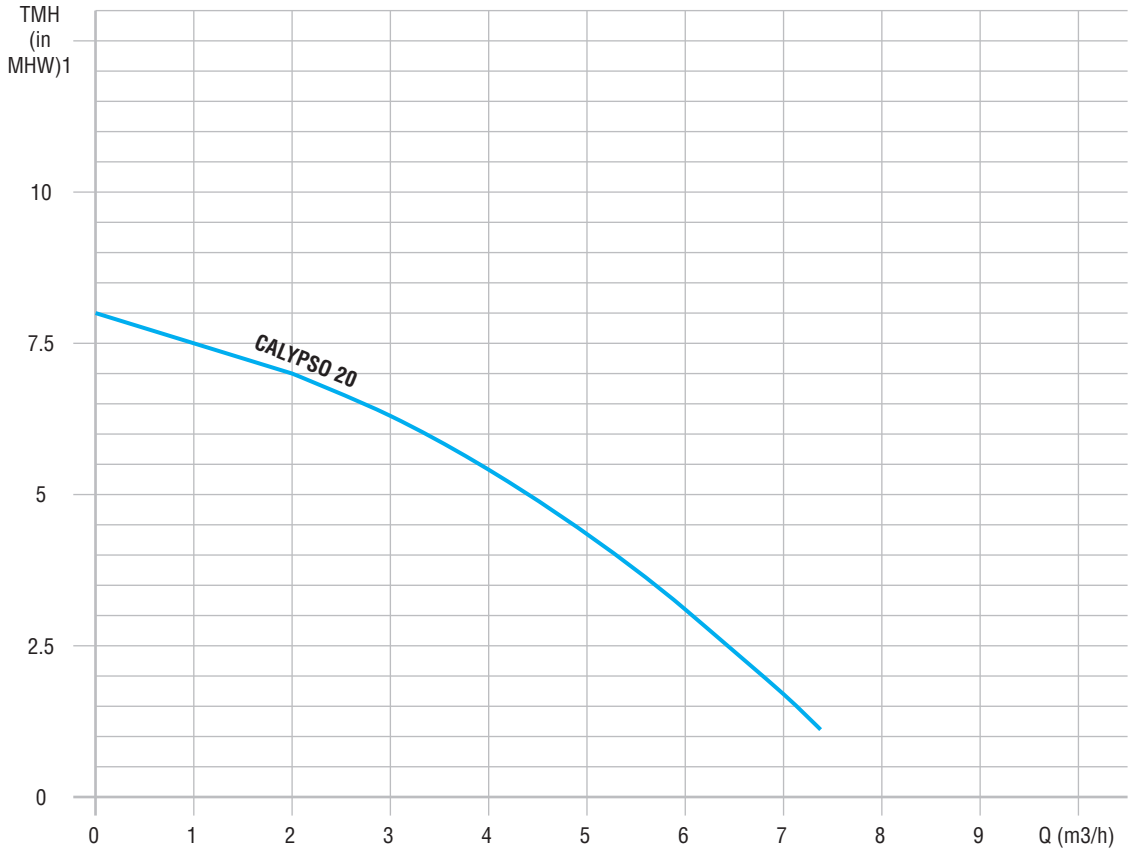
☞ ***Example of coding:***

Designation	Code
CALYPSO 20	T 121 PC 17

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

CALYPSO
Sump pumps

Selection



Rated flow: 4 m³/h

Type	Product code	Flow rate in m³/h	0	1	2	3	**4**	5	6	7	kW drawn	Current in A 1-ph 230 V
CALYPSO 20	T 121 PC 17	TMH in MHW[1]	8	7.5	7	6.3	**5.2**	4.2	3.1	1.7	0.45	2

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

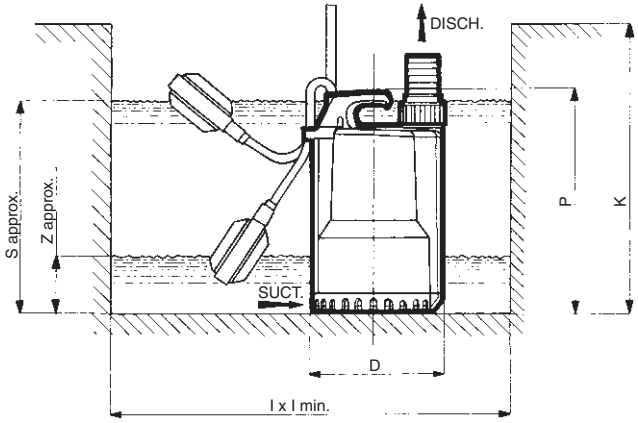
CALYPSO
Sump pumps

Dimensions

A

Dimensions of CALYPSO sump pumps

Dimensions in millimetres



	Pumps						Opening	Weight
Type	D	K	l x l	P	S	Z	Discharge	kg
CALYPSO 20	152	400	450	255	300	70	1”1/4 F (33/42)	4.5

CENTAURE
Sump pumps

General information

Submersible sump pumps for clear water

Applications
- Removal of infiltration water or rainwater
- Drainage and evacuation of flooded cellars, garages and rooms

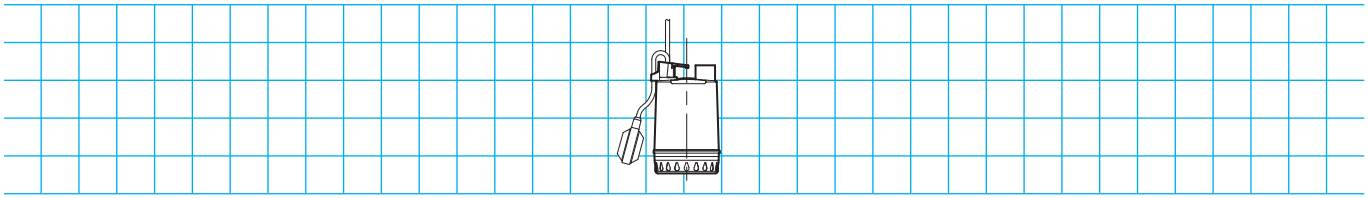
- Irrigation for vegetable gardens
- Treatment of domestic waste water

Conditions of use
For clear and slightly contaminated water.
- Maximum water temperature in continuous use: 50°C
- Maximum discharge diameter: ø 10 mm
- Maximum operating pressure: 1 bar
- Maximum submersion depth: 3 m
- Motor electrical power supply:
• Single phase 230 V ± 10% – 50 Hz
- System for automatic run and stop by float
- Electropump supplied with 5 m power supply cable and standard plug (2 pins + earth)

Description of CENTAURE sump pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- Single phase 230 V ± 10% – 50 Hz with automatic reset thermal protection incorporated in the winding - Class F
Electrical cable	HO 5 RNF	
Float		For automatic run and stop of the electropump
Pump body	Stainless steel	
Impeller	Stainless steel	
Shaft	Stainless steel	
Mechanical seal	Carbide/ceramic	Double sealing of the shaft by lipseal and oil chamber
Screws	Stainless steel	

Mounting position

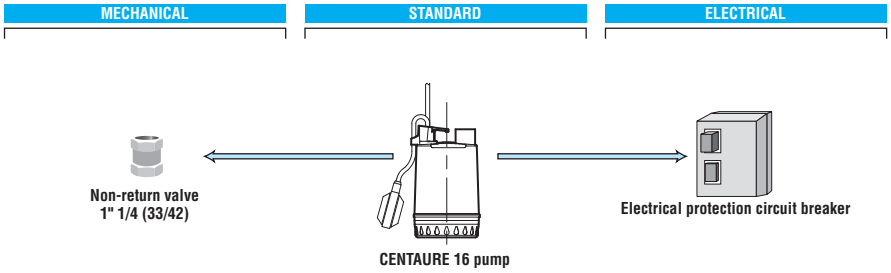


Only possibility

CENTAURE
Sump pumps

A

Adaptation possibilities



Designation / Coding

CENTAURE	16
Designation of the series	Designation of the characteristics

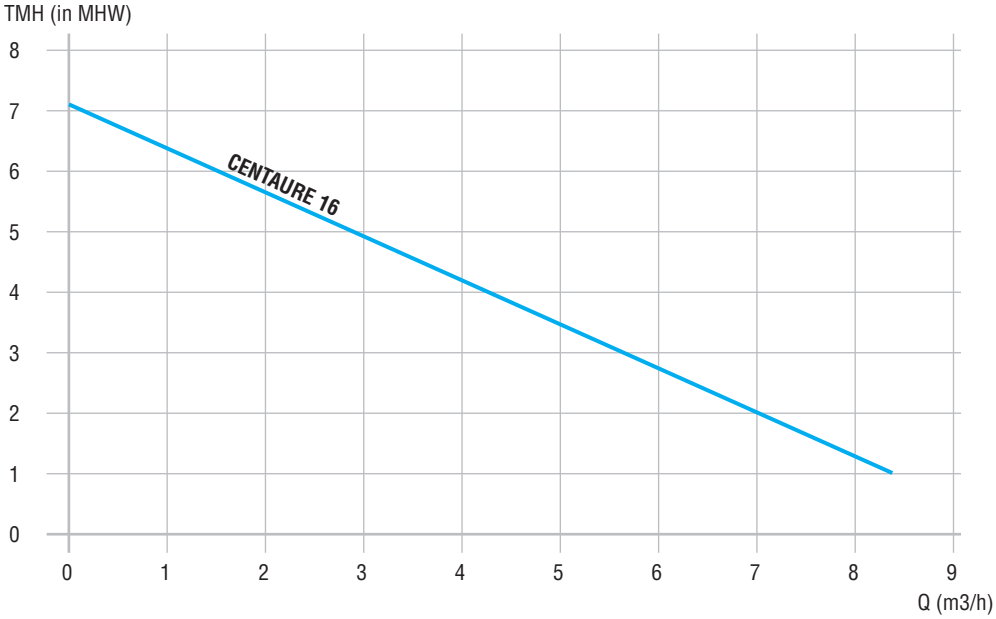
☞ ***Example of coding:***

Designation	Code
CENTAURE 16	T 121 PC 30

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

CENTAURE
Sump pumps

Selection



Rated flow: 4 m³/h

Type	Code product	Flow rate in m³/h	0	1.2	2.4	**3.6**	**4.8**	6	7.2	8.4	kW drawn	Current in A 1-ph 230 V
CENTAURE 16	T 121 PC 30	TMH in MHW[1]	7	6	5.5	**4.5**	**3.5**	2.5	2	1	0.32	2

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

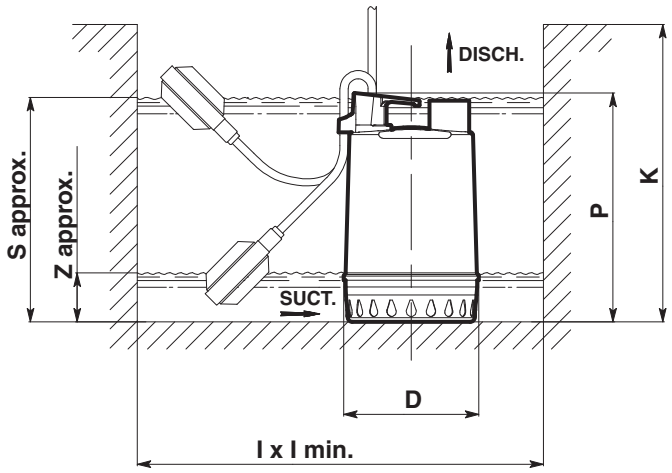
CENTAURE
Sump pumps

Dimensions

A

Dimensions of CENTAURE sump pumps

Dimensions in millimetres



	Pumps						Opening	Weight
Type	D	K	l x l	P	S	Z	Discharge	kg
CENTAURE 16	148	350	350	255	300	16	1”1/4 F (33/42)	4.5

RESIST
Sump pumps

General information

Submersible sump pumps
For contaminated water

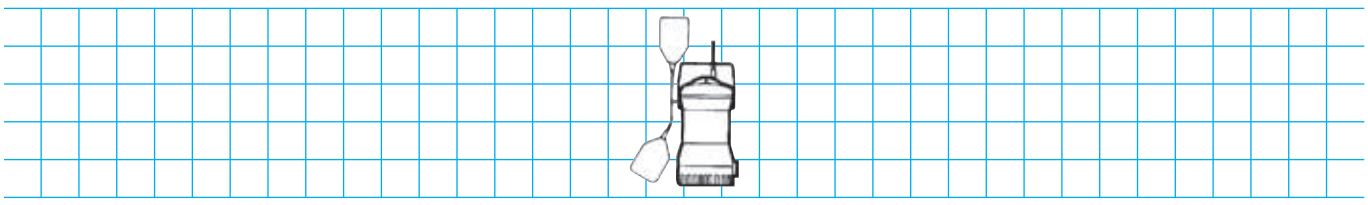
Applications
- Removal of infiltration water or rainwater (contaminated water)
- Removal of waste water except for WC water
- Removal of muddy or sandy water
- Removal of septic tank discharge
- Worksite drainage

Conditions of use
- For contaminated water with pH of 6.5 minimum
- Maximum water temperature in continuous use: 40°C
- Maximum discharge diameter: ø 30 mm
- Maximum operating pressure: 1 bar
- Maximum submersion depth: 3 m
- Motor electrical power supply:
  • Single phase 230 V ± 10% – 50 Hz
- System for automatic run and stop by float
- Electropumps supplied with power supply cable (length 3 m) and standard plug (2 pins + earth)

Description of RESIST sump pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- Single phase 230 V ± 10% – 50 Hz with automatic reset thermal protection incorporated in the winding - Class F
Electrical cable	HO7 RNF	
Float		For automatic run and stop of the electropump
Pump body	FGL 250 cast iron coated with epoxy paint	Non-clogging hydraulic unit
Impeller	FGL 250 cast iron	
Shaft	X33 Cr 13 stainless steel	
Mechanical seal	Graphite/ceramic	Double sealing of the shaft by lipseal and oil chamber
Screws	X2 Cr Ni 18.10 (AISI 304 L) stainless steel	

Mounting position



Only possibility

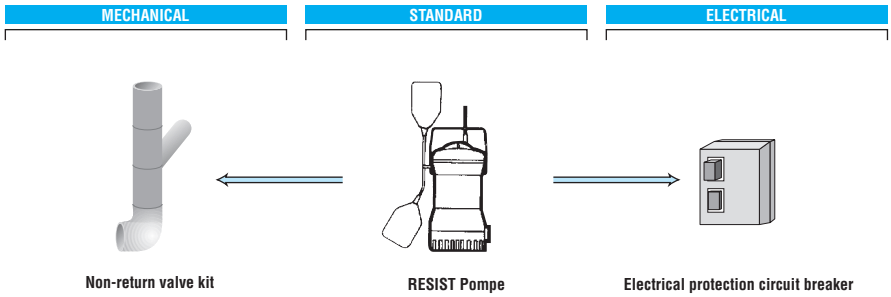
RESIST
Sump pumps

Adaptation possibilities

A

☞ ***Options:***

- Electrical protection (circuit breaker)
- Non-return valve kit



Designation / Coding

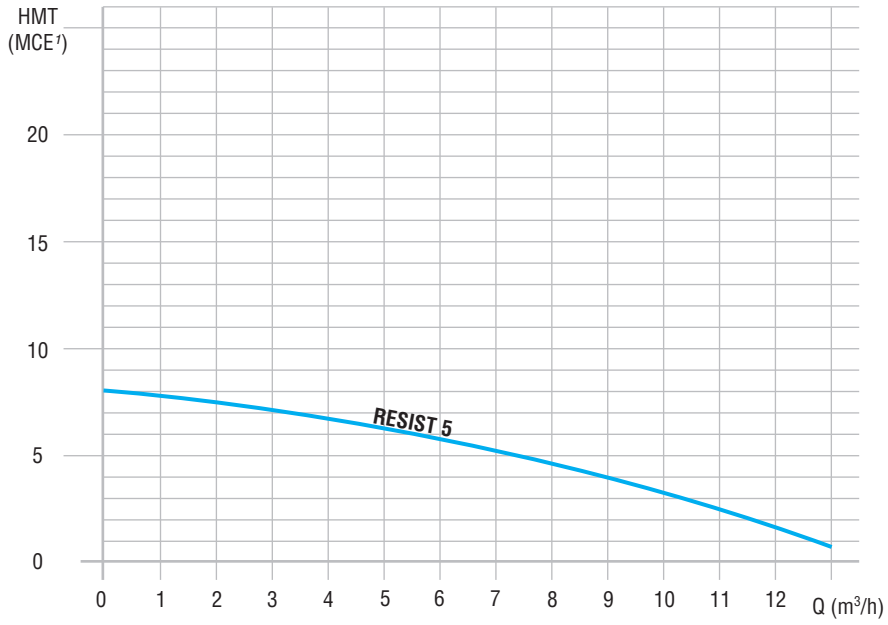
☞ ***Example of coding:***

Designation	Code
RESIST 5	T 121 PC 03

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

RESIST
Sump pumps

Selection



Rated flow: 5.5 to 7.5 m³/h

Type	Product code	Flow rate in m³/h	0	0.5	1	3.5	**5.5**	**7.5**	9	10.5	13	kW drawn	Current in A 1-ph 230 V
RESIST 5	T 121 PC 03	TMH in MHW[1]	8.2	8	7.9	6.4	**6**	**4.4**	4.1	4	0.6	0.46	2

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

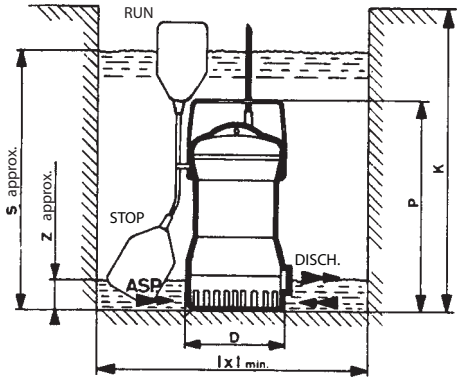
RESIST
Sump pumps

Dimensions

A

Dimensions of RESIST sump pumps

Dimensions in millimetres



	Pumps						Opening	Weight
Type	D	K	l x l	P	S	Z	Discharge	kg
RESIST 5	156	500	450	280	290	70	1”1/4 F (33/42)	9.5

EVAC
Sump pumps

General information

Submersible sump pumps
For contaminated water

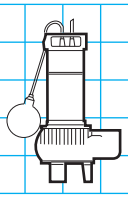
Applications
- Removal of infiltration water and rainwater (contaminated water)
- Removal of waste water or water with fibres in suspension
- Removal of water containing sediment, septic tank discharge
- Worksite drainage

Conditions of use
- For contaminated water with a pH between 5 and 9
- Maximum water temperature: + 40°C in continuous use
- Maximum discharge diameter: ø 35 mm
- Maximum operating pressure: 1.5 bar
- Maximum submersion depth: 5 m
- Continuous operation possible if submerged in a minimum depth of 250 mm of liquid
- Motor electrical power supply
  • Single phase 230 V ± 10% – 50 Hz
  • 3-phase 400 V ± 10% – 50 Hz
- System for automatic run and stop by float in single-phase version only
- Electropumps supplied with power supply cable (length 5 m)

Description of EVAC sump pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- Single phase 230 V ± 10% – 50 Hz with automatic reset thermal protection incorporated in the winding - 3-phase 400 V ± 10% – 50 Hz - Class F - IP68
Electrical cable	HO7 RNF	Length = 5 m
Float		For automatic run and stop of the electropump (in single-phase version only)
Pump body	GJL 250 cast iron coated with epoxy paint	Non-clogging hydraulic unit
Impeller	X2 Cr Ni 18.10 (AISI 304 L) stainless steel	- V = Vortex - C = Single channel
Shaft	X33 Cr 13 stainless steel	
Mechanical seal	Silicon carbide/silicon carbide	Double sealing of the shaft by lipseal and oil chamber
Screws	X2 Cr Ni 18.10 (AISI 304 L) stainless steel	

Mounting position



Only possibility

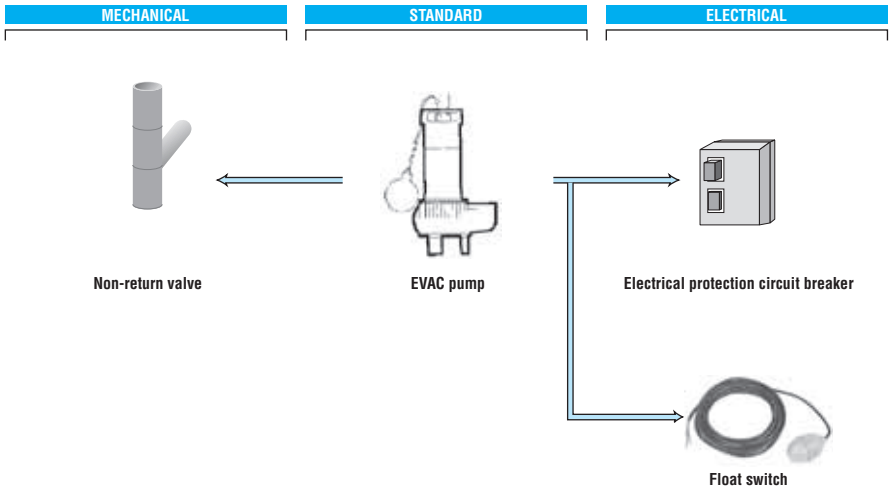
EVAC
Sump pumps

Adaptation possibilities

A

☞ ***Options:***

- Electrical protection (circuit breaker)
- 1"1/2 (40/49) full-bore non-return ball valve for EVAC 8 and 10
- 2" (50/60) full-bore non-return ball valve for EVAC 12
- Float switch



Designation / Coding

EVAC	8	"V"	M
Designation of the series	Designation of the characteristics	Hydraulic unit VORTEX	Single phase

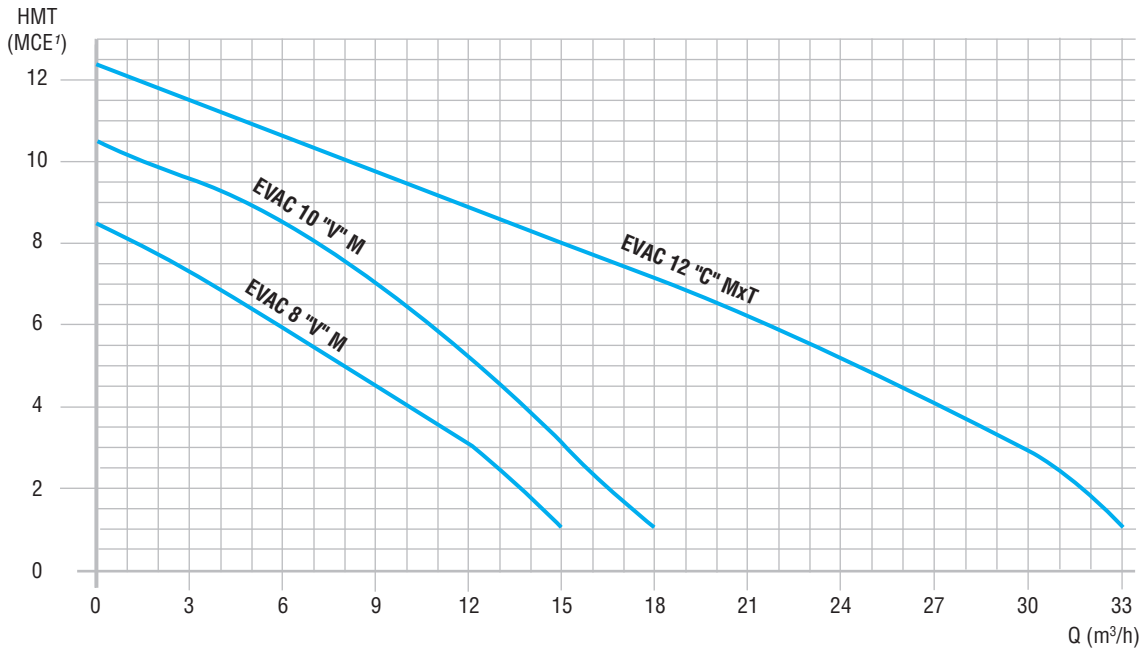
☞ ***Example of coding:***

Designation	Code
EVAC 8 "V"-M	T 122 PC 01

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

EVAC
Sump pumps

Selection



Rated flow: 6 to 12 m³/h

Type	Product code	Flow rate in m³/h	0	3	6	9	12	15	18	21	24	30	33	kW drawn	Current in A 1-ph 230 V	Current in A 3-ph 400 V
EVAC 8 "V" - M	T 122 PC 01	TMH in MHW[1]	8.5	7.2	**5.9**	4.5	3	1	-	-	-	-	-	0.72	3.3	-
EVAC 10 "V"-M	T 122 PC 02		10	9.5	**8.4**	6.9	5.1	3	1	-	-	-	-	1.05	5	-
EVAC 12 "C"-M	T 122 PC 03		12	11.5	10.5	**9.5**	**8.6**	8	7.4	6.8	5.1	2.8	1	1.1	5.2	-
EVAC 12 "C"-T	T 122 PC 04		12	11.5	10.5	**9.5**	**8.6**	8	7.4	6.8	5.1	2.8	1	1.1	-	2.1

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

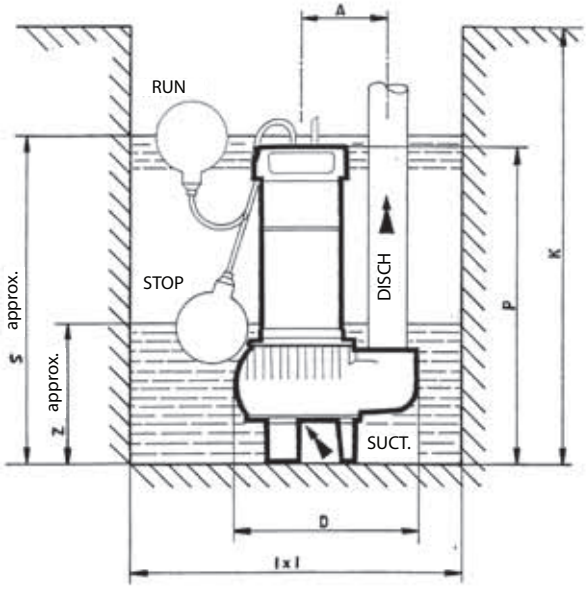
EVAC
Sump pumps

Dimensions

A

Dimensions of EVAC sump pumps

Dimensions in millimetres



Type	Pumps							Opening	Weight
	A	D	K	l x l	P	S	Z	Discharge	kg
EVAC 8 "V"-M	105	224	500	500	385	385	150	1”1/2 F (40/49)	13
EVAC 10 "V"-M	105	224	500	500	385	385	150	1”1/2 F (40/49)	13
EVAC 12 "C"-M	110	240	500	500	415	425	190	2” F (50/60)	15
EVAC 12 "C"-T	110	240	500	500	415			2’ F (50/60)	14

DRAIN
Sump pumps

General information

Submersible sump pumps
For heavily contaminated water

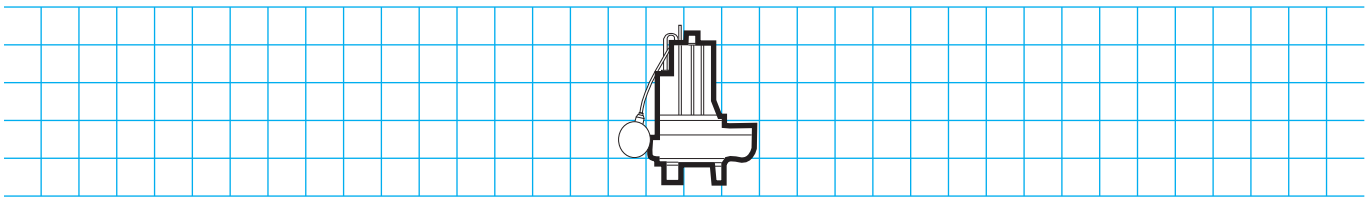
Applications
- Removal of waste water including WC water
- Removal of water heavily contaminated with solid material and fibres in suspension
- Draining of effluent and sewage water
- Domestic and industrial drainage of tanks, wells, vats, tunnels, etc.

Conditions of use
- For heavily contaminated water with a pH between 5 and 9
- Maximum water temperature: + 40°C in continuous operation
- Maximum discharge diameter: ø 50 mm
- Maximum operating pressure: 2 bar
- Maximum submersion depth: 10 m
- Continuous operation possible if submerged in a minimum depth of 350 mm of liquid
- Motor electrical power supply
  - Single phase 230 V ± 10% – 50 Hz
  - 3-phase 400 V ± 10% – 50 Hz
- System for automatic run and stop by float in single-phase version only
- Electropumps supplied with power supply cable (length 10 m), with single-phase version equipped with a capacitor unit and a standard plug (2 pins + earth) at the end

Description of DRAIN sump pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- Single phase 230 V ± 10% – 50 Hz with automatic reset thermal protection incorporated in the winding - 3-phase 400 V ± 10% – 50 Hz - Class F - IP68
Electrical cable	HO7 RNF	Length = 10 m • With housing and standard 2P + E plug for single-phase version • Without a plug for 3-phase version
Float		On DRAIN 15 "V"-M only, for automatic run and stop of the electropump
Pump body	GJL 250 cast iron coated with epoxy paint	Non-clogging hydraulic unit
Impeller	GJL 250 cast iron	- V = Vortex
Shaft	X5 Cr Ni Mo 17.12.2 (AISI 316) stainless steel	
Mechanical seal	Tungsten carbide/silicon carbide	Double sealing of the shaft by lipseal and oil chamber
Screws	X2 Cr Ni 18.10 (AISI 304 L) stainless steel	

Mounting position



Only possibility

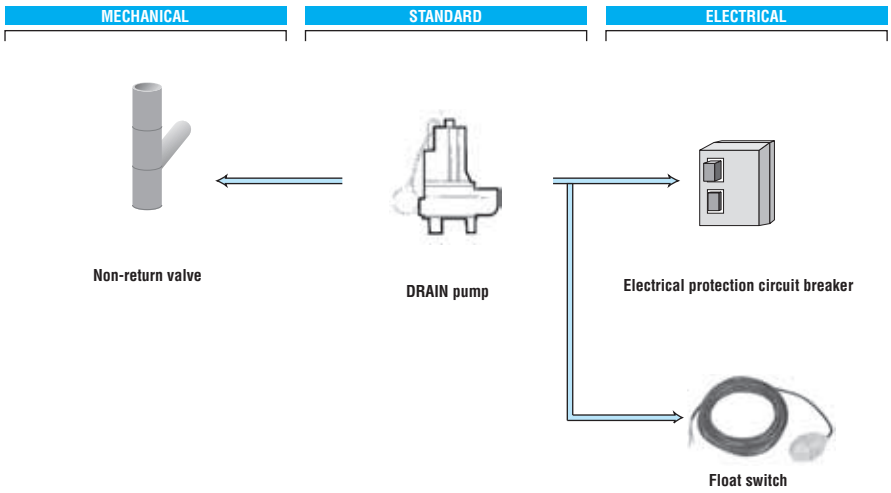
DRAIN
Sump pumps

Adaptation possibilities

A

☞ ***Options:***

- electrical protection (circuit breaker)
- 2"1/2 (66/76) full-bore non-return ball valve
- float switch



Designation / Coding

DRAIN	15	"V"	M
Designation of the series	Designation of the characteristics	VORTEX hydraulic unit	Single-phase

☞ ***Example of coding:***

Designation	Code
DRAIN 15 "V"-M	T 122 PC 05

All the products in this catalogue have a code.
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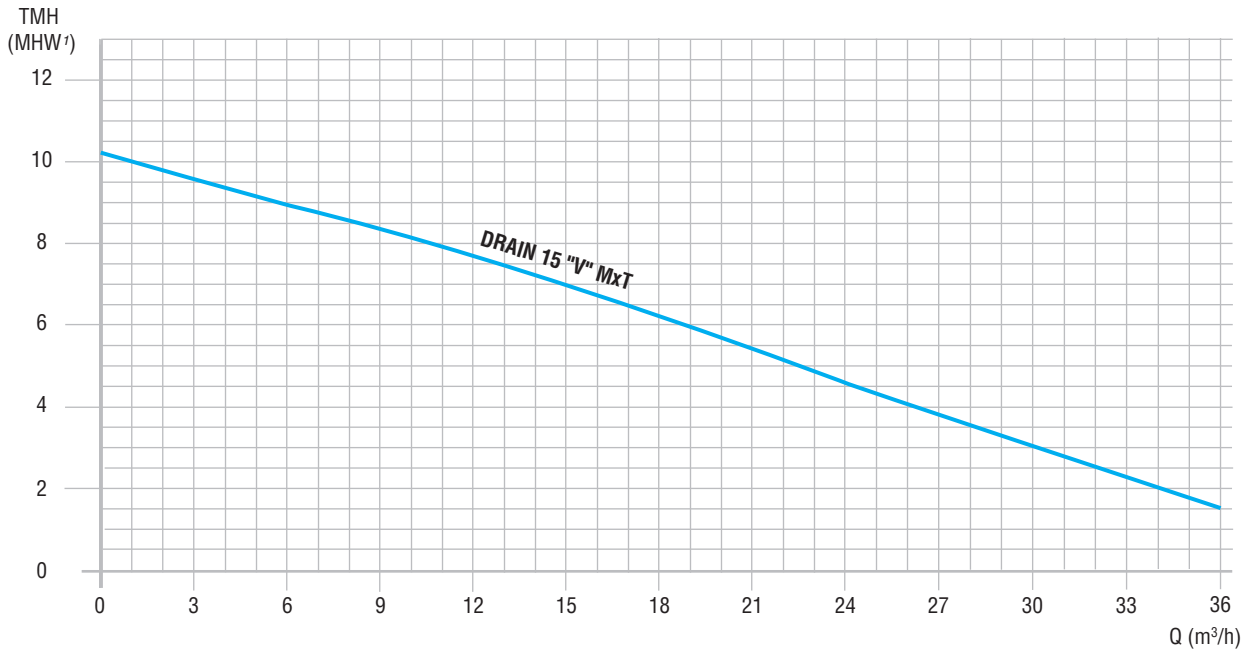
Each product is classified in order of hydraulic characteristics.

DRAIN
Sump pumps

Selection



Rated flow: 9 to 12 m³/h

Type	Product code	Flow rate in m³/h	0	3	6	9	12	15	18	21	24	30	36	kW drawn	Current in A 1-ph 230 V	Current in A 3-ph 400 V
DRAIN 15 "V" - M	T 122 PC 05	TMH in MHW[1]	10.2	9.8	9.2	**8.4**	**7.7**	7	6.2	5.3	4.6	3.1	1.6	1.7	8	-
DRAIN 15 "V" - T	T 122 PC 06		10.2	9.8	9.2	**8.4**	**7.7**	7	6.2	5.3	4.6	3.1	1.6	1.7	-	3.2

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

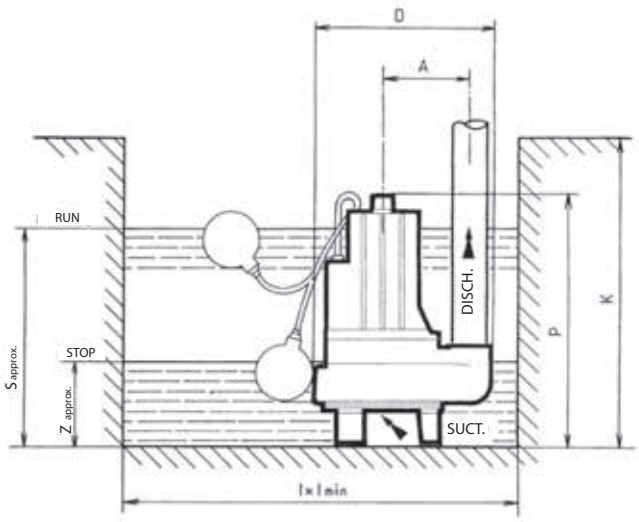
DRAIN
Sump pumps

Dimensions

A

Dimensions of DRAIN sump pumps

Dimensions in millimetres



	Pumps							Opening	Weight
Type	A	D	K	l x l	P	S	Z	Discharge	kg
DRAIN 15 "V" - M	162	336	800	800	445	515	190	2”1/2 F	34
DRAIN 15 "V" - T	162	336	800	800	445	-	-	(66/76)	34

Lifting stations
BIOSANIT drainage

General information

Lifting station for all domestic water discharges (rainwater, effluent, waste water)

Applications
- Removal of all water which is below the level of the drainage system (waste water, WC water)
- Individual or communal drainage
- Underground or surface installation

EN 12 050-1

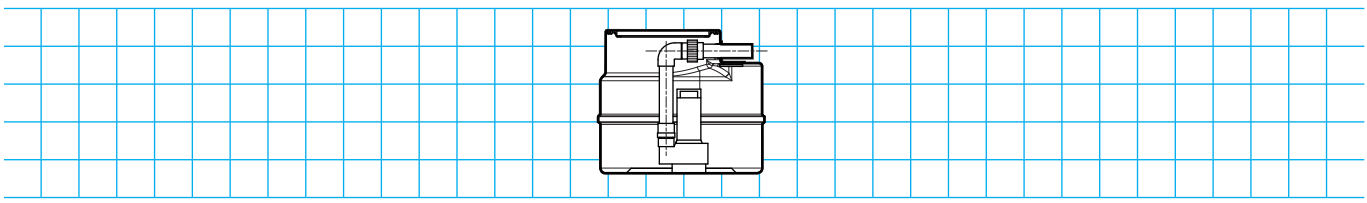
Conditions of use
- Sealed one-piece tank made from UV stabilised high density polyethylene
  - 150 litres for BIOSANIT 151 and 152
  - 500 litres for BIOSANIT 503
- Electropump:
  - BIOSANIT 151 is equipped with an EVAC 10 "V" M single-phase 230 V - 50 Hz pump, with a ø 35 mm maximum discharge
  - BIOSANIT 152 is equipped with a DRAIN 15 "V" M single-phase 230 V - 50 Hz pump, with a ø 50 mm maximum discharge
  - BIOSANIT 503 is equipped with two DRAIN 15 "V" M single-phase 230 V - 50 Hz pumps, with a ø 50 mm maximum discharge

Detailed specifications of the electropumps appear in their specific manual.
- Maximum temperature of the liquid pumped: 40°C
- PVC pipework
- Automatic control by float switch

Description of BIOSANIT lifting stations

Component	Materials	Remarks
Tank	UV stabilised high density polyethylene	- 150 litres with a bolted ø 400 lid for BIOSANIT 151 and 152 - 500 litres with a bolted ø 400 lid for BIOSANIT 503
Electropump		See the relevant electropump manual
Connection kit	PVC	With union fitting
Control		Automatic by float switch

Mounting position



Only possibility

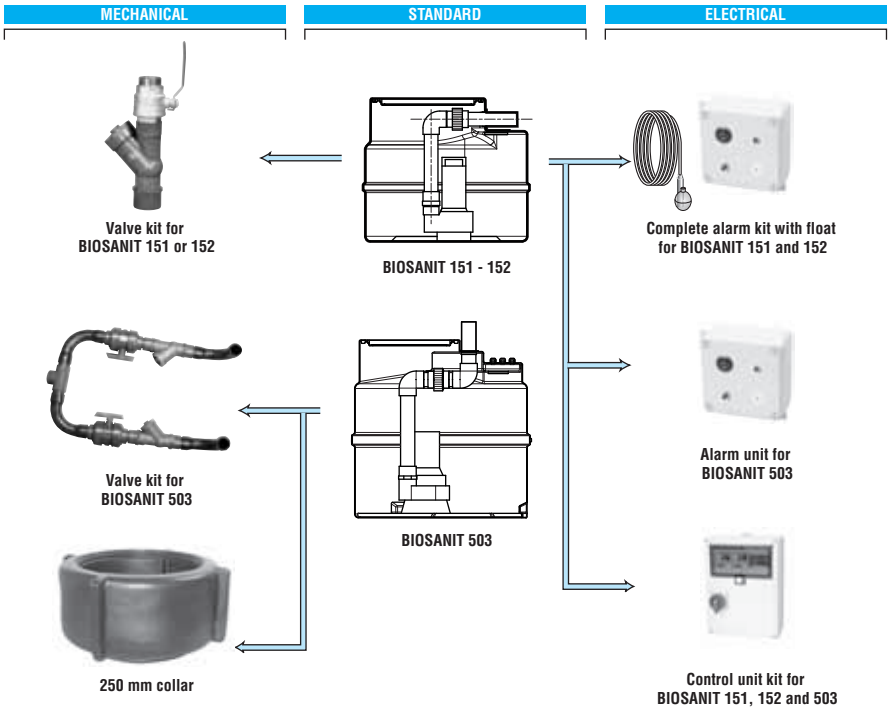
Lifting stations
BIOSANIT drainage

Adaptation possibilities

A

☞ ***Options:***

- complete alarm kit with float for BIOSANIT 151 and 152
- alarm unit for BIOSANIT 503
- control unit kit for BIOSANIT 151 and 152
- electrical control unit for BIOSANIT 503
- valve kit for BIOSANIT 151
- valve kit for BIOSANIT 152
- valve kit for BIOSANIT 503
- 250 mm collar



Designation / Coding

BIOSANIT	151
Lifting station	Type

☞ ***Example of coding:***

Designation	Code
BIOSANIT 151	T 010 PC 01

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

Lifting stations
BIOSANIT drainage

Selection

Type	Product code	Pump type	Number of pumps	Power drawn kW	Tank capacity litres
BIOSANIT 151	T 010 PC 01	EVAC 10 "V" M	1	1.050	150
BIOSANIT 152	T 010 PC 02	DRAIN 15 "V" M	1	1.7	150
BIOSANIT 503	T 010 PC 03	DRAIN 15 "V" M	2	1.7 x 2	500

Hydraulic and electrical characteristics

Type	Flow rate in m^3/h	0	3	6	9	12	15	18	21	24	30	kW drawn	Current in A 1-ph 230 V
EVAC 10 "V" M	TMH	10	9.5	8.4	6.9	5.1	3	-	-	-	-	1.050	5
DRAIN 15 "V" M	in MHW[1]	10.2	9.8	9.2	8.4	7.7	7	6.2	5.3	4.6	3.1	1.7	8

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

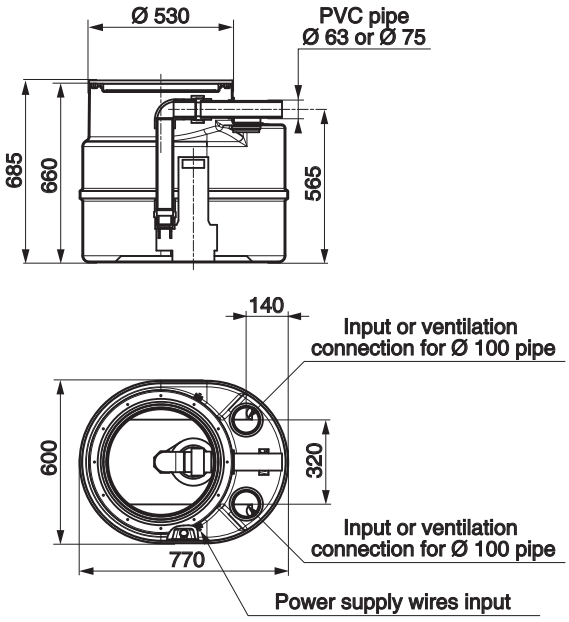
Lifting stations
BIOSANIT drainage

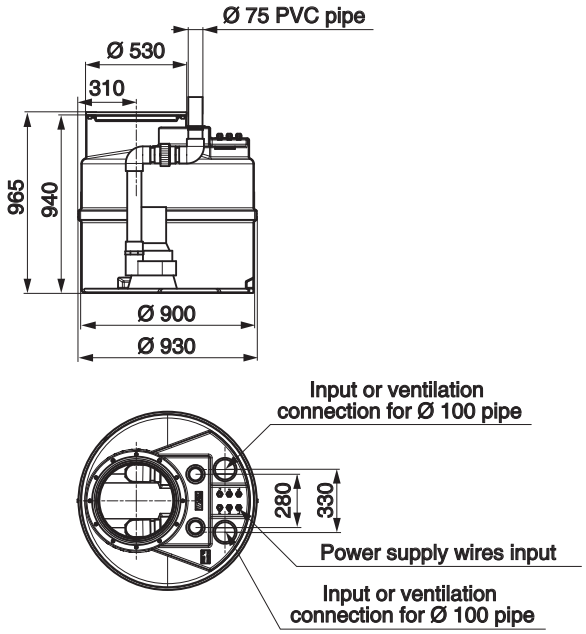
Dimensions

A

Dimensions of lifting stations

Dimensions in millimetres





Lifting stations
SANISTAT Clear Water drainage

General information

Lifting station for water after treatment for single-family dwellings and rainwater

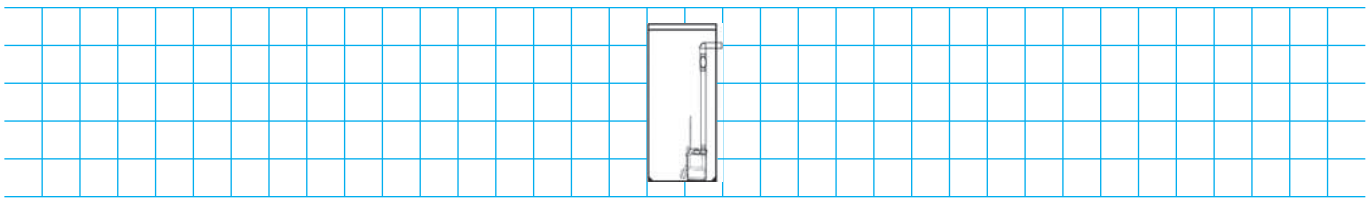
Applications
- Removal of water which is below the level of the drainage system
- Individual drainage
- Underground or surface installation

Conditions of use
- Sealed, tubular, single-piece tanks of 215, 250, 380 and 500 litres made from UV stabilised high density polyethylene, equipped with a single-phase 230 V, 50 Hz pump, with a Ø 10 mm maximum discharge
- Maximum temperature of the liquid pumped: 40°C
- PVC pipework
- Automatic control by float switch

Description of SANISTAT lifting stations

Component	Materials	Remarks
Tank	UV stabilised high density polyethylene	- 215, 250, 380 or 500 litres with lockable Ø 408 lid
Electropump		See the relevant electropump manual
Connection kit	PVC	With union fitting
Control		Automatic by float switch

Mounting position

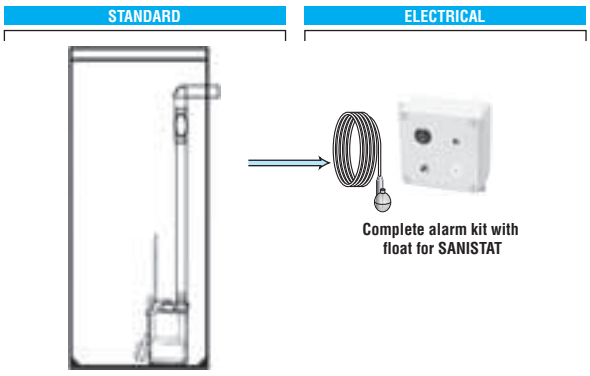


Only possibility

Lifting stations
SANISTAT Clear Water drainage

A

Adaptation possibility



Designation / Coding

Clear water SANISTAT	500
Lifting station	Type

☞ ***Example of coding:***

Designation	Code
SANISTAT clear water 500	T 010 PC 25

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

Lifting stations
SANISTAT Clear Water drainage

Selection

Type	Product code	Pump type	Number of pumps	Power drawn kW	Tank capacity litres
SANISTAT Clear Water 215	T 010 PC 22	CALYPSO 20	1	0.45	215
SANISTAT Clear Water 250	T 010 PC 23	CALYPSO 20	1	0.45	250
SANISTAT Clear Water 380	T 010 PC 24	CALYPSO 20	1	0.45	380
SANISTAT Clear Water 500	T 010 PC 25	CALYPSO 20	1	0.45	500

Hydraulic and electrical characteristics

Type	Flow rate in m^3/h	0	1	2	3	4	5	6	7	kW drawn	Current in A 1-ph 230 V
CALYPSO 20	TMH in MHW[1]	8	7.5	7	6.3	5.2	4.2	3.1	1.7	0.45	2

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

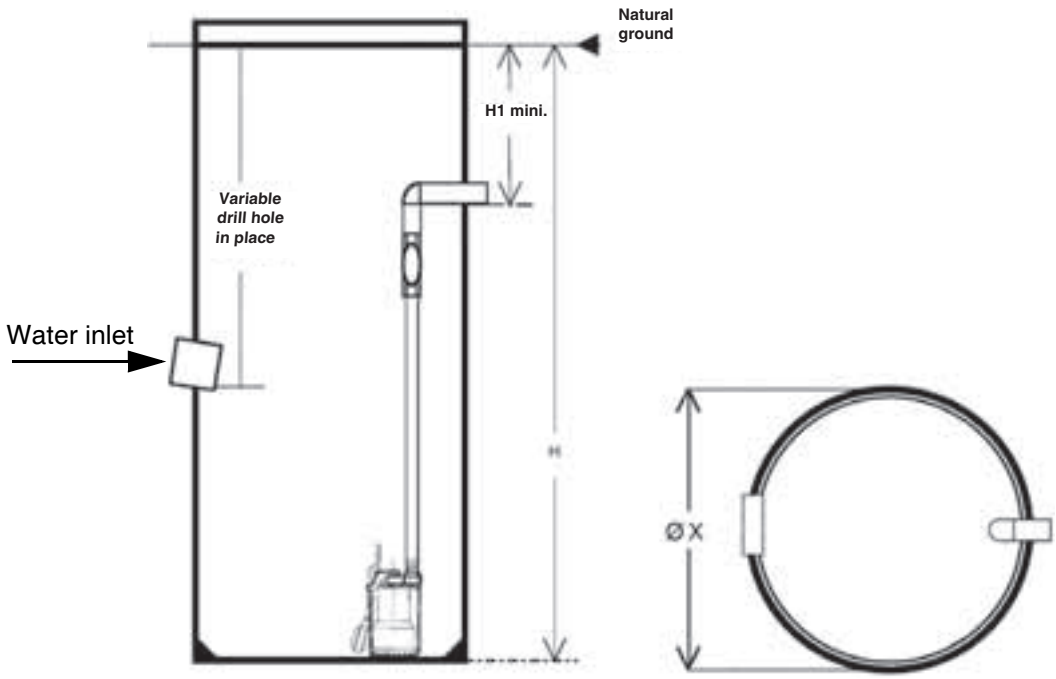
Lifting stations
SANISTAT Clear Water drainage

Dimensions

A

Dimensions of lifting stations

Dimensions in millimetres



Type	Pumps Ø X	Pumps H	Pumps H1 min.	Openings	Tank capacity litres
SANISTAT Clear Water 215	700	700	250	M 2” F 1”1/2	215
SANISTAT Clear Water 250	580	1000	250		250
SANISTAT Clear Water 380	580	1500	250		380
SANISTAT Clear Water 500	580	2000	250		500

Lifting stations
SANISTAT drainage

General information

Lifting station for all domestic water discharges (rainwater, effluent, waste water)

Applications
- Removal of all water which is below the level of the drainage system (waste water, WC water)
- Individual or communal drainage
- Underground or surface installation

Conditions of use
- Sealed, tubular, one-piece tanks made from UV stabilised high density polyethylene
• 1 400-litre tank for SANISTAT 400
• 2 400-litre tanks for SANISTAT 800

- Electropump:
• SANISTAT 400 is equipped with a single-phase 230 V - 50 Hz pump, with a Ø 50 mm maximum discharge, mounted on a base
• SANISTAT 800 is equipped with two single-phase 230 V - 50 Hz pumps, with a Ø 50 mm maximum discharge, mounted on a base

- Maximum temperature of the liquid pumped: 35°C
- PVC pipework
- Automatic control by float switch

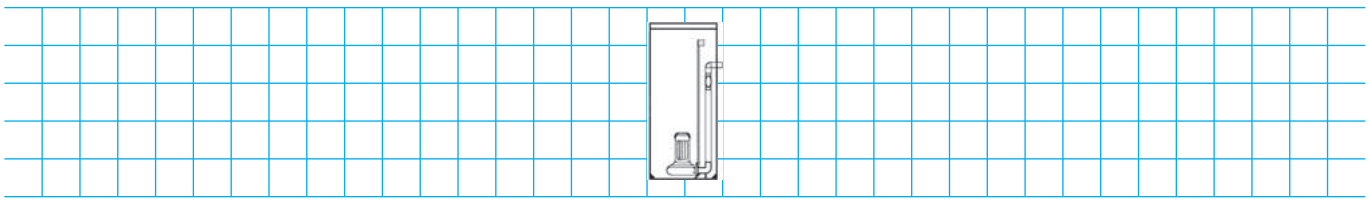
Description of SANISTAT lifting stations

Component	Materials	Remarks
Tank	UV stabilised high density polyethylene	- 1 400-litre tank with lockable Ø 408 lid for SANISTAT 400 - 2 400-litre tanks with lockable Ø 408 lid for SANISTAT 800
Base and guide bars	Cast iron and stainless steel tube	
Connection kit	PVC	
Control		Automatic by float switch

Description of the electropump

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	230 V ± 10% - 50 Hz motor with automatic reset thermal protection incorporated in the winding - Class F
Electrical cable	H07RN-F	Length 5 m
Pump body, Impeller, Shaft	Stainless steel X5 Cr Ni 18.9 (AISI 304)	
Mechanical seal	Silicon carbide/silicon carbide Nitrile seals	Double sealing by lipseals and oil chamber

Mounting position

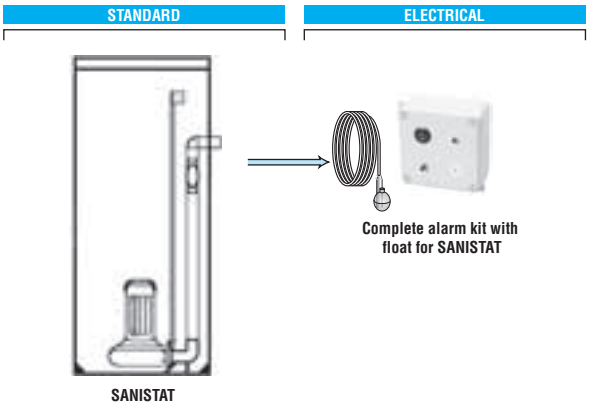


Only possibility

Lifting stations
SANISTAT drainage

A

Adaptation possibility



Designation / Coding

SANISTAT	400
Lifting station	Type

☞ ***Example of coding:***

Designation	Code
SANISTAT 400	T 010 PC 20

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

Lifting stations
SANISTAT drainage

Selection

Type	Product code	Pump type	Number of pumps	Power drawn kW	Tank capacity litres
SANISTAT 400	T 010 PC 20	RELEVAC 10 VX	1	0.75	400
SANISTAT 800	T 010 PC 21	RELEVAC 10 VX	2	0.75	800

Hydraulic and electrical characteristics

Type	Flow rate in m^3/h	0	3	6	9	12	15	18	21	kW drawn	Current in A 1-ph 230 V
RELEVAC 10 VX	TMH in MHW[1]	7.7	7.3	6.8	6.2	5.5	4.8	3.9	2.9	0.75	5.2

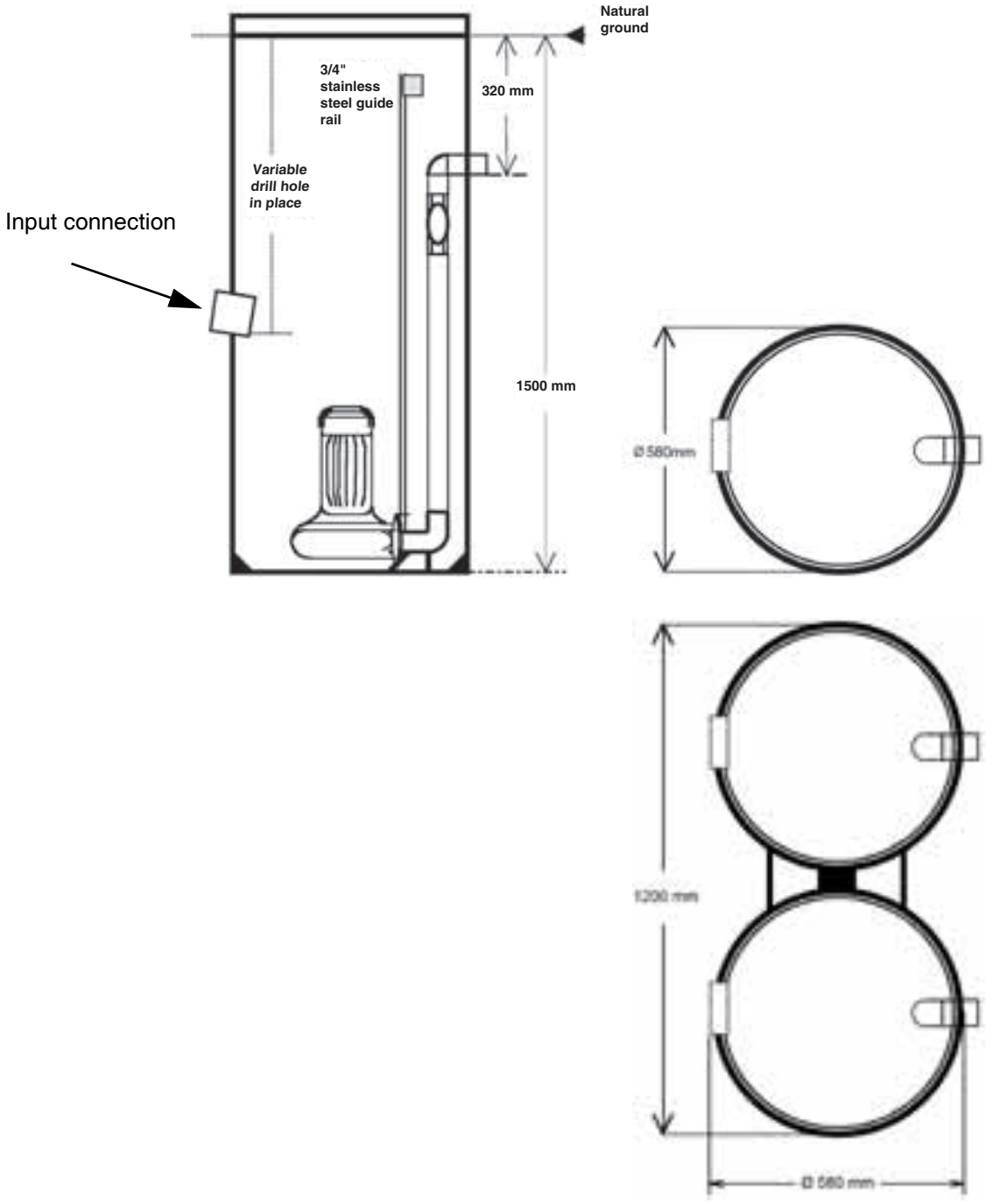
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Dimensions

A

Dimensions of lifting stations

Dimensions in millimetres



PJ
Pumps

General information

Horizontal self-priming centrifugal pumps with integrated hydro-ejector. Stainless steel pump body.

Applications
- Domestic use
- Small-scale irrigation
- Sprinkler systems

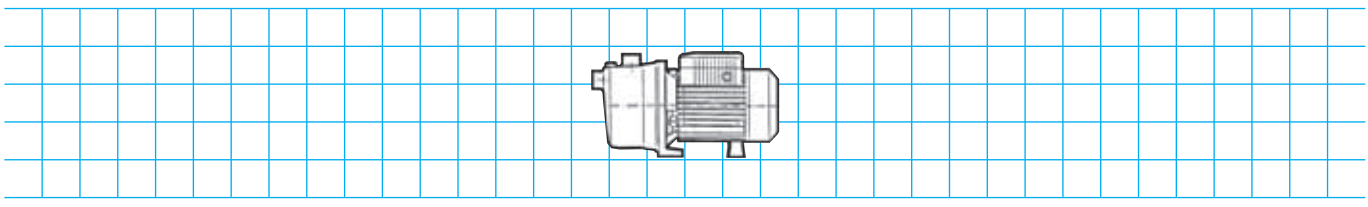
Conditions of use
- For clear or very slightly contaminated water (maximum sand content: 50 g/m^3)
- Water temperature between – 10°C and 40°C
- Maximum ambient temperature: 40°C
- Maximum operating pressure: 6 bar
- Maximum manometric suction head: 8 m
- Motor electrical power supply:
  • Single phase 230 V ± 10% - 50 Hz
  • 3-phase 230/400 V ± 10% - 50 Hz

Single-phase electropumps supplied with:
- Carrying handle
- Switch
- Power supply cable, length 1.5 m, fitted at the end with a standard plug (2 pins + earth)

Description of PJ pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- Single phase 230 V ± 10% – 50 Hz with automatic reset thermal protection incorporated in the winding - 3-phase 230/400 V ± 10% – 50 Hz - Class B - S1 duty - IP 44 protection
Pump body	X2 Cr Ni 18.10 (AISI 304 L) stainless steel	
Impeller and diffuser	Synthetic material	
Hydro-ejector	Synthetic material	
Base	X2 Cr Ni 18.10 (AISI 304 L) stainless steel	
Shaft	Stainless steel	
Mechanical seal	Graphite/ceramic	
Electrical cable	H07 RNF	Length = 1.5 m

Mounting position



Only possibility

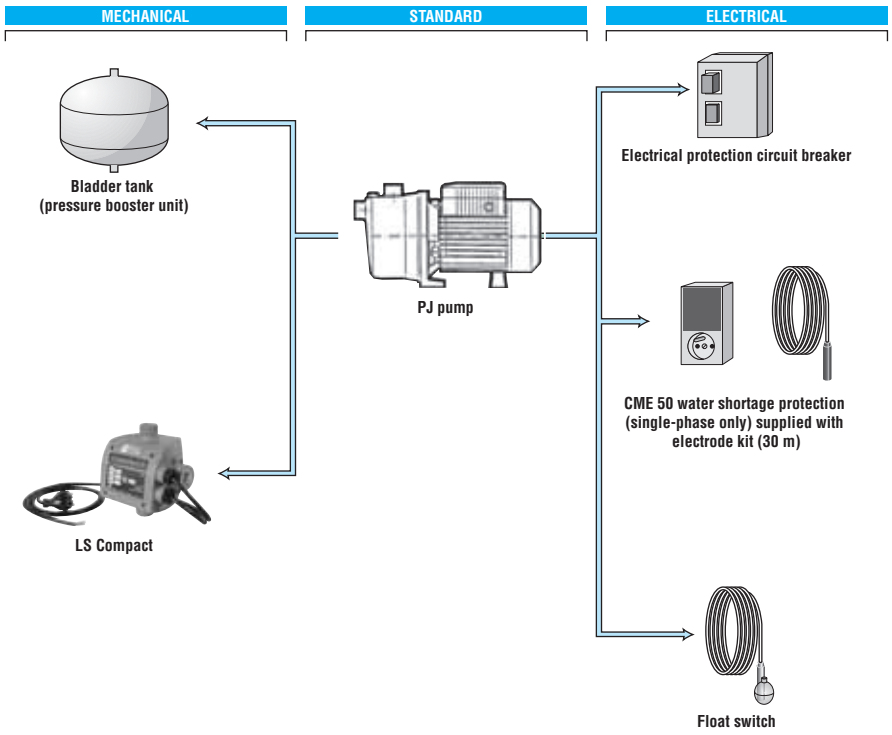
PJ
Pumps

Adaptation possibilities

A

☞ ***Options:***

- electrical protection (circuit breaker)
- CME 50 water shortage protection supplied with
  - Electrode kit connected to 30 m of cable
- float switch
- bladder tank (domestic pressure booster unit)



Designation / Coding

PJ	30	ME
Designation of the series	Rated pressure of the pump	Single-phase equipped

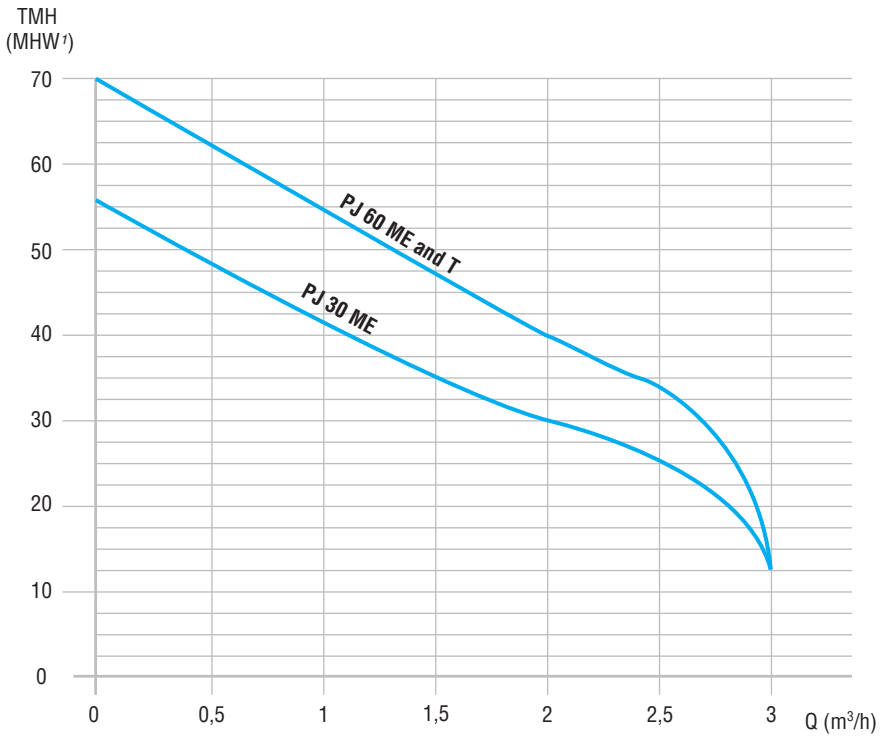
☞ ***Example of coding:***

Designation	Code
PJ 30 ME	T 041 PC 06

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

PJ
Pumps

Selection



Rated flow: 2 m³/h

Type	Product code	Flow rate in m³/h	0	1	1.5	2	2.5	3	kW output	Current in A 1-ph 230 V	3-ph 230 V	3-ph 400 V
PJ 30 ME	T 041 PC 06	TMH in MHW[1]	56	42	35	**30**	27	13	0.75	5.1	-	-
PJ 60 ME	T 041 PC 07		71	54	47	**40**	37	12	1.1	6.6	-	-
PJ 60 T	T 041 PC 05		71	54	47	**40**	37	12	1.1	-	5.2	3

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

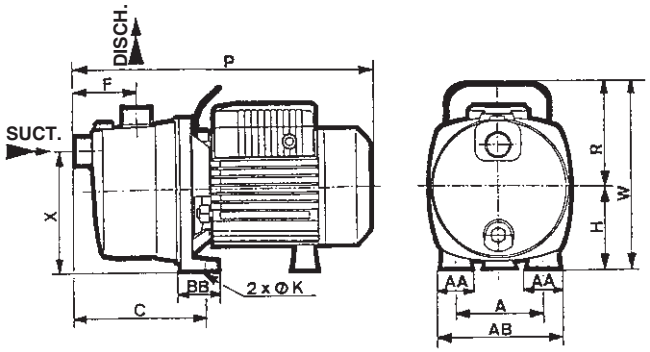
PJ
Pumps

Dimensions

A

Dimensions of PJ pumps

Dimensions in millimetres



	Pumps												Opening		Weight
Type	A	AA	AB	BB	C	F	H	ØK	P	R	W	X	Suction	Discharge	kg
PJ 30 ME	135	44	184	37	217	117	96	10	406	169	265	145	1”1/4 (33/42) F	1” (26/34) F	9
PJ 60 ME	135	44	184	37	217	117	96	10	406	169	265	145	1”1/4 (33/42) F	1” (26/34) F	10.5
PJ 60 T	135	44	184	37	217	117	96	10	406	110	206	145	1”1/4 (33/42) F	1” (26/34) F	10.5

LSPRO Pumps

General information

- **Horizontal multistage self-priming centrifugal pumps**
- **Stainless steel pump body**
- **High hydraulic performance**

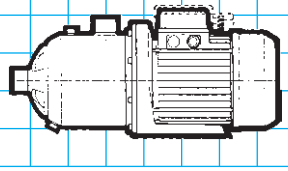
Applications
- Domestic use
- Small-scale irrigation
- Decanting
- Sprinkler systems

Conditions of use
- For clear or very slightly contaminated water (maximum sand content: 50 g/m^3)
- Water temperature between + 5°C and 35°C.
- Maximum operating pressure: 8 bar
- Maximum ambient temperature: + 40°C
- Maximum manometric suction head: 8 m
- Motor electrical power supply:
  - Single phase 230 V ± 10% - 50 Hz
  - 3-phase 230/400 V ± 10% - 50 Hz

Description of LSPRO pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- Single phase 230 V ± 10% – 50 Hz with built-in automatic reset thermal protection - 3-phase 230/400 V ± 10% – 50 Hz - Class F - S1 duty - IP 54 protection
Pump body	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Impeller	Synthetic material (30% FG reinforced Noryl)	
Diffusers, stage bodies and bases	Synthetic material (30% FG reinforced Noryl)	
Shaft	X33 Cr 13 stainless steel	
Mechanical seal	Graphite/ceramic/nitrile	
Seals	Nitrile	

Mounting position



Standard position

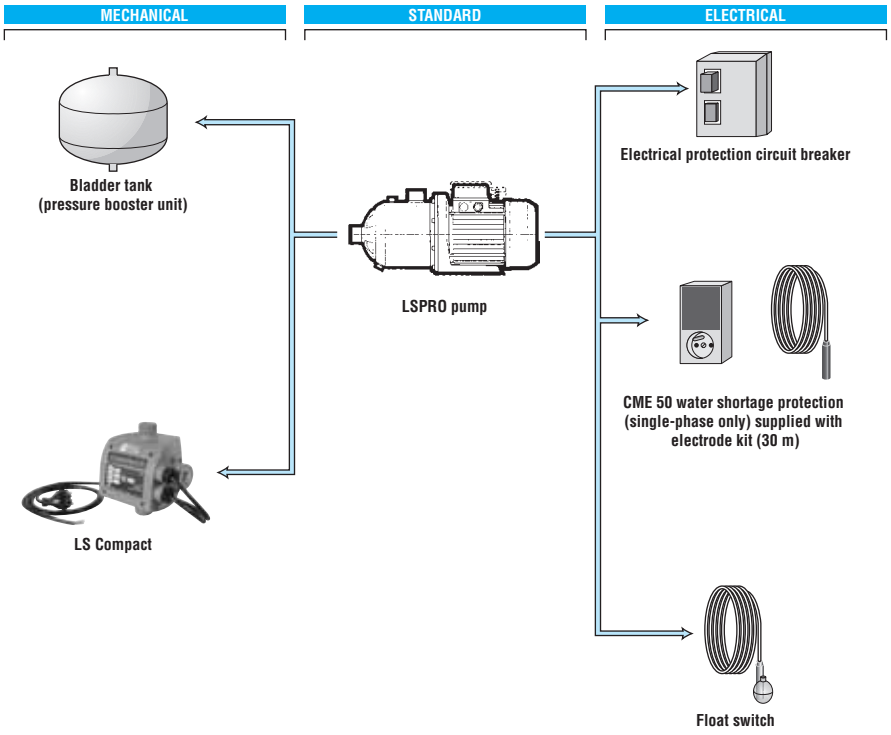
LSPRO
Pumps

Adaptation possibilities

A

☞ ***Options:***

- electrical protection (circuit breaker)
- CME 50 water shortage protection supplied with
  - Electrode kit connected to 30 m of cable
- float switch
- bladder tank (domestic pressure booster unit)



Designation / Coding

LSPRO	10	T
Designation	Index	3-phase

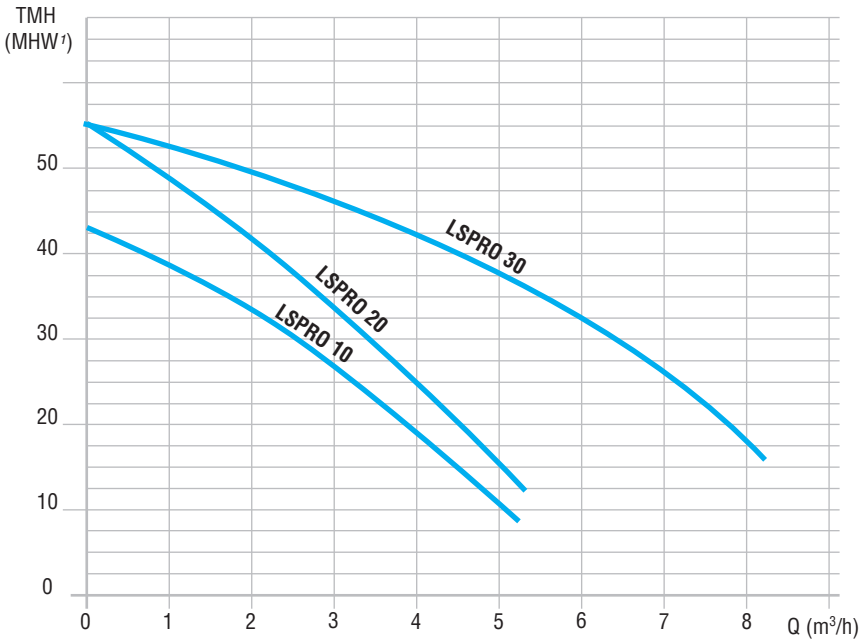
☞ ***Example of coding:***

Designation	Code
LSPRO 10 T	T 045 PC 02

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

LSPRO Pumps

Selection



Rated flow: 3 to 5 m³/h

Type	Product code	Flow rate in m³/h	0	1	2	**3**	4	**5**	6	7	8	kW output	Current in A 1-ph 230 V	3-ph 230 V	3-ph 400 V
LSPRO 10 M	T 045 PC 01	TMH in MHW[1]	43	38	34	**27**	18	11				0.55	4	-	-
LSPRO 10 T	T 045 PC 02		43	38	34	**27**	18	11				0.55	-	3.3	1.9
LSPRO 20 M	T 045 PC 03		55	48	42	**34**	25	16				0.75	5.3	-	-
LSPRO 20 T	T 045 PC 04		55	48	42	**34**	25	16				0.75	-	3.6	2.1
LSPRO 30 M	T 045 PC 05		55	53	50	46	43	**38**	32	25	18	1.1	7.2	-	-
LSPRO 30 T	T 045 PC 06		55	53	50	46	43	**38**	32	25	18	1.1	-	5	2.9

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

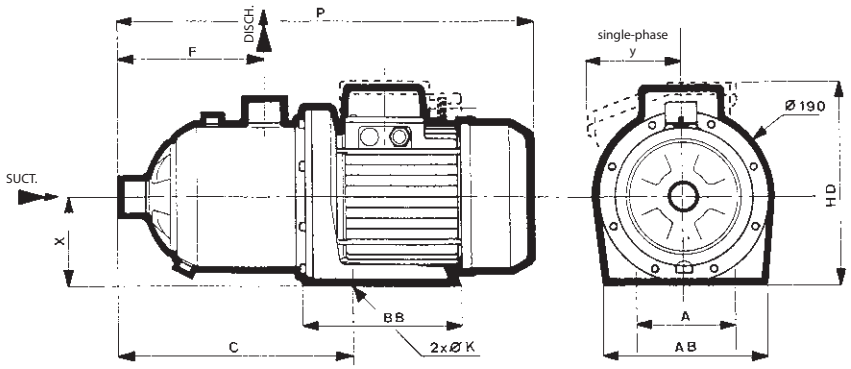
LSPRO
Pumps

Dimensions

A

Dimensions of LSPRO pumps

Dimensions in millimetres



Type	Pumps										Openings		Weight
	A	AB	BB	C	F	HD	ØK	P	X	Y	Suction	Discharge	kg
LSPRO 10	108	170	150	253	158	216	8.5	423	90	106	1" F (26/34)	1" F (26/34)	10
LSPRO 20	108	170	150	277	182	216	8.5	447	90	106	1" F (26/34)	1" F (26/34)	12
LSPRO 30	108	170	150	277	182	224	8.5	472	90	106	1" F (26/34)	1" F (26/34)	15

PUIZA
Submersible pumps

General information

Submersible pumps for wells and water holders (reservoirs, water tanks, etc.)
Supplied ready to use

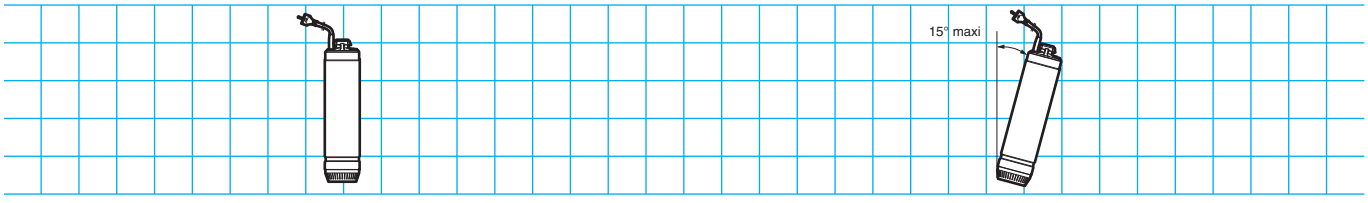
Applications
- Distribution of water for domestic use
- Pressure boosting
- Sprinkler system, small-scale irrigation

Conditions of use
- For clear or very slightly contaminated water (maximum sand content: 50 g/m^3)
- Maximum water temperature: 40°C
- 20 starts maximum per hour
- Maximum submersion depth 20 m of water
- Operation possible up to a minimum of 15 cm water depth
- Maximum operating pressure at discharge: 8 bar
- Motor electrical power supply:
  • Single phase 220-240 V ± 5% - 50 Hz
  • 3-phase 380-415 V ± 5% - 50 Hz for PUIZA 3.9 T model only
- Supplied ready to use with:
  • 20 m of special submersible electrical cable
  • A starter unit with standard plug (2 pins + earth) and a float switch for single-phase version

Description of PUIZA submersible pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- Single phase 220-240 V ± 5% – 50 Hz with built-in automatic reset thermal protection - 3-phase 380-415 V ± 5% - 50 Hz for PUIZA 3.9 T model - Class F - S1 duty
Pump body	X5 Cr Ni 18.10 stainless steel	Built-in slinging eye
Impellers	Synthetic material	
Diffusers	X5 Cr Ni 18.10 stainless steel	
Shaft	X5 Cr Ni 18.10 stainless steel	
Mechanical seal	Silicon carbide/silicon carbide	Shaft sealing by mechanical seal with lipseal and oil chamber
"O" ring seals	Nitrile	

Mounting positions



Standard position

Inclined position

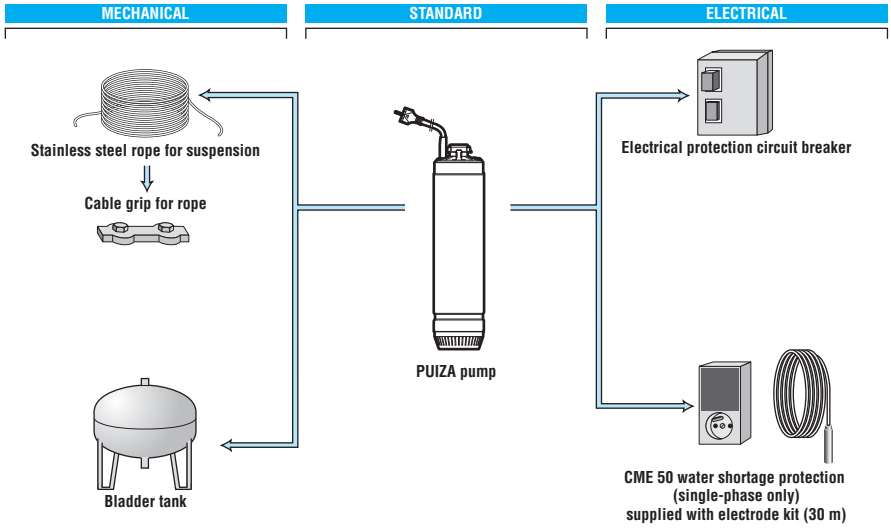
PUIZA
Submersible pumps

Adaptation possibilities

A

☞ ***Options:***

- electrical protection (circuit breaker)
- CME 50 water shortage protection supplied with an electrode kit connected to 30 m of cable
- stainless steel suspension rope X5 Cr Ni Mo17.12.2 (AISI 316) with plastic coating
- cable grip (for the above rope)
- bladder tank



Designation / Coding

PUIZA	3	5	M
Designation of series	Rated flow of the pump	Number of hydraulic stages	Single phase

☞ ***Example of coding:***

Designation	Code
PUIZA 3.5 M	T 101 PC 01

All the products in this catalogue have a code.
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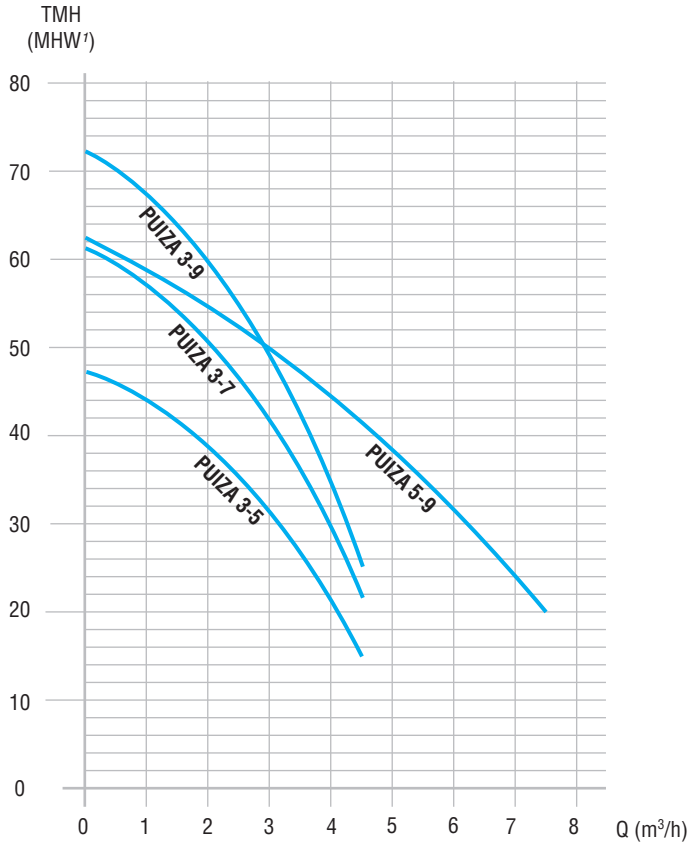
Each product is classified in order of hydraulic characteristics.

PUIZA
Submersible pumps

Selection



Rated flow: 3 to 5 m³/h

Type	Product code	Flow rate in m³/h	0	1	2	2.5	**3**	3.5	4	4.5	**5**	6	7.5	kW drawn	Current in A 1-ph 230 V	Current in A 3-ph 400 V
PUIZA 3.5 M	T 101 PC 01	TMH in MHW[1]	47.7	44.2	39.4	36.1	**32.3**	27.7	22.3	15.9				0.93	4.37	-
PUIZA 3.7 M	T 101 PC 02		61.2	57.8	51.1	46.7	**41.5**	35.6	29	21.7				1.15	5.19	-
PUIZA 3.9 M	T 101 PC 03		72.4	67.5	60.1	55.3	**49.6**	43.2	35.8	27.4				1.32	5.88	
PUIZA 3.9 T	T 101 PC 04		72.4	67.5	60.1	55.3	**49.6**	43.2	35.8	27.4				1.27	-	2.54
PUIZA 5.9 M	T 101 PC 05		62.5	58.3	54.1	51.5	49.6	47.2	44.6	41.8	**38.9**	32.2	19.9	1.38	6.17	-

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

PUIZA
Submersible pumps

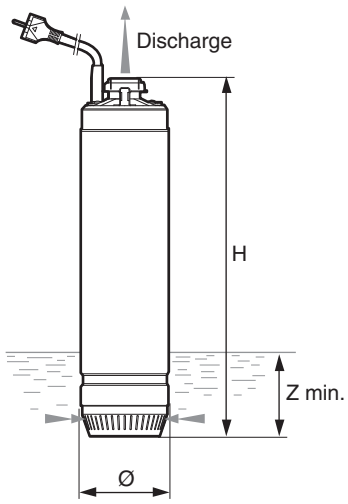
Dimensions

A

Dimensions of PUIZA submersible pumps

Dimensions in millimetres

Type	Pumps			Openings	Weight
	Ø	H	Z min.	Discharge	kg
PUIZA 3.5	128	496	150	1”1/4 F (33/42)	13.5
PUIZA 3.7	128	536	150	1”1/4 F (33/42)	15
PUIZA 3.9	128	561	150	1”1/4 F (33/42)	16
PUIZA 5.9	128	536	150	1”1/4 F (33/42)	15.5



AMINOX
Submersible pumps

General information

4" (100 mm) submersible pumps for wells and bore holes constructed entirely of stainless steel.
Supplied ready to install.

Applications
- Distribution of water for domestic use and small-scale agricultural use
- Pressure boosting
- Sprinkler system, small-scale irrigation

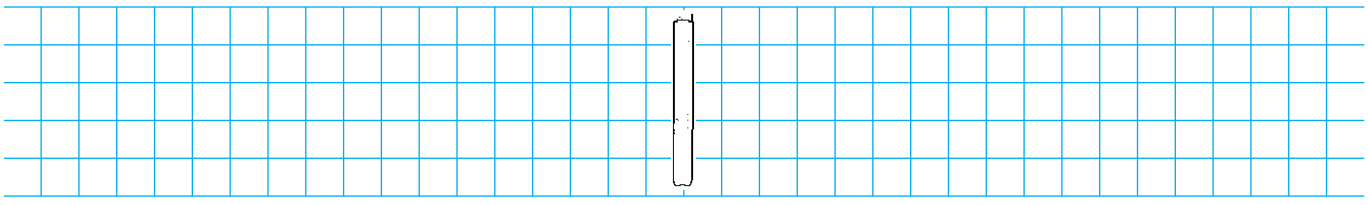
Conditions of use
- For clear or very slightly contaminated water (maximum sand content: 50 g/m^3)
- Maximum water temperature: 30°C
- 20 starts maximum per hour
- Operates while permanently submerged
- Maximum operating pressure at discharge: 12 bar
- Motor electrical power supply:
  • Single phase 230 V + 6% –10% - 50 Hz

- Supplied ready to install with:
  • Special submersible power supply cable:
    - 30 m long for AMINOX 15.13; AMINOX 30.09; AMINOX 30.12; AMINOX 40.12
    - 40 m long for AMINOX 15.18; AMINOX 30.18
  • Starter unit (not connected) with:
    - Manual reset thermal/current protection
    - Power supply cable, length 0.5 m, with 2P+E moulded standard plug at the end
    - Run/stop button
  • Nylon suspension cord:
    - 30 m long for AMINOX 15.13; AMINOX 30.09; AMINOX 30.12; AMINOX 40.12
    - 40 m long for AMINOX 15.18; AMINOX 30.18

Description of AMINOX submersible pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- Single phase 230 V + 6% –10% - 50 Hz - S1 duty - Motor with "dry" type winding coated with resin The unit is enclosed in a stainless steel casing
Hydraulic unit	X5 Cr Ni 18.10 (AISI 304) stainless steel with vent openings and flanged rings in elastomer	
Valve	X5 Cr Ni 18.10 (AISI 304) stainless steel	Built-in
Electrical cable		4 x 1.5 mm^2 special submersible
Suspension rope	Ø8 made of nylon	

Mounting position



Only possibility

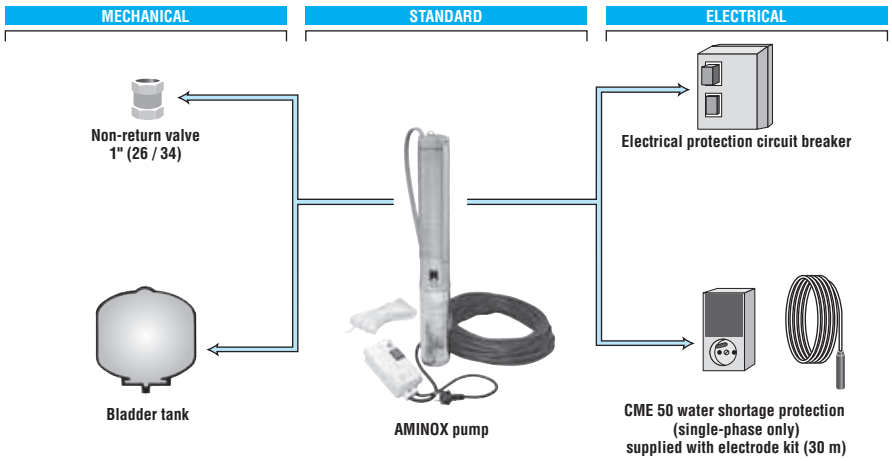
AMINOX
Submersible pumps

Adaptation possibilities

A

☞ ***Options:***

- electrical protection (circuit breaker)
- CME 50 water shortage protection supplied with an electrode kit connected to 30 m of cable
- 1" (26/34) non-return valve
  - Brass body, F/F connector
- bladder tank



Designation / Coding

AMINOX	30	12
Designation of the series	Rated flow of the pump multiplied by 10	Number of stages hydraulic

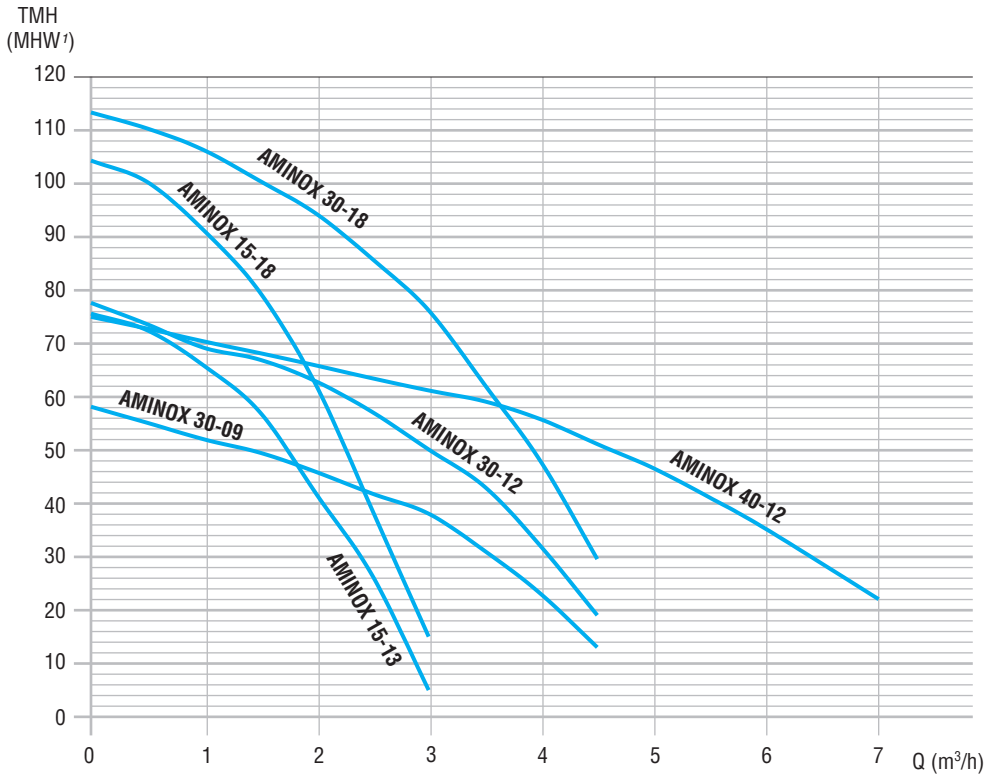
☞ ***Example of coding:***

Designation	Code
AMINOX 30.12	T 112 PC 08

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

AMINOX
Submersible pumps

Selection



Rated flow: 1.5 to 5 m³/h

Type	Product code	Flow rate in m³/h	0	0.9	1.2	1.5	**1.8**	2.1	2.4	2.7	**3**	3.6	4.2	**4.8**	5.4	6	kW output	Current in A 1-ph 230 V
AMINOX 15.13	T 112 PC 05	TMH in MHW[1]	77	71	68	61	**56**	48	38	-	-	-	-	-	-	-	0.55	4.3
AMINOX 15.18	T 112 PC 06		106	98	92	84	**77**	66	51	-	-	-	-	-	-	-	0.75	5.7
AMINOX 30.09	T 112 PC 07		58	-	-	54	52	49	48	47	**43**	36	25	-	-	-	0.55	4.3
AMINOX 30.12	T 112 PC 08		78	-	-	67	65	62	59	56	**52**	42	28	-	-	-	0.75	5.7
AMINOX 30.18	T 112 PC 09		117	-	-	101	98	93	90	86	**80**	67	46	-	-	-	1.1	8.6
AMINOX 40.12	T 112 PC 10		77	-	-	-	68	67	66	65	64	60	57	**51**	45	37	1.1	8.6

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

AMINOX
Submersible pumps

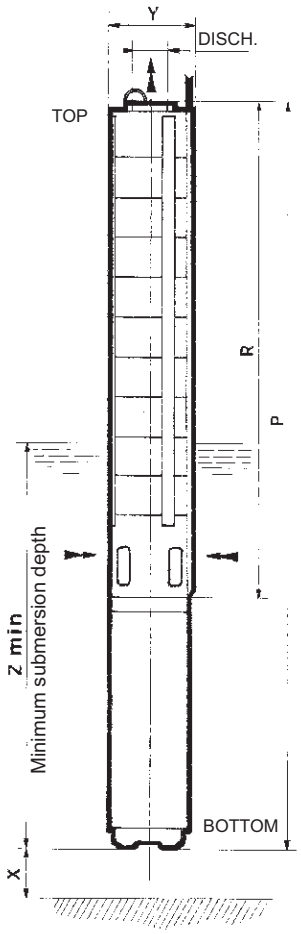
Dimensions

A

Dimensions of AMINOX submersible pumps

Dimensions in millimetres

Type	Pumps					Openings	Weight
	P	R	X	Y	Z	Discharge	kg
AMINOX 15.13	698	427	300	98	570	1”1/4 F (33/42)	19.6
AMINOX 15.18	831	532	300	98	600	1”1/4 F (33/42)	23.2
AMINOX 30.09	614	343	300	98	570	1”1/4 F (33/42)	18.7
AMINOX 30.12	705	406	300	98	600	1”1/4 F (33/42)	20.5
AMINOX 30.18	859	532	300	98	630	1”1/4 F (33/42)	24.5
AMINOX 40.12	733	406	300	98	630	1”1/2 F (40/49)	21.7



Domestic pressure booster units

General information

For distribution of water under pressure from wells, containers, water tanks or reservoirs.

Applications
- Domestic pressure boosting
- Fire-fighting supply

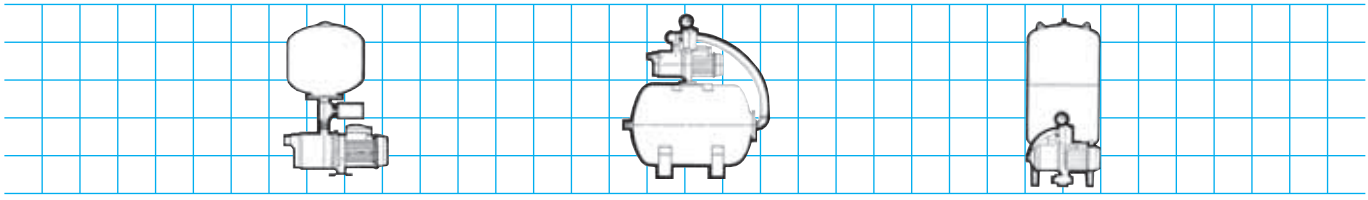
Conditions of use
- Electropump:
• See the relevant electropump characteristics and construction details
- Bladder tank:
• Preset in the factory (contactor and tank precompression)
• Interchangeable bladder made of food-quality elastomer

• Maximum operating pressure 8 bar or 10 bar depending on the type of tank and the operating pressure of the unit.
• For the precise flow rate/pressure values of a pressure booster unit, refer to the detailed curve for the pump.
The settings can be modified by the user according to the operating conditions.

Description of domestic pressure booster units

Component	Materials	Remarks
Electropump		See the relevant "electropump" manual
Bladder tank		See the "tank" manual
Manometric contactor		- Single-phase electropump unit fitted with a 2-pole manometric contactor - 3-phase electropump unit fitted with a 3-pole manometric contactor
Manometer		0-6 bar or 0-12 bar depending on model
Connection accessories		- Flexible - Elbow - Connectors - etc.

Mounting positions



Spherical bladder tank
Only possibility

Horizontal bladder tank
Only possibility

Vertical bladder tank
Only possibility

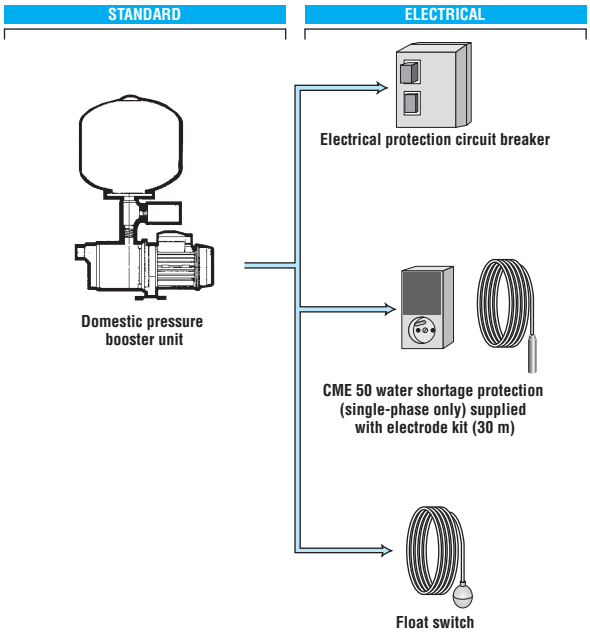
Domestic pressure booster units

Adaptation possibilities

A

☞ ***Options:***

- electrical protection (circuit breaker)
- Water shortage protection
  - CME 50 with 30 m electrode kit
  - float switch



Designation / Coding

LSPRO	20	M	60	H
Designation of the series	Index	Single phase	Capacity of the tank	Horizontal mounting position

☞ ***Example of coding:***

Designation	Code
LSPRO 20 M - 60 H	G 105 PC 19

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

Domestic pressure booster units

Selection

Type	Product code	Pump	Bladder tank			Characteristics		
		Type	Capacity in litres	Position	Max. operating pressure in bars	Average flow rate[1] in m^3/h	Factory setting pressure in bars	Maximum manometric suction head in m
PJ 30ME - 24S	G 102 PC 20	PJ 30ME	24	Spherical	8	2	1.5 to 3	8
PJ 30ME - 24H	G 102 PC 21	PJ 30ME	24	Horizontal	10	2	1.5 to 3	8
PJ 60ME - 24S	G 102 PC 22	PJ 60ME	24	Spherical	8	2.5	2 to 3.8	8
PJ 60T - 24S	G 102 PC 23	PJ 60T	24	Spherical	8	2.5	2 to 3.8	8
PJ 60ME - 24H	G 102 PC 24	PJ 60ME	24	Horizontal	10	2.5	2 to 3.8	8
PJ 60T - 24H	G 102 PC 25	PJ 60T	24	Horizontal	10	2.5	2 to 3.8	8
PJ 60ME - 60H	G 102 PC 26	PJ 60ME	60	Horizontal	10	2.5	2 to 3.8	8
PJ 60T - 60H	G 102 PC 27	PJ 60T	60	Horizontal	10	2.5	2 to 3.8	8
LS PRO 10M - 24S	G 105 PC 13	LS PRO 10 M	24	Spherical	8	3	1.5 to 3	8
LS PRO 10T - 24S	G 105 PC 14	LS PRO 10 T	24	Spherical	8	3	1.5 to 3	8
LS PRO 20M - 24S	G 105 PC 15	LS PRO 20 M	24	Spherical	8	3	2 to 3.8	8
LS PRO 20T - 24S	G 105 PC 16	LS PRO 20 T	24	Spherical	8	3	2 to 3.8	8
LS PRO 20M - 24H	G 105 PC 17	LS PRO 20 M	24	Horizontal	10	3	2 to 3.8	8
LS PRO 20T - 24H	G 105 PC 18	LS PRO 20 T	24	Horizontal	10	3	2 to 3.8	8
LS PRO 20M - 60H	G 105 PC 19	LS PRO 20 M	60	Horizontal	10	3	2 to 3.8	8
LS PRO 20T - 60H	G 105 PC 20	LS PRO 20 T	60	Horizontal	10	3	2 to 3.8	8
LS PRO 30M - 100V	G 105 PC 21	LS PRO 30 M	100	Vertical	10	5	2 to 3.8	8
LS PRO 30T - 100V	G 105 PC 22	LS PRO 30 T	100	Vertical	10	5	2 to 3.8	8

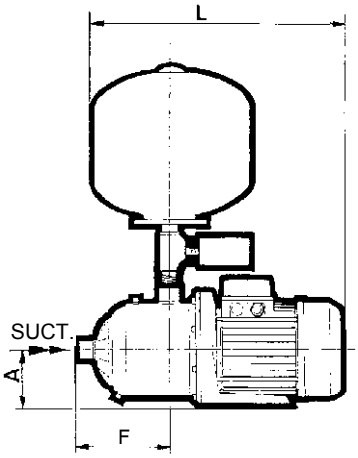
1. The average flow rate is given as a guide only; to determine its exact value, refer to the detailed curve for the pump according to its suction head.

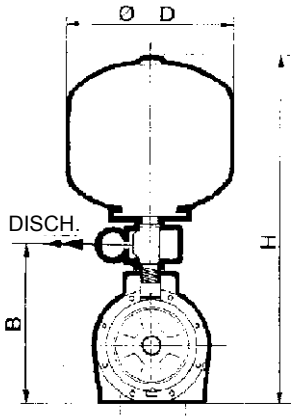
Domestic pressure booster units

Dimensions

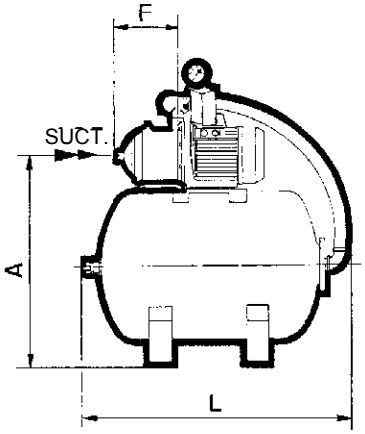
Dimensions of domestic pressure booster units

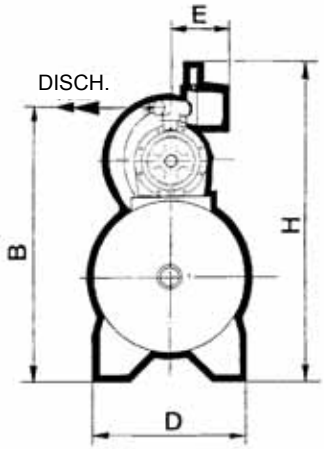
Dimensions in millimetres



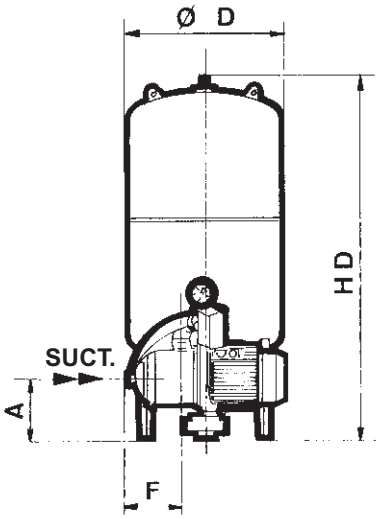


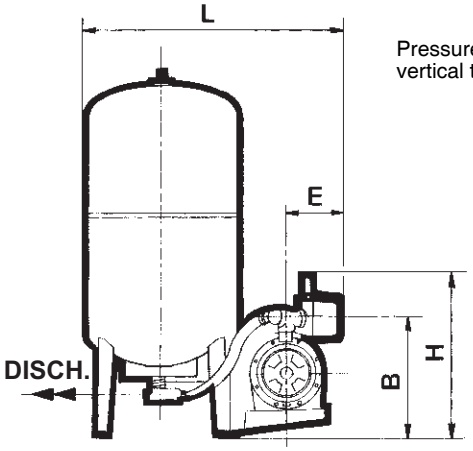
Pressure booster unit with spherical tank





Pressure booster unit with horizontal tank





Pressure booster unit with vertical tank

Domestic pressure booster units

Dimensions

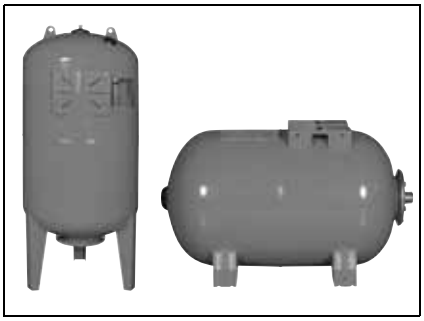
Dimensions of domestic pressure booster units

Dimensions in millimetres

Type	Pumps								Openings		Weight
	A	B	D	E	F	H	HD	L	Suction	Discharge	kg
PJ 30ME - 24S	145	230	362	-	117	590		468	1"1/4 F (33/42)	1" F (26/34)	12.5
PJ 30ME - 24H	430	540	270	190	117	630		535	1"1/4 F (33/42)	1" F (26/34)	16
PJ 60ME/T - 24S	145	230	362	-	117	590		468	1"1/4 F (33/42)	1" F (26/34)	12.5
PJ 60ME/T - 24H	430	540	270	190	117	360		535	1"1/4 F (33/42)	1" F (26/34)	16
PJ 60ME/T - 60H	555	660	380	190	117	750		850	1"1/4 F (33/42)	1" F (26/34)	21
LS PRO 10M/T - 24S	90	225	362	-	158	605		445	1" F (26/34)	1" F (26/34)	13.5
LS PRO 20M/T - 24S	90	225	362	-	182	605		445	1" F (26/34)	1" F (26/34)	15.5
LS PRO 20M/T - 24H	380	525	270	190	182	620		545	1" F (26/34)	1" F (26/34)	21
LS PRO 20M/T - 60H	500	645	410	190	182	740		785	1" F (26/34)	1" F (26/34)	27
LS PRO 30M/T - 100V	140	290	450	100	182	380	950	695	1" F (26/34)	1" F (26/34)	35

Tanks

General information



Bladder tanks conforming to European Directive 97/23/EC
Bladder tanks for automation and distribution of water under pressure

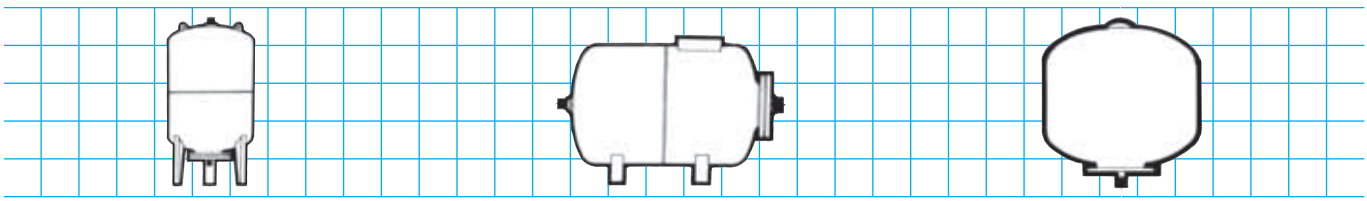
Applications
- In combination with a manometric contactor, it allows automatic running and stopping of the pump

Conditions of use
- Bladder tanks are essential for drinking water installations in order to avoid any risk of pollution of the water
by the air providing precompression or by the metal walls of the tank
- Maximum operating pressure 8 bar or 10 bar depending on model
- Operating temperature -10°C to 70°C (99°C max. intermittently)
- Interchangeable bladder made of food-quality elastomer

Description of the tanks

Component	Materials	Remarks
Metal casing	Steel	
Bladder	Food-quality elastomer • Butyl for tanks of 60 to 500 litres • EPDM for 24-litre tanks	

Mounting positions



Vertical
Only possibility

Horizontal
Only possibility

Spherical

A

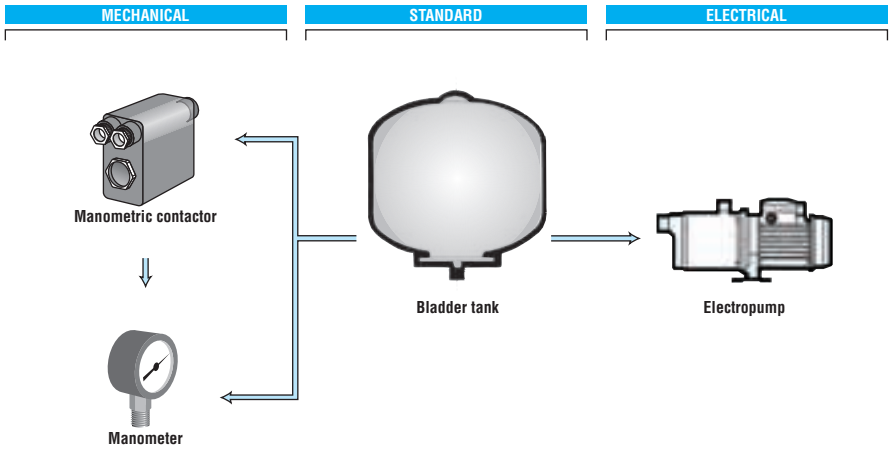
Adaptation possibilities

☞ ***Bladder tanks can be used in conjunction with:***

- the electropumps in the catalogue

☞ ***Options:***

- manometric contactor
- manometer



Designation / Coding

RV	100	V
Bladder tank	Capacity in litres	Vertical installation position

☞ ***Example of coding:***

Designation	Code
RV 100 V	G 100 AM 04

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

Tanks

Selection

Determining the minimum capacity of a tank according to the average flow rate and the set pressures

- Direct reading for installation with surface pump
- For installation with submersible pump: double the capacity to limit the number of starts

Flow rates in m^3/h	Bladder tanks								
	Set pressure								
	Activation pressure (in bars)								
	1	1.5	2	2	2.5	1.5	2	2.5	3
	De-activation pressure (in bars)								
	3	3	4	3.5	4	2.5	3	3.5	4
1									
1.5					60 l				
2									
2.5									
3					100 l				
3.5									
4									
4.5									
5					200 l				
6									
7									
8									
9					300 l				
10									
11							500 l		
12									
13									

The precompression is to be checked before the installation is started up (see manual).

When the installation so allows, it is recommended to position the tank as close as possible to the point of use in order to limit the operating pressure inside it.

Where the pressure delivered by the pump at the input to the tank is greater than the tank's maximum operating pressure, a safety valve must be fitted.

Selection chart

CE 8 bars bladder tank conforming to European Directive 97/23/EC

Maximum operating pressure 8 bar

Type	Product code	Capacity in litres	Position
RV 24 S	G 024 AM 03	24	Spherical

CE 10 bars bladder tanks conforming to European Directive 97/23/EC

Maximum operating pressure 10 bar

Type	Product code	Capacity in litres	Position
RV 24 H	G 024 AM 04	24	Horizontal
RV 60 H	G 060 AM 03	60	Horizontal
RV 60 V	G 060 AM 04	60	Vertical
RV 100 H	G 100 AM 03	100	Horizontal
RV 100 V	G 100 AM 04	100	Vertical
RV 200 H	G 200 AM 03	200	Horizontal
RV 200 V	G 200 AM 02	200	Vertical
RV 300 H	G 300 AM 03	300	Horizontal
RV 300 V	G 300 AM 02	300	Vertical
RV 500 V	G 500 AM 02	500	Vertical

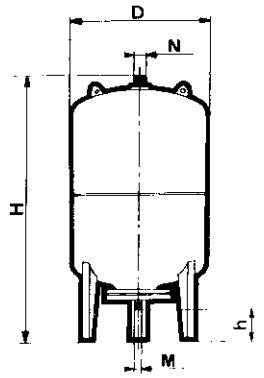
For all models:
- Maximum water temperature: 70°C (99°C intermittently)
- Factory pre-inflation: 1.5 bar

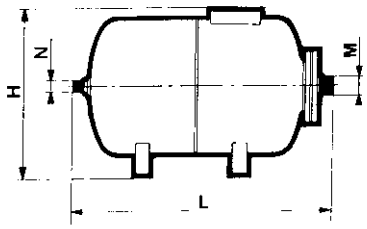
Tanks

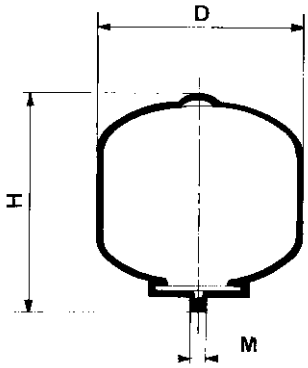
Dimensions

Dimensions of tanks

Dimensions in millimetres







Bladder tanks: CE 8 bars: maximum operating pressure 8 bar

Type	Capacity in litres	Position	D	H	L	Openings M	Openings N	Weight kg
RV 24 S	24	Spherical	362	355	-	1” M (26/34)	-	3.8

Bladder tanks: CE 10 bars: maximum operating pressure 10 bar

Type	Capacity in litres	Position	D	H	L	h	Openings M	Openings N	Weight kg
RV 24 H	24	Horizontal	-	290	485	-	1” M (26/34)	-	5.5
RV 60 H	60	Horizontal	-	410	688	-	1” M (26/34)	-	12
RV 60 V	60	Vertical	380	880	-	170	1” M (26/34)	-	13.5
RV 100 H	100	Horizontal	-	480	820	-	1” M (26/34)	1/2” M (15/21)	18
RV 100 V	100	Vertical	450	950	-	153	1” M (26/34)	1/2” M (15/21)	18
RV 200 H	200	Horizontal	-	580	1,075	-	1”1/2 M (40/49)	1/2” M (15/21)	38.5
RV 200 V	200	Vertical	550	1,285	-	210	1”1/2 M (40/49)	1/2” M (15/21)	42.5
RV 300 H	300	Horizontal	-	660	1,230	-	1”1/2 M (40/49)	1/2” M (15/21)	50.5
RV 300 V	300	Vertical	630	1,415	-	188	1”1/2 M (40/49)	1/2” M (15/21)	52.5
RV 500 V	500	Vertical	750	1,610	-	188	1”1/2 M (40/49)	1/2” M (15/21)	81

LS COMPACT

General information

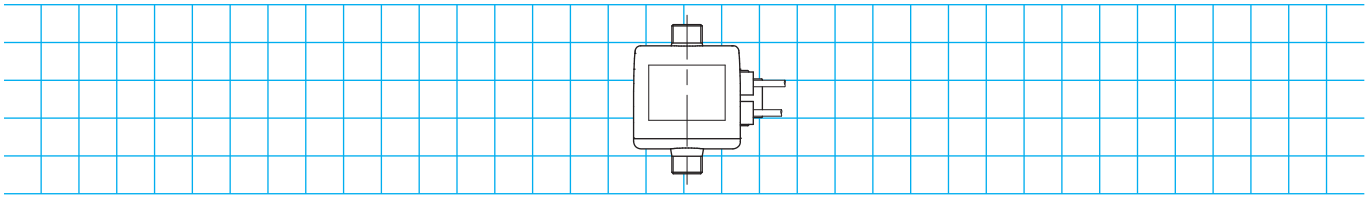
Control system for domestic pumps. Provides automation of the installation and protection for the pump against shortage of water.

Applications
- Control system to be installed at the discharge of pumps for domestic use
- Runs the electropump whenever water is required and stops it when the requirement has been met
- Particularly simple and compact system
- Particularly suitable for domestic use, smallscale irrigation, sprinkler systems, washing
- Corrosion-resistant

Conditions of use
For clear water only.
- Maximum water temperature: 60°C
- Pump activation pressure: 1.5 bar fixed
- Minimum differential pressure: 0.5 bar
- Maximum operating pressure: 10 bar
- Voltage: 220 – 240 V, Frequency: 50 – 60 Hz
- Maximum current: 10 A
- IP 65 protection
- Maximum power of the pump 1.1 kW at 230 V – 50 Hz single-phase
- Maximum flow rate: 10 m^3/h
- System supplied cabled with:
  • connection to the mains by cable HO 7RN F, length 1.5 m, with moulded standard plug (2 pins + earth) at the end
  • connection to the pump motor by cable HO 7RN F, length 0.6 m
- Manometer indicating the operating pressure

Example of mounting an LS COMPACT on a PJ pump

Mounting position



Only possibility

LS COMPACT

Selection

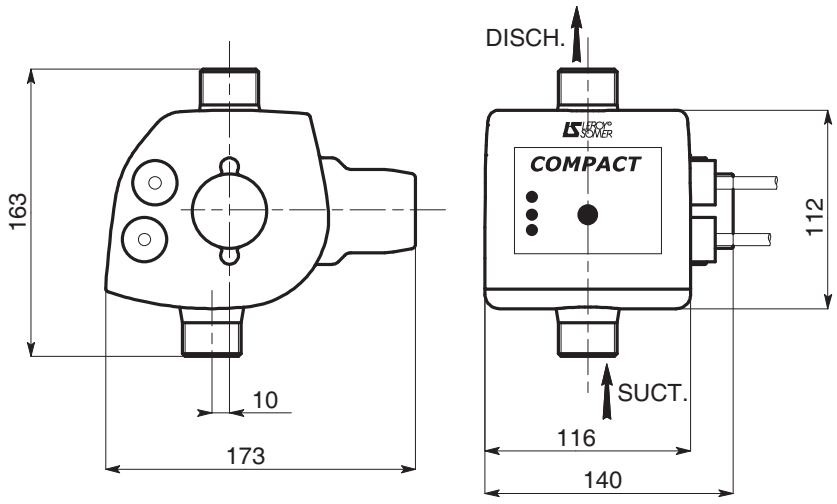
A

Type	Product code
LS COMPACT	G 010 AM 01

Dimensions

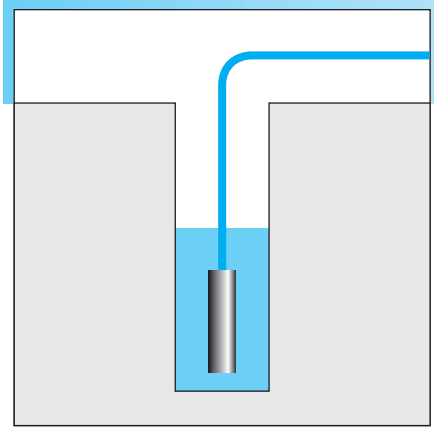
LS COMPACT dimensions

Dimensions in millimetres



Threaded connection ports, M 1”G (26/34)
Weight 0.8 kg

Bore holes



The hydraulic characteristics of all the pumps given in this catalogue are guaranteed:
- to comply with international standard ISO 2548 Class C, for series production pumps;
- for de-aerated water, at a temperature of 20°C, having a viscosity of 1 mm^2/s or 1° Engler and a density of 1.

Delivery dates for products in this catalogue

YOU CAN DETERMINE THE DELIVERY DATE OF YOUR PRODUCT WITHOUT HAVING TO PHONE

The G.A. (Guaranteed Availability) and F.A.C. (Fast Assembly Centre) services enable you to determine the dispatch date instantaneously.

Products on	**white background**	G.A.: dispatch within 24 hours* * dispatch same day if ordered before 12 noon
Products on	**light green background**	F.A.C.: dispatch within 48 hours
Products on	**dark green background**	Manufacturing timescales to be agreed with your usual contact

MAXIMUM quantities per order and per pump type

	HOUSING	BORE HOLES	INDUSTRY
G.A.	3	1	1
F.A.C.	1	-	1

4” (100 mm)
Submersible pumps

General information

Submersible pumps for 4" (100 mm) bore holes and deep wells

Applications
- Distribution of water for domestic use
- Distribution of water for agricultural use
- Sprinkler systems, irrigation
- Pressure boosting

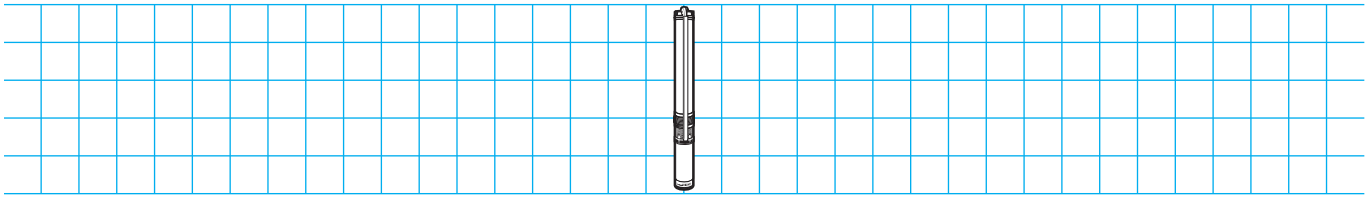
Conditions of use
- For clear or very slightly contaminated water (maximum permissible sand content: 50 g/m^3)
- Maximum water temperature: 30°C
- 20 starts maximum per hour
- Operates while permanently submerged
- Maximum operating pressure (at discharge): 20 bar
- Motor electrical power supply:
  - Single phase 230 V + 6% –10% - 50 Hz
  - 3-phase 400 V + 6% –10% - 50 Hz

Description of 4” (100 mm) submersible pumps

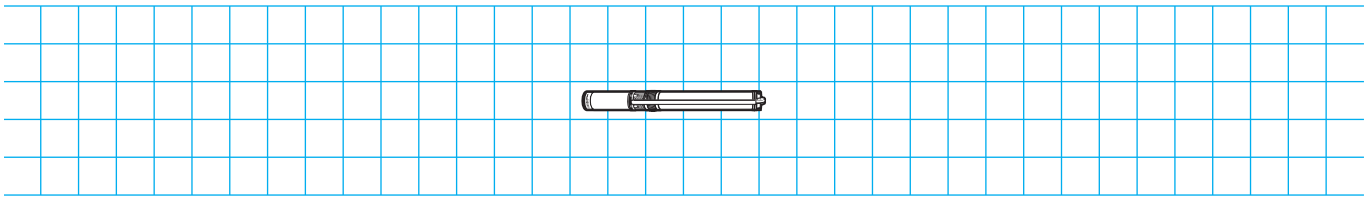
Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- 3-phase 400 V + 6% –10% - 50 Hz - Single-phase 230 V + 6% –10% - 50 Hz - CPCD - Class B - S1 duty - Resin-coated "dry" winding The unit is enclosed in a stainless steel casing - Bearings lubricated by the motor filling water - Power supply cable connected directly to the motor by a plug-in connector - Axial thrust of the hydraulic unit counterbalanced by the motor limit stop - Motor/hydraulic unit coupling conforms to NEMA MG-1-18 - Motor only: • Supplied without starter unit in CPCD single-phase version
Suction body	Synthetic material	
Discharge body, tube	X2 Cr Ni 18.10 (AISI 304L) stainless steel	Slinging eyes incorporated in the discharge body
Impellers	Synthetic material	
Diffusers and cover plates	Synthetic material	X2 Cr Ni 18.10 (AISI 304 L) stainless steel rings crimped onto water seals
Spacers (shells)	X2 Cr Ni 18.10 (AISI 304 L) stainless steel	
Shaft	X33 Cr 13 stainless steel	
Bearing	X2 Cr Ni Mo 17.12.2 (AISI 316 L) stainless steel on elastomer (nitrile)	
Valve	Synthetic material	With return spring to reduce the risk of water hammer
Strainer	X2 Cr Ni 18.10 (AISI 304 L) stainless steel	
Coupling sleeve	X2 Cr Ni Mo 17.12.2 (AISI 316 L) stainless steel	In accordance with NEMA MG-1-18

4” (100 mm)
Submersible pumps

Mounting positions



Standard position



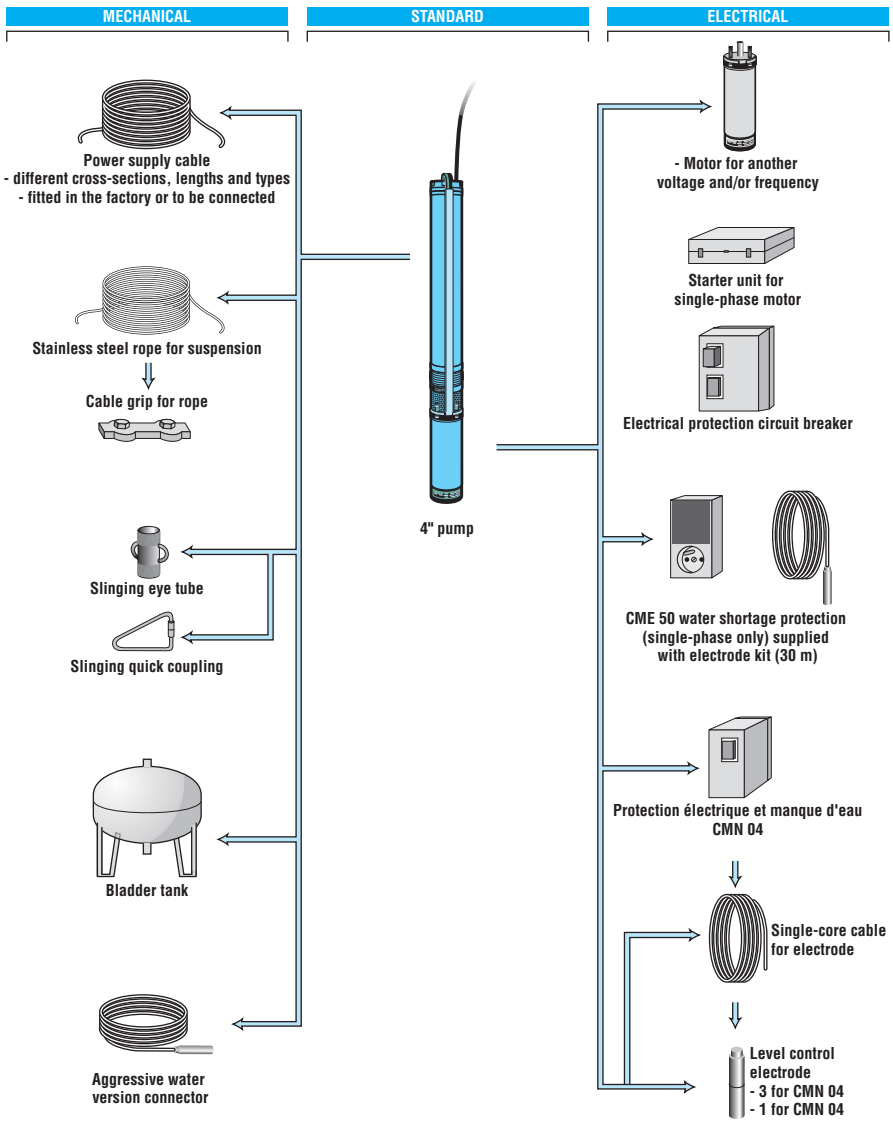
Horizontal position

4” (100 mm)
Submersible pumps

Adaptation possibilities

☞ ***Options:***

- electrical protection (circuit breaker)
- CME 50 water shortage protection (single-phase version only) supplied with an electrode kit connected to 30 m of cable
- CMN04 water shortage and electrical protection
  - Single-core cable for electrode
  - Level electrode
- aggressive water version connector
  - Another voltage and/or frequency
- starter unit for single-phase motor
  - CPCD
- power supply cable
  - Flat or round, and with different cross-sections
  - Standard lengths or connected by junction
- stainless steel suspension rope (for depths greater than 50 m, double or triple the rope)
  - X5 Cr Ni Mo 17.12.2 (AISI 316) stainless steel with plastic coating
- cable grip for the above rope
- stainless steel slinging eye tube for rope, Ø max. 12 mm
  - Ø 1”1/4
  - Ø 2”
- slinging quick coupling
- vertical bladder tank, 60, 100 and 200 l



Designation / Coding

RA	15	B	1.1	T3
Designation of the series	Number of stages of the hydraulic unit	Index of manufacturing	Output power of the motor in kW	3-phase

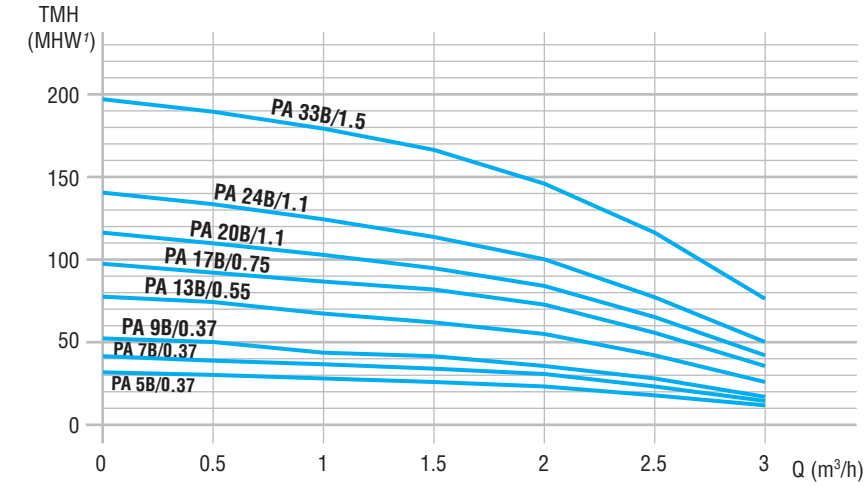
☞ ***Example of coding:***

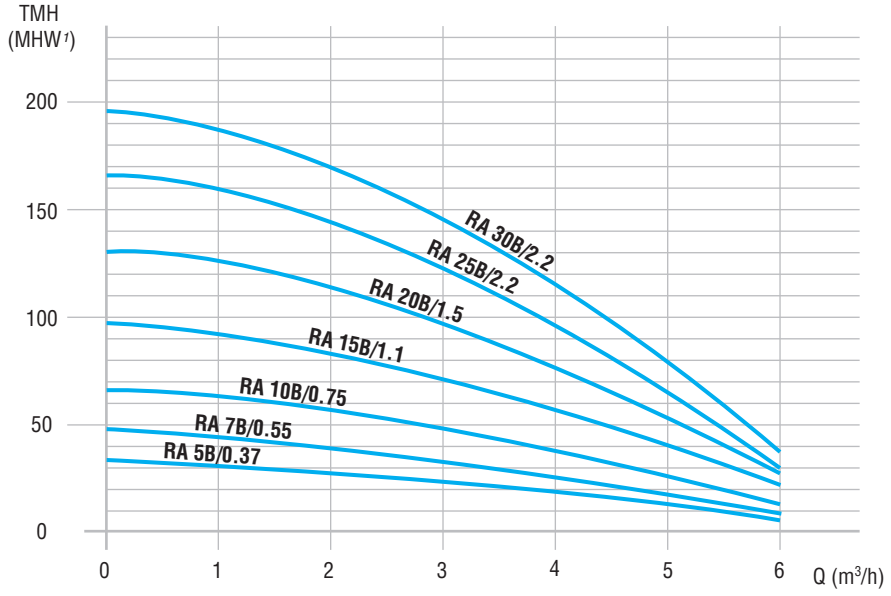
Designation	Code
RA 15B/1.1 T3	I 215 PC 02

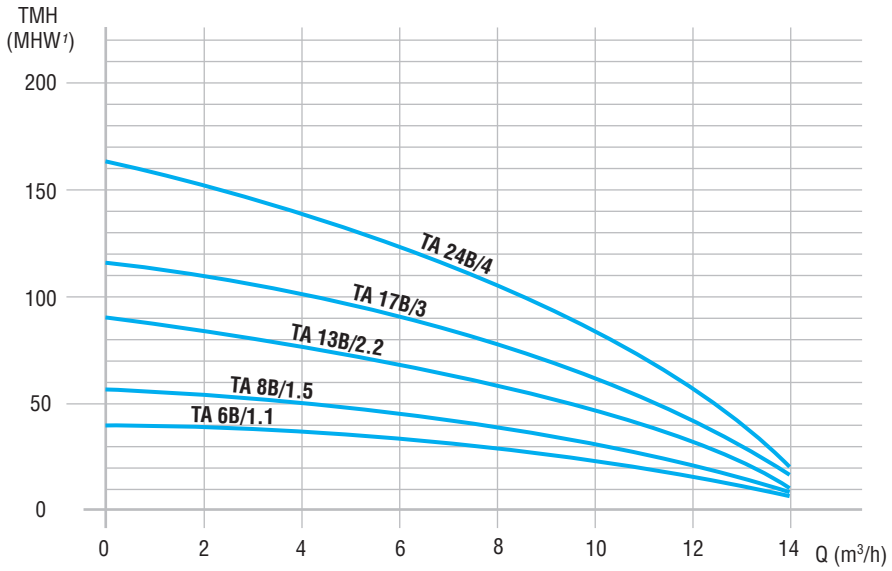
All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

4” (100 mm)
Submersible pumps

Selection







4” (100 mm)
Submersible pumps

Selection

Rated flow: 2 m³/h

Type	Product code	Flow rate in m³/h	0	0.5	1	1.5	**2**	2.5	3	kW Output	Current in A 1-ph 230V	Current in A 3-ph 400V	Id/In
PA 5B/0.37 S2	I 105 PC 01	TMH in MHW[1]	31	30	28	26	**23**	18	12	0.37	4	-	3.6
PA 5B/0.37T3	I 105PC 02		31	30	28	26	**23**	18	12	0.37	-	1.1	4.3
PA 7B/0.37S2	I 107 PC 01		41	39	37	34	**30**	23	14	0.37	4	-	3.6
PA 7B/0.37T3	I 107 PC 02		41	39	37	34	**30**	23	14	0.37	-	1.1	4.3
PA 9B/0.37S2	I 109 PC 01		52	50	46	42	**36**	28	16	0.37	4	-	3.6
PA 9B/0.37T3	I 109 PC 02		52	50	46	42	**36**	28	16	0.37	-	1.1	4.3
PA13B/0.55S2	I 113 PC 01		78	74	68	62	**55**	42	26	0.55	6	-	3.8
PA 13B/0.55T3	I 113 PC 02		78	74	68	62	**55**	42	26	0.55	-	1.6	4
PA 17B/0.75S2	I 117 PC 01		98	92	87	81	**72**	56	35	0.75	7.3	-	3.9
PA 17B/0.75T3	I 117 PC 02		98	92	87	81	**72**	56	35	0.75	-	2.1	4.4
PA 20B/1.1S2	I 120 PC 01		116	110	103	95	**84**	65	41	1.1	8.9	-	4.5
PA 20B/1.1T3	I 120 PC 02		116	110	103	95	**84**	65	41	1.1	-	3	4.8
PA 24B/1.1S2	I 124 PC 01		140	133	124	114	**100**	78	50	1.1	8.9	-	4.5
PA 24B/1.1T3	I 124 PC 02		140	133	124	114	**100**	78	50	1.1	-	3	4.8
PA 33B/1.5S2	I 133 PC 01		198	190	180	167	**147**	117	77	1.5	11.1	-	4.8
PA 33B/1.5T3	I 133 PC 02		198	190	180	167	**147**	117	77	1.5	-	4	4.8

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW).

Rated flow: 4 m³/h

Type	Product code	Flow rate in m³/h	0	1	2	3	3.5	**4**	4.5	5	6	kW Output	Current in A 1-ph 230V	Current in A 3-ph 400V	Id/In
RA 5B/0.37S2	I 205 PC 01	TMH in MHW[1]	33	31	28	24	21	**18.5**	15	12	5	0.37	4	-	3.6
RA 5B/0.37T3	I 205 PC 02		33	31	28	24	21	**18.5**	15	12	5	0.37	-	1.1	4.3
RA 7B/0.55S2	I 207 PC 01		47	44	40	34	31	**27**	23	18	8	0.55	6	-	3.8
RA 7B/0.55T3	I 207 PC 02		47	44	40	34	31	**27**	23	18	8	0.55	-	1.6	4
RA 10B/0.75S2	I 210 PC 01		64	62	56	48	43	**38**	32	27	12	0.75	7.3	-	3.9
RA 10B/0.75T3	I 210 PC 02		64	62	56	48	43	**38**	32	27	12	0.75	-	2.1	4.4
RA 15B/1.1S2	I 215 PC 01		96	91	82	72	65	**58**	50	41	21	1.1	8.9	-	4.5
RA 15B/1.1T3	I 215 PC 02		96	91	82	72	65	**58**	50	41	21	1.1	-	3	4.8
RA 20B/1.5S2	I 220 PC 01		131	124	113	98	88	**78**	67	54	25	1.5	11.1	-	4.8
RA 20B/1.5T3	I 220 PC 02		131	124	113	98	88	**78**	67	54	25	1.5	-	4	4.8
RA 25B/2.2S2	I 225 PC 01		163	155	142	121	108	**96**	81	65	30	2.2	15.9	-	5.4
RA 25B/2.2T3	I 225 PC 02		163	155	142	121	108	**96**	81	65	30	2.2	-	5.9	4.9
RA 30B/2.2S2	I 230 PC 01		196	186	170	145	130	**115**	97	78	36	2.2	15.9	-	5.4
RA 30B/2.2T3	I 230 PC 02		196	186	170	145	130	**115**	97	78	36	2.2	-	5.9	4.9

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Rated flow: 9 m³/h

Type	Product code	Flow rate in m³/h	0	4	6	7	8	**9**	10	11	12	14	kW Output	Current in A 1-ph 230V	Current in A 3-ph 400V	Id/In
TA 6B/1.1S2	I 306 PC 01	TMH in MHW[1]	41	36	33	31	28	**25**	22	18	14	4	1.1	8.9	-	4.5
TA 6B/1.1T3	I 306 PC 02		41	36	33	31	28	**25**	22	18	14	4	1.1	-	3	4.8
TA 8B/1.5S2	I 308 PC 01		56	48	45	42	39	**35**	31	25	20	6	1.5	11.1	-	4.8
TA 8B/1.5T3	I 308 PC 02		56	48	45	42	39	**35**	31	25	20	6	1.5	-	4	4.8
TA 13B/2.2S2	I 313 PC 01		90	80	71	66	61	**55**	47	39	30	8	2.2	15.9	-	5.4
TA 13B/2.2T3	I 313 PC 02		90	80	71	66	61	**55**	47	39	30	8	2.2	-	5.9	4.9
TA 17B/3T3	I 317 PC 02		116	101	92	86	79	**71**	62	51	48	16	3	-	7.8	5.3
TA 24B/4T3	I 324 PC 02		163	139	125	117	106	**94**	86	71	58	18	4	-	10	5.8

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

S2 motors: single-phase 230 V - T3 motors: 3-phase 400 V

CAUTION: S2 single-phase 4” electropumps must always be used in conjunction with a CPCD starter unit corresponding to the motor power and type.

4” (100 mm)
Submersible pumps

Selection

Permissible cable characteristics and lengths at 50 Hz

B

50 Hz - 230 V single-phase motors - CPCD (Permanent Capacitor - Starting Capacitor) version

Power	Voltage	Current		Cable section in mm²			
				1.5 mm²	2.5 mm²	4 mm²	6 mm²
kW	V	A	Relay type	Maximum permissible length in metres			
0.37	230	4	3.7 to 5.5	153	253	403	598
0.55	230	6	5.5 to 8	104	172	273	405
0.75	230	7.3	5.5 to 8	83	137	217	322
1.1	230	8.9	8 to 11.5	50	84	133	198
1.5	230	11.1	8 to 11.5	47	78	124	183
2.2	230	15.9	13 to 18	-	51	81	120

50 Hz - 400 V three-phase motors

Power	Voltage	Current		Cable section in mm²			
				1.5 mm²	2.5 mm²	4 mm²	6 mm²
kW	V	A	Relay type	Maximum permissible length in metres			
0.37	400	1.1	0.8 to 1.2	1,102	1,826	2,903	4,315
0.55	400	1.6	1.2 to 1.8	765	1,268	2,018	3,003
0.75	400	2.1	1.8 to 2.6	584	968	1,539	2,290
1.1	400	3	2.6 to 3.7	422	699	1,113	1,656
1.5	400	4	3.7 to 5.5	295	490	780	1,161
2.2	400	5.9	5.5 to 8	200	332	529	787
3	400	7.8	5.5 to 8	155	257	408	607
4	400	10	8 to 11.5	115	191	303	451
5.5	400	13.7	13 to 18	-	139	221	329

4” (100 mm) Submersible pumps

Selection

Starter units for 4” single-phase motors

For CPCD single-phase motors
Standard version

Motor power	Starter unit type
kW	CPCD
0.37	M 303 RE 02
0.55	M 305 RE 02
0.75	M 307 RE 02
1.1	M 311 RE 02
1.5	M 315 RE 02
2.2	M 322 RE 02

Note
CPCD: Permanent Capacitor
plus Starting Capacitor and relay

Connector with 4 x 1.5 mm² flat cable

Standard connector	
Length	Code
1.5 m	T 000 AE 82[1]
2.5 m	T 000 AE 83[2]
5 m	T 000 AE 84
15 m	T 000 AE 85
30 m	T 000 AE 86
50 m	T 000 AE 87

316 L stainless steel connector	
Length	Code
1.5 m	T 000 AE 88
2.5 m	T 000 AE 89

1. For motor with power ≤ 1.5 kW.
2. For motor with power ≥ 2.2 kW.

4” (100 mm)
Submersible pumps

Dimensions

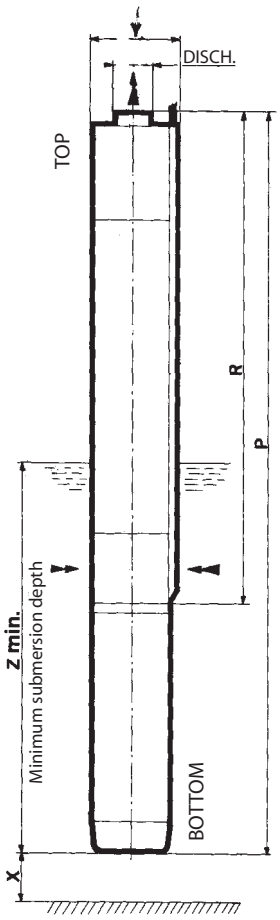
Dimensions of 4” submersible pumps

Dimensions in millimetres

B

	Pumps						Opening	Weight	
	P	P	R	X	Y	Z	Discharge	kg	
Type	single	3-phase						single	3-phase
PA 5B/0.37	640	621	398		99	640		10.2	9.4
PA 7B/0.37	691	672	449		99	640		10.6	9.8
PA 9B/0.37	743	724	501		99	640		11	10.2
PA 13B/0.55	876	847	605		99	670	1”1/4 F	13	11.8
PA 17B/0.75	1007	979	708		99	700	(33/42)	15.3	13.9
PA 20B/1.1	1142	1085	786		99	750		18.5	15.9
PA 24B/1.1	1246	1189	890		99	750		19.3	16.7
PA 33B/1.5	1553	1496	1169		99	780		22.1	19.7
RA 5B/0.37	696	677	454		99	640		10.6	9.8
RA 7B/0.55	793	769	527	1	99	670		12.3	11.1
RA 10B/0.75	935	907	636		99	700		14.6	13.2
RA 15B/1.1	1174	1117	818		99	750	1”1/4F	18.5	15.9
RA 20B/1.5	1434	1377	1050		99	780	(33/42)	21.2	18.8
RA 25B/2.2	1693	1588	1232		99	800		26	21.5
RA 30B/2.2	1875	1770	1414		99	800		27.3	22.8
TA 6B/1.1	959	902	603		99	750		16.6	14
TA 8B/1.5	1091	1034	707		99	780		18.2	15.8
TA 13B/2.2	1430	1325	969		99	800	2” F	23.4	18.9
TA 17B/3	-	1667	1244		99	820	(50/60)	-	22.6
TA 24B/4	-	2259	1675		99	980		-	32.9

1. In a tube with a strainer, the motor must be installed above the strainer.
In a container, x = 150 mm minimum.



4” (100 mm) stainless steel submersible pumps

General information

Submersible pumps for 4" (100 mm) bore holes and deep wells constructed entirely of stainless steel.

Applications
- Distribution of water for domestic use
- Distribution of water for agricultural use
- Sprinkler systems, irrigation
- Pressure boosting

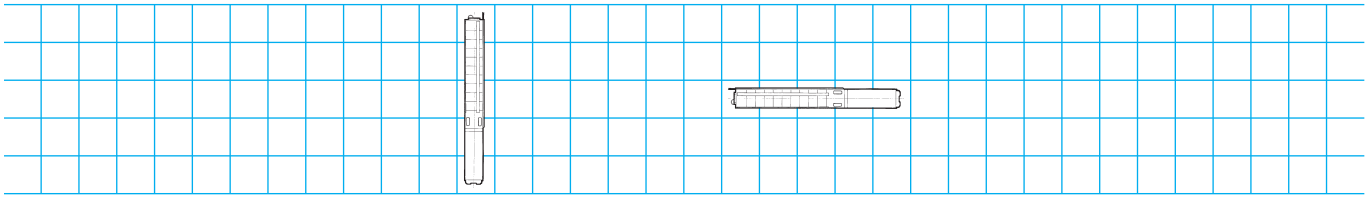
Conditions of use
- For clear or very slightly contaminated water (maximum permissible sand content: 50 g/m^3)
- Maximum water temperature: 30°C
- 20 starts maximum per hour
- Operates while permanently submerged
- Maximum operating pressure (at discharge): 33 bar
- Motor electrical power supply:
  - Single phase 230 V + 6% –10% - 50 Hz
  - 3-phase 400 V + 6% –10% - 50 Hz

Description of 4” (100 mm) stainless steel submersible pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- 3-phase 400 V + 6% –10% - 50 Hz - Single-phase 230 V + 6% –10% - 50 Hz - CP - Class B - S1 duty - Resin-coated "dry" winding The unit is enclosed in a stainless steel casing - Bearings lubricated by the motor filling water - Power supply cable connected directly to the motor by a plug-in connector - Axial thrust of the hydraulic unit counterbalanced by the motor limit stop - Motor/hydraulic unit coupling conforms to NEMA MG-1-18 - Motor only: • Supplied without starter unit in CP single-phase version only
Suction body	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Discharge body	X5 Cr Ni 18.10 (AISI 304) stainless steel	With built-in slinging eyes
Impellers	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Stage body and diffusers	X5 Cr Ni 18.10 (AISI 304) stainless steel	With elastomer rings at the water seals
Shaft	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Bearing	X5 Cr Ni 18.10 (AISI 304) stainless steel on elastomer	
Valve	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Strainer	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Coupling sleeve	X5 Cr Ni 18.10 (AISI 304) stainless steel	In accordance with NEMA MG-1-18

4” (100 mm) stainless steel submersible pumps

Mounting positions



Standard position

Horizontal position

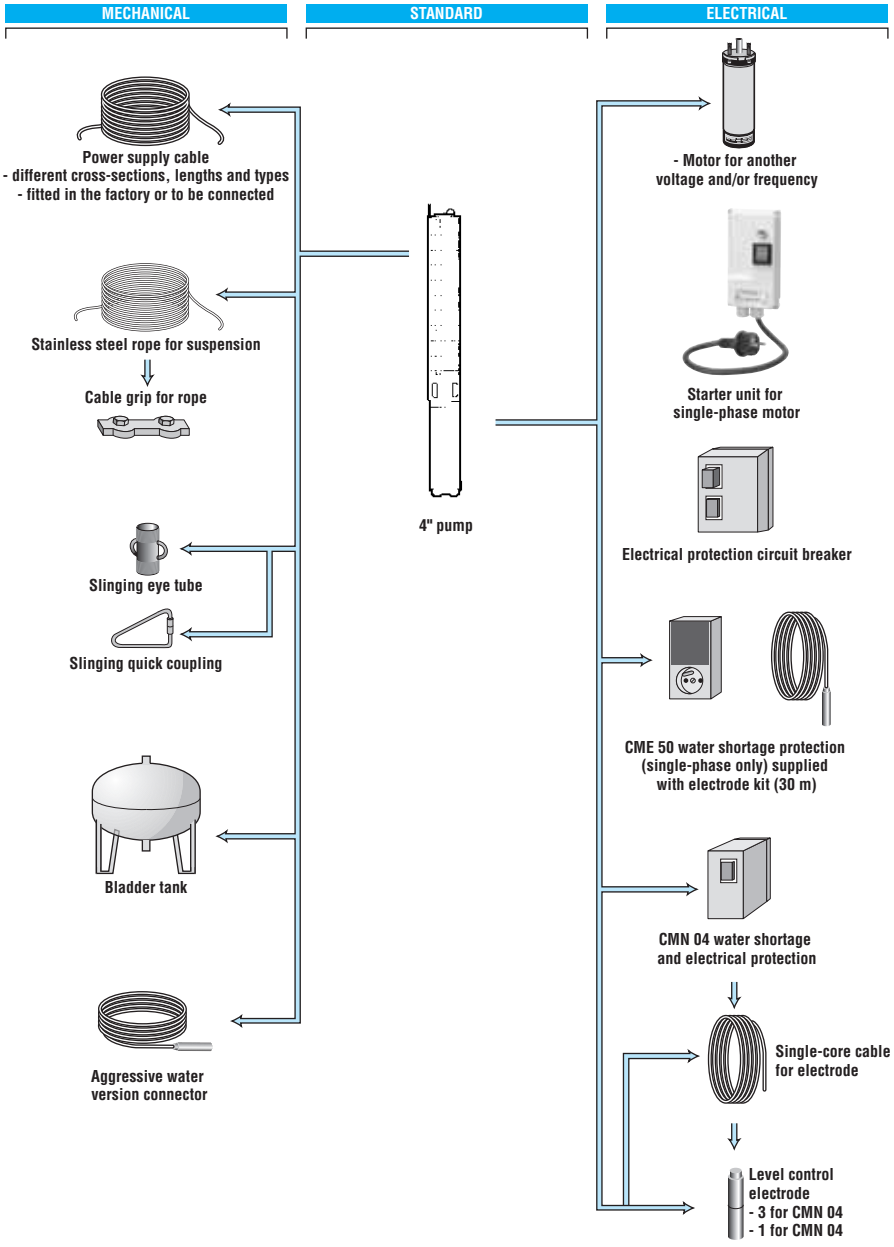
4” (100 mm) stainless steel submersible pumps

Adaptation possibilities

☞ ***Options:***

- electrical protection (circuit breaker)
- CME 50 water shortage protection (single-phase version only) supplied with an electrode kit connected to 30 m of cable
- CMN04 water shortage and electrical protection
  - Single-core cable for electrode
  - Level electrode
- aggressive water version connector
  - Another voltage and/or frequency
- starter unit for single-phase motor
  - CP
- power supply cable
  - Flat or round, and with different cross-sections
  - Standard lengths or connected by junction
- stainless steel suspension rope (for depths greater than 50 m, double or triple the rope)
  - X5 Cr Ni Mo 17.12.2 (AISI 316) stainless steel with plastic coating

- sable grip for the above rope
- stainless steel slinging eye tube for rope, Ø max. 12 mm
  - Ø 1”1/4
  - Ø 2”
- slinging quick coupling
- vertical bladder tank, 60, 100 and 200 l



Designation / Coding

ISA	30	12	0.75	T3
Designation of the series	Rated flow of the pump multiplied by 10	Number of hydraulic unit stages	Motor output power in kW	3-phase

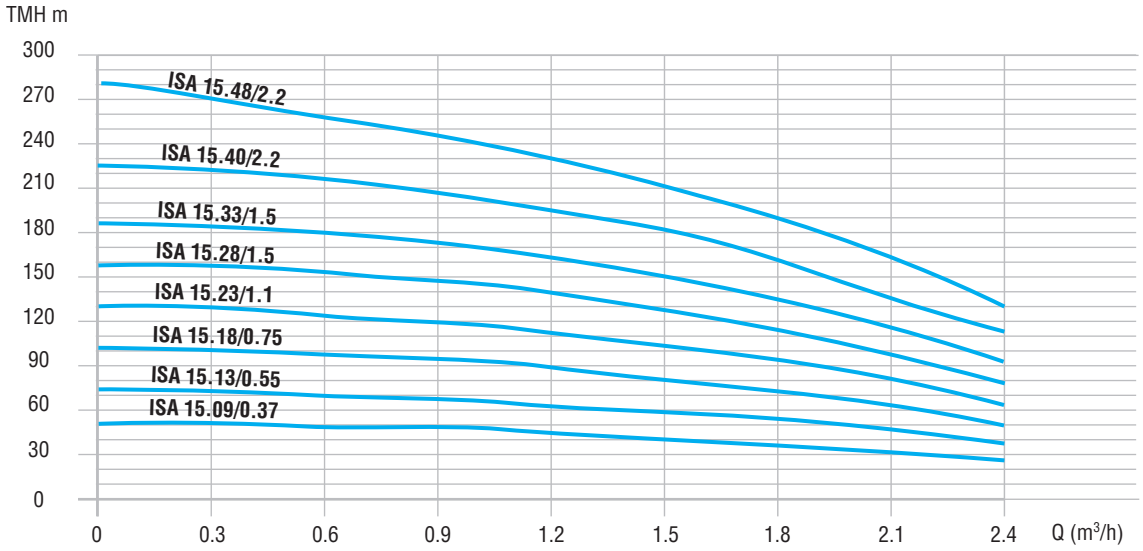
☞ ***Example of coding:***

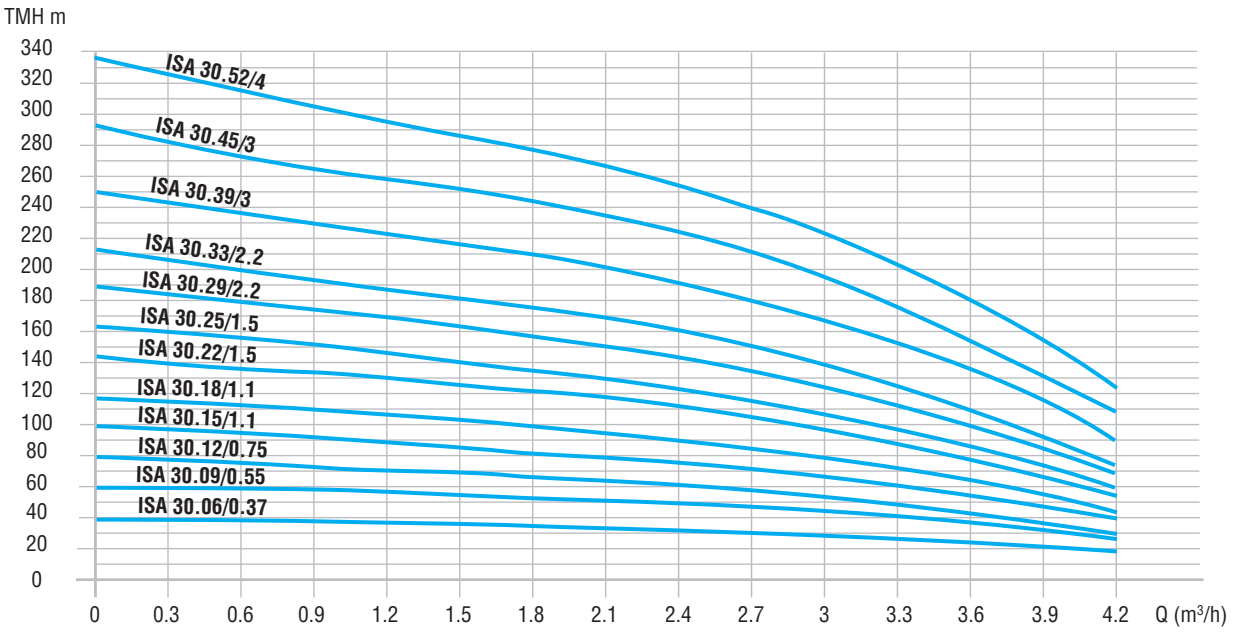
Designation	Code
ISA 30.12/0.75 T3	I 030 PC 06

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

4” (100 mm) stainless steel submersible pumps

Selection





4” (100 mm) stainless steel submersible pumps

Selection

Rated flow: 1.8 m³/h

Type	Product code	Flow rate in m³/h	0	0.9	1.2	1.5	1.8	2.1	2.4	kW Output	Current in A 1-ph 230V	Current in A 3-ph 400V	Capacitor 450V µ F
ISA 15.09/0.37 S2	I 015 PC 01	TMH in MHW[1]	53	50	47	42	**38**	33	26	0.37	3.4	-	16
ISA 15.09/0.37 T3	I 015 PC 02		53	50	47	42	**38**	33	26	0.37	-	1.1	-
ISA 15.13/0.55 S2	I 015 PC 03		77	71	68	61	**56**	48	38	0.55	4.3	-	20
ISA 15.13/0.55 T3	I 015 PC 04		77	71	68	61	**56**	48	38	0.55	-	1.6	-
ISA 15.18/0.75 S2	I 015 PC 05		106	98	92	84	**77**	66	51	0.75	5.7	-	30
ISA 15.18/0.75 T3	I 015 PC 06		106	98	92	84	**77**	66	51	0.75	-	2.1	-
ISA 15.23/1.1 S2	I 015 PC 07		136	124	118	108	**98**	84	70	1.1	8.6	-	40
ISA 15.23/1.1 T3	I 015 PC 08		136	124	118	108	**98**	84	70	1.1	-	3	-
ISA 15.28/1.5 S2	I 015 PC 09		166	155	146	134	**121**	105	85	1.5	10.6	-	50
ISA 15.28/1.5 T3	I 015 PC 10		166	155	146	134	**121**	105	85	1.5	-	4	-
ISA 15.33/1.5 S2	I 015 PC 11		195	182	172	159	**143**	124	101	1.5	10.6	-	50
ISA 15.33/1.5 T3	I 015 PC 12		195	182	172	159	**143**	124	101	1.5	-	4	-
ISA 15.40/2.2 S2	I 015 PC 13		236	218	206	190	**170**	146	120	2.2	15.5	-	70
ISA 15.40/2.2 T3	I 015 PC 14		236	218	206	190	**170**	146	120	2.2	-	5.9	-
ISA 15.48/2.2 S2	I 015 PC 15		282	260	246	227	**205**	178	144	2.2	15.5	-	70
ISA 15.48/2.2 T3	I 015 PC 16		282	260	246	227	**205**	178	144	2.2	-	5.9	-

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Rated flow: 3 m³/h

Type	Product code	Flow rate in m³/h	0	1.5	1.8	2.1	2.4	2.7	3	3.6	4.2	kW Output	Current in A 1-ph 230V	Current in A 3-ph 400V	Capacitor 450V µ F
ISA 30.06/0.37 S2	I 030 PC 01	TMH in MHW[1]	38	34	32	31	30	29	**27**	22	17	0.37	3.4	-	16
ISA 30.06/0.37 T3	I 030 PC 02		38	34	32	31	30	29	**27**	22	17	0.37	-	1.1	-
ISA 30.09/0.55 S2	I 030 PC 03		58	54	52	49	48	47	**43**	36	25	0.55	4.3	-	20
ISA 30.09/0.55 T3	I 030 PC 04		58	54	52	49	48	47	**43**	36	25	0.55	-	1.6	-
ISA 30.12/0.75 S2	I 030 PC 05		78	67	65	62	59	56	**52**	42	28	0.75	5.7	-	30
ISA 30.12/0.75 T3	I 030 PC 06		78	67	65	62	59	56	**52**	42	28	0.75	-	2.1	-
ISA 30.15/1.1 S2	I 030 PC 07		97	85	83	80	78	74	**70**	58	40	1.1	8.6	-	40
ISA 30.15/1.1 T3	I 030 PC 08		97	85	83	80	78	74	**70**	58	40	1.1	-	3	-
ISA 30.18/1.1 S2	I 030 PC 09		117	101	98	93	90	86	**80**	67	46	1.1	8.6	-	40
ISA 30.18/1.1 T3	I 030 PC 10		117	101	98	93	90	86	**80**	67	46	1.1	-	3	-
ISA 30.22/1.5 S2	I 030 PC 11		143	123	120	115	110	105	**98**	80	53	1.5	10.6	-	50
ISA 30.22/1.5 T3	I 030 PC 12		143	123	120	115	110	105	**98**	80	53	1.5	-	4	-
ISA 30.25/1.5 S2	I 030 PC 13		162	140	135	130	123	117	**110**	90	61	1.5	10.6	-	50
ISA 30.25/1.5 T3	I 030 PC 14		162	140	135	130	123	117	**110**	90	61	1.5	-	4	-
ISA 30.29/2.2 S2	I 030 PC 15		188	162	155	149	144	136	**127**	103	70	2.2	15.5	-	70
ISA 30.29/2.2 T3	I 030 PC 16		188	162	155	149	144	136	**127**	103	70	2.2	-	5.9	-
ISA 30.33/2.2 S2	I 030 PC 17		212	183	177	171	164	155	**145**	117	80	2.2	15.5	-	70
ISA 30.33/2.2 T3	I 030 PC 18		212	183	177	171	164	155	**145**	117	80	2.2	-	5.9	-
ISA 30.39/3 T3	I 030 PC 20		250	219	212	205	196	185	**172**	139	95	3	-	7.8	-
ISA 30.45/3 T3	I 030 PC 22		292	250	243	233	223	213	**200**	162	110	3	-	7.8	-
ISA 30.52/4 T3	I 030 PC 24		335	292	282	272	261	247	**230**	184	124	4	-	10	-

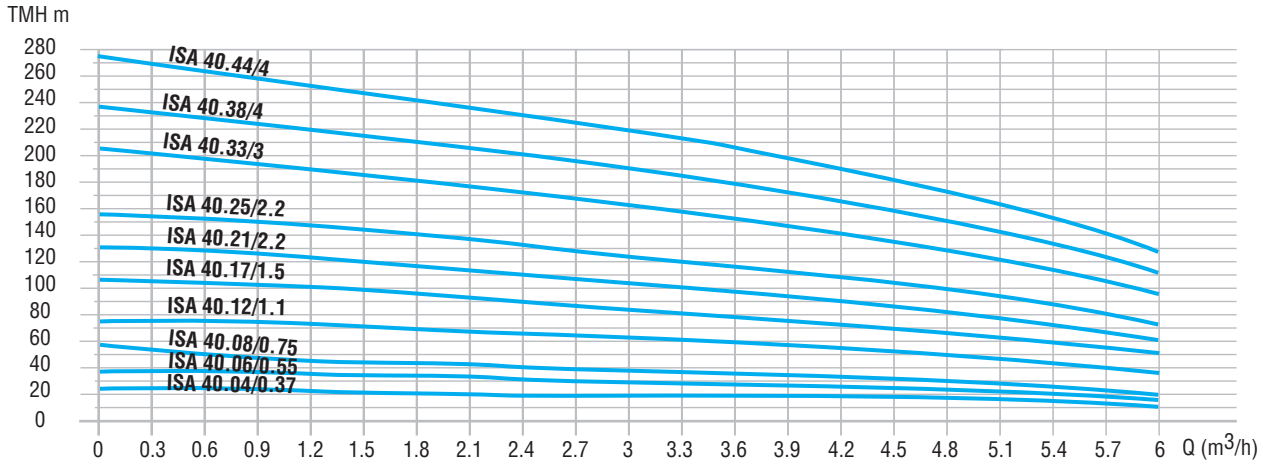
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

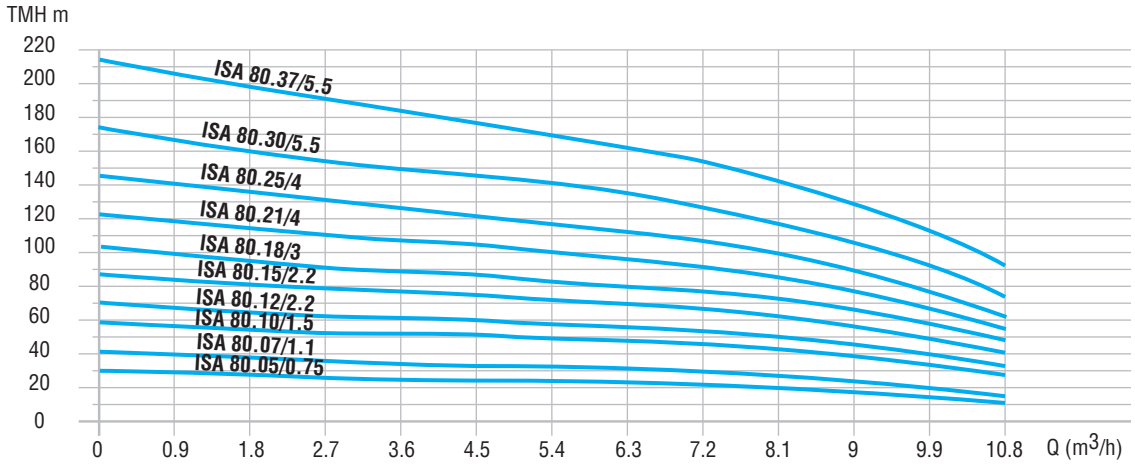
S2 motors: single-phase 230 V - T3 motors: 3-phase 400 V

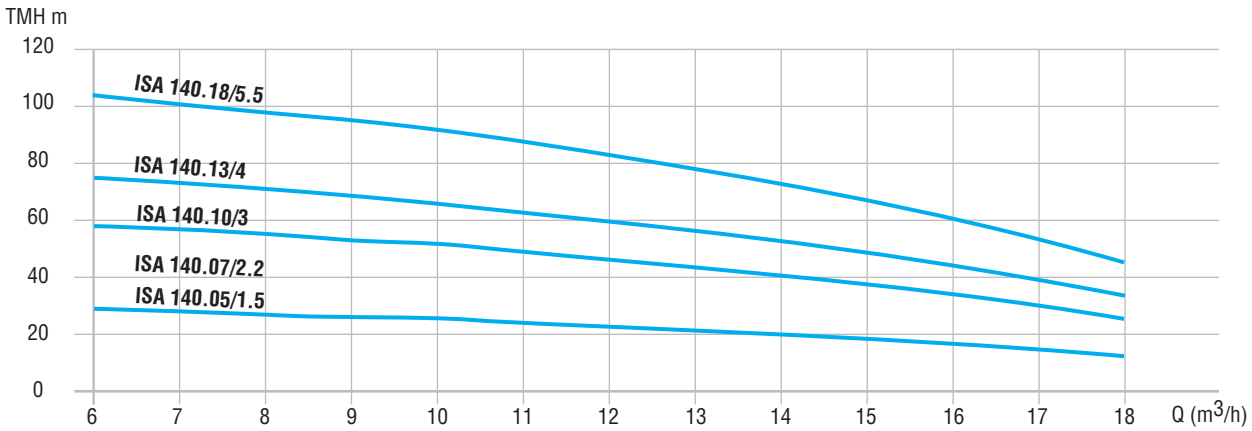
CAUTION: S2 single-phase 4” electropumps must always be used in conjunction with a CP starter unit corresponding to the motor power and type.

4” (100 mm) stainless steel submersible pumps

Selection







4” (100 mm) stainless steel submersible pumps

Selection

Rated flow: 4.8 m³/h

Type	Product code	Flow rate in m³/h	0	1.8	2.1	2.4	2.7	3	3.6	4.2	**4.8**	5.4	6	kW Output	Current in A 1-ph 230V	Current in A 3-ph 400V	Capacitor 450V µ F
ISA 40.04/0.37 S2	I 040 PC 01	TMH in MHW[1]	25	23	22	21	21	20	19	17	**16**	13	10	0.37	3.4	-	16
ISA 40.04/0.37 T3	I 040 PC 02		25	23	22	21	21	20	19	17	**16**	13	10	0.37	-	1.1	-
ISA 40.06/0.55 S2	I 040 PC 03		38	34	33	32	31	30	28	26	**24**	20	16	0.55	4.3	-	20
ISA 40.06/0.55 T3	I 040 PC 04		38	34	33	32	31	30	28	26	**24**	20	16	0.55	-	1.6	-
ISA 40.08/0.75 S2	I 040 PC 05		52	46	45	43	42	41	39	36	**32**	28	23	0.75	5.7	-	30
ISA 40.08/0.75 T3	I 040 PC 06		52	46	45	43	42	41	39	36	**32**	28	23	0.75	-	2.1	-
ISA 40.12/1.1 S2	I 040 PC 07		77	68	67	66	65	64	60	57	**51**	45	37	1.1	8.6	-	40
ISA 40.12/1.1 T3	I 040 PC 08		77	68	67	66	65	64	60	57	**51**	45	37	1.1	-	3	-
ISA 40.17/1.5 S2	I 040 PC 09		108	96	94	92	90	88	83	77	**70**	62	53	1.5	10.6	-	50
ISA 40.17/1.5 T3	I 040 PC 10		108	96	94	92	90	88	83	77	**70**	62	53	1.5	-	4	-
ISA 40.21/2.2 S2	I 040 PC 11		134	118	116	114	112	108	103	96	**87**	77	67	2.2	15.5	-	70
ISA 40.21/2.2 T3	I 040 PC 12		134	118	116	114	112	108	103	96	**87**	77	67	2.2	-	5.9	-
ISA 40.25/2.2 S2	I 040 PC 13		158	139	136	133	130	127	121	113	**103**	91	77	2.2	15.5	-	70
ISA 40.25/2.2 T3	I 040 PC 14		158	139	136	133	130	127	121	113	**103**	91	77	2.2	-	5.9	-
ISA 40.33/3 T3	I 040 PC 16		209	183	180	177	172	168	159	149	**137**	122	105	3	-	7.8	-
ISA 40.38/4 T3	I 040 PC 18		242	212	208	203	199	195	185	172	**158**	142	123	4	-	10	-
ISA 40.44/4 T3	I 040 PC 20		280	246	242	236	232	226	215	203	**186**	167	143	4	-	10	-

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Rated flow: 8.4 m³/h

Type	Product code	Flow rate in m³/h	0	2.4	2.7	3	3.6	4.2	4.8	5.4	6	7.2	**8.4**	9.6	10.8	kW Output	Current in A 1-ph 230V	Current in A 3-ph 400V	Capacitor 450V µ F
ISA 80.05/0.75 S2	I 080 PC 01	TMH in MHW[1]	30	27	26	26	25	25	24	23	23	22	**19**	15	11	0.75	5.7	-	30
ISA 80.05/0.75 T3	I 080 PC 02		30	27	26	26	25	25	24	23	23	22	**19**	15	11	0.75	-	2.1	-
ISA 80.07/1.1 S2	I 080 PC 03		41	39	39	38	37	36	35	34	33	32	**28**	23	18	1.1	8.6	-	40
ISA 80.07/1.1 T3	I 080 PC 04		41	39	39	38	37	36	35	34	33	32	**28**	23	18	1.1	-	3	-
ISA 80.10/1.5 S2	I 080 PC 05		58	53	52	51	50	49	48	47	46	43	**38**	32	25	1.5	10.6	-	50
ISA 80.10/1.5 T3	I 080 PC 06		58	53	52	51	50	49	48	47	46	43	**38**	32	25	1.5	-	4	-
ISA 80.12/2.2 S2	I 080 PC 07		71	65	64	63	61	60	58	57	55	52	**47**	40	32	2.2	15.5	-	70
ISA 80.12/2.2 T3	I 080 PC 08		71	65	64	63	61	60	58	57	55	52	**47**	40	32	2.2	-	5.9	-
ISA 80.15/2.2 S2	I 080 PC 09		88	81	80	78	77	74	72	70	68	64	**58**	49	38	2.2	15.5	-	70
ISA 80.15/2.2 T3	I 080 PC 10		88	81	80	78	77	74	72	70	68	64	**58**	49	38	2.2	-	5.9	-
ISA 80.18/3 T3	I 080 PC 12		105	97	96	95	93	91	88	86	85	80	**72**	60	47	3	-	7.8	-
ISA 80.21/4 T3	I 080 PC 14		122	114	113	111	108	105	102	100	98	93	**85**	72	55	4	-	10	-
ISA 80.25/4 T3	I 080 PC 16		144	133	131	129	126	122	119	116	114	108	**98**	84	63	4	-	10	-
ISA 80.30/5.5 T3	I 080 PC 18		174	162	160	158	153	149	145	142	139	132	**120**	102	78	5.5	-	13.7	-
ISA 80.37/5.5 T3	I 080 PC 20		215	198	196	194	188	183	177	173	169	160	**145**	122	93	5.5	-	13.7	-

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Rated flow: 12/15 m³/h

Type	Product code	Flow rate in m³/h	0	6	7.2	8.4	9.6	10.8	**12**	**15**	18	kW Output	Current in A 1-ph 230V	Current in A 3-ph 400V	Capacitor 450V µ F
ISA 140.05/1.5 S2	I 140 PC 03	TMH in MHW[1]	33	32	31	30	29	28	**26**	**22**	16	1.5	10.6	-	50
ISA 140.05/1.5 T3	I 140 PC 04		33	32	31	30	29	28	**26**	**22**	16	1.5	-	4	-
ISA 140.07/2.2 S2	I 140 PC 05		46	44	43	42	40	38	**37**	**30**	20	2.2	15.5	-	70
ISA 140.07/2.2 T3	I 140 PC 06		46	44	43	42	40	38	**37**	**30**	20	2.2	-	5.9	-
ISA 140.10/3 T3	I 140 PC 08		65	62	60	58	56	54	**52**	**42**	29	3	-	7.8	-
ISA 140.13/4 T3	I 140 PC 10		85	80	78	76	74	71	**68**	**56**	38	4	-	10	-
ISA 140.18/5.5 T3	I 140 PC 14		117	111	108	105	102	97	**93**	**77**	53	5.5	-	13.7	-

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

S2 motors: single-phase 230 V - T3 motors: 3-phase 400 V

CAUTION: S2 single-phase 4” electropumps must always be used in conjunction with a CP starter unit corresponding to the motor power and type.

4” (100 mm) stainless steel submersible pumps

Selection

Permissible cable characteristics and lengths at 50 Hz

50 Hz - 230 V single-phase motors - CP (Permanent Capacitor) version

Power	Voltage	Current		Cable section in mm²			
				1.5 mm²	2.5 mm²	4 mm²	6 mm²
kW	V	A	Relay type	Maximum permissible length in metres			
0.37	230	3.4	2.6 to 3.7	153	253	403	598
0.55	230	4.3	3.7 to 5.5	104	172	273	405
0.75	230	5.7	5.5 to 8	83	137	217	322
1.1	230	8.6	8 to 11.5	50	84	133	198
1.5	230	10.6	8 to 11.5	47	78	124	183
2.2	230	15.5	13 to 18	-	51	81	120

50 Hz - 400 V three-phase motors

Power	Voltage	Current		Cable section in mm²			
				1.5 mm²	2.5 mm²	4 mm²	6 mm²
kW	V	A	Relay type	Maximum permissible length in metres			
0,37	400	1.1	0.8 to 1.2	1,102	1,826	2,903	4,315
0.55	400	1.6	1.2 to 1.8	765	1,268	2,018	3,003
0.75	400	2.1	1.8 to 2.6	584	968	1,539	2,290
1.1	400	3	2.6 to 3.7	422	699	1,113	1,656
1.5	400	4	3.7 to 5.5	295	490	780	1,161
2.2	400	5.9	5.5 to 8	200	332	529	787
3	400	7.8	5.5 to 8	155	257	408	607
4	400	10	8 to 11.5	115	191	303	451
5.5	400	13.7	13 to 18	-	139	221	329

Starter units for 4” single-phase motors

Note
CP: Permanent Capacitor
with thermal/current protection

For CP single-phase motors

Motor power	Starter unit type
kW	CP
0.37	M 503 RE 01
0.55	M 505 RE 01
0.75	M 507 RE 01
1.1	M 511 RE 01
1.5	M 515 RE 01
2.2	M 522 RE 01

Connector with 4 x 1.5 mm² flat cable

Standard connector	
Length	Code
1.5 m	T 000 AE 82[1]
2.5 m	T 000 AE 83[2]
5 m	T 000 AE 84
15 m	T 000 AE 85
30 m	T 000 AE 86
50 m	T 000 AE 87

316 L stainless steel connector	
Length	Code
1.5 m	T 000 AE 88
2.5 m	T 000 AE 89

1. For motor with power ≤ 1.5 kW.
2. For motor with power ≥ 2.2 kW.

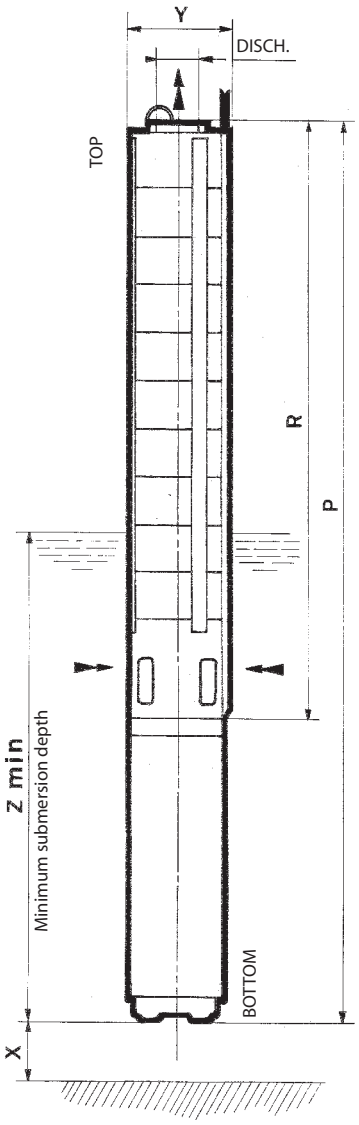
4” (100 mm) stainless steel submersible pumps

Dimensions

Dimensions of 4” submersible pumps

Dimensions in millimetres

	Pumps						Opening	Weight	
	P	P						kg	
Type	single	3-phase	R	X	Y	Z	Discharge	single	3-phase
ISA 15.09/0.37	585	566	343		98	640		11.5	10.2
ISA 15.13/0.55	698	669	427		98	670		13.7	11.9
ISA 15.18/0.75	831	803	532		98	700		16	14.1
ISA 15.23/1.1	964	936	637		98	725	1” 1/4 (33/42)	18.4	16.6
ISA 15.28/1.5	1098	1069	742		98	755		20.5	18.6
ISA 15.33/1.5	1203	1174	847		98	755		21.3	19.4
ISA 15.40/2.2	1490	1385	1029		98	860		28.1	23
ISA 15.48/2.2	1658	1553	1197		98	860		29.4	24.3
ISA 30.06/0.37	522	503	280		98	640		10.9	9.6
ISA 30.09/0.55	614	585	343		98	670		12.8	11
ISA 30.12/0.75	705	677	406		98	700		14.8	12.9
ISA 30.15/1.1	796	768	469		98	725		16.8	15
ISA 30.18/1.1	859	831	532		98	725		17.3	15.5
ISA 30.22/1.5	972	943	616		98	755	1”1/4 (33/42)	19.4	17.5
ISA 30.25/1.5	1035	1006	679		98	755		19.9	18
ISA 30.29/2.2	1224	1119	763		98	860		25.4	20.3
ISA 30.33/2.2	1308	1203	847		98	860		26.1	21
ISA 30.39/3	-	1416	993		98	930		-	25.7
ISA 30.45/3	-	1557	1134		98	930		-	26.7
ISA 30.52/4	-	1865	1281		98	980		-	35.4
ISA 40.04/0.37	480	461	238		98	640		10.7	9.4
ISA 40.06/0.55	551	522	280		98	670		12.5	10.7
ISA 40.08/0.75	621	593	322	1	98	700		14.1	12.2
ISA 40.12/1.1	733	705	406		98	725		16	14.2
ISA 40.17/1.5	867	838	511		98	755	1”1/2 (40/49)	18.3	16.4
ISA 40.21/2.2	1056	951	595		98	860		23.8	18.7
ISA 40.25/2.2	1140	1035	679		98	860		24.5	19.4
ISA 40.33/3	-	1270	847		98	930		-	23.8
ISA 40.38/4	-	1577	993		98	980		-	32.6
ISA 40.44/4	-	1682	1098		98	980		-	33.5
ISA 80.05/0.75	706	678	407		98	700		15.4	13.5
ISA 80.07/1.1	818	790	491		98	725		17.7	15.9
ISA 80.10/1.5	973	649	617		98	755		20.5	18.6
ISA 80.12/2.2	1162	1057	701		98	860		26.1	21
ISA 80.15/2.2	1288	1183	827		98	860		27.5	22.4
ISA 80.18/3	-	1376	953		98	930	2” (50/60)	-	26.7
ISA 80.21/4	-	1663	1079		98	980		-	35.6
ISA 80.25/4	-	1831	1247		98	980		-	38.7
ISA 80.30/5.5	-	2155	1457		98	1095		-	45.7
ISA 80.37/5.5	-	2449	1751		98	1095		-	54.7
ISA 140.05/1.5	862	833	506		98	755		19	17.1
ISA 140.07/2.2	1097	992	636		98	860		24.9	19.8
ISA 140.10/3	-	1254	831		98	930	2” (50/60)	-	24.9
ISA 140.13/4	-	1610	1026		98	980		-	33.9
ISA 140.18/5.5	-	2049	1351		98	1095		-	42.6



1. In a tube with a strainer, the motor must be installed above the strainer.
In a container, x = 150 mm minimum.

4” (100 mm) Motors

General information

Stainless steel 4 "FRANKLIN motors for driving submersible pumps in 4" (100 mm) and 6" (150 mm) bore holes and deep wells

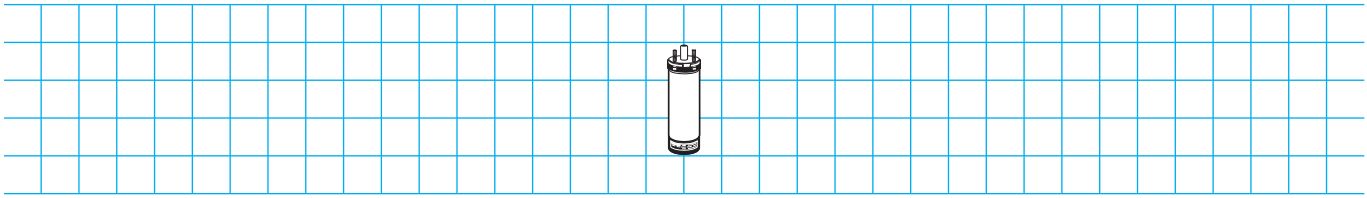
Applications
- Coupling with 4" hydraulic unit in accordance with NEMA MG1-18

Conditions of use
- For clear or aggressive water (according to manufacture)
- Maximum water temperature: 30°C
- 20 starts maximum per hour
- Operates while permanently submerged
- Electrical power supply:
  - Single phase 230 V + 6% –10% - 50 Hz
  - 3-phase 400 V + 6% –10% - 50 Hz
- Asynchronous 3,000 min^{-1}

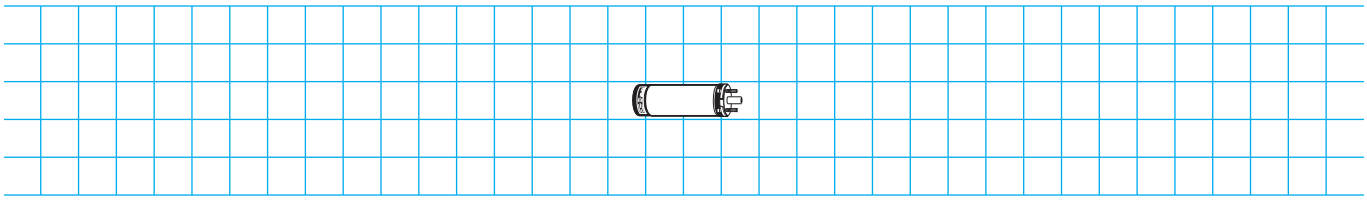
Description of 4” (100 mm) motors

Component		Materials	Remarks
Stator	Flanges	Stainless steel	
	Internal and external casings	X5 Cr Ni 18.10 (AISI 304) stainless steel	
	Resin	Special (epoxy)	- Coated stator providing: • Good heat diffusion • Total sealing • Mechanical strength • Electrical insulation
	Winding	Copper	Class B
Rotor		X8 Cr Ni S 18.9 stainless steel shaft extension	Splined shaft extension in accordance with NEMA MG 1.18
Upper bearing liner		Graphite	Lubricated by the rotor chamber water
Lower bearing liner		Graphite	Lubricated by the rotor chamber water
Axial limit stop		Graphite/stainless steel	- Bidirectional with KINGSBURY type oscillating pads - Maximum permissible axial load • 1,500 N for motor with power ≤ 0.75 kW • 3,000 N for motor with power of 1.1 kW and 1.5 kW • 4,000 N for motor with power of 2.2 kW and 3 kW • 6,000 N for motor with power ≥ 4 kW - Lubricated by the rotor chamber water
Base		X5 Cr Ni 18.10 (AISI 304) stainless steel	
Screws		X8 Cr Ni S 18.9 stainless steel	
Equipressure membrane		Buna N	
Seals		Buna N	
Limit stop support		Coated cast iron	
Connector		Brass + resin	Plug-in connector
Electrical cable		Special submersible elastomer	Flat, 4 conductors

Mounting positions



Standard position



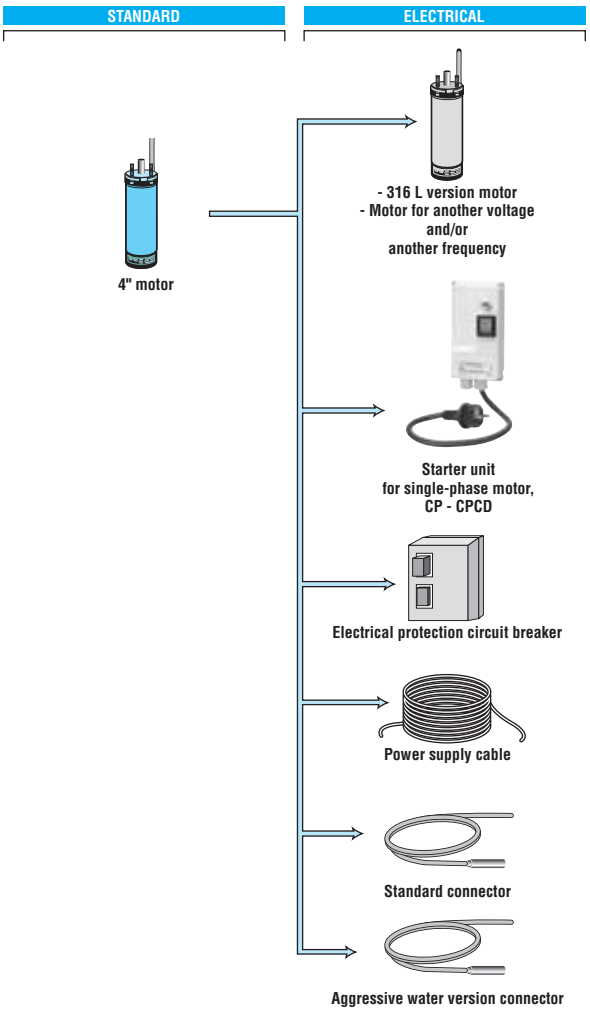
Horizontal position

4” (100 mm)
Motors

Adaptation possibilities

☞ ***Options:***

- electrical protection (circuit breaker)
- 316 L version motor
- motor for another voltage and/or frequency
- starter unit for CP or CPCD version single-phase motors
- power supply cable:
  - Flat or round, and with different cross-sections
  - Standard lengths or connected by junction
- standard connector
- aggressive water version connector



Designation / Coding

0.75	T3
Motor output power in kW	3-phase 400 V

☞ ***Example of coding:***

Designation	Code
0.75 T3	M 207 PC 01

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of power.

Selection

230 V + 6% –10% - 50 Hz single-phase motors

	Power	CPCD[1] standard version	CP[2] economical version
		Permanent capacitor + Starting capacitor	
Type	kW	Code	Code
0.37 S2	0.37	M 303 PC 02	M 403 PC 03
0.55 S2	0.55	M 305 PC 02	M 405 PC 03
0.75 S2	0.75	M 307 PC 02	M 407 PC 03
1.1 S2	1.1	M 311 PC 02	M 411 PC 03
1.5 S2	1.5	M 315 PC 02	M 415 PC 03
2.2 S2	2.2	M 322 PC 02	M 422 PC 03

Single-phase motors are supplied without a starter unit and without a plug-in connector.

1. CPCD: Permanent Capacitor plus Starting Capacitor and relay.
2. CP: Permanent Capacitor with thermal/current protection.

Starter units for single-phase motors

For CPCD[1] version standard motor only

	Power	
Type	kW	Code
0.37 CPCD	0.37	M 303 RE 02
0.55 CPCD	0.55	M 305 RE 02
0.75 CPCD	0.75	M 307 RE 02
1.1 CPCD	1.1	M 311 RE 02
1.5 CPCD	1.5	M 315 RE 02
2.2 CPCD	2.2	M 322 RE02

1. CPCD: Permanent Capacitor plus Starting Capacitor and relay.

For CP[1] version economical motor only

	Power	
Type	kW	Code
0.37 CP	0.37	M 503 RE 01
0.55 CP	0.55	M 505 RE 01
0.75 CP	0.75	M 507 RE 01
1.1 CP	1.1	M 511 RE 01
1.5 CP	1.5	M 515 RE 01
2.2 CP	2.2	M 522 RE 01

1. CP: Permanent Capacitor with thermal/current protection.

400 V + 6% –10% - 50 Hz three-phase motors

	Power	
Type	kW	Code
0.37 T3	0.37	M203 PC 01
0.55 T3	0.55	M 205 PC 01
0.75 T3	0.75	M 207 PC 01
1.1 T3	1.1	M 211 PC 01
1.5 T3	1.5	M 215 PC 01
2.2 T3	2.2	M 222 PC 01
3 T3	3	M 230 PC 01
4 T3	4	M 240 PC 01
5.5 T3	5.5	M 255 PC 01

3-phase motors are supplied without a plug-in connector.

- S2 motors: single-phase 230 V.
- T3 motors: 3-phase 400 V.

Selection

Electrical connectors for 4” motors

3-phase (T3) and single-phase (S2) motors

Type		Code
	L =1.5 m	T 000 AE 82
	L =2.5 m	T 000 AE 83
Standard connector	L = 5 m	T 000 AE 84
- 4 x 1.5 mm^2 flat cable	L = 15 m	T 000 AE 85
	L = 30 m	T 000 AE 86
	L = 50 m	T 000 AE 87
316 L stainless steel connector	L = 1.5 m	T 000 AE 88
- 4 x 1.5 mm^2 flat cable	L = 2.5 m	T 000 AE 89

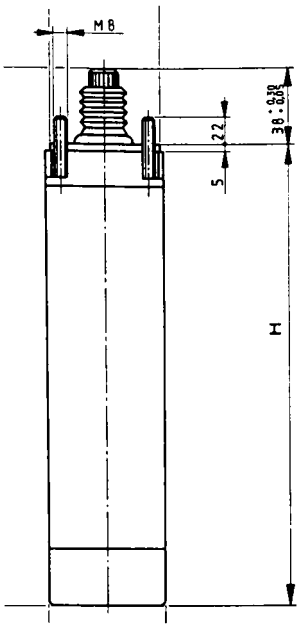
- Connector of length 1.5 m for motor with power ≤ 1.5 kW.
- Connector of length 2.5 m for motor with power ≥ 2.2 kW.
- Connectors of other lengths for motors of any power.

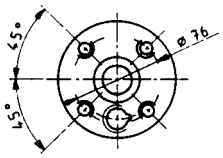
4” (100 mm)
Motors

Dimensions

Dimensions of 4” motors

Dimensions in millimetres





Type	CP single-phase only 230 V - 50 Hz		CPCD single-phase 230 V - 50 Hz		3-phase 400 V - 50 Hz	
	H	Weight kg	H	Weight kg	H	Weight kg
0.37 S2/T3	242	8.4	242	7.9	223	7.1
0.55 S2/T3	271	9.7	271	9.1	242	7.9
0.75 S2/T3	299	11.1	299	10.6	271	9.2
1.1 S2/T3	327	12.4	356	13.2	299	10.6
1.5 S2/T3	356	13.7	384	14.2	327	11.8
2.2 S2/T3	461	18.3	461	17.7	356	13.2
3 T3	-	-	-	-	423	16.2
4 T3	-	-	-	-	584	23.2
5.5 T3	-	-	-	-	698	28.5

4” (100 mm)
Hydraulic units

General information

4"submersible hydraulic units for 4" (100 mm) bore holes and deep wells

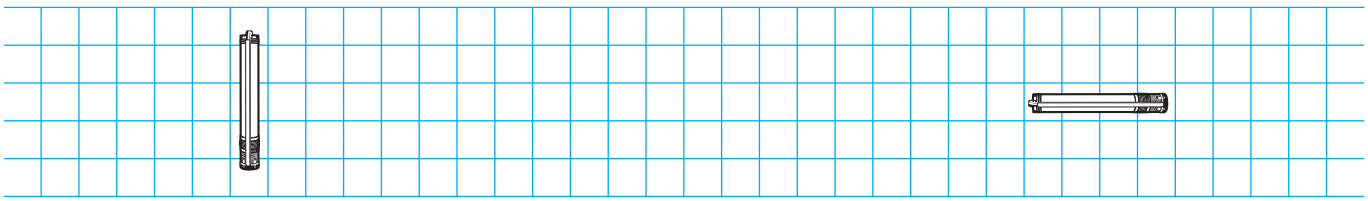
Applications
- Coupling with 4" motor in accordance with NEMA MG1-18

Conditions of use
- For clear or very slightly contaminated water (maximum sand content: 50 g/m^3)
- Maximum water temperature: 30°C
- Maximum operating pressure (at discharge): 20 bar

Description of 4” (100 mm) hydraulic units

Component	Materials	Remarks
Suction body	Synthetic material	
Discharge body, tube	X2 Cr Ni 18.10 (AISI 304 L) stainless steel	Slinging eyes incorporated in the discharge body
Impellers	Synthetic material	
Diffusers and cover plates	Synthetic material	X2 Cr Ni 18.10 (AISI 304 L) stainless steel rings crimped onto water seals
Spacers (shells)	X2 Cr Ni 18.10 (AISI 304 L) stainless steel	
Shaft	X33 Cr 13 stainless steel	
Bearing	X2 Cr Ni Mo 17.12.2 (AISI 316 L) stainless steel on elastomer (nitrile)	
Valve	Synthetic material	With return spring to reduce the risk of water hammer
Strainer	X2 Cr Ni 18.10 (AISI 304 L) stainless steel	
Coupling sleeve	X2 Cr Ni Mo 17.12.2 (AISI 316 L) stainless steel	In accordance with NEMA MG-1-18

Mounting positions



Standard position

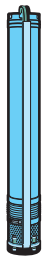
Horizontal position

4” (100 mm)
Hydraulic units

B

Adaptation possibilities

STANDARD



4" hydraulic unit

Designation / Coding

RA	15	B
Designation of the series	Number of hydraulic stages	Manufacturing index

☞ ***Example of coding:***

Designation	Code
RA 15 B	I 215 HD 10

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

4” (100 mm)
Hydraulic units

Selection

Type	Code
PA 5 B	I 105 HD 10
PA 7 B	I 107 HD 10
PA 9 B	I 109 HD 10
PA 13 B	I 113 HD 10
PA 17 B	I 117 HD 10
PA 20 B	I 120 HD 10
PA 24 B	I 124 HD 10
PA 33 B	I 133 HD 10
RA 5 B	I 205 HD 10
RA 7 B	I 207 HD 10
RA 10 B	I 210 HD 10
RA 15 B	I 215 HD 10
RA 20 B	I 220 HD 10
RA 25 B	I 225 HD 10
RA 30 B	I 230 HD 10
TA 6 B	I 306 HD 10
TA 8 B	I 308 HD 10
TA 13 B	I 313 HD 10
TA 17 B	I 317 HD 10
TA 24 B	I 324 HD 10

For the hydraulic characteristics, refer to the selection chart for 4” submersible pumps.

4” (100 mm)
Hydraulic units

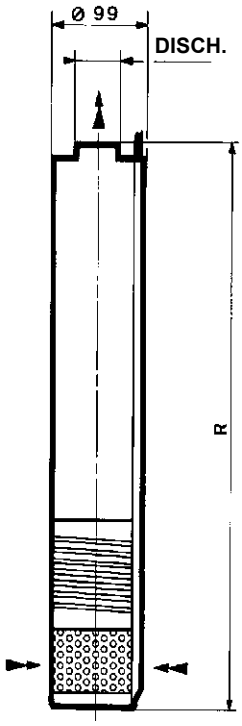
Dimensions

Dimensions of 4” hydraulic units

Dimensions in millimetres

B

Type	Pumps R	Opening Discharge	Weight kg
PA 5 B	398	1”1/4 F (33/42)	2.3
PA 7 B	449		2.7
PA 9 B	501		3.1
PA 13 B	605		3.9
PA 17 B	708		4.7
PA 20 B	786		5.3
PA 24 B	890		6.1
PA 33 B	1,169		7.9
RA 5 B	454	1”1/4 F (33/42)	2.7
RA 7 B	527		3.2
RA 10 B	636		4
RA 15 B	818		5.3
RA 20 B	1,050		7
RA 25 B	1,232		8.3
RA 30 B	1,414		9.6
TA 6 B	603	2” F (50/60)	3.4
TA 8 B	707		4
TA 13 B	969		5.7
TA 17 B	1,244		6.4
TA 24 B	1,675		9.7



4” (100 mm) stainless steel hydraulic units

General information

4" submersible hydraulic units for 4"(100 mm) bore holes and deep wells constructed entirely of stainless steel. These hydraulic units must be fitted with a 4" submersible motor of suitable power.

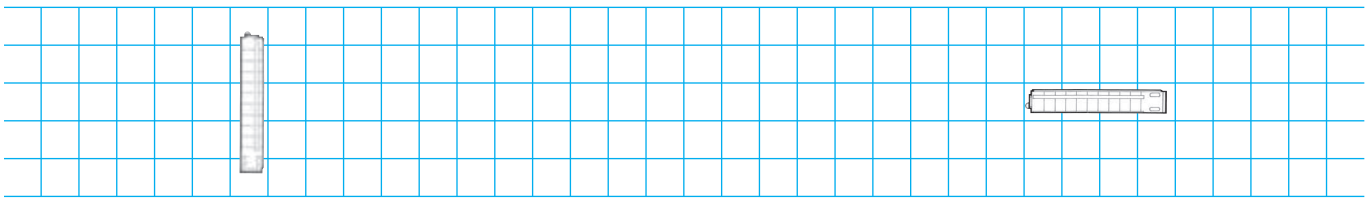
Applications
- Coupling with 4" motor in accordance with NEMA MG1-18

Conditions of use
- For clear or very slightly contaminated water (maximum sand content: 50 g/m^3)
- Maximum water temperature: 30°C
- Maximum operating pressure (at discharge): 33 bar

Description of 4” (100 mm) stainless steel hydraulic units

Component	Materials	Remarks
Suction body	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Discharge body	X5 Cr Ni 18.10 (AISI 304) stainless steel	With built-in slinging eyes
Impellers	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Stage body and diffusers	X5 Cr Ni 18.10 (AISI 304) stainless steel	With elastomer rings at the water seals
Shaft	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Bearing	X5 Cr Ni 18.10 (AISI 304) stainless steel on elastomer	
Valve	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Strainer	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Coupling sleeve	X5 Cr Ni 18.10 (AISI 304) stainless steel	In accordance with NEMA MG-1-18

Mounting positions



Standard position

Horizontal position

4” (100 mm) stainless steel hydraulic units

Adaptation possibilities

STANDARD

Hydraulique 4"

Designation / Coding

ISA	30	12
Designation of the series	Rated power of the pump multiplied by 10	Number of hydraulic stages

☞ ***Example of coding:***

Designation	Code
ISA 30.12	I 712 HD 10

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

4” (100 mm) stainless steel hydraulic units

Selection

Type	Code
ISA 15.09	I 609 HD 10
ISA 15.13	I 613 HD 10
ISA 15.18	I 618 HD 10
ISA 15.23	I 623 HD 10
ISA 15.28	I 628 HD 10
ISA 15.33	I 633 HD 10
ISA 15.40	I 640 HD 10
ISA 15.48	I 648 HD 10
ISA 30.06	I 706 HD 10
ISA 30.09	I 709 HD 10
ISA 30.12	I 712 HD 10
ISA 30.15	I 715 HD 10
ISA 30.18	I 718 HD 10
ISA 30.22	I 722 HD 10
ISA 30.25	I 725 HD 10
ISA 30.29	I 729 HD 10
ISA 30.33	I 733 HD 10
ISA 30.39	I 739 HD 10
ISA 30.45	I 745 HD 10
ISA 30.52	I 752 HD 10
ISA 40.04	I 804 HD 10
ISA 40.06	I 806 HD 10
ISA 40.08	I 808 HD 10
ISA 40.12	I 812 HD 10
ISA 40.17	I 817 HD 10
ISA 40.21	I 821 HD 10
ISA 40.25	I 825 HD 10
ISA 40.33	I 833 HD 10
ISA 40.38	I 838 HD 10
ISA 40.44	I 844 HD 10
ISA 80.05	I 905 HD 10
ISA 80.07	I 907 HD 10
ISA 80.10	I 910 HD 10
ISA 80.12	I 912 HD 10
ISA 80.15	I 915 HD 10
ISA 80.18	I 918 HD 10
ISA 80.21	I 921 HD 10
ISA 80.25	I 925 HD 10
ISA 80.30	I 930 HD 10
ISA 80.37	I 937 HD 10
ISA 140.05	I 014 HD 05
ISA 140.07	I 014 HD 07
ISA 140.10	I 014 HD 10
ISA 140.13	I 014 HD 13
ISA 140.18	I 014 HD 18

For the hydraulic characteristics, refer to the selection chart for 4” stainless steel submersible pumps.

4” (100 mm) stainless steel hydraulic units

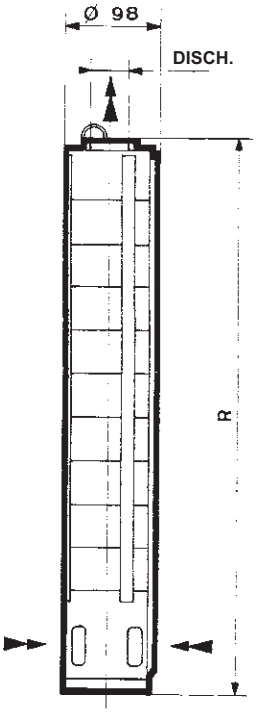
Dimensions

Dimensions of 4” hydraulic units

Dimensions in millimetres

B

Type	Pumps R	Opening Discharge	Weight kg
ISA 15 09	343	1”1/4 F (33/42)	3.1
ISA 15 13	427		4
ISA 15 18	532		4.9
ISA 15 23	637		6
ISA 15 28	742		6.8
ISA 15 33	847		7.6
ISA 15 40	1029		9.8
ISA 15 48	1197		11.1
ISA 30 06	280	1”1/4 F (33/42)	2.5
ISA 30 09	343		3.1
ISA 30 12	406		3.7
ISA 30 15	469		4.4
ISA 30 18	532		4.9
ISA 30 22	616		5.7
ISA 30 25	679		6.2
ISA 30 29	763		7.1
ISA 30 33	847		7.8
ISA 30 39	993		9.5
ISA 30 45	1134		10.5
ISA 30 52	1281		12.2
ISA 40 04	238	1”1/2 F (40/49)	2.3
ISA 40 06	280		2.8
ISA 40 08	322		3
ISA 40 12	406		3.6
ISA 40 17	511		4.6
ISA 40 21	595		5.5
ISA 40 25	679		6.2
ISA 40 33	847		7.6
ISA 40 38	993		9.4
ISA 40 44	1098		10.3
ISA 80 05	407	2” F (50/60)	4.3
ISA 80 07	491		5.3
ISA 80 10	617		6.8
ISA 80 12	701		7.8
ISA 80 15	827		9.2
ISA 80 18	953		10.5
ISA 80 21	1079		12.4
ISA 80 25	1247		15.5
ISA 80 30	1457		17.2
ISA 80 37	1751		26.2
ISA 140 05	506	2” F (50/60)	5.3
ISA 140 07	636		6.6
ISA 140 10	831		8.7
ISA 140 13	1026		10.7
ISA 140 18	1351		14.1



6” (150 mm)
Submersible pumps

General information

Submersible pumps for 6" (150 mm) bore holes and deep wells

Applications
- All types of watering by:
  - Spraying
  - Irrigation
- Distribution for:
  - Agricultural use
  - Domestic installations
- Industry
- Water supply

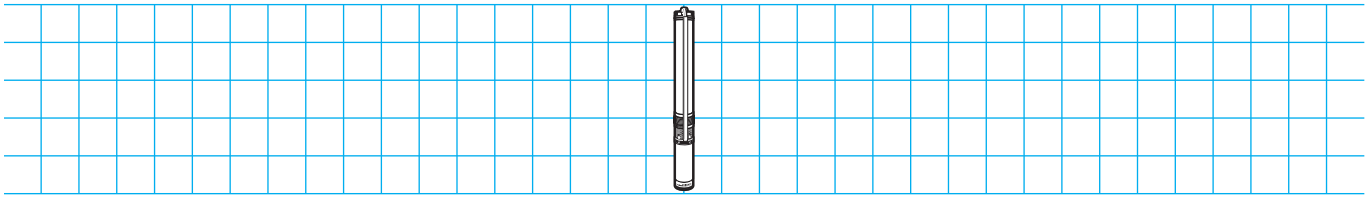
Conditions of use
- For clear or very slightly contaminated water (maximum sand content: 50 g/m^3)
- Maximum temperature of pumped liquid: 20°C to 40°C according to the speed of water circulation around the motor (please consult Leroy-Somer).
- 15 starts maximum per hour
- Operates while permanently submerged
- Maximum operating pressure (at discharge): 45 bar
- Motor electrical power supply:
  - 3-phase 400 V ± 10% - 50 Hz for 6"
  - 3-phase 400 V + 6% –10% - 50 Hz for 4"

Description of 6” (150 mm) submersible pumps

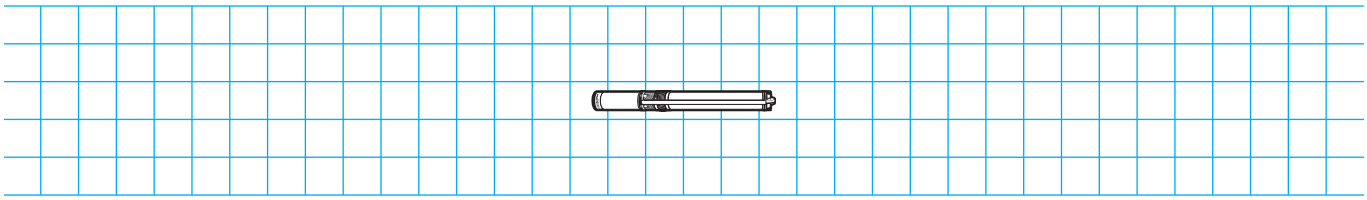
Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- 4” motor up to 5.5 kW inclusive - 6” motors for higher powers - 3-phase 400 V ± 10% - 50 Hz for 6”; 3-phase 400 V + 6% –10% - 50 Hz for 4” - Class F - S1 duty - Resin-coated "dry" type winding enclosed in a stainless steel casing - Bearings lubricated by the motor filling water - Power supply cable connected directly to the motor by a plug-in connector - Axial thrust of the hydraulic unit counterbalanced by the motor limit stop - Motor/hydraulic unit coupling in accordance with NEMA MG-1-18
Suction body	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Discharge body, tube	X5 Cr Ni 18.10 (AISI 304) stainless steel	Slinging eyes incorporated in the discharge body
Impellers	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Diffusers and cover plates	X5 Cr Ni 18.10 (AISI 304) stainless steel	Elastomer (nitrile) rings at the water seals
Stage body	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Shaft	X33 Cr 13 stainless steel	
Bearing	X5 Cr Ni 18.10 (AISI 304) stainless steel and elastomer (nitrile)	
Valve	X5 Cr Ni 18.10 (AISI 304) stainless steel on elastomer (nitrile)	
Strainer	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Coupling sleeve	X33 Cr 13 stainless steel	In accordance with NEMA MG-1-18
Connector		- 4 x 1.5 mm^2 cable, length 2.5 m, for motors with power ≤ 5.5 kW - 4 x 4 mm^2 cable, length 4 m, for motors with power between 7.5 kW and 22 kW inclusive - 4 x 8.4 mm^2 cable, length 4 m, for motors with power ≥ 30 kW

6” (150 mm)
Submersible pumps

Mounting positions



Vertical position



Horizontal position (please consult Leroy-Somer)

6” (150 mm)
Submersible pumps

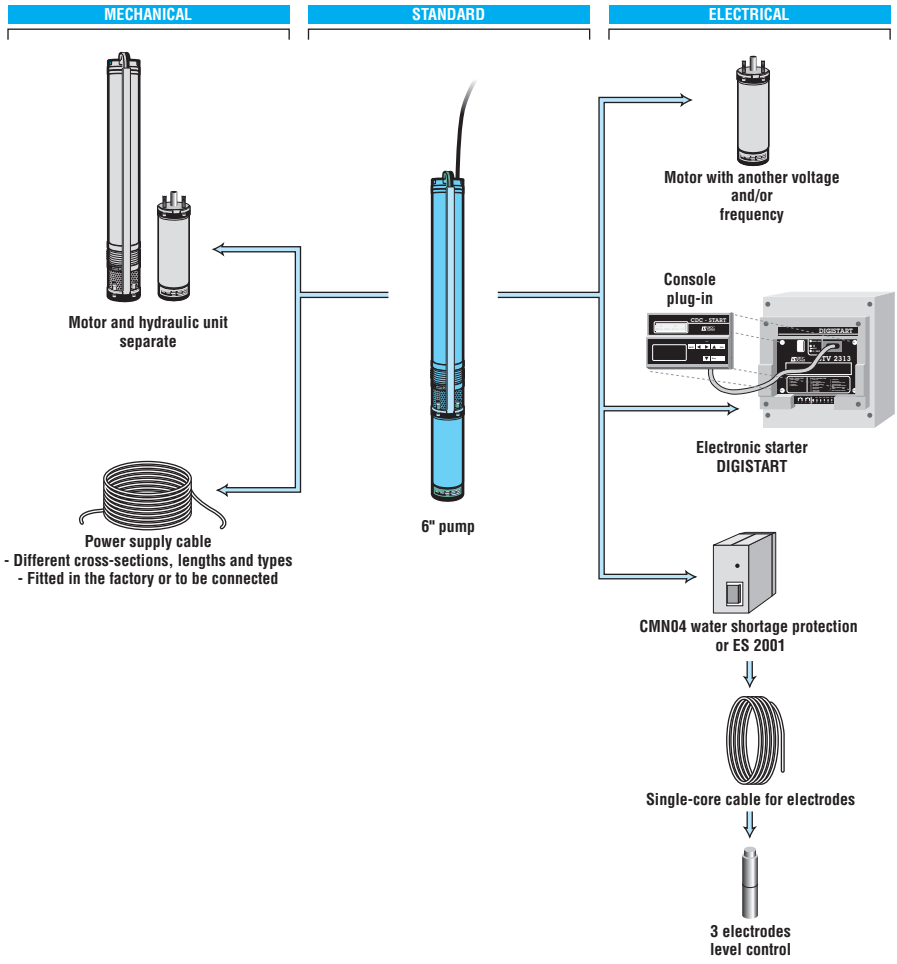
Adaptation possibilities

☞ ***6” pumps can be used in conjunction with:***

- a DIGISTART electronic starter

☞ ***Options:***

- CMN 04 or ES 2001 water shortage protection
  - Level electrode
  - Single-core cable for electrode
- motor or hydraulic unit only
- motor with another voltage and/or frequency
- aggressive water version motor
- round power supply cable of different cross-sections connected or not by junction



Designation / Coding

A	6	13	21	11
Designation of the series	Diameter of the pump in inches	Rated flow of the pump	Number of hydraulic stages	Motor rated power in kW

☞ ***Example of coding:***

Designation	Code
A 6-13-21/11	POM 000 05

All the products in this catalogue have a code.
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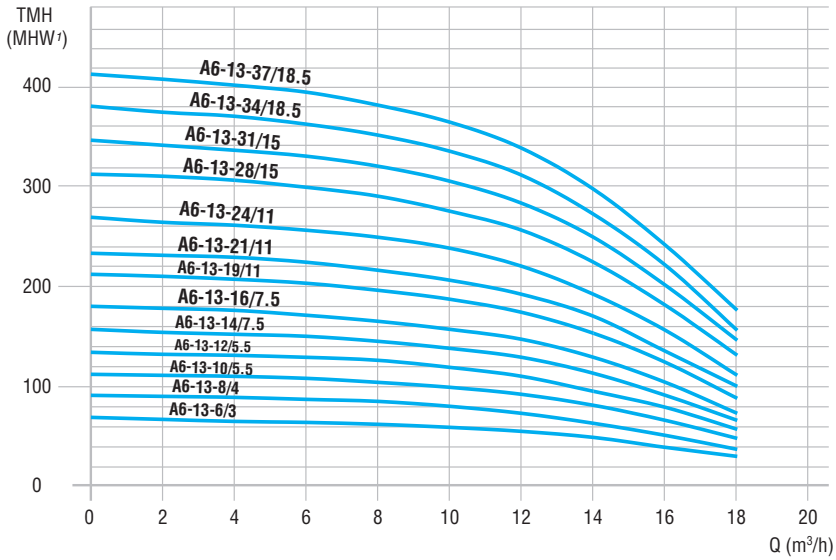
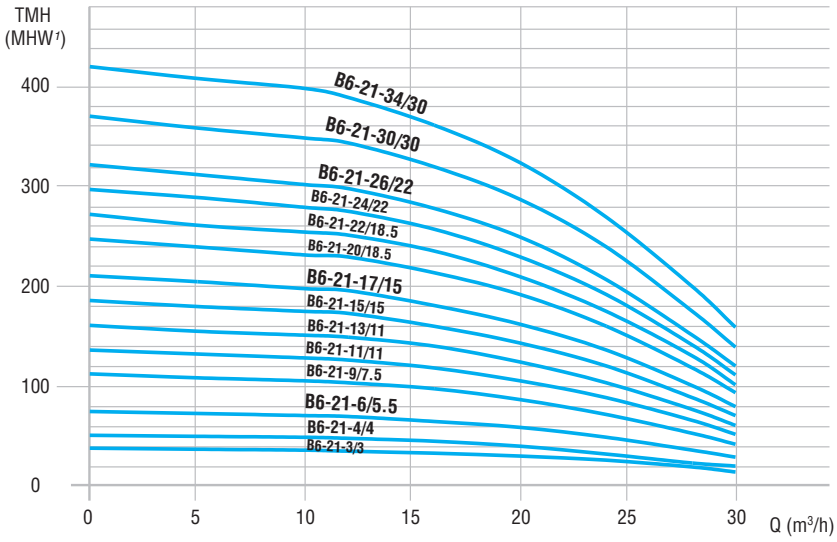
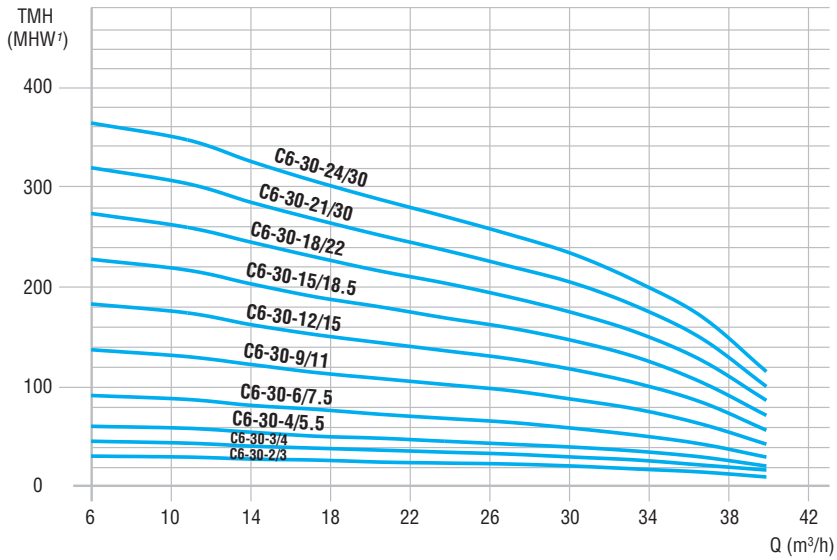
Each product is classified in order of hydraulic characteristics.

6” (150 mm)
Submersible pumps

Selection







6” (150 mm)
Submersible pumps

Selection

Rated flow: 13 m³/h

Type	Product code	Flow rate in m³/h	0	2	4	6	8	10	**12**	**14**	16	kW Output	Current in A 3-ph 400 V	Id/In
A6-13-6/3	POM 001 01	TMH in MHW[1]	68	66	64	63	61	58	**54**	**48**	38	3	7.8	5.3
A6-13-8/4	POM 001 02		90	89	88	85	81	79	**72**	**62**	50	4	10	5.8
A6-13-10/5.5	POM 000 67		111	110	109	107	103	98	**91**	**80**	65	5.5	13.7	5.5
A6-13-12/5.5	POM 001 03		133	131	130	128	123	118	**109**	**94**	78	5.5	13.7	5.5
A6-13-14/7.5	POM 000 68		156	153	151	149	144	137	**128**	**112**	90	7.5	16	5.1
A6-13-16/7.5	POM 000 04		179	176	172	170	164	156	**146**	**128**	103	7.5	16	5.1
A6-13-19/11	POM 000 69		211	209	206	202	195	186	**173**	**152**	123	11	23.3	5.25
A6-13-21/11	POM 000 05		232	230	228	223	215	205	**191**	**169**	134	11	23.3	5.25
A6-13-24/11	POM 000 06		268	263	260	255	246	232	**219**	**191**	155	11	23.3	5.25
A6-13-28/15	POM 000 07		311	309	303	298	289	274	**255**	**223**	180	15	31.3	5.12
A6-13-31/15	POM 000 08		345	340	335	329	319	302	**282**	**248**	200	15	31.3	5.12
A6-13-34/18.5	POM 000 09		379	373	369	361	350	332	**310**	**271**	220	18.5	38.5	5.5
A6-13-37/18.5	POM 000 10		411	406	400	393	380	361	**337**	**296**	240	18.5	38.5	5.5

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Rated flow: 21 m³/h

Type	Product code	Flow rate in m³/h	0	12	16	**20**	24	28	30	kW Output	Current in A 3-ph 400 V	Id/In
B6-21-3/3	POM 001 11	TMH in MHW[1]	37	34	31	**29**	23	18	13	3	7.8	5.3
B6-21-4/4	POM 001 12		50	47	44	**39**	31	22	19	4	10	5.8
B6-21-6/5.5	POM 001 13		74	69	64	**58**	48	35	28	5.5	13.7	5.5
B6-21-9/7.5	POM 000 14		112	103	97	**86**	71	52	41	7.5	16	5.1
B6-21-11/11	POM 000 70		136	126	118	**105**	88	65	51	11	23.3	5.25
B6-21-13/11	POM 000 15		161	149	140	**124**	103	76	60	11	23.3	5.25
B6-21-15/15	POM 000 71		186	173	160	**143**	120	88	70	15	31.3	5.12
B6-21-17/15	POM 000 16		211	196	181	**162**	136	100	79	15	31.3	5.12
B6-21-20/18.5	POM 000 72		248	230	214	**192**	160	118	93	18.5	38.5	5.5
B6-21-22/18.5	POM 000 17		273	252	236	**210**	175	130	101	18.5	38.5	5.5
B6-21-24/22	POM 000 73		298	276	258	**230**	192	141	111	22	45.3	5.42
B6-21-26/22	POM 000 18		323	299	279	**250**	207	151	120	22	45.3	5.42
B6-21-30/30	POM 000 19		372	345	321	**288**	240	175	139	30	61.8	5.82
B6-21-34/30	POM 000 20		422	391	363	**325**	270	200	158	30	61.8	5.82

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

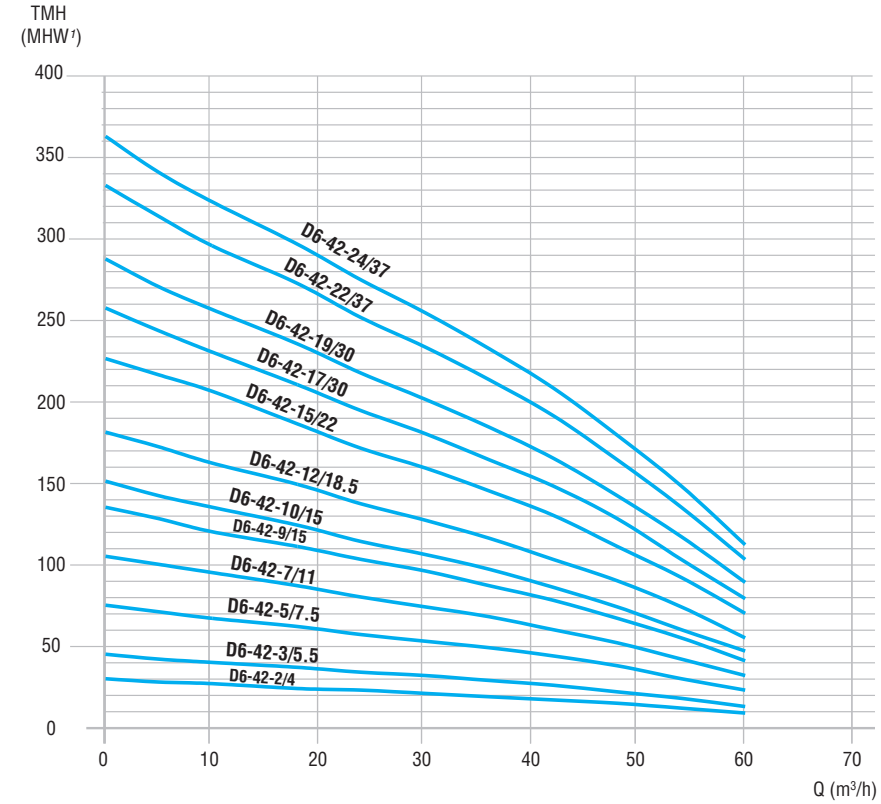
Rated flow: 30 m³/h

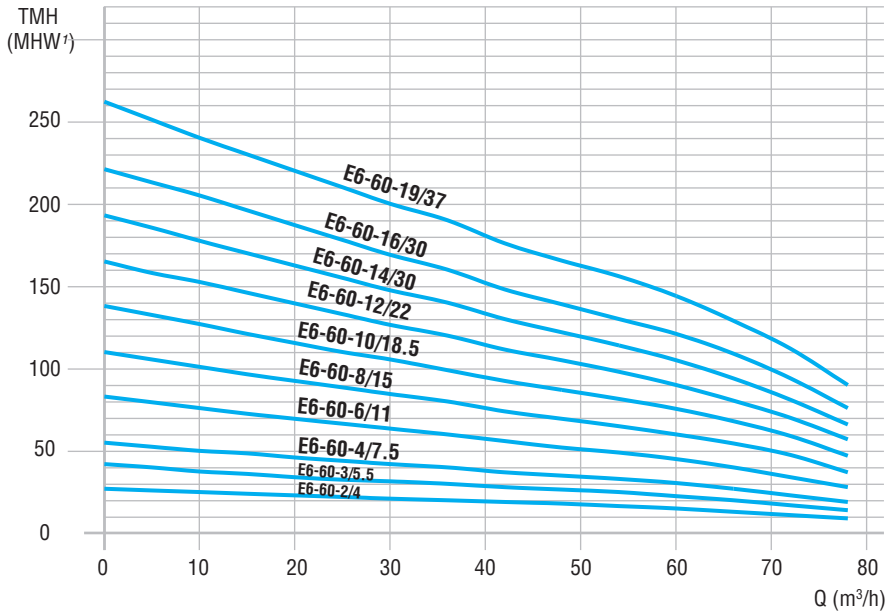
Type	Product code	Flow rate in m³/h	0	6	10	14	18	22	26	**30**	34	38	42	kW Output	Current in A 3-ph 400 V	Id/In
C6-30-2/3	POM 001 21	TMH in MHW[1]	30	29	27	26	23	22	21	**20**	17	14	9	3	7.8	5.3
C6-30-3/4	POM 001 22		45	43	40	38	36	34	31	**29**	26	21	16	4	10	5.8
C6-30-4/5.5	POM 001 23		60	58	54	50	48	45	42	**39**	34	29	20	5.5	13.7	5.5
C6-30-6/7.5	POM 000 24		91	87	81	77	72	68	64	**58**	51	42	29	7.5	16	5.1
C6-30-9/11	POM 000 25		137	130	122	114	108	101	96	**87**	77	62	42	11	23.3	5.25
C6-30-12/15	POM 000 26		183	174	162	152	144	136	128	**117**	103	84	56	15	31.3	5.12
C6-30-15/18.5	POM 000 27		228	217	203	190	180	169	159	**146**	129	104	71	18.5	38.5	5.5
C6-30-18/22	POM 000 28		274	260	245	230	216	204	190	**174**	154	126	86	22	45.3	5.42
C6-30-21/30	POM 000 29		320	304	285	268	252	237	221	**204**	180	148	100	30	61.8	5.82
C6-30-24/30	POM 000 30		365	348	326	306	288	271	253	**233**	205	170	115	30	61.8	5.82

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

6” (150 mm)
Submersible pumps

Selection





6” (150 mm)
Submersible pumps

Selection

Rated flow: 42 m³/h

Type	Product code	Flow rate in m³/h	0	18	24	30	36	**42**	48	54	60	kW Output	Current in A 3-ph 400 V	Id/In
D6-42-2/4	POM 001 31	TMH in MHW[1]	30	24	23	21	19	**18**	15	12	9	4	10	5.8
D6-42-3/5.5	POM 001 32		45	37	34	31	29	**26**	22	18	13	5.5	13.7	5.5
D6-42-5/7.5	POM 000 33		75	62	57	53	49	**43**	38	30	23	7.5	16	5.1
D6-42-7/11	POM 000 34		105	87	80	74	68	**60**	52	42	32	11	23.3	5.25
D6-42-9/15	POM 000 35		135	111	103	96	87	**78**	67	55	41	15	31.3	5.12
D6-42-10/15	POM 000 36		151	124	114	106	97	**86**	75	60	47	15	31.3	5.12
D6-42-12/18.5	POM 000 37		181	149	137	127	116	**103**	90	74	55	18.5	38.5	5.5
D6-42-15/22	POM 000 38		226	186	171	159	145	**130**	111	92	70	22	45.3	5.42
D6-42-17/30	POM 000 39		257	210	194	180	164	**148**	128	103	79	30	61.8	5.82
D6-42-19/30	POM 000 40		287	235	217	201	184	**165**	142	117	89	30	61.8	5.82
D6-42-22/37	POM 000 74		332	272	251	233	213	**191**	164	135	103	37	73	5.60
D6-42-24/37	POM 000 75		362	296	274	254	232	**208**	179	148	112	37	73	5.60

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Rated flow: 60 m³/h

Type	Product code	Flow rate in m³/h	0	36	42	48	54	**60**	66	72	78	kW Output	Current in A 3-ph 400 V	Id/In
E6-60-2/4	POM 001 41	TMH in MHW[1]	27	20	19	17	16	**15**	13	11	9	4	10	5.8
E6-60-3/5.5	POM 001 42		42	30	28	26	24	**23**	20	17	14	5.5	13.7	5.5
E6-60-4/7.5	POM 000 43		55	40	37	35	32	**30**	28	23	19	7.5	16	5.1
E6-60-6/11	POM 000 44		83	60	55	52	49	**46**	40	34	28	11	23.3	5.25
E6-60-8/15	POM 000 45		110	80	73	70	65	**61**	53	48	37	15	31.3	5.12
E6-60-10/18.5	POM 000 46		138	100	92	87	81	**76**	68	59	47	18.5	38.5	5.5
E6-60-12/22	POM 000 47		165	120	110	104	98	**91**	80	70	57	22	45.3	5.42
E6-60-14/30	POM 000 48		193	140	130	122	114	**106**	94	81	66	30	61.8	5.82
E6-60-16/30	POM 000 49		221	160	148	139	130	**121**	109	94	76	30	61.8	5.82
E6-60-19/37	POM 000 76		262	190	176	165	156	**144**	129	112	90	37	73	5.60

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

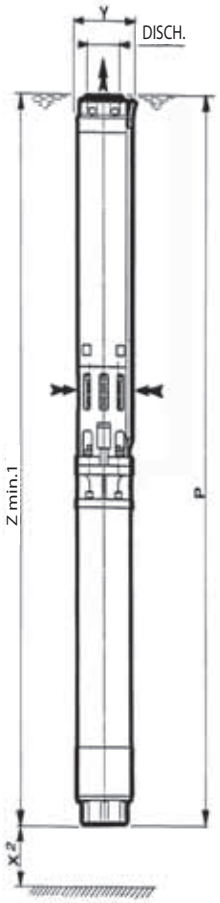
6” (150 mm)
Submersible pumps

Dimensions

Dimensions of 6” submersible pumps

Dimensions in millimetres

Type	Pumps P	Pumps Ø Y	Opening Discharge	Weight kg
A6-13-6/3	1,195	138.5		35
A6-13-8/4	1,311	138.5		40
A6-13-10/5.5	1,542	138.5		48
A6-13-12/5.5	1,619	138.5		50
A6-13-14/7.5	1,644	144		65
A6-13-16/7.5	1,722	144		66
A6-13-19/11	1,905	144	2”1/2 F (66/76)	77
A6-13-21/11	1,983	144		78
A6-13-24/11	2,099	144		82
A6-13-28/15	2,320	144		92
A6-13-31/15	2,438	144		95
A6-13-34/18.5	2,620	144		105
B6-13-37/18.5	2,738	144		108
B6-21-3/3	1,094	138.5		32
B6-21-4/4	1,177	138.5		36
B6-21-6/5.5	1,418	138.5		44
B6-21-9/7.5	1,500	144		59
B6-21-11/11	1,654	144		69
B6-21-13/11	1,743	144		71
B6-21-15/15	1,896	144	2”1/2 F	80
B6-21-17/15	1,984	144	(66/76)	82
B6-21-20/18.5	2,185	144		92
B6-21-22/18.5	2,274	144		94
B6-21-24/22	2,428	144		102
B6-21-26/22	2,517	144		105
B6-21-30/30	2,825	144		122
B6-21-34/30	3,003	144		126
C6-30-2/3	1,211	138.5		33
C6-30-3/4	1,361	138.5		38
C6-30-4/5.5	1,625	138.5		47
C6-30-6/7.5	1,797	144		64
C6-30-9/11	2,198	144	3” F	80
C6-30-12/15	2,599	144	(80/90)	94
C6-30-15/18.5	3,001	144		108
C6-30-18/22	3,402	144		121
C6-30-21/30	3,868	144		142
C6-30-24/30	4,204	144		149
D6-42-2/4	1,249	138.5		36
D6-42-3/5.5	1,513	138.5		45
D6-42-5/7.5	1,685	144		62
D6-42-7/11	1,974	144		74
D6-42-9/15	2,263	144		86
D6-42-10/15	2,375	144	3” F	89
D6-42-12/18.5	2,665	144	(80/90)	100
D6-42-15/22	3,066	144		114
D6-42-17/30	3,420	144		132
D6-42-19/30	3,644	144		137
D6-42-22/37	4,358	144		180
D6-42-24/37	4,582	144		180
E6-60-2/4	1,249	138.5		67
E6-60-3/5.5	1,513	138.5		77
E6-60-4/7.5	1,573	144		91
E6-60-6/11	1,862	144		103
E6-60-8/15	2,151	144	3” F	125
E6-60-10/18.5	2,441	144	(80/90)	142
E6-60-12/22	2,730	144		158
E6-60-14/30	3,084	144		165
E6-60-16/30	3,308	144		192
E6-60-19/37	4,022	144		198



1. Z = dimension P minimum
2. X = 1 metre minimum
In a tube with a strainer, the motor must be installed above the strainer.

6” (150 mm)
Hydraulic units

General information

Submersible hydraulic units, constructed entirely of stainless steel, for 6" (150 mm) bore holes and deep wells.

Applications
- Coupling with 4" motors in accordance with NEMA MG1-18, for powers up to 5.5 kW inclusive.
- Coupling with 6" motors in accordance with NEMA MG1-18, for powers higher than 5.5 kW.

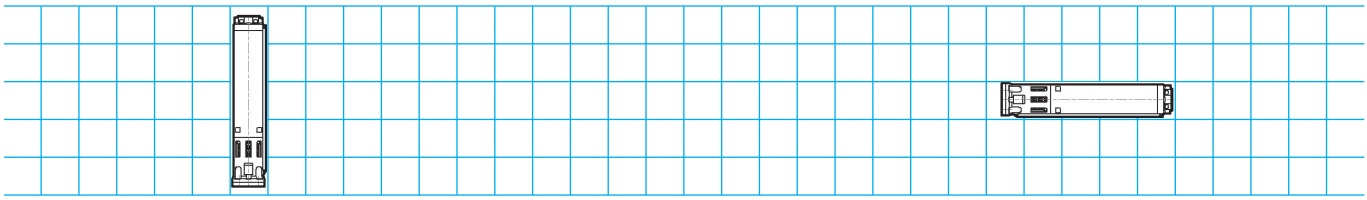
Conditions of use
- For clear or very slightly contaminated water (maximum sand content: 50 g/m^3)
- Maximum temperature of the pumped liquid between 20°C and 40°C according to the speed of water circulation around the motor and the motor power (please consult Leroy-Somer)
- Maximum operating pressure (at discharge): 45 bar

Description of 6” (150 mm) submersible hydraulic units

Component	Materials	Remarks
Suction body	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Discharge body, tube	X5 Cr Ni 18.10 (AISI 304) stainless steel	Slinging eyes incorporated in the discharge body
Impellers	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Diffusers and cover plates	X5 Cr Ni 18.10 (AISI 304) stainless steel	Elastomer (nitrile) rings at the water seals
Stage body	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Shaft	X33 Cr 13 (AISI 420) stainless steel	
Bearing	X5 Cr Ni 18.10 (AISI 304) stainless steel and elastomer (nitrile)	
Valve	X5 Cr Ni 18.10 (AISI 304) stainless steel and elastomer (nitrile)	
Strainer	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Coupling sleeve	X5 Cr Ni Mo 18.10 (AISI 304) stainless steel	In accordance with NEMA MG-1-18

6” (150 mm)
Hydraulic units

Mounting positions



Standard position

Horizontal position

6” (150 mm)
Hydraulic units

Adaptation possibilities

STANDARD

6" hydraulic unit

Designation / Coding

A	6	13	21
Designation of the series	Pump diameter in inches	Rated flow of the pump	Number of hydraulic stages

☞ ***Example of coding:***

Designation	Code
A6-13-21	POM 00 205

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

6” (150 mm)
Hydraulic units

Selection

For the hydraulic characteristics, refer to the selection chart for 6” submersible pumps.

Type	Code
A6-13-6	POM 00 201
A6-13-8	POM 00 202
A6-13-10	POM 00 250
A6-13-12	POM 00 203
A6-13-14	POM 00 251
A6-13-16	POM 00 204
A6-13-19	POM 00 252
A6-13-21	POM 00 205
A6-13-24	POM 00 206
A6-13-28	POM 00 207
A6-13-31	POM 00 208
A6-13-34	POM 00 209
A6-13-37	POM 00 210
B6-21-3	POM 00 211
B6-21-4	POM 00 212
B6-21-6	POM 00 213
B6-21-9	POM 00 214
B6-21-11	POM 00 253
B6-21-13	POM 00 215
B6-21-15	POM 00 254
B6-21-17	POM 00 216
B6-21-20	POM 00 255
B6-21-22	POM 00 217
B6-21-24	POM 00 256
B6-21-26	POM 00 218
B6-21-30	POM 00 219
B6-21-34	POM 00 220
C6-30-2	POM 00 221
C6-30-3	POM 00 222
C6-30-4	POM 00 223
C6-30-6	POM 00 224
C6-30-9	POM 00 225
C6-30-12	POM 00 226
C6-30-15	POM 00 227
C6-30-18	POM 00 228
C6-30-21	POM 00 229
C6-30-24	POM 00 230
D6-42-2	POM 00 231
D6-42-3	POM 00 232
D6-42-5	POM 00 233
D6-42-7	POM 00 234
D6-42-9	POM 00 235
D6-42-10	POM 00 236
D6-42-12	POM 00 237
D6-42-15	POM 00 238
D6-42-17	POM 00 239
D6-42-19	POM 00 240
D6-42-22	POM 00 257
D6-42-24	POM 00 258
E6-60-2	POM 00 241
E6-60-3	POM 00 242
E6-60-4	POM 00 243
E6-60-6	POM 00 244
E6-60-8	POM 00 245
E6-60-10	POM 00 246
E6-60-12	POM 00 247
E6-60-14	POM 00 248
E6-60-16	POM 00 249
E6-60-19	POM 00 259

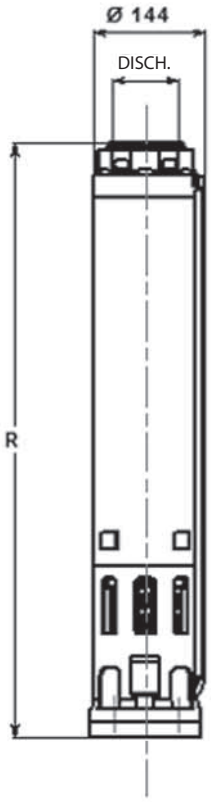
6” (150 mm)
Hydraulic units

Dimensions

Dimensions of 6” hydraulic units

Dimensions in millimetres

Type	Pumps R	Opening Discharge	Weight kg
A6-13-6	706	2”1/2 F (66/76)	15
A6-13-8	784		17
A6-13-10	863		19
A6-13-12	940		21
A6-13-14	1008		24
A6-13-16	1086		26
A6-13-19	1204		29
A6-13-21	1282		31
A6-13-24	1398		34
A6-13-28	1554		38
A6-13-31	1672		41
A6-13-34	1788		44
A6-13-37	1906		47
B6-21-3	605	2”1/2 F (66/76)	12
B6-21-4	650		13
B6-21-6	739		15.5
B6-21-9	864		18.5
B6-21-11	953		21
B6-21-13	1042		23.5
B6-21-15	1130		26
B6-21-17	1218		28
B6-21-20	1353		31.5
B6-21-22	1442		33.5
B6-21-24	1531		35.5
B6-21-26	1620		38
B6-21-30	1798		42
B6-21-34	1976		46.5
C6-30-2	722	3” F (80/90)	13.5
C6-30-3	834		16
C6-30-4	946		18.5
C6-30-6	1161		23.5
C6-30-9	1497		32
C6-30-12	1833		39.5
C6-30-15	2169		47
C6-30-18	2505		54.5
C6-30-21	2841		62
C6-30-24	3177		69.5
D6-42-2	722	3” F (80/90)	13.5
D6-42-3	834		16
D6-42-5	1049		21
D6-42-7	1273		26
D6-42-9	1497		32
D6-42-10	1609		33.5
D6-42-12	1833		38.5
D6-42-15	2169		46
D6-42-17	2393		51
D6-42-19	2617		56
D6-42-22	2953		64.5
D6-42-24	3177		69.5
E6-60-2	722	3” F (80/90)	13.5
E6-60-3	834		16
E6-60-4	937		18.5
E6-60-6	1161		23.5
E6-60-8	1385		29.5
E6-60-10	1609		34.5
E6-60-12	1833		39.5
E6-60-14	2057		44.5
E6-60-16	2281		49.5
E6-60-19	2617		57



8” (200 mm)
Submersible pumps

General information

Submersible pumps, constructed entirely of AISI 304 stainless steel, for 8" (200 mm) bore holes.

Applications
- **Agriculture:**
  - All types of watering by spraying
  - Irrigation
  - Filling tanks
- **Industry:**
  - Distribution of water for private or industrial use
  - Washing
  - General services
  - Fire system
  - Cooling

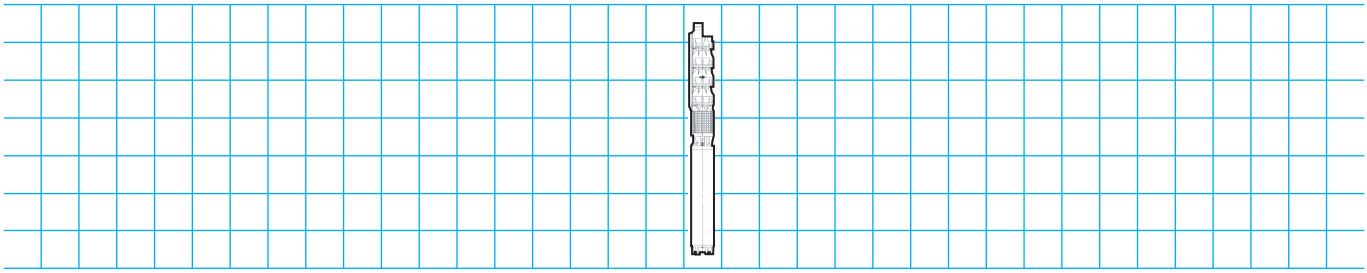
Conditions of use
- For clear or very slightly contaminated water (maximum content of solid particles in suspension: 100 g/m^3)
- Maximum temperature of the pumped liquid between 25°C and 40°C according to the speed of water circulation around the motor and the motor power (please consult Leroy-Somer)
- 20 starts maximum per hour for 6" motors
- 10 starts maximum per hour for 8" and 10" motors
- Operates while permanently submerged
- Maximum operating pressure (at discharge): 55 bar
- Maximum submersion depth: 350 m
- Motors for direct starting:
  - Encapsulated 6" FRANKLIN up to 37 kW inclusive
  - Rewindable 8" FRANKLIN from 45 kW to 93 kW inclusive
  - Rewindable 10" FRANKLIN from 110 kW to 130 kW inclusive
- Motor for Y / Δ starting:
  - Rewindable 150 kW 10" FRANKLIN
- Motor electrical power supply:
  - Rated voltage: 380 V - 415 V - 50 Hz.
  - Voltage range: 415 V +6%, 380 V -10%.

Description of 8” (200 mm) submersible pumps

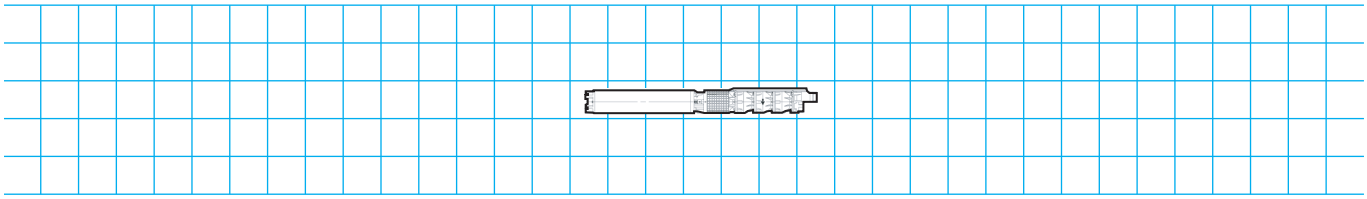
Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- Encapsulated 6” motors, for direct starting, up to 37 kW inclusive - Rewindable 8” motors, for direct starting, from 45 kW to 93 kW inclusive - Rewindable 10” motors, for direct starting, from 110 kW to 130 kW inclusive - Rewindable 150 kW 10” motors, for Y / Δ starting - 3-phase 380 V - 415 V - 50 Hz, voltage range: 415 V +6%, 380 V -10% - Class F - S1 duty - Winding enclosed in an AISI 304 stainless steel casing - Bearings lubricated by the motor filling water - Axial thrust of the hydraulic unit counterbalanced by the motor limit stop - Motor/hydraulic unit coupling in accordance with NEMA MG-1-18 for 6” and 8” motors - Flange and base made of epoxy-coated cast iron - Connector: • 4 x 4 mm^2 cable, length 4 m, for motors with power between 5.5 kW and 22 kW inclusive • 4 x 8.4 mm^2 cable, length 4 m, for motors with power between 30 kW and 37 kW inclusive • Cable integrated with the motor for higher powers
Suction body	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Discharge body	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Impellers	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Diffusers	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Stage body	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Shaft	DUPLEX stainless steel	
Valve	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Strainer	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Coupling sleeve	DUPLEX stainless steel	In accordance with NEMA MG-1-18 for motors up to 93 kW inclusive
Connector		- 4 x 4 mm^2 cable, length 4 m, for motors with power between 5.5 kW and 22 kW inclusive - 4 x 8.4 mm^2 cable, length 4 m, for motors with power between 30 kW and 37 kW inclusive - Cable integrated with the motor for higher powers

8” (200 mm)
Submersible pumps

Mounting positions



Vertical position



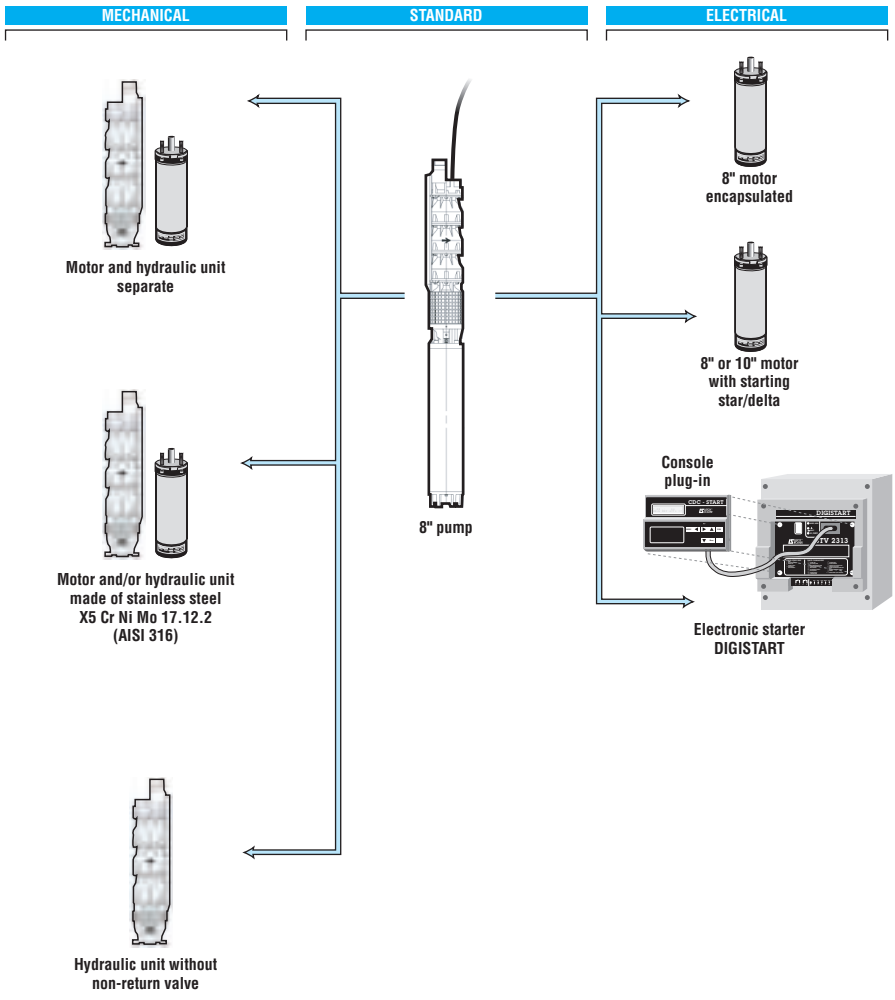
Horizontal position (please consult Leroy-Somer)

8” (200 mm)
Submersible pumps

Adaptation possibilities

☞ ***8” pumps can be used in conjunction with:***
- a DIGISTART electronic starter

☞ ***Options:***
- motor or hydraulic unit only
- aggressive water version motor
- ***encapsulated and/or Y / Δ starting 8”*** *motor*
- ***Y / Δ starting 10”*** *motor*
- hydraulic unit without non-return valve
- hydraulic unit made of X5 Cr Ni Mo 17.12.2 (AISI 316) stainless steel



Designation / Coding

X	8	50	5	2A	22
Designation of the series	Diameter of the pump in inches	Flow rated of the pump	Number of stages hydraulic	Trimming of the impellers	Power rated motor in kW

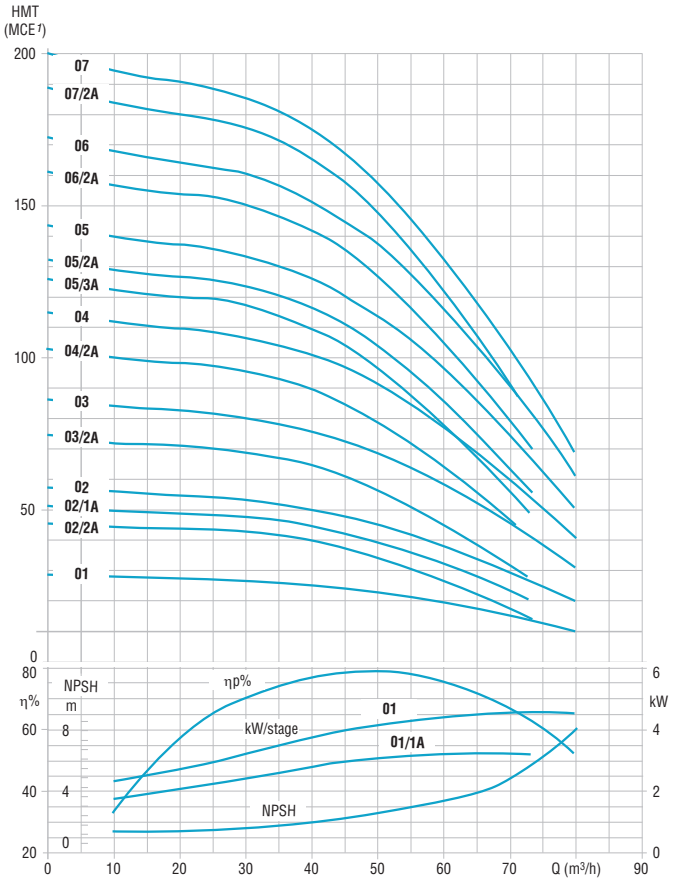
☞ ***Example of coding:***

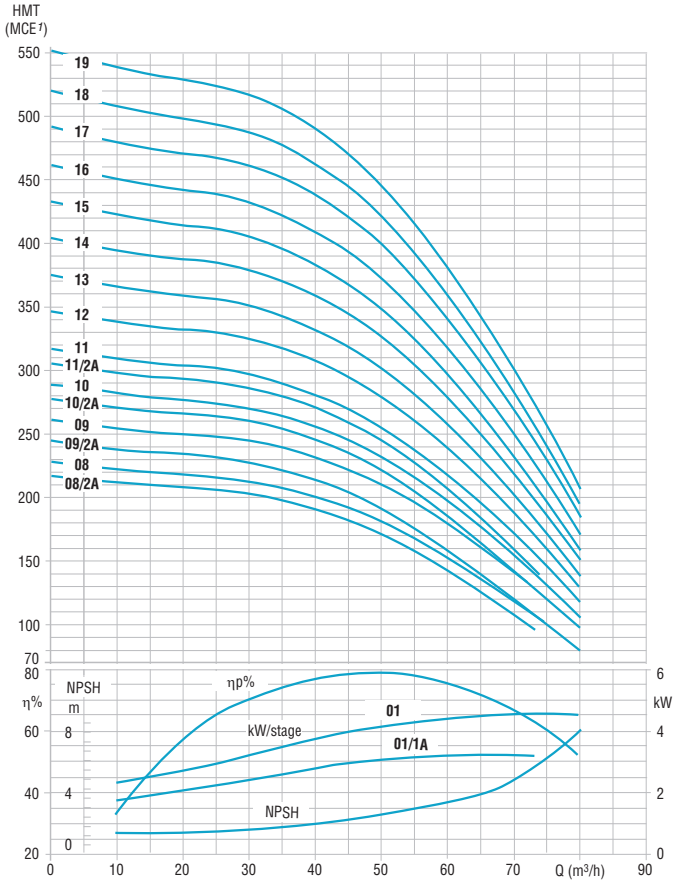
Designation	Code
X8-50-5-2A/22	POM 800 11

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

8” (200 mm)
Submersible pumps

Selection





8” (200 mm)
Submersible pumps

Selection

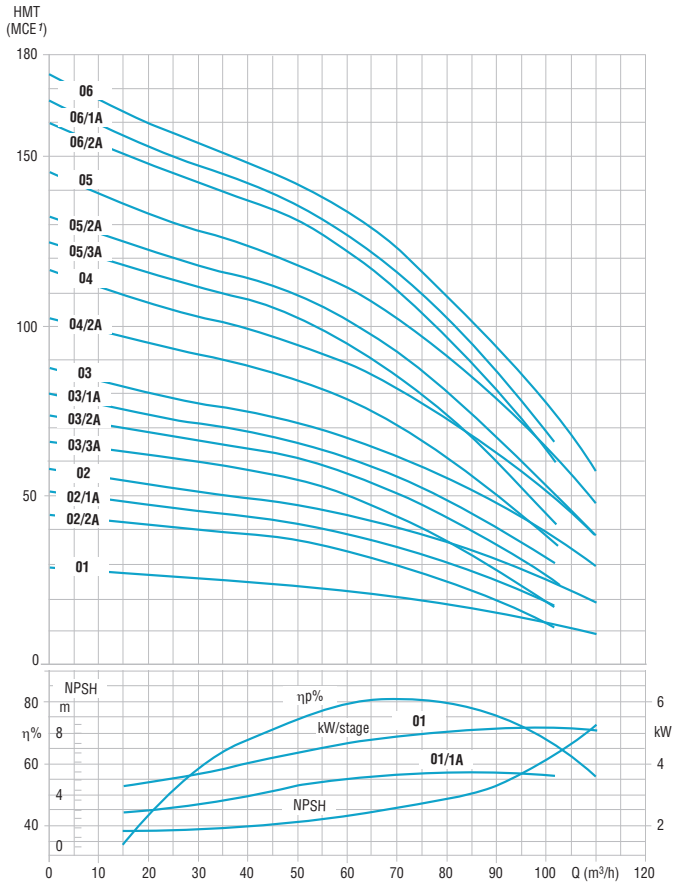
Rated flow: 50 m³/h

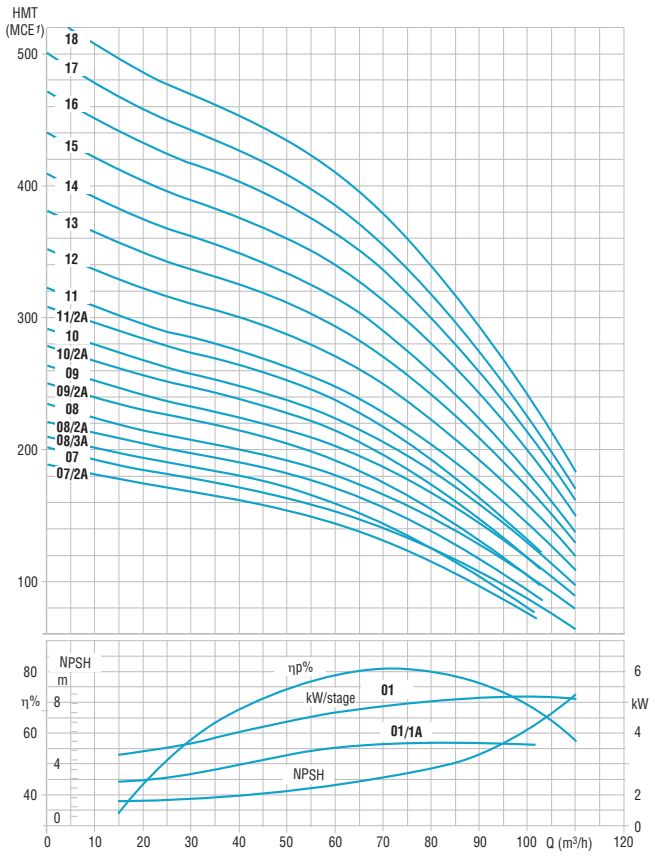
Type	Product Code	Flow rate in m³/h	0	10	20	30	40	**50**	60	70	80	kW Output	Current in A 3-ph 400 V	Id/In
X8-50-1/5.5	POM 800 02		28.7	28	27.5	27	25.5	**23**	19.5	15	10.2	5.5	12.5	5.1
X8-50-2-2A/7.5	POM 800 03		45.7	44.4	43.6	43	40	**35**	26.5	17.5		7.5	16	5.2
X8-50-2-1A/7.5	POM 800 04		51.3	49.9	49	48	44.5	**40**	32	23		7.5	16	5.2
X8-50-2/9.3	POM 800 05		57	55.6	54.8	53	50	**45**	38	29.5	19.5	9.3	20.7	5.4
X8-50-3-2A/11	POM 800 06		74.2	72.1	71	69	64.5	**57**	45	32		11	23.3	5.5
X8-50-3/15	POM 800 07		86.1	83.9	82	80	76	**69**	57.5	45.5	30.7	15	31.3	5.4
X8-50-4-2A/15	POM 800 08		102.7	99.9	98	96	89.5	**79**	64	46		15	31.3	5.4
X8-50-4/18.5	POM 800 09		114.6	111.7	109.5	107	101	**91**	77	55.5	40.7	18.5	38.5	6
X8-50-5-3A/18.5	POM 800 10		125.6	122.2	120	117	110	**97**	77.5	60		18.5	38.5	6
X8-50-5-2A/22	POM 800 11		132.3	128.8	127	124	116.5	**104**	85.5	63.5		22	45.3	5.9
X8-50-5/22	POM 800 12		143.5	139.8	137.5	134	126	**114**	96.5	75	50.5	22	45.3	5.9
X8-50-6-2A/30	POM 800 13		160.7	156.6	154	150	142	**127**	105	79		30	63.5	6.2
X8-50-6/30	POM 800 14		172	167.6	164	160	152	**137**	116	91	61.3	30	63.5	6.2
X8-50-7-2A/30	POM 800 15		188.6	183.6	180	176	165.5	**148**	122.5	92		30	63.5	6.2
X8-50-7/30	POM 800 16	TMH in MHW[1]	199.7	194.5	190	186	175	**158**	133	103	68.8	30	63.5	6.2
X8-50-8-2A/37	POM 800 17		217	211.5	208	202.8	190.5	**171**	142	108		37	73	5.6
X8-50-8/37	POM 800 18		228.3	222.5	218	212.7	200	**181**	152	120	79.4	37	73	5.6
X8-50-9-2A/37	POM 800 19		244.8	238.3	233	227.8	214	**191.2**	159	120		37	73	5.6
X8-50-9/45	POM 800 20		260.6	254.2	249.5	244.3	231	**210.6**	179.5	141	96.9	45	90	5.8
X8-50-10-2A/45	POM 800 21		277.5	270.5	266	260.1	246	**221.5**	186	142		45	90	5.8
X8-50-10/45	POM 800 22		288.8	281.7	277	270.3	256	**231.9**	197	156	105.2	45	90	5.8
X8-50-11-2A/52	POM 800 23		305.6	298	293	286.6	271	**244.8**	206	158		52	103	5.9
X8-50-11/52	POM 800 24		316.9	309.2	303	296.8	280	**255.4**	217	171	116.9	52	103	5.9
X8-50-12/56	POM 800 25		346.6	338.3	332	324.8	308	**279.8**	238	188	128.5	56	110	6
X8-50-13/60	POM 800 26		375.3	366.1	359.5	351.3	332.5	**302.3**	257	203	138.2	60	116	6.3
X8-50-14/67	POM 800 27		404.5	394.7	388	379.1	359.5	**326.6**	278	220	149.9	67	133	6
X8-50-15/67	POM 800 28		432.8	422.2	414	404.9	383	**348**	296	234	158.4	67	133	6
X8-50-16/75	POM 800 29		461.6	450.3	441	432.1	410	**372.2**	317	250	170.5	75	148	6.4
X8-50-17/83	POM 800 30		491.8	479.8	470.5	461.2	438	**398.8**	340	270	185	83	160	6.7
X8-50-18/83	POM 800 31		520	507.3	498.5	487.4	462	**420.8**	358.5	284	194	83	160	6.7
X8-50-19/93	POM 800 32		551.2	538	528	517	490	**446.3**	380	302	206.9	93	183	7

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

8” (200 mm)
Submersible pumps

Selection





8” (200 mm)
Submersible pumps

Selection

Rated flow: 75 m³/h

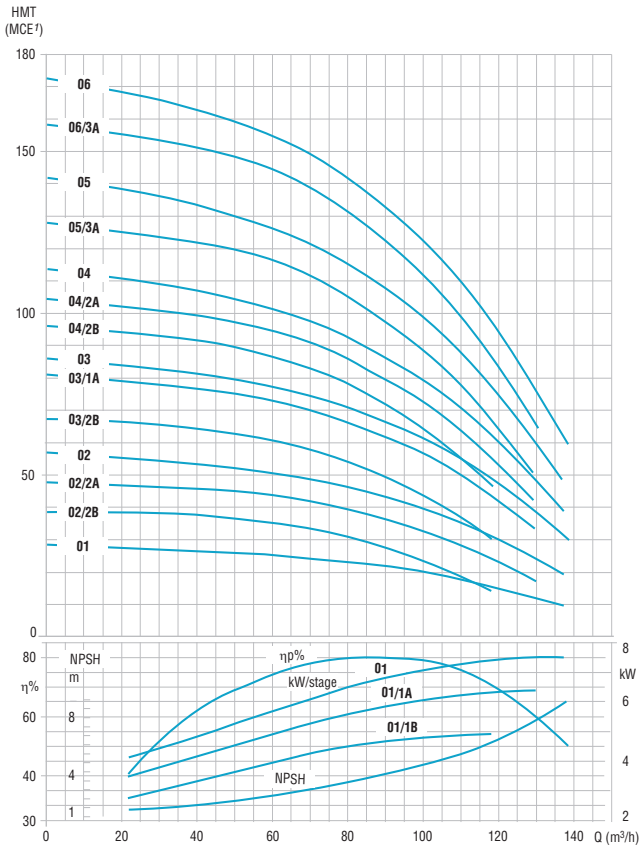
Type	Product Code	Flow rate in m³/h	0	20	40	60	70	80	90	100	110	kW Output	Current in A 3-ph 400 V	Id/In
X8-75-1/5.5	POM 800 33		28.9	27	24	22	**20.1**	**17.6**	15	12.5	9.2	5.5	12.5	5.1
X8-75-2-2A/7.5	POM 800 34		44.1	41.5	38	33.5	**29.3**	**25**	18.5	12.5		7.5	16	5.2
X8-75-2-1A/9.3	POM 800 35		50.8	47	44	38	**34.7**	**30**	24.5	18		9.3	20.7	5.4
X8-75-2/11	POM 800 36		57.9	53.5	48.5	44	**40.5**	**36**	31	25	18.6	11	23.3	5.5
X8-75-3-3A/11	POM 800 37		66.1	62.5	57.5	50	**43.7**	**37**	28	18		11	23.3	5.5
X8-75-3-2A/15	POM 800 38		73.5	68	63.5	56	**50.4**	**43.5**	36	26		15	31.3	5.4
X8-75-3-1A/15	POM 800 39		80.1	74	68	62	**55.3**	**48**	41	32.5		15	31.3	5.4
X8-75-3/18.5	POM 800 40		87.5	80	75	67	**61.8**	**55**	47.5	39	29.1	18.5	38.5	6
X8-75-4-2A/18.5	POM 800 41		102.3	95	87.5	76	**70.3**	**61.5**	50.5	38		18.5	38.5	6
X8-75-4/22	POM 800 42		116.5	106	98	88	**81.8**	**73**	63	52	38.1	22	45.3	5.9
X8-75-5-3A/22	POM 800 43		124.7	116	107.5	95	**85.2**	**74**	60	45		22	45.3	5.9
X8-75-5-2A/30	POM 800 44		132.1	122	113.5	102	**92.1**	**81**	67	53		30	63.5	6.2
X8-75-5/30	POM 800 45		145.3	133	123.5	112	**102.3**	**91**	78	64.5	47.7	30	63.5	6.2
X8-75-6-2A/30	POM 800 46		160	147	137	122.5	**110.6**	**97**	82	64		30	63.5	6.2
X8-75-6-1A/30	POM 800 47		166.5	153	142	126.5	**115.5**	**103**	86.5	68		30	63.5	6.2
X8-75-6/37	POM 800 48		174.2	159.5	148	134	**122.7**	**109**	94	77	57.2	37	73	5.6
X8-75-7-2A/37	POM 800 49	TMH in MHW[1]	189	174	162	145	**131**	**115**	96	75		37	73	5.6
X8-75-7/37	POM 800 50		202	185	170	154	**140.8**	**125**	107	88	64.2	37	73	5.6
X8-75-8-3A/37	POM 800 51		210.1	193	180	160	**143.9**	**126**	105	80		37	73	5.6
X8-75-8-2A/45	POM 800 52		221.5	204	190	172	**156.2**	**139**	117	93		45	90	5.8
X8-75-8/45	POM 800 53		234.9	215	200	180	**166.5**	**149**	129	106	79.3	45	90	5.8
X8-75-9-2A/45	POM 800 54		249.9	231	214	192	**175.1**	**154**	131	105		45	90	5.8
X8-75-9/52	POM 800 55		263.6	241	225	203	**187.2**	**168**	145	119	89.3	52	103	5.9
X8-75-10-2A/52	POM 800 56		278.5	256	238	213	**196**	**173**	148	119		52	103	5.9
X8-75-10/52	POM 800 57		291.8	278	249	224	**206.5**	**184**	158	132	97.5	52	103	5.9
X8-75-11-2A/56	POM 800 58		308.6	284	264	237	**217.4**	**192**	165	132		56	110	6
X8-75-11/60	POM 800 59		322.3	295	274	249	**228.5**	**205**	175	146	108.7	60	116	6.3
X8-75-12/67	POM 800 60		352.1	323	300	272	**249.9**	**224**	193	159	119.2	67	133	6
X8-75-13/75	POM 800 61		381.2	350	325	294	**271**	**242**	210	172	129.7	75	148	6.4
X8-75-14/75	POM 800 62		409.5	375	349	314	**290.3**	**259**	223	185	137.9	75	148	6.4
X8-75-15/83	POM 800 63		440.2	404	375	340	**313.8**	**280**	242	200	150.7	83	160	6.7
X8-75-16/93	POM 800 64		471.8	433	403	365	**336**	**300**	260	215	162.1	93	183	7
X8-75-17/93	POM 800 65		500.3	458	426	386	**355.4**	**316**	274	226	170.4	93	183	7
X8-75-18/110	POM 800 66		530.1	486	454	411	**378.8**	**338**	293	242	183.3	110	232	5

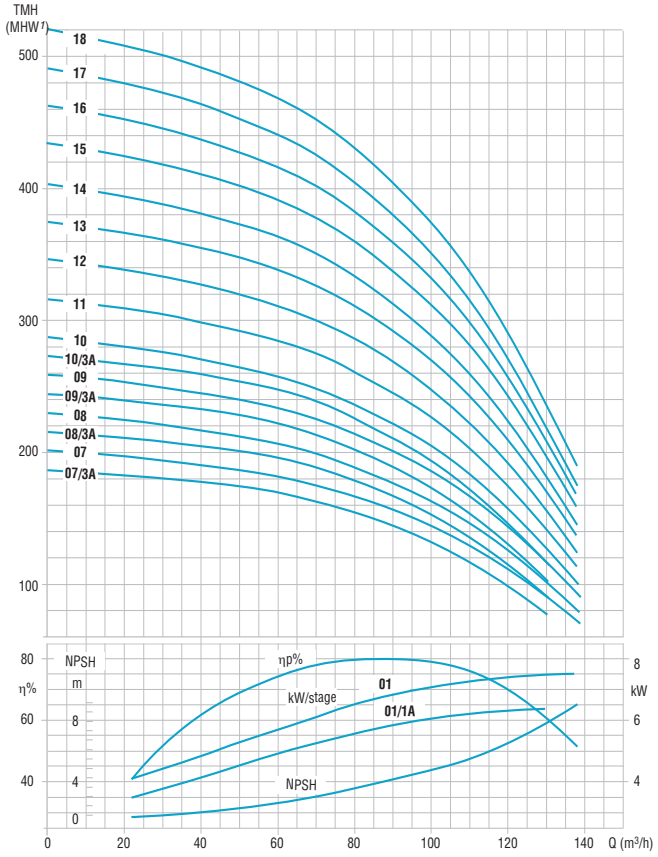
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

8” (200 mm)
Submersible pumps

Selection

B





8” (200 mm)
Submersible pumps

Selection

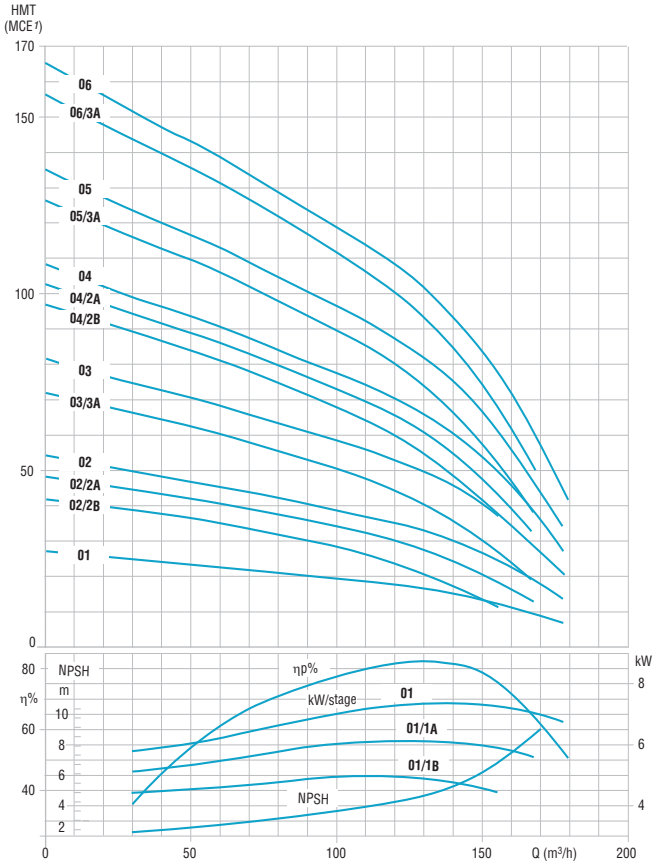
Rated flow: 90 m³/h

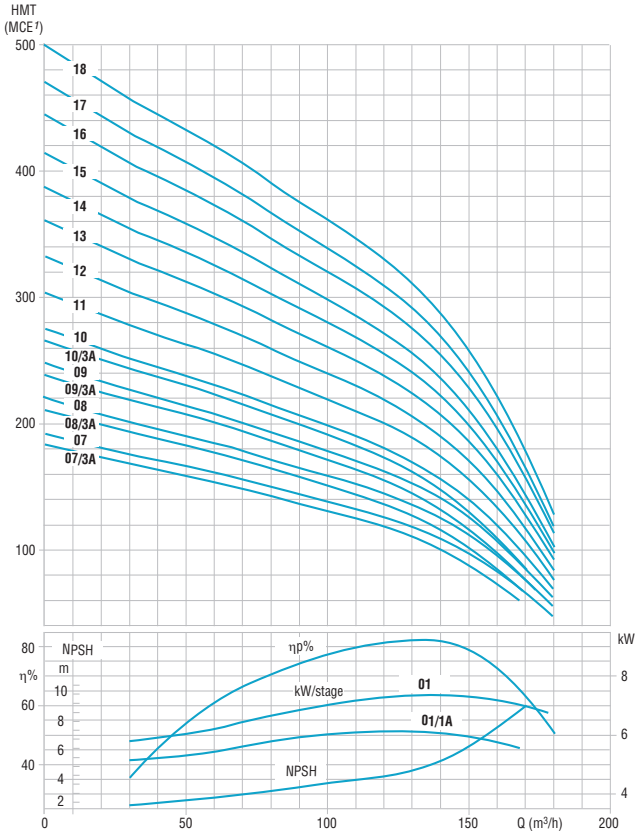
Type	Product Code	Flow rate in m³/h	0	20	40	60	80	**90**	100	120	130	kW Output	Current in A 3-ph 400 V	Id/In
X8-90-1/7.5	POM 800 01	TMH in MHW[1]	28.5	28	27	25.3	23	**21.6**	20	15	12.5	7.5	16	5.2
X8-90-2-2B/11	POM 800 67		38.7	38.5	37.5	35.2	31	**27.5**	23.5			11	23.3	5.5
X8-90-2-2A/15	POM 800 68		47.7	47	46	44	39.5	**36.4**	33.5	23	17.5	15	31.3	5.4
X8-90-2/15	POM 800 69		57	55.5	53.5	50.7	46.5	**43.2**	40	30	24.5	15	31.3	5.4
X8-90-3-2B/18.5	POM 800 70		67.2	67	65	60.8	54.5	**49.4**	44			18.5	38.5	6
X8-90-3-1A/22	POM 800 71		81.1	79	77.5	73	66	**61.8**	56.5	42.5	37.5	22	45.3	5.9
X8-90-3/30	POM 800 72		86	84	82.5	77.3	71	**66.4**	61.5	47	43	30	63.5	6.2
X8-90-4-2B/30	POM 800 73		96	94.5	92.5	86.7	78	**71.8**	64.5			30	63.5	6.2
X8-90-4-2A/30	POM 800 74		104.5	102.5	100	94.7	86	**79.7**	73.5	54	47	30	63.5	6.2
X8-90-4/30	POM 800 75		113.8	111	108	101.4	92.5	**86.5**	80	60	54.5	30	63.5	6.2
X8-90-5-3A/37	POM 800 76		128	125.5	123	116.4	105	**97.5**	88	64.5	57	37	73	5.6
X8-90-5/37	POM 800 77		141.9	138	135	126.4	115.5	**107.5**	98.5	75	67	37	73	5.6
X8-90-6-3A/45	POM 800 78		158.4	155	152.5	144.6	132	**122.4**	112.5	84	74.5	45	90	5.8
X8-90-6/45	POM 800 79		172.6	168.3	165	154.9	142.5	**132.8**	123	95	85.5	45	90	5.8
X8-90-7-3A/52	POM 800 80		186.5	182.5	177	169.6	154	**144**	132	100	77	52	103	5.9
X8-90-7/56	POM 800 81		201.5	196.7	190	181.3	166	**156.2**	145	112	90	56	110	6
X8-90-8-3A/60	POM 800 82		215.7	211	205	196	179	**166.7**	153	114	90	60	116	6.3
X8-90-8/60	POM 800 83		229.9	225	216	206.3	189	**177.2**	165	128	103	60	116	6.3
X8-90-9-3A/67	POM 800 84		244.4	240	232	221.9	201.5	**188.9**	173	131	104	67	133	6
X8-90-9/75	POM 800 85		258.9	252.5	245	233	213.5	**200.8**	186	144	115	75	148	6.4
X8-90-10-3A/75	POM 800 86		272.9	267	260	247.3	226	**210.9**	194	146	115	75	148	6.4
X8-90-10/75	POM 800 87		287	280	271	257.6	235	**221.5**	205	157	127.5	75	148	6.4
X8-90-11/83	POM 800 88		316.3	309	299.5	284.6	261	**245.2**	226	175	141	83	160	6.7
X8-90-12/93	POM 800 89		346.3	338	327	311.5	286	**268.1**	248	192	155	93	183	7
X8-90-13/110	POM 800 90		374.9	367	354	338.1	311	**291.9**	270	210	170	110	232	5
X8-90-14/110	POM 800 91		403.1	394	380	363	332	**312.8**	290	225	180	110	232	5
X8-90-15/130	POM 800 92		434.2	425	412	391.4	360	**337.7**	312	244	196	130	256	5.3
X8-90-16/130	POM 800 93		462.6	452	436	416.2	382	**358.6**	332	257	208	130	256	5.3
X8-90-17/130	POM 800 94		490.9	480	464	440.9	405	**379.4**	350	270	220	130	256	5.3
X8-90-18/150	POM 800 95		520.2	509	492	468.5	432	**404.2**	374	292	235	150	298	5.3

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

8” (200 mm)
Submersible pumps

Selection





8” (200 mm)
Submersible pumps

Rated flow: 130 m³/h

Type	Product Code	Flow rate in m³/h	0	30	60	80	100	120	**130**	150	180	kW Output	Current in A 3-ph 400 V	Id/In
X8-130-1/7.5	POM 800 96		27.1	24.7	23	21	19.5	17.5	**17**	14	6.9	7.5	16	5.2
X8-130-2-2B/11	POM 800 97		41.9	38.8	35	31.8	28	24	**20.5**	14		11	23.3	5.5
X8-130-2-2A/15	POM 800 98		48.3	44.6	40.5	37.5	34.5	30	**27.5**	20.5		15	31.3	5.4
X8-130-2/15	POM 800 99		54.3	49.5	46	42	38.5	35.5	**33**	27	13.7	15	31.3	5.4
X8-130-3-3A/18.5	POM 801 00		71.9	66.2	60	55.5	50.5	44.5	**40.5**	30		18.5	38.5	6
X8-130-3/22	POM 801 01		81.7	74.6	68	63.4	58	53.5	**50**	41	20.7	22	45.3	5.9
X8-130-4-2B/30	POM 801 02		97	89.2	81.5	74.8	67.5	60	**55**	41.5		30	63.5	6.2
X8-130-4-2A/30	POM 801 03		102.6	94.1	86	79.5	73.5	65.5	**60.5**	47.5		30	63.5	6.2
X8-130-4/30	POM 801 04		108.5	99	91	84.1	77.5	70	**66**	54.5	27.5	30	63.5	6.2
X8-130-5-3A/37	POM 801 05		126.4	116	106.5	97.9	90	80	**74**	57		37	73	5.6
X8-130-5/37	POM 801 06		135.2	123.4	113.5	104.7	96.5	87.5	**82.5**	67	34.2	37	73	5.6
X8-130-6-3A/45	POM 801 07		156.4	143.5	132	121.7	112	100.5	**94**	75		45	90	5.8
X8-130-6/45	POM 801 08		165.5	151.1	138.5	128.8	118.5	108	**102.5**	85	41.9	45	90	5.8
X8-130-7-3A/52	POM 801 09	TMH in MHW[1]	183.3	168	154	142.6	131	118	**110**	88		52	103	5.9
X8-130-7/52	POM 801 10		192.3	175.6	160.5	149.8	139	127	**119**	99	48.8	52	103	5.9
X8-130-8-3A/56	POM 801 11		210.9	193.2	176.5	164.1	151	136	**128**	102.5		56	110	6
X8-130-8/60	POM 801 12		220.5	201.3	186	171.8	159	145	**135**	112	55.9	60	116	6.3
X8-130-9-3A/67	POM 801 13		239	218.9	200	186	171	154	**146**	115		67	133	6
X8-130-9/67	POM 801 14		248.1	226.5	209	193.2	178	163	**152**	128	62.9	67	133	6
X8-130-10-3A/75	POM 801 15		266.2	243.7	225	207.3	191	172	**161**	131		75	148	6.4
X8-130-10/75	POM 801 16		275.3	251.4	232	214.6	198	180	**170**	140	69.9	75	148	6.4
X8-130-11/83	POM 801 17		304.2	277.8	255	237.4	220	200	**189**	156	76.8	83	160	6.7
X8-130-12/93	POM 801 18		332.7	303.9	279.5	259.6	240	219	**207**	171	84.5	93	183	7
X8-130-13/110	POM 801 19		361.2	329.9	304	282.3	260	239	**225**	187	93.1	110	232	5
X8-130-14/110	POM 801 20		387.9	354.2	326	302.8	280	255	**240**	200	98.5	110	232	5
X8-130-15/110	POM 801 21		414.3	378.3	348	323	298	272	**255**	212	104	110	232	5
X8-130-16/130	POM 801 22		444.5	406	373	347	320	292	**275**	230	113.9	130	256	5.3
X8-130-17/130	POM 801 23		470.9	430.1	395	367.3	339	310	**291**	241	119.5	130	256	5.3
X8-130-18/150	POM 801 24		500.4	457.1	420	391	361	331	**312**	259	128.9	150	298	5.3

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

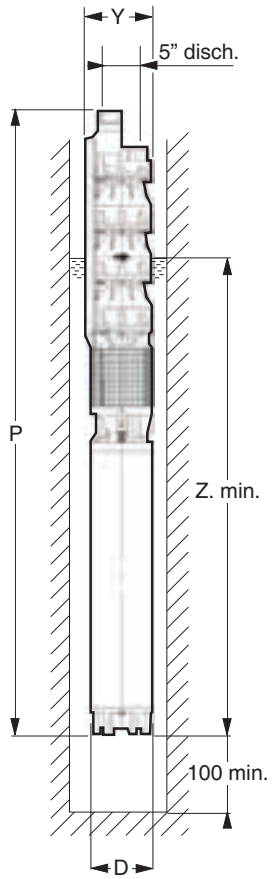
8” (200 mm)
Submersible pumps

Dimensions

Dimensions of 8” submersible pumps

Dimensions in millimetres

Type	Pumps P	Z min.	Ø Y	D	Opening Discharge	Weight kg
X8-50-1/5.5	1174	1614	198	137		68
X8-50-2-2A/7.5	1341	1646	198	137		81
X8-50-2-1A/7.5	1341	1646	198	137		81
X8-50-2/9.3	1374	1679	198	137		83
X8-50-3-2A/11	1541	1711	198	137		95
X8-50-3/15	1606	1776	198	137		101
X8-50-4-2A/15	1741	1776	198	137		109
X8-50-4/18.5	1807	1842	198	137		116
X8-50-5-3A/18.5	1942	1842	198	137		125
X8-50-5-2A/22	2007	1907	198	137		131
X8-50-5/22	2007	1907	198	137		131
X8-50-6-2A/30	2272	2037	198	137		154
X8-50-6/30	2272	2037	198	137		154
X8-50-7-2A/30	2407	2037	198	137		162
X8-50-7/30	2407	2037	198	137		162
X8-50-8-2A/37	2910	2405	198	137	5” F	222
X8-50-8/37	2910	2405	198	137		222
X8-50-9-2A/37	3045	2405	198	137		231
X8-50-9/45	2870	2230	203	194		251
X8-50-10-2A/45	3005	2230	203	194		260
X8-50-10/45	3005	2230	203	194		260
X8-50-11-2A/52	3250	2340	203	194		292
X8-50-11/52	3250	2340	203	194		292
X8-50-12/56	3385	2340	203	194		300
X8-50-13/60	3650	2470	203	194		328
X8-50-14/67	3785	2470	203	194		337
X8-50-15/67	3920	2470	203	194		345
X8-50-16/75	4145	2560	203	194		371
X8-50-17/83	4280	2560	203	194		411
X8-50-18/83	4415	2560	203	194		420
X8-50-19/93	4730	2740	203	194		429
X8-75-1/5.5	1191	1614	198	137		68
X8-75-2-2A/7.5	1375	1646	198	137		82
X8-75-2-1A/9.3	1408	1679	198	137		84
X8-75-2/11	1440	1711	198	137		87
X8-75-3-3A/11	1592	1711	198	137		97
X8-75-3-2A/15	1657	1776	198	137		102
X8-75-3-1A/15	1657	1776	198	137		102
X8-75-3/18.5	1723	1842	198	137		109
X8-75-4-2A/18.5	1875	1842	198	137		118
X8-75-4/22	1940	1907	198	137		124
X8-75-5-3A/22	2092	1907	198	137	5” F	133
X8-75-5-2A/30	2222	2037	198	137		148
X8-75-5/30	2222	2037	198	137		148
X8-75-6-2A/30	2374	2037	198	137		157
X8-75-6-1A/30	2374	2037	198	137		157
X8-75-6/37	2742	2405	198	137		208
X8-75-7-2A/37	2894	2405	198	137		218
X8-75-7/37	2894	2405	198	137		218
X8-75-8-3A/37	3046	2405	198	137		227
X8-75-8-2A/45	2871	2230	203	194		247
X8-75-8/45	2871	2230	203	194		247



In a tube with a strainer, the motor must be installed above the strainer.

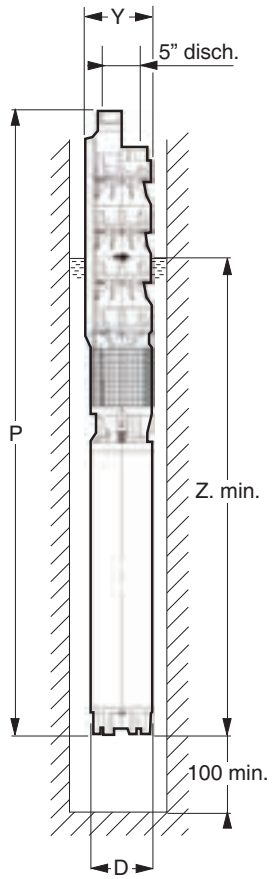
8” (200 mm)
Submersible pumps

Dimensions

Dimensions of 8” submersible pumps

Dimensions in millimetres

Type	Pumps P	Z min.	Ø Y	D	Opening Discharge	Weight kg
X8-75-9-2A/45	3023	2230	203	194		256
X8-75-9/52	3133	2340	203	194		279
X8-75-10-2A/52	3285	2340	203	194		289
X8-75-10/52	3285	2340	203	194		289
X8-75-11-2A/56	3437	2340	203	194		298
X8-75-11/60	3567	2470	203	194		317
X8-75-12/67	3719	2470	203	194	5” F	326
X8-75-13/75	3961	2560	203	194		352
X8-75-14/75	4113	2560	203	194		362
X8-75-15/83	4265	2560	203	194		403
X8-75-16/93	4597	2740	203	194		412
X8-75-17/93	4749	2740	203	194		421
X8-75-18/110	4711	2529	224	235		498
X8-90-1/7.5	1223	1646	198	137		72
X8-90-2-2B/11	1440	1711	198	137		87
X8-90-2-2A/15	1505	1776	198	137		93
X8-90-2/15	1505	1776	198	137		93
X8-90-3-2B/18.5	1723	1842	198	137		109
X8-90-3-1A/22	1788	1907	198	137		115
X8-90-3/30	1918	2037	198	137		130
X8-90-4-2B/30	2070	2037	198	137		139
X8-90-4-2A/30	2070	2037	198	137		139
X8-90-4/30	2070	2037	198	137		139
X8-90-5-3A/37	2590	2405	198	137		199
X8-90-5/37	2590	2405	198	137		199
X8-90-6-3A/45	2567	2230	203	194		229
X8-90-6/45	2567	2230	203	194		229
X8-90-7-3A/52	2829	2340	203	194		261
X8-90-7/56	2829	2340	203	194	5” F	261
X8-90-8-3A/60	3111	2470	203	194		289
X8-90-8/60	3111	2470	203	194		289
X8-90-9-3A/67	3262	2470	203	194		298
X8-90-9/75	3353	2560	203	194		315
X8-90-10-3A/75	3505	2560	203	194		325
X8-90-10/75	3505	2560	203	194		325
X8-90-11/83	3657	2560	203	194		366
X8-90-12/93	3989	2740	203	194		375
X8-90-13/110	3951	2529	224	235		452
X8-90-14/110	4103	2529	224	235		462
X8-90-15/130	4385	2659	224	235		518
X8-90-16/130	4537	2659	224	235		527
X8-90-17/130	4689	2659	224	235		536
X8-90-18/150	4951	2769	235	235		597
X8-130-1/7.5	1223	1646	198	137		72
X8-130-2-2B/11	1440	1711	198	137		87
X8-130-2-2A/15	1505	1776	198	137		93
X8-130-2/15	1505	1776	198	137		93
X8-130-3-3A/18.5	1723	1842	198	137	5” F	109
X8-130-3/22	1788	1907	198	137		115
X8-130-4-2B/30	2070	2037	198	137		139
X8-130-4-2A/30	2070	2037	198	137		139
X8-130-4/30	2070	2037	198	137		139



In a tube with a filter, the motor must be installed above the filter.

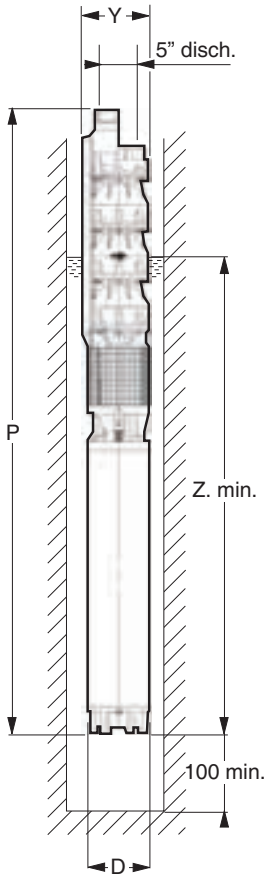
8” (200 mm)
Submersible pumps

Dimensions

Dimensions of 8” submersible pumps

Dimensions in millimetres

Type	Pumps P	Z min.	Ø Y	D	Opening Discharge	Weight kg
X8-130-5-3A/37	2590	2405	198	137		199
X8-130-5/37	2590	2405	198	137		199
X8-130-6-3A/45	2567	2230	203	194		229
X8-130-6/45	2567	2230	203	194		229
X8-130-7-3A/52	2829	2340	203	194		261
X8-130-7/52	2829	2340	203	194		261
X8-130-8-3A/56	2981	2340	203	194		270
X8-130-8/60	3111	2470	203	194		289
X8-130-9-3A/67	3263	2470	203	194		298
X8-130-9/67	3263	2470	203	194	5” F	298
X8-130-10-3A/75	3505	2560	203	194		325
X8-130-10/75	3505	2560	203	194		325
X8-130-11/83	3657	2560	203	194		366
X8-130-12/93	3989	2740	203	194		375
X8-130-13/110	3951	2529	224	235		452
X8-130-14/110	4103	2529	224	235		462
X8-130-15/110	4255	2529	224	235		471
X8-130-16/130	4537	2659	224	235		527
X8-130-17/130	4689	2659	224	235		536
X8-130-18/150	4951	2769	235	235		597



In a tube with a strainer, the motor must be installed above the strainer.

8” (200 mm)
Hydraulic units

General information

Submersible hydraulic units, constructed entirely of AISI 304 stainless steel, for 8" (200 mm) bore holes.

Applications
- Coupling with 6" motors in accordance with NEMA MG1-18, for powers up to 37 kW inclusive
- Coupling with 8" motors in accordance with NEMA MG1-18, for powers between 45 kW and 93 kW inclusive
- Coupling with 10" motors for powers between 110 kW and 150 kW

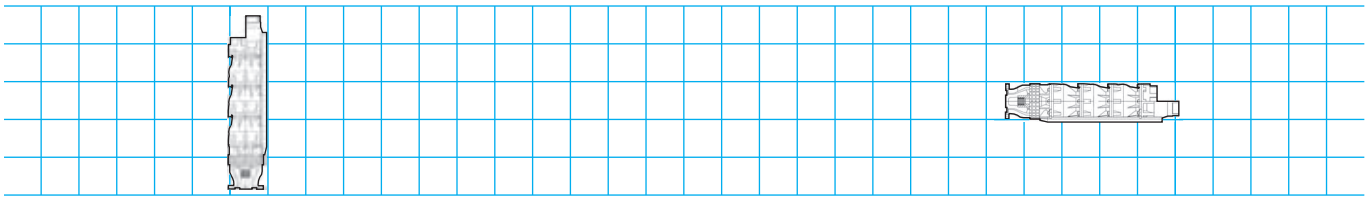
Conditions of use
- For clear or very slightly contaminated water (maximum content of solid particles in suspension: 100 g/m^3)
- Maximum temperature of the pumped liquid between 25°C and 40°C according to the speed of water circulation around the motor and the motor power (please consult Leroy-Somer)
- Maximum operating pressure (at discharge): 55 bar

Description of 8” (200 mm) submersible hydraulic units

Component	Materials	Remarks
Suction body	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Discharge body	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Impellers	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Diffusers	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Stage body	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Shaft	DUPLEX stainless steel	
Valve	X5 Cr Ni 18.10 (AISI 304) stainless steel	Can be supplied without valve
Strainer	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Coupling sleeve	DUPLEX stainless steel	In accordance with NEMA MG-1-18 for motors up to 93 kW inclusive

8” (200 mm)
Hydraulic units

Mounting positions



Standard position

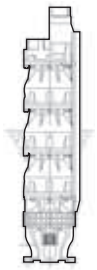
Horizontal position

8” (200 mm)
Hydraulic units

Adaptation possibilities

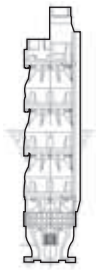
☞ ***Options:***
- Hydraulic unit without non-return valve

MECHANICAL



Hydraulic unit without non-return valve

STANDARD



8" hydraulic unit

Designation / Coding

X	8	50	5	2A
Designation of the series	Pump diameter in inches	Rated flow of the pump	Number of hydraulic stages	Impeller trimming

☞ ***Example of coding:***

Designation	Code
X8-50-5-2A	POM 80 310

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

8” (200 mm)
Hydraulic units

Selection

For the hydraulic characteristics, refer to the selection chart for 8” submersible pumps.

Type	Code
X8-50-1	POM 80 301
X8-50-2-2A	POM 80 302
X8-50-2-1A	POM 80 303
X8-50-2	POM 80 304
X8-50-3-2A	POM 80 305
X8-50-3	POM 80 306
X8-50-4-2A	POM 80 307
X8-50-4	POM 80 308
X8-50-5-3A	POM 80 309
X8-50-5-2A	POM 80 310
X8-50-5	POM 80 311
X8-50-6-2A	POM 80 312
X8-50-6	POM 80 313
X8-50-7-2A	POM 80 314
X8-50-7	POM 80 315
X8-50-8-2A	POM 80 316
X8-50-8	POM 80 317
X8-50-9-2A	POM 80 318
X8-50-9	POM 80 319
X8-50-10-2A	POM 80 320
X8-50-10	POM 80 321
X8-50-11-2A	POM 80 322
X8-50-11	POM 80 323
X8-50-12	POM 80 324
X8-50-13	POM 80 325
X8-50-14	POM 80 326
X8-50-15	POM 80 327
X8-50-16	POM 80 328
X8-50-17	POM 80 329
X8-50-18	POM 80 330
X8-50-19	POM 80 331
X8-75-1	POM 80 332
X8-75-2-2A	POM 80 333
X8-75-2-1A	POM 80 334
X8-75-2	POM 80 335
X8-75-3-3A	POM 80 336
X8-75-3-2A	POM 80 337
X8-75-3-1A	POM 80 338
X8-75-3	POM 80 339
X8-75-4-2A	POM 80 340
X8-75-4	POM 80 341
X8-75-5-3A	POM 80 342
X8-75-5-2A	POM 80 343
X8-75-5	POM 80 344
X8-75-6-2A	POM 80 345
X8-75-6-1A	POM 80 346
X8-75-6	POM 80 347
X8-75-7-2A	POM 80 348
X8-75-7	POM 80 349
X8-75-8-3A	POM 80 350
X8-75-8-2A	POM 80 351
X8-75-8	POM 80 352
X8-75-9-2A	POM 80 353
X8-75-9	POM 80 354
X8-75-10-2A	POM 80 355
X8-75-10	POM 80 356
X8-75-11-2A	POM 80 357
X8-75-11	POM 80 358
X8-75-12	POM 80 359
X8-75-13	POM 80 360
X8-75-14	POM 80 361
X8-75-15	POM 80 362
X8-75-16	POM 80 363
X8-75-17	POM 80 364
X8-75-18	POM 80 365

8” (200 mm)
Hydraulic units

Selection

Type	Code
X8-90-1	POM 80 366
X8-90-2-2B	POM 80 367
X8-90-2-2A	POM 80 368
X8-90-2	POM 80 369
X8-90-3-2B	POM 80 370
X8-90-3-1A	POM 80 371
X8-90-3	POM 80 372
X8-90-4-2B	POM 80 373
X8-90-4-2A	POM 80 374
X8-90-4	POM 80 375
X8-90-5-3A	POM 80 376
X8-90-5	POM 80 377
X8-90-6-3A	POM 80 378
X8-90-6	POM 80 379
X8-90-7-3A	POM 80 380
X8-90-7	POM 80 381
X8-90-8-3A	POM 80 382
X8-90-8	POM 80 383
X8-90-9-3A	POM 80 384
X8-90-9	POM 80 385
X8-90-10-3A	POM 80 386
X8-90-10	POM 80 387
X8-90-11	POM 80 388
X8-90-12	POM 80 389
X8-90-13	POM 80 390
X8-90-14	POM 80 391
X8-90-15	POM 80 392
X8-90-16	POM 80 393
X8-90-17	POM 80 394
X8-90-18	POM 80 395
X8-130-1	POM 80 396
X8-130-2-2B	POM 80 397
X8-130-2-2A	POM 80 398
X8-130-2	POM 80 399
X8-130-3-3A	POM 80 400
X8-130-3	POM 80 401
X8-130-4-2B	POM 80 402
X8-130-4-2A	POM 80 403
X8-130-4	POM 80 404
X8-130-5-3A	POM 80 405
X8-130-5	POM 80 406
X8-130-6-3A	POM 80 407
X8-130-6	POM 80 408
X8-130-7-3A	POM 80 409
X8-130-7	POM 80 410
X8-130-8-3A	POM 80 411
X8-130-8	POM 80 412
X8-130-9-3A	POM 80 413
X8-130-9	POM 80 414
X8-130-10-3A	POM 80 415
X8-130-10	POM 80 416
X8-130-11	POM 80 417
X8-130-12	POM 80 418
X8-130-13	POM 80 419
X8-130-14	POM 80 420
X8-130-15	POM 80 421
X8-130-16	POM 80 422
X8-130-17	POM 80 423
X8-130-18	POM 80 424

For the hydraulic characteristics, refer to the selection chart for 8” submersible pumps.

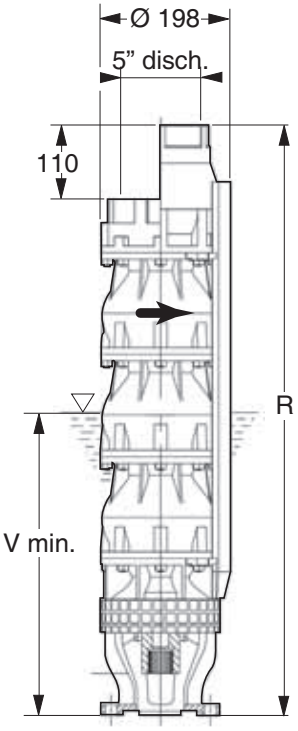
8” (200 mm)
Hydraulic units

Dimensions

Dimensions of 8” hydraulic units

Dimensions in millimetres

Type	Pumps R	Pumps V min.	Opening Discharge	Weight kg
X8-50-1	560	1000		27
X8-50-2-2A	695	1000		35
X8-50-2-1A	695	1000		35
X8-50-2	695	1000		35
X8-50-3-2A	830	1000		44
X8-50-3	830	1000		44
X8-50-4-2A	965	1000		53
X8-50-4	965	1000		53
X8-50-5-3A	1100	1000		61
X8-50-5-2A	1100	1000		61
X8-50-5	1100	1000		61
X8-50-6-2A	1235	1000		70
X8-50-6	1235	1000		70
X8-50-7-2A	1370	1000		79
X8-50-7	1370	1000		79
X8-50-8-2A	1505	1000	5” F	87
X8-50-8	1505	1000		87
X8-50-9-2A	1640	1000		96
X8-50-9	1640	1000		95
X8-50-10-2A	1775	1000		104
X8-50-10	1775	1000		104
X8-50-11-2A	1910	1000		113
X8-50-11	1910	1000		113
X8-50-12	2045	1000		121
X8-50-13	2180	1000		130
X8-50-14	2315	1000		139
X8-50-15	2450	1000		147
X8-50-16	2585	1000		156
X8-50-17	2720	1000		164
X8-50-18	2855	1000		173
X8-50-19	2990	1000		182
X8-75-1	577	1000		27
X8-75-2-2A	729	1000		36
X8-75-2-1A	729	1000		36
X8-75-2	729	1000		36
X8-75-3-3A	881	1000		46
X8-75-3-2A	881	1000		46
X8-75-3-1A	881	1000		46
X8-75-3	881	1000		46
X8-75-4-2A	1033	1000		55
X8-75-4	1033	1000		55
X8-75-5-3A	1185	1000		64
X8-75-5-2A/30	1185	1000		64
X8-75-5	1185	1000		64
X8-75-6-2A	1337	1000		73
X8-75-6-1A	1337	1000		73
X8-75-6	1337	1000		73
X8-75-7-2A	1489	1000	5” F	82
X8-75-7	1489	1000		82
X8-75-8-3A	1641	1000		91
X8-75-8-2A	1641	1000		91
X8-75-8	1641	1000		91
X8-75-9-2A	1793	1000		100
X8-75-9	1793	1000		100
X8-75-10-2A	1945	1000		110
X8-75-10	1945	1000		110
X8-75-11-2A	2097	1000		119
X8-75-11	2097	1000		119
X8-75-12	2249	1000		128
X8-75-13	2401	1000		137
X8-75-14	2553	1000		146
X8-75-15	2705	1000		156
X8-75-16	2857	1000		165
X8-75-17	3009	1000		174
X8-75-18	3182	1000		183



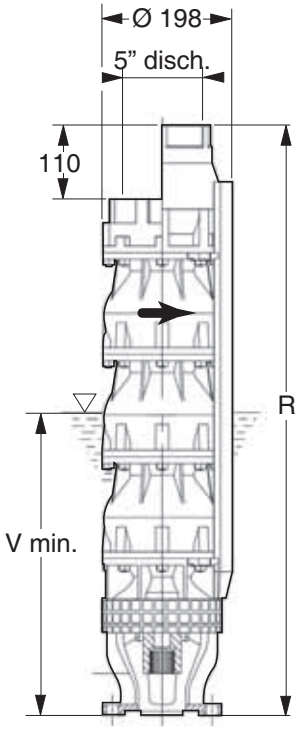
8” (200 mm)
Hydraulic units

Dimensions

Dimensions of 8” hydraulic units

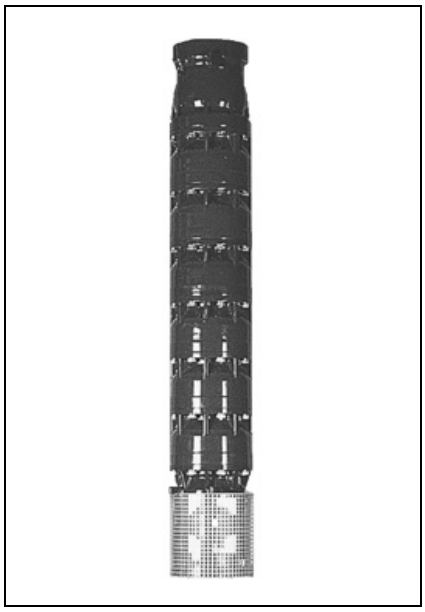
Dimensions in millimetres

Type	Pumps R	Pumps V min.	Opening Discharge	Weight kg
X8-90-1	577	1000		27
X8-90-2-2B	729	1000		36
X8-90-2-2A	729	1000		36
X8-90-2	729	1000		36
X8-90-3-2B	881	1000		46
X8-90-3-1A	881	1000		46
X8-90-3	881	1000		46
X8-90-4-2B	1033	1000		55
X8-90-4-2A	1033	1000		55
X8-90-4	1033	1000		55
X8-90-5-3A	1185	1000		64
X8-90-5	1185	1000		64
X8-90-6-3A	1337	1000		73
X8-90-6	1337	1000		73
X8-90-7-3A	1489	1000		82
X8-90-7	1489	1000	5” F	82
X8-90-8-3A	1641	1000		91
X8-90-8	1641	1000		91
X8-90-9-3A	1793	1000		100
X8-90-9	1793	1000		100
X8-90-10-3A	1945	1000		110
X8-90-10	1945	1000		110
X8-90-11	2097	1000		119
X8-90-12	2249	1000		128
X8-90-13	2422	1000		137
X8-90-14	2574	1000		146
X8-90-15	2726	1000		156
X8-90-16	2878	1000		165
X8-90-17	3030	1000		174
X8-90-18	3182	1000		183
X8-130-1	577	1000		27
X8-130-2-2B	729	1000		36
X8-130-2-2A	729	1000		36
X8-130-2	729	1000		36
X8-130-3-3A	881	1000		46
X8-130-3	881	1000		46
X8-130-4-2B	1033	1000		55
X8-130-4-2A	1033	1000		55
X8-130-4	1033	1000		55
X8-130-5-3A	1185	1000		64
X8-130-5	1185	1000		64
X8-130-6-3A	1337	1000		73
X8-130-6	1337	1000		73
X8-130-7-3A	1489	1000		82
X8-130-7	1489	1000	5” F	82
X8-130-8-3A	1641	1000		91
X8-130-8	1641	1000		91
X8-130-9-3A	1793	1000		100
X8-130-9	1793	1000		100
X8-130-10-3A	1945	1000		110
X8-130-10	1945	1000		110
X8-130-11	2097	1000		119
X8-130-12	2249	1000		128
X8-130-13	2422	1000		137
X8-130-14	2574	1000		146
X8-130-15	2726	1000		156
X8-130-16	2878	1000		165
X8-130-17	3030	1000		174
X8-130-18	3182	1000		183



10” (250 mm) and 12” (300 mm) submersible pumps

General information



Complete range of 10” and 12” submersible electropumps, or hydraulic units only, on request.

6” (150 mm), 8” (200 mm) and 10” (250 mm) motors

General information

6", 8" and 10" FRANKLIN motors for driving 6", 8" and 10" submersible pumps

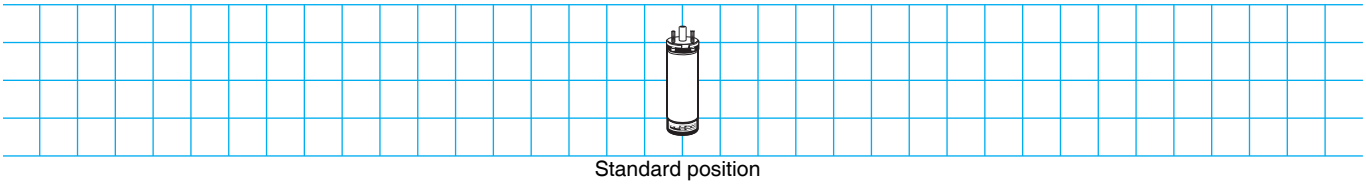
Applications
- Coupling with hydraulic units in accordance with NEMA standard for 6" and 8" motors
- Coupling to hydraulic units with 10" flange for 10" motors

Conditions of use
- For clear or aggressive water (according to manufacture)
- Maximum ambient temperature:
  - 30°C for 6" and 8" motors
  - 25°C for 10" motors
- Maximum number of starts per hour:
  - 20 for 6" motors
  - 10 for 8" and 10" motors
- Operates while permanently submerged
- Electrical power supply:
  - Rated voltage: 380 V - 415 V - 50 Hz.
  - Voltage range: 415 V + 6%, 380 V –10%
- Direct starting up to 130 kW inclusive
- Y/Δ starting for 150 kW
- Encapsulated 6" motors
- Rewindable 8" and 10" motors
- Asynchronous 3,000 min^{-1}

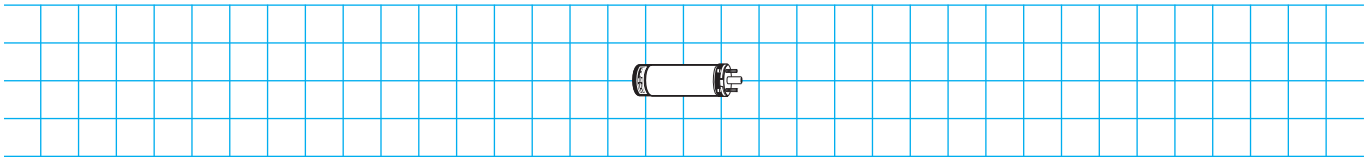
Description of 6”, 8” and 10” submersible motors

Component	Materials	Remarks
Stator casing	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Winding	Copper	
Rotor	X2 Cr Ni Mo N 22.5.3 stainless steel shaft extension	- Splined shaft extension in accordance with NEMA standard for 6” and 8” motors
Upper shield	Epoxy-coated cast iron	
Base	Epoxy-coated cast iron	
Upper bearing liner	Graphite	
Lower bearing liner	Graphite	
Mechanical seal	SIC/SIC on 6” motors	
Seals	Buna N	
Axial limit stop	Graphite/stainless steel	
Screws	X5 Cr Ni 18.10 (AISI 304) stainless steel	
Equipressure membrane	Buna N on 6” motors NBR on 8” and 10” motors	
Electrical cable	Special submersible elastomer	- Connection by plug-in connector for 6” motors - Integrated with the motor for 8” and 10”

Mounting positions



Standard position



Horizontal position

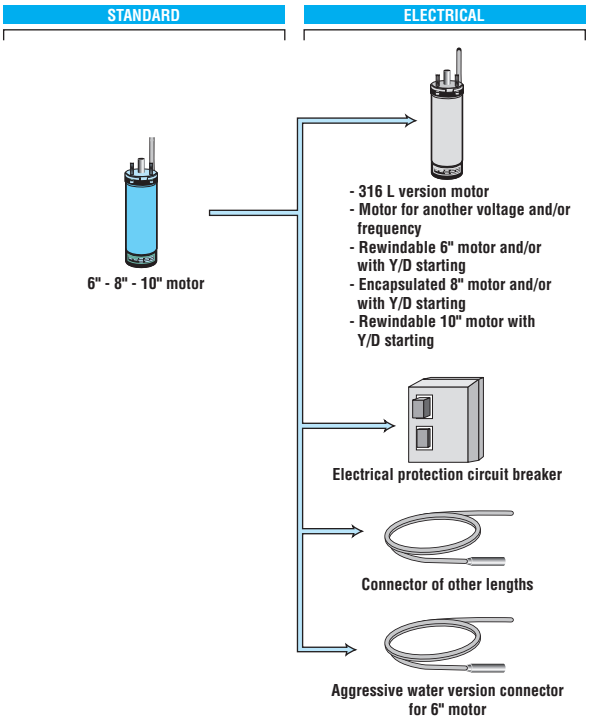
6” (150 mm), 8” (200 mm) and 10” (250 mm) motors

Adaptation possibilities

B

☞ ***Options:***

- electrical protection (circuit breaker)
- 316 L version motor
- motor for another voltage and/or frequency
- connector of another length
- aggressive water version connector for 6” motor
- encapsulated and/or Y/Δ starting 8” motor
- rewinding with Y/Δ starting 10” motor
- rewinding with Y/Δ starting 6” motor



Designation / Coding

30	T3
Motor output power in kW	3-phase 400 V

☞ ***Example of coding:***

Designation	Code
30 T3	M 200 PC 07

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of power.

6” (150 mm), 8” (200 mm) and 10” (250 mm) motors

Selection

Type	Power kW	Diameter	Code
5.5 T3	5.5	6"	M 200 PC 01
7.5 T3	7.5	6"	M 200 PC 02
9.3 T3	9.3	6"	M 200 PC 09
11 T3	11	6"	M 200 PC 03
15 T3	15	6"	M 200 PC 04
18.5 T3	18.5	6"	M 200 PC 05
22 T3	22	6"	M 200 PC 06
30 T3	30	6"	M 200 PC 07
37 T3	37	6"	M 200 PC 08
45 T3	45	8"	M 201 PC 01
52 T3	52	8"	M 201 PC 02
55 T3	55	8"	M 201 PC 03
60 T3	60	8"	M 201 PC 04
67 T3	67	8"	M 201 PC 05
75 T3	75	8"	M 201 PC 06
83 T3	83	8"	M 201 PC 07
93 T3	93	8"	M 201 PC 08
110 T3	110	10"	M 202 PC 01
130 T3	130	10"	M 202 PC 02
150 T3	150	10"	M 202 PC 03

Electrical connectors for 6" motors

Type	Cross-section	Length	Code
Standard connector	4x4 mm2	4 m	T 000 AE 25
	4x8.4 mm2	4 m	T 000 AE 26

Coupling screw kit

Type	Code
Coupling screw kit for 6" motor	T 000 AE 27
Coupling screw kit for 8" motor	T 000 AE 22
Coupling screw kit for 10" motor	T 000 AE 23

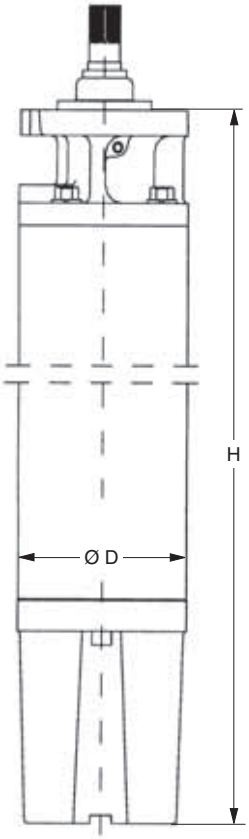
6” (150 mm), 8” (200 mm) and 10” (250 mm) motors

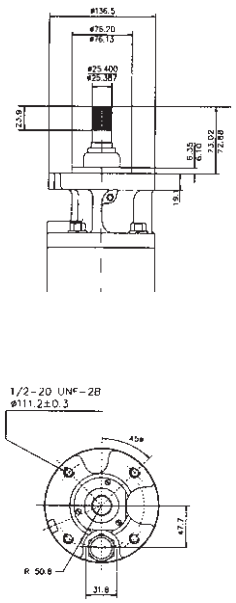
Dimensions

Dimensions of 6”, 8” and 10” motors

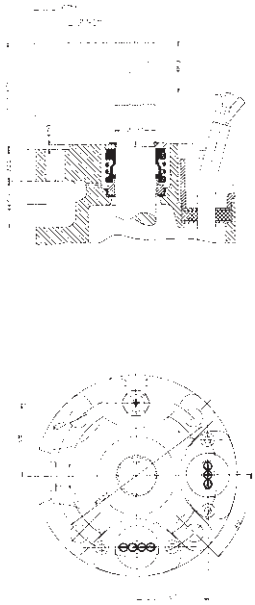
Dimensions in millimetres

B

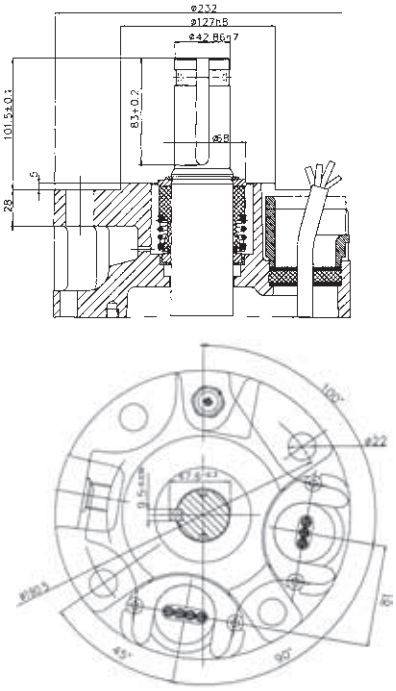




6'' motors



8'' motors



10'' motors

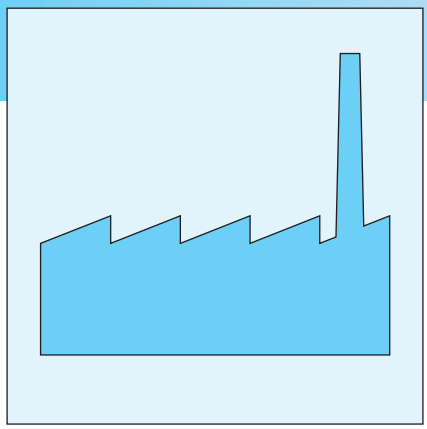
6” (150 mm), 8” (200 mm) and 10” (250 mm) motors

Dimensions

Dimensions of 6”, 8” and 10” motors

Dimensions in millimetres

Type	Motors		Weight
	D	H	kg
5.5 T3	136.5	614.4	41.1
7.5 T3	136.5	646.2	45.2
9.3 T3	136.5	678.7	47.5
11 T3	136.5	711.2	50.9
15 T3	136.5	776.2	56.7
18.5 T3	136.5	841.5	63.3
22 T3	136.5	906.5	69.3
30 T3	136.5	1036.6	83.9
37 T3	136.5	1404.9	135
45 T3	189	1230	156
52 T3	189	1340	179
55 T3	189	1340	179
60 T3	189	1470	198
67 T3	189	1470	198
75 T3	189	1560	215
83 T3	189	1560	247
93 T3	189	1740	247
110 T3	232	1529	315
130 T3	232	1659	362
150 T3	232	1769	413



Industry

Single-stage pumps

Multistage pumps

Pumps for special applications

The hydraulic characteristics of all the pumps given in this catalogue are guaranteed:
- to comply with international standard ISO 2548 Class C, for series production pumps;
- for de-aerated water, at a temperature of 20°C, having a viscosity of 1 mm^2/s or 1° Engler and a density of 1.

Delivery dates for products in this catalogue

YOU CAN DETERMINE THE DELIVERY DATE OF YOUR PRODUCT WITHOUT HAVING TO PHONE

The G.A. (Guaranteed Availability) and F.A.C. (Fast Assembly Centre) services enable you to determine the dispatch date instantaneously.

Products on	**white background**	G.A.: dispatch within 24 hours* * dispatch same day if ordered before 12 noon
Products on	**light green background**	F.A.C.: dispatch within 48 hours
Products on	**dark green background**	Manufacturing timescales to be agreed with your usual contact

MAXIMUM quantities per order and per pump type

	HOUSING	BORE HOLES	INDUSTRY
G.A.	3	1	1
F.A.C.	1	-	1

PSP pumps

General information

Horizontal single-stage centrifugal pumps

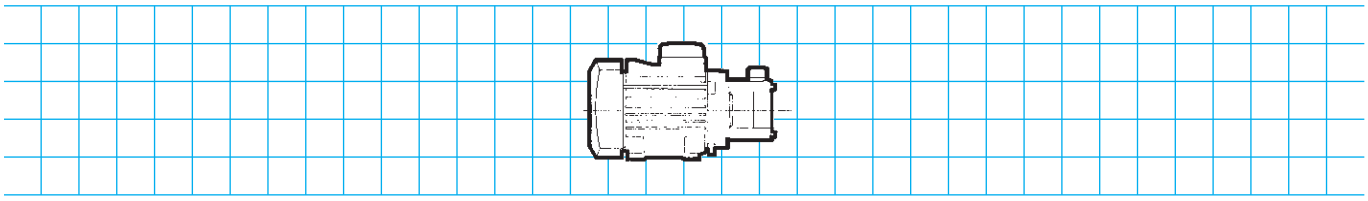
Applications
- Cooling
- Spraying machine tools
- Lubrication
- Transfer of clear and fully clarified cutting oils (machines: lathe, milling machine, etc).

Conditions of use
- For clear liquids only
- Temperature of pumped liquid between -10°C and 110 °C
- Maximum ambient temperature: 40°C
- Maximum operating pressure: 6 bar
- Maximum viscosity of pumped liquid: 20 mm^2/s (for other viscosities, please consult Leroy-Somer)
- Maximum manometric suction head:
  • 7 m
- Motor electrical power supply:
  • Single phase 230 V ± 10% - 50 Hz
  • 3-phase 230/400 V ± 10% - 50 Hz

Description of PSP pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- 3-phase 230/400 V ± 10% - 50 Hz - Single phase 230 V ± 10% - 50 Hz with built-in automatic reset thermal protection - Class F - S1 duty - IP 55 protection
Pump body and cover	Synthetic material (ULTEM)	
Turbine	Synthetic material (PES)	
Shaft	X33 Cr 13 stainless steel	
Mechanical seal	Graphite/ceramic, nitrile seal	
'O' ring seal	Nitrile	

Mounting position



Only possibility

PSP pumps

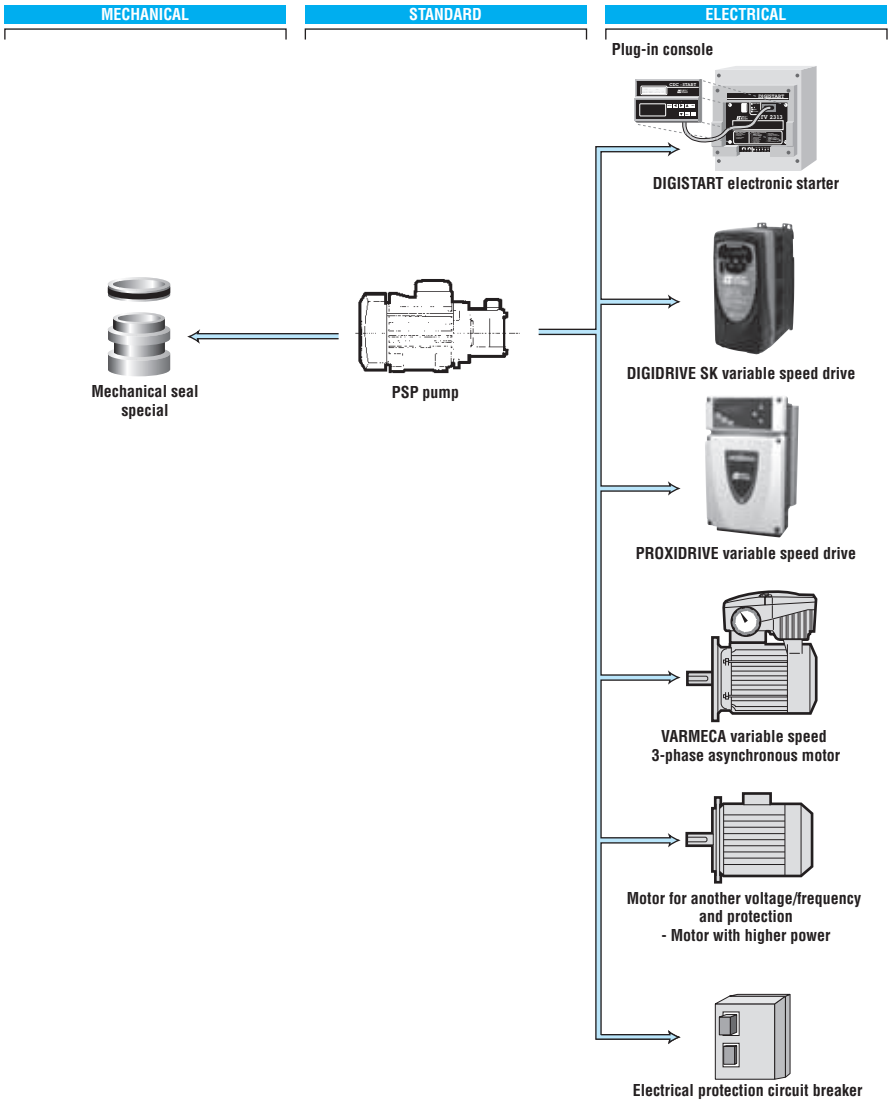
Adaptation possibilities

☞ *PSP pumps can be used in conjunction with:*

- a DIGISTART electronic starter
- DIGIDRIVE and PROXIDRIVE variable speed drives
- VARMECA variable speed 3-phase asynchronous motor

☞ *Options:*

- electrical protection (circuit breaker)
- motor with another voltage and/or speed
- motor with higher power
- special mechanical seal



Designation / Coding

PSP	23	T
Designation of the series	Definition of the characteristics	3-phase

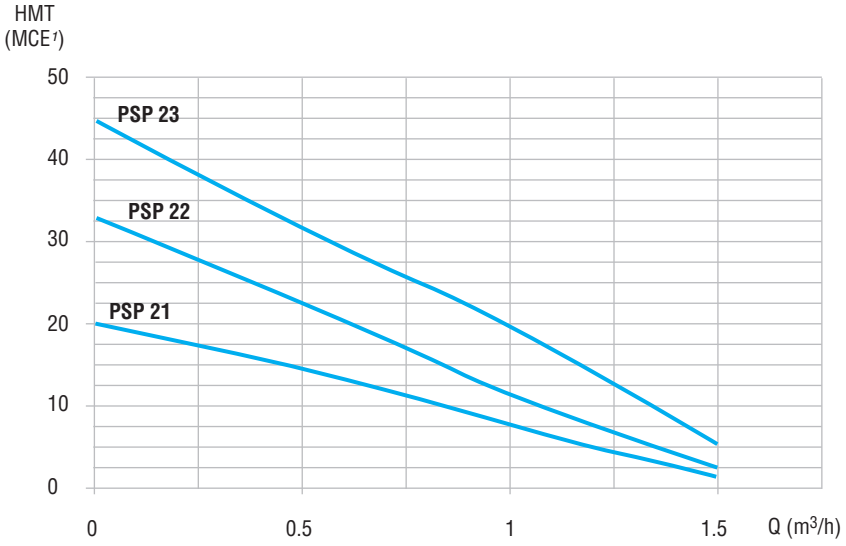
☞ *Example of coding:*

Designation	Code
PSP 23 T	T 011 PC 41

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

PSP pumps

Selection



Rated flow: 0.5 m³/h

Type	Product code	Flow rate in m³/h	0	0.5	1	1.5	kW Output	Current in A 1-ph 230 V	3-ph 230 V	3-ph 400 V
PSP 21 M	T 011 PC 30	TMH in MHW[1]	20	**15**	8	2	0.12	1.2	-	-
PSP 21 T	T 011 PC 31		20	**15**	8	2	0.12	-	0.86	0.5
PSP 22 M	T 011 PC 33		33	**23**	12	3	0.18	1.8	-	-
PSP 22 T	T 011 PC 34		33	**23**	12	3	0.18	-	0.9	0.52
PSP 23 M	T 011 PC 39		45	**32**	20	6	0.25	2.7		
PSP 23 T	T 011 PC 41		45	**32**	20	6	0.25	-	1.5	0.9

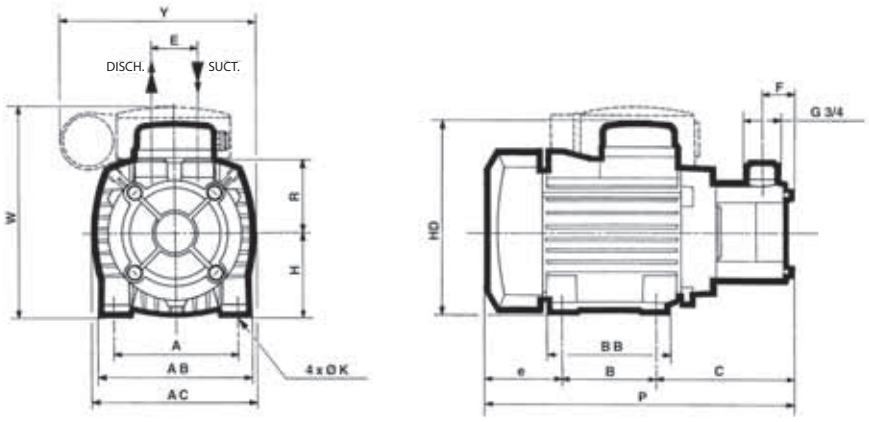
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

PSP pumps

Dimensions

Dimensions of PSP pumps

Dimensions in millimetres



Type	Pumps																	Openings		Weight
	A	AA	AB	AC	B	BB	C	e	E	F	H	HD	ØK	P	R	W	Y	Suction	Discharge	kg
PSP 21	90	24	104	110	71	89	100	49	36	26	56	140	6	220	56	170	150	3/4" M (20/27)	3/4" M (20/27)	4.5
PSP 22	100	26	115	124	80	96.5	104	52	36	26	63	152	7	236	56	159	150	3/4" M (20/27)	3/4" M (20/27)	6
PSP 23	112	24	126	140	90	104	108	48	36	26	71	164	7	246	56	173	155	3/4" M (20/27)	3/4" M (20/27)	8

SP
Pumps

General information

Horizontal single-stage self-priming pumps

Applications
- Industry, cooling
- Sprinkler systems
- Miscellaneous applications

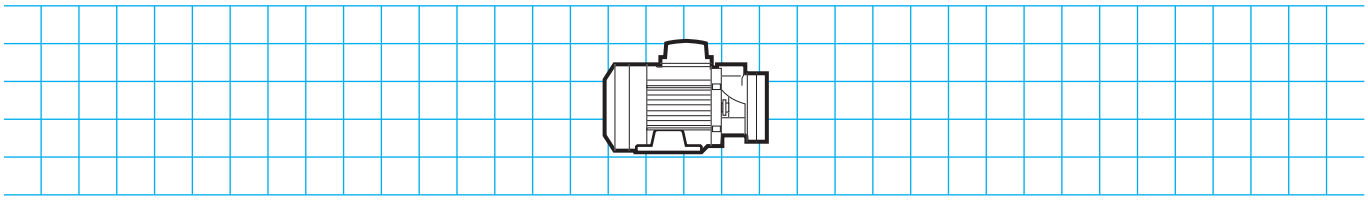
Conditions of use
- For clear liquids only.
- Temperature of pumped liquid between –10°C and 60°C
- Maximum ambient temperature: 40°C
- Maximum operating pressure: 6 bar
- Maximum viscosity of pumped liquid: 20 mm^2/s (for other viscosities, please consult Leroy-Somer)
- Maximum manometric suction lift:

  • 7.5 m for SP 20 A
  • 8.5 m for SPN 27
- Motor electrical power supply:
  • Single phase 230 V ± 10% - 50 Hz for SP 20 A
  • 3-phase 230/400 V ± 10% - 50 Hz for SP 20 A - SPN 27

Description of SP pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- 3-phase 230/400 V ± 10% - 50 Hz for SP 20 A - SPN 27 - Single phase 230 V ± 10% - 50 Hz with built-in automatic reset thermal protection for SP 20 A - Class F - S1 duty - IP 55 protection
Pump body and cover	FGL 250 cast iron	
Turbine	Brass	
Shaft	X33 Cr 13 stainless steel	
Mechanical seal	Graphite/ceramic, nitrile seal	
'O' ring seal	Nitrile	

Mounting position



Only possibility

SP
Pumps

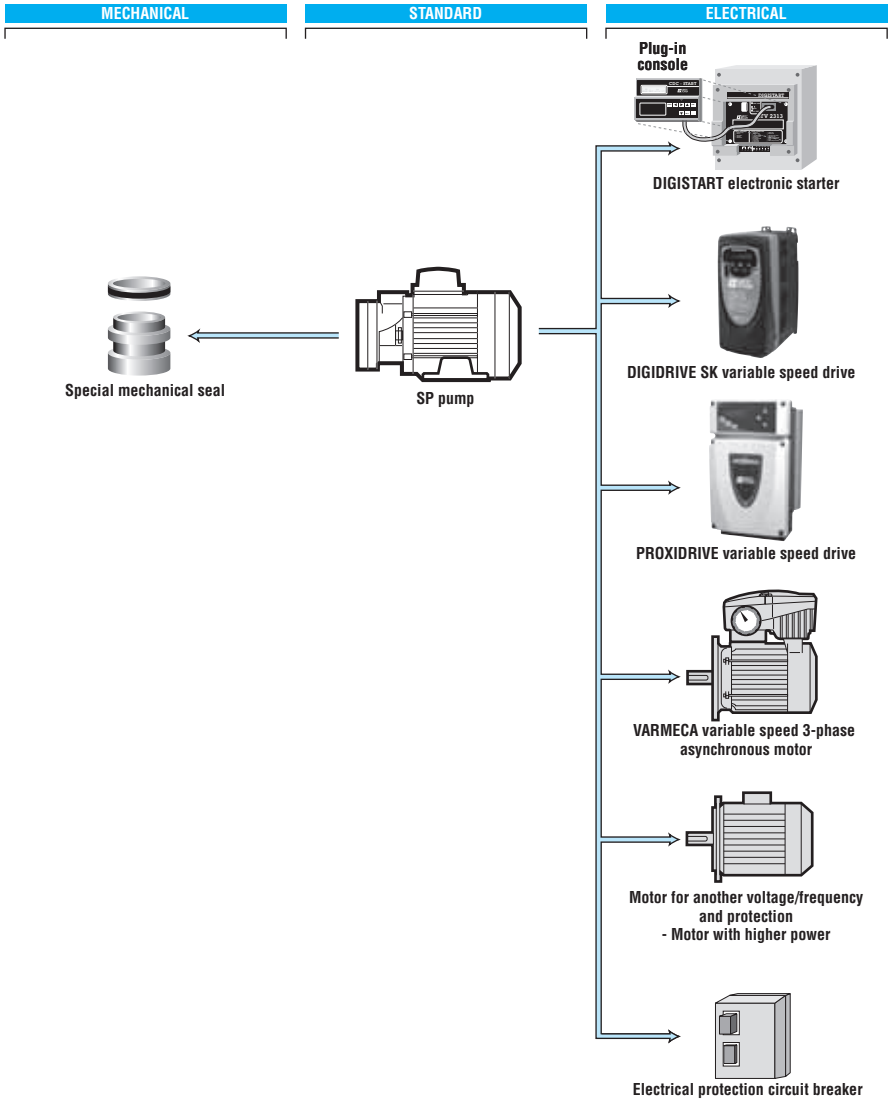
Adaptation possibilities

☞ ***SP pumps can be used in conjunction with:***

- a DIGISTART electronic starter
- DIGIDRIVE and PROXIDRIVE variable speed drives
- VARMECA variable speed 3-phase asynchronous motor

☞ ***Options:***

- electrical protection (circuit breaker)
- motor with another voltage and/or speed
- motor with higher power
- special mechanical seal



Designation / Coding

SP	20	A	T
Designation of the series	Definition of the characteristics	Manufacturing index	3-phase

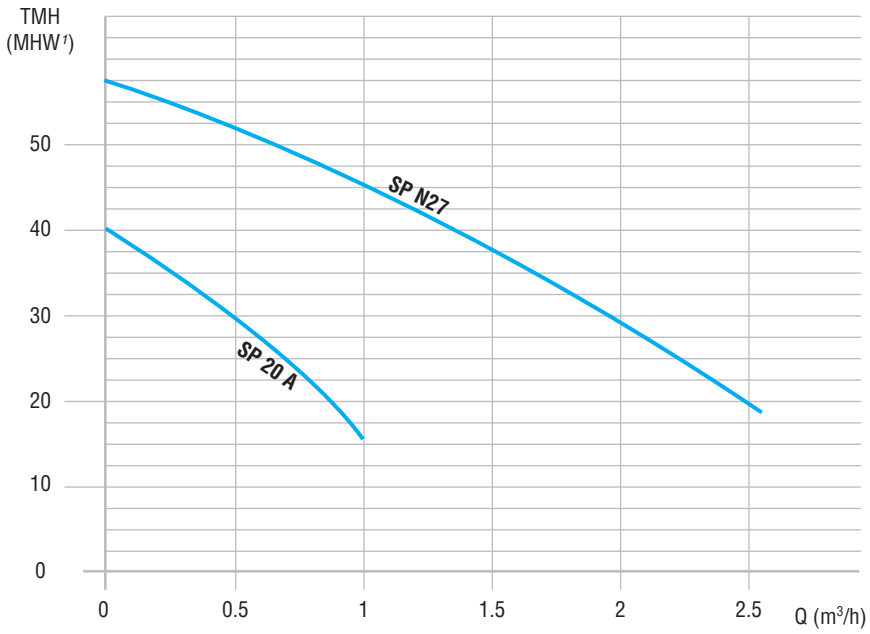
☞ ***Example of coding:***

Designation	Code
SP 20 AT	T 011 PC 03

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

SP
Pumps

Selection



Rated flow: 0.5 to 2 m³/h

Type	Product code	Flow rate in m³/h	0	0.5	1	1.5	2	2.5
SP 20 AM	T 011 PC 01	TMH in MHW[1]	40	**30**	15	-	-	-
SP 20 AT	T 011 PC 03		40	**30**	15	-	-	-
SPN 27 T	T 011 PC 12		58	52	45	37	**29**	19

kW	Current in A		
Output	1-ph 230 V	3-ph 230 V	3-ph 400 V
0.25	1.9	-	-
0.25	-	1.25	0.75
0.75	-	2.8	1.6

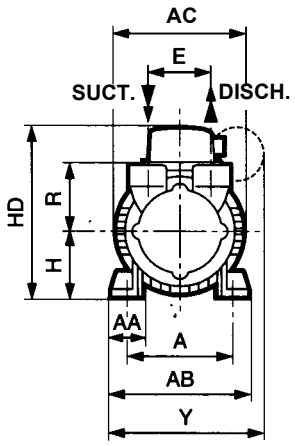
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

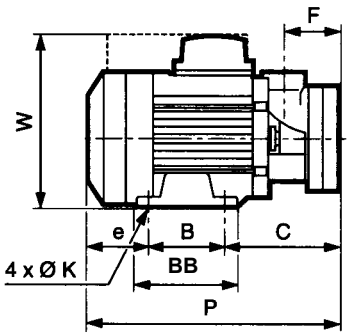
SP
Pumps

Dimensions

Dimensions of SP pumps

Dimensions in millimetres





Type	Pumps																	Openings		Weight
	A	AA	AB	AC	B	BB	C	e	E	F	H	HD	ØK	P	R	W	Y	Suction	Discharge	kg
SP 20 A	100	19	115	124	80	96	107	53	82	60	63	155	7	240	70	158	124	3/4" F (20/27)	3/4" F (20/27)	9.5
SPN 27	125	35	157	160	100	120	124	64	85	60	80	206	9	288	80	202	173	1" F (26/34)	1" F (26/34)	12

LT
pumps

General information

Horizontal monobloc single-stage centrifugal pumps

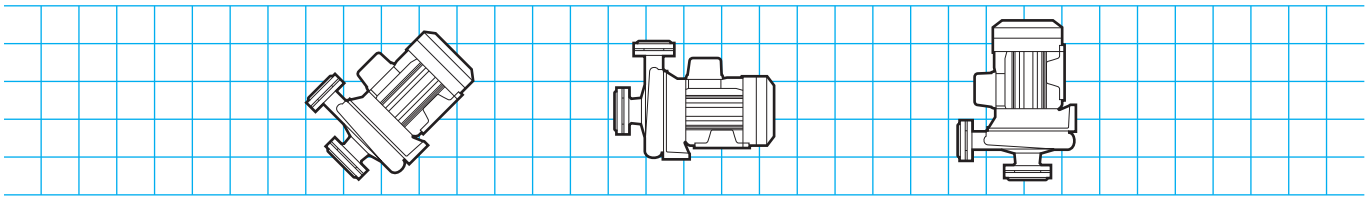
Applications
- Industry, cooling, air conditioning, lubrication, washing
- Sprinkler systems

Conditions of use
- For clear or very slightly contaminated liquids (maximum content of solid particles in suspension: 50 g/m^3)
- Temperature of pumped liquid between –10°C and 60°C
- Maximum ambient temperature: 40°C
- Maximum operating pressure: 6 bar
- Maximum manometric suction lift:
  - 4.5 m for LT 50, LT 70
  - 6.5 m for LT 20, LT 33
- Motor electrical power supply:
  - 3-phase 230/400 V ± 10% - 50 Hz

Description of LT pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- 3-phase 230/400 V ± 10% - 50 Hz - Class F - S1 duty - IP 55 protection
Shell	FGL 250 cast iron	
Impeller	Synthetic material for LT 20 - LT 33 FGL 250 cast iron for LT 50 - LT 70	
Mounting plate	FGL 250 cast iron	
Shaft	X33 Cr 13 stainless steel	
Mechanical seal	Carbon/ceramic Nitrile seal	
'O' ring seal	Nitrile	
Flange adaptor	FGL 250 cast iron	Flange adaptor, seals and bolts supplied with the electropump

Mounting positions



Inclined position Standard position Vertical position

LT
pumps

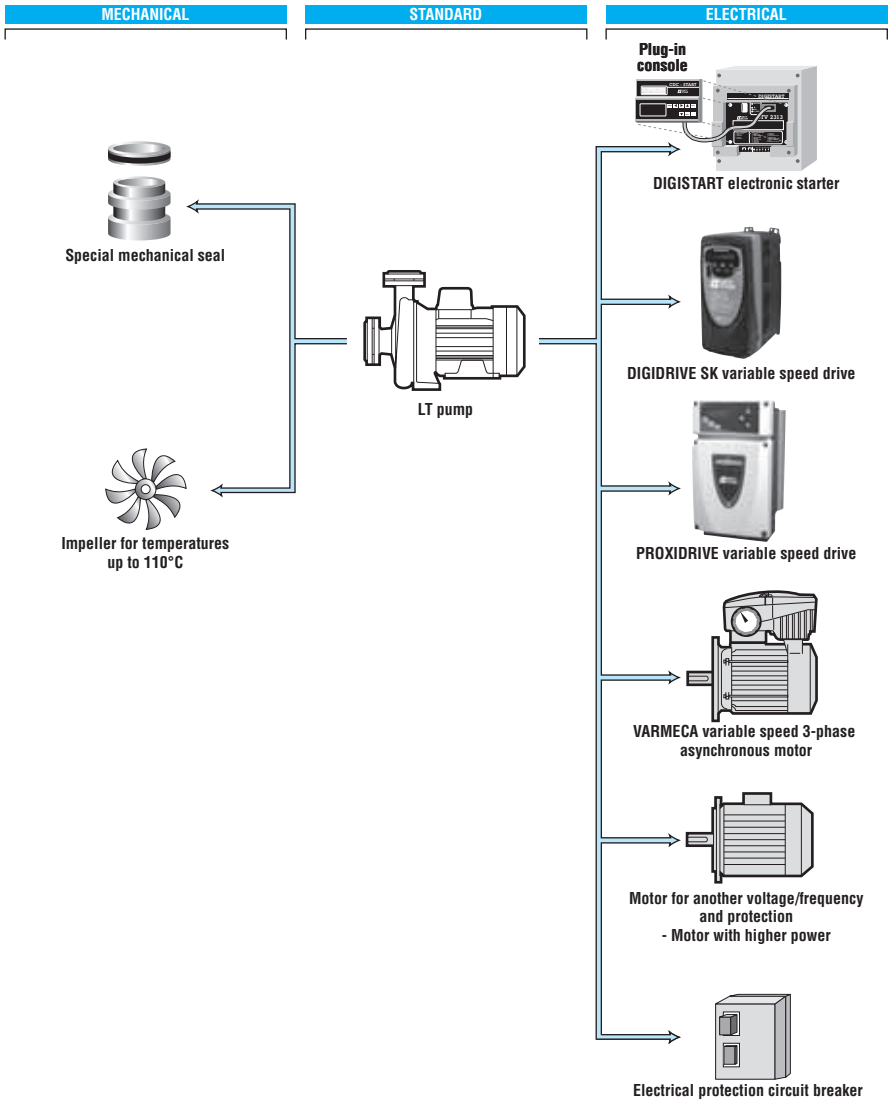
Adaptation possibilities

☞ ***LT pumps can be used in conjunction with:***

- a DIGISTART electronic starter
- DIGIDRIVE SK and PROXIDRIVE variable speed drives
- VARMECA variable speed 3-phase asynchronous motor

☞ ***Options:***

- electrical protection (circuit breaker)
- motor with another voltage and/or frequency
- motor with higher power
- special mechanical seal
- impeller for temperature up to 110°C



Designation / Coding

LT	20	T
Designation of the series	Maximum manometric head	3-phase

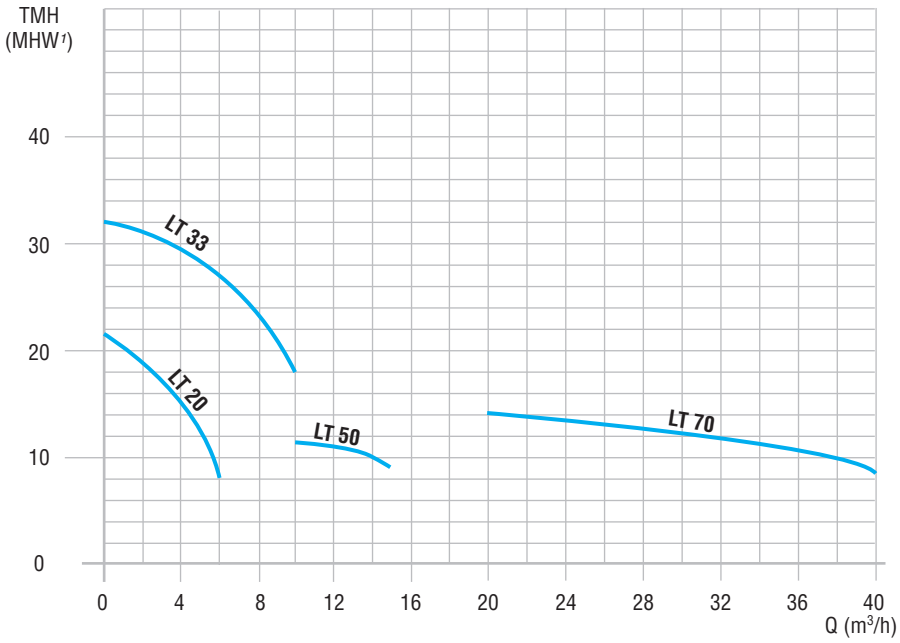
☞ ***Example of coding:***

Designation	Code
LT 20 T	T 051 PC 03

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

LT
pumps

Selection



Rated flow: 4 to 30 m³/h

Type	Product code	Flow rate in m³/h	0	2	4	6	8	10	12	14	15	16	18	20	25	30	35	40	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
LT 20 T	T 051 PC 03	TMH in MHW[1]	21	19	**15**	8	-	-	-	-	-	-	-	-	-	-	-	-	0.55	2.35	1.35
LT 33 T	T 051 PC 05		32	31	30	28	**23**	18	-	-	-	-	-	-	-	-	-	-	1.1	4	2.3
LT 50 T	T 051 PC 09		-	-	-	-	-	11	11	**11**	10	-	-	-	-	-	-	-	0.75	2.8	1.6
LT 70 T	T 051 PC 11		-	-	-	-	-	-	-	-	-	-	-	14	13	**12**	11	9	1.8	6.2	3.6

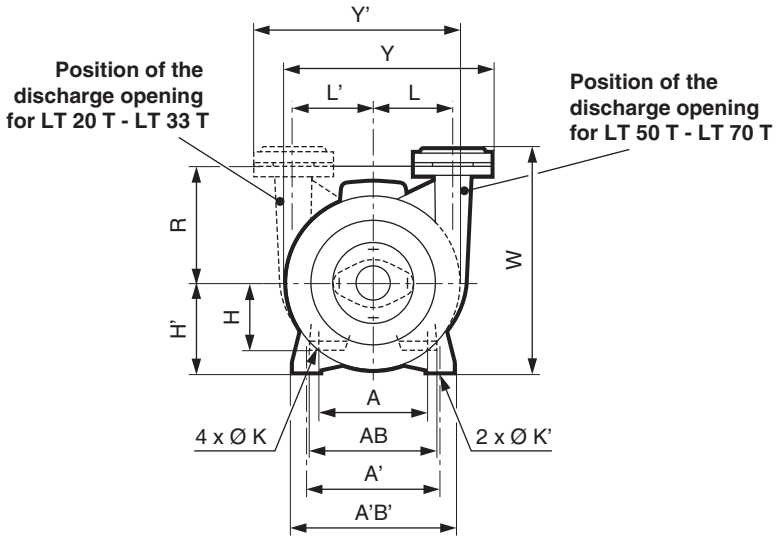
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

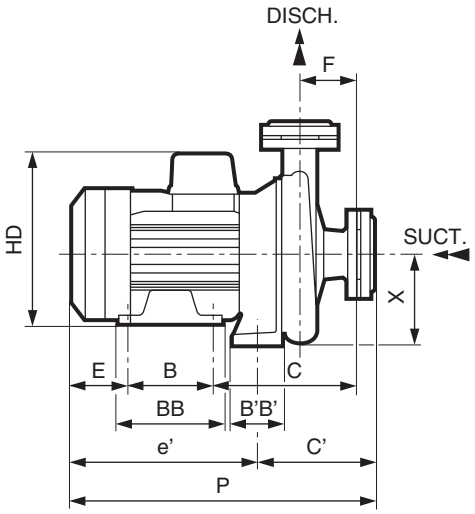
LT
pumps

Dimensions

Dimensions of LT pumps

Dimensions in millimetres





Type	Pumps																	Openings		Weight
	A'	A'B'	B'B'	C'	e'	F	H'	HD'	ØK'	L	L'	P	R	W	X	Y	Y'	Suction	Discharge	kg
LT 20 T	115	145	50	103	186	58	80	178	9	-	67	319	100	210	-	-	176	1" F (26/34)	1" F (26/34)	12
LT 33 T	150	180	60	112	218	60	100	210	13	-	80	360	120	250	-	-	207	1" F (26/34)	1" F (26/34)	20
LT 50 T	150	180	60	127	217	76	100	210	13	80	-	374	115	245	92	235	-	2" F (50/60)	2" F (50/60)	21
LT 70 T	170	200	65	158	245	90	110	228	11	86	-	428	130	265	103	260	-	2"1/2 F (66/76)	2"1/2 F (66/76)	32

LSIO
Pumps

General information

Horizontal monobloc single-stage centrifugal pumps constructed entirely of X 5 Cr Ni Mo 17.12.2 (AISI 316) stainless steel, with open impeller.

Applications

Industry
- Washing and surface treatment of metals
- Washing of metal parts
- Circulation of detergents and oils at a temperature below 90°C
- Circulation of cooling liquid for machine tools
- Treatment for communities (industrial washing machine and dishwasher)

Agribusiness
- Washing of meat, fruit and vegetables
- Circulation and transfer of seawater

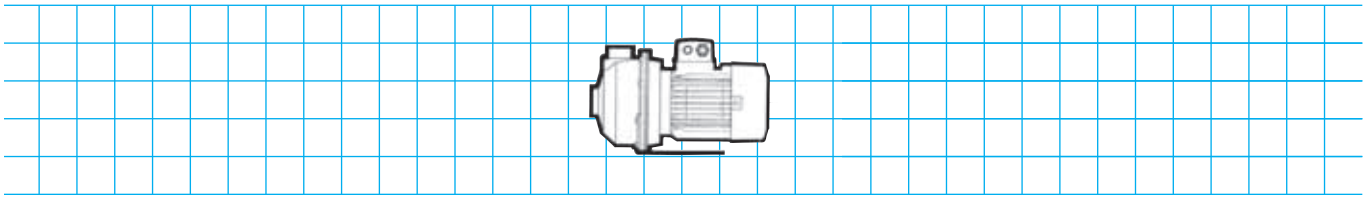
Agriculture
- Transfer of liquids and liquid fertilizer with particles in suspension

Conditions of use
- All components in contact with the pumped liquid are made of AISI 316 stainless steel
- For liquids with solid particles in suspension
- Open impeller with passage of:
  - 10 mm for LSIO 15 series
  - 20 mm for LSIO 30 series
- Temperature of pumped liquid between – 10°C and 110°C
- Maximum ambient temperature: 40°C
- Maximum viscosity of pumped liquid: 20 mm^2/s.
- Maximum operating pressure: 8 bar
- Motor electrical power supply:
  - Single-phase 230 V ± 10% 50 Hz
  - 3-phase 230/400 V ± 10% 50 Hz

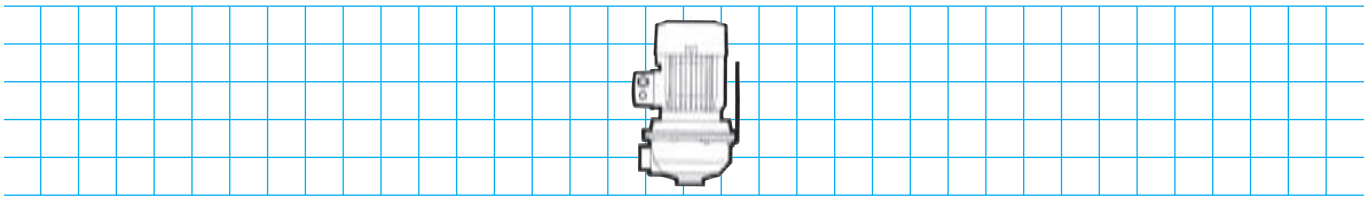
Description of LSIO pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1} aluminium alloy housing	- Single phase 230 V ± 10% - 50 Hz with built-in automatic reset thermal protection for motor up to 1.5 kW - 3-phase 230/400 V ± 10% - 50 Hz - Class F - S1 duty - IP 55 protection
Pump body, base, impeller,	X2CrNiMo.17.12.2 (AISI 316L) stainless steel	
Shaft end screw, caps	X5CrNiMo.17.12.2 (AISI 316) stainless steel	
Shaft	X5CrNiMo.17.12.2 (AISI 316) stainless steel	
Mechanical seal	Tungsten carbide/silicon carbide, Viton seals	
Seals	Viton	

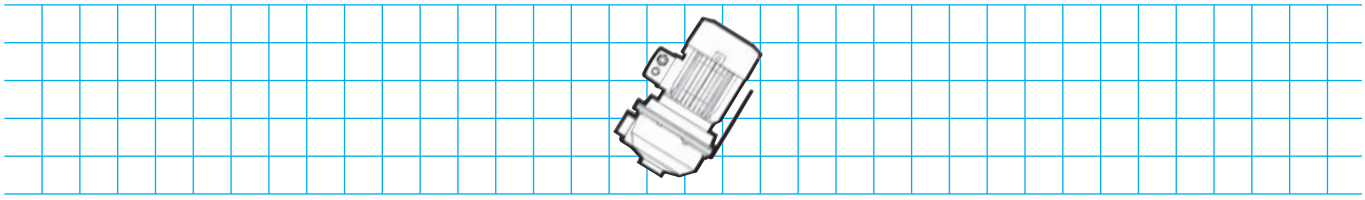
Mounting positions



Standard position



Vertical position



Inclined position

LSIO
Pumps

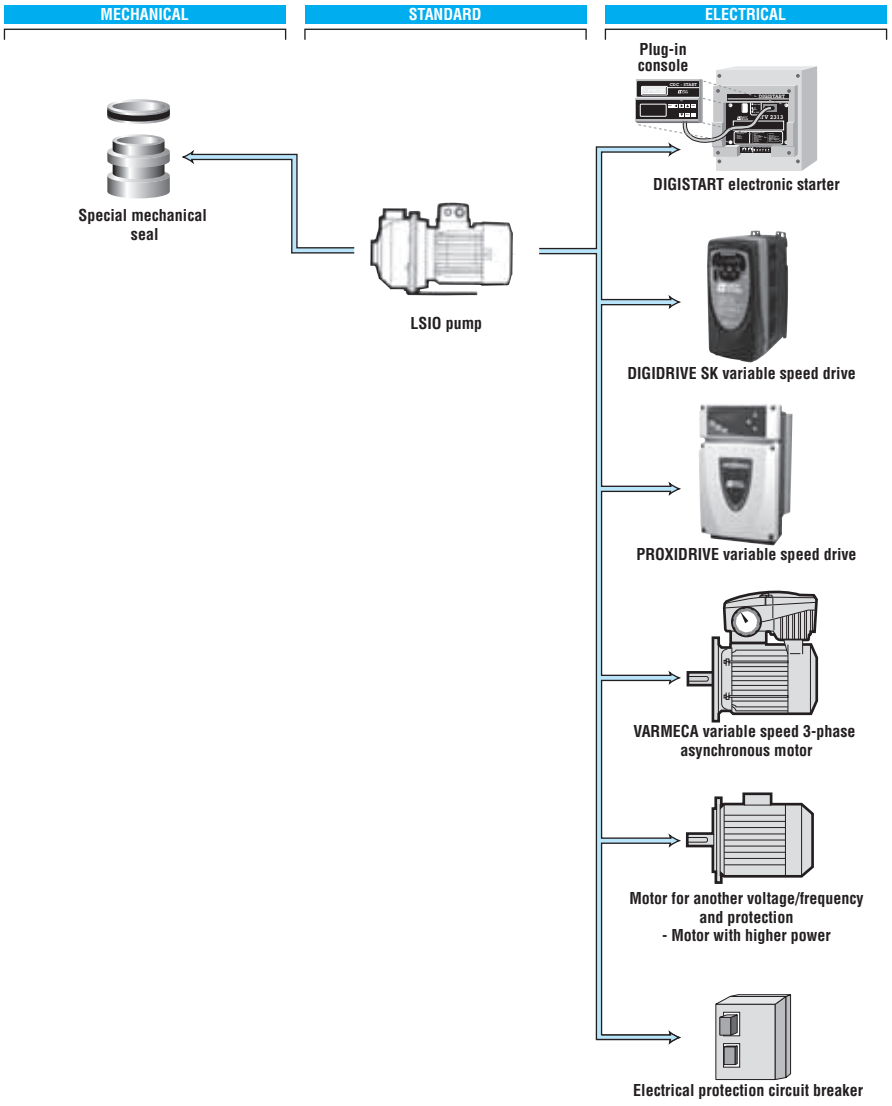
Adaptation possibilities

☞ ***LSIO pumps can be used in conjunction with:***

- a DIGISTART electronic starter
- DIGIDRIVE SK and PROXIDRIVE variable speed drives
- VARMECA variable speed 3-phase asynchronous motor

☞ ***Options:***

- electrical protection (circuit breaker)
- motor with another voltage and/or frequency
- motor with higher power
- special mechanical seal



Designation / Coding

LSIO	15	9	M
Designation of the series	Rated flow of the pump	Nominal manometric head	Single phase

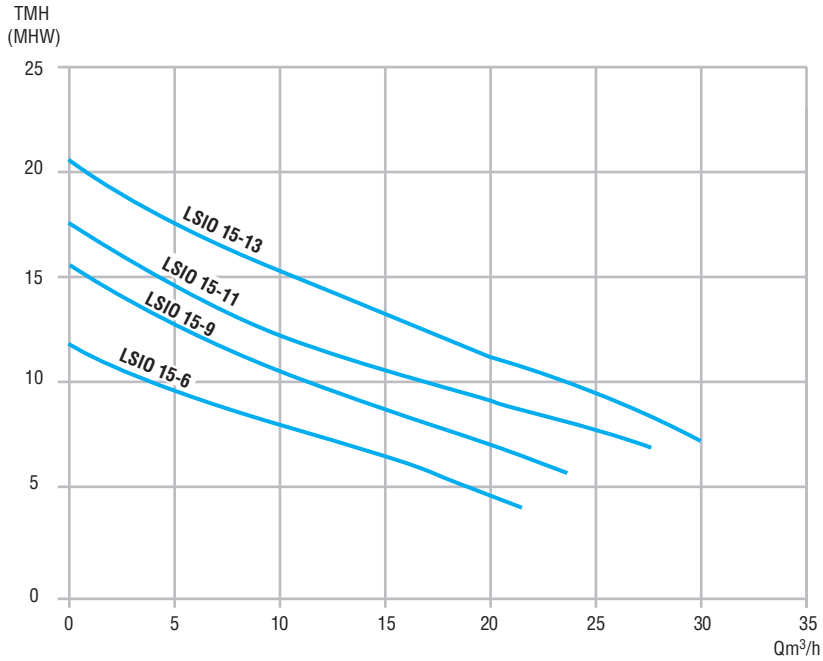
☞ ***Example of coding:***

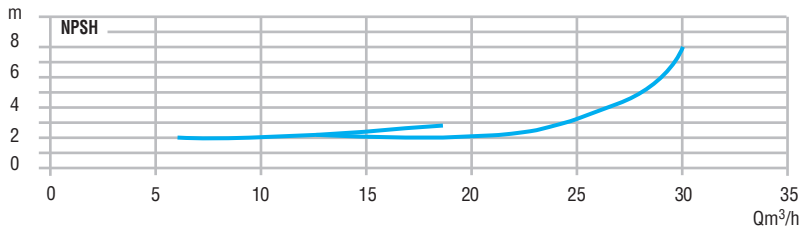
Designation	Code
LSIO 15-9-M	T 160 PC 03

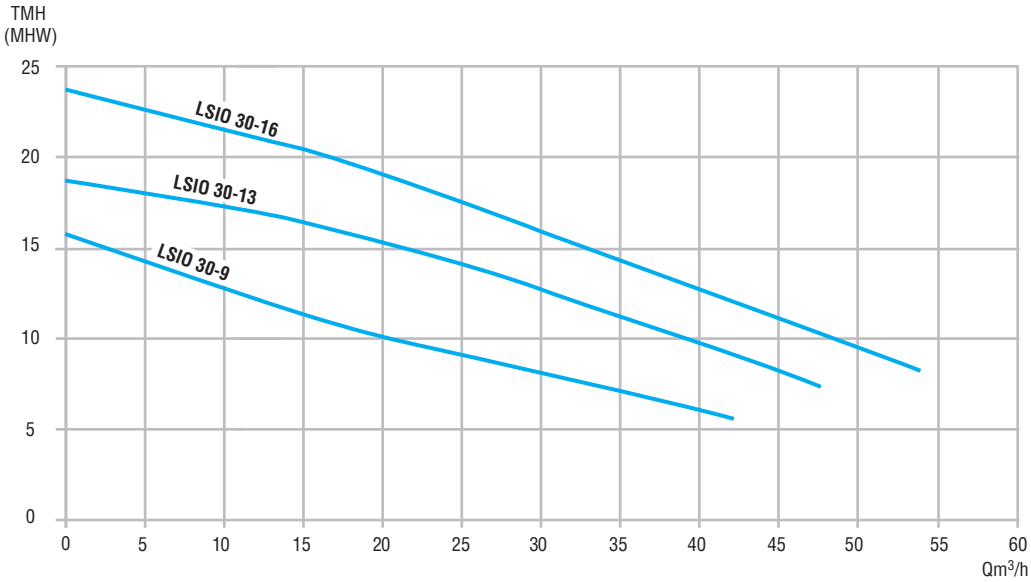
All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

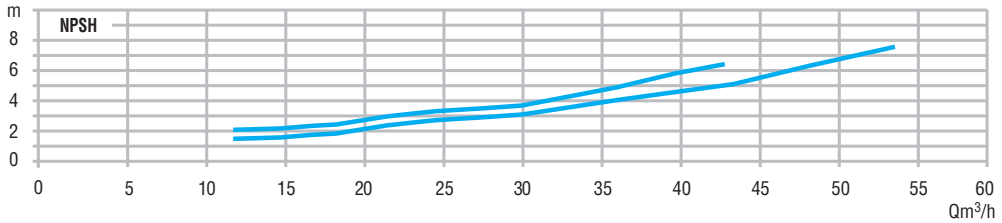
LSIO
Pumps

Selection









LSIO
Pumps

Selection

Rated flow: 15 m³/h

Type	Product code	Flow rate in m³/h	0	3	6	9	12	**15**	18	20	25	30	kW output	Current in A 1-ph 230 V	3-ph 230 V	3-ph 400 V
LSIO 15.6 M	T 160 PC 01	TMH in MHW[1]	12	10.6	9.3	8.1	7.1	**6.1**	5.1	4.4			0.55	3.8	-	-
LSIO 15.6 T	T 160 PC 02		12	10.6	9.3	8.1	7.1	**6.1**	5.1	4.4			0.55	-	2.1	1.2
LSIO 15.9 M	T 160 PC 03		15.7	14.2	12.7	11.5	10.5	**9.4**	8.3	7.6			1.1	6.6	-	-
LSIO 15.9 T	T 160 PC 04		15.7	14.2	12.7	11.5	10.5	**9.4**	8.3	7.6			1.1	-	4.4	2.5
LSIO 15.11 M	T 160 PC 05		17.3	15.8	14.3	13.1	12	**11**	10.1	9.5	7.7		1.1	6.6	-	-
LSIO 15.11 T	T 160 PC 06		17.3	15.8	14.3	13.1	12	**11**	10.1	9.5	7.7		1.1	-	4.4	2.5
LSIO 15.13 M	T 160 PC 07		20.3	18.7	17	15.6	14.4	**13.3**	12.2	11.6	9.6	7.2	1.5	9.1	-	-
LSIO 15.13 T	T 160 PC 08		20.3	18.7	17	15.6	14.4	**13.3**	12.2	11.6	9.6	7.2	1.5	-	5.7	3.3

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Rated flow: 30 m³/h

Type	Product code	Flow rate in m³/h	0	10	15	20	25	**30**	35	40	45	50	kW output	Current in A 1-ph 230 V	3-ph 230 V	3-ph 400 V
LSIO 30.9 M	T 160 PC 09	TMH in MHW[1]	16	13.8	12.7	11.6	10.3	**9**	7.7	6.4			1.5	9.1	-	-
LSIO 30.9 T	T 160 PC 10		16	13.8	12.7	11.6	10.3	**9**	7.7	6.4			1.5	-	5.7	3.3
LSIO 30.13 T	T 160 PC 12		19.6	17.7	16.7	15.4	14.3	**13**	11.6	10.2	8.7		2.2	-	7.5	4.3
LSIO 30.16 T	T 160 PC 13		24.1	21.5	20.2	18.7	17.5	**16**	14.6	13.2	11.7	10.2	3	-	11.1	6.4

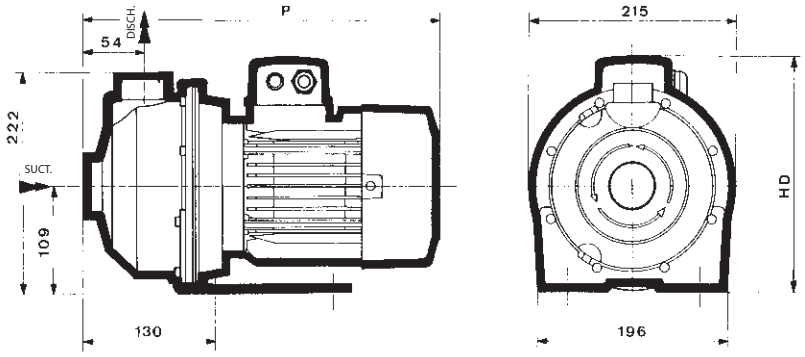
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

LSIO
Pumps

Dimensions

Dimensions of LSIO pumps

Dimensions in millimetres



	Pumps		Openings		Weight
Type	HD	P	Suction	Discharge	kg
LSIO 15.6 M	232	341	1”1/2 F (40/49)	1”1/4 F (33/42)	11.9
LSIO 15.6 T	232	341	1”1/2 F (40/49)	1”1/4 F (33/42)	11.9
LSIO 15.9 M	232	341	1”1/2 F (40/49)	1”1/4 F (33/42)	14.5
LSIO 15.9 T	232	341	1”1/2 F (40/49)	1”1/4 F (33/42)	14.5
LSIO 15.11 M	232	341	1”1/2 F (40/49)	1”1/4 F (33/42)	14.5
LSIO 15.11 T	232	341	1”1/2 F (40/49)	1”1/4 F (33/42)	14.5
LSIO 15.13 M	242	371	1”1/2 F (40/49)	1”1/4 F (33/42)	21
LSIO 15.13 T	232	341	1”1/2 F (40/49)	1”1/4 F (33/42)	16.2
LSIO 30.9 M	242	371	2” F (50/60)	1”1/2 F (40/49)	21
LSIO 30.9 T	232	341	2” F (50/60)	1”1/2 F (40/49)	16.2
LSIO 30.13 T	242	371	2” F (50/60)	1”1/2 F (40/49)	21
LSIO 30.16 T	247	409	2” F (50/60)	1”1/2 F (40/49)	25

LS
Pumps

General information

Horizontal monobloc single-stage centrifugal pumps

Applications
- Industry
  - cooling
  - transfer
  - fire system
  - general services
- Agriculture
  - sprinkler systems
  - irrigation
- Building
  - health/fire-related pressure boosting
  - cooling
- Leisure applications
  - sports grounds
  - parks/open spaces

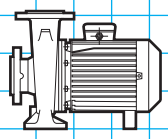
Conditions of use
- Hydraulic connection flanges and fixing feet conforming to standards NFE 44-111 and EN 733 (DIN 24-255)
- For clear or very slightly contaminated liquids (maximum content of solid particles in suspension 50 g/m^3)
- Temperature of pumped liquid between –10°C and 110°C
- Maximum ambient temperature: 40°C
- Maximum operating pressure: 16 bar
- Maximum suction pressure: 10 bar
- Motor electrical power supply:
  - 3-phase 230/400 V ± 10% - 50 Hz up to 2.2 kW inclusive
  - 3-phase Δ 400 V ± 10% - 50 Hz for higher powers

Description of LS pumps

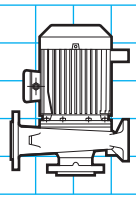
Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1} or 1,500 min^{-1}	- 3-phase 230/400 V ± 10% - 50 Hz up to 2.2 kW inclusive - 3-phase Δ 400 V ± 10% - 50 Hz for higher powers - IP 55 - Class F - S1 duty
Pump body	FGL 250 cast iron	
Impeller	FGL 250 cast iron	
Base	FGL 250 cast iron	
Shaft	X33 Cr 13 stainless steel	
Mechanical seal	Graphite/ceramic Ethylene propylene seal	
"O" ring seals	Ethylene propylene	

LS
Pumps

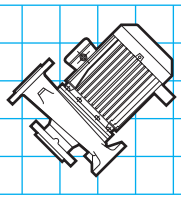
Mounting positions



Standard position



Vertical position



Inclined position

LS
Pumps

Adaptation possibilities

☞ ***LS pumps can be used in conjunction with:***

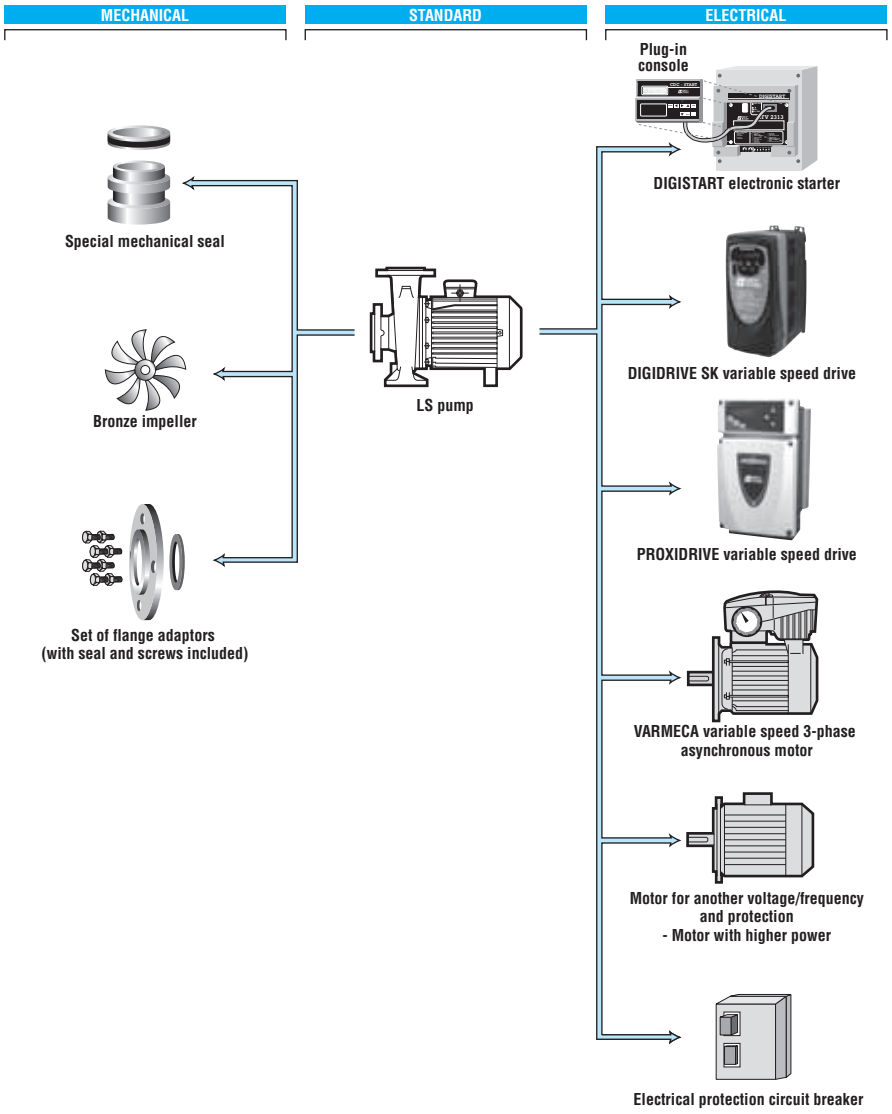
- a DIGISTART electronic starter
- DIGIDRIVE SK and PROXIDRIVE variable speed drives
- VARMECA variable speed 3-phase asynchronous motor

☞ ***Options:***

- motor with another voltage and/or speed
- bronze impeller
- special mechanical seal
- set of flange adaptors with seal and screws included

Flange adaptor	
Pump type	Code
LS 50 - 32	T 000 AM 31
LS 65 - 40	T 000 AM 32
LS 65 - 50	T 000 AM 33
LS 80 - 65	T 000 AM 34
LS 100 - 80	T 000 AM 35
LS 125 - 100	T 000 AM 36
LS 150 - 125	T 000 AM 37

In addition to this monobloc range, LEROY-SOMER offers a range of standard electropumps on a chassis used to:
- obtain superior characteristics (flow/pressure)
- achieve special implementations (hydraulic unit and/or motor)



INDUSTRY

C

Designation / Coding

LS	50	32	200	L	13	2
Designation of the series	Suction flange diameter in mm	Discharge flange diameter in mm	Impeller nominal diameter in mm	Hydraulic index	Motor rated power in kW	Number of poles (motor speed)

☞ ***Example of coding:***

Designation	**Code**
LS 50-32 200 L/13-2	T 083 PC 07

All the products in this catalogue have a code.
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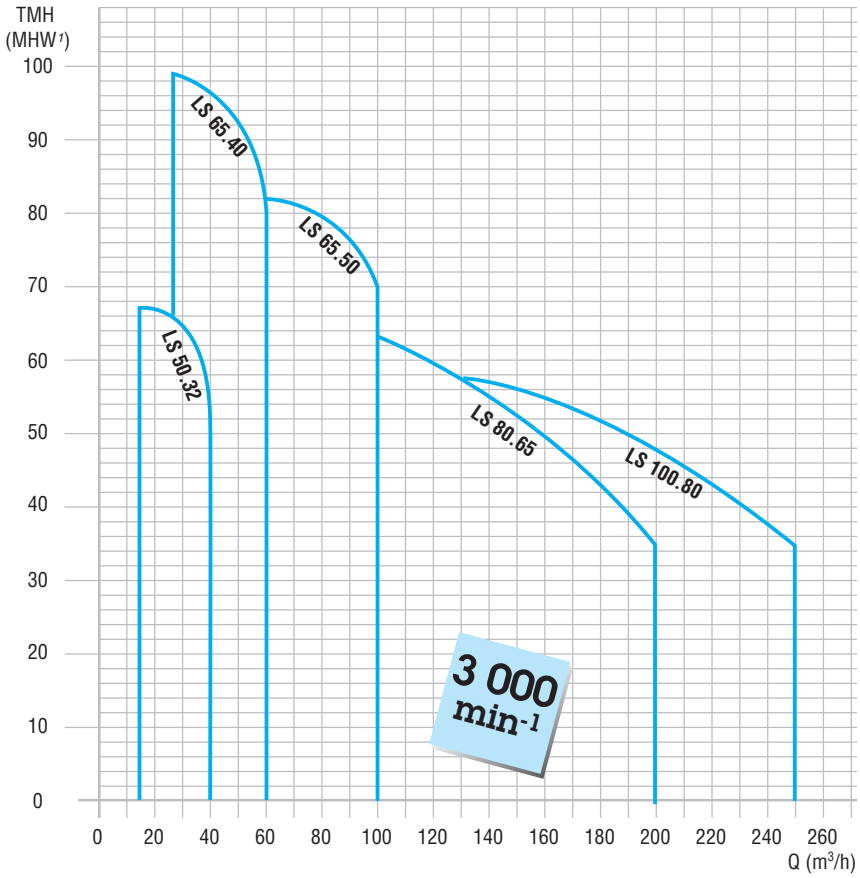
Each product is classified in order of hydraulic characteristics.

LS
Pumps

Selection



3 000 min-1

Rated flow: 12 to 27 m³/h

Type	Product code	Flow rate in m³/h	6	9	12	15	18	21	24	27	33	39	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
LS 50 - 32 - 125 / 1.2 - 2	T 083 PC 01	TMH in MHW[1]	22	21.4	**20**	17.5	14.5	11.2	-	-	-	-	1.2	4.3	2.5
LS 50 - 32 - 160 / 2.2 - 2	T 083 PC 02		27	26	24.5	**22.2**	18	11	-	-	-	-	2.2	8.7	5
LS 50 - 32 - 160 / 3 - 2	T 083 PC 03		34	33.5	32.5	**31**	27	23	-	-	-	-	3	-	6.3
LS 50 - 32 - 200 / 4.6 - 2	T 083 PC 04		48.4	47.9	46	**41**	33	24	-	-	-	-	4.6	-	9.3
LS 50 - 32 - 200 / 6.5 - 2	T 083 PC 05		59.2	58.4	57.5	**54**	47	38	27	-	-	-	6.5	-	12.5
LS 50 - 32 - 200 L / 8.5 - 2	T 083 PC 06		-	-	-	57.6	56.6	56	**55.1**	53	48.5	-	8.5	-	15.8
LS 50 - 32 - 200 L / 13 - 2	T 083 PC 07		-	-	-	67	66.6	66.1	65.8	**64.5**	61.5	52.5	13	-	24

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

3 000 min-1

Rated flow: 25 to 51 m³/h

Type	Product code	Flow rate in m³/h	15	18	21	24	27	30	33	36	39	45	51	55	60	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
LS 65 - 40 - 125 / 2.2 - 2	T 084 PC 01	TMH in MHW[1]	20	19.5	19.2	19	18	**17**	15.8	14.5	13	-	-	-	-	2.2	8.7	5
LS 65 - 40 - 125 / 3 - 2	T 084 PC 02		22.3	21.6	21	20.5	20	**18.3**	16.8	15.2	12.6	8.8	-	-	-	3	-	6.3
LS 65 - 40 - 160 / 4.6 - 2	T 084 PC 03		35.2	34.5	33.9	33	31.8	**30**	28	26	22	-	-	-	-	4.6	-	9.3
LS 65 - 40 - 200L / 8.5 - 2	T 084 PC 04		-	-	-	46.5	46.5	46.2	46	45	**44.5**	42	39	36	-	8.5	-	15.8
LS 65 - 40 - 200L / 13 - 2	T 084 PC 05		-	-	-	56	56	56	55.8	55.5	55	**53**	50	47	43	13	-	24
LS 65 - 40 - 250 / 13 - 2	T 084 PC 06		73	71	70.5	67	**63**	59.5	47	45	-	-	-	-	-	13	-	24
LS 65 - 40 - 250 / 16 - 2	T 084 PC 07		90	88.5	87.5	85	82	**77**	72	65	58	-	-	-	-	16	-	30.1
LS 65 - 40 - 200L / 18.5 - 2	T 084 PC 08		-	-	-	-	-	77	76.3	75.5	75	**72**	-	-	-	18.5	-	35
LS 65 - 40 - 200L / 22 - 2	T 084 PC 15		-	-	-	-	88	87.5	87	86.5	86	84	**80**	75	70	22	-	43.5
LS 65 - 40 - 200L / 30 - 2	T 084 PC 09		-	-	-	-	99	98	97.5	97	96	95	**91**	87	80	30	-	55.5

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Selection

3 000 min-1

Rated flow: 45 to 70 m³/h

Type	Product code	Flow rate in m³/h	24	30	36	39	42	45	48	51	55	60	70	80	90	100	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
LS 65 - 50 - 125 / 3 - 2	T 085 PC 01	TMH in MHW[1]	21.2	20.5	19.5	19	18.5	**18**	17.2	16.8	15.5	-	-	-	-	-	3	-	6.3
LS 65 - 50 - 125 / 4.6 - 2	T 085 PC 02		25	24.5	23.8	23.5	23	22.7	**22**	21.8	20.8	19.5	16	-	-	-	4.6	-	9.3
LS 65 - 50 - 160 / 4.6 - 2	T 085 PC 03		30	29.5	28.5	27.8	27	**26.2**	25.2	24.2	22.5	-	-	-	-	-	4.6	-	9.3
LS 65 - 50 - 160 / 6.5 - 2	T 085 PC 04		39	38.4	37.9	37.6	37	36.5	35.7	**35**	34	32.5	-	-	-	-	6.5	-	12.5
LS 65 - 50 - 200L / 18.5 - 2	T 085 PC 05		-	-	-	-	-	63	62.5	62	61	**60**	56	50	38	-	18.5	-	35
LS 65 - 50 - 200L / 22 - 2	T 085 PC 06		-	-	-	-	-	-	-	72	71	70	**66**	61	54	40	22	-	43.5
LS 65 - 50 - 200L / 30 - 2	T 085 PC 07		-	-	-	-	-	-	-	85	84	83	**81**	80	76	70	30	-	55.5

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

3 000 min-1

Rated flow: 70 to 140 m³/h

Type	Product code	Flow rate in m³/h	45	48	51	55	60	70	80	90	100	120	140	160	180	200	kW Output	Current A 3-ph 230 V	Current A 3-ph 400 V
LS 80 - 65 - 125 / 3 - 2	T 086 PC 01	TMH in MHW[1]	13	12.8	12.5	12.2	11.7	**10.8**	9.8	-	-	-	-	-	-	-	3	-	6.3
LS 80 - 65 - 125 / 4.6 - 2	T 086 PC 02		-	-	17.5	17	16.8	16	**14.7**	13.2	12	-	-	-	-	-	4.6	-	9.3
LS 80 - 65 - 125 / 6.5 - 2	T 086 PC 03		-	-	23.7	23.5	23.2	22.5	21.5	**20**	18.8	15.7	-	-	-	-	6.5	-	12.5
LS 80 - 65 - 160 / 13 - 2	T 086 PC 04		-	-	38	37.7	37.5	36.5	35.5	34	**32**	28	22	-	-	-	13	-	24
LS 80 - 65 - 160 / 16 - 2	T 086 PC 05		-	-	41	40.7	40.5	40	39.5	38	37	**34**	29.5	22.5	-	-	16	-	30.1
LS 80 - 65 - 200L / 22 - 2	T 086 PC 06		-	-	-	-	-	-	51	50	49	**45**	40	33	-	-	22	-	43.5
LS 80 - 65 - 200L / 30 - 2	T 086 PC 15		-	-	-	-	-	-	-	57	55	**53**	**47**	41	32	-	30	-	55.5
LS 80 - 65 - 200L / 37 - 2	T 086 PC 07		-	-	-	-	-	-	-	-	63	60	**55.5**	50	43	35	37	-	67

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

3 000 min-1

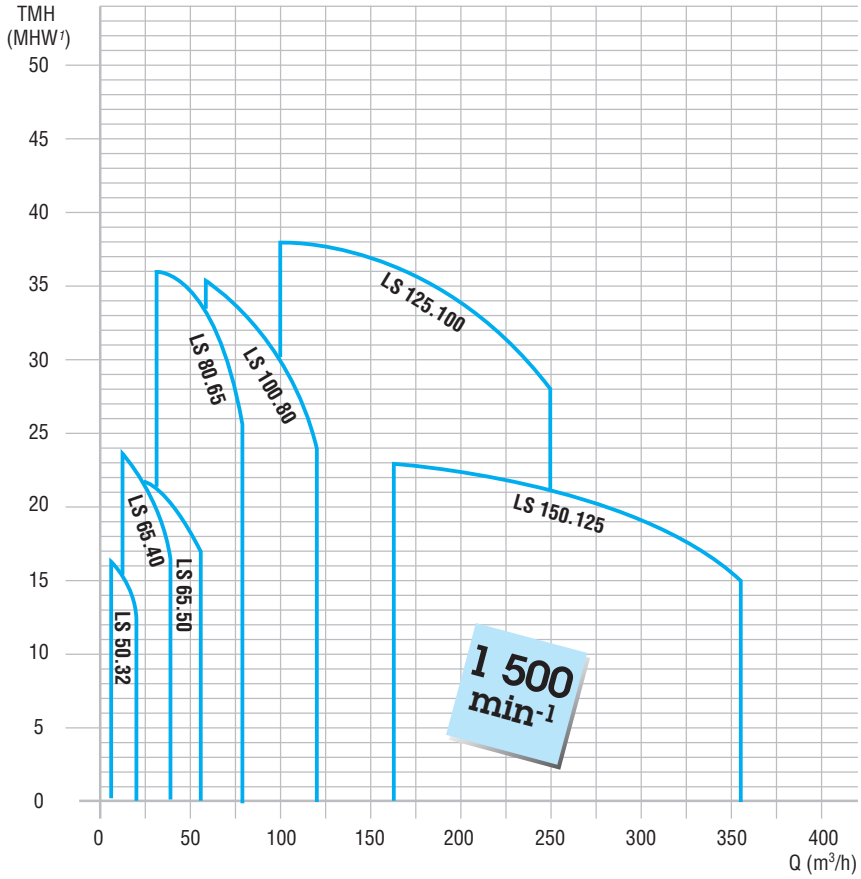
Rated flow: 140 to 180 m³/h

Type	Product code	Flow rate in m³/h	70	80	90	100	120	140	160	180	200	220	250	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
LS 100 - 80 - 160 / 13 - 2	T 087 PC 01	TMH in MHW[1]	30	29.8	29.2	28.5	27.5	**24.5**	21.5	18	-	-	-	13	-	24
LS 100 - 80 - 160 / 16 - 2	T 087 PC 02		-	-	-	35.5	34	32	**29**	26	20	-	-	16	-	30.1
LS 100 - 80 - 200L / 22 - 2	T 087 PC 03		-	-	-	44	42	40	**36**	33	27	23	-	22	-	43.5
LS 100 - 80 - 200L / 30 - 2	T 087 PC 11		-	-	-	-	52	50	47	**43**	39.5	34	-	30	-	55.5
LS 100 - 80 - 200L / 37 - 2	T 087 PC 04		-	-	-	-	58.5	57	55	**53**	48	43	35	37	-	67

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

LS
Pumps

Selection



1 500 min-1

Rated flow: 6 to 15 m³/h

Type	Product code	Flow rate in m³/h	2	4	6	9	12	15	20	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
LS 50 - 32 - 125 / 0.55 - 4	T 083 PC 08	TMH in MHW[1]	4.6	4.5	**3.9**	2.1	-	-	-	0.55	2.8	1.6
LS 50 - 32 - 160 / 0.55 - 4	T 083 PC 09		8.5	8.4	8.1	**7**	4.7	-	-	0.55	2.8	1.6
LS 50 - 32 - 200 / 1.2 - 4	T 083 PC 10		14.8	14.5	13.8	**11**	5	-	-	1.2	4.8	2.8
LS 50 - 32 - 200L / 1.5 - 4	T 083 PC 11		-	-	16.3	16.1	15.7	**14.9**	12.2	1.5	6.2	3.6

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

1 500 min-1

Rated flow: 15 to 25 m³/h

Type	Product code	Flow rate in m³/h	6	9	12	15	20	25	30	35	kW Output	Current in A 3-ph 230V	Current in A 3-ph 400V
LS 65 - 40 - 125 / 0.55 - 4	T 084 PC 10	TMH in MHW[1]	5.7	5.6	5.3	**4.8**	3.8	-	-	-	0.55	2.8	1.6
LS 65 - 40 - 160 / 0.75 - 4	T 084 PC 11		8.7	8.5	8	**7.3**	5.6	-	-	-	0.75	3.3	1.9
LS 65 - 40 - 200L / 1.5 - 4	T 084 PC 12		-	-	14.1	13.9	**13.2**	**11.7**	10	-	1.5	6.2	3.6
LS 65 - 40 - 250 / 2.2 - 4	T 084 PC 13		22.3	22	21.5	**19.5**	14	-	-	-	2.2	8.8	5.1
LS 65 - 40 - 200L / 4 - 4	T 084 PC 14		-	-	23.7	23.4	23	**22**	20	16.5	4	-	9.1

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

LS
Pumps

Selection

1 500 min-1

Rated flow: 25 to 40 m³/h

Type	Product code	Flow rate in m³/h	15	20	25	30	35	40	45	50	55	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
LS 65 - 50 - 125 / 0.75 - 4	T 085 PC 08	TMH in MHW[1]	5.9	5.6	**5.3**	4.6	3.8	-	-	-	-	0.75	3.3	1.9
LS 65 - 50 - 160 / 1.2 - 4	T 085 PC 09		9.3	8.8	**8.3**	7.7	6.7	-	-	-	-	1.2	4.8	2.8
LS 65 - 50 - 200L / 3.3 - 4	T 085 PC 10		-	18.2	18.1	17.8	**16.7**	15	13.5	11.5	-	3.3	-	7.6
LS 65 - 50 - 200L / 4 - 4	T 085 PC 11		-	-	21.2	20.9	20.3	**19.7**	19	18.2	16.9	4	-	9.1

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

1 500 min-1

Rated flow: 45 to 70 m³/h

Type	Product code	Flow rate in m³/h	25	30	35	40	45	50	55	60	65	70	80	90	100	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
LS 80 - 65 - 125 / 1.2 - 4	T 086 PC 08	TMH in MHW[1]	6	5.8	5.6	5.3	**5**	4.5	4.1	3.7	-	-	-	-	-	1.2	4.8	2.8
LS 80 - 65 - 160 / 1.5 - 4	T 086 PC 09		-	7.6	7.3	7	6.7	**6.2**	5.8	5.3	-	-	-	-	-	1.5	6.2	3.6
LS 80 - 65 - 160 / 2.2 - 4	T 086 PC 10		-	9.8	9.6	9.4	9.1	8.7	**8.4**	8	7.5	-	-	-	-	2.2	8.8	5.1
LS 80 - 65 - 200L / 3.3 - 4	T 086 PC 11		-	-	-	13.7	13.5	13.2	12.8	**12.3**	11.8	11.1	9.8	-	-	3.3	-	7.6
LS 80 - 65 - 200L / 4 - 4	T 086 PC 12		-	-	-	16	15.7	15.2	14.9	14.5	**14**	13.5	12.1	10.5	-	4	-	9.1
LS 80 - 65 - 250L / 8.2 - 4	T 086 PC 13		-	-	-	23.8	23.5	23.3	23	22.5	22	**21.5**	19.8	17.5	14.6	8.2	-	15.8
LS 80 - 65 - 315 / 15 - 4	T 086 PC 14		-	36	35.9	35.8	35.4	35	34	**33**	31.5	30	25.5	-	-	15	-	31

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

1 500 min-1

Rated flow: 60 to 120 m³/h

Type	Product code	Flow rate in m³/h	45	50	55	60	65	70	80	90	100	120	140	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
LS 100 - 80 - 160 / 1.5 - 4	T 087 PC 05	TMH in MHW[1]	7	6.8	6.7	**6.4**	6.1	5.7	5	-	-	-	-	1.5	6.2	3.6
LS 100 - 80 - 160 / 2.2 - 4	T 087 PC 06		9.2	9	8.7	8.6	8.3	**8**	7.2	6.3	5.3	-	-	2.2	8.8	5.1
LS 100 - 80 - 200L / 8.2 - 4	T 087 PC 07		-	-	-	17.2	17.1	17	16.7	**15.9**	15	13	-	8.2	-	15.8
LS 100 - 80 - 200L / 8.2 - 4	T 087 PC 08		-	-	-	20.6	20.4	20.1	19.7	19	**18**	15	-	8.2	-	15.8
LS 100 - 80 - 200L / 12 - 4	T 087 PC 09		-	-	-	25.6	25.5	25.3	25	24.6	**23.8**	**22**	19.5	12	-	24.2
LS 100 - 80 - 315 / 15 - 4	T 087 PC 10		-	-	-	35.5	35	34.5	33.5	**32**	30	24	-	15	-	31

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

1 500 min-1

Rated flow: 140 to 200 m³/h

Type	Product code	Flow rate in m³/h	80	90	100	120	140	160	180	200	250	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
LS 125 - 100 - 200L / 8.2 - 4	T 088 PC 05	TMH in MHW[1]	16	15.8	15.6	15.1	**14.5**	13.3	12	10.5	-	8.2	-	15.8
LS 125 - 100 - 250L / 12 - 4	T 088 PC 06		-	21.3	21.2	20.7	19.9	**18.6**	16.8	14.6	-	12	-	24.2
LS 125 - 100 - 315 / 22 - 4	T 088 PC 07		-	-	34.3	33	**31**	28.5	25	21	-	22	-	42.7
LS 125 - 100 - 315L / 30 - 4	T 088 PC 08		-	-	38	37.8	37.5	36.5	35.5	**34**	28	30	-	58

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

1 500 min-1

Rated flow: 250 m³/h

Type	Product code	Flow rate in m³/h	140	160	180	200	250	300	320	360	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
LS 150 - 125 - 250L / 15 - 4	T 089 PC 01	TMH in MHW[1]	18.5	18	17.8	17.3	**15.5**	13	12	-	15	-	31
LS 150 - 125 - 250L / 22 - 4	T 089 PC 02		-	23	22.8	22.5	**21**	19	17.7	15	22	-	42.7

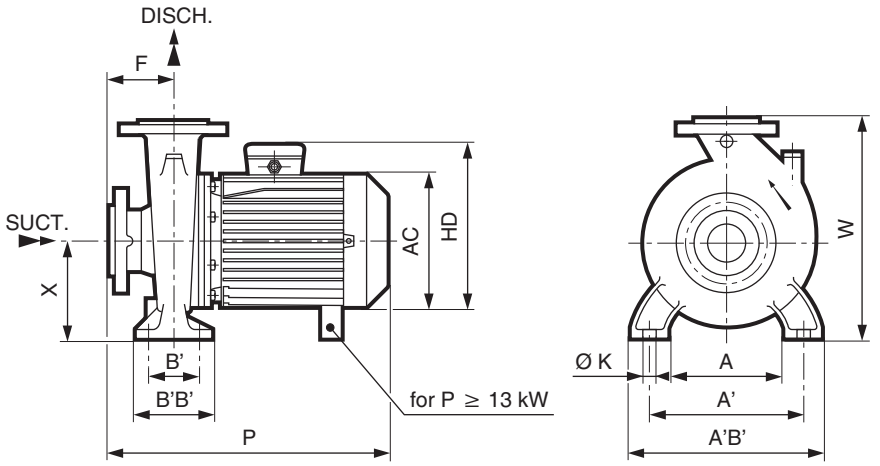
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

LS
Pumps

Dimensions

Dimensions of LS pumps - 3,000 min^{-1} motor

Dimensions in millimetres

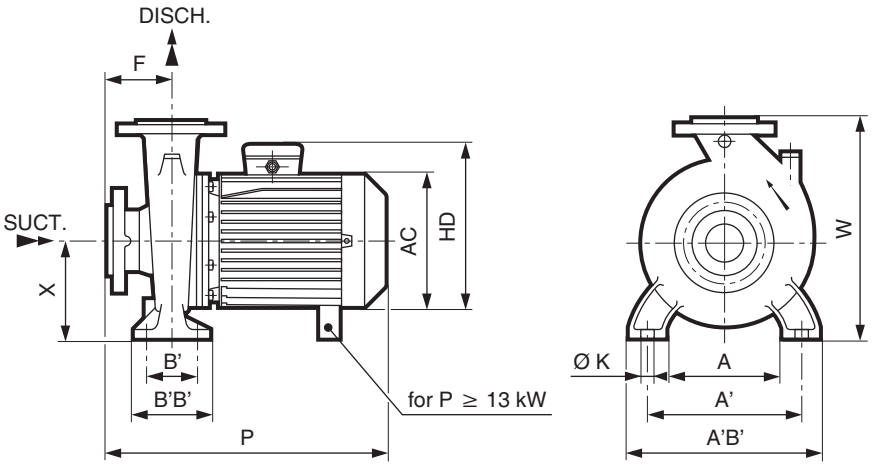


Type	Pumps												Openings		Weight
	A	A'	A'B'	B'	B'B'	F	AC	HD	ØK	P	W	X	Suction	Discharge	kg
LS 50 - 32 - 125 / 1.2 - 2	90	140	190	70	100	80	140	172	15	420	252	112	50	32	28
LS 50 - 32 - 160 / 2.2 - 2	140	190	240	70	100	80	180	223	15	466	292	132	50	32	46
LS 50 - 32 - 160 / 3 - 2	140	190	240	70	100	80	180	223	15	466	292	132	50	32	49
LS 50 - 32 - 200 / 4.6 - 2	140	190	240	70	100	80	198	237	15	511	340	160	50	32	57
LS 50 - 32 - 200 / 6.5 - 2	140	190	240	70	100	80	220	258	15	526	340	160	50	32	79
LS 50 - 32 - 200 L / 8.5 - 2	140	190	240	70	100	80	220	258	15	566	340	160	50	32	82
LS 50 - 32 - 200 L / 13 - 2	140	190	240	70	100	80	264	307	15	605	340	160	50	32	100
LS 65 - 40 - 125 / 2.2 - 2	110	160	210	70	100	80	180	223	15	466	252	112	65	40	44
LS 65 - 40 - 125 / 3 - 2	110	160	210	70	100	80	180	223	15	466	252	112	65	40	47
LS 65 - 40 - 160 / 4.6 - 2	140	190	240	70	100	80	198	237	15	511	292	132	65	40	55
LS 65 - 40 - 200 L / 8.5 - 2	165	212	265	70	100	100	220	258	15	586	340	160	65	40	83
LS 65 - 40 - 200 L / 13 - 2	165	212	265	70	100	100	264	307	15	625	340	160	65	40	101
LS 65 - 40 - 250 / 13 - 2	190	250	320	95	125	100	264	307	15	625	405	180	65	40	108
LS 65 - 40 - 250 / 16 - 2	190	250	320	95	125	100	264	307	15	649	405	180	65	40	119
LS 65 - 40 - 250 L / 18.5 - 2	190	250	320	95	125	100	296	367	15	785	405	180	65	40	142
LS 65 - 40 - 250 L / 22 - 2	190	250	320	95	125	100	344	378	15	818	405	180	65	40	148
LS 65 - 40 - 250 L / 30 - 2	190	250	320	95	125	100	344	378	15	818	405	180	65	40	161
LS 65 - 50 - 125 / 3 - 2	140	190	240	70	100	100	180	223	15	486	292	132	65	50	49
LS 65 - 50 - 125 / 4.6 - 2	140	190	240	70	100	100	198	237	15	531	292	132	65	50	54
LS 65 - 50 - 160 / 4.6 - 2	165	212	265	70	100	100	198	237	15	531	340	160	65	50	63
LS 65 - 50 - 160 / 6.5 - 2	165	212	265	70	100	100	220	258	15	546	340	160	65	50	75
LS 65 - 50 - 200 L / 18.5 - 2	165	212	265	70	100	100	296	367	15	785	340	160	65	50	131
LS 65 - 50 - 200 L / 22 - 2	165	212	265	70	100	100	344	378	15	818	360	160	65	50	133
LS 65 - 50 - 250 L / 30 - 2	190	250	320	95	125	100	344	378	15	818	405	180	65	50	160
LS 80 - 65 - 125 / 3 - 2	150	212	280	95	125	100	180	223	15	486	340	160	80	65	53
LS 80 - 65 - 125 / 4.6 - 2	150	212	280	95	125	100	198	237	15	531	340	160	80	65	58
LS 80 - 65 - 125 / 6.5 - 2	150	212	280	95	125	100	220	258	15	546	340	160	80	65	70
LS 80 - 65 - 160 / 13 - 2	150	212	280	95	125	100	264	307	15	625	360	160	80	65	103
LS 80 - 65 - 160 / 16 - 2	150	212	280	95	125	100	264	307	15	649	360	160	80	65	114
LS 80 - 65 - 200 L / 22 - 2	190	250	320	95	125	100	344	378	15	818	405	180	80	65	134
LS 80 - 65 - 200 L / 30 - 2	190	250	320	95	125	100	344	378	15	818	405	180	80	65	158
LS 80 - 65 - 200 L / 37 - 2	190	250	320	95	125	100	344	378	15	843	405	180	80	65	173
LS 100 - 80 - 160 / 13 - 2	190	250	320	95	125	125	264	307	15	650	405	180	100	80	106
LS 100 - 80 - 160 / 16 - 2	190	250	320	95	125	125	264	307	15	674	405	180	100	80	117
LS 100 - 80 - 200 L / 22 - 2	215	280	345	95	125	125	344	378	15	868	430	180	100	80	157
LS 100 - 80 - 200 L / 30 - 2	215	280	345	95	125	125	344	378	15	868	430	180	100	80	174
LS 100 - 80 - 200 L / 37 - 2	215	280	345	95	125	125	344	378	15	893	430	180	100	80	189

Dimensions

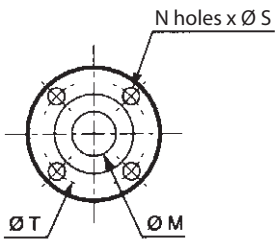
Dimensions of LS pumps - 1,500 min^{-1} motor

Dimensions in millimetres



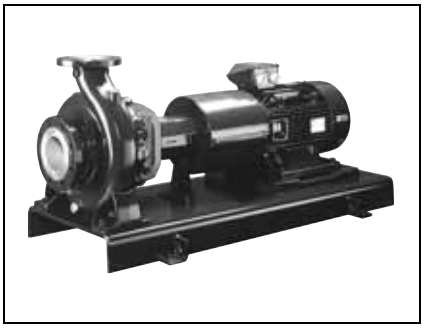
Type	Pumps A	A'	A'B'	B'	B'B'	F	AC	HD	ØK	P	W	X	Openings Suction	Discharge	Weight kg
LS 50 - 32 - 125 / 0.55 - 4	90	140	190	70	100	80	140	172	15	380	252	112	50	32	25
LS 50 - 32 - 160 / 0.55 - 4	90	140	190	70	100	80	140	172	15	380	292	132	50	32	35
LS 50 - 32 - 200 / 1.2 - 4	140	190	240	70	100	80	180	223	15	439	340	160	50	32	46
LS 50 - 32 - 200 L / 1.5 - 4	140	190	240	70	100	80	180	223	15	439	340	160	50	32	50
LS 65 - 40 - 125 / 0.55 - 4	110	160	210	70	100	80	140	172	15	380	252	112	65	40	31
LS 65 - 40 - 160 / 0.75 - 4	140	190	240	70	100	80	140	172	15	420	292	132	65	40	33
LS 65 - 40 - 200 L / 1.5 - 4	165	212	265	70	100	100	180	223	15	439	340	160	65	40	49
LS 65 - 40 - 250 / 2.2 - 4	190	250	320	95	125	100	198	237	15	531	405	180	65	40	63
LS 65 - 40 - 250 L / 4 - 4	190	250	320	95	125	100	198	237	15	531	405	180	65	40	76
LS 65 - 50 - 125 / 0.75 - 4	140	190	240	70	100	100	140	172	15	440	292	132	65	50	35
LS 65 - 50 - 160 / 1.2 - 4	165	212	265	70	100	100	180	223	15	459	340	160	65	50	52
LS 65 - 50 - 200 L / 3.3 - 4	165	212	265	70	100	100	198	237	15	531	360	160	65	50	63
LS 65 - 50 - 250 L / 4 - 4	190	250	320	95	125	100	198	237	15	531	405	180	65	50	76
LS 80 - 65 - 125 / 1.2 - 4	150	212	280	95	125	100	180	223	15	459	340	160	80	65	47
LS 80 - 65 - 160 / 1.5 - 4	150	212	280	95	125	100	180	223	15	459	360	160	80	65	53
LS 80 - 65 - 160 / 2.2 - 4	150	212	280	95	125	100	198	237	15	591	360	160	80	65	59
LS 80 - 65 - 200 L / 3.3 - 4	190	250	320	95	125	100	198	237	15	531	405	180	80	65	70
LS 80 - 65 - 200 L / 4 - 4	190	250	320	95	125	100	198	237	15	531	405	180	80	65	74
LS 80 - 65 - 250 L / 8.2 - 4	200	280	360	120	160	100	264	307	18	641	450	200	80	65	128
LS 80 - 65 - 315 / 15 - 4	240	315	400	120	160	125	344	378	18	868	505	225	80	65	188
LS 100 - 80 - 160 / 1.5 - 4	190	250	320	95	125	125	180	223	15	484	405	180	100	80	56
LS 100 - 80 - 160 / 2.2 - 4	190	250	320	95	125	125	198	237	15	556	405	180	100	80	62
LS 100 - 80 - 200 L / 8.2 - 4	215	280	345	95	125	125	264	307	15	666	430	180	100	80	121
LS 100 - 80 - 250 L / 8.2 - 4	240	315	400	120	160	125	264	307	18	666	480	200	100	80	134
LS 100 - 80 - 250 L / 12 - 4	240	315	400	120	160	125	264	307	18	690	480	200	100	80	137
LS 100 - 80 - 315 / 15 - 4	240	315	400	120	160	125	344	378	18	868	565	250	100	80	197
LS 125 - 100 - 200 L / 8.2 - 4	200	280	360	120	160	125	264	307	18	666	480	200	125	100	137
LS 125 - 100 - 250 L / 12 - 4	240	315	400	120	160	140	264	307	18	705	505	225	125	100	146
LS 125 - 100 - 315 / 22 - 4	240	315	400	120	160	140	344	398	18	883	565	250	125	100	222
LS 125 - 100 - 315 L / 30 - 4	240	315	400	120	160	140	344	398	18	908	565	250	125	100	254
LS 150 - 125 - 250 L / 15 - 4	240	315	400	120	160	140	344	378	18	883	605	250	150	125	203
LS 150 - 125 - 250 L / 22 - 4	240	315	400	120	160	140	344	398	18	883	605	250	150	125	219

Type	Suction M	N	S	T	Discharge M	N	S	T
LS 50 - 32	50	4	19	125	32	4	19	100
LS 65 - 40	65	4	19	145	40	4	19	110
LS 65 - 50	65	4	19	145	50	4	19	125
LS 80 - 65	80	8	19	160	65	4	19	145
LS 100 - 80	100	8	19	180	80	8	19	160
LS 125 - 100	125	8	19	210	100	8	19	180
LS 150 - 125	150	8	23	240	125	8	19	210



CA
Pumps

General information



Horizontal chassis-mounted single-stage centrifugal pumps

Applications

- Industry
  - cooling
  - transfer
  - fire system
  - general services
- Agriculture
  - sprinkler systems
  - irrigation
- Building
  - pressure boosting/fire
  - Cooling
- Leisure applications
  - sports grounds
  - parks/open spaces

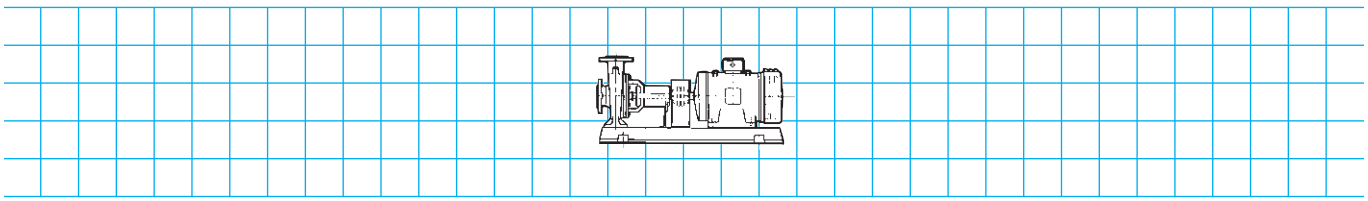
Conditions of use

- Standard pumps with dimensions conforming to NFE 44-111 and EN 733 (DIN 24-255)
- Baseplates conforming to NFE 44-141
- For clear or very slightly contaminated liquids (maximum content of solid particles in suspension 50 g/m^3)
- Temperature of pumped liquid between: – 10°C and 120°C
- Maximum ambient temperature: 40°C
- Maximum operating pressure: 16 bar
- Maximum suction pressure: 10 bar
- Density of pumped liquid: 1
- Viscosity of pumped liquid: 1 mm^2/s
- Motor electrical power supply:
  - 3-phase 230/400 V ± 10% - 50 Hz up to 2.2 kW inclusive
  - 3-phase Δ 400 V ± 10% - 50 Hz for higher powers

Description of CA pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1} or 1,500 min^{-1}	- 3-phase 230/400 V ± 10% - 50 Hz up to 2.2 kW inclusive - 3-phase Δ 400 V ± 10% - 50 Hz for higher powers - Class F - S1 duty - IP 55 (IP 23 on request)
Pump body	FGL 250 cast iron	
Impeller	FGL 250 cast iron	Option of bronze impeller on request
Base	FGL 250 cast iron	
Bearing	FGL 250 cast iron	
Stand	Steel	
Shaft	X33 Cr 13 stainless steel	
Mechanical seal	Graphite/ceramic Ethylene propylene seal	Option of braided seal on request
Baseplate	Cast iron or steel	Conforming to NFE 44-141
Shaft coupling	Cast iron or steel	Semi-flexible with protective housing fixed on the baseplate

Mounting position



Only possibility

CA
Pumps

Adaptation possibilities

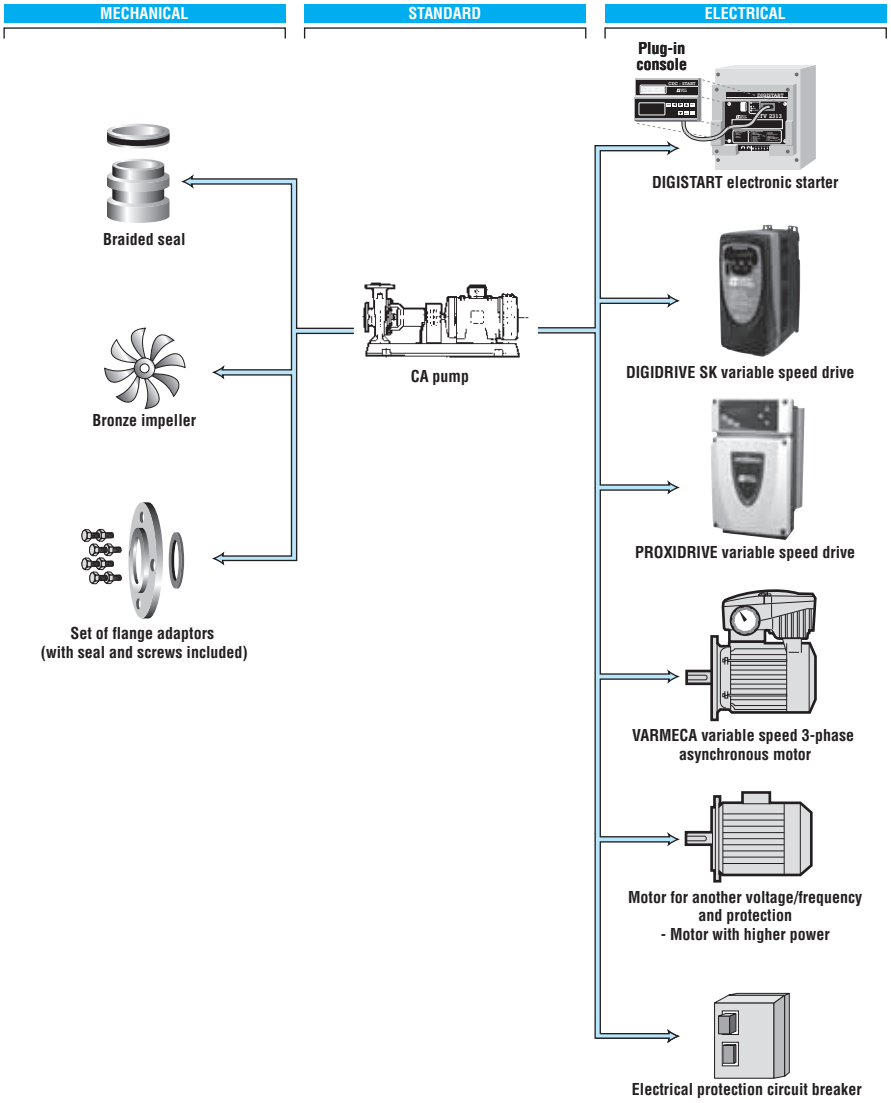
☞ ***CA pumps can be used in conjunction with:***

- a DIGISTART electronic starter
- DIGIDRIVE SK and PROXIDRIVE variable speed drives
- VARMECA variable speed 3-phase asynchronous motor

☞ ***Options:***

- motor with another voltage and/or speed
- motor with other protection
- bronze impeller
- braided seal
- set of flange adaptors with seal and screws included

Flange adaptor	
Pump type	Code
CA 50 - 32	T 000 AM 31
CA 65 - 40	T 000 AM 32
CA 65 - 50	T 000 AM 33
CA 80 - 65	T 000 AM 34
CA 100 - 80	T 000 AM 35
CA 125 - 100	T 000 AM 36
CA 150 - 125	T 000 AM 37
CA 200 - 150	T 000 AM 62



Designation / Coding

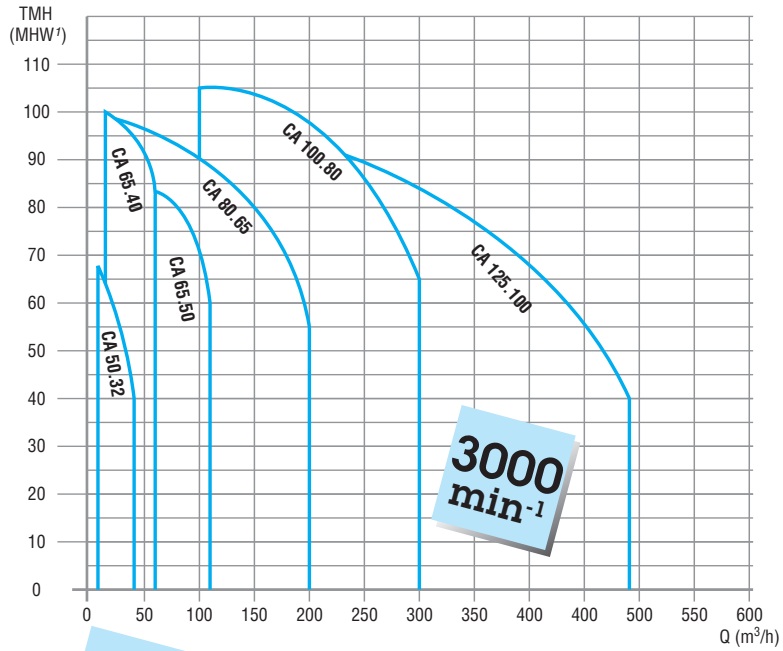
CA	50	32	200	L	13	2
Designation of the series	Suction flange diameter in mm	Discharge flange diameter in mm	Impeller nominal diameter in mm	Hydraulic index	Motor rated power in kW	Number of poles (motor speed)

☞ ***Example of coding:***

Designation	**Code**
CA 50-32 200 L/13-2	T 083 PC 07

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

Selection



3000 min-1 — Rated flow: 10 to 30 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	5	10	15	20	25	30	35	40	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
CA 50 - 32 - 125 / 1.1 - 2	T083 PC12	120.5	TMH in MHW[1]	19	**18.2**	**15.5**	10	-	-	-	-	1.1	4.2	2.4
CA 50 - 32 - 125 / 1.5 - 2	T083 PC13	127		21.2	**20.5**	**18.5**	14.2	-	-	-	-	1.5	5.7	3.3
CA 50 - 32 - 160 / 2.2 - 2	T083 PC14	149.5		30.2	**29.5**	**26**	20.5	-	-	-	-	2.2	7.5	4.3
CA 50 - 32 - 160 / 3 - 2	T083 PC15	157.5		34	**33**	**31**	25.8	-	-	-	-	3	-	6.4
CA 50 - 32 - 200 / 4 - 2	T083 PC16	185		47	**45**	**38**	26	-	-	-	-	4	-	7.9
CA 50 - 32 - 200 / 5.5 - 2	T083 PC17	205.5		59	**57**	**53**	45	-	-	-	-	5.5	-	10.5
CA 50 - 32 - 200L / 7.5 - 2	T083 PC18	187		-	51.5	50	49	**46.5**	40.5	-	-	7.5	-	14.6
CA 50 - 32 - 200L / 9 - 2	T083 PC19	197.5		-	-	58	57.5	**55**	**50**	42	-	9	-	17
CA 50 - 32 - 200L / 11 - 2	T083 PC20	208		-	-	67	66	**64**	**61**	55	45	11	-	20.7

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

3000 min-1 — Rated flow: 25 to 50 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	5	10	15	20	25	30	35	40	45	50	55	60	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
CA 65 - 40 - 125 / 2.2 - 2	T084 PC16	124.5	TMH in MHW[1]	20.5	20.2	19.8	18.8	**17.5**	**15.6**	13.5	10.8	-	-	-	-	2.2	7.5	4.3
CA 65 - 40 - 125 / 3 - 2	T084 PC17	131		23	22.8	22.2	21.5	**20.2**	**18.8**	16.8	14.2	-	-	-	-	3	-	6.4
CA 65 - 40 - 160 / 3 - 2	T084 PC18	145.5		-	28.5	28	26.5	**24**	**19.1**	12.5	-	-	-	-	-	3	-	6.4
CA 65 - 40 - 160 / 4 - 2	T084 PC19	153.5		-	32	31.5	30	**28**	**24.5**	19.5	12	-	-	-	-	4	-	7.9
CA 65 - 40 - 160 / 5.5 - 2	T084 PC20	161.5		-	35.5	35	34.1	**32.5**	**30**	26	20	-	-	-	-	5.5	-	10.5
CA 65 - 40 - 200L / 7.5 - 2	T084 PC21	166		-	-	40	40	40	39.5	38	**36**	**33**	29	-	-	7.5	-	14.6
CA 65 - 40 - 200L / 9 - 2	T084 PC22	185		-	-	50	50	49.5	49	48	**46.5**	**44.1**	41	37.5	32	9	-	17
CA 65 - 40 - 200L / 11 - 2	T084 PC23	195		-	-	56.5	56.5	56.5	55	54	**53**	**51**	48.5	45	40.5	11	-	20.7
CA 65 - 40 - 250 / 11 - 2	T084 PC24	229		-	76	75	**72.5**	**68**	62	52.5	-	-	-	-	-	11	-	20.7
CA 65 - 40 - 250 / 15 - 2	T084 PC25	242		-	85	83.5	**82**	**78**	73	65	55	-	-	-	-	15	-	27.7
CA 65 - 40 - 250 / 18.5 - 2	T084 PC26	255		-	94	93	**91**	**87.5**	82.5	76	66	55	-	-	-	18.5	-	33.7
CA 65 - 40 - 250L / 15 - 2	T084 PC27	214		-	-	-	69	68.5	68	67.5	65.5	**62.5**	**57**	-	-	15	-	27.7
CA 65 - 40 - 250L / 18.5 - 2	T084 PC28	227		-	-	-	77.5	77	76.5	75.5	75	**72**	**68**	62	-	18.5	-	33.7
CA 65 - 40 - 250L / 22 - 2	T084 PC29	239.5		-	-	-	87.5	87	86.5	86	85.5	**84**	**81**	76	69	22	-	39.9

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Selection

3000 min-1

Rated flow: 35 to 90 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	15	20	25	30	35	40	45	50	55	60	70	80	90	100	120	kW Output	Current in A 3-ph 400 V
CA 65 - 50 - 125 / 3 - 2	T085 PC12	126	TMH in MHW[1]	20.2	20	19.6	19	**18.2**	**17.1**	**15.7**	**13.6**	11.5	-	-	-	-	-	-	3	6.4
CA 65 - 50 - 125 / 4 - 2	T085 PC13	133		22.6	22.5	22.1	21.8	**21.1**	**20.2**	**19**	**17.5**	15.5	13	-	-	-	-	-	4	7.9
CA 65 - 50 - 125 / 5.5 - 2	T085 PC14	140		25.2	25.1	24.9	24.5	**24**	**23.2**	**22.2**	**21.1**	19.5	17.8	-	-	-	-	-	5.5	10.5
CA 65 - 50 - 160 / 5.5 - 2	T085 PC15	158		34	33.9	33.5	33	32.1	**31.5**	**30**	**28.1**	26	23	-	-	-	-	-	5.5	10.5
CA 65 - 50 - 160 / 7.5 - 2	T085 PC16	166.5		37.5	37.2	37	36.5	36.2	**35.8**	**35**	**33.5**	32	29.6	24	-	-	-	-	7.5	14.6
CA 65 - 50 - 200L / 15 - 2	T085 PC17	189		-	53.5	53	52.5	52	51.5	51	50	**48**	**47**	**40**	30	-	-	-	15	27.7
CA 65 - 50 - 200L / 18.5 - 2	T085 PC18	200		-	58.5	58.3	58	57.5	57	56.5	55.5	**54**	**52**	**47**	39	27.5	-	-	18.5	33.7
CA 65 - 50 - 200L / 22 - 2	T085 PC19	211		-	65	64.5	64	63.5	63	62.5	62	**62**	**60**	**56**	49	38	-	-	22	39.9
CA 65 - 50 - 200L / 30 - 2	T085 PC20	222		-	74	73.5	73	72.8	72.5	72	71.5	**71**	**69.8**	**67**	62	53.5	41	-	30	52.1
CA 65 - 50 - 250L / 18.5 - 2	T085 PC21	202		-	-	-	62	61.5	61	60.5	60	58.5	58	**56**	**52**	**45**	-	-	18.5	33.7
CA 65 - 50 - 250L / 22 - 2	T085 PC22	214		-	-	-	70	70	70	69.5	69	68	67.5	**65**	**62**	**57**	50	-	22	39.9
CA 65 - 50 - 250L / 30 - 2	T085 PC23	226		-	-	-	76	75.5	75.5	75	75	74	73.5	**72**	**69**	**65**	58.5	-	30	52.1
CA 65 - 50 - 250L / 37 - 2	T085 PC24	238		-	-	-	85	85	85	84.8	84.5	84	83	**81.5**	**79.5**	**76**	71	63.5	37	64.6

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

3000 min-1

Rated flow: 70 to 140 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	20	30	40	50	60	70	80	90	100	120	140	160	180	200	kW Output	Current in A 3-ph 400 V
CA 80 - 65 - 125 / 5.5 - 2	T086 PC16	134.5	TMH in MHW[1]	21.8	21.2	20.9	20.2	19.5	**18.5**	**17.2**	**15.9**	14	9.5	-	-	-	-	5.5	10.5
CA 80 - 65 - 125 / 7.5 - 2	T086 PC17	141.5		24.2	24	23.5	23	22.2	**21.5**	**20.2**	**19**	17.5	13.5	-	-	-	-	7.5	14.6
CA 80 - 65 - 160 / 9 - 2	T086 PC18	157.5		32.5	32.1	32	31.5	31	30	28.5	**27**	**24.5**	**18**	-	-	-	-	9	17
CA 80 - 65 - 160 / 11 - 2	T086 PC19	166		-	36	35.8	35.5	34.5	34	33	**31.5**	**29.5**	**24.5**	-	-	-	-	11	20.7
CA 80 - 65 - 160 / 15 - 2	T086 PC20	175		-	40	39.8	39.5	39	38.1	37.5	**36**	**34.5**	**30.5**	25	-	-	-	15	27.7
CA 80 - 65 - 200L / 18.5 - 2	T086 PC21	182		-	-	48.5	48	47.5	47	46	45	**43**	**39**	**33**	-	-	-	18.5	33.7
CA 80 - 65 - 200L / 22 - 2	T086 PC22	192.5		-	-	53.5	53	52.5	52	51	50	**48.5**	**45**	**40**	32.5	-	-	22	39.9
CA 80 - 65 - 200L / 30 - 2	T086 PC23	203.5		-	-	59.5	59	58.5	58	57	56.5	**56**	**52.5**	**48**	41.5	32.5	-	30	52.1
CA 80 - 65 - 200L / 37 - 2	T086 PC24	214		-	-	67	66.5	66	65.5	65	64	**63**	**60**	**56**	50	43.5	35	37	64.6
CA 80 - 65 - 250L / 30 - 2	T086 PC25	218		-	-	67.6	67.5	67	66.5	66	65	64	**59**	**50.5**	-	-	-	30	52.1
CA 80 - 65 - 250L / 37 - 2	T086 PC26	230		-	-	75	74.5	74.3	74	73	72	71	**67**	**59.5**	48.5	-	-	37	64.6
CA 80 - 65 - 250L / 45 - 2	T086 PC27	243		-	-	83.8	83.5	83.3	83	82.5	82	81	**78**	**73**	64.5	51.5	-	45	77.4
CA 80 - 65 - 250L / 55 - 2	T086 PC28	256		-	-	96.5	96	95.5	95	94.5	93.5	92.5	**90**	**87**	80	70	55	55	95.6

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

3000 min-1

Rated flow: 120 to 220 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	40	50	60	70	80	90	100	120	140	160	180	200	220	240	260	280	300	kW Output	Current in A 3-ph 400 V
CA 100 - 80 - 160 / 15 - 2	T087 PC12	167.5	TMH in MHW[1]	35.8	35.5	35	34.5	34.2	34	33.5	**31.8**	**29.2**	**25.5**	20.5	14.5	-	-	-	-	-	15	27.7
CA 100 - 80 - 160 / 18.5 - 2	T087 PC13	176.5		39.8	39.5	39	38.5	38.2	38	37.5	**36**	**34**	**31.5**	27.5	22.5	16	-	-	-	-	18.5	33.7
CA 100 - 80 - 200L / 22 - 2	T087 PC14	190.5		-	-	48	47.6	47.2	47	46.8	45	43.5	**40**	**36**	31	-	-	-	-	-	22	39.9
CA 100 - 80 - 200L / 30 - 2	T087 PC15	201.5		-	-	54.5	54	53.5	53	52.8	51.6	50	**47**	**43.5**	39.5	33.5	-	-	-	-	30	52.1
CA 100 - 80 - 200L / 37 - 2	T087 PC16	213		-	-	61.5	61.2	61	60.5	60	59.5	57.5	**55**	**52**	48.5	43.5	38	-	-	-	37	64.6
CA 100 - 80 - 200L / 45 - 2	T087 PC17	224		-	-	70	69.8	69.6	69.5	69	68	66.5	**64.8**	**61.5**	58	54	49	43	-	-	45	77.4
CA 100 - 80 - 250L / 45 - 2	T087 PC18	229.5		-	-	-	-	75.2	75	74.8	74	71	68.5	65.5	**61.5**	**56**	48	-	-	-	45	77.4
CA 100 - 80 - 250L / 55 - 2	T087 PC19	243		-	-	-	-	84	83.5	83	82.5	80.5	78	75	**71**	**66**	59	50	-	-	55	95.2
CA 100 - 80 - 250L / 75 - 2	T087 PC20	256.5		-	-	-	-	95	94.5	94	92.5	91	89.8	87	**84**	**80**	75	67	57	-	75	128
CA 100 - 80 - 250L / 90 - 2	T087 PC21	270		-	-	-	-	108	108	107	106	105	103	101	**98**	**95**	90	84	76	66.5	90	153

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

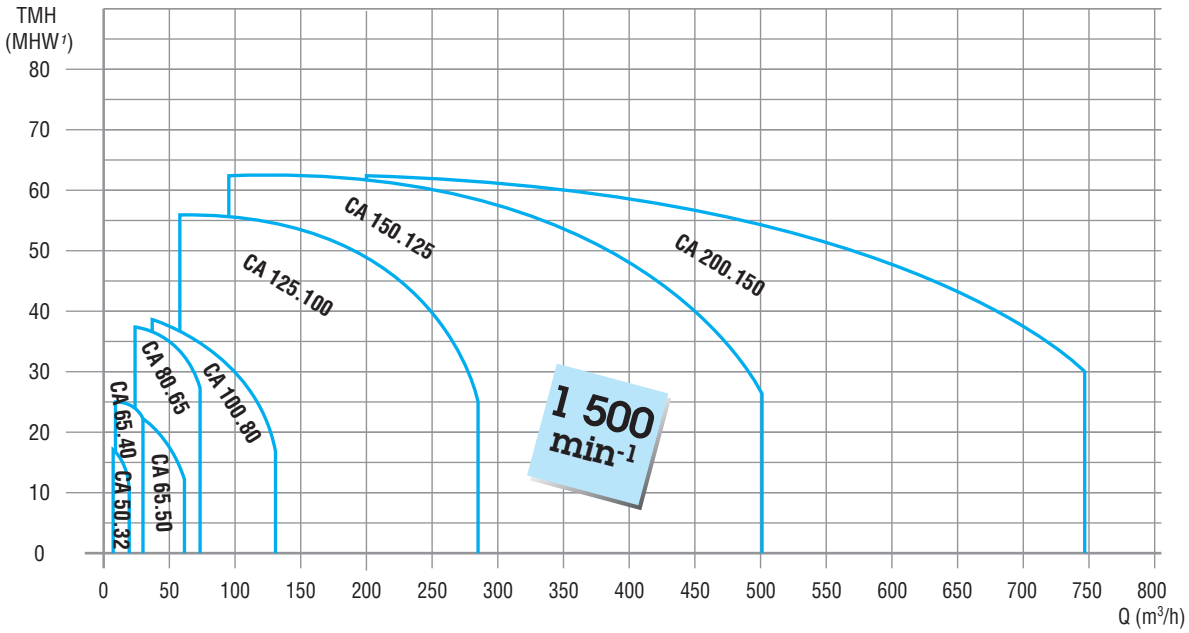
Selection

3000 min-1

Rated flow: 200 to 350 m³/h

Type	Code product	Impeller diameter	Flow rate in m³/h	100	150	200	250	300	350	400	450	kW Output	Current in A 3-ph 400 V
CA 125 - 100 - 200L / 37 - 2	T088 PC09	187	TMH in MHW[1]	47	45	**41**	**35**	28	-	-	-	37	64.6
CA 125 - 100 - 200L / 45 - 2	T088 PC10	198		53	51	**48**	**44**	**37**	29	-	-	45	77.4
CA 125 - 100 - 200L / 55 - 2	T088 PC11	209		60	58	55	**51**	**48**	39	31	-	55	95.2
CA 125 - 100 - 200L / 75 - 2	T088 PC12	220		66	65	63	**59**	**55**	48	41	-	75	128
CA 125 - 100 - 250L / 55 - 2	T088 PC13	223.5		68	67	63	58	**50**	**38**	-	-	55	95.2
CA 125 - 100 - 250L / 75 - 2	T088 PC14	237		76	73	71	67	**60**	**50**	32	-	75	128
CA 125 - 100 - 250L / 90 - 2	T088 PC15	250		86	85	82	78	**72**	**63**	50	32	90	153
CA 125 - 100 - 250L / 110 - 2	T088 PC16	263		97	95	92	88	**83**	**77**	67	52	110	190

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)



1 500 min-1

Rated flow: 6 to 15 m³/h

Type	Code product	Impeller diameter	Flow rate in m³/h	2	4	6	9	12	15	20	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
CA 50 - 32 - 125 / 0.55 - 4	T083 PC21	127	TMH in MHW[1]	5.8	5.5	**5.2**	4.1	-	-	-	0.55	2.8	1.6
CA 50 - 32 - 160 / 0.55 - 4	T083 PC22	157.5		8.8	8.5	8.1	**7.1**	5.8	-	-	0.55	2.8	1.6
CA 50 - 32 - 200 / 1.1 - 4	T083 PC23	205.5		14.9	14.8	14.2	**12.8**	10	-	-	1.1	4.3	2.5
CA 50 - 32 - 200L / 1.1 - 4	T083 PC24	187		-	14.6	14.5	14.5	**14**	12.6	-	1.1	4.3	2.5
CA 50 - 32 - 200L / 1.5 - 4	T083 PC25	208		-	17	16.9	16.8	16.3	**15.2**	11.2	1.5	5.9	3.4

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Selection

1 500 min-1

Rated flow: 12 to 25 m³/h

Type	Product code	Diameter impeller	Flow rate in m³/h	4	6	9	12	15	20	25	30	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
CA 65 - 40 - 125 / 0.55 - 4	T084 PC35	131	TMH in MHW[1]	5.8	5.7	5.6	**5.3**	**4.8**	3.8	-	-	0.55	2.8	1.6
CA 65 - 40 - 160 / 0.75 - 4	T084 PC36	161.5		9.4	9.3	9.1	**8.7**	**8.1**	6.6	-	-	0.75	3.5	2
CA 65 - 40 - 200L / 1.1 - 4	T084 PC37	175.5		-	11	11	**11**	**10.9**	**10.3**	8.7	-	1.1	4.3	2.5
CA 65 - 40 - 200L / 1.5 - 4	T084 PC38	195		-	14	14	**14**	**13.8**	**13.2**	12	10	1.5	5.9	3.4
CA 65 - 40 - 250 / 1.5 - 4	T084 PC30	229		-	17.8	17.3	**16.3**	**14.5**	-	-	-	1.5	5.9	3.4
CA 65 - 40 - 250 / 2.2 - 4	T084 PC31	255		-	22.1	22	**21.5**	**20.5**	16.9	-	-	2.2	8.3	4.8
CA 65 - 40 - 250L / 1.5 - 4	T084 PC32	214		-	-	17.1	17	16.9	**16.4**	14	-	1.5	-	3.4
CA 65 - 40 - 250L / 2.2 - 4	T084 PC33	227		-	-	19.3	19.3	19.1	**18.6**	**17**	-	2.2	-	4.8
CA 65 - 40 - 250L / 3 - 4	T083 PC34	239.5		-	-	22	22	21.8	**21.4**	**20**	17	3	-	6.5

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

1 500 min-1

Rated flow: 20 to 40 m³/h

Type	Product code	Diameter impeller	Flow rate in m³/h	9	12	15	20	25	30	35	40	45	50	55	60	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
CA 65 - 50 - 125 / 0.75 - 4	T085 PC25	140	TMH in MHW[1]	6.4	6.3	6.2	**5.9**	**5.5**	4.8	4	-	-	-	-	-	0.75	3.5	2
CA 65 - 50 - 160 / 1.1 - 4	T085 PC26	166.5		-	9.5	9.3	**9**	**8.3**	7.6	6.5	-	-	-	-	-	1.1	4.3	2.5
CA 65 - 50 - 200L / 2.2 - 4	T085 PC27	200		-	-	14.5	14.2	13.9	**13**	**11.8**	9.8	-	-	-	-	2.2	8.3	4.8
CA 65 - 50 - 200L / 3 - 4	T085 PC28	211		-	-	16	15.9	15.5	**15**	**14**	12.5	9.5	-	-	-	3	-	6.5
CA 65 - 50 - 200L / 4 - 4	T085 PC29	222		-	-	18.2	18	17.9	**17.5**	**16.8**	15.5	13.5	10.1	-	-	4	-	8.3
CA 65 - 50 - 250L / 3 - 4	T085 PC30	202		-	-	15.5	15.2	15	14.5	**13.7**	**12.5**	**10.6**	8	-	-	3	-	6.5
CA 65 - 50 - 250L / 4 - 4	T085 PC31	226		-	-	18.7	18.6	18.3	18	**17.6**	**17**	**16**	14.3	12.1	-	4	-	8.3
CA 65 - 50 - 250L / 5.5 - 4	T085 PC32	238		-	-	21	20.9	20.7	20.5	**20**	**19.3**	**18.5**	17.2	15.5	12	5.5	-	10.9

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

1 500 min-1

Rated flow: 35 to 70 m³/h

Type	Product code	Diameter impeller	Flow rate in m³/h	15	20	25	30	35	40	45	50	55	60	65	70	80	90	100	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
CA 80 - 65 - 125 / 1.1 - 4	T086 PC29	134.5	TMH in MHW[1]	5.3	5.2	5.1	5	**4.8**	**4.5**	**4.2**	3.8	3.5	-	-	-	-	-	-	1.1	4.3	2.5
CA 80 - 65 - 125 / 1.5 - 4	T086 PC30	141.5		5.9	5.8	5.7	5.6	**5.4**	**5.2**	**4.9**	4.6	4.2	3.8	-	-	-	-	-	1.5	5.9	3.4
CA 80 - 65 - 160 / 1.5 - 4	T086 PC31	166		9.2	9	8.9	8.7	**8.5**	**8.2**	**7.9**	7.5	7	6.5	6	-	-	-	-	1.5	5.9	3.4
CA 80 - 65 - 160 / 2.2 - 4	T086 PC32	175		10.3	10.2	10	9.8	**9.6**	**9.4**	**9**	8.6	8.2	7.7	7.2	6.6	-	-	-	2.2	8.3	4.8
CA 80 - 65 - 200L / 3 - 4	T086 PC33	192.5		-	13.2	13.1	13	12.8	12.6	12.3	**12**	**11.5**	**11**	**10.5**	9.8	8	-	-	3	-	6.5
CA 80 - 65 - 200L / 4 - 4	T086 PC34	203.5		-	14.9	14.8	14.6	14.4	14.1	14	**14**	**13.5**	**13**	**12.5**	11.9	10.1	8	-	4	-	8.3
CA 80 - 65 - 200L / 5.5 - 4	T086 PC35	214		-	16.4	16.3	16.2	16.1	16	15.8	**15.5**	**15**	**14.8**	**14.3**	13.8	12.2	10.5	-	5.5	-	10.9
CA 80 - 65 - 250L / 4 - 4	T086 PC36	218		-	16.8	16.7	16.5	16.4	16.2	16	**15.8**	**15**	**14.5**	**13.8**	**12.5**	9	-	-	4	-	8.3
CA 80 - 65 - 250L / 5.5 - 4	T086 PC37	230		-	18.5	18.4	18.2	18.1	18	17.8	**17.5**	**16.9**	**16.2**	**15.5**	**14.5**	11.8	7.5	-	5.5	-	10.9
CA 80 - 65 - 250L / 7.5 - 4	T086 PC38	256		-	24	23.8	23.6	23.4	23.2	23	**22.8**	**22.5**	**22.1**	**21.7**	**21.2**	19.8	17.1	13	7.5	-	15.2
CA 80 - 65 - 315 / 7.5 - 4	T086 PC39	289		-	29.5	29.3	29	28.8	28.1	27.5	**27**	**25**	**23.5**	21	-	-	-	-	7.5	-	15.2
CA 80 - 65 - 315 / 11 - 4	T086 PC40	321.5		-	-	-	36.1	36	35.9	35.3	**35**	**34**	**33**	32	30	25	-	-	11	-	21.1

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Selection

1 500 min-1

Rated flow: 60 to 90 m³/h

Type	Code product	Impeller diameter	Flow rate in m³/h	20	30	40	50	60	70	80	90	100	120	140	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
CA 100 - 80 - 160 / 2.2 - 4	T087 PC22	167.5		8.8	8.7	8.5	8.1	**7.6**	**7**	6	4.9	-	-	-	2.2	8.3	4.8
CA 100 - 80 - 160 / 3 - 4	T087 PC23	176.5		9.8	9.7	9.5	9.2	**8.8**	**8.2**	7.4	6.2	5	-	-	3	-	6.5
CA 100 - 80 - 200L / 4 - 4	T087 PC24	201.5		-	13	13	12.8	12.3	**12**	**11.1**	**10.3**	9.1	-	-	4	-	8.3
CA 100 - 80 - 200L / 5.5 - 4	T087 PC25	213		-	15	14.9	14.7	14.3	**13.9**	**13.1**	**12.5**	11.5	8.8	-	5.5	-	10.9
CA 100 - 80 - 200L / 7.5 - 4	T087 PC26	224	TMH in MHW[1]	-	16.9	16.9	16.7	16.4	**16**	**15.4**	**14.8**	13.8	11.3	-	7.5	-	15.2
CA 100 - 80 - 250L / 5.5 - 4	T087 PC27	229.5		-	-	18.5	18.2	18	**17.5**	**16.8**	**16**	15	-	-	5.5	-	10.9
CA 100 - 80 - 250L / 7.5 - 4	T087 PC28	243		-	-	20.5	20	19.8	**19.3**	**19**	**18**	17	14	-	7.5	-	15.2
CA 100 - 80 - 250L / 11 - 4	T087 PC29	270		-	-	26	26	25.6	**25.1**	**24.9**	**24.2**	23.5	21.5	18	11	-	21.1
CA 100 - 80 - 315 / 11 - 4	T087 PC30	305.5		-	-	33.4	33	32	**31**	**29.5**	**27.5**	25	17.5	-	11	-	21.1
CA 100 - 80 - 315 / 15 - 4	T087 PC31	321.5		-	-	36.5	36	35.5	**34.5**	**33.5**	**32**	29.9	24	-	15	-	28.8

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

1 500 min-1

Rated flow: 100 to 200 m³/h

Type	Code product	Impeller diameter	Flow rate in m³/h	40	50	60	70	80	90	100	120	140	160	180	200	220	240	260	280	kW Output	Current in A 3-ph 400 V
CA 125 - 100 - 200L / 5.5 - 4	T088 PC17	198		13	12.9	12.7	12.5	12.2	12	**11.6**	**10.7**	9.5	8	-	-	-	-	-	-	5.5	10.9
CA 125 - 100 - 200L / 7.5 - 4	T088 PC18	209		14.6	14.5	14.2	14.1	13.9	13.6	**13.3**	**12.5**	11.5	10.4	8.9	7.1	-	-	-	-	7.5	15.2
CA 125 - 100 - 200L / 11 - 4	T088 PC19	220		16.1	16	15.9	15.7	15.5	15.3	**15.1**	**14.4**	13.6	12.5	11.2	9.8	8	-	-	-	11	21.1
CA 125 - 100 - 250L / 7.5 - 4	T088 PC20	223.5		16.4	16.3	16.2	16	16	15.5	**15.2**	**14.2**	**12.7**	10.8	8	-	-	-	-	-	7.5	15.2
CA 125 - 100 - 250L / 11 - 4	T088 PC21	250		21	20.9	20.8	20.5	20.2	20	**19.8**	**19**	**18**	16.5	14.5	11.5	-	-	-	-	11	21.1
CA 125 - 100 - 250L / 15 - 4	T088 PC22	263		23.5	23.2	23.1	23	22.8	22.5	**22.1**	**21.5**	**20.6**	19.5	18	15.5	13	-	-	-	15	28.8
CA 125 - 100 - 315 / 15 - 4	T088 PC23	289		-	29.4	29	28.5	28	27.5	27	**25**	**22**	18.5	-	-	-	-	-	-	15	28.8
CA 125 - 100 - 315 / 18.5 - 4	T088 PC24	305.5		-	32.4	32.2	32	31.5	31	30.5	**29**	**26.5**	23.5	19	-	-	-	-	-	18.5	35.2
CA 125 - 100 - 315 / 22 - 4	T088 PC25	321.5		-	36	35.5	35.2	35	34.8	34.2	**33**	**31.5**	28.5	25	21	-	-	-	-	22	41.7
CA 125 - 100 - 315L / 18.5 - 4	T088 PC26	294	TMH in MHW[1]	-	-	30	30	30	30	29.9	29.3	**28.5**	**27**	**26**	**23.5**	21	-	-	-	18.5	35.2
CA 125 - 100 - 315L / 22 - 4	T088 PC27	310.5		-	-	34	34	34	34	34	33.9	**33**	**32**	**31**	**29**	27	24	-	-	22	41.7
CA 125 - 100 - 315L / 30 - 4	T088 PC28	326.7		-	-	38	38	38	38	38	37.9	**37.5**	**36.5**	**35.5**	**34**	32	30	27	-	30	56.3
CA 125 - 100 - 400 / 18.5 - 4	T088 PC29	346		-	43	42.5	42	41.5	40	38.5	**35**	**31**	-	-	-	-	-	-	-	18.5	35.2
CA 125 - 100 - 400 / 22 - 4	T088 PC30	366		-	48	47.8	47.5	47	46.5	45	**42**	**37.5**	32.5	-	-	-	-	-	-	22	41.7
CA 125 - 100 - 400 / 30 - 4	T088 PC31	386		-	54.5	54	53.5	53	52.5	52	**48**	**45**	41	35	-	-	-	-	-	30	56.3
CA 125 - 100 - 400 / 37 - 4	T088 PC32	407		-	60	59.5	59	58.6	58.2	57.5	**56**	**53**	49	43	37	-	-	-	-	37	68.7
CA 125 - 100 - 400L / 22 - 4	T088 PC33	326.5		-	-	-	-	40	39.8	39.5	38.5	37.5	**36**	**33**	**28.5**	23	-	-	-	22	41.7
CA 125 - 100 - 400L / 30 - 4	T088 PC34	345.5		-	-	-	-	44	43.8	43.5	43	42	**40**	**38**	**35**	30	23	-	-	30	56.3
CA 125 - 100 - 400L / 37 - 4	T088 PC35	365		-	-	-	-	50	50	50	49.5	48	**47.5**	**45.5**	**42.5**	39	33	26	-	37	68.7
CA 125 - 100 - 400L / 45 - 4	T088 PC36	384		-	-	-	-	56	55.5	55	54.5	54	**52.5**	**51.5**	**48.5**	46	41	35	26	45	83.3

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

1 500 min-1

Rated flow: 200 to 350 m³/h

Type	Code product	Impeller diameter	Flow rate in m³/h	80	100	140	180	200	250	300	350	400	450	500	kW Output	Current in A 3-ph 400 V
CA 150 - 125 - 250L / 15 - 4	T089 PC03	241		19	18.8	18.2	17.9	17.2	**15.7**	13.5	-	-	-	-	15	28.8
CA 150 - 125 - 250L / 18.5 - 4	T089 PC04	254		21	21	20.5	20	19.6	**18.2**	16	-	-	-	-	18.5	35.2
CA 150 - 125 - 250L / 22 - 4	T089 PC05	267.5		23.5	23.5	23.1	22.9	22.3	**21**	18.9	15.6	-	-	-	22	41.7
CA 150 - 125 - 315L / 30 - 4	T089 PC06	306		35	34.5	34	33.5	32.5	**30**	24.1	-	-	-	-	30	56.3
CA 150 - 125 - 315L / 37 - 4	T089 PC07	323	TMH in MHW[1]	39.8	39.5	38.5	37.5	36.3	**33.5**	29	21	-	-	-	37	68.7
CA 150 - 125 - 315L / 45 - 4	T089 PC08	340		43.5	43.3	42.5	41.7	41	**38**	34	28	-	-	-	45	83.3
CA 150 - 125 - 400L / 45 - 4	T089 PC09	357		-	45	45	44.5	43	**41**	**37**	30	-	-	-	45	83.3
CA 150 - 125 - 400L / 55 - 4	T089 PC10	378		-	50	50	49.5	48	**46.5**	**43**	**37.5**	29.5	-	-	55	101
CA 150 - 125 - 400L / 75 - 4	T089 PC11	399		-	57.5	57	56.5	55	**54**	**52**	**47.5**	40	29	-	75	137
CA 150 - 125 - 400L / 90 - 4	T089 PC12	420		-	62.5	62.2	62	61.5	**60**	**58**	**54.8**	49	40	27	90	164

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

CA
Pumps

Selection

1 500 min^{-1}

Rated flow: 300 to 500 m^3/h

Type	Product code	Impeller diameter	Flow rate in m^3/h	140	180	200	250	300	350	400	450	500	550	600	650	700	750	kW Output	Current in A 3-ph 400 V
CA 200 - 150 - 315L / 37 - 4	T090 PC01	302.5	TMH in MHW[1]	31	30.5	30	29.5	**27**	**24.5**	20	-	-	-	-	-	-	-	37	68.7
CA 200 - 150 - 315L / 45 - 4	T090 PC02	320.5		34.5	34.2	34	33	**31.5**	**29**	25.5	20.5	-	-	-	-	-	-	45	83.3
CA 200 - 150 - 315L / 55 - 4	T090 PC03	338		39	39	38.5	38	**36.5**	**34.5**	31.5	27	21	-	-	-	-	-	55	101
CA 200 - 150 - 315L / 75 - 4	T090 PC04	356		44.5	44.5	44	43.5	**42.5**	**40.5**	**38**	**34.5**	**30.5**	25	-	-	-	-	75	137
CA 200 - 150 - 400L / 55 - 4	T090 PC05	355		-	-	42.5	42	41.5	40	**38**	**35**	**31**	25	-	-	-	-	55	101
CA 200 - 150 - 400L / 75 - 4	T090 PC06	376		-	-	48	47.5	47	46	**44.5**	**42**	**38.5**	34	28	-	-	-	75	137
CA 200 - 150 - 400L / 90 - 4	T090 PC07	397		-	-	55	54	53.5	52.5	**51**	**49.5**	**46.5**	43.5	39	32.5	25	-	90	164
CA 200 - 150 - 400L / 110 - 4	T090 PC08	418		-	-	62	61.5	60.5	60	**59**	**57.5**	**55**	52.5	48.5	44	37.5	30	110	197
CA 200 - 150 - 400L / 132 - 4	T090 PC09	418		-	-	62	61.5	60.5	60	**59**	**57.5**	**55**	52.5	48.5	44	37.5	30	132	230

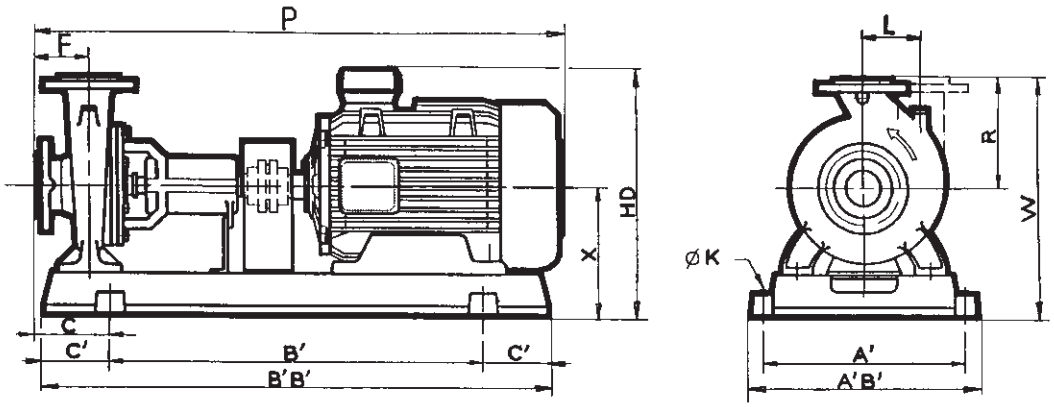
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Dimensions

Dimensions of CA pumps - 3,000 min^{-1} motor

Dimensions in millimetres

CA 50 to CA 65



Type	Pumps													Openings		Weight
	A'	A'B'	B'	B'B'	C	C'	F	HD	K	P	R	W	X	Suction	Discharge	kg
CA 50 - 32 - 125 / 1.1 - 2	320	360	540	840	155	150	80	323	19	697	140	335	195	50	32	80
CA 50 - 32 - 125 / 1.5 - 2	320	360	540	840	155	150	80	333	19	711	140	335	195	50	32	85
CA 50 - 32 - 160 / 2.2 - 2	320	360	540	840	155	150	80	353	19	738	160	375	215	50	32	95
CA 50 - 32 - 160 / 3 - 2	320	360	540	840	155	150	80	358	19	793	160	375	215	50	32	98
CA 50 - 32 - 200 / 4 - 2	320	360	540	840	155	150	80	386	19	793	180	423	243	50	32	108
CA 50 - 32 - 200 / 5.5 - 2	350	390	600	940	175	170	80	395	19	874	180	423	243	50	32	135
CA 50 - 32 - 200L / 7.5 - 2	350	390	600	940	175	170	80	392	19	874	180	423	243	50	32	137
CA 50 - 32 - 200L / 9 - 2	350	390	600	940	175	170	80	444	19	910	180	423	243	50	32	140
CA 50 - 32 - 200L / 11 - 2	400	450	660	1040	185	190	80	471	24	1048	180	423	243	50	32	186
CA 65 - 40 - 125 / 2.2 - 2	320	360	540	840	155	150	80	333	19	738	140	335	195	65	40	92
CA 65 - 40 - 125 / 3 - 2	320	360	540	840	155	150	80	338	19	793	140	335	195	65	40	95
CA 65 - 40 - 160 / 3 - 2	320	360	540	840	155	150	80	358	19	793	160	375	215	65	40	98
CA 65 - 40 - 160 / 4 - 2	320	360	540	840	155	150	80	358	19	793	160	375	215	65	40	105
CA 65 - 40 - 160 / 5.5 - 2	350	390	600	940	175	170	80	364	19	874	160	375	215	65	40	153
CA 65 - 40 - 200L / 7.5 - 2	350	390	600	940	195	170	100	392	19	894	180	423	243	65	40	153
CA 65 - 40 - 200L / 9 - 2	350	390	600	940	195	170	100	444	19	930	180	423	243	65	40	155
CA 65 - 40 - 200L / 11 - 2	400	450	660	1040	205	190	100	491	24	1068	180	443	263	65	40	198
CA 65 - 40 - 250 / 11 - 2	440	490	740	1160	213	210	100	511	24	1068	225	508	283	65	40	224
CA 65 - 40 - 250 / 15 - 2	440	490	740	1160	213	210	100	511	24	1068	225	508	283	65	40	238
CA 65 - 40 - 250 / 18.5 - 2	440	490	740	1160	213	210	100	511	24	1068	225	508	283	65	40	253
CA 65 - 40 - 250L / 15 - 2	440	490	740	1160	213	210	100	511	24	1068	225	508	283	65	40	240
CA 65 - 40 - 250L / 18.5 - 2	440	490	740	1160	213	210	100	511	24	1068	225	508	283	65	40	255
CA 65 - 40 - 250L / 22 - 2	440	490	740	1160	213	210	100	536	24	1068	225	508	283	65	40	265
CA 65 - 50 - 125 / 3 - 2	320	360	540	840	175	150	100	358	19	813	160	375	215	65	50	96
CA 65 - 50 - 125 / 4 - 2	320	360	540	840	175	150	100	358	19	813	160	375	215	65	50	103
CA 65 - 50 - 125 / 5.5 - 2	350	390	600	940	195	170	100	364	19	894	160	375	215	65	50	133
CA 65 - 50 - 160 / 5.5 - 2	350	390	600	940	195	170	100	392	19	894	180	423	243	65	50	150
CA 65 - 50 - 160 / 7.5 - 2	350	390	600	940	195	170	100	392	19	894	180	423	243	65	50	161
CA 65 - 50 - 200L / 15 - 2	400	450	660	1040	205	190	100	491	24	1068	200	463	263	65	50	203
CA 65 - 50 - 200L / 18.5 - 2	400	450	660	1040	205	190	100	491	24	1068	200	463	263	65	50	219
CA 65 - 50 - 200L / 22 - 2	400	450	660	1040	205	190	100	491	24	1068	200	483	283	65	50	228
CA 65 - 50 - 200L / 30 - 2	490	540	840	1310	228	235	100	573	24	1192	200	503	303	65	50	343
CA 65 - 50 - 250L / 18.5 - 2	440	490	740	1160	213	210	100	511	24	1068	225	508	283	65	50	262
CA 65 - 50 - 250L / 22 - 2	440	490	740	1160	213	210	100	536	24	1068	225	508	283	65	50	271
CA 65 - 50 - 250L / 30 - 2	490	540	840	1310	228	235	100	553	24	1193	225	528	303	65	50	350
CA 65 - 50 - 250L / 37 - 2	490	540	840	1310	228	235	100	553	24	1193	225	528	303	65	50	396

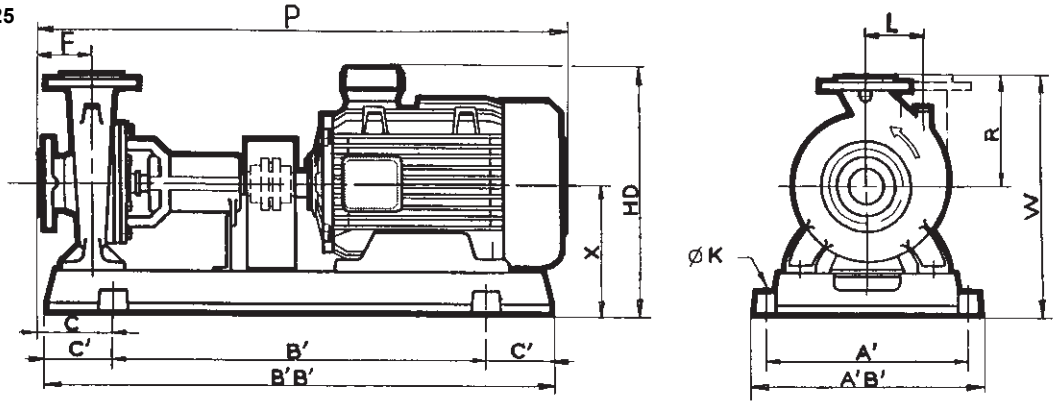
CA
Pumps

Dimensions

Dimensions of CA pumps - 3,000 min^{-1} motor

Dimensions in millimetres

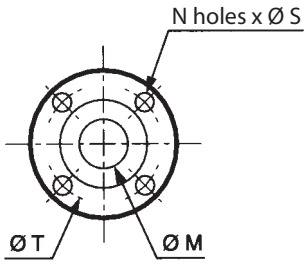
CA 80 to CA 125



Type	Pumps													Openings		Weight
	A'	A'B'	B'	B'B'	C	C'	F	HD	K	P	R	W	X	Suction	Discharge	kg
CA 80 - 65 - 125 / 5.5 - 2	350	390	600	940	183	170	100	392	19	894	180	423	243	80	65	149
CA 80 - 65 - 125 / 7.5 - 2	350	390	600	940	183	170	100	392	19	894	180	423	243	80	65	153
CA 80 - 65 - 160L / 9 - 2	350	390	600	940	183	170	100	444	19	930	200	443	243	80	65	160
CA 80 - 65 - 200L / 11 - 2	400	450	660	1040	193	190	100	491	24	1068	200	463	263	80	65	200
CA 80 - 65 - 160 / 15 - 2	400	450	660	1040	193	190	100	491	24	1068	200	463	263	80	65	209
CA 80 - 65 - 200L / 18.5 - 2	440	490	740	1160	213	210	100	511	24	1068	225	508	283	80	65	260
CA 80 - 65 - 200L / 22 - 2	440	490	740	1160	213	210	100	536	24	1068	225	508	283	80	65	269
CA 80 - 65 - 200L / 30 - 2	490	540	840	1310	228	235	100	573	24	1192	225	528	303	80	65	348
CA 80 - 65 - 200L / 37 - 2	490	540	840	1310	228	235	100	573	24	1192	225	528	303	80	65	394
CA 80 - 65 - 250L / 30 - 2	490	540	840	1310	215	235	100	573	24	1302	250	553	303	80	65	379
CA 80 - 65 - 250L / 37 - 2	490	540	840	1310	215	235	100	573	24	1302	250	553	303	80	65	425
CA 80 - 65 - 250L / 45 - 2	490	540	840	1310	215	235	100	598	24	1308	250	578	328	80	65	476
CA 80 - 65 - 250L / 55 - 2	550	610	940	1460	235	260	100	746	24	1462	250	603	353	80	65	576
CA 100 - 80 - 160 / 15 - 2	440	490	740	1160	238	210	125	511	24	1093	225	508	283	100	80	236
CA 100 - 80 - 160 / 18.5 - 2	440	490	740	1160	238	210	125	511	24	1093	225	508	283	100	80	252
CA 100 - 80 - 200L / 22 - 2	440	490	740	1160	238	210	125	536	24	1203	250	533	283	100	80	283
CA 100 - 80 - 200L / 30 - 2	490	540	840	1310	253	235	125	573	24	1327	250	553	303	100	80	408
CA 100 - 80 - 200L / 37 - 2	490	540	840	1310	253	235	125	573	24	1327	250	553	303	100	80	410
CA 100 - 80 - 200L / 45 - 2	550	610	940	1460	273	260	125	598	24	1333	250	578	328	100	80	622
CA 100 - 80 - 250L / 45 - 2	490	540	840	1310	240	235	125	598	24	1338	280	608	328	100	80	482
CA 100 - 80 - 250L / 55 - 2	550	610	940	1460	260	260	125	746	24	1487	280	633	353	100	80	582
CA 100 - 80 - 250L / 75 - 2	670	730	1200	1860	345	330	125	819	29	1523	280	683	403	100	80	796
CA 100 - 80 - 250L / 90 - 2	670	730	1200	1860	345	330	125	869	29	1663	280	683	403	100	80	917
CA 125 - 100 - 200L / 37 - 2	490	540	840	1310	240	235	125	598	24	1327	280	583	303	125	100	417
CA 125 - 100 - 200L / 45 - 2	550	610	940	1460	260	260	125	598	24	1333	280	608	328	125	100	674
CA 125 - 100 - 200L / 55 - 2	550	610	940	1460	260	260	125	746	24	1487	280	633	353	125	100	817
CA 125 - 100 - 200L / 75 - 2	670	730	1200	1860	345	330	125	819	29	1523	280	683	403	125	100	1031
CA 125 - 100 - 250L / 55 - 2	550	610	940	1460	275	260	140	746	29	1502	280	633	353	125	100	591
CA 125 - 100 - 250L / 75 - 2	670	730	1200	1860	345	330	140	819	29	1538	280	683	403	125	100	805
CA 125 - 100 - 250L / 90 - 2	670	730	1200	1860	345	330	140	869	29	1678	280	683	403	125	100	926
CA 125 - 100 - 250L / 110 - 2	670	730	1200	1860	345	330	140	904	29	1704	280	718	438	125	100	1069

Flange dimensions

Type	Suction				Discharge			
	ØM	N	ØS	ØT	ØM	N	ØS	ØT
CA 50 - 32	50	4	19	125	32	4	19	100
CA 65 - 40	65	4	19	145	40	4	19	110
CA 65 - 50	65	4	19	145	50	4	19	125
CA 80 - 65	80	8	19	160	65	4	19	145
CA 100 - 80	100	8	19	180	80	8	19	160
CA 125 - 100	125	8	19	210	100	8	19	180
CA 150 - 125	150	8	23	240	125	8	19	210

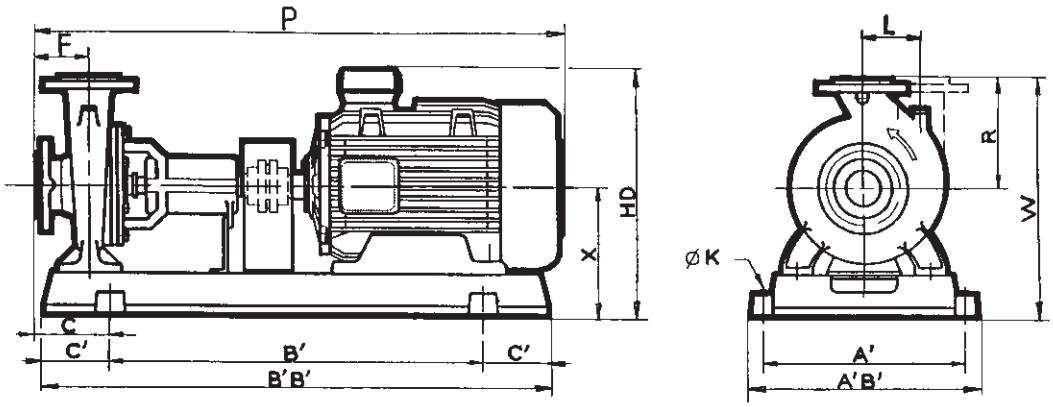


Dimensions

Dimensions of CA pumps - 1,500 min^{-1} motor

Dimensions in millimetres

CA 50 to CA 80



Type	Pumps													Openings		Weight
	A'	A'B'	B'	B'B'	C	C'	F	HD	K	P	R	W	X	Suction	Discharge	kg
CA 50 - 32 - 125 / 0.55 - 4	320	360	540	840	155	150	80	323	19	697	140	335	195	50	32	80
CA 50 - 32 - 160 / 0.55 - 4	320	360	540	840	155	150	80	343	19	697	160	375	215	50	32	86
CA 50 - 32 - 200 / 1.1 - 4	320	360	540	840	155	150	80	381	19	711	180	423	243	50	32	94
CA 50 - 32 - 200L / 1.1 - 4	320	360	540	840	155	150	80	381	19	711	180	423	243	50	32	94
CA 50 - 32 - 200L / 1.5 - 4	320	360	540	840	155	150	80	381	19	738	180	423	243	50	32	98
CA 65 - 40 - 125 / 0.55 - 4	320	360	540	840	155	150	80	323	19	697	140	335	195	65	40	84
CA 65 - 40 - 160 / 0.75 - 4	320	360	540	840	155	150	80	343	19	697	160	375	215	65	40	89
CA 65 - 40 - 200L / 1.1 - 4	320	360	540	840	155	150	100	381	19	731	180	423	243	65	40	95
CA 65 - 40 - 200L / 1.5 - 4	320	360	540	840	155	150	100	381	19	758	180	423	243	65	40	100
CA 65 - 40 - 250 / 1.5 - 4	400	450	660	1040	193	190	100	421	24	758	225	508	283	65	40	129
CA 65 - 40 - 250 / 2.2 - 4	400	450	660	1040	193	190	100	426	24	813	225	508	283	65	40	135
CA 65 - 40 - 250L / 1.5 - 4	400	450	660	1040	193	190	100	421	24	748	225	508	283	65	40	131
CA 65 - 40 - 250L / 2.2 - 4	400	450	660	1040	193	190	100	426	24	813	225	508	283	65	40	137
CA 65 - 40 - 250L / 3 - 4	400	450	660	1040	193	190	100	426	24	813	225	508	283	65	40	145
CA 65 - 50 - 125 / 0.75 - 4	320	360	540	840	150	150	100	343	19	717	160	375	215	65	50	86
CA 65 - 50 - 160 / 1.1 - 4	320	360	540	840	150	150	100	381	19	731	180	423	243	65	50	97
CA 65 - 50 - 200L / 2.2 - 4	320	360	540	840	150	150	100	386	19	813	200	443	243	65	50	111
CA 65 - 50 - 200L / 3 - 4	320	360	540	840	150	150	100	386	19	813	200	443	243	65	50	113
CA 65 - 50 - 200L / 4 - 4	320	360	540	840	150	150	100	386	19	813	200	443	243	65	50	135
CA 65 - 50 - 250L / 3 - 4	400	450	660	1040	190	190	100	426	24	813	225	508	283	65	50	145
CA 65 - 50 - 250L / 4 - 4	400	450	660	1040	190	190	100	426	24	813	225	508	283	65	50	150
CA 65 - 50 - 250L / 5.5 - 4	400	450	660	1040	190	190	100	432	24	894	225	508	283	65	50	167
CA 80 - 65 - 125 / 1.1 - 4	350	390	600	940	183	170	100	381	19	731	180	423	243	80	65	104
CA 80 - 65 - 125 / 1.5 - 4	350	390	600	940	183	170	100	381	19	758	180	423	243	80	65	107
CA 80 - 65 - 160 / 1.5 - 4	350	390	600	940	183	170	100	401	19	758	200	443	243	80	65	111
CA 80 - 65 - 160 / 2.2 - 4	350	390	600	940	183	170	100	386	19	813	200	443	243	80	65	117
CA 80 - 65 - 200L / 3 - 4	400	450	660	1040	193	190	100	426	24	813	225	508	283	80	65	143
CA 80 - 65 - 200L / 4 - 4	400	450	660	1040	193	190	100	426	24	813	225	508	283	80	65	148
CA 80 - 65 - 200L / 5.5 - 4	400	450	660	1040	193	190	100	432	24	894	225	508	283	80	65	167
CA 80 - 65 - 250L / 4 - 4	440	490	740	1160	200	210	100	446	24	923	250	553	303	80	65	212
CA 80 - 65 - 250L / 5.5 - 4	440	490	740	1160	200	210	100	452	24	1004	250	553	303	80	65	229
CA 80 - 65 - 250L / 7.5 - 4	440	490	740	1160	200	210	100	504	24	1040	250	553	303	80	65	241
CA 80 - 65 - 315 / 7.5 - 4	490	540	840	1310	240	235	125	529	24	1040	280	608	328	80	65	283
CA 80 - 65 - 315 / 11 - 4	490	540	840	1310	240	235	125	556	24	1178	280	608	328	80	65	309

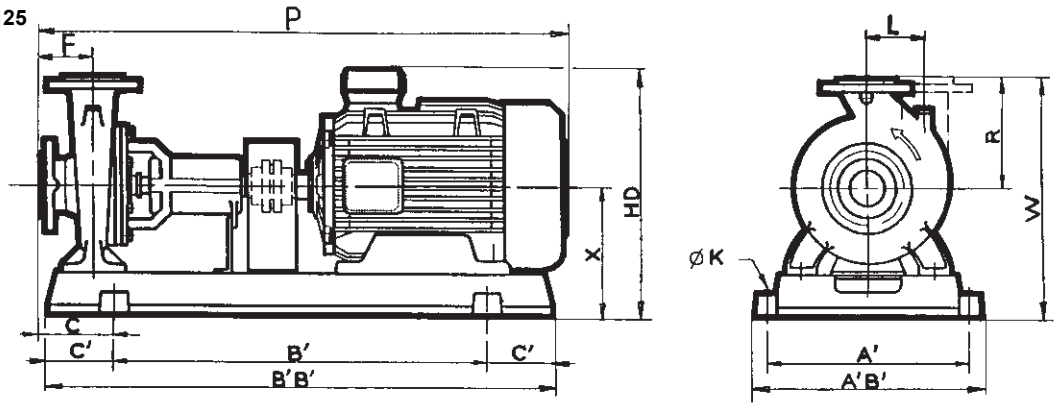
CA
Pumps

Dimensions

Dimensions of CA pumps - 1,500 min^{-1} motor

Dimensions in millimetres

CA 100 to CA 125



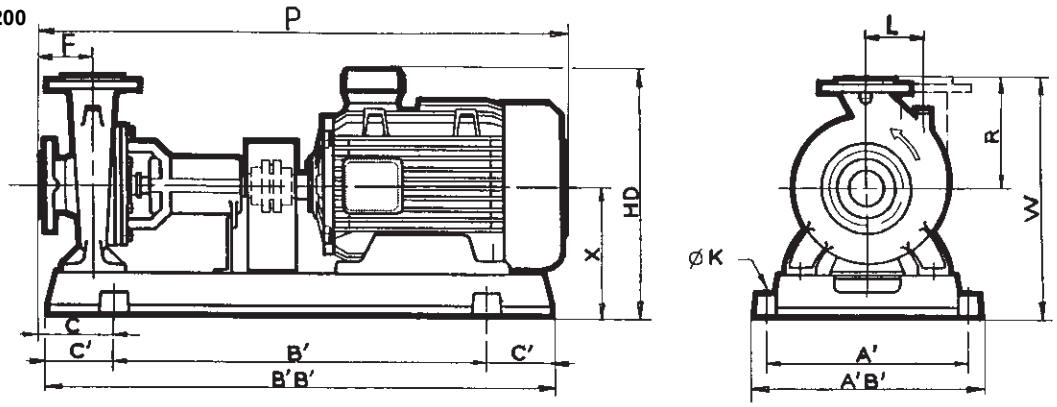
Type	Pumps													Openings		Weight
	A'	A'B'	B'	B'B'	C	C'	F	HD	K	P	R	W	X	Suction	Discharge	kg
CA 100 - 80 - 160 / 2.2 - 4	440	450	660	1040	218	190	125	426	24	838	225	508	283	100	80	136
CA 100 - 80 - 160 / 3 - 4	440	450	660	1040	218	190	125	426	24	838	225	508	283	100	80	138
CA 100 - 80 - 200L / 4 - 4	440	490	740	1160	238	210	125	426	24	948	250	533	283	100	80	194
CA 100 - 80 - 200L / 5.5 - 4	440	490	740	1160	238	210	125	432	24	1029	250	533	283	100	80	211
CA 100 - 80 - 200L / 7.5 - 4	440	490	740	1160	238	210	125	484	24	1065	250	533	283	100	80	233
CA 100 - 80 - 250L / 5.5 - 4	490	540	840	1310	240	235	125	452	24	1029	280	583	303	100	80	268
CA 100 - 80 - 250L / 7.5 - 4	490	540	840	1310	240	235	125	504	24	1065	280	583	303	100	80	279
CA 100 - 80 - 250L / 11 - 4	490	540	840	1310	240	235	125	531	24	1203	280	583	303	100	80	304
CA 100 - 80 - 315 / 11 - 4	490	540	840	1310	240	235	125	581	24	1203	315	668	353	100	80	314
CA 100 - 80 - 315 / 15 - 4	490	540	840	1310	240	235	125	581	24	1203	315	668	353	100	80	331
CA 125 - 100 - 200L / 5.5 - 4	440	490	740	1160	225	210	125	452	24	1029	280	583	303	125	100	220
CA 125 - 100 - 200L / 7.5 - 4	440	490	740	1160	225	210	125	504	24	1065	280	583	303	125	100	231
CA 125 - 100 - 200L / 11 - 4	490	540	840	1310	240	235	125	531	24	1203	280	583	303	125	100	297
CA 125 - 100 - 250L / 7.5 - 4	490	540	840	1310	255	235	140	529	24	1080	280	608	328	125	100	290
CA 125 - 100 - 250L / 11 - 4	490	540	840	1310	255	235	140	556	24	1218	280	608	328	125	100	315
CA 125 - 100 - 250L / 15 - 4	490	540	840	1310	255	235	140	556	24	1218	280	608	328	125	100	333
CA 125 - 100 - 315 / 15 - 4	490	540	840	1310	255	235	140	581	24	1218	315	668	353	125	100	341
CA 125 - 100 - 315 / 18.5 - 4	490	540	840	1310	255	235	140	606	24	1218	315	668	353	125	100	361
CA 125 - 100 - 315 / 22 - 4	490	540	840	1310	255	235	140	603	24	1275	315	668	353	125	100	389
CA 125 - 100 - 315L / 18.5 - 4	490	540	840	1310	255	235	140	606	24	1218	315	668	353	125	100	361
CA 125 - 100 - 315L / 22 - 4	490	540	840	1310	255	235	140	603	24	1275	315	668	353	125	100	389
CA 125 - 100 - 315L / 30 - 4	490	540	840	1310	255	235	140	603	24	1321	315	668	353	125	100	485
CA 125 - 100 - 400 / 18.5 - 4	600	660	1060	1660	300	300	140	656	29	1278	355	758	403	125	100	493
CA 125 - 100 - 400 / 22 - 4	600	660	1060	1660	300	300	140	653	29	1335	355	758	403	125	100	512
CA 125 - 100 - 400 / 30 - 4	600	660	1060	1660	300	300	140	653	29	1381	355	758	403	125	100	581
CA 125 - 100 - 400 / 37 - 4	600	660	1060	1660	300	300	140	673	29	1438	355	758	403	125	100	778
CA 125 - 100 - 400L / 22 - 4	600	660	1060	1660	300	300	140	653	29	1335	355	758	403	125	100	521
CA 125 - 100 - 400L / 30 - 4	600	660	1060	1660	300	300	140	653	29	1381	355	758	403	125	100	521
CA 125 - 100 - 400L / 37 - 4	600	660	1060	1660	300	300	140	673	29	1438	355	758	403	125	100	778
CA 125 - 100 - 400L / 45 - 4	600	660	1060	1660	300	300	140	673	29	1488	355	758	403	125	100	808

Dimensions

Dimensions of CA pumps - 1,500 min^{-1} motor

Dimensions in millimetres

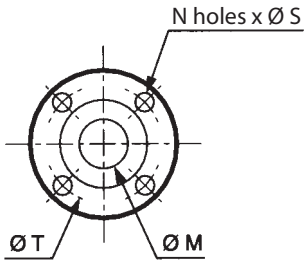
CA 150 to CA 200



Type	Pumps													Openings		Weight
	A'	A'B'	B'	B'B'	C	C'	F	HD	K	P	R	W	X	Suction	Discharge	kg
CA 150 - 125 - 250L / 15 - 4	490	540	840	1310	255	235	140	581	24	1218	355	708	353	150	125	330
CA 150 - 125 - 250L / 18.5 - 4	490	540	840	1310	255	235	140	606	24	1218	355	708	353	150	125	366
CA 150 - 125 - 250L / 22 - 4	490	540	840	1310	255	235	140	603	24	1275	355	708	353	150	125	388
CA 150 - 125 - 315L / 30 - 4	600	660	1060	1660	300	300	140	653	29	1381	355	758	403	150	125	567
CA 150 - 125 - 315L / 37 - 4	600	660	1060	1660	300	300	140	673	29	1438	355	758	403	150	125	602
CA 150 - 125 - 315L / 45 - 4	600	660	1060	1660	300	300	140	673	29	1488	355	758	403	150	125	632
CA 150 - 125 - 400L / 45 - 4	600	660	1060	1660	300	300	140	708	29	1488	400	838	438	150	125	831
CA 150 - 125 - 400L / 55 - 4	600	660	1060	1660	300	300	140	831	29	1562	400	838	438	150	125	869
CA 150 - 125 - 400L / 75 - 4	670	730	1200	1860	330	330	140	854	29	1598	400	838	438	150	125	948
CA 150 - 125 - 400L / 90 - 4	670	730	1200	1860	330	330	140	854	29	1738	400	838	438	150	125	1160
CA 200 - 150 - 315L / 37 - 4	670	730	1200	1860	350	330	160	673	29	1458	400	803	403	200	150	915
CA 200 - 150 - 315L / 45 - 4	670	730	1200	1860	350	330	160	673	29	1508	400	803	403	200	150	945
CA 200 - 150 - 315L / 55 - 4	670	730	1200	1860	350	330	160	796	29	1582	400	803	403	200	150	1035
CA 200 - 150 - 315L / 75 - 4	670	730	1200	1860	350	330	160	819	29	1618	400	803	403	200	150	1130
CA 200 - 150 - 400L / 55 - 4	670	730	1200	1860	350	330	160	854	29	1568	450	888	438	200	150	873
CA 200 - 150 - 400L / 75 - 4	670	730	1200	1860	350	330	160	854	29	1618	450	888	438	200	150	959
CA 200 - 150 - 400L / 90 - 4	670	730	1200	1860	350	330	160	904	29	1758	450	888	438	200	150	1148
CA 200 - 150 - 400L / 110 - 4	670	730	1200	1860	350	330	160	904	29	1814	450	888	438	200	150	1249
CA 200 - 150 - 400L / 132 - 4	670	730	1200	1860	350	330	160	904	29	1814	450	888	438	200	150	1700

Flange dimensions

Type	Suction				Discharge			
	ØM	N	ØS	ØT	ØM	N	ØS	ØT
CA 50 - 32	50	4	19	125	32	4	19	100
CA 65 - 40	65	4	19	145	40	4	19	110
CA 65 - 50	65	4	19	145	50	4	19	125
CA 80 - 65	80	8	19	160	65	4	19	145
CA 100 - 80	100	8	19	180	80	8	19	160
CA 125 - 100	125	8	19	210	100	8	19	180
CA 150 - 125	150	8	23	240	125	8	19	210



Bare shaft CA pumps

General information

Horizontal bare shaft single-stage centrifugal pumps

Applications

- Industry
  - cooling
  - transfer
  - fire system
  - general services
- Agriculture
  - sprinkler systems
  - irrigation
- Building
  - pressure boosting/fire
  - cooling
- Leisure applications
  - sports grounds
  - parks/open spaces

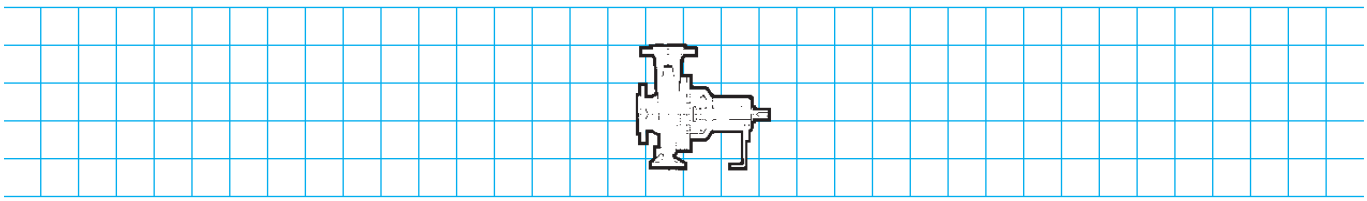
Conditions of use

- Standard pumps with dimensions conforming to NFE 44-111 and EN 733 (DIN 24-255)
- For clear or very slightly contaminated liquids (maximum content of solid particles in suspension 50 g/m^3)
- Temperature of pumped liquid between: – 10°C and 120°C
- Maximum ambient temperature: 40°C
- Maximum operating pressure: 16 bar
- Maximum suction pressure: 10 bar
- Density of pumped liquid: 1
- Viscosity of pumped liquid: 1 mm^2/s

Description of bare shaft CA pumps

Component	Materials	Remarks
Pump body	FGL 250 cast iron	
Impeller	FGL 250 cast iron	Option of bronze impeller on request
Base	FGL 250 cast iron	
Bearing	FGL 250 cast iron	
Stand	Steel	
Shaft	X33 Cr 13 stainless steel	
Mechanical seal	Graphite/ceramic Ethylene propylene seal	Option of braided seal on request

Mounting position



Only possibility

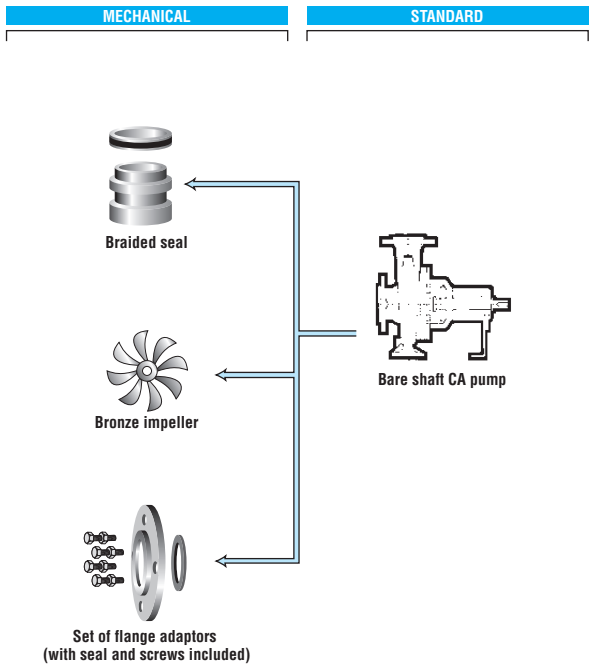
Bare shaft CA pumps

Adaptation possibilities

☞ ***Options:***

- bronze impeller
- braided seal
- set of flange adaptors with seal and screws included

Flange adaptor	
Pump type	Code
CA 50 - 32	T 000 AM 31
CA 65 - 40	T 000 AM 32
CA 65 - 50	T 000 AM 33
CA 80 - 65	T 000 AM 34
CA 100 - 80	T 000 AM 35
CA 125 - 100	T 000 AM 36
CA 150 - 125	T 000 AM 37
CA 200 - 150	T 000 AM 62



Designation / Coding

CA	50	32	200	L	/	187
Designation of the series	Suction flange diameter in mm	Discharge flange diameter in mm	Impeller nominal diameter in mm	Hydraulic index		Impeller diameter in mm

☞ ***Example of coding:***

Designation	**Code**
CA 50-32 200 L/187	T 083 PC 32

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

Bare shaft CA pumps

Selection

Hydraulic characteristics identical to those of CA pumps; refer to the relevant section.

Type	Impeller diameter	Product code
CA 50-32-125	120.5	T 083 PC 26
CA 50-32-125	127	T 083 PC 27
CA 50-32-160	149.5	T 083 PC 28
CA 50-32-160	157.5	T 083 PC 29
CA 50-32-200	185	T 083 PC 30
CA 50-32-200	205.5	T 083 PC 31
CA 50-32-200L	187	T 083 PC 32
CA 50-32-200L	197.5	T 083 PC 33
CA 50-32-200L	208	T 083 PC 34
CA 65-40-125	124.5	T 084 PC 39
CA 65-40-125	131	T 084 PC 40
CA 65-40-160	145.5	T 084 PC 41
CA 65-40-160	153.5	T 084 PC 42
CA 65-40-160	161.5	T 084 PC 43
CA 65-40-200L	166	T 084 PC 44
CA 65-40-200L	175.5	T 084 PC 45
CA 65-40-200L	185	T 084 PC 46
CA 65-40-200L	195	T 084 PC 47
CA 65-40-250	229	T 084 PC 48
CA 65-40-250	242	T 084 PC 49
CA 65-40-250	255	T 084 PC 50
CA 65-40-250L	214	T 084 PC 51
CA 65-40-250L	227	T 084 PC 52
CA 65-40-250L	239.5	T 084 PC 53
CA 65-50-125	126	T 085 PC 33
CA 65-50-125	133	T 085 PC 34
CA 65-50-125	140	T 085 PC 35
CA 65-50-160	158	T 085 PC 36
CA 65-50-160	166.5	T 085 PC 37
CA 65-50-200L	189	T 085 PC 38
CA 65-50-200L	200	T 085 PC 39
CA 65-50-200L	211	T 085 PC 40
CA 65-50-200L	222	T 085 PC 41
CA 65-50-250L	202	T 085 PC 42
CA 65-50-250L	214	T 085 PC 43
CA 65-50-250L	226	T 085 PC 44
CA 65-50-250L	238	T 085 PC 45
CA 80-65-125	134.5	T 086 PC 41
CA 80-65-125	141.5	T 086 PC 42
CA 80-65-160	157.5	T 086 PC 43
CA 80-65-160	166	T 086 PC 44
CA 80-65-160	175	T 086 PC 45
CA 80-65-200L	182	T 086 PC 46
CA 80-65-200L	192.5	T 086 PC 47
CA 80-65-200L	203.5	T 086 PC 48
CA 80-65-200L	214	T 086 PC 49
CA 80-65-250L	218	T 086 PC 50
CA 80-65-250L	230	T 086 PC 51
CA 80-65-250L	243	T 086 PC 52
CA 80-65-250L	256	T 086 PC 53
CA 80-65-315	289	T 086 PC 54
CA 80-65-315	321.5	T 086 PC 55

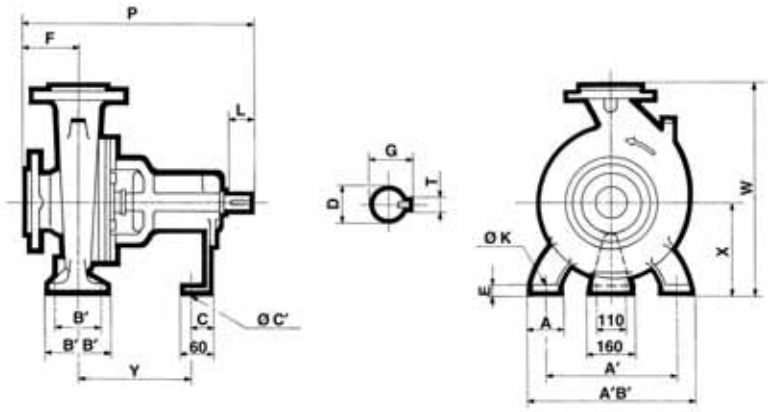
Type	Impeller diameter	Product code
CA 100-80-160	167.5	T 087 PC 32
CA 100-80-160	176.5	T 087 PC 33
CA 100-80-200L	190.5	T 087 PC 34
CA 100-80-200L	201.5	T 087 PC 35
CA 100-80-200L	213	T 087 PC 36
CA 100-80-200L	224	T 087 PC 37
CA 100-80-250L	229.5	T 087 PC 38
CA 100-80-250L	243	T 087 PC 39
CA 100-80-250L	256.5	T 087 PC 40
CA 100-80-250L	270	T 087 PC 41
CA 100-80-315	305.5	T 087 PC 42
CA 100-80-315	321.5	T 087 PC 43
CA 125-100-200L	187	T 088 PC 37
CA 125-100-200L	198	T 088 PC 38
CA 125-100-200L	209	T 088 PC 39
CA 125-100-200L	220	T 088 PC 40
CA 125-100-250L	223.5	T 088 PC 41
CA 125-100-250L	237	T 088 PC 42
CA 125-100-250L	250	T 088 PC 43
CA 125-100-250L	263	T 088 PC 44
CA 125-100-315	289	T 088 PC 45
CA 125-100-315	305.5	T 088 PC 46
CA 125-100-315	321.5	T 088 PC 47
CA 125-100-315L	294	T 088 PC 48
CA 125-100-315L	310.5	T 088 PC 49
CA 125-100-315L	326.7	T 088 PC 50
CA 125-100-400	346	T 088 PC 51
CA 125-100-400	366	T 088 PC 52
CA 125-100-400	386	T 088 PC 53
CA 125-100-400	407	T 088 PC 54
CA 125-100-400L	326.5	T 088 PC 55
CA 125-100-400L	345.5	T 088 PC 56
CA 125-100-400L	365	T 088 PC 57
CA 125-100-400L	384	T 088 PC 58
CA 150-125-250L	241	T 089 PC 13
CA 150-125-250L	254	T 089 PC 14
CA 150-125-250L	267.5	T 089 PC 15
CA 150-125-315L	306	T 089 PC 16
CA 150-125-315L	323	T 089 PC 17
CA 150-125-315L	340	T 089 PC 18
CA 150-125-400L	357	T 089 PC 19
CA 150-125-400L	378	T 089 PC 20
CA 150-125-400L	399	T 089 PC 21
CA 150-125-400L	420	T 089 PC 22
CA 200-150-315L	302.5	T 090 PC 10
CA 200-150-315L	320.5	T 090 PC 11
CA 200-150-315L	338	T 090 PC 12
CA 200-150-315L	356	T 090 PC 13
CA 200-150-400L	355	T 090 PC 14
CA 200-150-400L	376	T 090 PC 15
CA 200-150-400L	397	T 090 PC 16
CA 200-150-400L	418	T 090 PC 17

Bare shaft CA pumps

Dimensions

Dimensions of bare shaft CA pumps

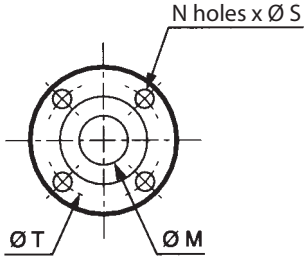
Dimensions in millimetres



Type	Pumps																	Openings		Weight
	A	A'	A'B'	B'	B'B'	C	C'	E	F	P	D	G	L	T	K	X	Y	W	Suction	Discharge	kg
CA 50-32-125	90	140	190	70	100	43	14	12	80	440	24	27	50	8	15	112	260	252	50	32	30
CA 50-32-160	140	190	240	70	100	43	14	12	80	440	24	27	50	8	15	132	260	292	50	32	35
CA 50-32-200	140	190	240	70	100	43	14	12	80	440	24	27	50	8	15	160	260	340	50	32	38
CA 50-32-200L	140	190	240	70	100	43	14	14	80	440	24	27	50	8	15	160	260	340	50	32	43
CA 65-40-125	110	160	210	70	100	43	14	12	80	440	24	27	50	8	15	112	260	252	65	40	33
CA 65-40-160	140	190	240	70	100	43	14	12	80	440	24	27	50	8	15	132	260	292	65	40	36
CA 65-40-200L	162	212	265	70	100	43	14	14	100	460	24	27	50	8	15	160	260	340	65	40	44
CA 65-40-250	185	250	320	95	125	44	14	14	100	460	24	27	50	8	15	180	260	405	65	40	51
CA 65-40-250L	185	250	320	95	125	44	14	14	100	460	24	27	50	8	15	180	260	405	65	40	58
CA 65-50-125	140	190	240	70	100	43	14	12	100	460	24	27	50	8	15	132	260	292	65	50	35
CA 65-50-160	162	212	265	70	100	43	14	14	100	460	24	27	50	8	15	160	260	340	65	50	44
CA 65-50-200L	162	212	265	70	100	43	14	14	100	460	24	27	50	8	15	160	260	360	65	50	48
CA 65-50-250L	185	250	320	95	125	44	14	14	100	460	24	27	50	8	15	180	260	405	65	50	57
CA 80-65-125	147	212	280	95	125	43	14	14	100	460	24	27	50	8	15	160	260	340	80	65	39
CA 80-65-160	147	212	280	95	125	43	14	14	100	460	24	27	50	8	15	160	260	360	80	65	46
CA 80-65-200L	185	250	320	95	125	44	14	14	100	460	24	27	50	8	15	180	260	405	80	65	55
CA 80-65-250L	200	280	360	120	160	42	14	16	100	570	32	35	80	10	18	200	340	450	80	65	85
CA 80-65-315	235	315	400	120	160	42	14	16	125	595	32	35	80	10	18	225	340	505	80	65	105
CA 100-80-160	185	250	320	95	125	44	14	14	125	485	24	27	50	8	15	180	260	405	100	80	49
CA 100-80-200L	215	280	345	95	125	42	14	14	125	595	32	35	80	10	15	180	340	430	100	80	78
CA 100-80-250L	235	315	400	120	160	42	14	16	125	595	32	35	80	10	18	200	340	480	100	80	91
CA 100-80-315	235	315	400	120	160	43	14	16	125	595	32	35	80	10	18	250	340	565	100	80	113
CA 125-100-200L	200	280	360	120	160	42	14	16	125	595	32	35	80	10	18	200	340	480	125	100	94
CA 125-100-250L	235	315	400	120	160	43	14	16	140	610	32	35	80	10	18	225	340	505	125	100	100
CA 125-100-315	235	315	400	120	160	43	14	16	140	610	32	35	80	10	18	250	340	565	125	100	123
CA 125-100-315L	235	315	400	120	160	43	14	16	140	610	32	35	80	10	18	250	340	565	125	100	125
CA 125-100-400	300	400	500	150	200	44	14	20	140	670	42	45	110	12	22	280	370	635	125	100	185
CA 125-100-400L	300	400	500	150	200	44	14	20	140	670	42	45	110	12	22	280	370	635	125	100	189
CA 150-125-250L	235	315	400	120	160	43	14	16	140	610	32	35	80	10	18	250	340	605	150	125	120
CA 150-125-315L	300	400	500	150	200	42	14	20	140	670	42	45	110	12	22	280	370	635	150	125	200
CA 150-125-400L	300	400	500	150	200	42	14	20	140	670	42	45	110	12	22	315	370	715	150	125	230
CA 200-150-315L	350	450	550	150	200	42	14	20	160	690	42	45	110	12	22	280	370	680	200	150	203
CA 200-150-400L	350	450	550	150	200	42	14	20	160	690	42	45	110	12	22	315	370	765	200	150	240

Flange dimensions

Type	Suction				Discharge			
	ØM	N	ØS	ØT	ØM	N	ØS	ØT
CA 50 - 32	50	4	19	125	32	4	19	100
CA 65 - 40	65	4	19	145	40	4	19	110
CA 65 - 50	65	4	19	145	50	4	19	125
CA 80 - 65	80	8	19	160	65	4	19	145
CA 100 - 80	100	8	19	180	80	8	19	160
CA 125 - 100	125	8	19	210	100	8	19	180
CA 150 - 125	150	8	23	240	125	8	19	210
CA 200 - 150	200	8	23	295	150	8	23	240



IN
Pumps

General information

Horizontal monobloc single-stage centrifugal pumps constructed entirely of AISI 316 L stainless steel

Applications
- Industry
  - cooling
  - transfer
  - fire system
  - general services
- Agriculture
  - sprinkler systems
  - irrigation
- Building
  - health/fire-related pressure boosting
  - cooling
- Leisure applications
  - sports grounds
  - parks/open spaces

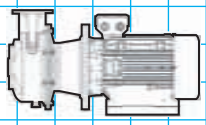
Conditions of use
- Hydraulic unit sizes and connection port diameters conforming to NFE 44-111 and EN 733 (DIN 24-255). PN 16 flanges.
- For clear or very slightly contaminated liquids (maximum content of solid particles in suspension 50 g/m^3)
- Temperature of pumped liquid between –20°C and 110°C
- Maximum ambient temperature: 40°C
- Maximum operating pressure: 12 bar
- Motor electrical power supply:
  - 3-phase 230/400 V ± 10% - 50 Hz up to 3 kW inclusive
  - 3-phase Δ 400 V ± 10% - 50 Hz for higher powers

Description of IN pumps

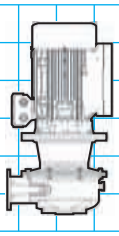
Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1} or 1,500 min^{-1}	- 3-phase 230/400 V ± 10% - 50 Hz up to 3 kW inclusive - 3-phase Δ 400 V ± 10% - 50 Hz for higher powers - B5 up to 7.5 kW inclusive B35 for higher powers - IP 55 - Class F - S1 duty
Pump body	X2 Cr Ni Mo 17.12 (AISI 316 L) stainless steel	
Impeller	X2 Cr Ni Mo 17.12 (AISI 316 L) stainless steel	
Base	X2 Cr Ni Mo 17.12 (AISI 316 L) stainless steel	
Shaft	X5 Cr Ni Mo 17.12 (AISI 316) stainless steel	- Fitted on the motor shaft extension
Mechanical seal	Carbon/ceramic Viton seal	
Wearing rings, plugs	X2 Cr Ni Mo 17.12 (AISI 316 L) stainless steel	
Motor support U-mount	Aluminium or cast iron depending on model	
Seals	Viton	

IN
Pumps

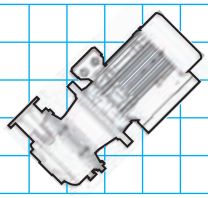
Mounting positions



Standard position



Vertical position



Inclined position

IN
Pumps

Adaptation possibilities

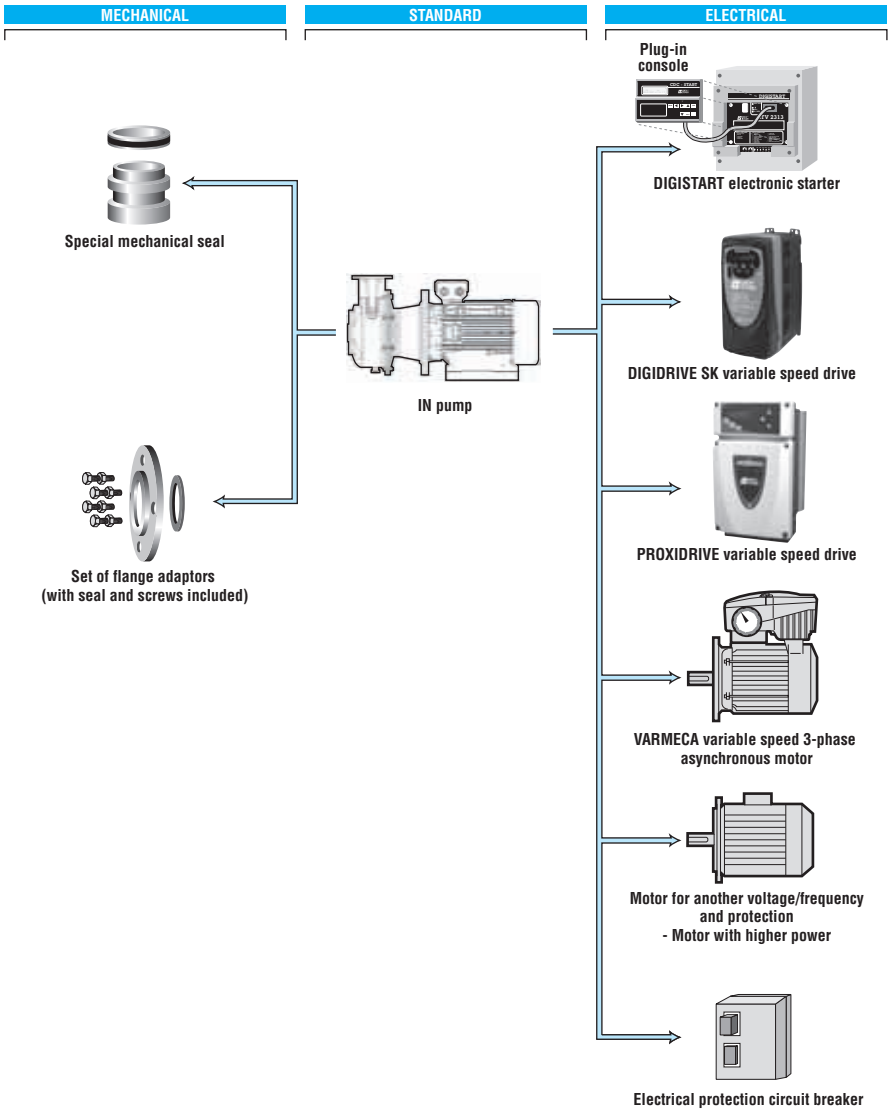
☞ ***IN pumps can be used in conjunction with:***

- a DIGISTART electronic starter
- DIGIDRIVE SK and PROXIDRIVE variable speed drives
- VARMECA variable speed 3-phase asynchronous motor

☞ ***Options:***

- motor with another voltage and/or speed
- special mechanical seal
- set of flange adaptors made of AISI 316 stainless steel or steel, threaded, with seals and screws included

Flange adaptor		
Pump type	Code 316 stainless steel PN 16	Code Steel PN 16
IN 50 - 25	T 000 AM 70	T 000 AM 30
IN 50 - 32	T 000 AM 71	T 000 AM 31
IN 65 - 40	T 000 AM 72	T 000 AM 32
IN 65 - 50	T 000 AM 73	T 000 AM 33
IN 80 - 65	T 000 AM 74	T 000 AM 34
IN 100 - 80	T 000 AM 75	T 000 AM 35



Designation / Coding

IN	50	32	200	3	2
Designation of the series	Suction flange diameter in mm	Discharge flange diameter in mm	Impeller nominal diameter in mm	Motor rated power in kW	Number of poles (motor speed)

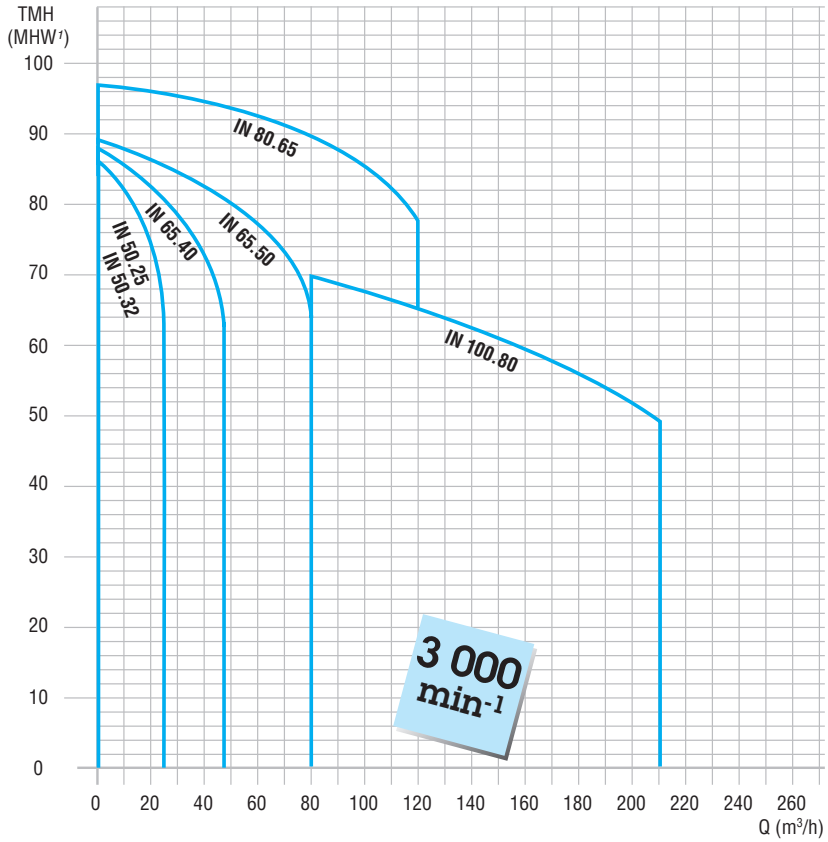
☞ ***Example of coding:***

Designation	Code
IN 50-32 200 / 3-2	T 091 PC 14

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

IN
Pumps

Selection



3 000 min-1 — Rated flow: 17 to 27 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	6	9	12	15	18	21	24	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
IN 50 - 25 - 125 / 0.75 - 2	T 091 PC 01	121	TMH in MHW1	16.6	15.6	14.4	13	**11.3**	**9.5**	7.5	-	0.75	2.8	1.64
IN 50 - 25 - 125 / 1.1 - 2	T 091 PC 02	136		21.6	20.6	19.4	18	16	**14**	12	9.8	1.1	4.2	2.4
IN 50 - 25 - 160 / 1.5 - 2	T 091 PC 03	150		26.7	25	23.5	21.5	19.5	**17**	14.5	11.7	1.5	5.9	3.4
IN 50 - 25 - 160 / 2.2 - 2	T 091 PC 04	168		35	33.6	32.5	31	29	**26.5**	**24**	21	2.2	7.4	4.3
IN 50 - 25 - 200 / 3 - 2	T 091 PC 05	188		43.7	40.7	38.5	36	33	**30**	**26.5**	21	3	10.9	6.3
IN 50 - 25 - 200 / 4 - 2	T 091 PC 06	205		53.5	51	49	47	44	41	**37.6**	**32.3**	4	-	7.9
IN 50 - 25 - 250 / 5.5 - 2	T 091 PC 07	222		58.6	55.5	53.4	51	48	44.5	**40.7**	**36.8**	5.5	-	10.5
IN 50 - 25 - 250 / 7.5 - 2	T 091 PC 08	242		74	71	68.9	66	63	60	**56**	**52**	7.5	-	14.7
IN 50 - 25 - 250 / 11 - 2	T 091 PC 09	256		86	82.5	80.1	77.5	74.3	71	**67.2**	**63**	11	-	20.7

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

3 000 min-1 — Rated flow: 17 to 27 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	6	9	12	15	18	21	24	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
IN 50 - 32 - 125 / 0.75 - 2	T 091 PC 10	121	TMH in MHW1	16.6	15.6	14.4	13	**11.3**	**9.5**	7.5	-	0.75	2.8	1.64
IN 50 - 32 - 125 / 1.1 - 2	T 091 PC 11	136		21.6	20.6	19.4	18	16	**14**	12	9.8	1.1	4.2	2.4
IN 50 - 32 - 160 / 1.5 - 2	T 091 PC 12	150		26.7	25	23.5	21.5	19.5	**17**	14.5	11.7	1.5	5.9	3.4
IN 50 - 32 - 160 / 2.2 - 2	T 091 PC 13	168		35	33.6	32.5	31	29	**26.5**	**24**	21	2.2	7.4	4.3
IN 50 - 32 - 200 / 3 - 2	T 091 PC 14	188		43.7	40.7	38.5	36	33	**30**	**26.5**	21	3	10.9	6.3
IN 50 - 32 - 200 / 4 - 2	T 091 PC 15	205		53.5	51	49	47	44	41	**37.6**	**32.3**	4	-	7.9
IN 50 - 32 - 250 / 5.5 - 2	T 091 PC 16	222		58.6	55.5	53.4	51	48	44.5	**40.7**	**36.8**	5.5	-	10.5
IN 50 - 32 - 250 / 7.5 - 2	T 091 PC 17	242		74	71	68.9	66	63	60	**56**	**52**	7.5	-	14.7
IN 50 - 32 - 250 / 11 - 2	T 091 PC 18	256		86	82.5	80.1	77.5	74.3	71	**67.2**	**63**	11	-	20.7

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Selection

3 000 min-1 — Rated flow: 28 to 42 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	15	18	24	30	36	42	48	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
IN 65 - 40 - 125 / 1.1 - 2	T 092 PC 01	112	TMH in MHW[1]	15.1	13.5	12.8	**11.3**	**9.5**	7.5	-	-	1.1	4.2	2.4
IN 65 - 40 - 125 / 1.5 - 2	T 092 PC 02	126		18.7	17	16.5	14.8	**13**	10.7	8.2	-	1.5	5.9	3.4
IN 65 - 40 - 125 / 2.2 - 2	T 092 PC 03	143		24.2	23	22.2	20.5	**18.3**	15.8	13.2	-	2.2	7.4	4.3
IN 65 - 40 - 160 / 3 - 2	T 092 PC 04	159		32.2	30.5	29.5	27	**24**	**20.8**	17	-	3	10.9	6.3
IN 65 - 40 - 160 / 4 - 2	T 092 PC 05	171		38	36.5	35.5	33	**30**	**26.5**	22.8	18.5	4	-	7.9
IN 65 - 40 - 200 / 5.5 - 2	T 092 PC 06	190		49.1	47.5	46.4	43.5	**40.5**	**36**	31	25	5.5	-	10.5
IN 65 - 40 - 200 / 7.5 - 2	T 092 PC 07	209		58.2	56	55.1	52.5	49	**45**	**40**	34.4	7.5	-	14.7
IN 65 - 40 - 250 / 11 - 2A	T 092 PC 08	218		65	63	62	60	56	**52**	44.6	-	11	-	20.7
IN 65 - 40 - 250 / 11 - 2	T 092 PC 09	233		75	72	71	69	66	**61**	**55**	-	11	-	20.7
IN 65 - 40 - 250 / 15 - 2	T 092 PC 10	251		88	85	84	82	78	74	**69**	63	15	-	28.4

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

3 000 min-1 — Rated flow: 45 to 70 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	30	36	42	48	60	70	80	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
IN 65 - 50 - 125 / 2.2 - 2	T 092 PC 11	119	TMH in MHW[1]	17.2	15.5	14.6	**13.6**	**12.3**	9.5	7	-	2.2	7.4	4.3
IN 65 - 50 - 125 / 3 - 2	T 092 PC 12	130		21.7	20	18.8	17.6	**16.4**	**13.5**	11	-	3	10.9	6.3
IN 65 - 50 - 125 / 4 - 2	T 092 PC 13	139		25.7	24	23.3	22.2	**21**	**18**	15.5	13	4	-	7.9
IN 65 - 50 - 160 / 5.5 - 2	T 092 PC 14	158		34.1	32	30.6	29	27.6	**24**	20.7	16.5	5.5	-	10.5
IN 65 - 50 - 160 / 7.5 - 2	T 092 PC 15	174		40.8	38.5	37.5	36	34.7	**31.2**	**27.8**	23.7	7.5	-	14.7
IN 65 - 50 - 200 / 11 - 2A	T 092 PC 16	197		53	49.5	47.5	45	**42.8**	**37**	31	24	11	-	20.7
IN 65 - 50 - 200 / 11 - 2	T 092 PC 17	209		60.1	57	55	53	**50.3**	**44.4**	38.5	31.6	11	-	20.7
IN 65 - 50 - 250 / 15 - 2	T 092 PC 18	224		70	68	67	65	63	**58**	52.2	-	15	-	28.4
IN 65 - 50 - 250 / 18.5 - 2	T 092 PC 19	237		80	76	75	73	71	**66**	**61**	53.5	18.5	-	33.7
IN 65 - 50 - 250 / 22 - 2	T 092 PC 20	250		89	86	85	83	81	76	**70.5**	64	22	-	39.9

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

3 000 min-1 — Rated flow: 70 to 100 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	48	60	70	80	90	100	110	120	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
IN 80 - 65 - 160 / 4 - 2	T 093 PC 01	119.5	TMH in MHW[1]	19.6	16.8	15.2	**13.7**	12.3	10.7	9	-	-	4	-	8
IN 80 - 65 - 160 / 5.5 - 2	T 093 PC 02	129		24.2	21.4	19.8	**18.3**	**16.7**	15	13.3	11.4	-	5.5	-	11
IN 80 - 65 - 160 / 7.5 - 2	T 093 PC 03	137		28.2	26	24.5	**23.2**	**21.7**	20	18.4	16.5	14.5	7.5	-	15
IN 80 - 65 - 160 / 11 - 2A	T 093 PC 04	168		38.2	35.4	33	**30.6**	**28**	25.3	22.5	19.5	-	11	-	21
IN 80 - 65 - 160 / 11 - 2	T 093 PC 05	177		42.9	40.8	38.5	**36**	**33.5**	30.6	27.8	24.7	21.4	11	-	21
IN 80 - 65 - 200 / 15 - 2	T 093 PC 06	192		53	50	47.5	**44.8**	**42**	38.5	35	31	-	15	-	28
IN 80 - 65 - 200 / 18.5 - 2	T 093 PC 07	203		60	57.5	55	52.7	**50**	46.7	43.3	39.5	35.3	18.5	-	34
IN 80 - 65 - 200 / 22 - 2	T 093 PC 08	215		68	65.5	63	60.7	**58**	55.3	52	48.2	44.5	22	-	40
IN 80 - 65 - 250 / 30 - 2	T 093 PC 09	240		84	83	81.7	80	77.8	**75**	**72**	68.4	64	30	-	52
IN 80 - 65 - 250 / 37 - 2	T 093 PC 10	255		97	97	95.3	93.3	90.8	88	**85**	81.6	77.8	37	-	65

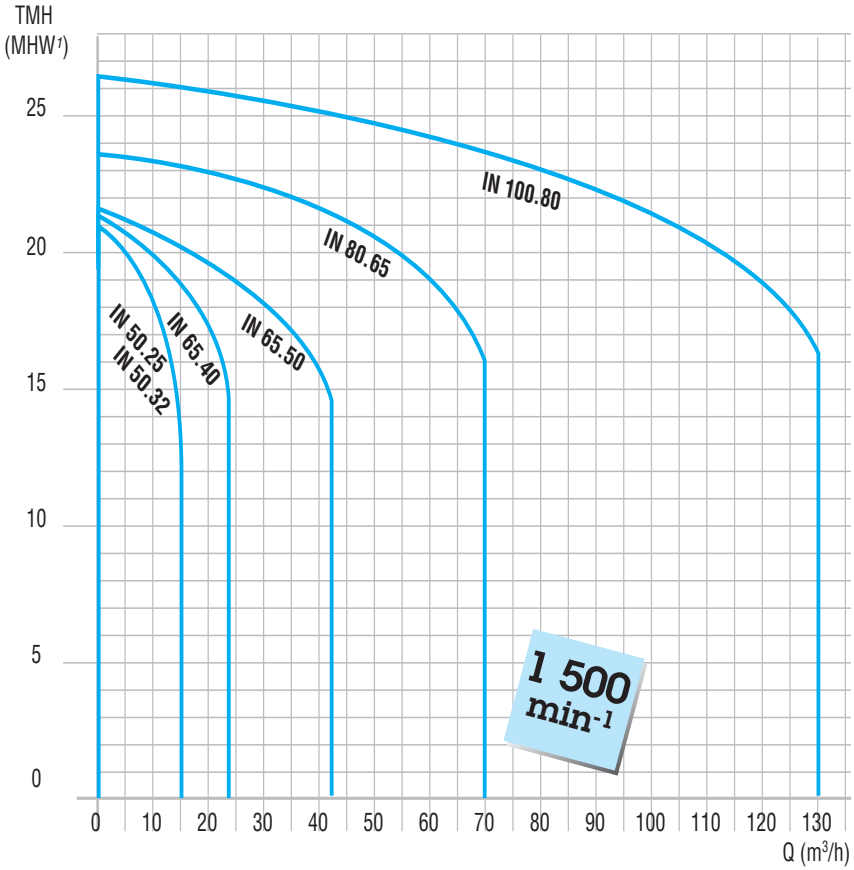
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

3 000 min-1 — Rated flow: 130 to 160 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	70	80	90	100	120	150	180	210	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
IN 100 - 80 - 160 / 11 - 2	T 093 PC 11	169	TMH in MHW[1]	33	32	31	30	28.5	**25.5**	**20.2**	14.2	-	11	-	20.7
IN 100 - 80 - 160 / 15 - 2	T 093 PC 12	177		39.6	39	38	37	36	**32.8**	**27.5**	21.7	15	15	-	28.4
IN 100 - 80 - 160 / 18.5 - 2	T 093 PC 13	186		46.5	46	45	44	42.5	**40**	**34.8**	29	22.5	18.5	-	33.7
IN 100 - 80 - 200 / 22 - 2	T 093 PC 14	198		52	-	50.8	50	48.5	46	**40.8**	35	28.3	22	-	39.9
IN 100 - 80 - 200 / 30 - 2	T 093 PC 15	215		62	-	62	61.3	60	57.3	**52**	**46**	39.5	30	-	52.1
IN 100 - 80 - 200 / 37 - 2	T 093 PC 16	226		70	-	70	69.5	68.5	66	**61**	**55.5**	49	37	-	64.6

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Selection



1 500 min-1

Rated flow: 11 to 13 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	3	4.5	6	7.5	9	10.5	12	15	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
IN 50 - 25 - 250 / 0.75 - 4	T 091 PC 19	222	TMH in MHW[1]	14.5	13.6	13	12.3	11.6	10.8	9.9	**8.9**	6.5	0.75	3.5	2
IN 50 - 25 - 250 / 1.1 - 4	T 091 PC 20	242		18.4	17.5	16.8	16.1	15.3	14.4	13.5	**12.5**	**10.2**	1.1	4.3	2.5
IN 50 - 25 - 250 / 1.5 - 4	T 091 PC 21	256		21.3	20.3	19.7	19	18.2	17.4	16.3	**15.2**	**12.8**	1.5	5.9	3.4

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

1 500 min-1

Rated flow: 11 to 13 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	3	4.5	6	7.5	9	10.5	12	15	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
IN 50 - 32 - 250 / 0.75 - 4	T 091 PC 22	222	TMH in MHW[1]	14.5	13.6	13	12.3	11.6	10.8	9.9	**8.9**	6.5	0.75	3.5	2
IN 50 - 32 - 250 / 1.1 - 4	T 091 PC 23	242		18.4	17.5	16.8	16.1	15.3	14.4	13.5	**12.5**	**10.2**	1.1	4.3	2.5
IN 50 - 32 - 250 / 1.5 - 4	T 091 PC 24	256		21.3	20.3	19.7	19	18.2	17.4	16.3	**15.2**	**12.8**	1.5	5.9	3.4

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

1 500 min-1

Rated flow: 17 to 22 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	7.5	9	10.5	12	15	18	24	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
IN 65 - 40 - 200 / 0.75 - 4	T 092 PC 21	251	TMH in MHW[1]	11.9	11.5	11.2	10.8	10.5	**9.7**	**8.6**	5.8	0.75	3.5	2
IN 65 - 40 - 200 / 1.1 - 4	T 092 PC 22	209		14.2	13.5	13.3	13	12.7	11.8	**10.8**	8	1.1	4.3	2.5
IN 65 - 40 - 250 / 1.1 - 4	T 092 PC 23	218		15.6	14.9	14.6	14.3	14	13	**11.9**	-	1.1	4.3	2.5
IN 65 - 40 - 250 / 1.5 - 4	T 092 PC 24	233		18.1	17.3	17	16.7	16.4	15.5	**14.5**	**11.4**	1.5	5.9	3.4
IN 65 - 40 - 250 / 2.2 - 4	T 092 PC 25	251		21.5	20.7	20.3	20	19.7	18.8	**17.7**	**14.8**	2.2	8.3	4.8

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Selection

1 500 min-1 — Rated flow: 30 to 35 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	12	15	18	24	30	36	42	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
IN 65 - 50 - 160 / 0.75 - 4	T 092 PC 26	158	TMH in MHW[1]	8.2	7.8	7.6	7.3	6.7	**5.9**	**4.9**	3.8	0.75	3.5	2
IN 65 - 50 - 160 / 1.1 - 4	T 092 PC 27	174		9.9	9.3	9.1	8.8	8.2	**7.4**	**6.6**	5.4	1.1	4.3	2.5
IN 65 - 50 - 200 / 1.1 - 4	T 092 PC 28	197		12.8	12.1	11.7	11.2	**10**	**8.6**	6.8	4.8	1.1	4.3	2.5
IN 65 - 50 - 200 / 1.5 - 4	T 092 PC 29	209		14.7	13.9	13.6	13	**11.8**	**10.4**	8.7	6.6	1.5	5.9	3.4
IN 65 - 50 - 250 / 2.2 - 4A	T 092 PC 30	224		17.5	16.8	16.4	16	15	**13.8**	**12**	9.7	2.2	8.3	4.8
IN 65 - 50 - 250 / 2.2 - 4	T 092 PC 31	237		19.4	18.6	18.2	17.8	16.8	**15.5**	**13.8**	11.6	2.2	8.3	4.8
IN 65 - 50 - 250 / 3 - 4	T 092 PC 32	250		21.9	21.3	20.9	20.5	19.6	**18.4**	**16.8**	14.7	3	11.2	6.5

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

1 500 min-1 — Rated flow: 33 to 55 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	24	30	36	42	48	60	70	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
IN 80 - 65 - 160 / 0.75 - 4	T 093 PC 17	129	TMH in MHW[1]	6.4	5.3	**4.8**	**4.4**	3.8	3.4	-	-	0.75	3.5	2
IN 80 - 65 - 160 / 1.1 - 4A	T 093 PC 18	139.5		7.6	6.5	**6.1**	**5.7**	5.1	4.6	3.4	-	1.1	4.3	2.5
IN 80 - 65 - 160 / 1.1 - 4	T 093 PC 19	168		9.4	8.5	7.9	**7.2**	**6.3**	5.5	3.4	-	1.1	4.3	2.5
IN 80 - 65 - 160 / 1.5 - 4	T 093 PC 20	177		10.6	9.7	9.2	**8.5**	**7.7**	6.9	4.9	-	1.5	5.9	3.4
IN 80 - 65 - 200 / 1.5 - 4	T 093 PC 21	187		11.8	11	10.2	**9.4**	**8.4**	7.4	5.1	-	1.5	5.9	3.4
IN 80 - 65 - 200 / 2.2 - 4	T 093 PC 22	203		14.4	13.5	12.8	12	**11**	10	7.9	-	2.2	8.3	4.8
IN 80 - 65 - 200 / 3 - 4	T 093 PC 23	222		17.5	16.8	16.3	15.6	**14.7**	**13.8**	11.7	9.3	3	11.2	6.5
IN 80 - 65 - 250 / 4 - 4	T 093 PC 24	240		20.4	20	19.5	18.9	18	**17.3**	**15.1**	12	4	-	8.3
IN 80 - 65 - 250 / 5.5 - 4	T 093 PC 25	255		23.7	23.7	23.2	22.6	22	**21**	**19**	16.3	5.5	-	11.1

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

1 500 min-1 — Rated flow: 60 to 95 m³/h

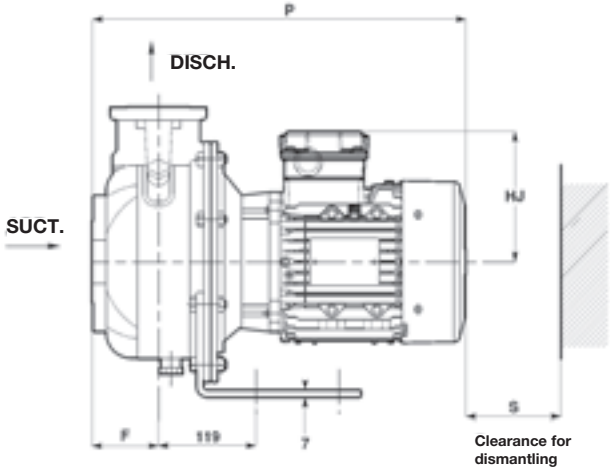
Type	Product code	Impeller diameter	Flow rate in m³/h	0	36	42	48	60	70	90	110	130	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
IN 100 - 80 - 160 / 1.5 - 4	T 093 PC 26	169	TMH in MHW[1]	8	7.6	7.2	6.8	**6**	**5.2**	3.5	-	-	1.5	5.9	3.4
IN 100 - 80 - 160 / 2.2 - 4A	T 093 PC 27	177		9.4	9	8.7	8.3	**7.5**	**6.7**	5	-	-	2.2	8.3	4.8
IN 100 - 80 - 160 / 2.2 - 4	T 093 PC 28	186		10.8	10.4	10.1	9.7	**9**	**8.2**	6.4	4.3	-	2.2	8.3	4.8
IN 100 - 80 - 200 / 3 - 4	T 093 PC 29	198		12.3	12.5	12.2	11.8	10.8	**10**	**8**	5.9	-	3	11.2	6.5
IN 100 - 80 - 200 / 4 - 4	T 093 PC 30	220		15.4	15.8	15.5	15.2	14.3	**13.5**	**11.6**	9.5	7.2	4	-	8.3
IN 100 - 80 - 250 / 5.5 - 4	T 093 PC 31	237		20.3	20	19.7	19.3	18.4	**17.5**	**15.2**	12	-	5.5	-	11.1
IN 100 - 80 - 250 / 7.5 - 4	T 093 PC 32	252		22.6	22.6	22.3	22	21.3	**20.4**	**18.5**	15.8	12.5	7.5	-	15.2
IN 100 - 80 - 250 / 9 - 4	T 093 PC 33	270		26.7	26.5	26.3	26	25.2	24.3	**22.4**	**20**	17	9	-	18.1

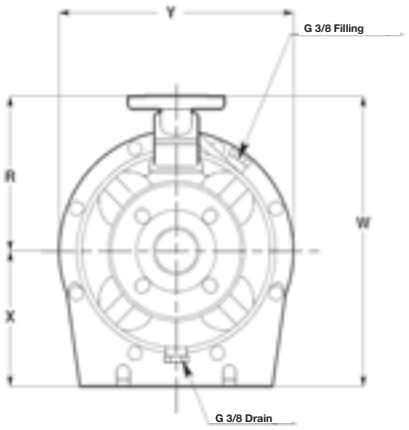
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

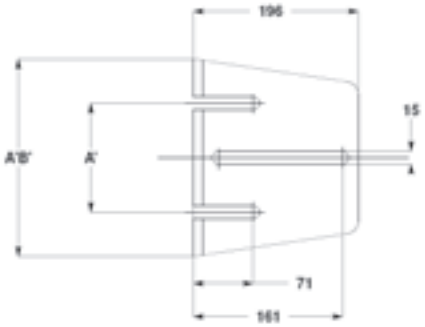
Dimensions

Dimensions of IN pumps - 3,000 min^{-1} motor

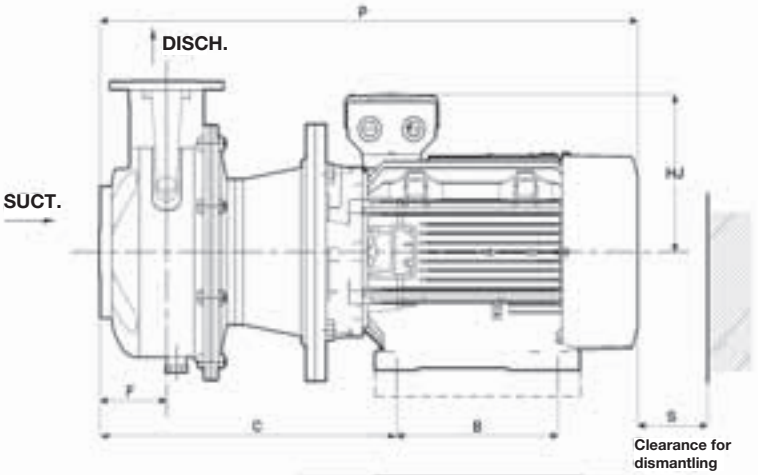
Dimensions in millimetres

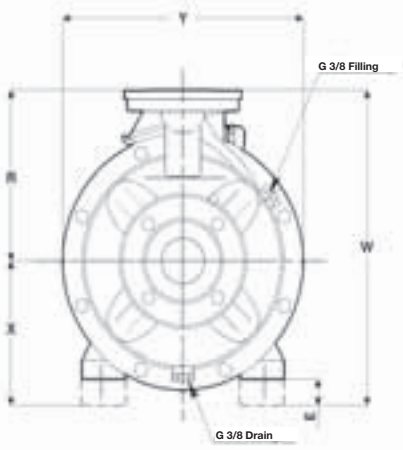




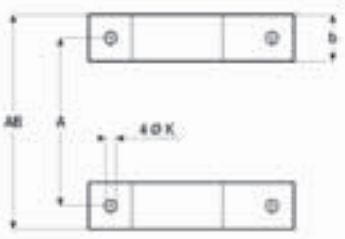


Motor power up to 7.5 kW





With baseplate under motor



Motor power from 11 to 37 kW

Dimensions

Dimensions of IN pumps - 3,000 min^{-1} motor

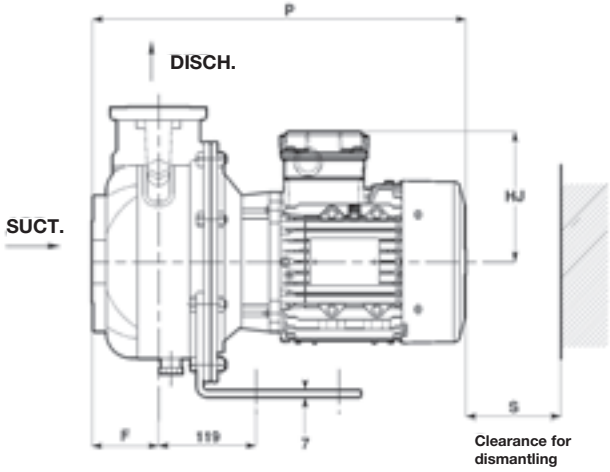
Dimensions in millimetres

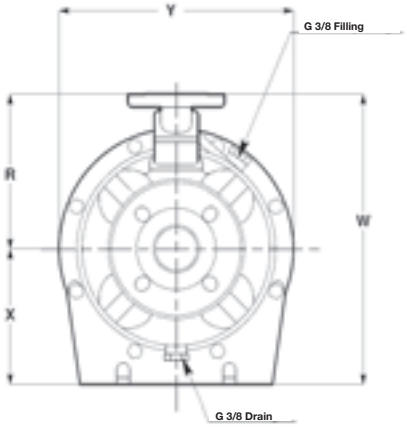
Type	Pumps																Openings		Weight
	A	A'	AB	A'B'	B	C	E	F	HJ	ØK	P	R	S	W	X	Y	Suct.	Disch.	kg
IN 50 - 25 - 125 / 0.75 - 2	-	130	-	190	-	-	-	80	123	-	450	140	98	300	160	218	50	25	25
IN 50 - 25 - 125 / 1.1 - 2	-	130	-	190	-	-	-	80	123	-	450	140	98	300	160	218	50	25	26
IN 50 - 25 - 160 / 1.5 - 2	-	130	-	210	-	-	-	80	133	-	473	160	98	320	160	253	50	25	28
IN 50 - 25 - 160 / 2.2 - 2	-	130	-	210	-	-	-	80	133	-	500	160	98	320	160	253	50	25	30
IN 50 - 25 - 200 / 3 - 2	-	130	-	230	-	-	-	80	138	-	535	180	98	340	160	285	50	25	41
IN 50 - 25 - 200 / 4 - 2	-	130	-	230	-	-	-	80	138	-	535	180	98	340	160	285	50	25	44
IN 50 - 25 - 250 / 5.5 - 2	-	130	-	265	-	-	-	100	148	-	642	225	98	405	180	345	50	25	63
IN 50 - 25 - 250 / 7.5 - 2	-	130	-	265	-	-	-	100	148	-	642	225	98	405	180	345	50	25	69
IN 50 - 25 - 250 / 11 - 2	254	-	294	-	210	430	20	100	208	14.5	790	225	98	405	180	350	50	25	81
IN 50 - 32 - 125 / 0.75 - 2	-	130	-	190	-	-	-	80	123	-	450	140	98	300	160	218	50	32	25
IN 50 - 32 - 125 / 1.1 - 2	-	130	-	190	-	-	-	80	123	-	450	140	98	300	160	218	50	32	26
IN 50 - 32 - 160 / 1.5 - 2	-	130	-	210	-	-	-	80	133	-	473	160	98	320	160	253	50	32	28
IN 50 - 32 - 160 / 2.2 - 2	-	130	-	210	-	-	-	80	133	-	500	160	98	320	160	253	50	32	30
IN 50 - 32 - 200 / 3 - 2	-	130	-	230	-	-	-	80	138	-	535	180	98	340	160	285	50	32	41
IN 50 - 32 - 200 / 4 - 2	-	130	-	230	-	-	-	80	138	-	535	180	98	340	160	285	50	32	44
IN 50 - 32 - 250 / 5.5 - 2	-	130	-	265	-	-	-	100	148	-	642	225	98	405	180	345	50	32	63
IN 50 - 32 - 250 / 7.5 - 2	-	130	-	265	-	-	-	100	148	-	642	225	98	405	180	345	50	32	69
IN 50 - 32 - 250 / 11 - 2	254	-	294	-	210	430	20	100	208	14.5	790	225	98	405	180	350	50	32	81
IN 65 - 40 - 125 / 1.1 - 2	-	130	-	190	-	-	-	80	123	-	450	140	100	252	112	219	65	40	25
IN 65 - 40 - 125 / 1.5 - 2	-	130	-	190	-	-	-	80	133	-	473	140	100	252	112	219	65	40	27
IN 65 - 40 - 125 / 2.2 - 2	-	130	-	190	-	-	-	80	133	-	500	140	100	252	112	219	65	40	28
IN 65 - 40 - 160 / 3 - 2	-	130	-	210	-	-	-	80	138	-	535	160	100	292	132	254	65	40	39
IN 65 - 40 - 160 / 4 - 2	-	130	-	210	-	-	-	80	138	-	535	160	100	292	132	254	65	40	42
IN 65 - 40 - 200 / 5.5 - 2	-	130	-	230	-	-	-	100	148	-	642	180	100	340	160	300	65	40	64
IN 65 - 40 - 200 / 7.5 - 2	-	130	-	230	-	-	-	100	148	-	642	180	100	340	160	300	65	40	66
IN 65 - 40 - 250 / 11 - 2A	254	-	294	-	210	430	20	100	208	14.5	790	225	107	405	180	350	65	40	110
IN 65 - 40 - 250 / 11 - 2	254	-	294	-	210	430	20	100	208	14.5	790	225	107	405	180	350	65	40	116
IN 65 - 40 - 250 / 15 - 2	254	-	294	-	210	430	20	100	208	14.5	790	225	107	405	180	350	65	40	122
IN 65 - 50 - 125 / 2.2 - 2	-	130	-	210	-	-	-	100	133	-	520	160	104	292	132	254	65	50	34
IN 65 - 50 - 125 / 3 - 2	-	130	-	210	-	-	-	100	138	-	555	160	104	292	132	254	65	50	37
IN 65 - 50 - 125 / 4 - 2	-	130	-	210	-	-	-	100	138	-	555	160	104	292	132	254	65	50	42
IN 65 - 50 - 160 / 5.5 - 2	-	130	-	210	-	-	-	100	148	-	642	180	104	340	160	255	65	50	60
IN 65 - 50 - 160 / 7.5 - 2	-	130	-	210	-	-	-	100	148	-	642	180	104	340	160	255	65	50	65
IN 65 - 50 - 200 / 11 - 2A	254	-	294	-	210	430	-	100	208	14.5	790	200	104	368	160	350	65	50	90
IN 65 - 50 - 200 / 11 - 2	254	-	294	-	210	430	-	100	208	14.5	790	200	104	368	160	350	65	50	90
IN 65 - 50 - 250 / 15 - 2	254	-	294	-	210	430	20	100	208	14.5	790	225	107	405	180	350	65	50	115
IN 65 - 50 - 250 / 18.5 - 2	254	-	294	-	254	430	20	100	235	14.5	817	225	107	415	180	350	65	50	125
IN 65 - 50 - 250 / 22 - 2	279	-	324	-	241	443	20	100	248	14.5	817	225	107	428	180	350	65	50	145
IN 80 - 65 - 160 / 4 - 2	-	130	-	245	-	-	-	100	138	-	555	200	115	360	160	310	80	65	67
IN 80 - 65 - 160 / 5.5 - 2	-	130	-	245	-	-	-	100	148	-	642	200	115	360	160	310	80	65	75
IN 80 - 65 - 160 / 7.5 - 2	-	130	-	245	-	-	-	100	148	-	642	200	115	360	160	310	80	65	80
IN 80 - 65 - 160 / 11 - 2A	254	-	294	-	210	430	-	100	208	14.5	790	200	130	368	160	350	80	65	106
IN 80 - 65 - 160 / 11 - 2	254	-	294	-	210	430	-	100	208	14.5	790	200	130	368	160	350	80	65	106
IN 80 - 65 - 200 / 15 - 2	254	-	294	-	210	430	20	100	208	14.5	790	225	130	405	180	350	80	65	122
IN 80 - 65 - 200 / 18.5 - 2	254	-	294	-	254	430	20	100	235	14.5	817	225	130	415	180	350	80	65	135
IN 80 - 65 - 200 / 22 - 2	279	-	324	-	241	443	20	100	248	14.5	817	225	130	428	180	350	80	65	149
IN 80 - 65 - 250 / 30 - 2	318	-	378	-	305	461	-	100	255	18.5	927	250	140	455	200	400	80	65	189
IN 80 - 65 - 250 / 37 - 2	318	-	388	-	305	461	-	100	275	18.5	949	250	140	475	200	400	80	65	200
IN 100 - 80 - 160 / 11 - 2	254	-	294	-	210	455	20	125	208	14.5	815	225	155	405	180	350	100	80	111
IN 100 - 80 - 160 / 15 - 2	254	-	294	-	210	455	20	125	208	14.5	815	225	155	405	180	350	100	80	127
IN 100 - 80 - 160 / 18.5 - 2	254	-	294	-	254	455	20	125	235	14.5	842	225	155	415	180	350	100	80	148
IN 100 - 80 - 200 / 22 - 2	279	-	324	-	241	468	20	125	248	14.5	842	250	155	430	180	350	100	80	157
IN 100 - 80 - 200 / 30 - 2	318	-	378	-	305	486	-	125	255	18.5	952	250	155	455	200	400	100	80	191
IN 100 - 80 - 200 / 37 - 2	318	-	388	-	305	486	-	125	275	18.5	974	250	155	475	200	400	100	80	203

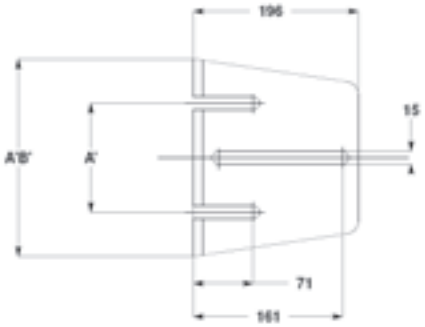
Dimensions

Dimensions of IN pumps - 1,500 min^{-1} motor

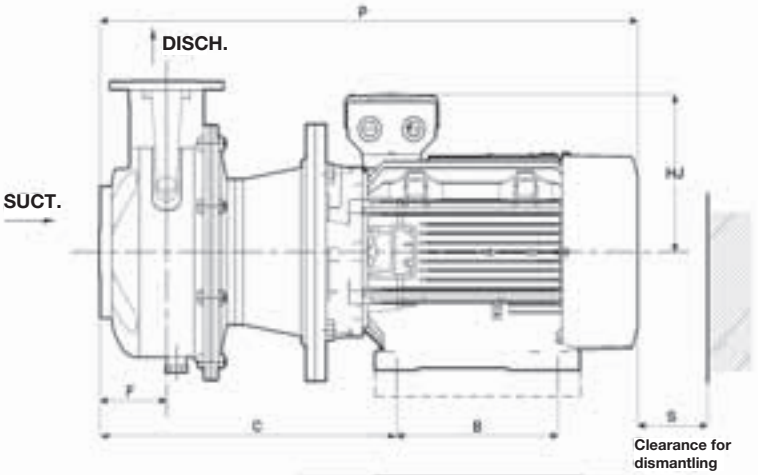
Dimensions in millimetres

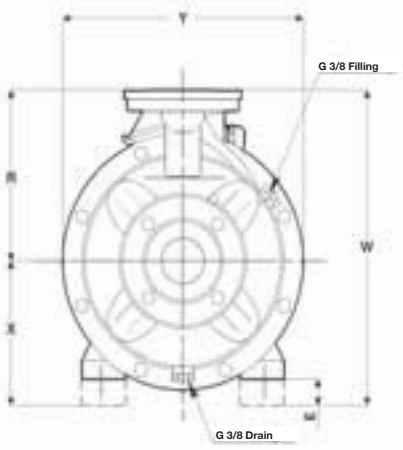




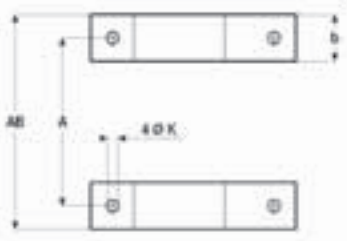


Motor power up to 7.5 kW





With baseplate under motor



Motor power from 11 to 37 kW

IN
Pumps

Dimensions

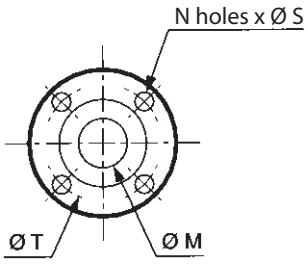
Dimensions of IN pumps - 1,500 min^{-1} motor

Dimensions in millimetres

Type	Pumps										Openings		Weight
	A'	A'B'	F	HJ	P	R	S	W	X	Y	Suct.	Disch.	kg
IN 50 - 25 - 250 / 0.75 - 4	130	265	100	123	470	225	98	405	180	345	50	25	41
IN 50 - 25 - 250 / 1.1 - 4	130	265	100	133	493	225	98	405	180	345	50	25	43
IN 50 - 25 - 250 / 1.5 - 4	130	265	100	133	520	225	98	405	180	345	50	25	47
IN 50 - 32 - 250 / 0.75 - 4	130	265	100	123	470	225	98	405	180	345	50	32	41
IN 50 - 32 - 250 / 1.1 - 4	130	265	100	133	493	225	98	405	180	345	50	32	43
IN 50 - 32 - 250 / 1.5 - 4	130	265	100	133	520	225	98	405	180	345	50	32	47
IN 65 - 40 - 200 / 0.75 - 4	130	230	100	123	470	180	100	340	160	285	65	40	28
IN 65 - 40 - 200 / 1.1 - 4	130	230	100	133	493	180	100	340	160	285	65	40	32
IN 65 - 40 - 250 / 1.1 - 4	130	265	100	133	493	225	107	405	180	345	65	40	33
IN 65 - 40 - 250 / 1.5 - 4	130	265	100	133	520	225	107	405	180	345	65	40	46
IN 65 - 40 - 250 / 2.2 - 4	130	265	100	138	555	225	107	405	180	345	65	40	52
IN 65 - 50 - 160 / 0.75 - 4	130	210	100	123	470	180	104	340	160	255	65	50	27
IN 65 - 50 - 160 / 1.1 - 4	130	210	100	133	493	180	104	340	160	255	65	50	30
IN 65 - 50 - 200 / 1.1 - 4	130	245	100	133	493	200	104	360	160	310	65	50	34
IN 65 - 50 - 200 / 1.5 - 4	130	245	100	133	520	200	104	360	160	310	65	50	42
IN 65 - 50 - 250 / 2.2 - 4A	130	265	100	138	555	225	107	405	180	345	65	50	49
IN 65 - 50 - 250 / 2.2 - 4	130	265	100	138	555	225	107	405	180	345	65	50	49
IN 65 - 50 - 250 / 3 - 4	130	265	100	138	555	225	107	405	180	345	65	50	58
IN 80 - 65 - 160 / 0.75 - 4	130	245	100	123	470	200	115	360	160	310	80	65	37
IN 80 - 65 - 160 / 1.1 - 4A	130	245	100	133	493	200	115	360	160	310	80	65	40
IN 80 - 65 - 160 / 1.1 - 4	130	245	100	133	493	200	130	360	160	310	80	65	40
IN 80 - 65 - 160 / 1.5 - 4	130	245	100	133	520	200	130	360	160	310	80	65	45
IN 80 - 65 - 200 / 1.5 - 4	130	245	100	133	520	225	130	405	180	310	80	65	48
IN 80 - 65 - 200 / 2.2 - 4	130	245	100	138	555	225	130	405	180	310	80	65	54
IN 80 - 65 - 200 / 3 - 4	130	245	100	138	555	225	130	405	180	310	80	65	59
IN 80 - 65 - 250 / 4 - 4	130	265	100	138	555	250	140	450	200	345	80	65	65
IN 80 - 65 - 250 / 5.5 - 4	130	265	100	148	642	250	140	450	200	345	80	65	79
IN 100 - 80 - 160 / 1.5 - 4	130	265	125	133	545	225	160	405	180	345	100	80	53
IN 100 - 80 - 160 / 2.2 - 4A	130	265	125	138	580	225	160	405	180	345	100	80	58
IN 100 - 80 - 160 / 2.2 - 4	130	265	125	138	580	225	160	405	180	345	100	80	58
IN 100 - 80 - 200 / 3 - 4	130	265	125	138	580	250	160	430	180	345	100	80	63
IN 100 - 80 - 200 / 4 - 4	130	265	125	138	580	250	160	430	180	345	100	80	68
IN 100 - 80 - 250 / 5.5 - 4	210	303	125	148	667	280	160	480	200	384	100	80	85
IN 100 - 80 - 250 / 7.5 - 4	210	303	125	175	704	280	160	480	200	384	100	80	90
IN 100 - 80 - 250 / 9 - 4	210	303	125	175	704	280	160	480	200	384	100	80	91

Dimensions

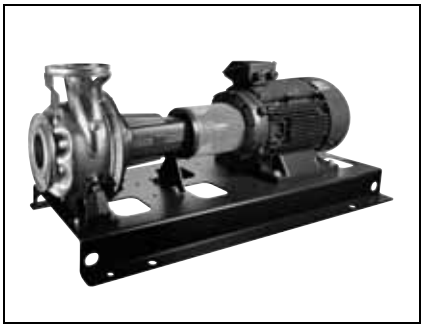
Dimensions in millimetres



Type	Suction				Discharge			
	∅M	N	∅S	∅T	∅M	N	∅S	∅T
IN 50 - 25	50	4	19	125	25	4	14.5	85
IN 50 - 32	50	4	19	125	32	4	19	100
IN 65 - 40	65	4	19	145	40	4	19	110
IN 65 - 50	65	4	19	145	50	4	19	125
IN 80 - 65	80	8	19	160	65	4	19	145
IN 100 - 80	100	8	19	180	80	8	19	160

INCA
Pumps

General information



Horizontal chassis-mounted single-stage centrifugal pumps
Hydraulic units constructed entirely of AISI 316 L stainless steel

Applications
- Industry
  • cooling
  • transfer
  • fire system
  • general services
- Agriculture
  • sprinkler systems
  • irrigation
- Building
  • health/fire-related pressure boosting
  • cooling
- Leisure applications
  • sports grounds
  • parks/open spaces

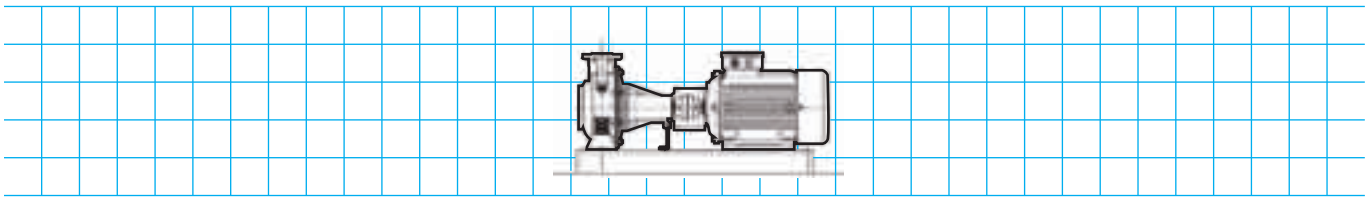
Conditions of use
- Hydraulic unit sizes and connection port diameters conforming to NFE 44-111, EN 733 and DIN 24-255. PN 16 flanges.
- Baseplates conforming to NFE 44-141
- For clear or very slightly contaminated liquids (maximum content of solid particles in suspension 50 g/m^3)
- Temperature of pumped liquid between –20°C and 110°C
- Maximum ambient temperature: 40°C
- Maximum operating pressure: 12 bar
- Motor electrical power supply:
  • 3-phase 230/400 V ± 10% - 50 Hz up to 3 kW inclusive
  • 3-phase Δ 400 V ± 10% - 50 Hz for higher powers

Description of INCA pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1} or 1,500 min^{-1}	- 3-phase 230/400 V ± 10% - 50 Hz up to 3 kW inclusive - 3-phase Δ 400 V ± 10% - 50 Hz for higher powers - Class F - S1 duty - IP 55
Pump body	X2 Cr Ni Mo 17.12 (AISI 316 L) stainless steel	
Impeller	X2 Cr Ni Mo 17.12 (AISI 316 L) stainless steel	
Base	X2 Cr Ni Mo 17.12 (AISI 316 L) stainless steel	
Shaft	X5 Cr Ni Mo 17.12 (AISI 316) stainless steel	
Mechanical seal	Carbon/ceramic Viton seals	
Wearing rings, plugs	X2 Cr Ni Mo 17.12 (AISI 316 L) stainless steel	
Seals	Viton	
Bearing	FGL 250 cast iron	
Stand	Steel	
Baseplate	Steel	- Conforming to NFE 44-141
Shaft coupling	Cast iron or steel	- Semi-flexible with protective housing

INCA
Pumps

Mounting position



Only possibility

C

INCA
Pumps

Adaptation possibilities

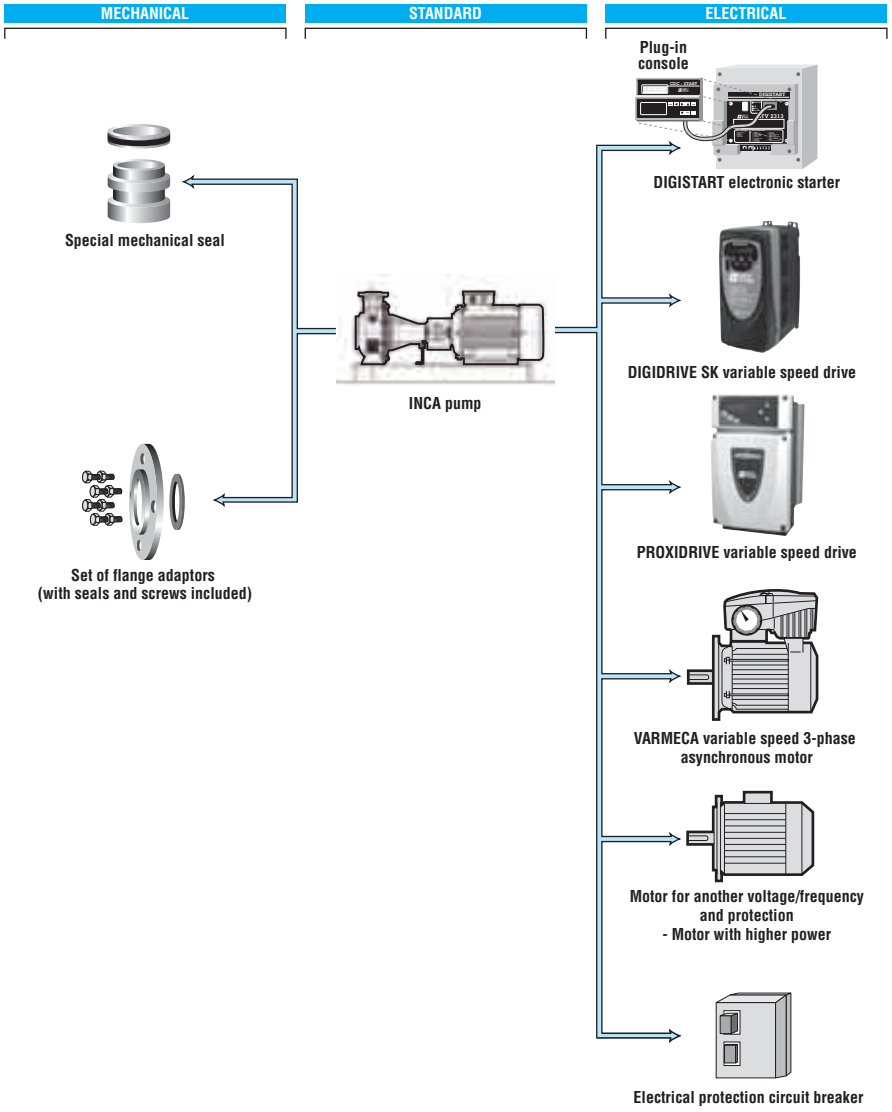
☞ ***INCA pumps can be used in conjunction with:***

- a DIGISTART electronic starter
- DIGIDRIVE SK and PROXIDRIVE variable speed drives
- VARMECA variable speed 3-phase asynchronous motor

☞ ***Options:***

- motor with another voltage and/or speed
- motor with other protection
- special mechanical seal
- set of flange adaptors made of AISI 316 stainless steel or steel, threaded, with seals and screws included

Flange adaptor		
Pump type	Code 316 stainless steel PN 16	Code Steel PN 16
INCA 50 - 25	T 000 AM 70	T 000 AM 30
INCA 50 - 32	T 000 AM 71	T 000 AM 31
INCA 65 - 40	T 000 AM 72	T 000 AM 32
INCA 65 - 50	T 000 AM 73	T 000 AM 33
INCA 80 - 65	T 000 AM 74	T 000 AM 34
INCA 100 - 80	T 000 AM 75	T 000 AM 35



Designation / Coding

INCA	50	32	200	3	2
Designation of the series	Suction flange diameter in mm	Discharge flange diameter in mm	Impeller nominal diameter in mm	Motor rated power in kW	Number of poles (motor speed)

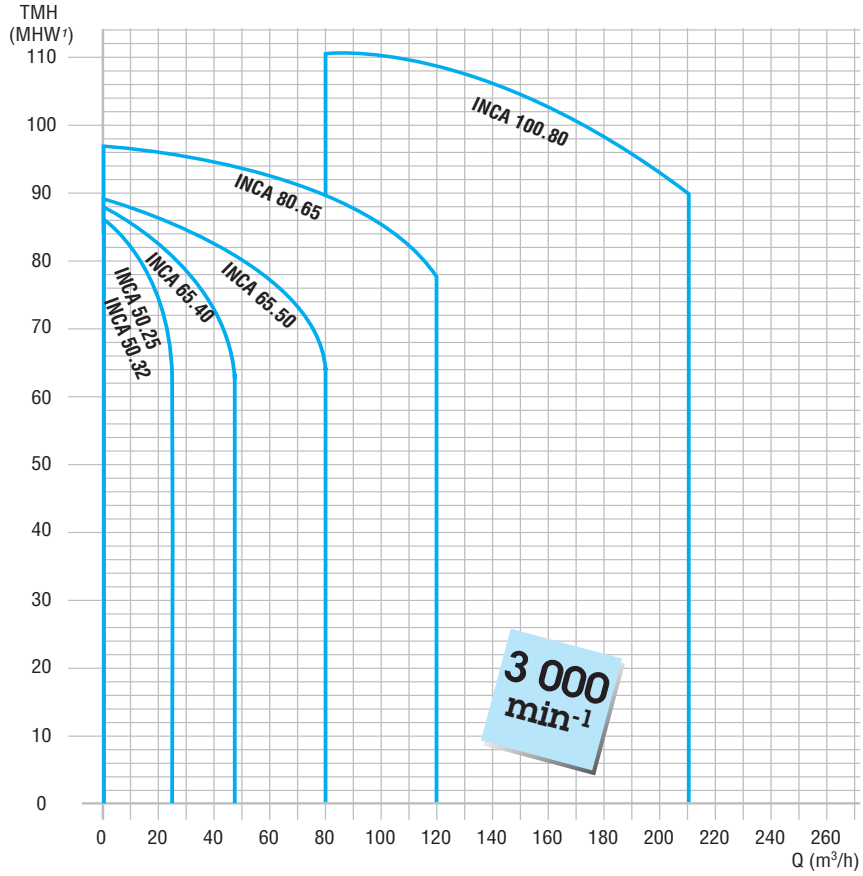
☞ ***Example of coding:***

Designation	Code
INCA 50-32 200 / 3-2	T 098 PC 14

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

INCA
Pumps

Selection



C

3 000 min-1 — Rated flow: 17 to 27 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	6	9	12	15	18	21	24	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
INCA 50 - 25 - 125 / 0.75 - 2	T 098 PC 01	121	TMH in MHW¹	16.6	15.6	14.4	13	**11.3**	**9.5**	-	-	0.75	2.8	1.64
INCA 50 - 25 - 125 / 1.1 - 2	T 098 PC 02	136		21.6	20.6	19.4	18	16	**14**	12	9.8	1.1	4.2	2.4
INCA 50 - 25 - 160 / 1.5 - 2	T 098 PC 03	150		26.7	25	23.5	21.5	19.5	**17**	14.5	11.7	1.5	5.9	3.4
INCA 50 - 25 - 160 / 2.2 - 2	T 098 PC 04	168		35	33.6	32.5	31	29	**26.5**	**24**	21	2.2	7.4	4.3
INCA 50 - 25 - 200 / 3 - 2	T 098 PC 05	188		43.7	40.7	38.5	36	33	**30**	**26.5**	21	3	10.9	6.3
INCA 50 - 25 - 200 / 4 - 2	T 098 PC 06	205		53.5	51	49	47	44	41	**37.6**	**32.3**	4	-	7.9
INCA 50 - 25 - 250 / 5.5 - 2	T 098 PC 07	222		58.6	55.5	53.4	51	48	44.5	**40.7**	**36.8**	5.5	-	10.5
INCA 50 - 25 - 250 / 7.5 - 2	T 098 PC 08	242		74	71	68.9	66	63	60	**56**	**52**	7.5	-	14.7
INCA 50 - 25 - 250 / 11 - 2	T 098 PC 09	256		86	82.5	80.1	77.5	74.3	71	**67.2**	**63**	11	-	20.7

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

3 000 min-1 — Rated flow: 17 to 27 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	6	9	12	15	18	21	24	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
INCA 50 - 32 - 125 / 0.75 - 2	T 098 PC 10	121	TMH in MHW¹	16.6	15.6	14.4	13	**11.3**	**9.5**	-	-	0.75	2.8	1.64
INCA 50 - 32 - 125 / 1.1 - 2	T 098 PC 11	136		21.6	20.6	19.4	18	16	**14**	12	9.8	1.1	4.2	2.4
INCA 50 - 32 - 160 / 1.5 - 2	T 098 PC 12	150		26.7	25	23.5	21.5	19.5	**17**	14.5	11.7	1.5	5.9	3.4
INCA 50 - 32 - 160 / 2.2 - 2	T 098 PC 13	168		35	33.6	32.5	31	29	**26.5**	**24**	21	2.2	7.4	4.3
INCA 50 - 32 - 200 / 3 - 2	T 098 PC 14	188		43.7	40.7	38.5	36	33	**30**	**26.5**	21	3	10.9	6.3
INCA 50 - 32 - 200 / 4 - 2	T 098 PC 15	205		53.5	51	49	47	44	41	**37.6**	**32.3**	4	-	7.9
INCA 50 - 32 - 250 / 5.5 - 2	T 098 PC 16	222		58.6	55.5	53.4	51	48	44.5	**40.7**	**36.8**	5.5	-	10.5
INCA 50 - 32 - 250 / 7.5 - 2	T 098 PC 17	242		74	71	68.9	66	63	60	**56**	**52**	7.5	-	14.7
INCA 50 - 32 - 250 / 11 - 2	T 098 PC 18	256		86	82.5	80.1	77.5	74.3	71	**67.2**	**63**	11	-	20.7

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Selection

3 000 min-1 — Rated flow: 28 to 42 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	15	18	24	30	36	42	48	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
INCA 65 - 40 - 125 / 1.1 - 2	T 098 PC 19	112	TMH in MHW[1]	15.1	13.5	12.8	**11.3**	**9.5**	7.5	-	-	1.1	4.2	2.4
INCA 65 - 40 - 125 / 1.5 - 2	T 098 PC 20	126		18.7	17	16.5	14.8	**13**	10.7	8.2	-	1.5	5.9	3.4
INCA 65 - 40 - 125 / 2.2 - 2	T 098 PC 21	143		24.2	23	22.2	20.5	**18.3**	15.8	13.2	-	2.2	7.4	4.3
INCA 65 - 40 - 160 / 3 - 2	T 098 PC 22	159		32.2	30.5	29.5	27	**24**	**20.8**	17	-	3	10.9	6.3
INCA 65 - 40 - 160 / 4 - 2	T 098 PC 23	171		38	36.5	35.5	33	**30**	**26.5**	22.8	18.5	4	-	7.9
INCA 65 - 40 - 200 / 5.5 - 2	T 098 PC 24	190		49.1	47.5	46.4	43.5	**40.5**	**36**	31	25	5.5	-	10.5
INCA 65 - 40 - 200 / 7.5 - 2	T 098 PC 25	209		58.2	56	55.1	52.5	49	**45**	**40**	34.4	7.5	-	14.7
INCA 65 - 40 - 250 / 11 - 2A	T 098 PC 26	218		65	63	62	60	56	**52**	44.6	-	11	-	20.7
INCA 65 - 40 - 250 / 11 - 2	T 098 PC 27	233		75	72	71	69	66	**61**	**55**	-	11	-	20.7
INCA 65 - 40 - 250 / 15 - 2	T 098 PC 28	251		88	85	84	82	78	74	**69**	63	15	-	28.4

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

3 000 min-1 — Rated flow: 45 to 70 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	30	36	42	48	60	70	80	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
INCA 65 - 50 - 125 / 2.2 - 2	T 098 PC 29	119	TMH in MHW[1]	17.2	15.5	14.6	**13.6**	**12.3**	9.5	7	-	2.2	7.4	4.3
INCA 65 - 50 - 125 / 3 - 2	T 098 PC 30	130		21.7	20	18.8	17.6	**16.4**	**13.5**	11	-	3	10.9	6.3
INCA 65 - 50 - 125 / 4 - 2	T 098 PC 31	139		25.7	24	23.3	22.2	**21.0**	**18**	15.5	13	4	-	7.9
INCA 65 - 50 - 160 / 5.5 - 2	T 098 PC 32	158		34.1	32	30.6	29	27.6	**24**	20.7	16.5	5.5	-	10.5
INCA 65 - 50 - 160 / 7.5 - 2	T 098 PC 33	174		40.8	38.5	37.5	36	34.7	**31.2**	**27.8**	23.7	7.5	-	14.7
INCA 65 - 50 - 200 / 11 - 2A	T 098 PC 34	197		53	49.5	47.5	45	**42.8**	**37**	31	24	11	-	20.7
INCA 65 - 50 - 200 / 11 - 2	T 098 PC 35	209		60.1	57	55	53	**50.3**	**44.4**	38.5	31.6	11	-	20.7
INCA 65 - 50 - 250 / 15 - 2	T 098 PC 36	224		70	68	67	65	63	**58**	52.2	-	15	-	28.4
INCA 65 - 50 - 250 / 18.5 - 2	T 098 PC 37	237		80	76	75	73	71	**66**	**61**	53.5	18.5	-	33.7
INCA 65 - 50 - 250 / 22 - 2	T 098 PC 38	250		89	86	85	83	81	76	**70.5**	64	22	-	39.9

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

3 000 min-1 — Rated flow: 70 to 100 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	48	60	70	80	90	100	110	120	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
INCA 80 - 65 - 160 / 4 - 2	T 098 PC 39	119.5	TMH in MHW[1]	19.6	16.8	15.2	**13.7**	12.3	10.7	9	-	-	4	-	8
INCA 80 - 65 - 160 / 5.5 - 2	T 098 PC 40	129		24.2	21.4	19.8	**18.3**	**16.7**	15	13.3	11.4	-	5.5	-	11
INCA 80 - 65 - 160 / 7.5 - 2	T 098 PC 41	137		28.2	26	24.5	**23.2**	**21.7**	20	18.4	16.5	14.5	7.5	-	15
INCA 80 - 65 - 160 / 11 - 2A	T 098 PC 42	168		38.2	35.4	33	**30.6**	**28.0**	25.3	22.5	19.5	-	11	-	21
INCA 80 - 65 - 160 / 11 - 2	T 098 PC 43	177		42.9	40.8	38.5	**36.0**	**33.5**	30.6	27.8	24.7	21.4	11	-	21
INCA 80 - 65 - 200 / 15 - 2	T 098 PC 44	192		53	50	47.5	**44.8**	**42**	38.5	35	31	-	15	-	28
INCA 80 - 65 - 200 / 18.5 - 2	T 098 PC 45	203		60	57.5	55	52.7	**50**	46.7	43.3	39.5	35.3	18.5	-	34
INCA 80 - 65 - 200 / 22 - 2	T 098 PC 46	215		68	65.5	63	60.7	**58**	55.3	52	48.2	44.5	22	-	40
INCA 80 - 65 - 250 / 30 - 2	T 098 PC 47	240		84	83	81.7	80	77.8	**75**	**72**	68.4	64	30	-	52
INCA 80 - 65 - 250 / 37 - 2	T 098 PC 48	255		97	97	95.3	93.3	90.8	88	**85**	81.6	77.8	37	-	65

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

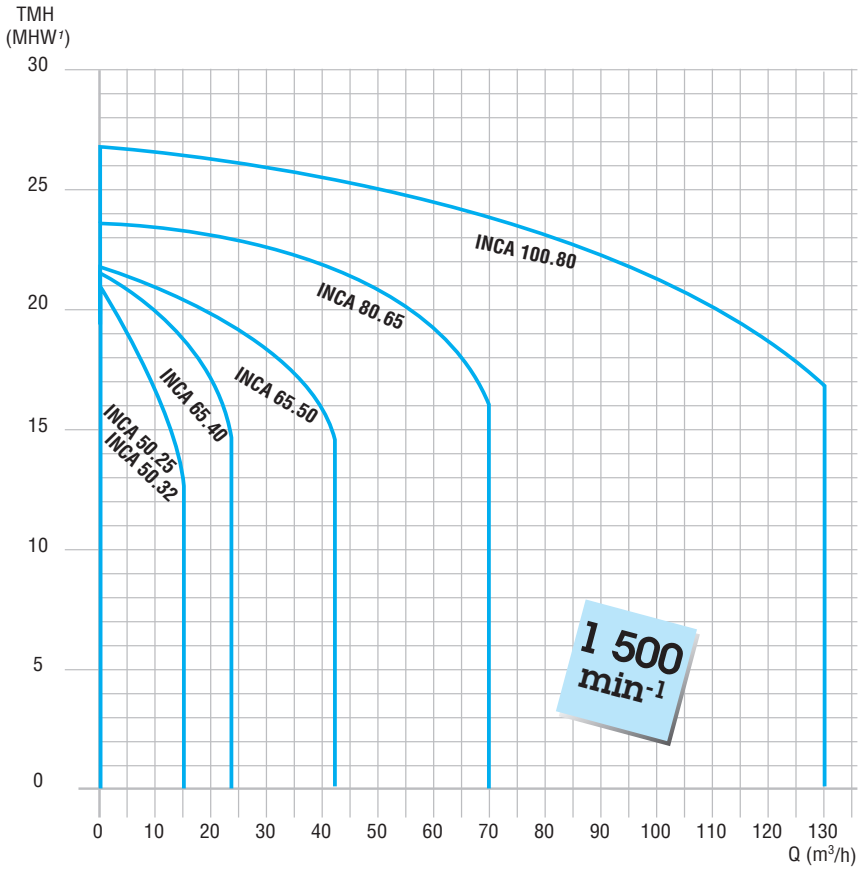
3 000 min-1 — Rated flow: 130 to 160 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	70	80	90	100	120	150	180	210	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
INCA 100 - 80 - 160 / 11 - 2	T 098 PC 49	169	TMH in MHW[1]	33	32	31	30	28.5	**25.5**	**20.2**	14.2	-	11	-	20.7
INCA 100 - 80 - 160 / 15 - 2	T 098 PC 50	177		39.6	39	38	37	36	**32.8**	**27.5**	21.7	15	15	-	28.4
INCA 100 - 80 - 160 / 18.5-2	T 098 PC 51	186		46.5	46	45	44	42.5	**40**	**34.8**	29	22.5	18.5	-	33.7
INCA 100 - 80 - 200 / 22 - 2	T 098 PC 52	198		52	-	50.8	50	48.5	46	**40.8**	35	28.3	22	-	39.9
INCA 100 - 80 - 200 / 30 - 2	T 098 PC 53	215		62	-	62	61.3	60	57.3	**52**	**46**	39.5	30	-	52.1
INCA 100 - 80 - 250 / 37 - 2	T 098 PC 54	226		70	-	70	69.5	68.5	66	**61**	**55.5**	49	37	-	64.6
INCA 100 - 80 - 250 / 45 - 2	T 098 PC 55	237		82	-	81.6	80.5	79.2	76	**70**	**63**	54	45	-	77.4
INCA 100 - 80 - 250 / 55 - 2	T 098 PC 56	252		94	-	94.5	93.5	92.1	89	**83**	**77**	68	55	-	95.2
INCA 100 - 80 - 250 / 75 - 2	T 098 PC 57	270		110	-	110.8	110	108.8	106	**101**	**94**	86	75	-	127

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

INCA
Pumps

Selection



Rated flow: 11 to 13 m³/h

1 500 min-1

Type	Product code	Impeller diameter	Flow rate in m³/h	0	3	4.5	6	7.5	9	10.5	12	15	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
INCA 50 - 25- 125 / 0.25-4A	T 099 PC 01	121	TMH in MHW1	4.4	4.1	3.9	3.6	**3.2**	**2.7**	2.2	1.6	-	0.25	1.2	0.7
INCA 50 - 25 - 125 / 0.25 - 4	T 099 PC 02	136		5.5	5.2	5	4.7	**4.3**	**3.8**	3.3	2.7	-	0.25	1.2	0.7
INCA 50 - 25 - 160 / 0.25 - 4	T 099 PC 03	150		6.9	6.3	5.9	5.4	4.9	**4.4**	3.7	2.9	-	0.25	1.2	0.7
INCA 50 - 25 - 160 / 0.37 - 4	T 099 PC 04	168		8.6	8.2	7.8	7.4	6.9	6.4	**5.8**	5.2	3.6	0.37	1.7	1
INCA 50 - 25 - 200 / 0.37 - 4	T 099 PC 05	188		10.8	10	9.4	8.7	7.9	**7.0**	6.1	5.1	-	0.37	1.7	1
INCA 50 - 25 - 200 / 0.55 - 4	T 099 PC 06	205		13.2	12.5	12	11.4	10.6	9.8	**8.8**	7.8	-	0.55	2.3	1.3
INCA 50 - 25 - 250 / 0.75 - 4	T 099 PC 07	222		14.5	13.6	13	12.3	11.6	10.8	9.9	**8.9**	6.5	0.75	3.5	2
INCA 50 - 25 - 250 / 1.1 - 4	T 099 PC 08	242		18.4	17.5	16.8	16.1	15.3	14.4	13.5	**12.5**	**10.2**	1.1	4.3	2.5
INCA 50 - 25 - 250 / 1.5 - 4	T 099 PC 09	256		21.3	20.3	19.7	19	18.2	17.4	16.3	**15.2**	**12.8**	1.5	5.9	3.4

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Rated flow: 11 to 13 m³/h

1 500 min-1

Type	Product code	Impeller diameter	Flow rate in m³/h	0	3	4.5	6	7.5	9	10.5	12	15	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
INCA 50 - 32- 125 / 0.25-4A	T 099 PC 10	121	TMH in MHW1	4.4	4.1	3.9	3.6	**3.2**	**2.7**	2.2	1.6	-	0.25	1.2	0.7
INCA 50 - 32 - 125 / 0.25 - 4	T 099 PC 11	136		5.5	5.2	5	4.7	**4.3**	**3.8**	3.3	2.7	-	0.25	1.2	0.7
INCA 50 - 32 - 160 / 0.25 - 4	T 099 PC 12	150		6.9	6.3	5.9	5.4	4.9	**4.4**	3.7	2.9	-	0.25	1.2	0.7
INCA 50 - 32 - 160 / 0.37 - 4	T 099 PC 13	168		8.6	8.2	7.8	7.4	6.9	6.4	**5.8**	5.2	3.6	0.37	1.7	1
INCA 50 - 32 - 200 / 0.37 - 4	T 099 PC 14	188		10.8	10	9.4	8.7	7.9	**7**	6.1	5.1	-	0.37	1.7	1
INCA 50 - 32 - 200 / 0.55 - 4	T 099 PC 15	205		13.2	12.5	12	11.4	10.6	9.8	**8.8**	7.8	-	0.55	2.3	1.3
INCA 50 - 32 - 250 / 0.75 - 4	T 099 PC 16	222		14.5	13.6	13	12.3	11.6	10.8	9.9	**8.9**	6.5	0.75	3.5	2
INCA 50 - 32 - 250 / 1.1 - 4	T 099 PC 17	242		18.4	17.5	16.8	16.1	15.3	14.4	13.5	**12.5**	**10.2**	1.1	4.3	2.5
INCA 50 - 32 - 250 / 1.5 - 4	T 099 PC 18	256		21.3	20.3	19.7	19	18.2	17.4	16.3	**15.2**	**12.8**	1.5	5.9	3.4

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

INCA
Pumps

Selection

1 500 min-1

Rated flow: 17 to 22 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	7.5	9	10.5	12	15	18	24	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
INCA 65 - 40 -125 / 0.25-4A	T 099 PC 19	112	TMH in MHW[1]	4	3.6	3.5	3.3	3.1	**2.7**	2.1	-	0.25	1.2	0.7
INCA 65 - 40 - 125 / 0.25 - 4	T 099 PC 20	126		5.4	5	4.8	4.6	4.4	**3.9**	**3.3**	2	0.25	1.2	0.7
INCA 65 - 40 - 125 / 0.37 - 4	T 099 PC 21	143		6.3	5.9	5.7	5.5	5.2	**4.7**	**4**	2.7	0.37	1.7	1
INCA 65 - 40 - 160 / 0.37 - 4	T 099 PC 22	159		8	7.4	7.2	6.9	6.6	**5.9**	**5.1**	3.1	0.37	1.7	1
INCA 65 - 40 - 160 / 0.55 - 4	T 099 PC 23	171		9.2	8.7	8.5	8.2	7.9	**7.2**	**6.4**	4.4	0.55	2.3	1.3
INCA 65 - 40 - 200 / 0.75 - 4	T 099 PC 24	190		11.9	11.5	11.2	10.8	10.5	**9.7**	**8.6**	5.8	0.75	3.5	2
INCA 65 - 40 - 200 / 1.1 - 4	T 099 PC 25	209		14.2	13.5	13.3	13	12.7	11.8	**10.8**	8	1.1	4.3	2.5
INCA 65 - 40 - 250 / 1.1 - 4	T 099 PC 26	218		15.6	14.9	14.6	14.3	14	13	**11.9**	-	1.1	4.3	2.5
INCA 65 - 40 - 250 / 1.5 - 4	T 099 PC 27	233		18.1	17.3	17	16.7	16.4	15.5	**14.5**	**11.4**	1.5	5.9	3.4
INCA 65 - 40 - 250 / 2.2 - 2	T 099 PC 28	251		21.5	20.7	20.3	20	19.7	18.8	**17.7**	**14.8**	2.2	8.3	4.8

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

1 500 min-1

Rated flow: 30 to 35 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	12	15	18	24	30	36	42	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
INCA 65 - 50 -125 / 0.37-4A	T 099 PC 29	119	TMH in MHW[1]	4.4	4.2	4	3.8	**3.3**	**2.7**	2	-	0.37	1.7	1
INCA 65 - 50 - 125 / 0.37 - 4	T 099 PC 30	130		5.4	5	4.8	4.6	**4**	**3.3**	2.6	1.8	0.37	1.7	1
INCA 65 - 50 - 125 / 0.55 - 4	T 099 PC 31	139		6.4	6	5.8	5.6	**5**	**4.3**	3.6	2.8	0.55	2.3	1.3
INCA 65 - 50 - 160 / 0.75 - 4	T 099 PC 32	158		8.2	7.8	7.6	7.3	6.7	**5.9**	**4.9**	3.8	0.75	3.5	2
INCA 65 - 50 - 160 / 1.1 - 4	T 099 PC 33	174		9.9	9.3	9.1	8.8	8.2	**7.4**	**6.6**	5.4	1.1	4.3	2.5
INCA 65 - 50 - 200 / 1.1 - 4	T 099 PC 34	197		12.8	12.1	11.7	11.2	**10**	**8.6**	6.8	4.8	1.1	4.3	2.5
INCA 65 - 50 - 200 / 1.5 - 4	T 099 PC 35	209		14.7	13.9	13.6	13	**11.8**	**10.4**	8.7	6.6	1.5	5.9	3.4
INCA 65 - 50 - 250 / 2.2 - 4A	T 099 PC 36	224		17.5	16.8	16.4	16	15	**13.8**	**12**	9.7	2.2	8.3	4.8
INCA 65 - 50 - 250 / 2.2 - 4	T 099 PC 37	237		19.4	18.6	18.2	17.8	16.8	**15.5**	**13.8**	11.6	2.2	8.3	4.8
INCA 65 - 50 - 250 / 3 - 4	T 099 PC 38	250		21.9	21.3	20.9	20.5	19.6	**18.4**	**16.8**	14.7	3	11.2	6.5

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

1 500 min-1

Rated flow: 33 to 55 m³/h

Type	Product code	Impeller diameter	Flow rate in m³/h	0	24	30	36	42	48	60	70	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
INCA 80 - 65 - 160 / 0.55 - 4	T 099 PC 39	119.5	TMH in MHW[1]	5.4	4.2	**3.7**	3.3	2.7	2.2	-	-	0.55	2.3	1.3
INCA 80 - 65 - 160 / 0.75 - 4	T 099 PC 40	129		6.4	5.3	**4.8**	**4.4**	3.8	3.4	-	-	0.75	3.5	2
INCA 80 - 65 - 160 / 1.1 - 4A	T 099 PC 41	139.5		7.6	6.5	**6.1**	**5.7**	5.1	4.6	3.4	-	1.1	4.3	2.5
INCA 80 - 65 - 160 / 1.1 - 4	T 099 PC 42	168		9.4	8.5	7.9	**7.2**	**6.3**	5.5	3.4	-	1.1	4.3	2.5
INCA 80 - 65 - 160 / 1.5 - 4	T 099 PC 43	177		10.6	9.7	9.2	**8.5**	**7.7**	6.9	4.9	-	1.5	5.9	3.4
INCA 80 - 65 - 200 / 1.5 - 4	T 099 PC 44	187		11.8	11	10.2	**9.4**	**8.4**	7.4	5.1	-	1.5	5.9	3.4
INCA 80 - 65 - 200 / 2.2 - 4	T 099 PC 45	203		14.4	13.5	12.8	12	**11**	10	7.9	-	2.2	8.3	4.8
INCA 80 - 65 - 200 / 3 - 4	T 099 PC 46	222		17.5	16.8	16.3	15.6	**14.7**	**13.8**	11.7	9.3	3	11.2	6.5
INCA 80 - 65 - 250 / 4 - 4	T 099 PC 47	240		20.4	20	19.5	18.9	18	**17.3**	**15.1**	12	4	-	8.3
INCA 80 - 65 - 250 / 5.5 - 4	T 099 PC 48	255		23.7	23.7	23.2	22.6	22	**21**	**19**	16.3	5.5	-	11.1

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

1 500 min-1

Rated flow: 60 to 95 m³/h

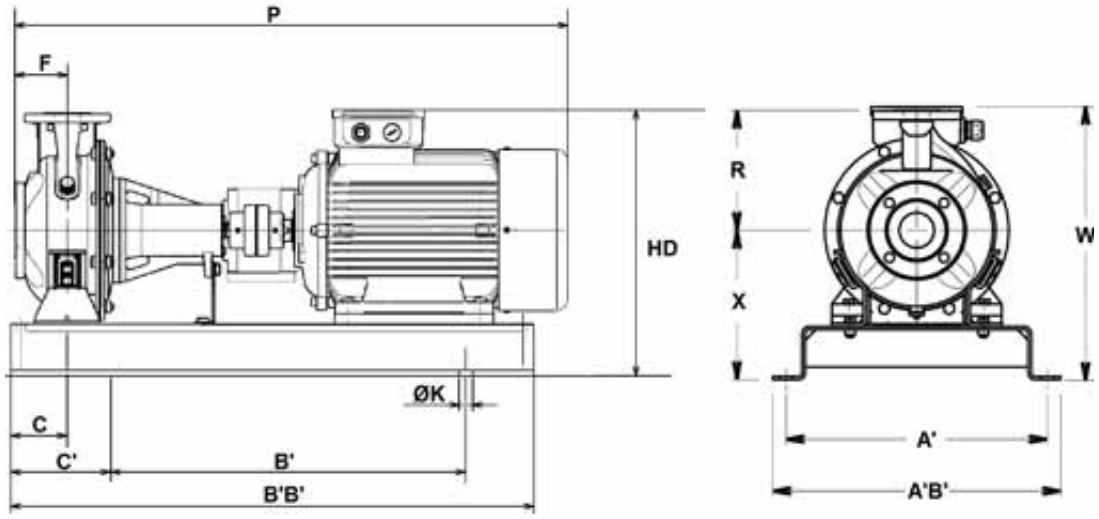
Type	Product code	Impeller diameter	Flow rate in m³/h	0	36	42	48	60	70	90	110	130	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
INCA 100 - 80 - 160 / 1.5 - 4	T 099 PC 49	169	TMH in MHW[1]	8	7.6	7.2	6.8	**6**	**5.2**	3.5	-	-	1.5	5.9	3.4
INCA 100 - 80 - 160 / 2.2-4A	T 099 PC 50	177		9.4	9	8.7	8.3	**7.5**	**6.7**	5	-	-	2.2	8.3	4.8
INCA 100 - 80 - 160 / 2.2 - 4	T 099 PC 51	186		10.8	10.4	10.1	9.7	**9**	**8.2**	6.4	4.3	-	2.2	8.3	4.8
INCA 100 - 80 - 200 / 3 - 4	T 099 PC 52	198		12.3	12.5	12.2	11.8	10.8	**10**	**8**	5.9	-	3	11.2	6.5
INCA 100 - 80 - 200 / 4 - 4	T 099 PC 53	220		15.4	15.8	15.5	15.2	14.3	**13.5**	**11.6**	9.5	7.2	4	-	8.3
INCA 100 - 80 - 250 / 5.5 - 4	T 099 PC 54	237		20.3	20	19.7	19.3	18.4	**17.5**	**15.2**	12	-	5.5	-	11.1
INCA 100 - 80 - 250 / 7.5 - 4	T 099 PC 55	252		22.6	22.6	22.3	22	21.3	**20.4**	**18.5**	15.8	12.5	7.5	-	15.2
INCA 100 - 80 - 250 / 9 - 4	T 099 PC 56	270		26.7	26.5	26.3	26	25.2	24.3	**22.4**	**20**	17	9	-	18.1

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Dimensions

Dimensions of INCA pumps - 3,000 min^{-1} motor

Dimensions in millimetres



Dimensions

Dimensions of INCA pumps - 3,000 min^{-1} motor

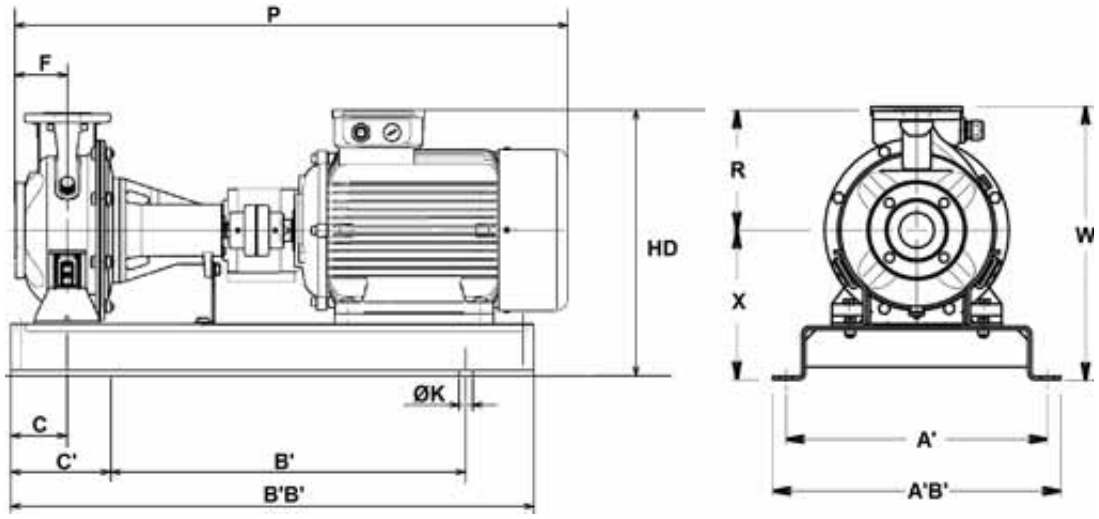
Dimensions in millimetres

Type	Pumps												Openings		Weight
	A'	A'B'	B'	B'B'	C	C'	F	HD	K	P	R	X	Suct.	Disch.	kg
INCA 50 - 25 - 125 / 0.75 - 2	320	360	540	800	60	130	80	335	17	744	140	212	50	25	65
INCA 50 - 25 - 125 / 1.1 - 2	320	360	540	800	60	130	80	335	17	744	140	212	50	25	67
INCA 50 - 25 - 160 / 1.5 - 2	350	390	600	900	60	150	80	365	17	773	160	232	50	25	69
INCA 50 - 25 - 160 / 2.2 - 2	350	390	600	900	60	150	80	365	17	773	160	232	50	25	71
INCA 50 - 25 - 200 / 3 - 2	350	390	600	900	60	150	80	398	17	809	180	260	50	25	90
INCA 50 - 25 - 200 / 4 - 2	350	390	600	900	60	150	80	398	17	832	180	260	50	25	94
INCA 50 - 25 - 250 / 5.5 - 2	440	490	740	1120	75	190	100	428	21	909	225	280	50	25	126
INCA 50 - 25 - 250 / 7.5 - 2	440	490	740	1120	75	190	100	428	21	909	225	280	50	25	131
INCA 50 - 25 - 250 / 11 - 2	490	540	840	1250	75	205	100	488	21	1061	225	280	50	25	176
INCA 50 - 32 - 125 / 0.75 - 2	320	360	540	800	60	130	80	335	17	744	140	212	50	32	65
INCA 50 - 32 - 125 / 1.1 - 2	320	360	540	800	60	130	80	335	17	744	140	212	50	32	67
INCA 50 - 32 - 160 / 1.5 - 2	350	390	600	900	60	150	80	365	17	773	160	232	50	32	69
INCA 50 - 32 - 160 / 2.2 - 2	350	390	600	900	60	150	80	365	17	773	160	232	50	32	71
INCA 50 - 32 - 200 / 3 - 2	350	390	600	900	60	150	80	398	17	809	180	260	50	32	90
INCA 50 - 32 - 200 / 4 - 2	350	390	600	900	60	150	80	398	17	832	180	260	50	32	94
INCA 50 - 32 - 250 / 5.5 - 2	440	490	740	1120	75	190	100	428	21	909	225	280	50	32	126
INCA 50 - 32 - 250 / 7.5 - 2	440	490	740	1120	75	190	100	428	21	909	225	280	50	32	131
INCA 50 - 32 - 250 / 11 - 2	490	540	840	1250	75	205	100	488	21	1061	225	280	50	32	176
INCA 65 - 40 - 125 / 1.1 - 2	320	360	540	800	60	130	80	335	17	744	140	212	65	40	68
INCA 65 - 40 - 125 / 1.5 - 2	350	390	600	900	60	150	80	345	17	773	140	212	65	40	70
INCA 65 - 40 - 125 / 2.2 - 2	350	390	600	900	60	150	80	345	17	773	140	212	65	40	73
INCA 65 - 40 - 160 / 3 - 2	350	390	600	900	60	150	80	370	17	809	160	232	65	40	87
INCA 65 - 40 - 160 / 4 - 2	350	390	600	900	60	150	80	370	17	832	160	232	65	40	93
INCA 65 - 40 - 200 / 5.5 - 2	400	450	660	1000	60	170	100	408	21	909	180	260	65	40	108
INCA 65 - 40 - 200 / 7.5 - 2	400	450	660	1000	60	170	100	408	21	909	180	260	65	40	116
INCA 65 - 40 - 250 / 11 - 2A	490	540	840	1250	75	205	100	488	21	1061	225	280	65	40	174
INCA 65 - 40 - 250 / 11 - 2	490	540	840	1250	75	205	100	488	21	1061	225	280	65	40	174
INCA 65 - 40 - 250 / 15 - 2	490	540	840	1250	75	205	100	488	21	1061	225	280	65	40	184
INCA 65 - 50 - 125 / 2.2 - 2	350	390	600	900	60	150	100	365	17	793	160	232	65	50	80
INCA 65 - 50 - 125 / 3 - 2	350	390	600	900	60	150	100	370	17	829	160	232	65	50	87
INCA 65 - 50 - 125 / 4 - 2	350	390	600	900	60	150	100	370	17	852	160	232	65	50	92
INCA 65 - 50 - 160 / 5.5 - 2	400	450	660	1000	60	170	100	408	21	909	180	260	65	50	106
INCA 65 - 50 - 160 / 7.5 - 2	400	450	660	1000	60	170	100	408	21	909	180	260	65	50	110
INCA 65 - 50 - 200 / 11 - 2A	440	490	740	1120	60	190	100	468	21	1061	200	260	65	50	168
INCA 65 - 50 - 200 / 11 - 2	440	490	740	1120	60	190	100	468	21	1061	200	260	65	50	168
INCA 65 - 50 - 250 / 15 - 2	490	540	840	1250	75	205	100	488	21	1061	225	280	65	50	174
INCA 65 - 50 - 250 / 18.5 - 2	490	540	840	1250	75	205	100	515	21	1105	225	280	65	50	194
INCA 65 - 50 - 250 / 22 - 2	490	540	840	1250	75	205	100	528	21	1111	225	280	65	50	214
INCA 80 - 65 - 160 / 4 - 2	400	450	660	1000	75	170	100	398	17	852	200	260	80	65	130
INCA 80 - 65 - 160 / 5.5 - 2	440	490	740	1120	75	190	100	408	17	909	200	260	80	65	136
INCA 80 - 65 - 160 / 7.5 - 2	440	490	740	1120	75	190	100	408	21	909	200	260	80	65	142
INCA 80 - 65 - 160 / 11 - 2A	490	540	840	1250	75	205	100	468	21	1061	200	260	80	65	157
INCA 80 - 65 - 160 / 11 - 2	490	540	840	1250	75	205	100	468	21	1061	200	260	80	65	157
INCA 80 - 65 - 200 / 15 - 2	490	540	840	1250	75	205	100	488	21	1061	225	280	80	65	180
INCA 80 - 65 - 200 / 18.5 - 2	490	540	840	1250	75	205	100	515	21	1105	225	280	80	65	192
INCA 80 - 65 - 200 / 22 - 2	490	540	840	1250	75	205	100	528	21	1111	225	280	80	65	208
INCA 80 - 65 - 250 / 30 - 2	550	610	940	1400	90	230	100	555	25	1296	250	300	80	65	271
INCA 80 - 65 - 250 / 37 - 2	550	610	940	1400	90	230	100	575	25	1296	250	300	80	65	296
INCA 100 - 80 - 160 / 11 - 2	490	540	840	1250	75	205	125	488	21	1086	225	280	100	80	193
INCA 100 - 80 - 160 / 15 - 2	490	540	840	1250	75	205	125	488	21	1086	225	280	100	80	204
INCA 100 - 80 - 160 / 18.5 - 2	490	540	840	1250	75	205	125	515	21	1130	225	280	100	80	225
INCA 100 - 80 - 200 / 22 - 2	490	540	840	1250	75	205	125	528	21	1246	250	280	100	80	236
INCA 100 - 80 - 200 / 30 - 2	550	610	940	1400	75	230	125	555	25	1321	250	300	100	80	277
INCA 100 - 80 - 250 / 37 - 2	550	610	940	1400	75	230	125	575	25	1321	250	300	100	80	295
INCA 100 - 80 - 250 / 45 - 2	550	610	940	1400	90	230	125	600	25	1398	280	325	100	80	255
INCA 100 - 80 - 250 / 55 - 2	600	660	1060	1600	90	270	125	680	25	1428	280	380	100	80	394
INCA 100 - 80 - 250 / 75 - 2	670	730	1200	1800	90	300	125	785	25	1558	280	380	100	80	510

Dimensions

Dimensions of INCA pumps - 1,500 min^{-1} motor

Dimensions in millimetres



Dimensions

Dimensions of INCA pumps - 1,500 min^{-1} motor

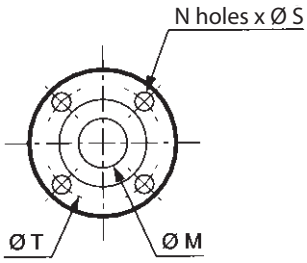
Dimensions in millimetres

Type	Pumps												Openings		Weight
	A'	A'B'	B'	B'B'	C	C'	F	HD	K	P	R	X	Suct.	Disch.	kg
INCA 50 - 25 - 125 / 0.25 - 4A	320	360	540	800	60	130	80	311	17	686	140	212	50	25	72
INCA 50 - 25 - 125 / 0.25 - 4	320	360	540	800	60	130	80	311	17	686	140	212	50	25	72
INCA 50 - 25 - 160 / 0.25 - 4	320	360	540	800	60	130	80	331	17	686	160	232	50	25	74
INCA 50 - 25 - 160 / 0.37 - 4	320	360	540	800	60	130	80	331	17	686	160	232	50	25	76
INCA 50 - 25 - 200 / 0.37 - 4	320	360	540	800	60	130	80	359	17	686	180	260	50	25	78
INCA 50 - 25 - 200 / 0.55 - 4	320	360	540	800	60	130	80	383	17	723	180	260	50	25	80
INCA 50 - 25 - 250 / 0.75 - 4	400	450	660	1000	75	170	100	403	21	743	225	280	50	25	97
INCA 50 - 25 - 250 / 1.1 - 4	400	450	660	1000	75	170	100	413	21	793	225	280	50	25	100
INCA 50 - 25 - 250 / 1.5 - 4	400	450	660	1000	75	170	100	413	21	793	225	280	50	25	102
INCA 50 - 32 - 125 / 0.25 - 4A	320	360	540	800	60	130	80	311	17	686	140	212	50	32	72
INCA 50 - 32 - 125 / 0.25 - 4	320	360	540	800	60	130	80	311	17	686	140	212	50	32	72
INCA 50 - 32 - 160 / 0.25 - 4	320	360	540	800	60	130	80	331	17	686	160	232	50	32	74
INCA 50 - 32 - 160 / 0.37 - 4	320	360	540	800	60	130	80	331	17	686	160	232	50	32	76
INCA 50 - 32 - 200 / 0.37 - 4	320	360	540	800	60	130	80	359	17	686	180	260	50	32	78
INCA 50 - 32 - 200 / 0.55 - 4	320	360	540	800	60	130	80	383	17	723	180	260	50	32	80
INCA 50 - 32 - 250 / 0.75 - 4	400	450	660	1000	75	170	100	403	21	743	225	280	50	32	97
INCA 50 - 32 - 250 / 1.1 - 4	400	450	660	1000	75	170	100	413	21	793	225	280	50	32	100
INCA 50 - 32 - 250 / 1.5 - 4	400	450	660	1000	75	170	100	413	21	793	225	280	50	32	102
INCA 65 - 40 - 125 / 0.25 -4A	320	360	540	800	60	130	80	311	17	686	140	212	65	40	57
INCA 65 - 40 - 125 / 0.25 - 4	320	360	540	800	60	130	80	311	17	686	140	212	65	40	57
INCA 65 - 40 - 125 / 0.37 - 4	320	360	540	800	60	130	80	311	17	686	140	212	65	40	58
INCA 65 - 40 - 160 / 0.37 - 4	320	360	540	800	60	130	80	331	17	686	160	232	65	40	60
INCA 65 - 40 - 160 / 0.55 - 4	320	360	540	800	60	130	80	355	17	723	160	232	65	40	62
INCA 65 - 40 - 200 / 0.75 -4	350	390	600	900	60	150	100	383	17	743	180	260	65	40	69
INCA 65 - 40 - 200 / 1.1 - 4	350	390	600	900	60	150	100	393	17	793	180	260	65	40	72
INCA 65 - 40 - 250 / 1.1 - 4	400	450	660	1000	75	170	100	413	21	793	225	280	65	40	99
INCA 65 - 40 - 250 / 1.5 - 4	400	450	660	1000	75	170	100	413	21	793	225	280	65	40	102
INCA 65 - 40 - 250 / 2.2 - 4	400	450	660	1000	75	170	100	418	21	829	225	280	65	40	115
INCA 65 - 50 - 125 / 0.37 - 4A	320	360	540	800	60	130	100	331	17	706	160	232	65	50	59
INCA 65 - 50 - 125 / 0.37 - 4	320	360	540	800	60	130	100	331	17	706	160	232	65	50	59
INCA 65 - 50 - 125 / 0.55 - 4	320	360	540	800	60	130	100	383	17	743	180	260	65	50	61
INCA 65 - 50 - 160 / 0.75 - 4	350	390	600	900	60	150	100	383	17	743	180	260	65	50	68
INCA 65 - 50 - 160 / 1.1 - 4	350	390	600	900	60	150	100	393	17	793	200	260	65	50	71
INCA 65 - 50 - 200 / 1.1 - 4	350	390	600	900	60	150	100	393	17	793	200	260	65	50	82
INCA 65 - 50 - 200 / 1.5 - 4	350	390	600	900	60	150	100	393	17	793	200	260	65	50	85
INCA 65 - 50 - 250 / 2.2 - 4A	400	450	660	1000	75	170	100	418	21	829	225	280	65	50	116
INCA 65 - 50 - 250 / 2.2 - 4	400	450	660	1000	75	170	100	418	21	829	225	280	65	50	116
INCA 65 - 50 - 250 / 3 - 4	400	450	660	1000	75	170	100	418	21	829	225	280	65	50	120
INCA 80 - 65 - 160 / 0.55 - 4	350	390	600	900	75	150	100	383	17	743	200	260	80	65	84
INCA 80 - 65 - 160 / 0.75 - 4	350	390	600	900	75	150	100	383	17	743	200	260	80	65	85
INCA 80 - 65 - 160 / 1.1 - 4A	400	450	660	1000	75	170	100	393	21	793	200	260	80	65	88
INCA 80 - 65 - 160 / 1.1 - 4	400	450	660	1000	75	170	100	393	21	793	200	260	80	65	88
INCA 80 - 65 - 160 / 1.5 - 4	400	450	660	1000	75	170	100	393	21	793	200	260	80	65	91
INCA 80 - 65 - 200 / 1.5 - 4	400	450	660	1000	75	170	100	413	21	793	225	280	80	65	103
INCA 80 - 65 - 200 / 2.2 - 4	440	490	740	1120	75	190	100	418	21	829	225	280	80	65	117
INCA 80 - 65 - 200 / 3 - 4	440	490	740	1120	75	190	100	418	21	829	225	280	80	65	121
INCA 80 - 65 - 250 / 4 - 4	440	490	740	1120	90	190	100	438	21	962	250	300	80	65	158
INCA 80 - 65 - 250 / 5.5 - 4	440	490	740	1120	90	190	100	448	21	1019	250	300	80	65	174
INCA 100 - 80 - 160 / 1.5 - 4	400	450	660	1000	75	170	125	413	21	818	225	280	100	80	121
INCA 100 - 80 - 160 / 2.2 - 4A	440	490	740	1120	75	190	125	418	21	854	225	280	100	80	127
INCA 100 - 80 - 160 / 2.2 - 4	440	490	740	1120	75	190	125	418	21	854	225	280	100	80	127
INCA 100 - 80 - 200 / 3 - 4	440	490	740	1120	75	190	125	418	21	964	250	280	100	80	146
INCA 100 - 80 - 200 / 4 - 4	440	490	740	1120	75	190	125	418	21	987	250	280	100	80	151
INCA 100 - 80 - 250 / 5.5 - 4	490	540	840	1250	90	205	125	448	21	1044	280	300	100	80	175
INCA 100 - 80 - 250 / 7.5 - 4	490	540	840	1250	90	205	125	475	21	1082	280	300	100	80	185
INCA 100 - 80 - 250 / 9 - 4	490	540	840	1250	90	205	125	475	21	1082	280	300	100	80	185

Dimensions

Flange dimensions

Dimensions in millimetres



Type	Suction				Discharge			
	∅M	N	∅S	∅T	∅M	N	∅S	∅T
INCA 50 - 25	50	4	19	125	25	4	14.5	85
INCA 50 - 32	50	4	19	125	32	4	19	100
INCA 65 - 40	65	4	19	145	40	4	19	110
INCA 65 - 50	65	4	19	145	50	4	19	125
INCA 80 - 65	80	8	19	160	65	4	19	145
INCA 100 - 80	100	8	19	180	80	8	19	160

Bare shaft INCA pumps

General information

Horizontal bare shaft single-stage centrifugal pumps.
Hydraulic units constructed entirely of AISI 316 L stainless steel

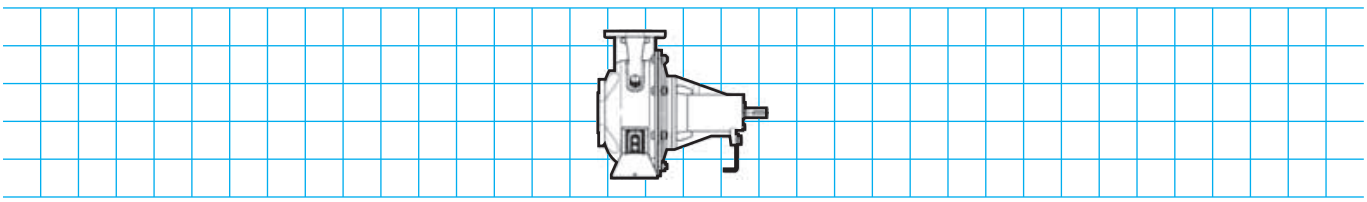
Applications
- Industry
  - cooling
  - transfer
  - fire system
  - general services
- Agriculture
  - sprinkler systems
  - irrigation
- Building
  - health/fire-related pressure boosting
  - cooling
- Leisure applications
  - sports grounds
  - farks/open spaces

Conditions of use
- Hydraulic unit sizes and connection port diameters conforming to NFE 44-111, EN 733 and DIN 24-255. PN 16 flanges.
- For clear or very slightly contaminated liquids (maximum content of solid particles in suspension 50 g/m^3)
- Temperature of pumped liquid between –20°C and 110°C
- Maximum ambient temperature: 40°C
- Maximum operating pressure: 12 bar

Description of bare shaft INCA pumps

Component	Materials	Remarks
Pump body	X2 Cr Ni Mo 17.12 (AISI 316 L) stainless steel	
Impeller	X2 Cr Ni Mo 17.12 (AISI 316 L) stainless steel	
Base	X2 Cr Ni Mo 17.12 (AISI 316 L) stainless steel	
Shaft	X2 Cr Ni Mo 17.12 (AISI 316 L) stainless steel	
Mechanical seal	Carbon/ceramic Viton seals	
Wearing rings, plugs	X2 Cr Ni Mo 17.12 (AISI 316 L) stainless steel	
Seals	Viton	

Mounting position



Only possibility

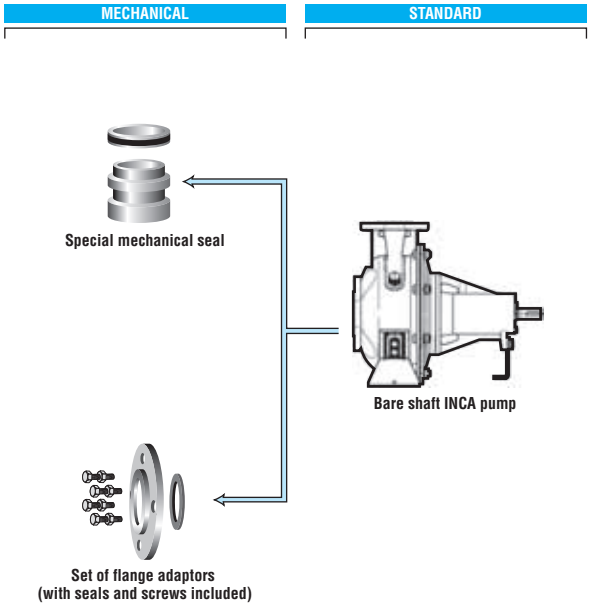
Bare shaft INCA pumps

Adaptation possibilities

☞ ***Options:***

- special mechanical seal
- set of flange adaptors made of AISI 316 stainless steel or steel, threaded, with seals and screws included

Pump type	Flange adaptor Code 316 stainless steel PN 16	Flange adaptor Code Steel PN 16
INCA 50 - 25	T 000 AM 70	T 000 AM 30
INCA 50 - 32	T 000 AM 71	T 000 AM 31
INCA 65 - 40	T 000 AM 72	T 000 AM 32
INCA 65 - 50	T 000 AM 73	T 000 AM 33
INCA 80 - 65	T 000 AM 74	T 000 AM 34
INCA 100 - 80	T 000 AM 75	T 000 AM 35



Designation / Coding

INCA	50	32	200	/	188
Designation of the series	Suction flange diameter in mm	Discharge flange diameter in mm	Impeller nominal diameter in mm		Impeller diameter in mm

☞ ***Example of coding:***

Designation	**Code**
INCA 50-32 200 / 188	T 100 PC 14

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

Bare shaft INCA pumps

Selection

Hydraulic characteristics identical to those of INCA pumps; refer to the relevant section.

Type	Impeller diameter	Product code
INCA 50 - 25 - 125	121	T 100 PC 01
INCA 50 - 25 - 125	136	T 100 PC 02
INCA 50 - 25 - 160	150	T 100 PC 03
INCA 50 - 25 - 160	168	T 100 PC 04
INCA 50 - 25 - 200	188	T 100 PC 05
INCA 50 - 25 - 200	205	T 100 PC 06
INCA 50 - 25 - 250	222	T 100 PC 07
INCA 50 - 25 - 250	242	T 100 PC 08
INCA 50 - 25 - 250	256	T 100 PC 09
INCA 50 - 32 - 125	121	T 100 PC 10
INCA 50 - 32 - 125	136	T 100 PC 11
INCA 50 - 32 - 160	150	T 100 PC 12
INCA 50 - 32 - 160	168	T 100 PC 13
INCA 50 - 32 - 200	188	T 100 PC 14
INCA 50 - 32 - 200	205	T 100 PC 15
INCA 50 - 32 - 250	222	T 100 PC 16
INCA 50 - 32 - 250	242	T 100 PC 17
INCA 50 - 32 - 250	256	T 100 PC 18
INCA 65 - 40 - 125	112	T 100 PC 19
INCA 65 - 40 - 125	126	T 100 PC 20
INCA 65 - 40 - 125	143	T 100 PC 21
INCA 65 - 40 - 160	159	T 100 PC 22
INCA 65 - 40 - 160	171	T 100 PC 23
INCA 65 - 40 - 200	190	T 100 PC 24
INCA 65 - 40 - 200	209	T 100 PC 25
INCA 65 - 40 - 250	218	T 100 PC 26
INCA 65 - 40 - 250	233	T 100 PC 27
INCA 65 - 40 - 250	251	T 100 PC 28
INCA 65 - 50 - 125	119	T 100 PC 29
INCA 65 - 50 - 125	130	T 100 PC 30
INCA 65 - 50 - 125	139	T 100 PC 31
INCA 65 - 50 - 160	158	T 100 PC 32
INCA 65 - 50 - 160	174	T 100 PC 33
INCA 65 - 50 - 200	197	T 100 PC 34
INCA 65 - 50 - 200	209	T 100 PC 35
INCA 65 - 50 - 250	224	T 100 PC 36
INCA 65 - 50 - 250	237	T 100 PC 37
INCA 65 - 50 - 250	250	T 100 PC 38

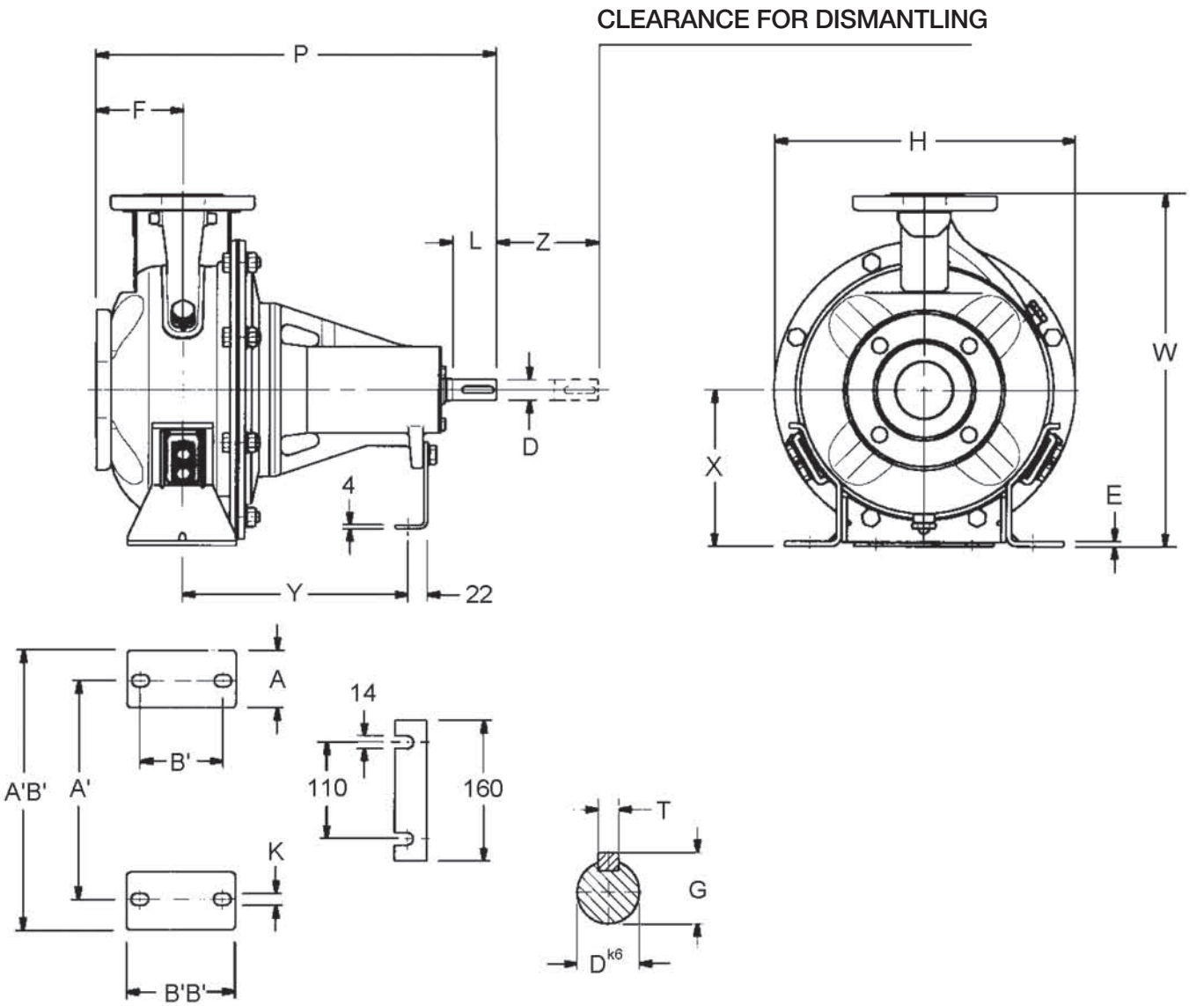
Type	Impeller diameter	Product code
INCA 80 - 65 - 160	119.5	T 100 PC 39
INCA 80 - 65 - 160	129	T 100 PC 40
INCA 80 - 65 - 160	137	T 100 PC 41
INCA 80 - 65 - 160	139.5	T 100 PC 42
INCA 80 - 65 - 160	168	T 100 PC 43
INCA 80 - 65 - 160	177	T 100 PC 44
INCA 80 - 65 - 200	187	T 100 PC 45
INCA 80 - 65 - 200	192	T 100 PC 46
INCA 80 - 65 - 200	203	T 100 PC 47
INCA 80 - 65 - 200	215	T 100 PC 48
INCA 80 - 65 - 200	222	T 100 PC 49
INCA 80 - 65 - 250	240	T 100 PC 50
INCA 80 - 65 - 250	255	T 100 PC 51
INCA 100 - 80 - 160	169	T 100 PC 52
INCA 100 - 80 - 160	177	T 100 PC 53
INCA 100 - 80 - 160	186	T 100 PC 54
INCA 100 - 80 - 200	198	T 100 PC 55
INCA 100 - 80 - 200	215	T 100 PC 56
INCA 100 - 80 - 200	220	T 100 PC 57
INCA 100 - 80 - 250	226	T 100 PC 58
INCA 100 - 80 - 250	237	T 100 PC 59
INCA 100 - 80 - 250	252	T 100 PC 60
INCA 100 - 80 - 250	270	T 100 PC 61

Bare shaft INCA pumps

Dimensions

Dimensions of bare shaft INCA pumps

Dimensions in millimetres



SHAFT END ACC. TO STANDARD UNI 6397
k6 TOLERANCE FOR DIAMETER D
KEY ACC. TO STANDARD UNI 6604

Bare shaft INCA pumps

Dimensions

Dimensions of bare shaft INCA pumps

Dimensions in millimetres

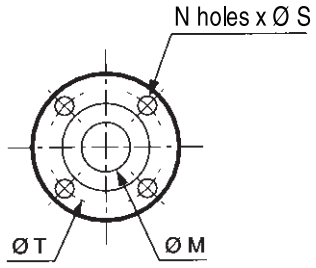
	Pumps																		Openings		Weigh
Type	A	A'	A'B'	B'	B'B'	D	E	F	G	H	K	L	P	T	W	X	Y	Z	Suct.	Disch.	kg
INCA 50 - 25 - 125	47	140	190	70	100	24	3	80	27	218	14	50	440	8	252	112	260	98	50	25	16
INCA 50 - 25 - 160	48	190	240	70	100	24	3	80	27	253	14	50	440	8	292	132	260	98	50	25	18
INCA 50 - 25 - 200	47	190	240	70	100	24	3	80	27	285	14	50	440	8	340	160	260	98	50	25	20
INCA 50 - 25 - 250	54	250	320	95	125	24	6	100	27	345	14	50	460	8	405	180	260	98	50	25	36
INCA 50 - 32 - 125	47	140	190	70	100	24	3	80	27	218	14	50	440	8	252	112	260	98	50	32	16
INCA 50 - 32 - 160	48	190	240	70	100	24	3	80	27	253	14	50	440	8	292	132	260	98	50	32	18
INCA 50 - 32 - 200	47	190	240	70	100	24	3	80	27	285	14	50	440	8	340	160	260	98	50	32	20
INCA 50 - 32 - 250	54	250	320	95	125	24	6	100	27	345	14	50	460	8	405	180	260	98	50	32	36
INCA 65 - 40 - 125	47	160	210	70	100	24	3	80	27	219	14	50	440	8	252	112	260	100	65	40	17
INCA 65 - 40 - 160	48	190	240	70	100	24	3	80	27	254	14	50	440	8	292	132	260	100	65	40	18
INCA 65 - 40 - 200	50	212	265	70	100	24	3	100	27	285	14	50	460	8	340	160	260	100	65	40	20
INCA 65 - 40 - 250	54	250	320	95	125	24	6	100	27	345	14	50	460	8	405	180	260	100	65	40	36
INCA 65 - 50 - 125	48	190	240	70	100	24	3	100	27	254	14	50	460	8	292	132	260	100	65	50	18
INCA 65 - 50 - 160	48	212	265	70	100	24	3	100	27	255	14	50	460	8	340	160	260	100	65	50	19
INCA 65 - 50 - 200	50	212	265	70	100	24	6	100	27	310	14	50	460	8	360	160	260	100	65	50	30
INCA 65 - 50 - 250	54	250	320	95	125	24	6	100	27	345	14	50	460	8	405	180	260	100	65	50	36
INCA 80 - 65 - 160	48	212	280	95	125	24	6	100	27	310	14	50	460	8	360	160	260	100	80	65	21
INCA 80 - 65 - 200	65	250	320	95	125	24	15	100	27	310	14	50	460	8	405	180	260	100	80	65	31
INCA 80 - 65 - 250	80	280	360	120	160	32	18	100	35	345	18	80	570	10	450	200	340	130	80	65	42
INCA 100 - 80 - 160	54	250	320	95	125	24	6	125	27	345	14	50	485	8	405	180	260	140	100	80	22
INCA 100 - 80 - 200	65	280	345	95	125	32	15	125	35	345	14	80	595	10	430	180	340	140	100	80	37
INCA 100 - 80 - 250	80	315	400	120	160	32	21	125	35	384	18	80	595	10	480	200	340	140	100	80	43

Bare shaft INCA pumps

Dimensions

Dimensions of bare shaft INCA pump flanges

Dimensions in millimetres



Type	Suction				Discharge			
	∅M	N	∅S	∅T	∅M	N	∅S	∅T
INCA 50 - 25	50	4	19	125	25	4	14.5	85
INCA 50 - 32	50	4	19	125	32	4	19	100
INCA 65 - 40	65	4	19	145	40	4	19	110
INCA 65 - 50	65	4	19	145	50	4	19	125
INCA 80 - 65	80	8	19	160	65	4	19	145
INCA 100 - 80	100	8	19	180	80	8	19	160

LSMH
Pumps

General information

Horizontal multistage centrifugal pumps

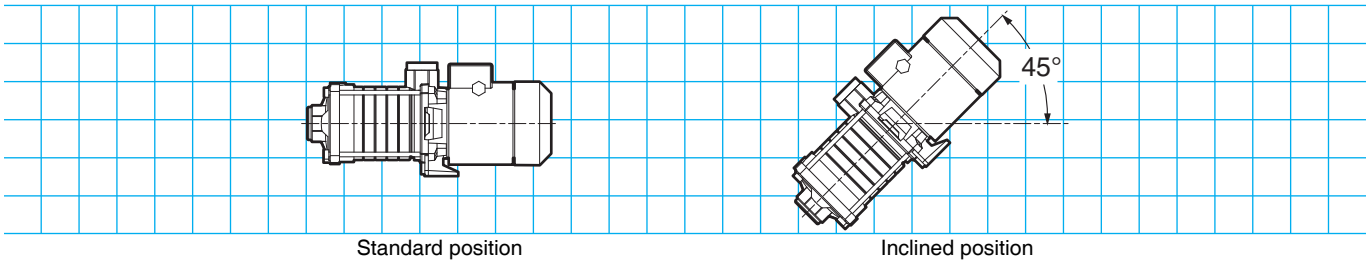
Applications
- Domestic use
- Small-scale irrigation
- Decanting
- Sprinkler systems
- Industry (circulation, transfer, etc.)
- Cooling

Conditions of use
- For clear or very slightly contaminated liquids (maximum content of solid particles in suspension: 50 g/m^3)
- Temperature of pumped liquid between –15°C and 90°C
- Maximum ambient temperature: 40°C
- Maximum operating pressure: 10 bar
- Maximum suction pressure: 6 bar
- Maximum manometric suction head: 7 m
- Motor electrical power supply:
  - Single phase 230 V ± 10% - 50 Hz
  - 3-phase 230/400 V ± 10% - 50 Hz

Description of LSMH pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- Single phase 230 V ± 10% - 50 Hz with built-in automatic reset thermal protection - 3-phase 230/400 V ± 10% - 50 Hz - Class F - S1 duty - IP 54 protection
Suction and discharge body	FGL 250	
Impellers	X5 Cr Ni 18.9 (AISI 304) stainless steel	
Stage bodies	X5 Cr Ni 18.9 (AISI 304) stainless steel	
Pump shaft	Stainless steel	
Stage centring device	X5 Cr Ni 18.9 (AISI 304) stainless steel	
Mechanical seal	Carbon/silicon carbide, ethylene propylene (EPDM) seals	
"O" ring seals	Ethylene propylene (EPDM)	
Mounting support bearing	FGL 250	

Mounting positions



Standard position

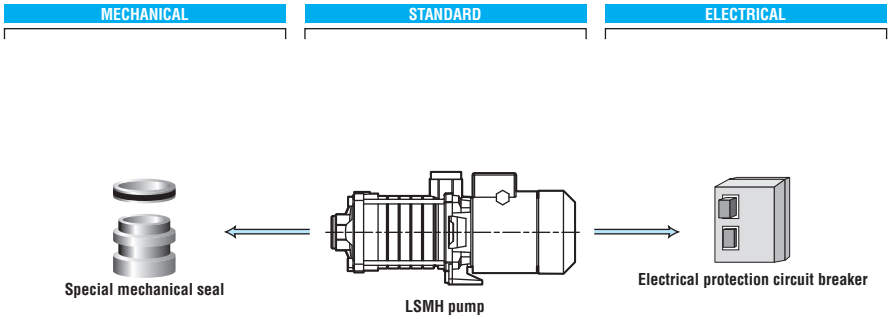
Inclined position

LSMH
Pumps

Adaptation possibilities

☞ ***Options:***

- electrical protection (circuit breaker)
- special mechanical seal



C

Designation / Coding

LSMH	2	4	T
Designation of the series	Rated flow of the pump	Number of hydraulic stages	3-phase

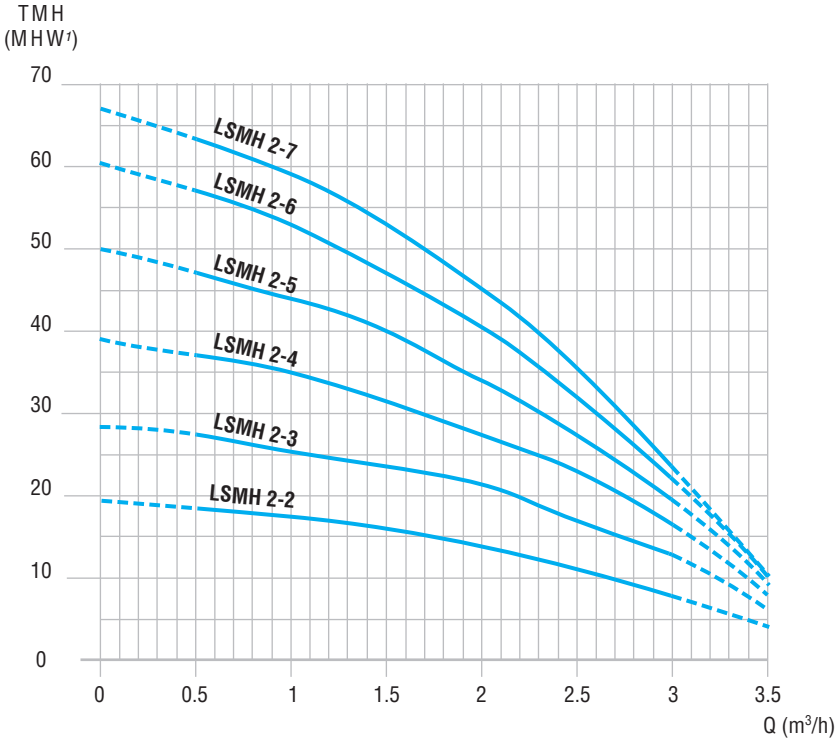
☞ ***Example of coding:***

Designation	Code
LSMH 2-4 T	T 152 PC 06

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

LSMH
Pumps

Selection



INDUSTRY

C

Rated flow: 2 m³/h

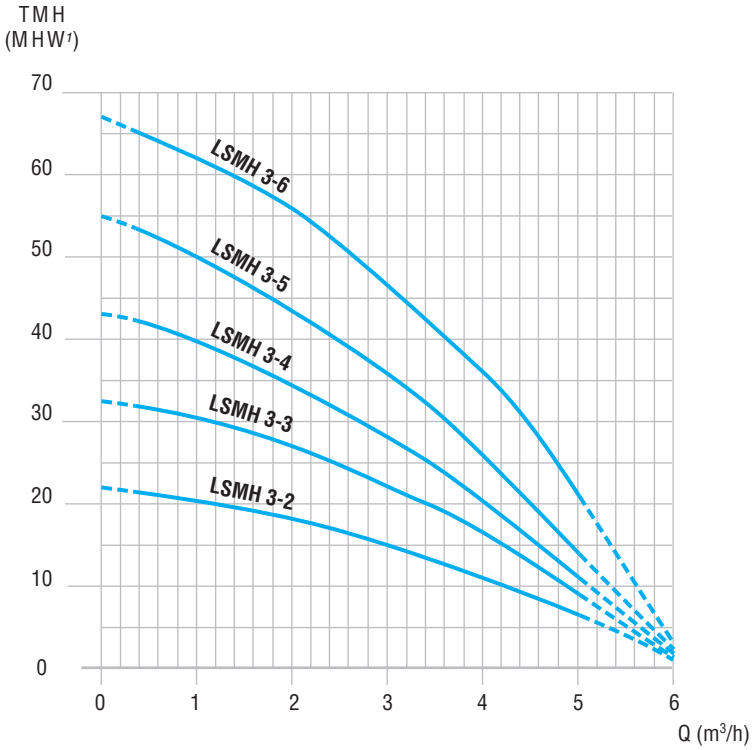
Type	Product code	Flow rate in m³/h	0	0.5	1	1.5	**2**	2.5	3
LSMH 2-2 M	T 152 PC 01	TMH in MHW[1]	19.5	18.5	17.5	16	**14**	11	8
LSMH 2-2 T	T 152 PC 02		19.5	18.5	17.5	16	**14**	11	8
LSMH 2-3 M	T 152 PC 03		28.5	27.5	25.5	23.5	**21.5**	17	13
LSMH 2-3 T	T 152 PC 04		28.5	27.5	25.5	23.5	**21.5**	17	13
LSMH 2-4 M	T 152 PC 05		39	37	35	31.5	**27.5**	23	16.5
LSMH 2-4 T	T 152 PC 06		39	37	35	31.5	**27.5**	23	16.5
LSMH 2-5 M	T 152 PC 07		50	47	44	40	**34**	27.5	19.5
LSMH 2-5 T	T 152 PC 08		50	47	44	40	**34**	27.5	19.5
LSMH 2-6 M	T 152 PC 09		60.5	57	53	47	**40.5**	32	22
LSMH 2-6 T	T 152 PC 10		60.5	57	53	47	**40.5**	32	22
LSMH 2-7 M	T 152 PC 11		67	63.5	59	53	**45**	35.5	23.5
LSMH 2-7 T	T 152 PC 12		67	63.5	59	53	**45**	35.5	23.5

kW	Current in A		
Output	1-ph 230 V	3-ph 230 V	3-ph 400 V
0.55	4	-	-
0.55	-	3	1.7
0.55	4	-	-
0.55	-	3	1.7
0.55	4	-	-
0.55	-	3	1.7
0.55	4	-	-
0.55	-	3	1.7
0.55	4	-	-
0.55	-	3	1.7
0.55	4	-	-
0.55	-	3	1.7

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

LSMH
Pumps

Selection



Rated flow: 3 m³/h

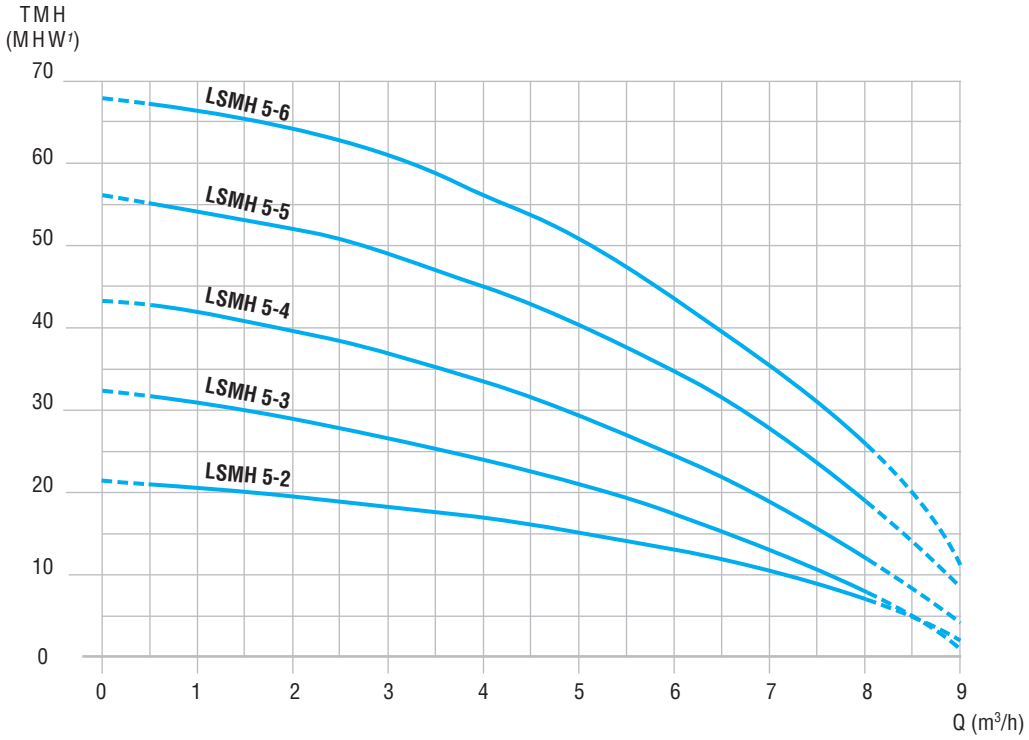
Type	Product code	Flow rate in m³/h	0	1	2	**3**	4	5
LSMH 3-2 M	T 152 PC 13	TMH in MHW1	22	20.5	18	**15**	11	6.5
LSMH 3-2 T	T 152 PC 14		22	20.5	18	**15**	11	6.5
LSMH 3-3 M	T 152 PC 15		32.5	30.5	27	**22**	16.5	9
LSMH 3-3 T	T 152 PC 16		32.5	30.5	27	**22**	16.5	9
LSMH 3-4 M	T 152 PC 17		43	40	34.5	**28**	20.5	11
LSMH 3-4 T	T 152 PC 18		43	40	34.5	**28**	20.5	11
LSMH 3-5 M	T 152 PC 19		54.5	50	43.5	**36**	26	14
LSMH 3-5 T	T 152 PC 20		54.5	50	43.5	**36**	26	14
LSMH 3-6 M	T 152 PC 21		67	62	56	**46.5**	36	21
LSMH 3-6 T	T 152 PC 22		67	62	56	**46.5**	36	21

kW	Current in A		
Output	1-ph 230 V	3-ph 230 V	3-ph 400 V
0.55	4	-	-
0.55	-	3	1.7
0.55	4	-	-
0.55	-	3	1.7
0.55	4	-	-
0.55	-	3	1.7
0.75	5.1	-	-
0.75	-	3.6	2.1
1.1	7.2	-	-
1.1	-	5.3	3.1

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

LSMH
Pumps

Selection



Rated flow: 5 m³/h

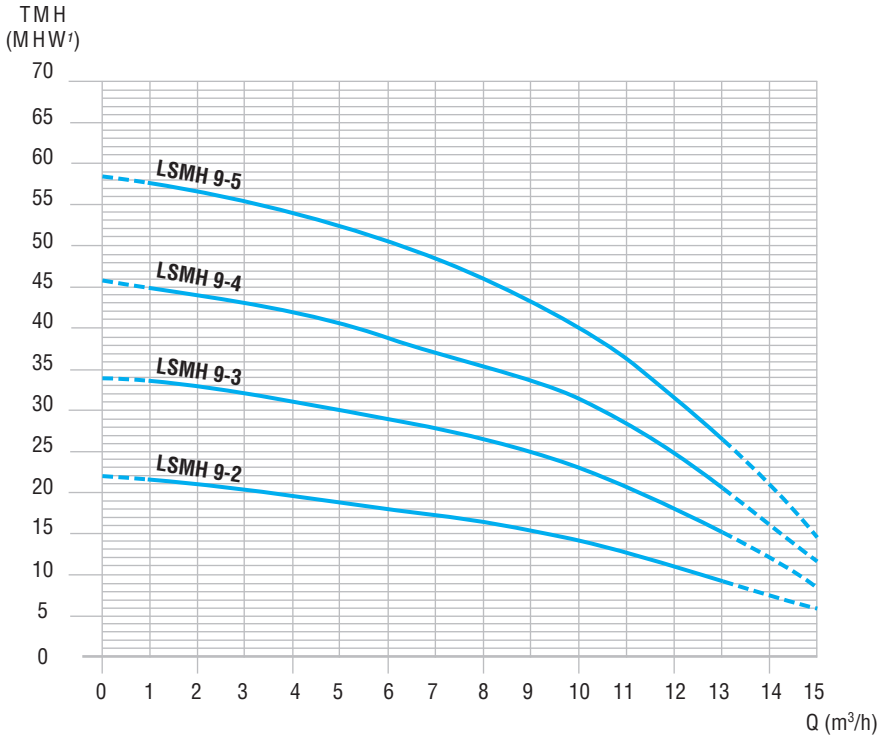
Type	Product code	Flow rate in m³/h	0	1	2	3	4	**5**	6	7	8
LSMH 5-2 M	T 152 PC 23	TMH in MHW¹	21.5	20.5	19.5	18	17	**15**	13	10.5	7
LSMH 5-2 T	T 152 PC 24		21.5	20.5	19.5	18	17	**15**	13	10.5	7
LSMH 5-3 M	T 152 PC 25		32.5	31	29	26.5	24	**21**	17.5	13	8
LSMH 5-3 T	T 152 PC 26		32.5	31	29	26.5	24	**21**	17.5	13	8
LSMH 5-4 M	T 152 PC 27		43.5	42	39.5	37	33.5	**29.5**	24.5	19	12
LSMH 5-4 T	T 152 PC 28		43.5	42	39.5	37	33.5	**29.5**	24.5	19	12
LSMH 5-5 M	T 152 PC 29		56	54	52	49	45	**40.5**	34.5	28	19
LSMH 5-5 T	T 152 PC 30		56	54	52	49	45	**40.5**	34.5	28	19
LSMH 5-6 M	T 152 PC 31		68	66.5	64	61	56	**51**	43.5	35.5	26
LSMH 5-6 T	T 152 PC 32		68	66.5	64	61	56	**51**	43.5	35.5	26

kW	Current in A		
Output	1-ph 230 V	3-ph 230 V	3-ph 400 V
0.55	4	-	-
0.55	-	3	1.7
0.55	4	-	-
0.55	-	3	1.7
0.75	5.1	-	-
0.75	-	3.6	2.1
1.1	7.2	-	-
1.1	-	5.3	3.1
1.5	9.2	-	-
1.5	-	6.6	3.8

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

LSMH
Pumps

Selection



Rated flow: 9 m³/h

Type	Product code	Flow rate in m³/h	0	2	4	6	**8**	**10**	12	14
LSMH 9-2 M	T 152 PC 33	TMH in MHW[1]	22	21	19.5	18	**16.5**	**14**	11	7.5
LSMH 9-2 T	T 152 PC 34		22	21	19.5	18	**16.5**	**14**	11	7.5
LSMH 9-3 M	T 152 PC 35		34	33	31	29	**26.5**	**23**	18	12
LSMH 9-3 T	T 152 PC 36		34	33	31	29	**26.5**	**23**	18	12
LSMH 9-4 M	T 152 PC 37		46	44	42	39	**35.5**	**31.5**	25	16
LSMH 9-4 T	T 152 PC 38		46	44	42	39	**35.5**	**31.5**	25	16
LSMH 9-5 T	T 152 PC 39		58.5	56.5	54	50.5	**46**	**40**	31.5	21

kW	Current in A		
Output	1-ph 230 V	3-ph 230 V	3-ph 400 V
0.75	5.1	-	-
0.75	-	3.6	2.1
1.1	7.2	-	-
1.1	-	5.3	3.1
1.5	9.2	-	-
1.5	-	6.6	3.8
1.85	-	8.55	4.95

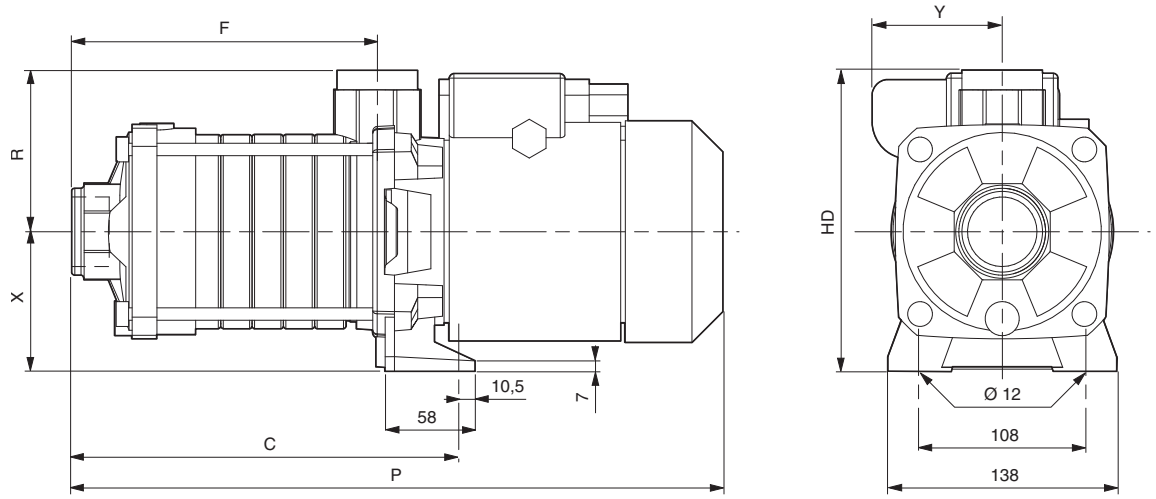
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

LSMH
Pumps

Dimensions

Dimensions of LSMH pumps

Dimensions in millimetres



Type	Pumps							Openings		Weight
	C	F	HD	P	R	X	Y	Suction	Discharge	kg
LSHM 2-2 M	156	103	190	321	104	90	81			10.6
LSMH 2-2 T	156	103	190	321	104	90	81			10.6
LSMH 2-3 M	176	123	190	341	104	90	81			11.2
LSMH 2-3 T	176	123	190	341	104	90	81			11.2
LSMH 2-4 M	197	143	190	362	104	90	81			11.8
LSMH 2-4 T	197	143	190	362	104	90	81	1" F	1" F	11.8
LSMH 2-5 M	217	163	190	382	104	90	81	(26/34)	(26/34)	12.4
LSMH 2-5 T	217	163	190	382	104	90	81			12.4
LSMH 2-6 M	237	184	190	402	104	90	81			13
LSMH 2-6 T	237	184	190	402	104	90	81			13
LSMH 2-7 M	257	204	190	422	104	90	81			13.6
LSMH 2-7 T	257	204	190	422	104	90	81			13.6
LSMH 3-2 M	167	114	190	332	104	90	81			10.8
LSMH 3-2 T	167	114	190	332	104	90	81			10.8
LSMH 3-3 M	191	138	190	356	104	90	81			11.5
LSMH 3-3 T	191	138	190	356	104	90	81			11.5
LSMH 3-4 M	216	162	190	381	104	90	81	1" F	1" F	12.5
LSMH 3-4 T	216	162	190	381	104	90	81	(26/34)	(26/34)	12.5
LSMH 3-5 M	240	186	216	409	104	90	106			17.8
LSMH 3-5 T	240	186	192	409	104	90	106			17.8
LSMH 3-6 M	264	211	224	458	104	90	106			17.6
LSMH 3-6 T	264	211	192	433	104	90	106			18.8
LSMH 5-2 M	167	114	190	332	104	90	81			10.9
LSMH 5-2 T	167	114	190	332	104	90	81			10.9
LSMH 5-3 M	191	138	190	356	104	90	81			11.6
LSMH 5-3 T	191	138	190	356	104	90	81			11.6
LSMH 5-4 M	216	162	216	394	104	90	106	1"1/4 F	1" F	17.1
LSMH 5-4 T	216	162	192	394	104	90	106	(33/42)	(26/34)	17.1
LSMH 5-5 M	240	186	224	434	104	90	106			16.7
LSMH 5-5 T	240	186	192	409	104	90	106			17.9
LSMH 5-6 M	264	211	224	458	104	90	106			17.7
LSMH 5-6 T	264	211	206	458	104	90	106			17.7
LSMH 9-2 M	173	120	216	342	104	90	106			15.5
LSMH 9-2 T	173	120	192	342	104	90	106			15.5
LSMH 9-3 M	203	150	224	397	104	90	106	1"1/2 F	1"1/4 F	14.6
LSMH 9-3 T	203	150	192	373	104	90	106	(40/49)	(33/42)	16.6
LSMH 9-4 M	234	180	224	429	104	90	106			16.7
LSMH 9-4 T	234	180	206	429	104	90	106			16.7
LSMH 9-5 T	264	210	206	459	104	90	106			17.5

MIH INDUS
Pumps

General information

Horizontal multistage centrifugal pumps, constructed entirely of X2 Cr Ni Mo 17.12.2 (AISI 316 L) stainless steel

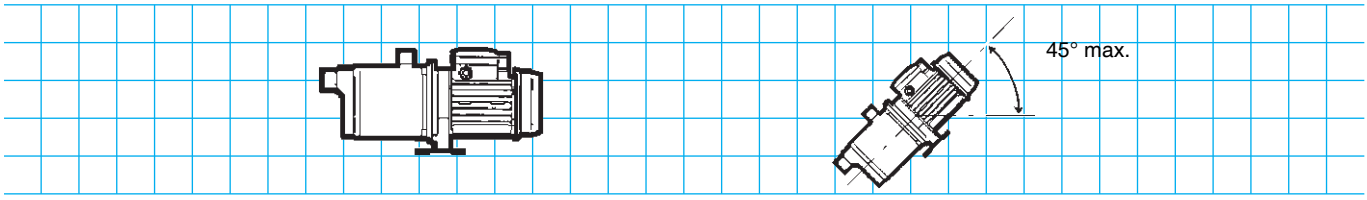
Applications
- Industry (circulation, transfer, etc.)
- Sprinkler systems
- Cooling
- Water treatment (demineralisation, etc.)

Conditions of use
- For clear or very slightly contaminated liquids (maximum content of solid particles in suspension: 50 g/m^3)
- Temperature of pumped liquid between –10°C and 110°C
- Maximum ambient temperature: 40°C
- Maximum operating pressure: 8 bar
- Maximum manometric suction head: 8 m
- Motor electrical power supply:
  - Single phase 230 V ± 10% - 50 Hz
  - 3-phase 230/400 V ± 10% - 50 Hz

Description of MIH INDUS pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- Single phase 230 V ± 10% - 50 Hz with built-in automatic reset thermal protection - 3-phase 230/400 V ± 10% - 50 Hz - Class F - S1 duty - IP 55 protection
Pump body	X2 Cr Ni Mo 17.12.2 (AISI 316L) stainless steel	
Impellers	X2 Cr Ni Mo 17.12.2 (AISI 316L) stainless steel	
Diffusers, stage bodies and base	X2 Cr Ni Mo 17.12.2 (AISI 316L) stainless steel	
Shaft	X2 Cr Ni Mo 17.12.2 (AISI 316L) stainless steel	
Mechanical seal	Graphite/ceramic, ethylene propylene (EPDM) seals	
Seals	Ethylene propylene (EPDM)	

Mounting positions



Standard position

Inclined position

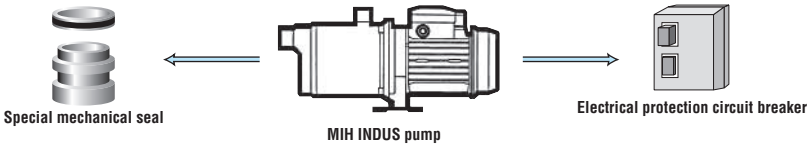
MIH INDUS
Pumps

Adaptation possibilities

☞ ***Options:***

- electrical protection (circuit breaker)
- special mechanical seal

MECHANICAL	STANDARD	ELECTRICAL



C

Designation / Coding

MIH	2	4	T	INDUS
Designation of the series	Rated flow of the pump	Number of hydraulic stages	3-phase	Type of construction

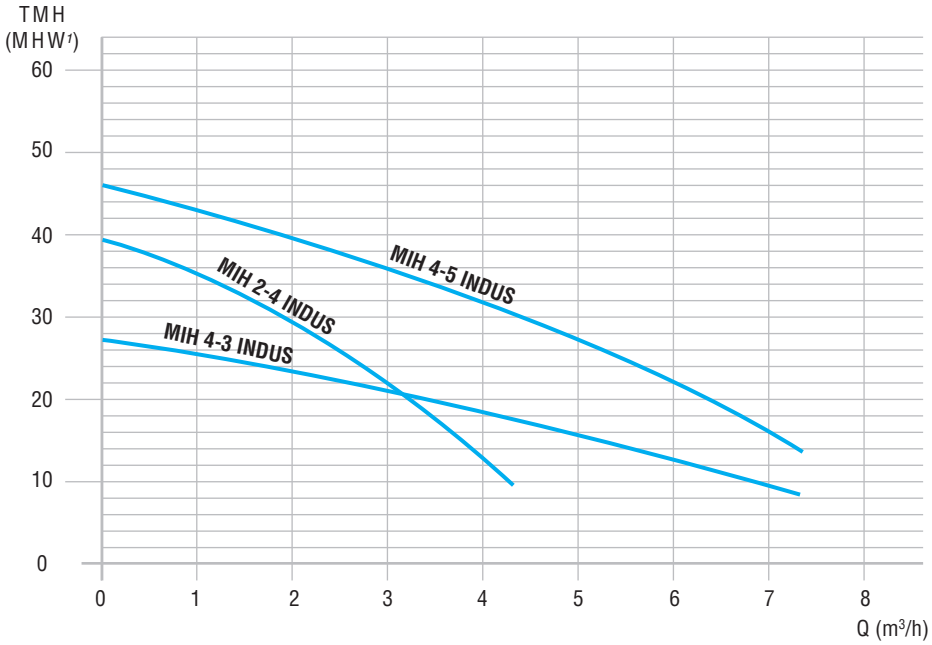
☞ ***Example of coding:***

Designation	Code
MIH 2-4 T INDUS	T 150 PC 08

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

MIH INDUS
Pumps

Selection



Rated flow: 2 to 4 m³/h

Type	Product code	Flow rate in m³/h	0	1	**2**	3	**4**	5	6	7	kW Output	Current in A 1-ph 230 V	3-ph 230 V	3-ph 400 V
MIH 2-4 M INDUS	T 150 PC 07	TMH in MHW[1]	39	35	**29**	22	13	-	-	-	0.45	3.2	-	-
MIH 2-4 T INDUS	T 150 PC 08		39	35	**29**	22	13	-	-	-	0.45	-	2.1	1.2
MIH 4-3 M INDUS	T 150 PC 09		27	25	23	21	**19**	16	13	10	0.45	2.7	-	-
MIH 4-3 T INDUS	T 150 PC 10		27	25	23	21	**19**	16	13	10	0.45	-	2	1.2
MIH 4-5 M INDUS	T 150 PC 11		46	42	39	35	**31**	27	22	16	0.75	5	-	-
MIH 4-5 T INDUS	T 150 PC 12		46	42	39	35	**31**	27	22	16	0.75	-	3.5	2

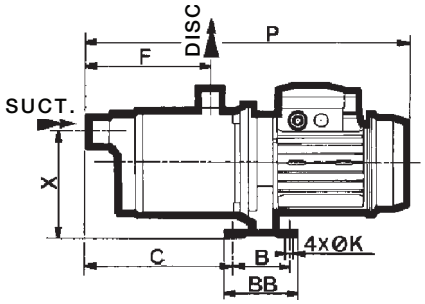
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

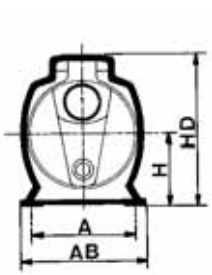
MIH INDUS
Pumps

Dimensions

Dimensions of MIH INDUS pumps

Dimensions in millimetres





Type	Pumps											Openings		Weight
	A	AB	B	BB	C	F	H	HD	ØK	P	X	Suction	Discharge	kg
MIH 2-4	125	152	66	86	146	121	88	199	9	370	125	1"1/4 F (33/42)	1" F (26/34)	7.5
MIH 4-3	125	152	66	86	146	121	88	199	9	370	125			7.5
MIH 4-5	125	152	66	86	196	171	88	209	9	434	125			10

MIV 3 - 5 - 8 - 16
Pumps

General information

Vertical multistage centrifugal pumps.
Stainless steel hydraulic unit.

Applications
- Industry (circulation, cooling, transfer)
- Irrigation, sprinkler systems
- Water supply, pressure boosting
- Fire protection
- Water treatment (filtration)

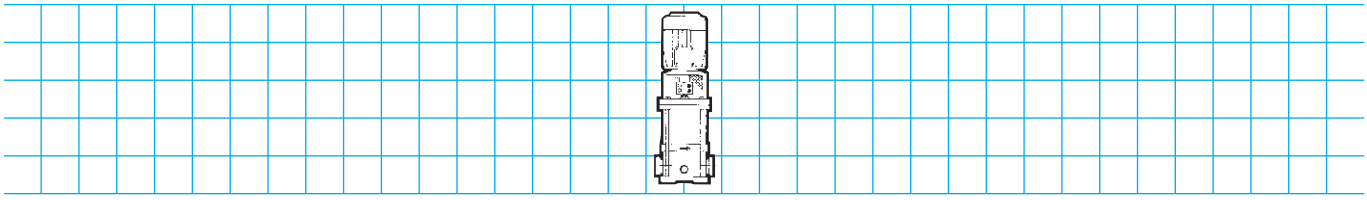
Conditions of use
- For clear or very slightly contaminated liquids (maximum content of solid particles in suspension 50 g/m^3)
- Temperature of pumped liquid between –15°C and 120°C
- Maximum ambient temperature: 40°C
- Maximum operating pressure:
  • 16 or 25 bar depending on the model
- Maximum suction pressure: 10 bar
- Maximum manometric suction head: 8 m
- Motor electrical power supply:
  • 3-phase 230/400 V ± 10% - 50 Hz up to 4 kW inclusive
  • 3-phase Δ 400 V ± 10% - 50 Hz for higher powers

Description of MIV pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- 3-phase 230/400 V ± 10% - 50 Hz up to 4 kW inclusive - 3-phase Δ 400 V ± 10% - 50 Hz for higher powers - Class F - S1 duty - V18 standard - IP 55 protection
Suction and discharge body	X5 Cr Ni 18.9 (AISI 304) stainless steel	
Impellers, diffusers	X5 Cr Ni 18.9 (AISI 304) stainless steel	
Stage bodies	X5 Cr Ni 18.9 (AISI 304) stainless steel	
External casing and base	X5 Cr Ni 18.9 (AISI 304) stainless steel	
Pump shaft	X2 Cr Ni Mo 17.12.2 (AISI 316L) stainless steel	
Intermediate bearing	Tungsten carbide	
Mechanical seal	Carbon/silicon carbide Ethylene propylene DM seal	
'O' ring seal	Ethylene propylene	
Pump mounting plate Motor support U-mount	FGL 250 cast iron	
Coupling	Aluminium alloy	
Flange adaptor	PN 16 cast iron oval for: MIV 3.2 to MIV 3.12 MIV 5.2 to MIV 5.12 MIV 8.2 to MIV 8.12 MIV 16.2 to MIV 16.11 PN 25 steel round for: MIV 3.14 to MIV 3.20 MIV 5.14 to MIV 5.19 MIV 8.14 to MIV 8.19	- Electropumps supplied **with flange adaptor** for screw-in tube, seal and screws - Electropumps supplied with seals and bolts **with no flange adaptor**

MIV 3 - 5 - 8 - 16
Pumps

Mounting position



Only possibility

C

MIV 3 - 5 - 8 - 16
Pumps

Adaptation possibilities

☞ ***MIV pumps can be used in conjunction with:***

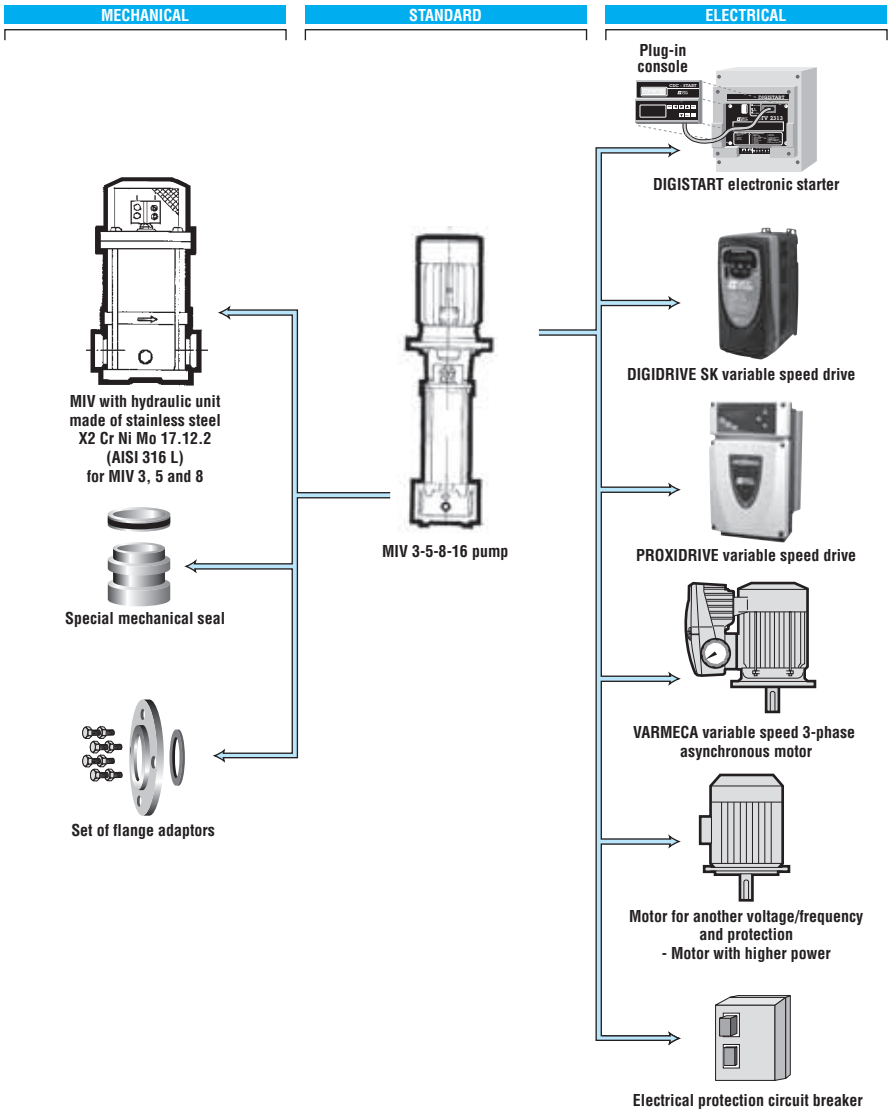
- a DIGISTART electronic starter
- DIGIDRIVE SK and PROXIDRIVE variable speed drives

- VARMECA variable speed 3-phase asynchronous motor (up to 11 kW)

☞ ***Options:***

- electrical protection (circuit breaker)
- stainless steel hydraulic unit X2 Cr Ni Mo 17.12.2 (AISI 316L) (only available with PN 25 body with round flanges) for types MIV 3, 5 and 8
- motor with another voltage and/or frequency
- motor with higher power
- special mechanical seal
- set of flange adaptors (for PN 25 body with round flanges)

Steel PN 25 round flange adaptors	
• Nominal diameter (ND) 25	T 000 AM 14
• Nominal diameter (ND) 32	T 000 AM 15
• Nominal diameter (ND) 40	T 000 AM 16
• Nominal diameter (ND) 50	T 000 AM 40



Designation / Coding

MIV	3	5	T
Designation of the series	Rated flow of the pump	Number of stages hydraulic	3-phase

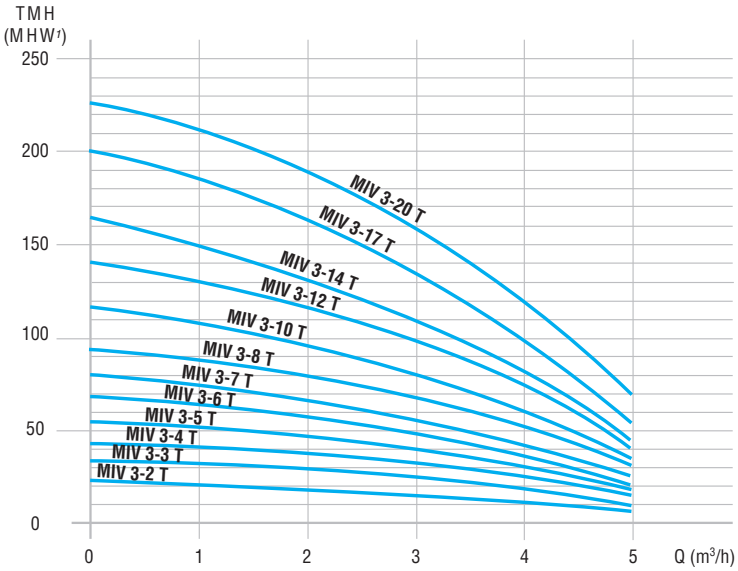
☞ ***Example of coding:***

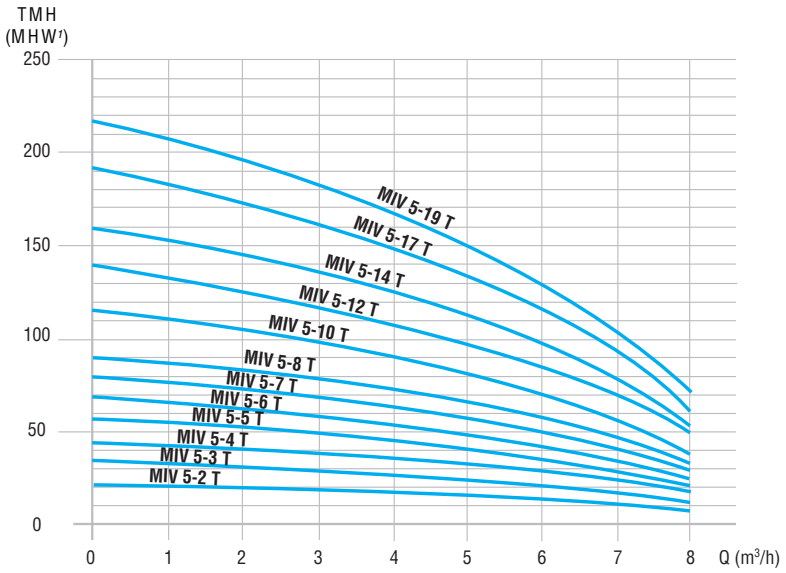
Designation	Code
MIV - 3.5 T	T 094 PC 34

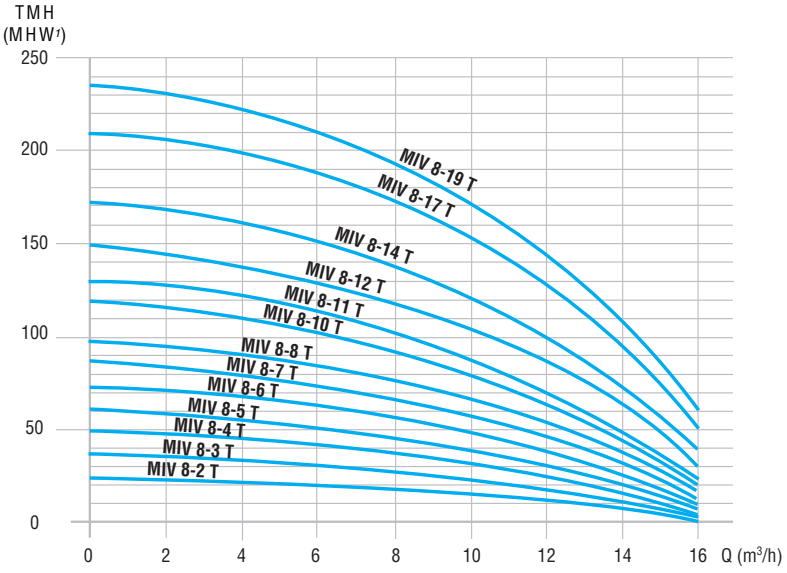
All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

MIV 3 - 5 - 8 - 16
Pumps

Selection







MIV 3 - 5 - 8 - 16
Pumps

Selection

Rated flow: 3 m³/h

Type	Product code	Flow rate in m³/h	0	1	2	**3**	4	5	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
MIV - 3.2 T	T 094 PC 31	TMH in MHW[1]	24	22	20	**18**	15	8	0.37	1.6	0.95
MIV - 3.3 T	T 094 PC 32		36	30	28	**24**	20	10	0.55	2.3	1.35
MIV - 3.4 T	T 094 PC 33		44	42	38	**30**	25	12	0.75	2.9	1.7
MIV - 3.5 T	T 094 PC 34		59	52	47	**40**	30	15	0.75	2.9	1.7
MIV - 3.6 T	T 094 PC 35		70	64	57	**48**	37	20	1.1	4	2.3
MIV - 3.7 T	T 094 PC 36		82	76	68	**55**	42	22	1.1	4	2.3
MIV - 3.8 T	T 094 PC 37		95	90	80	**70**	50	28	1.5	5.7	3.3
MIV - 3.10 T	T 094 PC 38		118	110	97	**80**	59	32	1.5	5.7	3.3
MIV - 3.12 T	T 094 PC 39		142	130	116	**99**	74	40	1.8	7.1	4.1
MIV - 3.14 T	T 094 PC 40		165	150	136	**112**	83	43	2.2	8	4.6
MIV - 3.17 T	T 094 PC 41		200	188	165	**139**	101	52	3	10.9	6.3
MIV - 3.20 T	T 094 PC 42		232	215	191	**161**	120	63	4	14.2	8.2

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

Rated flow: 5 m³/h

Type	Product code	Flow rate in m³/h	0	1	2	3	4	**5**	6	7	8	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
MIV - 5.2 T	T 094 PC 43	TMH in MHW[1]	22	21	20.5	20	19	**15**	12	10	8	0.55	2.3	1.35
MIV - 5.3 T	T 094 PC 44		32	30	29	27	26	**22**	20	16	10	0.75	2.9	1.7
MIV - 5.4 T	T 094 PC 45		44	43	41	40	35	**30**	26	21	13	1.1	4	2.3
MIV - 5.5 T	T 094 PC 46		58	55	51	49	43	**40**	32	24	18	1.1	4	2.3
MIV - 5.6 T	T 094 PC 47		69	67	63	60	52	**48**	41	32	22	1.5	5.7	3.3
MIV - 5.7 T	T 094 PC 48		80	77	72	69	62	**56**	47	38	27	1.5	5.7	3.3
MIV - 5.8 T	T 094 PC 49		90	87	84	80	71	**65**	55	44	32	1.8	7.1	4.1
MIV - 5.10 T	T 094 PC 50		114	110	105	100	90	**80**	67	51	37	2.2	8	4.6
MIV - 5.12 T	T 094 PC 51		138	131	127	120	109	**99**	83	68	47	3	10.9	6.3
MIV - 5.14 T	T 094 PC 52		160	153	147	138	125	**110**	95	78	50	3	10.9	6.3
MIV - 5.17 T	T 094 PC 53		193	185	175	165	150	**136**	116	90	60	4	14.2	8.2
MIV - 5.19 T	T 094 PC 54		217	208	197	183	169	**150**	129	101	68	4	14.2	8.2

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

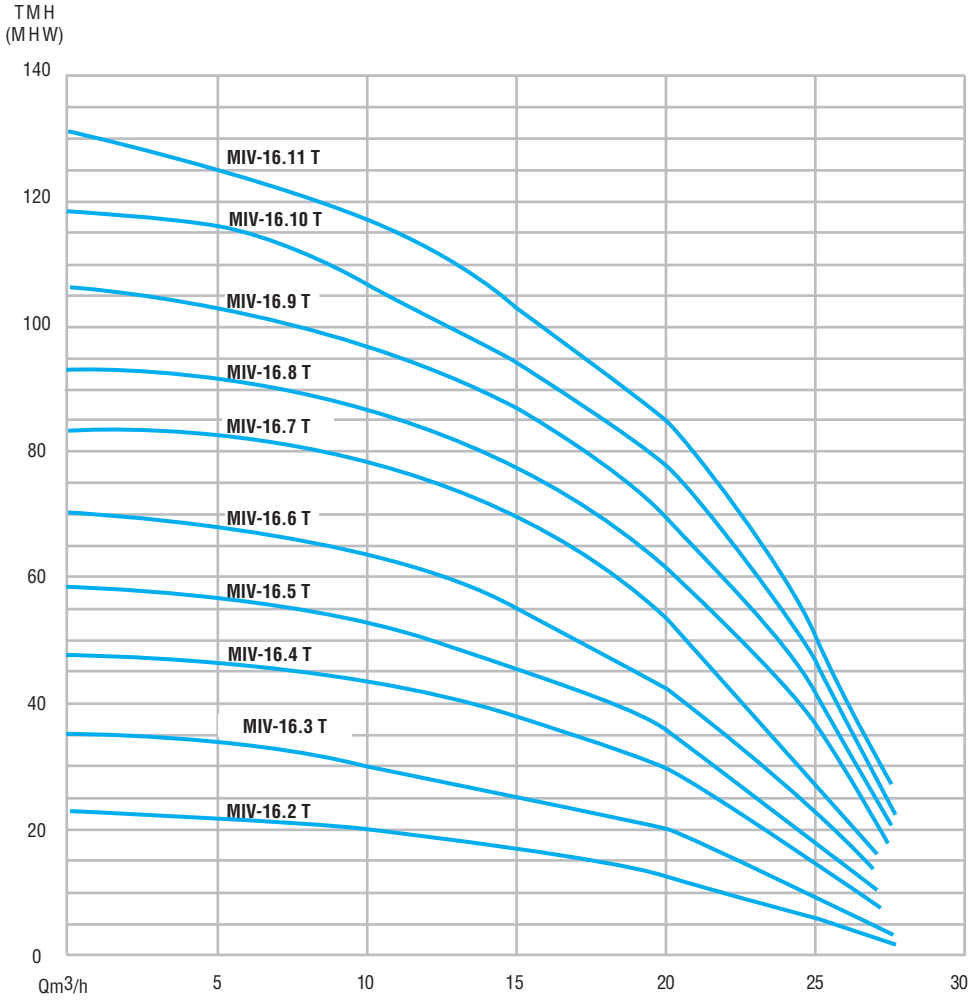
Rated flow: 8 m³/h

Type	Product code	Flow rate in m³/h	0	2	4	6	**8**	10	12	14	16	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
MIV - 8.2 T	T 094 PC 55	TMH in MHW[1]	24	22	21	20	**18**	15	11	8	3	0.75	2.9	1.7
MIV - 8.3 T	T 094 PC 56		37	33	31	30	**28**	23	19	12	5	1.1	4	2.3
MIV - 8.4 T	T 094 PC 57		49	47	45	41	**37**	31	26	17	6	1.5	5.7	3.3
MIV - 8.5 T	T 094 PC 58		61	60	58	52	**48**	40	30	21	10	1.8	7.1	4.1
MIV - 8.6 T	T 094 PC 59		72	70	67	62	**56**	49	39	27	12	2.2	8	4.6
MIV - 8.7 T	T 094 PC 60		83	82	79	72	**67**	58	47	32	15	3	10.9	6.3
MIV - 8.8 T	T 094 PC 61		98	94	90	83	**75**	66	53	37	18	3	10.9	6.3
MIV - 8.10 T	T 094 PC 62		119	116	110	103	**92**	80	64	43	20	4	14.2	8.2
MIV - 8.11 T	T 094 PC 63		131	128	123	114	**103**	90	71	50	26	4	14.2	8.2
MIV - 8.12 T	T 094 PC 64		148	144	139	130	**120**	105	88	62	34	5.5	-	10.9
MIV - 8.14 T	T 094 PC 65		171	169	161	151	**139**	121	100	71	40	5.5	-	10.9
MIV - 8.17 T	T 094 PC 66		209	203	197	190	**175**	156	129	91	52	7.5	-	13.6
MIV - 8.19 T	T 094 PC 67		235	229	219	209	**194**	172	142	103	58	7.5	-	13.6

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

MIV 3 - 5 - 8 - 16
Pumps

Selection



MIV 3 - 5 - 8 - 16
Pumps

Selection

Rated flow: 16 m³/h

Type	Product code	Flow rate in m³/h	0	5	10	12	16	18	20	25	28	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
MIV - 16.2 T	T 096 PC 01	TMH in MHW[1]	23	22	20	19	**17**	**15**	13	6	1	1.5	5.9	3.4
MIV - 16.3 T	T 096 PC 02		35	33	30	28	**25**	**23**	20	10	3	2.2	7.4	4.3
MIV - 16.4 T	T 096 PC 03		48	46	43	41	**37**	**34**	30	17	8	3	11.1	6.4
MIV - 16.5 T	T 096 PC 04		59	57	53	50	**45**	**41**	37	21	9	4	13.7	7.9
MIV - 16.6 T	T 096 PC 05		70	68	63	60	**53**	**49**	45	25	11	4	13.7	7.9
MIV - 16.7 T	T 096 PC 06		83	81	75	72	**65**	**60**	54	32	16	5.5	-	10.5
MIV - 16.8 T	T 096 PC 07		94	92	86	82	**73**	**68**	61	36	18	5.5	-	10.5
MIV - 16.9 T	T 096 PC 08		106	104	97	93	**83**	**78**	70	42	21	7.5	-	14.6
MIV - 16.10 T	T 096 PC 09		118	116	107	103	**92**	**86**	78	47	23	7.5	-	14.6
MIV - 16.11 T	T 096 PC 10		130	127	118	113	**101**	**94**	85	51	26	7.5	-	14.6

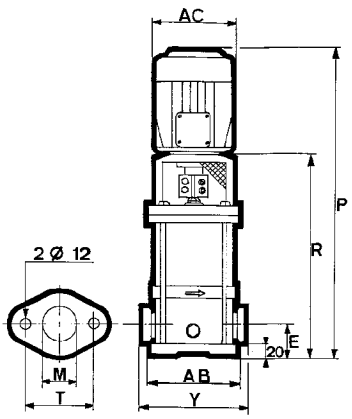
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

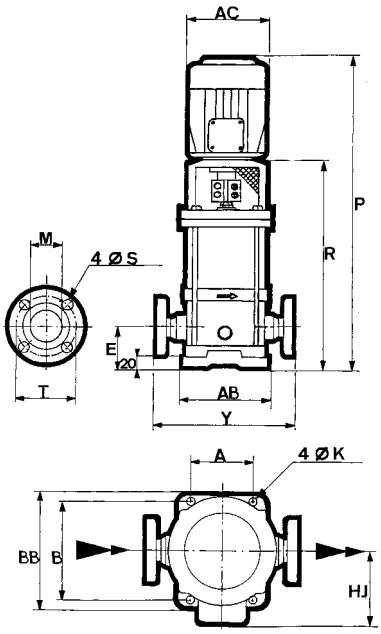
MIV 3 - 5 - 8 - 16
Pumps

Dimensions

Dimensions of MIV 3 - 5 - 8 - 16 pumps

Dimensions in millimetres





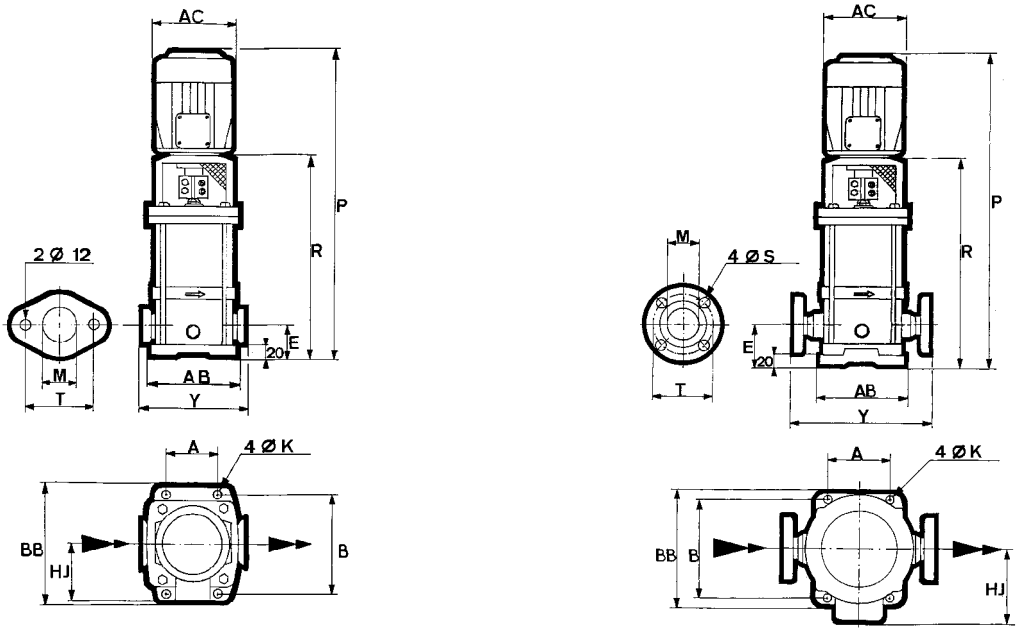
Type	Pumps												Openings			Weight
	A	AB	AC	B	BB	E	HJ	K	P	R	Y		M	T	S	kg
MIV - 3.2 T	100	157	140	180	212	50	102	12	480	297	160	PN 16	1”	75	-	16.4
MIV - 3.3 T	100	157	140	180	212	50	102	12	480	297	160	PN 16	1”	75	-	18.1
MIV - 3.4 T	100	157	170	180	212	50	123	12	546	331	160	PN 16	1”	75	-	21
MIV - 3.5 T	100	157	170	180	212	50	123	12	570	355	160	PN 16	1”	75	-	21.6
MIV - 3.6 T	100	157	170	180	212	50	123	12	594	379	160	PN 16	1”	75	-	23.7
MIV - 3.7 T	100	157	170	180	212	50	123	12	618	403	160	PN 16	1”	75	-	24.4
MIV - 3.8 T	100	157	190	180	212	50	138	12	652	437	160	PN 16	1”	75	-	27.5
MIV - 3.10 T	100	157	190	180	212	50	138	12	700	485	160	PN 16	1”	75	-	28.7
MIV - 3.12 T	100	157	190	180	212	50	138	12	778	533	160	PN 16	1”	75	-	34.5
MIV - 3.14 T	100	172	190	180	212	75	138	12	851	606	250	PN 25	25	85	14	39
MIV - 3.17 T	100	172	200	180	212	75	138	12	978	688	250	PN 25	25	85	14	44.5
MIV - 3.20 T	100	172	200	180	212	75	138	12	1050	760	250	PN 25	25	85	14	46.3
MIV - 5.2 T	100	157	140	180	212	50	102	12	480	297	160	PN 16	1” 1/4	75	-	17.4
MIV - 5.3 T	100	157	170	180	212	50	123	12	522	307	160	PN 16	1” 1/4	75	-	20.4
MIV - 5.4 T	100	157	170	180	212	50	123	12	546	331	160	PN 16	1” 1/4	75	-	22.6
MIV - 5.5 T	100	157	170	180	212	50	123	12	570	355	160	PN 16	1” 1/4	75	-	23.2
MIV - 5.6 T	100	157	190	180	212	50	138	12	604	389	160	PN 16	1” 1/4	75	-	26.3
MIV - 5.7 T	100	157	190	180	212	50	138	12	628	413	160	PN 16	1” 1/4	75	-	27
MIV - 5.8 T	100	157	190	180	212	50	138	12	682	437	160	PN 16	1” 1/4	75	-	32.1
MIV - 5.10 T	100	157	190	180	212	50	138	12	730	485	160	PN 16	1” 1/4	75	-	35.3
MIV - 5.12 T	100	157	200	180	212	50	138	12	833	543	160	PN 16	1” 1/4	75	-	40.2
MIV - 5.14 T	100	172	200	180	212	75	138	12	905	615	250	PN 25	32	100	18	42.7
MIV - 5.17 T	100	172	200	180	212	75	138	12	978	688	250	PN 25	32	100	18	49.6
MIV - 5.19 T	100	172	200	180	212	75	138	12	1050	760	250	PN 25	32	100	18	50.7
MIV - 8.2 T	130	187	170	215	252	80	123	12	517	334	200	PN 16	1” 1/2	100	-	21.8
MIV - 8.3 T	130	187	170	215	252	80	123	12	579	364	200	PN 16	1” 1/2	100	-	24.8
MIV - 8.4 T	130	187	190	215	252	80	133	12	622	404	200	PN 16	1” 1/2	100	-	28.1
MIV - 8.5 T	130	187	190	215	252	80	133	12	679	434	200	PN 16	1” 1/2	100	-	33.3
MIV - 8.6 T	130	187	190	215	252	80	133	12	709	464	200	PN 16	1” 1/2	100	-	36
MIV - 8.7 T	130	187	200	215	252	80	138	12	794	504	200	PN 16	1” 1/2	100	-	40.4
MIV - 8.8 T	130	187	200	215	252	80	138	12	824	534	200	PN 16	1” 1/2	100	-	41
MIV - 8.10 T	130	187	200	215	252	80	138	12	884	594	200	PN 16	1” 1/2	100	-	47.6
MIV - 8.11 T	130	187	200	215	252	80	138	12	944	654	200	PN 16	1” 1/2	100	-	48.9
MIV - 8.12 T	130	187	235	215	252	80	148	12	988	673	200	PN 16	1” 1/2	100	-	66.1
MIV - 8.14 T	130	187	235	215	252	80	148	12	1048	734	280	PN 25	40	110	18	67.9
MIV - 8.17 T	130	187	235	215	252	80	148	12	1173	823	280	PN 25	40	110	18	77
MIV - 8.19 T	130	187	235	215	252	80	148	12	1233	883	280	PN 25	40	110	18	78.5

MIV 3 - 5 - 8 - 16
Pumps

Dimensions

Dimensions of MIV 3 - 5 - 8 - 16 pumps

Dimensions in millimetres



Type	Pumps												Openings			Weight
	A	AB	AC	B	BB	E	HJ	K	P	R	Y		M	T	S	kg
MIV - 16.2 T	130	187	190	215	252	90	133	12	586.5	368.5	250	PN 16	2”	100	-	30
MIV - 16.3 T	130	187	190	215	252	90	133	12	688.5	443.5	250	PN 16	2”	100	-	36
MIV - 16.4 T	130	187	200	215	252	90	138	12	743.5	453.5	250	PN 16	2”	100	-	41
MIV - 16.5 T	130	187	200	215	252	90	138	12	818.5	528.5	250	PN 16	2”	100	-	47
MIV - 16.6 T	130	187	200	215	252	90	138	12	818.5	528.5	250	PN 16	2”	100	-	48
MIV - 16.7 T	130	187	235	215	252	90	148	12	918.5	603.5	250	PN 16	2”	100	-	58
MIV - 16.8 T	130	187	235	215	252	90	148	12	918.5	603.5	250	PN 16	2”	100	-	59
MIV - 16.9 T	130	187	235	215	252	90	148	12	1048	698	250	PN 16	2”	100	-	74
MIV - 16.10 T	130	187	235	215	252	90	148	12	1048	698	250	PN 16	2”	100	-	75
MIV - 16.11 T	130	187	235	215	252	90	148	12	1123	773	250	PN 16	2”	100	-	76

MIV 18 - 36 - 46
Pumps

General information

Vertical multistage centrifugal pumps with stainless steel hydraulic units

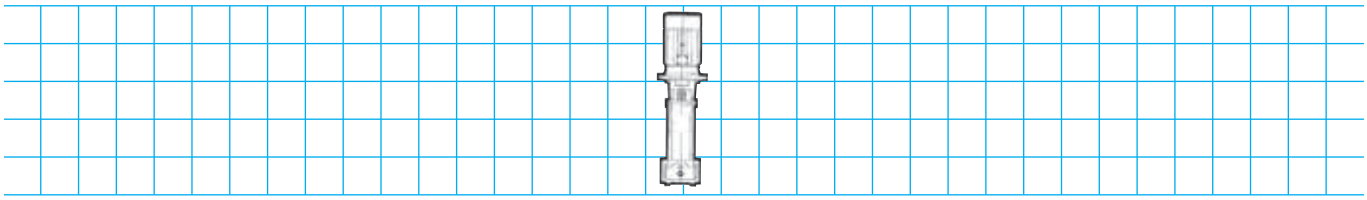
Applications
- Industry (circulation, cooling, transfer)
- Irrigation, sprinkler systems
- High-pressure washing
- Fire protection
- Water treatment (demineralisation, filtration)
- Water supply, pressure boosting

Conditions of use
- For clear or very slightly contaminated liquids (maximum content of solid particles in suspension 50 g/m^3)
- Temperature of pumped liquid between –15°C and 120°C
- Maximum ambient temperature: 40°C
- Maximum operating pressure:
  • 16 or 25 bar depending on the model
- Maximum suction pressure: 10 bar
- Maximum manometric suction head: 8 m
- Motor electrical power supply:
  • 3-phase 230/400 V ± 10% - 50 Hz up to 4 kW inclusive
  • 3-phase Δ 400 V ± 10% - 50 Hz for higher powers

Description of MIV 18-36-46 pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- 3-phase 230/400 V ± 10% - 50 Hz up to 4 kW inclusive - 3-phase Δ 400 V ± 10% - 50 Hz for higher powers - Class F - S1 duty - Standard V1 or V18 depending on the model - IP 55 protection
Suction and discharge body	GJL 250 cast iron	
Impellers, diffusers	X5 Cr Ni 18.9 (AISI 304) stainless steel	
Stage bodies	X5 Cr Ni 18.9 (AISI 304) stainless steel	
External casing and base	X5 Cr Ni 18.9 (AISI 304) stainless steel	
Pump shaft	X2 Cr Ni Mo 17.12.2 (AISI 316L) stainless steel	
Intermediate bearing	Tungsten carbide	
Mechanical seal	Carbon/silicon carbide Ethylene propylene DM seal	
'O' ring seal	Ethylene propylene	
Motor support U-mount	GJL 250 cast iron	
Coupling	GJL 250 cast iron	
Flange adaptor		Electropumps supplied with seals and bolts with no flange adaptor

Mounting position



Only possibility

MIV 18 - 36 - 46
Pumps

Adaptation possibilities

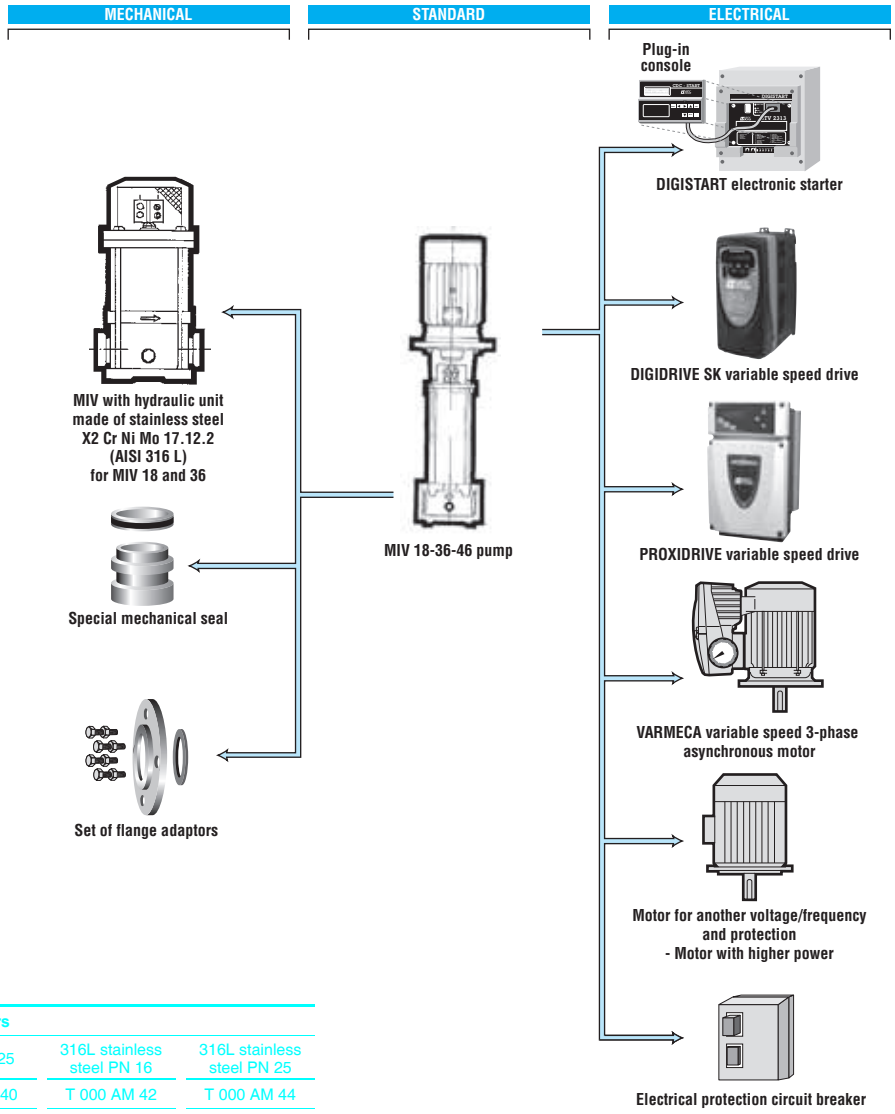
☞ ***MIV 18-36 and 46 pumps can be used in conjunction with:***

- a DIGISTART electronic starter
- DIGIDRIVE SK and PROXIDRIVE variable speed drives

- VARMECA variable speed 3-phase asynchronous motor (up to 11 kW)

☞ ***Options:***

- electrical protection (circuit breaker)
- stainless steel hydraulic unit X2 Cr Ni Mo 17.12.2 (AISI 316L) for types MIV 18 and 36
- motor with another voltage and/or frequency
- motor with higher power
- special mechanical seal
- set of flange adaptors



	Round flange adaptors			
	Steel PN 16	Steel PN 25	316L stainless steel PN 16	316L stainless steel PN 25
• Nominal diameter (ND) 50	T 000 AM 38	T 000 AM 40	T 000 AM 42	T 000 AM 44
• Nominal diameter (ND) 65	T 000 AM 39	T 000 AM 41	T 000 AM 43	T 000 AM 45
• Nominal diameter (ND) 80	T 000 AM 03	T 000 AM 04	-	-

Designation / Coding

MIV	18	2	T
Designation of the series	Rated flow of the pump multiplied	Number of hydraulic stages	3-phase

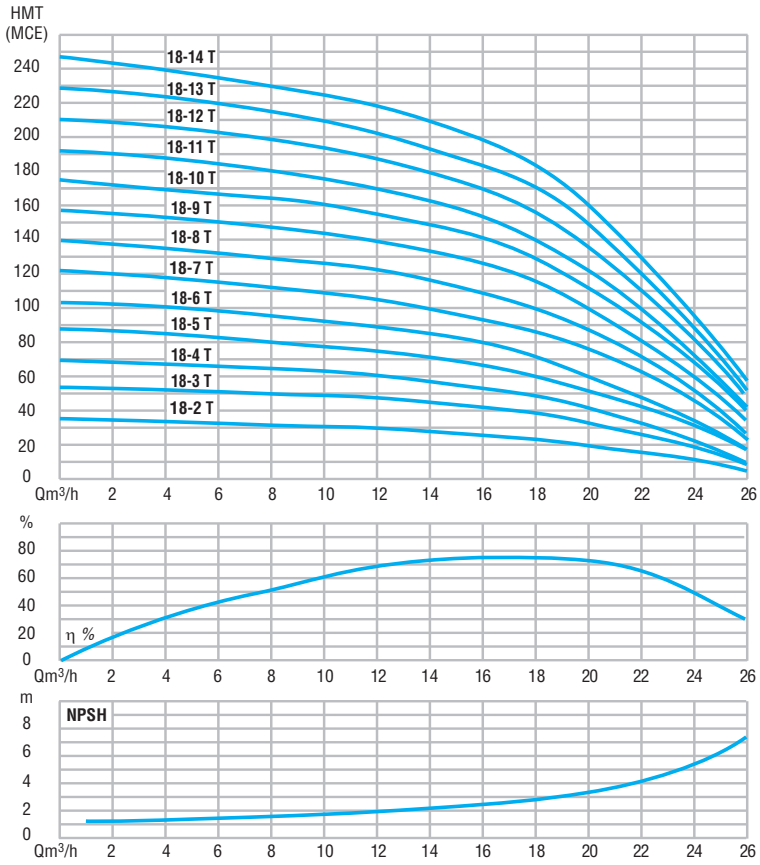
☞ ***Example of coding:***

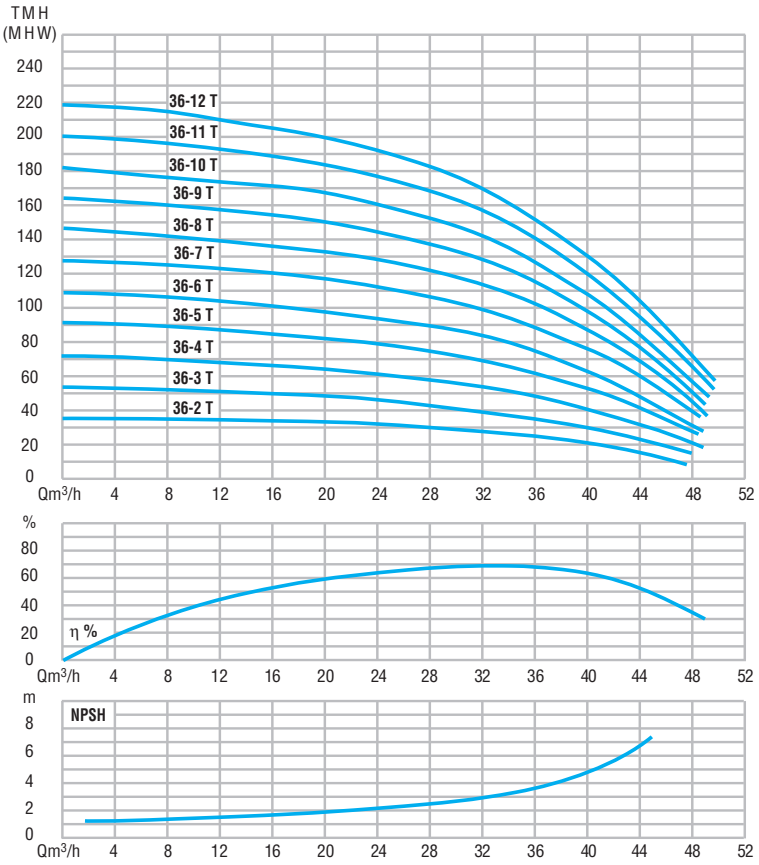
Designation	Code
MIV - 18-2 T	T 095 PC 08

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

MIV 18 - 36 - 46
Pumps

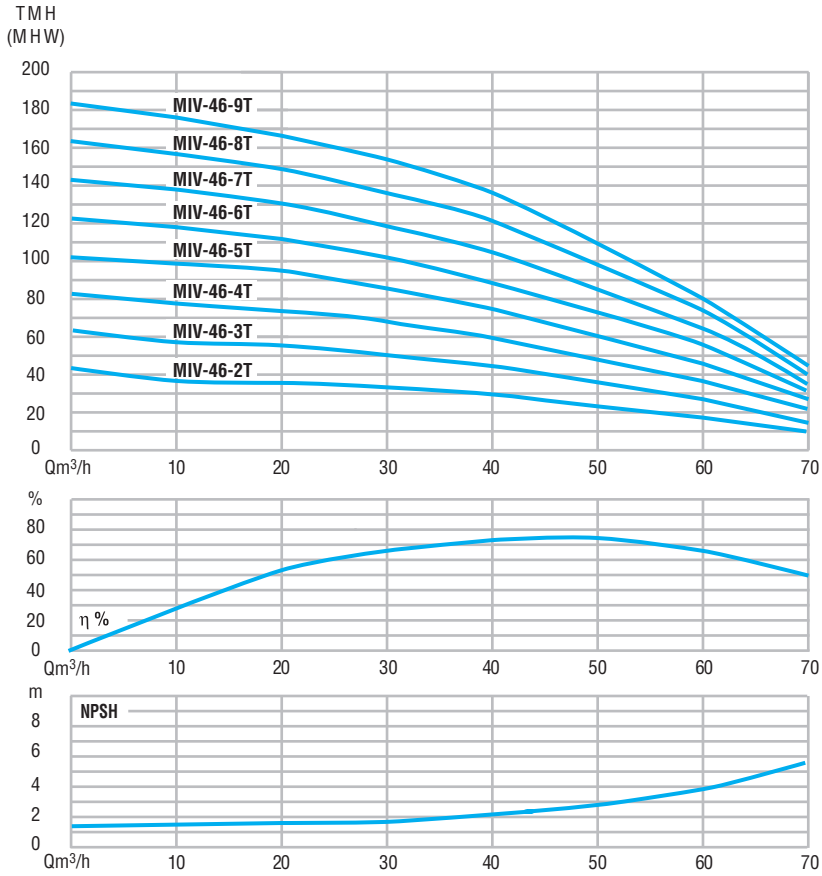
Selection





MIV 18 - 36 - 46
Pumps

Selection



MIV 18 - 36 - 46
Pumps

Selection

Rated flow: 18 m³/h

Type	Product code	Flow rate in m³/h	0	6	12	16	**18**	24	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
MIV - 18.2 T	T 095 PC 08	TMH in MHW[1]	35	33	30	27	**24**	12	2.2	7.6	4.4
MIV - 18.3 T	T 095 PC 09		53	51	47	42	**37**	20	3	10.9	6.3
MIV - 18.4 T	T 095 PC 10		70	66	61	55	**50**	24	4	14.2	8.2
MIV - 18.5 T	T 095 PC 11		87	82	75	67	**60**	32	5.5	-	11.5
MIV - 18.6 T	T 095 PC 12		104	98	88	80	**71**	36	5.5	-	11.5
MIV - 18.7 T	T 095 PC 13		122	117	108	97	**89**	45	7.5	-	15.3
MIV - 18.8 T	T 095 PC 14		140	133	122	110	**100**	50	7.5	-	15.3
MIV - 18.9 T	T 095 PC 15		158	151	140	126	**116**	60	9	-	17.5
MIV - 18.10 T	T 095 PC 16		175	168	155	142	**130**	67	11	-	21.2
MIV - 18.11 T	T 095 PC 17		192	185	170	154	**142**	72	11	-	21.2
MIV - 18.12 T	T 095 PC 18		211	203	188	170	**157**	83	15	-	27.6
MIV - 18.13 T	T 095 PC 19		228	220	204	186	**172**	87	15	-	27.6
MIV - 18.14 T	T 095 PC 20		246	235	217	199	**183**	95	15	-	27.6

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW).

Rated flow: 36 m³/h

Type	Product code	Flow rate in m³/h	0	16	24	28	32	**36**	40	44	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
MIV - 36.2 T	T 095 PC 21	TMH in MHW[1]	37	34	32	30	28	**25**	20	16	4	14.2	8.2
MIV - 36.3 T	T 095 PC 22		54	50	45	41	39	**35**	30	24	5.5	-	11.5
MIV - 36.4 T	T 095 PC 23		73	67	62	59	54	**48**	40	33	7.5	-	15.3
MIV - 36.5 T	T 095 PC 24		92	85	80	75	70	**62**	53	42	9	-	17.5
MIV - 36.6 T	T 095 PC 25		109	102	95	90	83	**74**	62	49	11	-	21.2
MIV - 36.7 T	T 095 PC 26		128	120	113	107	99	**88**	76	60	15	-	27.6
MIV - 36.8 T	T 095 PC 27		146	137	128	121	112	**100**	87	70	15	-	27.6
MIV - 36.9 T	T 095 PC 28		164	155	145	137	127	**114**	98	77	18.5	-	33.2
MIV - 36.10 T	T 095 PC 29		182	172	160	152	142	**127**	118	84	18.5	-	33.2
MIV - 36.11 T	T 095 PC 30		200	188	177	170	157	**140**	120	95	22	-	39.5
MIV - 36.12 T	T 095 PC 31		219	206	193	182	170	**152**	130	102	22	-	39.5

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW).

Rated flow: 46 m³/h

Type	Product code	Flow rate in m³/h	0	10	20	30	40	**46**	50	60	70	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
MIV - 46.2 T	T 097 PC 01	TMH in MHW[1]	41	39	37	34	30	**27**	25	18	10	5.5	-	10.5
MIV - 46.3 T	T 097 PC 02		62	59	55	50	44	**40**	37	27	15	7.5	-	14.6
MIV - 46.4 T	T 097 PC 03		82	79	74	68	60	**54**	50	37	21	11	-	20.7
MIV - 46.5 T	T 097 PC 04		102	99	93	85	75	**68**	63	46	26	15	-	27.7
MIV - 46.6 T	T 097 PC 05		122	118	111	101	89	**80**	74	54	30	15	-	27.7
MIV - 46.7 T	T 097 PC 06		142	138	130	119	106	**95**	88	64	35	18.5	-	33.7
MIV - 46.8 T	T 097 PC 07		163	158	149	136	121	**109**	101	73	40	22	-	39.9
MIV - 46.9 T	T 097 PC 08		182	176	166	153	136	**122**	112	80	43	22	-	39.9

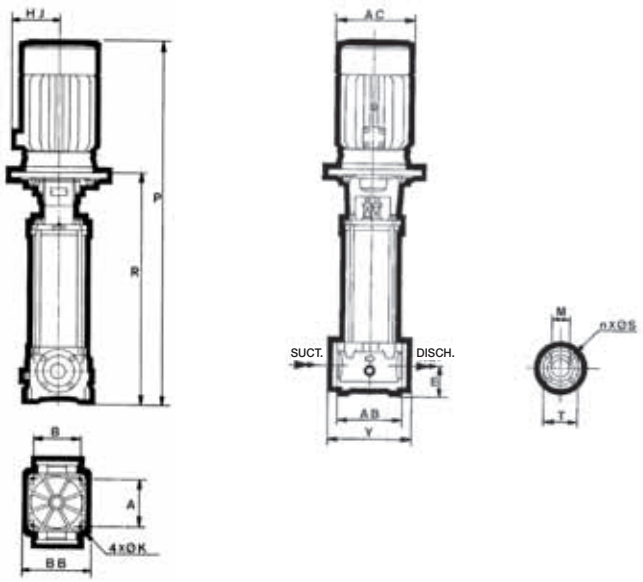
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW).

MIV 18 - 36 - 46
Pumps

Dimensions

Dimensions of MIV 18-36-46 pumps

Dimensions in millimetres



Type	Pumps												Openings				Weight
	A	AB	AC	B	BB	E	HJ	K	P	R	Y		M	T	S	n	kg
MIV - 18.2 T	130	194	190	215	252	90	133	13	664	419	300	PN 16	50	125	18	4	73
MIV - 18.3 T	130	194	200	215	252	90	138	13	719	429	300	PN 16	50	125	18	4	79
MIV - 18.4 T	130	194	200	215	252	90	138	13	754	464	300	PN 16	50	125	18	4	83
MIV - 18.5 T	130	194	235	215	252	90	148	13	813	498	300	PN 16	50	125	18	4	93
MIV - 18.6 T	130	194	235	215	252	90	148	13	848	533	300	PN 16	50	125	18	4	105
MIV - 18.7 T	130	194	235	215	252	90	148	13	972	622	300	PN 16	50	125	18	4	116
MIV - 18.8 T	130	194	235	215	252	90	148	13	972	622	300	PN 16	50	125	18	4	116
MIV - 18.9 T	130	194	280	215	252	90	175	13	1078	691	300	PN 25	50	125	18	4	130
MIV - 18.10 T	130	194	280	215	252	90	175	13	1078	691	300	PN 25	50	125	18	4	135
MIV - 18.11 T	130	194	280	215	252	90	175	13	1147	760	300	PN 25	50	125	18	4	142
MIV - 18.12 T	130	194	264	215	252	90	175	13	1258	790	300	PN 25	50	125	18	4	172
MIV - 18.13 T	130	194	264	215	252	90	175	13	1327	859	300	PN 25	50	125	18	4	176
MIV - 18.14 T	130	194	264	215	252	90	175	13	1327	859	300	PN 25	50	125	18	4	176
MIV - 36.2 T	195	239	200	195	235	105	138	14	730	440	320	PN 16	65	145	18	4	86
MIV - 36.3 T	195	239	235	195	235	105	148	14	801	486	320	PN 16	65	145	18	4	97
MIV - 36.4 T	195	239	235	195	235	105	148	14	902	552	320	PN 16	65	145	18	4	116
MIV - 36.5 T	195	239	280	195	235	105	175	14	1031	644	320	PN 16	65	145	18	4	131
MIV - 36.6 T	195	239	280	195	235	105	175	14	1031	644	320	PN 16	65	145	18	4	136
MIV - 36.7 T	195	239	264	195	235	105	175	14	1280	812	320	PN 16	65	145	18	4	176
MIV - 36.8 T	220	262	264	220	260	120	175	14	1295	827	320	PN 25	65	145	18	8	178
MIV - 36.9 T	220	262	316	220	260	120	235	14	1322	827	320	PN 25	65	145	18	8	199
MIV - 36.10 T	220	262	316	220	260	120	235	14	1460	965	320	PN 25	65	145	18	8	205
MIV - 36.11 T	220	262	316	220	260	120	248	14	1460	965	320	PN 25	65	145	18	8	213
MIV - 36.12 T	220	262	316	220	260	120	248	14	1460	965	320	PN 25	65	145	18	8	213
MIV - 46.2 T	220	260	235	220	260	105	148	14	787	472	320	PN 16	80	160	18	8	87
MIV - 46.3 T	220	260	235	220	260	105	148	14	903	553	320	PN 16	80	160	18	8	104
MIV - 46.4 T	220	260	280	220	260	105	175	14	1001	614	320	PN 16	80	160	18	8	122
MIV - 46.5 T	220	260	315	220	260	105	208	14	1235	767	320	PN 16	80	160	18	8	153
MIV - 46.6 T	220	260	315	220	260	105	208	14	1235	767	320	PN 16	80	160	18	8	154
MIV - 46.7 T	220	260	315	220	260	105	235	14	1384	889	320	PN 16	80	160	18	8	175
MIV - 46.8 T	220	260	315	220	260	105	248	14	1384	889	320	PN 25	80	160	18	8	187
MIV - 46.9 T	220	260	315	220	260	105	248	14	1446	951	320	PN 25	80	160	18	8	190

VARMECA MIV
Pumps

General information

Varmeca:

Power supply:
- 3-phase power supply 200 V to 480 V ± 10%, 50/60 Hz ± 5%
- Single-phase power supply 200 V to 240 V ± 10%, 50/60 Hz ± 5%

Varmeca is a new solution in variable speed control which is compact and light and used for power ratings from 0.25 kW to 11 kW.
Noise pollution is eliminated due to Varmeca's choice of an inaudible switching frequency.

A 3-phase variable speed TEFV motor conforming to IEC and Low Voltage Directives (CE) and cULus approved for USA and Canada.

It can operate in ambient temperatures in the range – 20 to + 40°C.
Power rating: 0.25 to 11 kW in frame sizes 71 to 160.

INDUSTRY

C

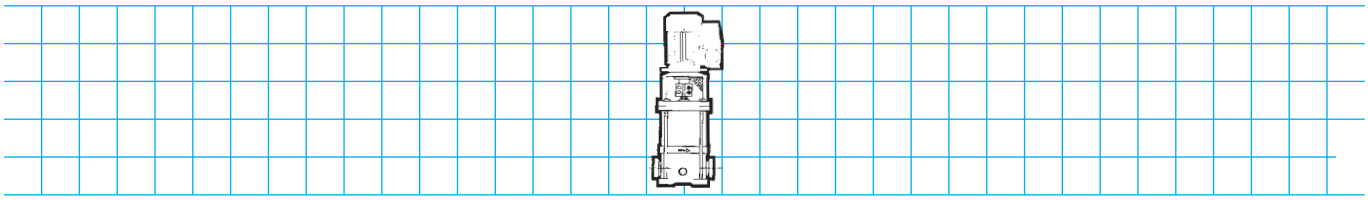
Description of VARMECA:

Addition of a VARMECA to the electropump in no way affects the construction and generalities of the hydraulic and electrical parts.

Component	Remarks
Construction	- IP 65 protection - Class F - Aluminium housing and polyamide cable gland - Product conforms as standard to industrial standards, or possibly domestic standards (as an option) - Electronics encapsulated in resin to ensure good mechanical strength and insensitivity to moisture
Characteristics	- Adjustment range of the electropump: from 12 to 50 Hz for general applications - Increased efficiency and power factor
Control	- Speed reference • 0-10 V; 4-20 mA with external reference • 0-10 V using local control knob - Run/Stop: • Using 3-phase or single-phase mains power supply • Via contact on control terminal block • Using integrated Run/Stop knob (BMA option) - Stop mode: • On ramp • Freewheel
Protection	- Power: • Under-voltage • Overvoltage • Overload or mechanical locking: - Drive and motor thermal checking - Locked rotor • Motor winding short-circuit • Phase-earth insulation fault - Checks: • Self-protection against short-circuits on the analogue and digital I/O
Indications	- Display by indicator lamp (option) • Steady green light: mains connected • Flashing green light: current limit • Flashing orange light: overload • Flashing red light: under/overvoltage fault • Steady red light: general fault - Relay • Speed controller fault Relay with volt-free contact - 1 A - 250 V - contact open, drive faulty or switched off - Analogue output • Speed signal 0 - 10 V, 4-20 mA

VARMECA MIV
Pumps

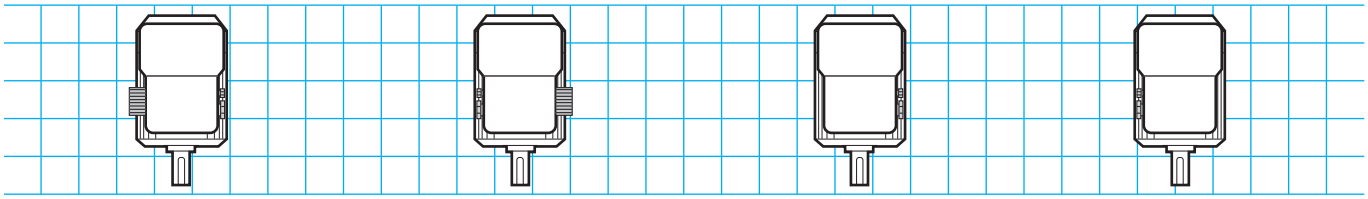
Mounting position



Only possibility

C

Standard version: with speed control knob		Version with no knob: remote or internal speed control	



BD
with control knob on the left, cable gland on the right

BG
with control knob on the right, cable gland on the left

SD
with no control knob, cable gland on the right

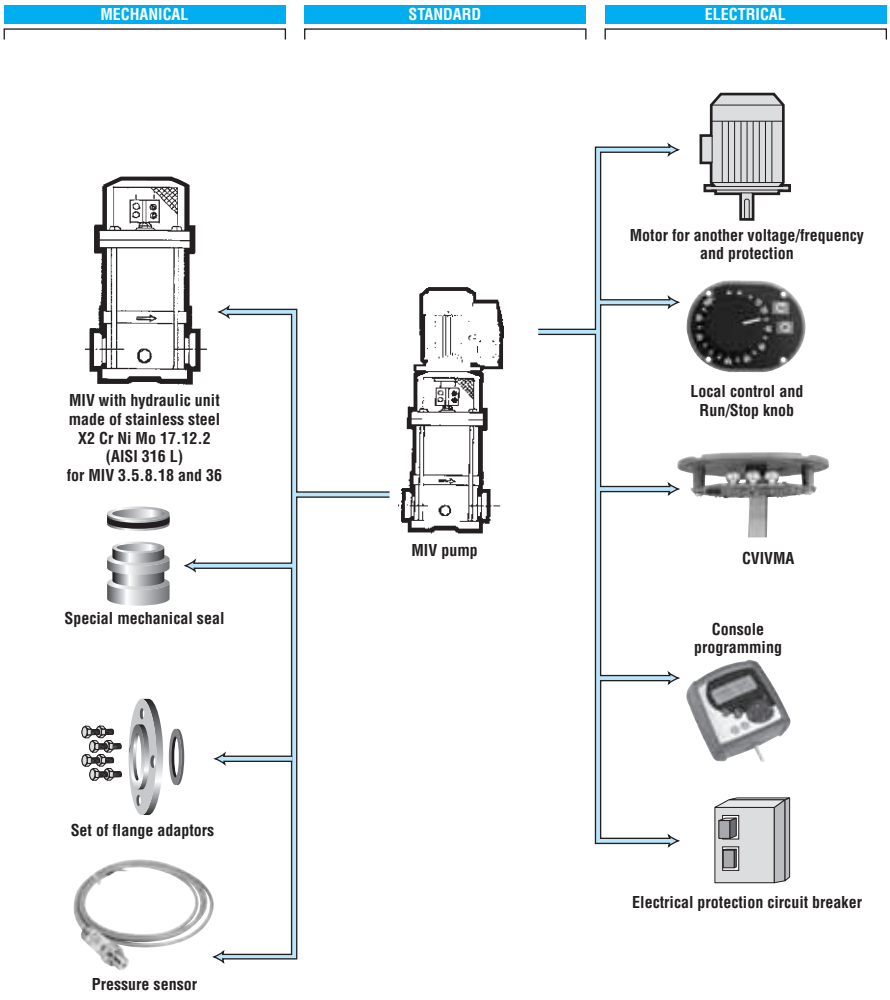
SG
with no control knob, cable gland on the left

VARMECA MIV
Pumps

Adaptation possibilities

Options:

- electrical protection (circuit breaker)
- stainless steel hydraulic unit X2 Cr Ni Mo 17.12.2 (AISI 316L) for types MIV 3.5.8.18 and 36
- motor with another voltage and/or frequency
- motor with higher power
- special mechanical seal
- set of flange adaptors

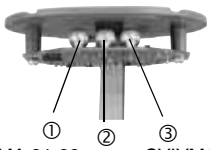


Designation / Coding

MIV	18	2	T	VMA 32T 220	BD	FLTVMA
Designation of the series	Rated flow of the pump	Number of hydraulic stages	3-phase	Rating VARMECA	Position of knob and cable gland	Option

Designation / Coding of options

Description of VARMECA

VMA 31/32	VMA 33/34	Remarks
 B 31-32	B 33-34	**Control knob option** Adjustments are made using a knob with graduations from 15 to 100%. • 2 indicator lamps.
 BMA 31-32	BMA 33-34	**Control knob with integrated run-stop control option** In addition to adjustments, a run button and a stop button allow the VARMECA to be controlled locally as wished, once it has been switched on. For a run command to be recognised, the button must be held down for one second. • 2 indicator lamps.
 ① ② ③ CVIVMA 31-32	CVIVMA 33-34	**Internal control option** Adjustments are made using potentiometers which are accessible once the cover has been removed. ① A potentiometer for setting maximum flow rate. ② A potentiometer for the flow rate reference. ③ A potentiometer for setting minimum flow rate. There are also 2 indicator lamps.
 FLT VMA 32T FLT VMA 32M 110 FLT VMA 32M 150	FLT VMA 33 FLT VMA 34	**RFI filter option** VARMECA 33/34 drives conform to drive standard EN 61000-6-4 because of the RFI filter which can be integrated into the front of the VARMECA casing. VARMECA 31/32 drives conform to drive standard EN 61000-6-3 with Class B EMC filter (domestic level). Class A industrial level integrated RFI filter in accordance with EN 61800-3 (VARMECA 31/32).
 PX LCD + 1 cable, L = 3 m		**Parameter-setting console option** The console option provides access to the drive internal settings (terminal block configuration, ramp, pressure and PI settings, etc.).
 PA 200		**Digital display for remote reading option** Programmable digital indicator with scaling of the pressure or flow rate: connection to the control terminal block, 24 V 100 mA power supply.
 PAD VMA 31-32	PAD VMA 33-34	**Operator panel option** The VARMECA operator panel consists of a display unit, three control buttons and three parameter-setting buttons.
 VMA SOFT + 1 cable, L = 3 m		**Parameter-setting software option** This option provides access to the drive internal settings from a PC. The software is compatible with WINDOWS 95, 98, NT, 2000, XP and later versions.

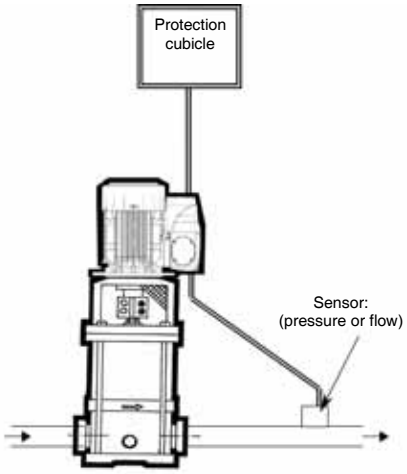
Designation / Coding of options

Description of VARMECA

VMA 31/32	VMA 33/34	Remarks
		**Fieldbus option** The interface card is fixed inside the casing cover. Protocols: Profibus DP, InterBus S, DeviceNet, CAN open.
PROFIBUS 31-32 INTERBUS 31-32 DEVICE NET31-32 CAN OPEN 31-32	PROFIBUS 33-34 INTERBUS 33-34 DEVICE NET33-34 CAN OPEN 33-34	
 POT 1T 10K		**Potentiometer option** The speed can be adjusted using: - 1-turn potentiometer (ref. POT 1T 10K) - Characteristics: 10 kΩ with knob and faceplate: connection to the control terminal block.
 PX KEY		**Copy key** Used for storing and copying programs.
 T000 AM 11		**Pressure sensor option** 0-10 bar 4-20 mA

VARMECA MIV
Pumps

Description of mounting with a sensor



PRESSURE REFERENCE:

Analogue

- Internal using CVI-VMA (internal potentiometer)
- Local using knob
- External 0-10 V or 4-20 mA

Digital

OPERATIONAL SAFETY OF THE INSTALLATION

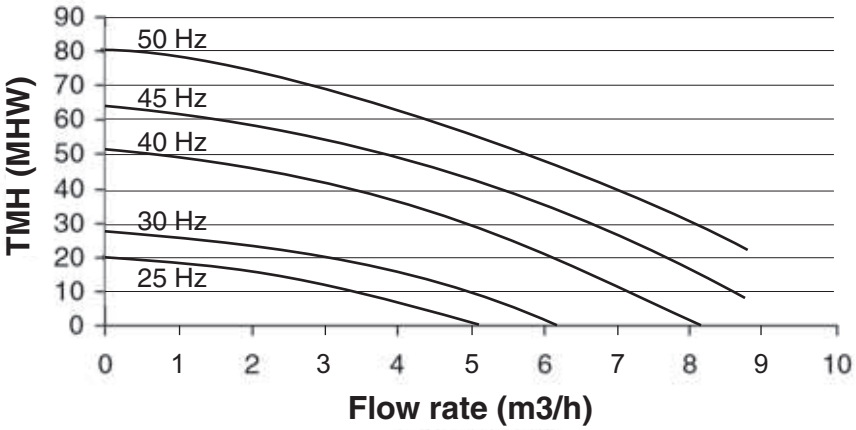
- Detection of unpriming protecting the pump against dry running
- Indication of operating states (automatic running, maximum flow, unpriming)

For all installations involving control using a pressure or flow sensor, a means of setting parameters is necessary:

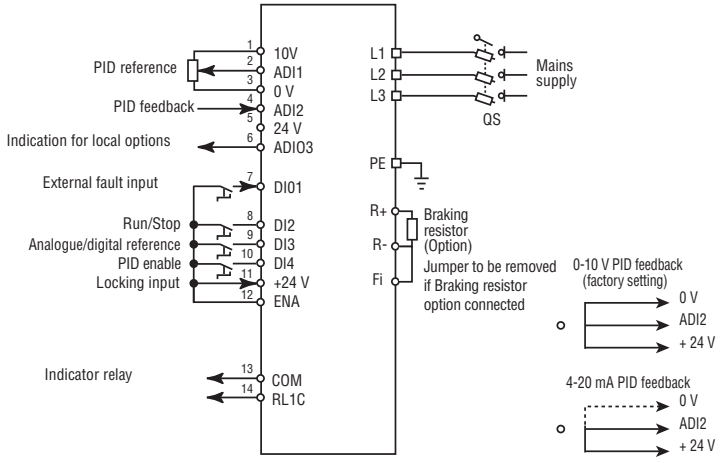
- **A parameter-setting console**[1]
- **PC parameter-setting software**[1]
- **A PAD local display unit**[1]

1. See page C14.4.

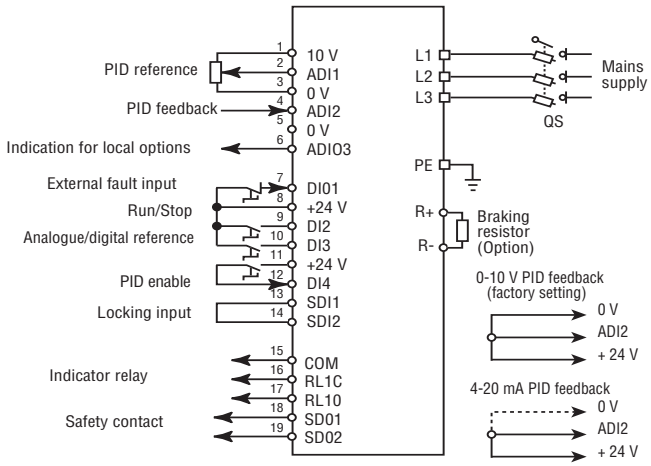
Operating range



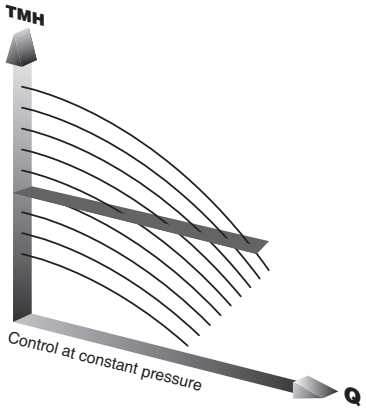
VARMECA 31/32



VARMECA 33/34



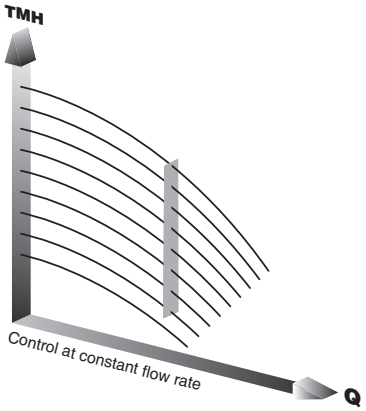
Hydraulic characteristics



CONSTANT PRESSURE:

The operating pressure is preprogrammed by an operator, and checked by a pressure sensor placed on the pipe.

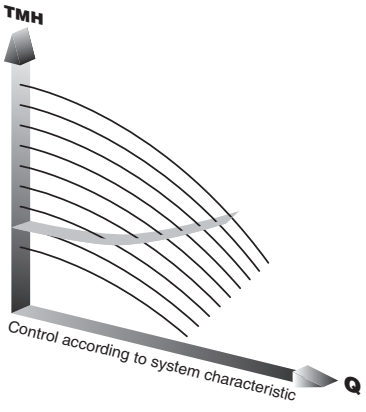
The VARMECA adapts the speed of the pump according to the flow variations, in order to continuously provide the required pressure.



CONSTANT FLOW RATE:

The desired flow rate is preprogrammed by an operator, and checked by a flow sensor placed on the pipe.

The VARMECA adapts the speed of the pump according to the pressure variations, in order to provide the required flow rate.



HEAD LOSS COMPENSATION:

The VARMECA adapts the pressure according to the flow rate in order to compensate for the head losses in the system.

VARMECA MIV
Pumps

MIV pump selection

To decide upon a pump, please refer to the hydraulic characteristics of standard MIV pumps.

The pump is defined using the maximum operating flow and/or pressure points.

Operation above the rated frequency requires special dimensioning (please consult Leroy-Somer)

VARMECA selection

3-phase power supply 200 V to 240 V ± 10% 50/60 Hz	
Rating	Motor power (kW)
VMA 31 TL 025	0.25
VMA 31 TL 037	0.37
VMA 31 TL 055	0.55
VMA 31 TL 075	0.75
VMA 32 TL 090	0.9
VMA 32 TL 110	1.1
VMA 32 TL 150	1.5
VMA 32 TL 180	1.8
VMA 32 TL 220	2.2
VMA 33 TL 300	3
VMA 33 TL 400	4
VMA 34 TL 550	5.5
VMA 34 TL 750	7.5

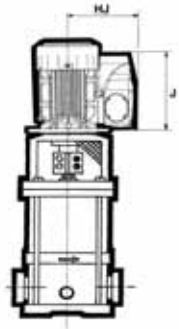
Single-phase power supply 200 V to 240 V ± 10%, 50/60 Hz ± 10%	
Rating	Motor power (kW)
VMA 31 M 025	0.25
VMA 31 M 037	0.37
VMA 31 M 055	0.55
VMA 31 M 075	0.75
VMA 32 M 090	0.9
VMA 32 M 110	1.1
VMA 32 M 150	1.5

3-phase power supply 400 V to 480 V ± 10% 50/60 Hz	
Rating	Motor power (kW)
VMA 31 T 025	0.25
VMA 31 T 037	0.37
VMA 31 T 055	0.55
VMA 31 T 075	0.75
VMA 31 T 090	0.9
VMA 31 T 110	1.1
VMA 32 T 150	1.5
VMA 32 T 180	1.8
VMA 32 T 220	2.2
VMA 32 T 300	3
VMA 32 T 400	4
VMA 33 T 550	5.5
VMA 33 T 750	7.5
VMA 34 T 900	9
VMA 34 T 111	11

Dimensions

Dimensions in millimetres

Motor power in kW (400 V)	Motor frame size (2P)	Dimensions				Weight (kg)
		HJ	J	I	II	
0.37 to 0.55	**LS 71 L**	181	216	75	94	4.2
0.75 to 1.1	**LS 80 L**	191	216	75	94	4.2
1.5 to 2.2	**LS 90 S / L**	201	216/230	75	94	4.2
3	**LS 100 L**	201	230	75	94	4.2
4	**LS 112 M**	201	230	75	94	4.2
5.5 / 7.5	**LS 132 S**	280	336	115	141	8.1
9 / 11	**LS 132 M**	300	336	115	141	8.1



ATEX MIV
Pumps

Selection

Conforming to Directive ATEX 94/9/EC

The hydraulic part of MIV pumps in the 3-5-8-16-18-36-46 series used in a potentially explosive atmosphere is identical to that of standard models. It retains the same hydraulic characteristics and meets the Ex II 2 G c T4 operating conditions.
ATEX MIV pumps are suitable for pumping liquids that are non-explosive, clear or very slightly contaminated (maximum content of solid particles in suspension 50 g/m^3) in ATEX zones 1 and 2.

The maximum temperature of the pumped liquid must not exceed the value given in the table below in order to guarantee the maximum surface temperature.
Protection against rises in temperature (due to shortage of liquid or flow rate too low) is achieved by an adjustable flow controller, integrated into the upper part of the pump body.

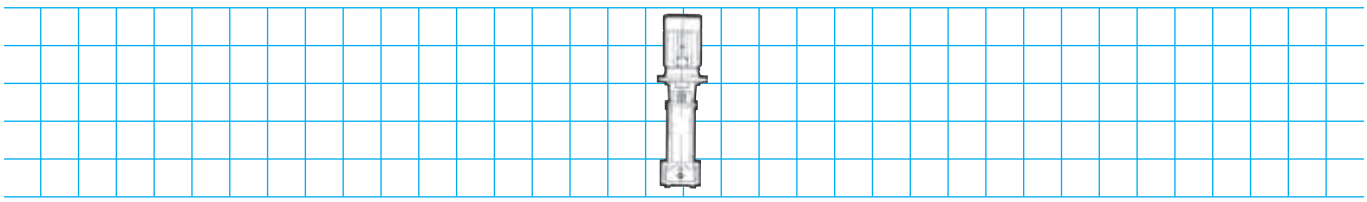
INDUSTRY

C

Description of ATEX MIV pumps

Component	Remarks
Motor	**ATEX**. Please refer to the LEROY-SOMER documentation on flameproof or increased safety motors for their definition and dimensions.
Hydraulic unit	**ATEX**. (Documentation filed with the INERIS notified body.) Please refer to the MIV electropumps section for its definition and dimensions.
Flow controller	**ATEX**.

Mounting position



Only possibility

ATEX MIV
Pumps

Selection

Operating zone for ATEX MIV electropumps in a gaseous potentially explosive atmosphere.

	Marking	Operating zone
Pump	**CE Ex II 2 G c T4**	1 and 2
Motor	**CE Ex II 2 G EEx d (e) II B T4**	1 and 2
	CE Ex II 2 G EEx d (e) II C T4	1 and 2
	CE Ex II 2 G EEx e II T4	1 and 2

The T4 ATEX motor complies with the following marking:

	Motor protection mode	
	"d"	**"e"**
	LEROY-SOMER motor type	
	FLSD	**(F)LSE**
Temperature of the fluid pumped: < 40°C	yes	yes
Temperature of the fluid pumped: < 60°C	yes	please consult Leroy-Somer
Temperature of the fluid pumped: < 80°C	yes	
ATEX marking	II 2 G	

Note: Electropumps for Dust or Gas and Dust application: please consult Leroy-Somer.

Pressure boosters

General information

Range of pressure boosters for communal and industrial uses
- flow rate up to 500 m^3/h
- pressure up to 25 bar

Units consisting of 2 or 3 pumps, with or without integrated electronic speed control, for pressurising and maintaining under pressure water distribution networks with insufficient or non-existent pressure.

Quotation on request

PV and PIV Pumps

General information

Multistage centrifugal pumps with submersible hydraulic unit

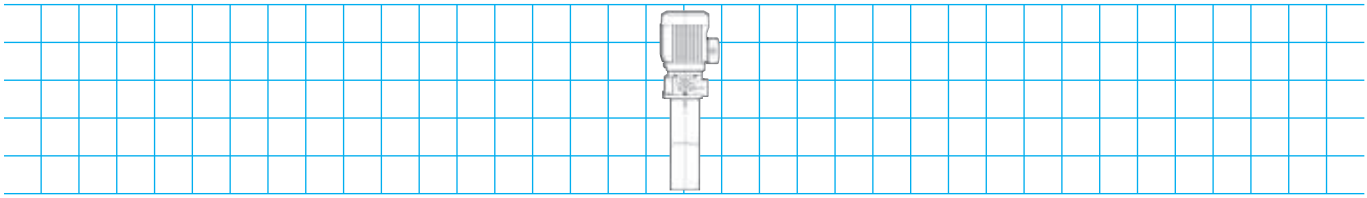
Applications
- Washing, cooling, circulation, transfer
- Lubrication, filtration

Conditions of use
- Standard mounting flange in accordance with NFE 44.301 (DIN 5440)
- For clear or very slightly contaminated liquids (maximum content of solid particles in suspension 50 g/m^3)
- Ideal for special liquids (glycol water, deionised water, etc.)
- Temperature of pumped liquid between – 10°C and + 70°C (for higher temperatures, please consult Leroy-Somer)
- Maximum ambient temperature: 40°C
- Maximum operating pressure:
  • 10 bar on PV 4 pumps with thermoplastic discharge body
  • 20 bar on PV 4 pumps with metal discharge body
  • 25 bar on PIV 6 pumps with metal discharge body
- Maximum viscosity of pumped liquid: 20 mm^2/s (for other viscosities: please consult Leroy-Somer)
- Motor electrical power supply:
  • 3-phase 230/400 V - 50 Hz up to 5.5 kW inclusive
  • 3-phase Δ 400 V - 50 Hz for higher powers
  • 3-phase 380 V, 208-230/460 V, 220/440 V, 575 V - 60 Hz
  • 3-phase 200-220 V, 400-440 V - 50 and 60 Hz

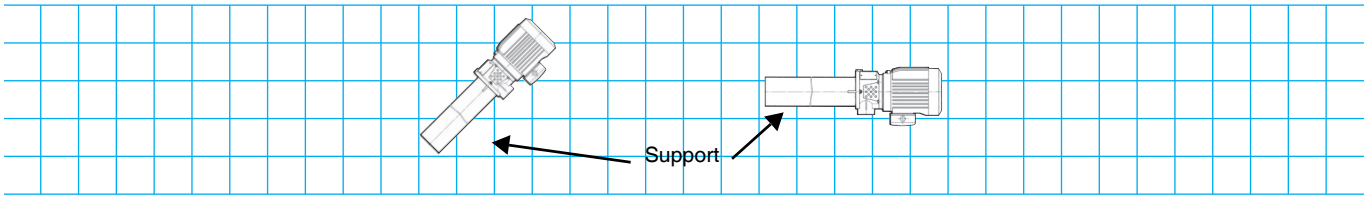
Description of PV pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1} at 50 Hz 3,600 min^{-1} at 60 Hz	- 3-phase 230/400 V ± 10% - 50 Hz up to 5.5 kW inclusive - 3-phase Δ 400 V ± 10% - 50 Hz for higher powers - 3-phase 380 V 208-230/460 V 220/440 V 575 V } 60 Hz - 3-phase 200-220 V 400-440 V } 50 and 60 Hz - Class F - S1 duty - V18 - IP 55 protection
Discharge body	Synthetic material (VERTON) for PV 4-2-5AT to 2-16AT - PV 4-4-5AT to 4-15AT PV 4-9-4AT to 9-8AT Cast iron for PV 4-2-24 T - PV 4-2-33T PV 4-4-20T - PV 4-9-13T and PIV 6	
Impellers, diffusers, stage bodies	Synthetic material (LURAN) for PV 4-A and PV 4 pumps X5 Cr Ni 18.9 (AISI 304) stainless steel for PIV6 pumps	
Suction body, tube	X5 Cr Ni 18.9 (AISI 304) stainless steel	
Pump shaft	X2 Cr Ni Mo 17.12.2 (AISI 316L) stainless steel	
Bearing	Elastomer and X2 Cr Ni Mo 17.12.2 (AISI 316L) stainless steel for PV 4-A and PV 4 pumps Tungsten carbide for PIV6 pumps	
Mechanical seal	Silicon carbide/silicon carbide, Viton seals for PV 4-A and PV 4 pumps Carbon/carbide, Viton seals for PIV 6 pumps	
"O" ring seals	Viton	
Suction strainer	X5 Cr Ni 18.9 (AISI 304) stainless steel	

Mounting positions



Standard position



Inclined position

PV and PIV Pumps

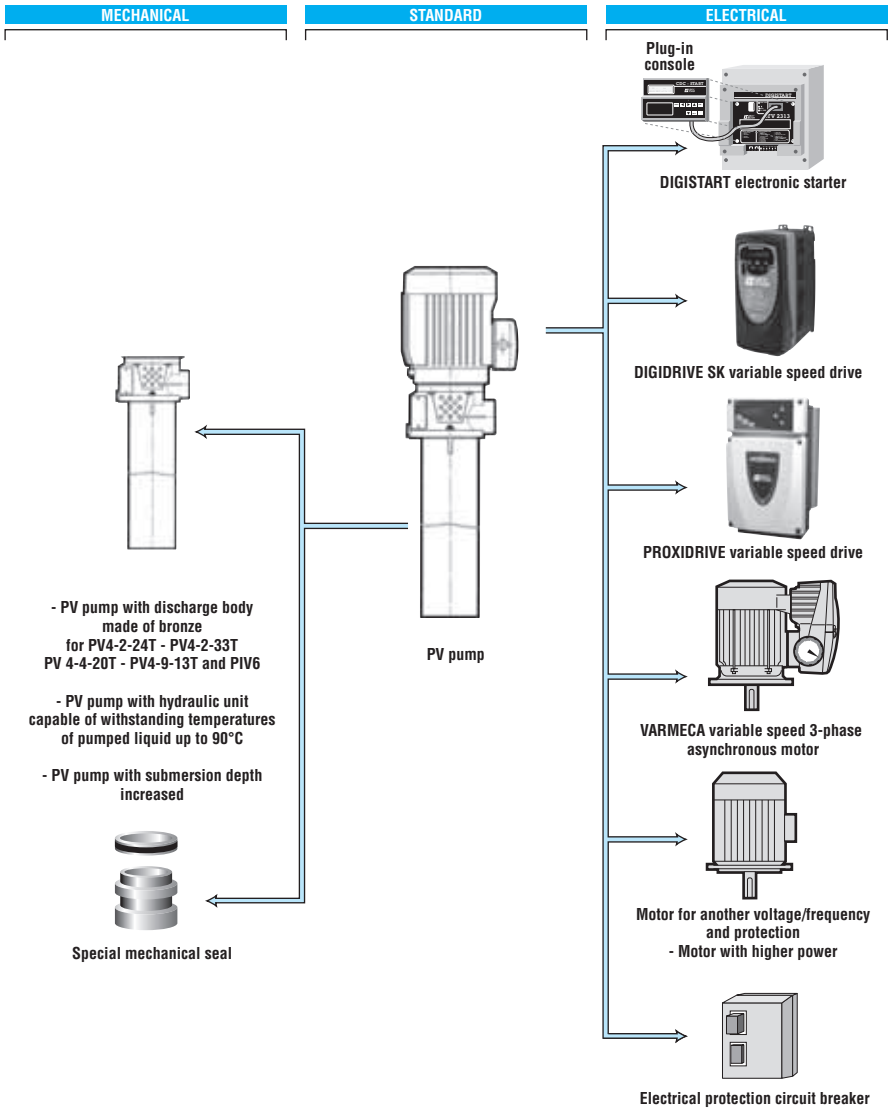
Adaptation possibilities

☞ ***PV and PIV pumps can be used in conjunction with:***

- a DIGISTART electronic starter
- DIGIDRIVE SK and PROXIDRIVE variable speed drives
- VARMECA variable speed 3-phase asynchronous motor

☞ ***Options:***

- electrical protection (circuit breaker)
- bronze discharge body for PV 4-2-24T - PV 4-2-33T - PV 4-4-20T - PV 4-9-13T and PIV 6
- hydraulic unit capable of withstanding pumped liquid temperatures up to 90°C
- special mechanical seal
- single-phase motor
- motor with another voltage and/or frequency
- motor with higher power
- increased submersion depth



Designation / Coding

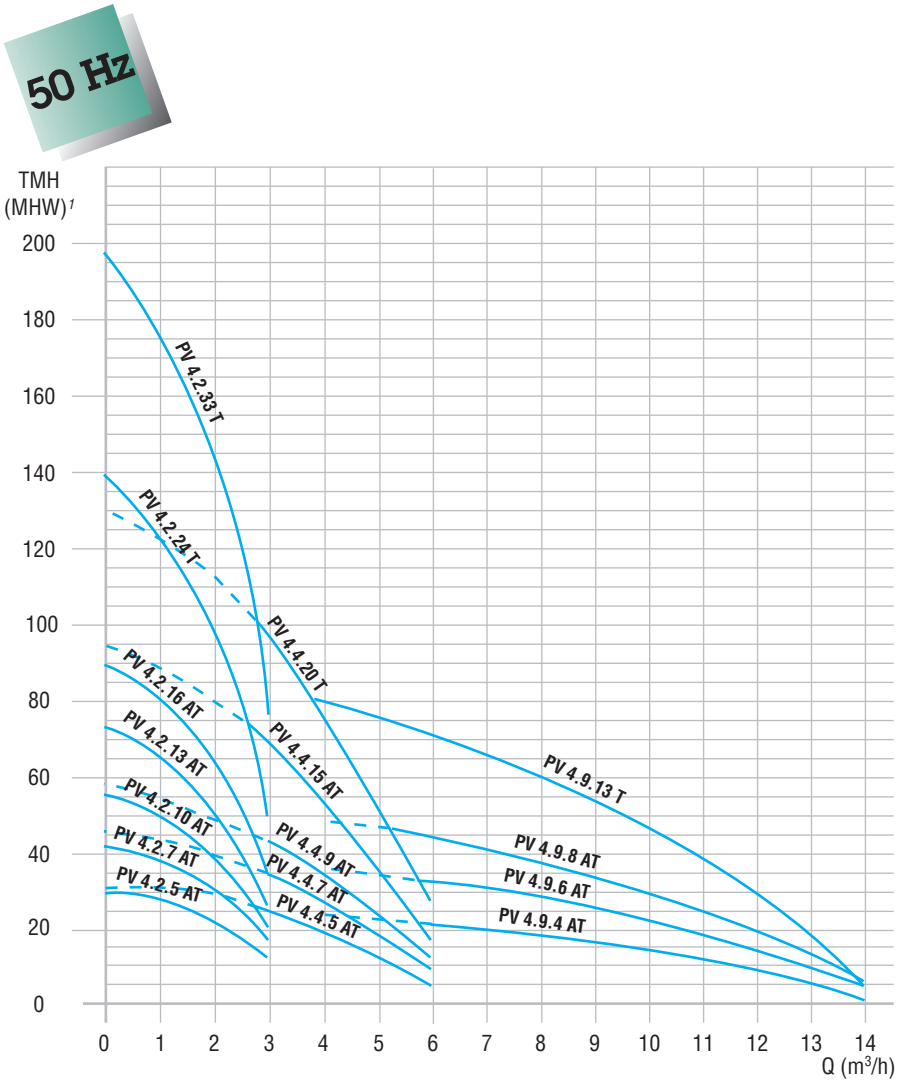
PV	4	2	13	A	T
Designation of the series	Diameter external of the hydraulic unitin inches	Flow rated of the pump	Number of stages hydraulic	Index	3-phase

☞ ***Example of coding:***

Designation	Code
PV 4-2-13 A-T	T 020 PC 05

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

PV 4-A and PV 4 selection



1. Total Manometric Head (TMH) in Metres of Head of Water (MHW)

The pump hydraulic characteristics given in this document are guaranteed:
- to comply with international standard ISO 2548 Class C, for series production pumps
- for de-aerated water, at a temperature of 20°C, having a viscosity of 1 mm^2/s or 1° Engler and a density of 1

PV 4-A and PV 4 selection

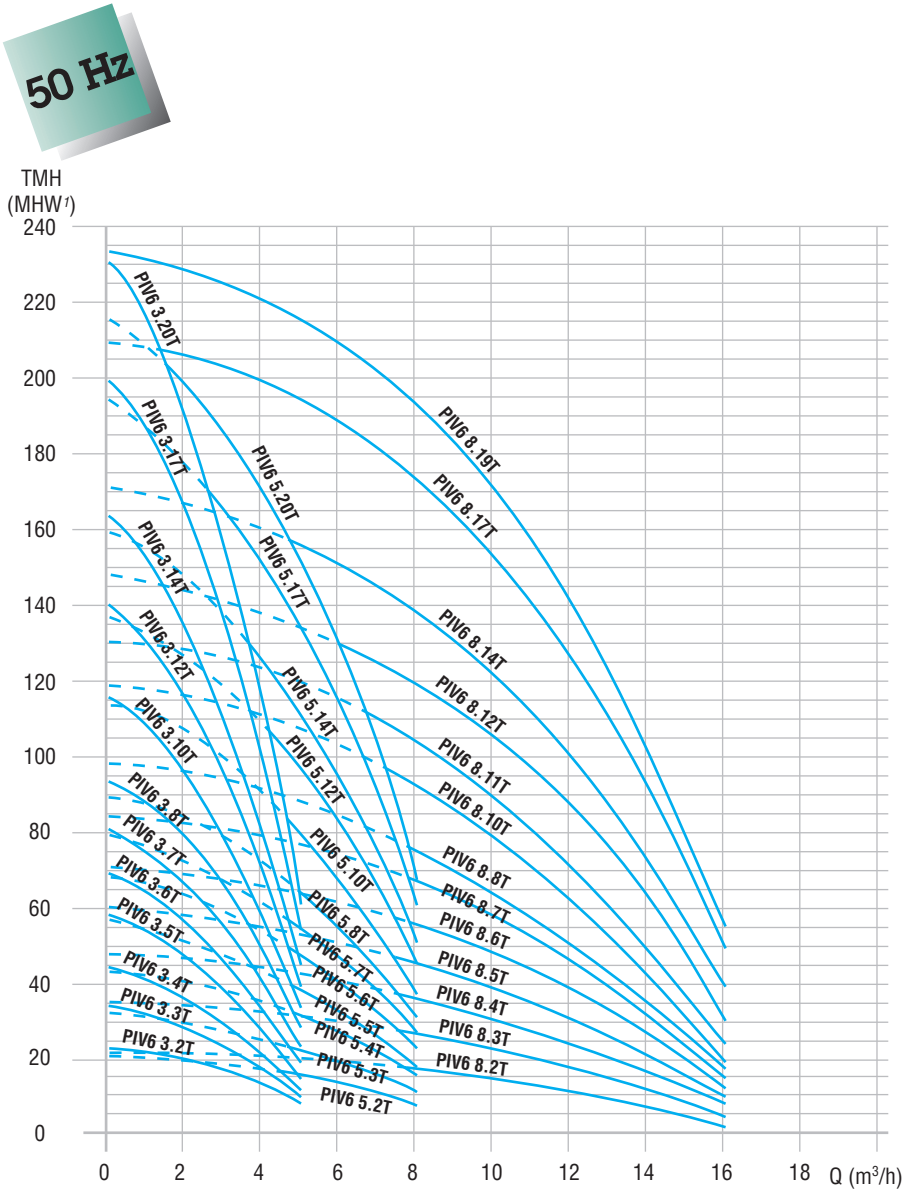
50 Hz

Rated flow: 2 to 10 m³/h

Type	Product code	Flow rate in m³/h	0	1	2	3	4	5	6	8	10	12	14	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
PV 4-2-5 AT	T 020 PC 01		31	29	**23**	13	-	-	-	-	-	-	-	0.25	1	0.6
PV 4-2-7 AT	T 020 PC 02		41	38	**30**	18	-	-	-	-	-	-	-	0.37	1.9	1.1
PV 4-2-10 AT	T 020 PC 04		56	52	**41**	22	-	-	-	-	-	-	-	0.37	1.9	1.1
PV 4-2-13 AT	T 020 PC 05		73	67	**52**	26	-	-	-	-	-	-	-	0.55	2.3	1.3
PV 4-2-16 AT	T 020 PC 06		90	82	**65**	34	-	-	-	-	-	-	-	0.75	3	1.7
PV 4-2-24 T[2]	T 022 PC 12		140	124	**100**	50	-	-	-	-	-	-	-	1.1	4.5	2.6
PV 4-2-33 T[2]	T 022 PC 13		198	180	**147**	77	-	-	-	-	-	-	-	1.5	6.1	3.5
PV 4-4-5 AT	T 020 PC 11	TMH in MHW[1]	33	31	28	25	**20**	14	5	-	-	-	-	0.37	1.9	1.1
PV 4-4-7 AT	T 020 PC 12		46	43	39	34	**27**	19	9	-	-	-	-	0.55	2.3	1.3
PV 4-4-9 AT	T 020 PC 13		59	56	50	43	**34**	23	11	-	-	-	-	0.75	3	1.7
PV 4-4-15 AT	T 020 PC 14		95	90	82	70	**55**	37	18	-	-	-	-	1.1	4.5	2.6
PV 4-4-20 T[2]	T 022 PC 22		131	124	113	98	**78**	54	25	-	-	-	-	1.5	6.1	3.5
PV 4-9-4 AT	T 020 PC 21		27	-	-	-	24	-	22	**18**	**15**	10	2.5	0.75	3	1.7
PV 4-9-6 AT	T 020 PC 22		41	-	-	-	37	-	34	**29**	**23**	16	4	1.1	4.5	2.6
PV 4-9-8 AT	T 020 PC 23		56	-	-	-	49	-	45	**39**	**31**	20	6	1.5	6.1	3.5
PV 4-9-13 T[2]	T 022 PC 28		90	-	-	-	80	-	71	**61**	**47**	30	8	2.2	8.8	5.1

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW).
2. Pump with cast iron discharge body (bronze or stainless steel on request).

PIV 6 selection



1. Total Manometric Head (TMH) in Metres of Head of Water (MHW).

The pump hydraulic characteristics given in this document are guaranteed:
- to comply with international standard ISO 2548 Class C, for series production pumps
- for de-aerated water, at a temperature of 20°C, having a viscosity of 1 mm^2/s or 1° Engler and a density of 1

PIV 6 selection

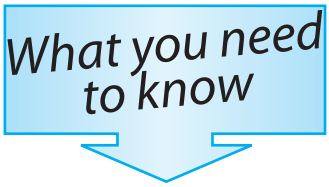
50 Hz

Rated flow: 3 to 8 m³/h

Type	Product code	Flow rate in m³/h	0	1	2	3	4	5	6	8	10	12	14	16	kW Output	Current in A 3-ph 230 V	Current in A 3-ph 400 V
PIV 6-3.2 T	T 023 PC 01	TMH in MHW[1]	24	22	20	**17**	13	7	-	-	-	-	-	-	0.37	1.7	1
PIV 6-3.3 T	T 023 PC 02		35	32	28	**24**	19	10	-	-	-	-	-	-	0.55	2.3	1.3
PIV 6-3.4 T	T 023 PC 03		45	41	38	**31**	24	12	-	-	-	-	-	-	0.75	3.3	1.9
PIV 6-3.5 T	T 023 PC 04		58	53	48	**40**	30	15	-	-	-	-	-	-	0.75	3.3	1.9
PIV 6-3.6 T	T 023 PC 05		70	64	57	**49**	37	20	-	-	-	-	-	-	1.1	4.4	2.5
PIV 6-3.7 T	T 023 PC 06		81	75	67	**55**	42	24	-	-	-	-	-	-	1.1	4.4	2.5
PIV 6-3.8 T	T 023 PC 07		94	89	80	**68**	52	28	-	-	-	-	-	-	1.5	6.1	3.5
PIV 6-3.10 T	T 023 PC 08		116	108	96	**79**	58	34	-	-	-	-	-	-	1.5	6.1	3.5
PIV 6-3.12 T	T 023 PC 09		141	132	116	**98**	73	40	-	-	-	-	-	-	1.8	7.3	4.2
PIV 6-3.14 T	T 023 PC 10		164	150	135	**110**	82	45	-	-	-	-	-	-	2.2	8.8	5.1
PIV 6-3-17 T	T 023 PC 11		200	187	166	**138**	100	54	-	-	-	-	-	-	3	11.1	6.4
PIV 6-3-20 T	T 023 PC 12		232	215	192	**160**	118	63	-	-	-	-	-	-	3	11.1	6.4
PIV 6-5.2 T	T 023 PC 13		22	21	20.5	20	19	**16**	13	7	-	-	-	-	0.55	2.3	1.3
PIV 6-5.3 T	T 023 PC 14		33	31	30	28	26	**23**	20	11	-	-	-	-	0.75	3.3	1.9
PIV 6-5.4 T	T 023 PC 15		44	43	42	40	36	**32**	28	16	-	-	-	-	1.1	4.4	2.5
PIV 6-5.5 T	T 023 PC 16		58	55	52	49	44	**40**	33	18	-	-	-	-	1.1	4.4	2.5
PIV 6-5.6 T	T 023 PC 17		69	67	64	60	54	**48**	41	23	-	-	-	-	1.5	6.1	3.5
PIV 6-5.7 T	T 023 PC 18		80	77	73	69	63	**56**	48	27	-	-	-	-	1.5	6.1	3.5
PIV 6-5.8 T	T 023 PC 19		90	88	85	80	73	**65**	55	32	-	-	-	-	1.8	7.3	4.2
PIV 6-5.10 T	T 023 PC 20		116	112	107	100	90	**80**	67	38	-	-	-	-	2.2	8.8	5.1
PIV 6-5.12 T	T 023 PC 21		138	133	127	120	110	**99**	84	46	-	-	-	-	3	11.1	6.4
PIV 6-5.14 T	T 023 PC 22		160	155	147	138	125	**112**	96	52	-	-	-	-	3	11.1	6.4
PIV 6-5.17 T	T 023 PC 23		194	185	176	164	151	**137**	116	62	-	-	-	-	4	16.3	9.4
PIV 6-5.19 T	T 023 PC 24		217	209	198	184	169	**150**	129	68	-	-	-	-	4	16.3	9.4
PIV 6-8.2 T	T 023 PC 25		23	-	-	-	-	21	20	**18**	15	11	7	2	0.75	3.3	1.9
PIV 6-8.3 T	T 023 PC 26		36	-	-	-	-	32	30	**27**	23	19	12	4	1.1	4.4	2.5
PIV 6-8.4 T	T 023 PC 27		48	-	-	-	-	44	42	**38**	32	25	17	8	1.5	6.1	3.5
PIV 6-8.5 T	T 023 PC 28		61	-	-	-	-	56	52	**46**	40	31	22	10	1.8	7.3	4.2
PIV 6-8.6 T	T 023 PC 29		72	-	-	-	-	65	62	**56**	48	40	28	12	2.2	8.8	5.1
PIV 6-8.7 T	T 023 PC 30		85	-	-	-	-	76	73	**67**	58	46	32	15	3	11.1	6.4
PIV 6-8.8 T	T 023 PC 31		98	-	-	-	-	87	84	**76**	66	52	38	18	3	11.1	6.4
PIV 6-8.10 T	T 023 PC 32		119	-	-	-	-	108	104	**94**	80	64	44	20	4	16.3	9.4
PIV 6-8.11 T	T 023 PC 33		132	-	-	-	-	120	116	**104**	90	72	50	25	4	16.3	9.4
PIV 6-8.12 T	T 023 PC 34		147	-	-	-	-	135	130	**120**	106	88	64	32	5.5	20.8	12
PIV 6-8.14 T	T 023 PC 35		172	-	-	-	-	157	152	**140**	122	101	72	40	5.5	20.8	12
PIV 6-8.17 T	T 023 PC 36		209	-	-	-	-	193	188	**175**	156	129	94	50	7.5	-	16.5
PIV 6-8.19 T	T 023 PC 37		234	-	-	-	-	214	209	**194**	173	142	103	56	7.5	-	16.5

1. Total Manometric Head (TMH) in Metres of Head of Water (MHW).

Method: Selecting the electropump according to the submersion depth



C

ELECTROPUMP SELECTION

Different submersion depths are possible for the same selected pump type (flow rate/pressure). Just select the appropriate submersion depth from the table below.

Example: You have selected a 50 Hz PV 4-2-5 AT that has a standard submersion depth (dimension R) of 215 mm. This same pump has versions with different submersion depths: 275 mm, 348 mm, 438 mm and 547 mm.

Example:

	Submersion depth	Motor power (kW)	Pumps					Opening	Weight
Type	Dimension R	50 Hz	AC	E	F	HJ	P	Discharge	kg
PV 4-2-5 AT	215	0.25	124	32	70	95	469	1”1/4 F	7
	275	0.25	124	32	70	95	529	1”1/4 F	8
	348	0.25	124	32	70	95	602	1”1/4 F	8
	438	0.25	124	32	70	95	692	1”1/4 F	9
	547	0.25	124	32	70	95	801	1”1/4 F	9
PV-4-2-7 AT		0.37	140				540	1”1/4 F	8

Standard pump (CMR delivery time)

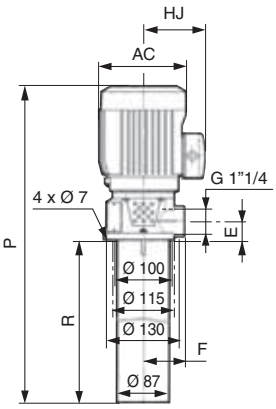
Delivery time on request for other options of different submersion depths.

Dimensions

Dimensions of PV 4 A and PV 4 pumps

Dimensions in millimetres

Type	Submersion depth Dimension R	Motor power (kW) 50 Hz	Pumps AC	E	F	HJ	P	Opening Discharge	Weight kg
PV 4-2-5 AT	215	0.25	124	32	70	95	469	1"1/4 F	7
	275	0.25	124	32	70	95	529	1"1/4 F	8
	348	0.25	124	32	70	95	602	1"1/4 F	8
	438	0.25	124	32	70	95	692	1"1/4 F	9
	547	0.25	124	32	70	95	801	1"1/4 F	9
PV 4-2-7 AT	275	0.37	140	32	70	102	540	1"1/4 F	8
	348	0.37	140	32	70	102	613	1"1/4 F	9
	438	0.37	140	32	70	102	703	1"1/4 F	9
	547	0.37	140	32	70	102	812	1"1/4 F	10
PV 4-2-10 AT	348	0.37	140	32	70	102	613	1"1/4 F	9
	438	0.37	140	32	70	102	703	1"1/4 F	10
	547	0.37	140	32	70	102	812	1"1/4 F	10
PV 4-2-13 AT	438	0.55	140	32	70	102	703	1"1/4 F	11
	547	0.55	140	32	70	102	812	1"1/4 F	12
PV 4-2-16 AT	547	0.75	140	32	70	102	812	1"1/4 F	13
PV 4-2-24 T	812	1.1	160	30	64	123	1099	1"1/4 F	20
	1048	1.1	160	30	64	123	1335	1"1/4 F	25
PV 4-2-33 T	1048	1.5	160	30	64	123	1335	1"1/4 F	26
PV 4-4-5 AT	275	0.37	140	32	70	102	540	1"1/4 F	8
	348	0.37	140	32	70	102	613	1"1/4 F	9
	438	0.37	140	32	70	102	703	1"1/4 F	9
	690	0.37	140	32	70	102	955	1"1/4 F	10
PV 4-4-7 AT	348	0.55	140	32	70	102	613	1"1/4 F	10
	438	0.55	140	32	70	102	703	1"1/4 F	11
	690	0.55	140	32	70	102	955	1"1/4 F	11
PV 4-4-9 AT	438	0.75	140	32	70	102	703	1"1/4 F	11
	690	0.75	140	32	70	102	955	1"1/4 F	12
PV 4-4-15 AT	690	1.1	170	32	70	123	987	1"1/4 F	17
PV 4-4-20 T	930	1.5	160	30	64	123	1217	1"1/4 F	25
PV 4-9-4 AT	348	0.75	140	32	70	102	613	1"1/4 F	11
	438	0.75	140	32	70	102	703	1"1/4 F	12
	609	0.75	140	32	70	102	874	1"1/4 F	12
PV 4-9-6 AT	438	1.1	170	32	70	123	735	1"1/4 F	15
	609	1.1	170	32	70	123	906	1"1/4 F	16
PV 4-9-8 AT	609	1.5	170	32	70	123	906	1"1/4 F	17
PV 4-9-13 T	898	2.2	180	30	64	133	1215	1"1/4 F	34



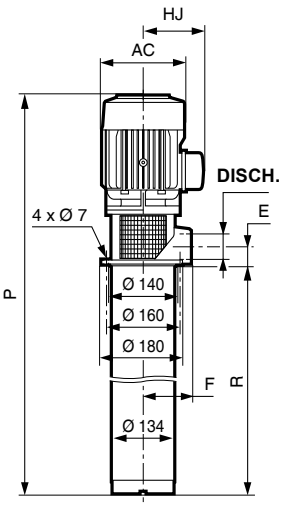
Standard submersion depth

Dimensions

Dimensions of PIV 6 pumps

Dimensions in millimetres

Type	Submersion depth Dimension R	Motor power (kW) 50 Hz	Pumps AC	E	F	HJ	P	Opening Discharge	Weight kg
PIV 6-3-2	162	0.37	140	32	100	99	460	1"1/4 F	15
	186	0.37	140	32	100	99	484	1"1/4 F	16
	210	0.37	140	32	100	99	508	1"1/4 F	17
	234	0.37	140	32	100	99	532	1"1/4 F	18
	258	0.37	140	32	100	99	556	1"1/4 F	18
	282	0.37	140	32	100	99	580	1"1/4 F	19
	330	0.37	140	32	100	99	628	1"1/4 F	20
	378	0.37	140	32	100	99	676	1"1/4 F	21
	426	0.37	140	32	100	99	724	1"1/4 F	22
	498	0.37	140	32	100	99	796	1"1/4 F	23
	570	0.37	140	32	100	99	868	1"1/4 F	24
PIV 6-3-3	162	0.55	140	32	100	99	460	1"1/4 F	16
	186	0.55	140	32	100	99	484	1"1/4 F	17
	210	0.55	140	32	100	99	508	1"1/4 F	18
	234	0.55	140	32	100	99	532	1"1/4 F	19
	258	0.55	140	32	100	99	556	1"1/4 F	19
	282	0.55	140	32	100	99	580	1"1/4 F	20
	330	0.55	140	32	100	99	628	1"1/4 F	21
	378	0.55	140	32	100	99	676	1"1/4 F	22
	426	0.55	140	32	100	99	724	1"1/4 F	23
	498	0.55	140	32	100	99	796	1"1/4 F	24
	570	0.55	140	32	100	99	868	1"1/4 F	25
PIV 6-3-4	186	0.75	170	32	100	123	514	1"1/4 F	18
	210	0.75	170	32	100	123	538	1"1/4 F	19
	234	0.75	170	32	100	123	562	1"1/4 F	20
	258	0.75	170	32	100	123	586	1"1/4 F	20
	282	0.75	170	32	100	123	610	1"1/4 F	21
	330	0.75	170	32	100	123	658	1"1/4 F	22
	378	0.75	170	32	100	123	706	1"1/4 F	23
	426	0.75	170	32	100	123	754	1"1/4 F	24
	498	0.75	170	32	100	123	826	1"1/4 F	25
	570	0.75	170	32	100	123	898	1"1/4 F	26
PIV 6-3-5	210	0.75	170	32	100	123	538	1"1/4 F	19
	234	0.75	170	32	100	123	562	1"1/4 F	20
	258	0.75	170	32	100	123	586	1"1/4 F	20
	282	0.75	170	32	100	123	610	1"1/4 F	21
	330	0.75	170	32	100	123	658	1"1/4 F	22
	378	0.75	170	32	100	123	706	1"1/4 F	23
	426	0.75	170	32	100	123	754	1"1/4 F	24
	498	0.75	170	32	100	123	826	1"1/4 F	25
	570	0.75	170	32	100	123	898	1"1/4 F	26
PIV 6-3-6	234	1.1	170	32	100	123	562	1"1/4 F	21
	258	1.1	170	32	100	123	586	1"1/4 F	21
	282	1.1	170	32	100	123	610	1"1/4 F	22
	330	1.1	170	32	100	123	658	1"1/4 F	23
	378	1.1	170	32	100	123	706	1"1/4 F	24
	426	1.1	170	32	100	123	754	1"1/4 F	25
	498	1.1	170	32	100	123	826	1"1/4 F	26
	570	1.1	170	32	100	123	898	1"1/4 F	27
PIV 6-3-7	258	1.1	170	32	100	123	586	1"1/4 F	22
	282	1.1	170	32	100	123	610	1"1/4 F	23
	330	1.1	170	32	100	123	658	1"1/4 F	23
	378	1.1	170	32	100	123	706	1"1/4 F	24
	426	1.1	170	32	100	123	754	1"1/4 F	26
	498	1.1	170	32	100	123	826	1"1/4 F	26
	570	1.1	170	32	100	123	898	1"1/4 F	27
PIV 6-3-8	282	1.5	170	32	100	123	610	1"1/4 F	25
	330	1.5	170	32	100	123	658	1"1/4 F	25
	378	1.5	170	32	100	123	706	1"1/4 F	26
	426	1.5	170	32	100	123	754	1"1/4 F	28
	498	1.5	170	32	100	123	826	1"1/4 F	29
	570	1.5	170	32	100	123	898	1"1/4 F	30
PIV 6-3-10	330	1.5	170	32	100	123	658	1"1/4 F	24
	378	1.5	170	32	100	123	706	1"1/4 F	26
	426	1.5	170	32	100	123	754	1"1/4 F	28
	498	1.5	170	32	100	123	826	1"1/4 F	28
	570	1.5	170	32	100	123	898	1"1/4 F	29
PIV 6-3-12	378	1.8	190	32	100	133	746	1"1/4 F	30
	426	1.8	190	32	100	133	794	1"1/4 F	31
	498	1.8	190	32	100	133	866	1"1/4 F	31
	570	1.8	190	32	100	133	938	1"1/4 F	32
PIV 6-3-14	426	2.2	190	32	100	133	794	1"1/4 F	33
	498	2.2	190	32	100	133	866	1"1/4 F	34
	570	2.2	190	32	100	133	938	1"1/4 F	35
PIV 6-3-17	498	3	200	32	100	138	911	1"1/4 F	37
	570	3	200	32	100	138	983	1"1/4 F	38
PIV 6-3-20	570	3	200	32	100	138	983	1"1/4 F	39



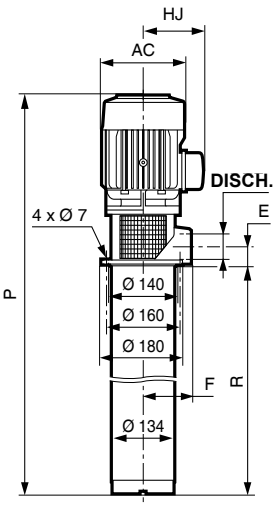
Standard submersion depth

Dimensions

Dimensions of PIV 6 pumps

Dimensions in millimetres

Type	Submersion depth Dimension R	Motor power (kW) 50 Hz	Pumps AC	E	F	HJ	P	Opening Discharge	Weight kg
PIV 6-5-2	162	0.55	140	32	100	99	460	1"1/4 F	16
	186	0.55	140	32	100	99	484	1"1/4 F	17
	210	0.55	140	32	100	99	508	1"1/4 F	18
	234	0.55	140	32	100	99	532	1"1/4 F	19
	258	0.55	140	32	100	99	556	1"1/4 F	19
	282	0.55	140	32	100	99	580	1"1/4 F	20
	330	0.55	140	32	100	99	628	1"1/4 F	21
	378	0.55	140	32	100	99	676	1"1/4 F	22
	426	0.55	140	32	100	99	724	1"1/4 F	23
	498	0.55	140	32	100	99	796	2" F	24
	570	0.55	140	32	100	99	868	2" F	25
PIV 6-5-3	162	0.75	170	32	100	123	490	1"1/4 F	19
	186	0.75	170	32	100	123	514	1"1/4 F	19
	210	0.75	170	32	100	123	538	1"1/4 F	21
	234	0.75	170	32	100	123	562	1"1/4 F	22
	258	0.75	170	32	100	123	586	1"1/4 F	22
	282	0.75	170	32	100	123	610	1"1/4 F	23
	330	0.75	170	32	100	123	658	1"1/4 F	24
	378	0.75	170	32	100	123	706	1"1/4 F	25
	426	0.75	170	32	100	123	754	1"1/4 F	26
	498	0.75	170	32	100	123	826	2" F	27
	570	0.75	170	32	100	123	898	2" F	28
PIV 6-5-4	186	1.1	170	32	100	123	514	1"1/4 F	20
	210	1.1	170	32	100	123	538	1"1/4 F	22
	234	1.1	170	32	100	123	562	1"1/4 F	23
	258	1.1	170	32	100	123	586	1"1/4 F	23
	282	1.1	170	32	100	123	610	1"1/4 F	24
	330	1.1	170	32	100	123	658	1"1/4 F	25
	378	1.1	170	32	100	123	706	1"1/4 F	26
	426	1.1	170	32	100	123	754	1"1/4 F	27
	498	1.1	170	32	100	123	826	2" F	28
	570	1.1	170	32	100	123	898	2" F	29
PIV 6-5-5	210	1.1	170	32	100	123	538	1"1/4 F	22
	234	1.1	170	32	100	123	562	1"1/4 F	23
	258	1.1	170	32	100	123	586	1"1/4 F	23
	282	1.1	170	32	100	123	610	1"1/4 F	24
	330	1.1	170	32	100	123	658	1"1/4 F	25
	378	1.1	170	32	100	123	706	1"1/4 F	26
	426	1.1	170	32	100	123	754	1"1/4 F	27
	498	1.1	170	32	100	123	826	2" F	28
	570	1.1	170	32	100	123	898	2" F	29
PIV 6-5-6	234	1.5	170	32	100	123	562	1"1/4 F	24
	258	1.5	170	32	100	123	586	1"1/4 F	24
	282	1.5	170	32	100	123	610	1"1/4 F	25
	330	1.5	170	32	100	123	658	1"1/4 F	26
	378	1.5	170	32	100	123	706	1"1/4 F	27
	426	1.5	170	32	100	123	754	1"1/4 F	28
	498	1.5	170	32	100	123	826	2" F	29
	570	1.5	170	32	100	123	898	2" F	30
PIV 6-5-7	258	1.5	170	32	100	123	586	1"1/4 F	24
	282	1.5	170	32	100	123	610	1"1/4 F	25
	330	1.5	170	32	100	123	658	1"1/4 F	26
	378	1.5	170	32	100	123	706	1"1/4 F	27
	426	1.5	170	32	100	123	754	1"1/4 F	28
	498	1.5	170	32	100	123	826	2" F	29
	570	1.5	170	32	100	123	898	2" F	30
PIV 6-5-8	282	1.8	190	32	100	133	650	1"1/4 F	28
	330	1.8	190	32	100	133	698	1"1/4 F	29
	378	1.8	190	32	100	133	746	1"1/4 F	30
	426	1.8	190	32	100	133	794	1"1/4 F	31
	498	1.8	190	32	100	133	866	2" F	32
	570	1.8	190	32	100	133	938	2" F	33
PIV 6-5-10	330	2.2	190	32	100	133	698	1"1/4 F	31
	378	2.2	190	32	100	133	746	1"1/4 F	32
	426	2.2	190	32	100	133	794	1"1/4 F	33
	498	2.2	190	32	100	133	866	2" F	34
	570	2.2	190	32	100	133	938	2" F	35
PIV 6-5-12	378	3	200	32	100	138	791	1"1/4 F	36
	426	3	200	32	100	138	839	1"1/4 F	37
	498	3	200	32	100	138	911	2" F	38
	570	3	200	32	100	138	983	2" F	39
PIV 6-5-14	426	3	200	32	100	138	839	1"1/4 F	37
	498	3	200	32	100	138	911	2" F	38
	570	3	200	32	100	138	983	2" F	39
PIV 6-5-17	498	4	200	40	110	138	914	2" F	42
	570	4	200	40	110	138	986	2" F	42
PIV 6-5-19	570	4	200	40	100	138	986	2" F	43



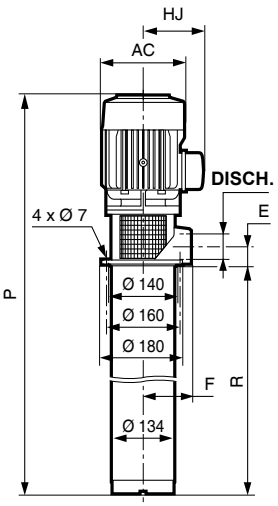
Standard submersion depth

Dimensions

Dimensions of PIV 6 pumps

Dimensions in millimetres

Type	Submersion depth Dimension R	Motor power (kW) 50 Hz	Pumps AC	E	F	HJ	P	Opening Discharge	Weight kg
PIV 6-8-2	150	0.75	170	40	110	123	491	2" F	17
	180	0.75	170	40	110	123	521	2" F	18
	210	0.75	170	40	110	123	551	2" F	19
	240	0.75	170	40	110	123	581	2" F	20
	270	0.75	170	40	110	123	611	2" F	21
	300	0.75	170	40	110	123	641	2" F	21
	330	0.75	170	40	110	123	671	2" F	22
	390	0.75	170	40	110	123	731	2" F	23
	450	0.75	170	40	110	123	791	2" F	24
	510	0.75	170	40	110	123	851	2" F	25
	600	0.75	170	40	110	123	941	2" F	26
	660	0.75	170	40	110	123	1001	2" F	27
PIV 6-8-3	180	1.1	170	40	110	123	521	2" F	19
	210	1.1	170	40	110	123	551	2" F	20
	240	1.1	170	40	110	123	581	2" F	21
	270	1.1	170	40	110	123	611	2" F	22
	300	1.1	170	40	110	123	641	2" F	22
	330	1.1	170	40	110	123	671	2" F	23
	390	1.1	170	40	110	123	731	2" F	24
	450	1.1	170	40	110	123	791	2" F	25
	510	1.1	170	40	110	123	851	2" F	26
	600	1.1	170	40	110	123	941	2" F	27
	660	1.1	170	40	110	123	1001	2" F	28
PIV 6-8-4	210	1.5	170	40	110	123	551	2" F	21
	240	1.5	170	40	110	123	581	2" F	22
	270	1.5	170	40	110	123	611	2" F	23
	300	1.5	170	40	110	123	641	2" F	23
	330	1.5	170	40	110	123	671	2" F	24
	390	1.5	170	40	110	123	731	2" F	25
	450	1.5	170	40	110	123	791	2" F	26
	510	1.5	170	40	110	123	851	2" F	27
	600	1.5	170	40	110	123	941	2" F	28
	660	1.5	170	40	110	123	1001	2" F	29
PIV 6-8-5	240	1.8	190	40	110	133	611	2" F	27
	270	1.8	190	40	110	133	641	2" F	28
	300	1.8	190	40	110	133	671	2" F	28
	330	1.8	190	40	110	133	701	2" F	29
	390	1.8	190	40	110	133	761	2" F	30
	450	1.8	190	40	110	133	821	2" F	31
	510	1.8	190	40	110	133	881	2" F	32
	600	1.8	190	40	110	133	971	2" F	33
	660	1.8	190	40	110	133	1031	2" F	34
PIV 6-8-6	270	2.2	190	40	110	133	641	2" F	30
	300	2.2	190	40	110	133	671	2" F	30
	330	2.2	190	40	110	133	701	2" F	31
	390	2.2	190	40	110	133	761	2" F	32
	450	2.2	190	40	110	133	821	2" F	33
	510	2.2	190	40	110	133	881	2" F	34
	600	2.2	190	40	110	133	971	2" F	35
	660	2.2	190	40	110	133	1031	2" F	36
PIV 6-8-7	300	3	200	40	110	138	716	2" F	34
	330	3	200	40	110	138	746	2" F	35
	390	3	200	40	110	138	806	2" F	36
	450	3	200	40	110	138	866	2" F	37
	510	3	200	40	110	138	926	2" F	38
	600	3	200	40	110	138	1016	2" F	39
	660	3	200	40	110	138	1076	2" F	40
PIV 6-8-8	330	3	200	40	110	138	746	2" F	35
	390	3	200	40	110	138	806	2" F	36
	450	3	200	40	110	138	866	2" F	37
	510	3	200	40	110	138	926	2" F	38
	600	3	200	40	110	138	1016	2" F	39
	660	3	200	40	110	138	1076	2" F	40
PIV 6-8-10	390	4	200	40	110	138	806	2" F	37
	450	4	200	40	110	138	866	2" F	38
	510	4	200	40	110	138	926	2" F	39
	600	4	200	40	110	138	1016	2" F	40
	660	4	200	40	110	138	1076	2" F	41
PIV 6-8-11	450	4	200	40	110	138	746	2" F	38
	510	4	200	40	110	138	794	2" F	39
	600	4	200	40	110	138	866	2" F	40
	660	4	200	40	110	138	938	2" F	41
PIV 6-8-12	450	5.5	235	40	110	148	891	2" F	47
	510	5.5	235	40	110	148	951	2" F	48
	600	5.5	235	40	110	148	1041	2" F	49
	660	5.5	235	40	110	148	1101	2" F	50
PIV 6-8-14	510	5.5	235	40	110	148	951	2" F	48
	600	5.5	235	40	110	148	1041	2" F	49
	660	5.5	235	40	110	148	1101	2" F	50
PIV 6-8-17	600	7.5	235	40	110	148	1076	2" F	55
	660	7.5	235	40	110	148	1136	2" F	56
PIV 6-8-19	660	7.5	235	40	110	148	1136	2" F	56



Standard submersion depth

PLS
Pumps

General information

Self-priming pumps for machine tools

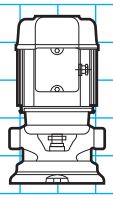
Applications
- Lubrication
- Transfer of clear and fully clarified cutting oils (machines: lathe, milling machine, etc.)

Conditions of use
- For clear and perfectly clarified liquids
- Temperature of pumped liquid between –10°C and 40°C
- Maximum ambient temperature: 40°C
- Maximum operating pressure: 1.5 bar
- Maximum viscosity of pumped liquid:
  - 20 mm^2/s for PLSH and PLS 2
  - 75 mm^2/s for PLS 71/2
- Maximum manometric suction head: 0.5 m
- Motor electrical power supply:
  - 3-phase 230/400 V ± 10% - 50 Hz

Description of PLS pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- 3-phase 230/400 V ± 10% - 50 Hz - Class F - S1 duty - IP 55 protection
Pump body and cover	FGL 250 cast iron	
Impeller	Brass	
Shaft	X33 Cr 13 stainless steel	
Mechanical seal	Graphite/ceramic, nitrile seals	

Mounting position



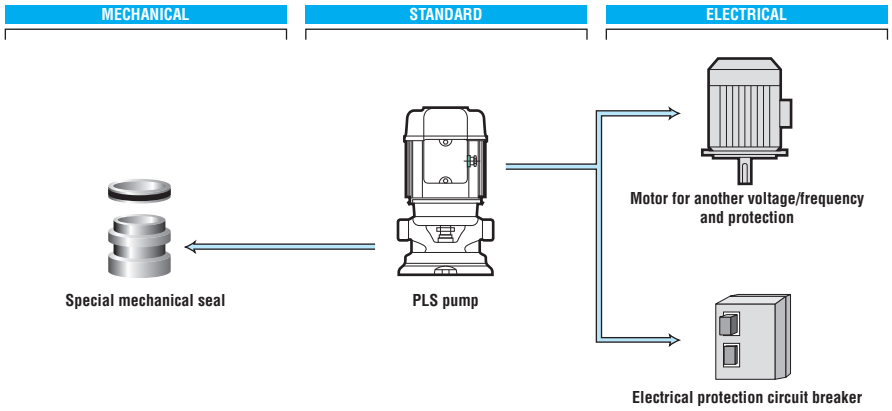
Only possibility

PLS
Pumps

Adaptation possibilities

☞ ***Options:***

- electrical protection (circuit breaker)
- motor with another voltage and/or frequency
- special mechanical seal



C

Designation / Coding

PLS	H	A
Designation of the series	Type of hydraulic unit	Manufacturing index

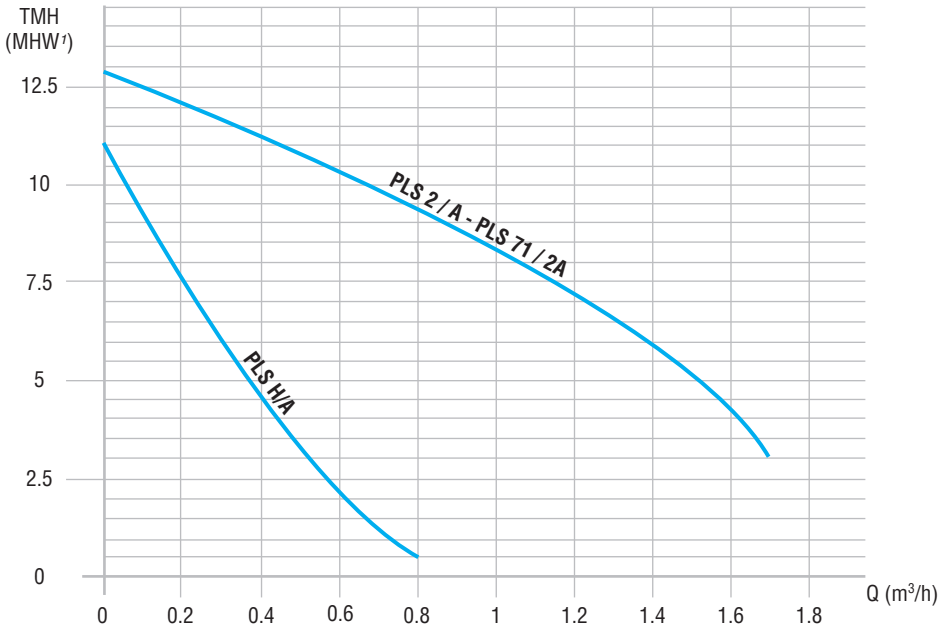
☞ ***Example of coding:***

Designation	Code
PLSH/A	T 141 PC 01

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

PLS
Pumps

Selection



INDUSTRY

C

Rated flow: 0.4 to 1 m³/h

Type	Product code	Flow in m³/h	0	0.2	**0.4**	0.6	0.8	**1**	1.2	1.4	1.6	1.7	kW Output	Current in A 3-ph	Current in A 3-ph
PLSH/A	T 141 PC 01	TMH in MHW[1]	11	7.6	**4.6**	2.1	0.5	-	-	-	-	-	0.12	0.7	0.4
PLS2/A	T 141 PC 03		12.7	12	11.3	10.3	9.4	**8.4**	7.2	6	4.2	3	0.25	1.2	0.75
PLS71/2A	T 141 PC 04		12.7	12	11.3	10.3	9.4	**8.4**	7.2	6	4.2	3	0.55	2.35	1.35

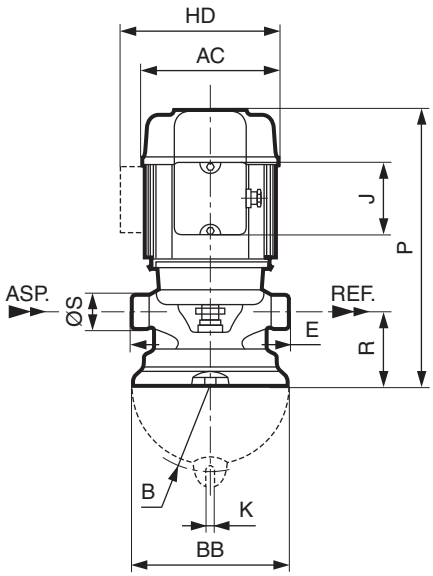
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW).

PLS
Pumps

Dimensions

Dimensions of PLS pumps

Dimensions in millimetres



	Pumps										Openings		Weight
Type	AC	B	BB	E	HD	J	K	P	R	S	Suction	Discharge	kg
PLSH/A	124	124	108	120	143	65	8	167	40	30	1/2" F (15/21)	1/2" F (15/21)	5
PLS2/A	124	154	140	140	148	75	8.5	250	70	40	3/4" F (20/27)	3/4" F (20/27)	10
PLS71/2A	140	154	140	140	148	75	8.5	273	70	40	3/4" F (20/27)	3/4" F (20/27)	11

IP/H
Pumps

General information

Pumps with submersible hydraulic unit for machine tools

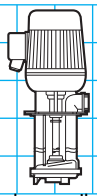
Applications
- Lubrication
- Transfer of cutting oils which may contain abrasive particles
(machines: precision grinding machine, tool grinder, etc.).
- Can be fitted on the sprinkler liquid drainpan in accordance with standard DIN 5440.

Conditions of use
- For clear or slightly contaminated liquids
- Submersion depth: 90, 140, 170, 220 and 270 mm
- Temperature of pumped liquid between –10°C and 60°C
- Maximum ambient temperature: 40°C
- Maximum operating pressure: 1 bar
- Maximum viscosity of pumped liquid: 34 mm^2/s
- Motor electrical power supply:
  • 3-phase 230/400 V ± 10% - 50 Hz

Description of IP/H pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- 3-phase 230/400 V ± 10% - 50 Hz - Class F - S1 duty - IP 55 protection
Pump body	Synthetic material	
Impeller	Synthetic material	
Pump shaft	Steel	

Mounting position



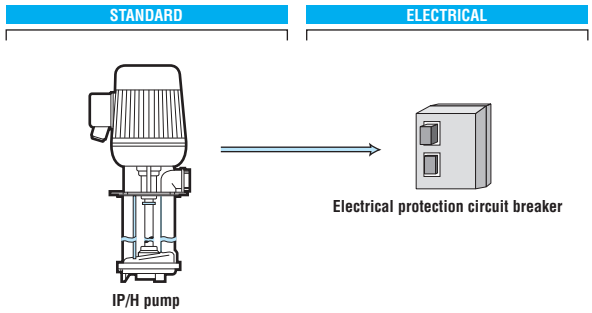
Only possibility

IP/H
Pumps

Adaptation possibilities

☞ ***Options:***

• electrical protection (circuit breaker)



C

Designation / Coding

IP	7	H	HP	140
Designation of the series	Number of the series	Manufacturing index	Submersion depth	Submersion depth in mm

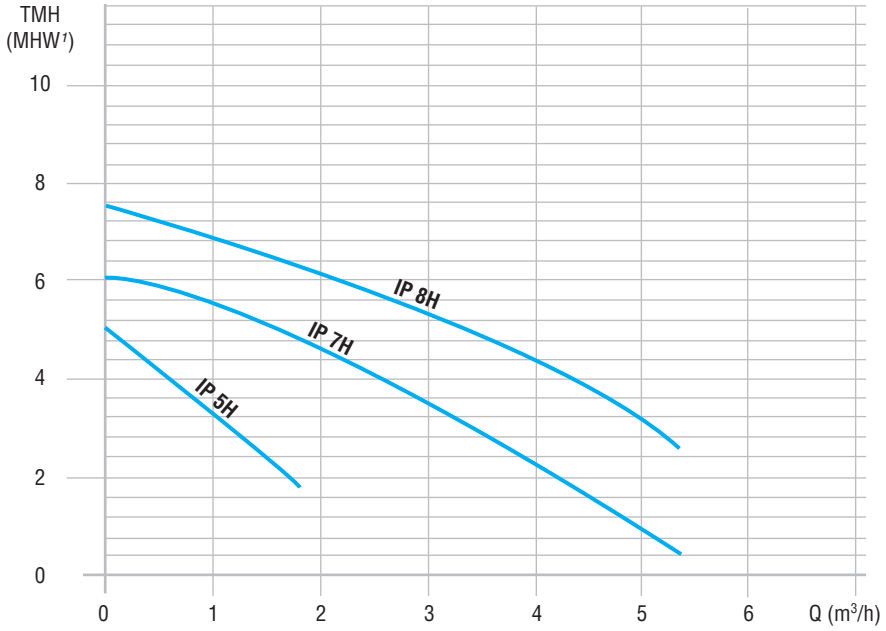
☞ ***Example of coding:***

Designation	Code
IP 7H HP 140	P 0M 00058

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

IP/H
Pumps

Selection



Rated flow: 0.5 to 3 m³/h

Type	Product code	Submersion depth	Flow in m³/h	0	0.5	1.2	1.8	3	4.2	5.4	6.6	kW Outp	Current in A 3-ph 230V	Current in A 3-ph 400V
IP 5 H	POM 000 62	90		5	**4.1**	3	1.8	-	-	-	-	0.11	0.48	0.28
IP 5 H	POM 000 56	140		5	**4.1**	3	1.8	-	-	-	-	0.11	0.48	0.28
IP 5 H	POM 000 57	220		5	**4.1**	3	1.8	-	-	-	-	0.11	0.48	0.28
IP 7 H	POM 000 58	140		6.2	5.8	5.4	**4.8**	**3.5**	2	0.4	-	0.16	0.76	0.44
IP 7 H	POM 000 64	170	TMH in MHW1	6.2	5.8	5.4	**4.8**	**3.5**	2	0.4	-	0.16	0.76	0.44
IP 7 H	POM 000 59	220		6.2	5.8	5.4	**4.8**	**3.5**	2	0.4	-	0.16	0.76	0.44
IP 7 H	POM 000 65	270		6.2	5.8	5.4	**4.8**	**3.5**	2	0.4	-	0.16	0.76	0.44
IP 8 H	POM 000 60	140		7.5	7.1	6.8	**6.3**	**5.3**	4.2	2.6	0.9	0.21	1.16	0.67
IP 8 H	POM 000 61	220		7.5	7.1	6.8	**6.3**	**5.3**	4.2	2.6	0.9	0.21	1.16	0.67
IP 8 H	POM 000 63	270		7.5	7.1	6.8	**6.3**	**5.3**	4.2	2.6	0.9	0.21	1.16	0.67

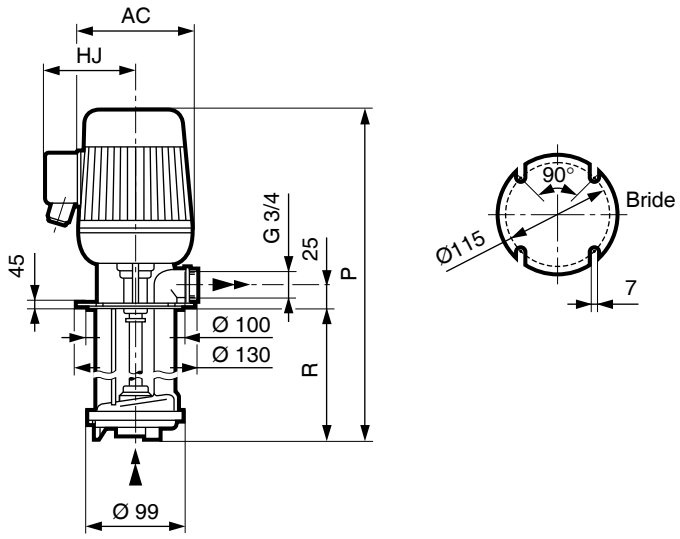
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW).

IP/H
Pumps

Dimensions

Dimensions of IP/H pumps

Dimensions in millimetres



Type	Pumps R	AC	HJ	P	Opening Discharge	Weight kg
IP 5 H	90	120	98	280		3
IP 5 H	140	120	98	330		3.3
IP 5 H	220	120	98	410		3.7
IP 7 H	140	120	98	356		3.8
IP 7 H	170	120	98	386	3/4" F	3.9
IP 7 H	220	120	98	436	(20/27)	4
IP 7 H	270	120	98	486		4.1
IP 8 H	140	120	98	356		3.8
IP 8 H	220	120	98	436		4
IP 8 H	270	120	98	486		4

FU
Pumps

General information

Monobloc pumps for fuel oil transfer
- FU 4: vane pump with built-in by-pass. Single-phase model supplied with switch and power supply cable fitted with a standard plug (2 pins + earth), self-priming.
- FU 20 and FU 27: single-stage self-priming pumps.

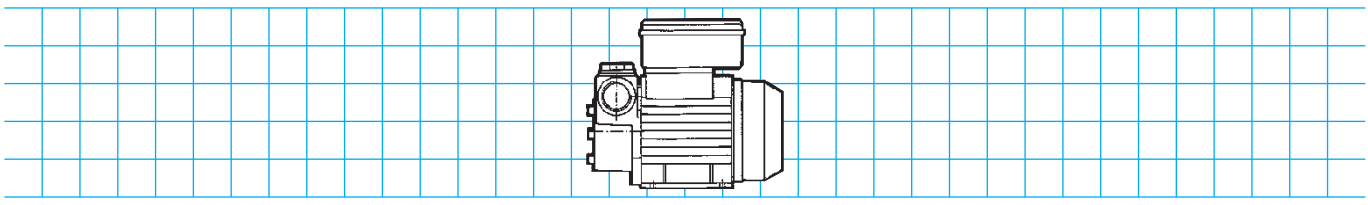
Applications
- Specially designed for fuel oil transfer (agriculture, civil engineering, transport, navigation)
- FU 4: must not be used for transferring petrol, solvents and water
- FU 20 and FU 27: must not be used for transferring petrol and solvents

Conditions of use
- Maximum operating pressure:
  • 6 bar for FU 4
  • 6 bar for FU 20 and FU 27
- Maximum ambient temperature: 40°C
- Maximum manometric suction head: 7 m
- Maximum viscosity of pumped liquid: 20 mm^2/s
- For frequent and intensive use
- Motor electrical power supply:
  • single phase 230 V ± 10% - 50 Hz for FU 4 M and FU 20 M
  • 3-phase 230 V/400 V ± 10% - 50 Hz for FU 4 T - FU 20 T - FU 27 T

Description of FU pumps

Component	Materials	Remarks
Motor	Asynchronous 3,000 min^{-1}	- Power supply: • single phase 230 V ± 10% - 50 Hz with built-in automatic reset thermal protection • 3-phase 230/400 V ± 10% - 50 Hz - Class F - S1 duty - IP 55 protection
Pump body	FGL 250 cast iron	
Cover	Cast iron on FU 20 and FU 27 Steel on FU 4	
Shaft	X33 Cr 13 stainless steel on FU 20 and FU 27 Steel on FU 4	
Impeller	Brass on FU 20 and FU 27 Steel rotor with nylon blades on FU 4	
Mechanical seal	Graphite/ceramic, Viton seals	
"O" ring seals	Viton	

Mounting position



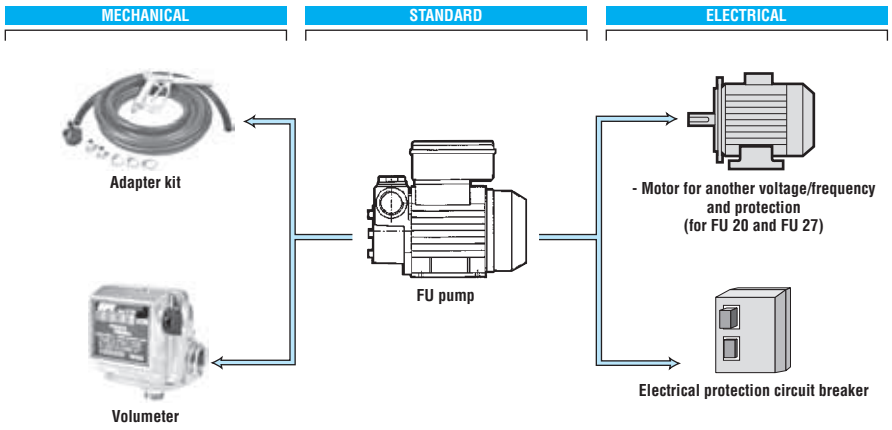
Only possibility

FU
Pumps

Adaptation possibilities

☞ ***Options:***

- adapter kit (suction/discharge) for making on demand:
  - the suction part (strainer, connector, etc.)
  - the discharge part (connector, pistol, etc.) using its special hydrocarbon tube, 6 m long, to be cut to the desired size
- volumeter with totaliser and daily meter
- electrical protection (circuit breaker)
- for FU 20 and FU 27:
  - motor for another voltage and/or frequency
  - other protection



Designation / Coding

FU	4	M
Designation of the series	Characteristics	Single phase

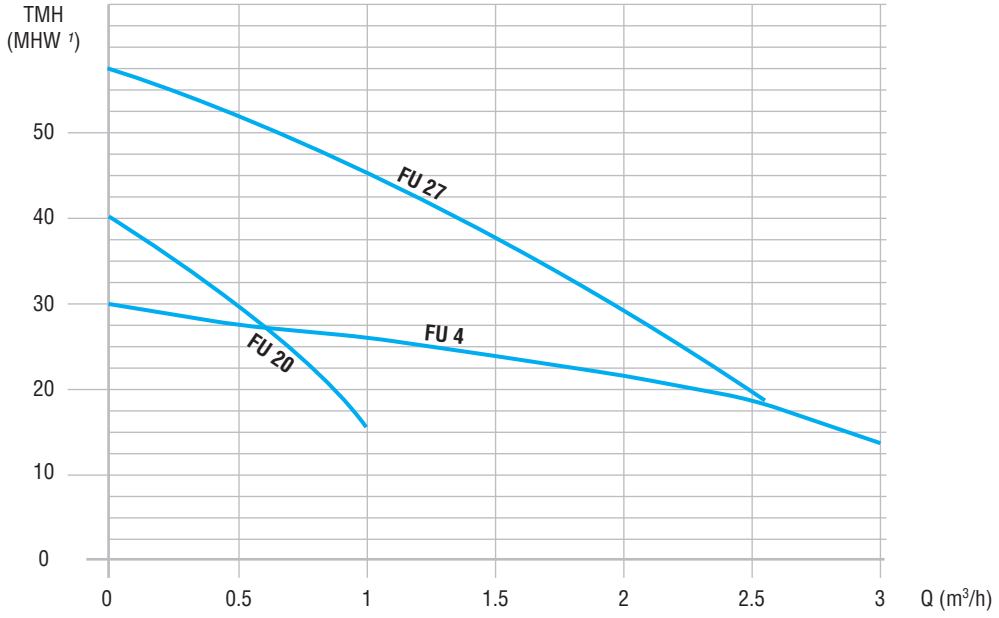
☞ ***Example of coding:***

Designation	Code
FU 4 M	T 990 PC 20

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each product is classified in order of hydraulic characteristics.

FU
Pumps

Selection



INDUSTRY

C

Rated flow: 0.5 to 2 m³/h

Type	Product code	Flow rate in m³/h	0	0.5	1	1.5	2	2.5	3	kW Output	Current in A 1-ph 230V	3-ph 230V	3-ph 400V
FU 4 M	T 990 PC 20	TMH in MHW[1]	30	28	26	**24**	**22**	19	13	0.5	2.2	-	-
FU 4 T	T 990 PC 21		30	28	26	**24**	**22**	19	13	0.5	-	-	0.9
FU 20 M	T 011 PC 16		40	**30**	15	-	-	-	-	0.25	1.9	-	-
FU 20 T	T 011 PC 17		40	**30**	15	-	-	-	-	0.25	-	1.25	0.75
FU 27 T	T 011 PC 18		58	52	45	37	**29**	19	-	0.75	-	3.25	1.9

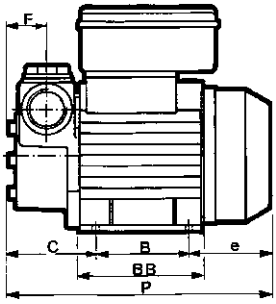
1. Total Manometric Head (TMH) in Metres of Head of Water (MHW).

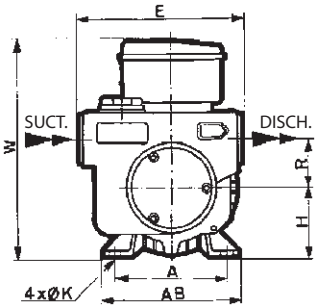
FU
Pumps

Dimensions

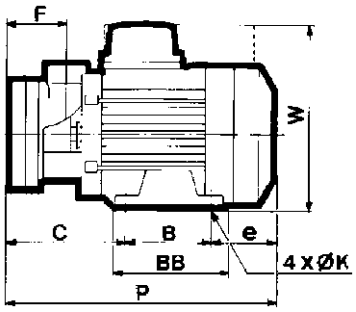
Dimensions of FU pumps

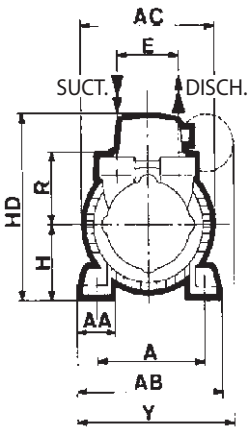
Dimensions in millimetres





FU 4





FU 20 - FU 27

Type	Pumps													Openings		Weight
	A	AB	B	BB	C	e	E	F	H	ØK	P	R	W	Suction	Discharge	kg
FU 4 M	100	120	80	100	75	69	150	31.5	63	7	224	40	170	1" F (26/34)	1" F (26/34)	7
FU 4 T	100	120	80	100	75	69	150	31.5	63	7	224	40	170	1" F (26/34)	1" F (26/34)	7
FU 20 M	100	115	80	94	107	62	82	60	63	7	240	70	158	3/4 F (20/27)	3/4 F (20/27)	9.5
FU 20 T	100	115	80	94	107	62	82	60	63	7	240	70	158	3/4 F (20/27)	3/4 F (20/27)	9.3
FU 27 T	125	157	100	120	124	64	85	60	80	9	288	80	202	1" F (26/34)	1" F (26/34)	12

Compatibility chart

Compatibility chart for electropumps with the liquids pumped

☞ ***User guide:***

• STEP 1: Select the pump type according to the required characteristics (flow rate, pressure, voltage, etc.)

• STEP 2: Look in the "Liquids pumped" column for the one matching the requirement

• STEP 3: The relationship between the two shows you the following possibilities:

STD : The electropump in its standard version can pump the desired liquid.

A B C or D The electropump can pump the desired liquid, with a technical adaptation. A, B, C or D corresponds to a tariff supplement.

✆ : Consult the LEROY-SOMER technical specialists.

: The electropump cannot pump the desired liquid.

NOTE: For any other pumped liquid, please consult the LEROY-SOMER technical specialists.

Liquid pumped	Temperature	Concentration	Viscosity	Series PJ	Series LS PRO	Series MIH Indus
WATER						
Clear water	0° to 40°C	-	-	STD	STD	STD
Clear water	40°C to 60°C	-	-			STD
Clear water	60°C to 90°C	-	-			STD
Clear water	90°C to 110°C	-	-			STD
Demineralised water	0°C to 40°C	-	-	STD	STD	STD
Distilled water	0°C to 40°C	-	-	STD	STD	STD
Seawater	≤ 40°C					STD
Swimming pool water	0 to 40°C			STD	STD	STD
Condensate water				✆	✆	STD
Water contaminated with Paint sediments	≤ 40°C	-	-			
REFRIGERANT						
Glycol water	-20°C to 40°C	≤ 30%	-	STD	STD	STD
Glycol water	40°C to 90°C	≤ 30%	-			STD
OILS AND HYDROCARBONS						
Mineral oil (Skydrol)	≤ 60°C	-	-			A
Soluble oil				✆	✆	B
Cutting oil				✆	✆	B
Drainage oil						
Transformer oil						
Fuel						
Fuel oil	10°C to 60°C	Dom fuel oil	<3° Engler			A
DETERGENTS						
Alkaline detergents				✆	✆	✆
Kerosene / White Spirit	≤ 40°C	-	-			A
Trichlorethylene / Xylophene	≤ 40°C					A
Toluene	≤ 40°C	-	-			A
OTHER LIQUIDS						
Water + lye	0°C to 60°C	≤ 25%	-			✆
Water + lye	60°C to 90°C	≤ 25%	-			✆
Alcohol: Methyl : Isopropyl : Ethyl	≤ 40°C	-	-			✆
Sodium brine	≤ 60°C	d ≤ 1.2	-			✆
Milk (livestock food)	≤ 60°C	-	-			✆
All acids (all concentrations)	≤ 40°C	-				

CAUTION: For any pump conveying oils, hydrocarbons, detergents, alcohol, or water contaminated with paint sediments, make sure that this pump does not operate in a potentially explosive atmosphere. LEROY-SOMER accepts no liability if a standard motor is used.

Compatibility chart

Compatibility chart for electropumps with the liquids pumped

Liquid pumped	Temperature	Concentration	Viscosity	Series SP 20	Series PSP	Series SPN27
WATER						
Clear water	0° to 40°C	-	-	STD	STD	STD
Clear water	40°C to 60°C	-	-	STD	STD	STD
Clear water	60°C to 90°C	-	-	B	STD	B
Clear water	90°C to 110°C	-	-		STD	
Demineralised water	0°C to 40°C	-	-		A	
Distilled water	0°C to 40°C	-	-		A	
Seawater	≤ 40°C					
Swimming pool water				◑	STD	◑
Condensate water				◑	◑	◑
Water contaminated with paint sediments	≤ 40°C	-	-			
REFRIGERANT						
Glycol water	-20°C to 60°C	≤ 30%	-	STD	STD	STD
Glycol water	60°C to 90°C	≤ 30%	-	B	STD	B
OILS AND HYDROCARBONS						
Mineral oil (Skydrol)	≤ 60°C	-	-	A	A	A
Soluble oil				◑	◑	◑
Cutting oil				◑	◑	◑
Drainage oil				◑	◑	◑
Transformer oil				◑	◑	◑
Fuel				◑	◑	◑
Fuel oil	10°C to 60°C	Dom fuel oil	<3° Engler	A	A	A
DETERGENTS						
Alkaline detergents				◑	◑	◑
Kerosene / White Spirit	≤ 40°C	-	-	A	A	A
Trichlorethylene / Xylophene	≤ 40°C			A	A	A
Toluene	≤ 40°C	-	-	A		A
OTHER LIQUIDS						
Water + lye	0°C to 60°C	≤ 25%	-			
Water + lye	60°C to 90°C	≤ 25%	-			
Alcohol: Methyl : Isopropyl : Ethyl	≤ 40°C	-	-	A		A
Sodium brine	≤ 60°C	d ≤ 1.2	-			
Milk (livestock food)	≤ 60°C	-	-			
All acids (all concentrations)	≤ 40°C	-				

CAUTION: For any pump conveying oils, hydrocarbons, detergents, alcohol, or water contaminated with paint sediments, make sure that this pump does not operate in a potentially explosive atmosphere. LEROY-SOMER accepts no liability if a standard motor is used.

Compatibility chart

Compatibility chart for electropumps with the liquids pumped

Liquid pumped	Temperature	Concentration	Viscosity	Series LT 20	LT 33	LT 50	LT 70
WATER							
Clear water	0° to 40°C	-	-	STD	STD	STD	STD
Clear water	40°C to 60°C	-	-	STD	STD	STD	STD
Clear water	60°C to 90°C	-	-	B	B	STD	STD
Clear water	90°C to 110°C	-	-	B	B	STD	STD
Demineralised water	0°C to 40°C	-	-				
Distilled water	0°C to 40°C	-	-				
Seawater	≤ 40°C						
Swimming pool water				③	③	③	③
Condensate water				③	③	③	③
Water contaminated with sediments of paint	≤ 40°C	-	-			A	A
REFRIGERANT							
Glycol water	-20°C to 60°C	≤ 30%	-	STD	STD	STD	STD
Glycol water	60°C to 90°C	≤ 30%	-	B	B	STD	STD
OILS AND HYDROCARBONS							
Mineral oil (Skydrol)	≤ 60°C	-	-	B	B	A	A
Soluble oil				③	③	A	A
Cutting oil				③	③	A	A
Drainage oil				③	③	③	③
Transformer oil				③	③	③	③
Fuel				③	③	③	③
Fuel oil	10°C to 60°C	Dom fuel oil	<3° Engler	B	B	A	A
DETERGENTS							
Alkaline detergents				③	③	③	③
Kerosene / White Spirit	≤ 40°C	-	-	B	B	A	A
Trichlorethylene / Xylophene	≤ 40°C			B	B	A	A
Toluene	≤ 40°C	-	-	B	B	A	A
OTHER LIQUIDS							
Water + lye	0°C to 60°C	≤ 25%	-	A	A	A	A
Water + lye	60°C to 90°C	≤ 25%	-	B	B	A	A
Alcohol: Methyl : Isopropyl : Ethyl	≤ 40°C	-	-	B	B	A	A
Sodium brine	≤ 60°C	d ≤ 1.2	-				
Milk (livestock food)	≤ 60°C	-	-		③		
All acids (all concentrations)	≤ 40°C	-					

CAUTION: For any pump conveying oils, hydrocarbons, detergents, alcohol, or water contaminated with paint sediments, make sure that this pump does not operate in a potentially explosive atmosphere. LEROY-SOMER accepts no liability if a standard motor is used.

Compatibility chart

Compatibility chart for electropumps with the liquids pumped

Liquid pumped	Viscosity / Temperature	Concentration		Series LSMH	LSIO	LS	CA	IN	INCA	PV 4	PIV 6
WATER											
Clear water	0° to 40°C	-	-	STD	STD	STD	STD	STD	STD	STD	STD
Clear water	40°C to 60°C	-	-	STD	STD	STD	STD	STD	STD	STD	STD
Clear water	60°C to 90°C	-	-	STD	STD	STD	STD	STD	STD	◑	STD
Clear water	90°C to 110°C	-	-	-	STD	STD	STD	STD	STD	◑	◑
Demineralised water	0°C to 40°C	-	-		STD			STD	STD	STD	◑
Distilled water	0°C to 40°C	-	-		STD			STD	STD	STD	◑
Seawater	≤ 40°C				STD	◑	◑	STD	STD	◑	◑
Swimming pool water					STD	◑	◑	STD	STD	STD	◑
Condensate water					◑	◑	◑	◑	◑	◑	◑
Water contaminated with paint sediments	≤ 40°C	-	-		A	B	B	STD	STD		
REFRIGERANT											
Glycol water	-20°C to 60°C	≤ 30%	-	STD	STD	STD	STD	STD	STD	STD	STD
Glycol water	60°C to 90°C	≤ 30%	-	STD	STD	STD	STD	STD	STD	◑	STD
OILS AND HYDROCARBONS											
Mineral oil (Skydrol)	≤ 60°C	-	-	A	STD	B	B	STD	STD	STD	STD
Soluble oil				A	STD	B	B	STD	STD	STD	STD
Cutting oil				◑	STD	B	B	◑	◑	STD	STD
Drainage oil				◑	◑	◑	◑	◑	◑	◑	◑
Transformer oil				◑	◑	◑	◑	STD	STD	◑	◑
Fuel				◑	◑	◑	◑	◑	◑	◑	◑
Fuel oil	10°C to 60°C	Dom fuel oil	<3° Engler	A	STD	B	B	STD	STD	STD	STD
DETERGENTS											
Alkaline detergents				◑	◑	◑	◑	STD	STD	◑	◑
Kerosene / White Spirit	≤ 40°C	-	-	A	STD	B	B	STD	STD		
Trichlorethylene / Xylophene	≤ 40°C			A	STD	B	B	STD	STD		
Toluene	≤ 40°C	-	-	A	STD	B	B	STD	STD		
OTHER LIQUIDS											
Water + lye	0°C to 60°C	≤ 25%	-	STD	STD	STD	STD	STD	STD	STD	STD
Water + lye	60°C to 90°C	≤ 25%	-	◑	STD	STD	STD	STD	STD	◑	STD
Alcohol: Methyl : Isopropyl : Ethyl	≤ 40°C	-	-		◑	◑	◑	◑	◑		
Sodium brine	≤ 60°C	d ≤ 1.2	-		◑					◑	◑
Milk (livestock food)	≤ 60°C	-	-		◑						
All acids (all concentrations)	≤ 40°C	-									

CAUTION: For any pump conveying oils, hydrocarbons, detergents, alcohol, or water contaminated with paint sediments, make sure that this pump does not operate in a potentially explosive atmosphere. LEROY-SOMER accepts no liability if a standard motor is used.

Compatibility chart

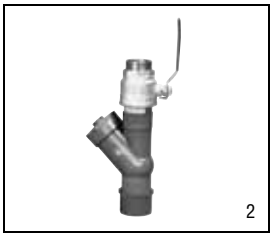
Compatibility chart for electropumps with the liquids pumped

Liquid pumped	Temperature	Concentration	Viscosity	Series MIV	PLSH/A	PLS2/A	PLS71/2A	IP
WATER								
Clear water	0° to 40°C	-	-	STD	STD	STD	STD	STD
Clear water	40°C to 60°C	-	-	STD	STD	STD	STD	STD
Clear water	60°C to 90°C	-	-	STD	B	B	B	
Clear water	90°C to 110°C	-	-	STD				
Demineralised water	0°C to 40°C	-	-	STD				
Distilled water	0°C to 40°C	-	-	STD				
Seawater	≤ 40°C			①				
Swimming pool water				STD				
Condensate water				①				
Water contaminated with paint sediments	≤ 40°C	-	-					
REFRIGERANT								
Glycol water	-20°C to 60°C	≤ 30%	-	STD	STD	STD	STD	STD
Glycol water	60°C to 90°C	≤ 30%	-	STD	B	B	B	
OILS AND HYDROCARBONS								
Mineral oil (Skydrol)	≤ 60°C	-	-	A	A	A	A	STD
Soluble oil				B	STD	STD	STD	STD
Cutting oil				B	STD	STD	STD	STD
Drainage oil				①	①	①	①	①
Transformer oil				①	①	①	①	①
Fuel				①	①	①	①	①
Fuel oil	10°C to 60°C	Dom fuel oil	<3° Engler	A	A	A	A	STD
DETERGENTS								
Alkaline detergents				①	①	①	①	①
Kerosene / White Spirit	≤ 40°C	-	-	A	A	A	A	
Trichlorethylene / Xylophene	≤ 40°C			A	A	B	B	
Toluene	≤ 40°C	-	-	A				
OTHER LIQUIDS								
Water + lye	0°C to 60°C	≤ 25%	-	STD				
Water + lye	60°C to 90°C	≤ 25%	-	STD				
Alcohol: Methyl : Isopropyl : Ethyl	≤ 40°C	-	-	①				
Sodium brine	≤ 60°C	d ≤ 1.2	-	①				
Milk (livestock food)	≤ 60°C	-	-	B				
All acids (all concentrations)	≤ 40°C	-						

CAUTION: For any pump conveying oils, hydrocarbons, detergents, alcohol, or water contaminated with paint sediments, make sure that this pump does not operate in a potentially explosive atmosphere. LEROY-SOMER accepts no liability if a standard motor is used.

Accessories for sump pumps and lifting stations


1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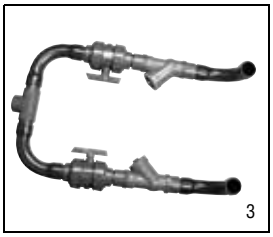
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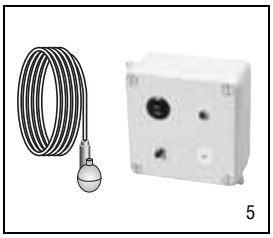
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6-7

ACCESSORIES FOR SUMP PUMPS

Ref.	Description	Code
	CALYPSO 20 and CENTAURE 16 NON-RETURN VALVE KIT	T 120 AM 01
	RESIST 5 NON-RETURN VALVE KIT	T 120 AM 09
	PLASTIC BALL VALVE	
1	• 1”1/2 integral	T 120 AM 07
	• 2” integral	T 120 AM 04
	• 2”1/2 integral	T 120 AM 08

ACCESSORIES FOR LIFTING STATIONS

Ref.	Description	Code
	BIOSANIT 251 VALVE KIT	T 010 PC 04
	consisting of: 1 PVC 2” ball valve,	
2	1 MM 2” spherical plug valve,	
	1 PN10 63/75 50 x 60 transition fitting for bonding	
	BIOSANIT 252 VALVE KIT	T 010 PC 05
	consisting of: 1 PVC 2”1/2 ball valve,	
2	1 FF 2”1/2 spherical plug valve,	
	3 PN10 75/90 66 x 76 transition fittings for bonding,	
	1 PVC pipe, pressure 75 x 5.5, length 100	
	BIOSANIT 501 VALVE KIT	T 010 PC 06
	consisting of: 2 PVC 2”1/2 ball valves,	
3	2 PVC F Ø 75 ball valves, 4 elbows,	
	FF Ø 75 large radius, 6 PVC pipes, pressure	
	75 x 5.5, length 100, 1 equal T-piece, 900 F Ø 75	
4	250 mm Ø 400 screw-on COLLAR	T 010 PC 10
	500 m Ø 400 screw-on COLLAR	T 010 PC 11
	BIOSANIT 251/252 COMPLETE ALARM KIT	T 010 PC 07
5	with float and 5 m of cable	
	BIOSANIT 501 ALARM UNIT	T 010 PC 12
	BIOSANIT 251/252 CONTROL UNIT KIT	T 010 PC 08
	allowing:	
	- Protection of a lift pump	
6	- Thermal magnetic protection of 230 V 50 Hz single-phase motor	
	- Control by 1 float	
	- Control and signalling on the front of the unit	
	- Alarm feedback on volt-free contact for possible use	
	of the alarm unit	
	BIOSANIT 501 ELECTRICAL CONTROL UNIT allowing:	T 010 PC 09
	- Protection of 2 lift pumps	
	- Thermal magnetic protection of two 230 V 50 Hz single-phase motors	
7	- Control by 3 floats (+ 1 for alarm)	
	- Control and signalling on the front of the unit	
	- Alarm feedback on volt-free contact for possible use	
	of the alarm unit	

Accessories for surface pumps


1

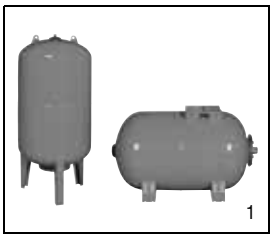
2


3

Ref.	Description	Code
	FLOAT SWITCH	
	• Used to ensure installation complies with current legislation (NFC 15100)	
	• Electrical power supply:	
	- Single phase: maximum voltage 250 V - 50 Hz or 60 Hz	
	15 A resistive - 8 A motor (inductive)	
	for electropump up to 1,500 W maximum	
1	- 3-phase: can be used on an installation only for driving	
	the coil of the circuit breaker (control circuit)	
	• Emptying or filling function possible with the same float	
	- with 5 m of cable	T 000 AE 61
	- with 10 m of cable	T 000 AE 04
	- with 10 m of cable and 2P + E single-phase connector	T 000 AE 03
	WATER LEVEL CONTROL UNIT	
2	(without cut-out, without relay)	
	For single-phase electropumps up to 1,500 W	
	CME 50 single-electrode with automatic reset by timer	T 000 AE 93
3	adjustable supplied with detection ELECTRODE KIT for CME 50	
	• Electrode connected to 30 m of cable	
	PROTECTION CIRCUIT BREAKER WITH RELAY	
	See Equipment	

E

Accessories for domestic submersible pumps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ACCESSORIES FOR PUIZA and AMINOX

Ref.	Description	Code
	BLADDER TANKS for the automation and distribution of water under pressure	
1	See Section F12.1 - Used in conjunction with a manometric contactor, it allows automatic running and stopping of the pump	
	WATER LEVEL CONTROL UNIT (without cut-out, without relay)	
2	For single-phase electropumps up to 1,500 W CME 50 - single-electrode with automatic reset by timer adjustable supplied with ELECTRODE KIT connected to 30 m of cable	T 000 AE 93
	NON-RETURN VALVE	T 120 AM 93
3	• Brass body • 1" FF (26/34) connector	
	SUSPENSION ROPE	T 000 AM 01
4	X2 Cr Ni Mo 17.12.2 (AISI 316L) stainless steel with plastic coating	
5	CABLE GRIP (single) for the above rope	T 000 AM 02
	MANOMETRIC CONTACTOR and MANOMETER for bladder tanks See Equipment	

Accessories for 4” submersible pumps


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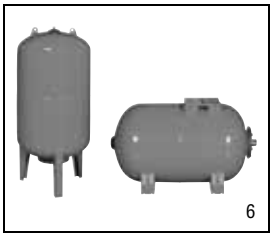
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Ref.	Description				Code
1	ELECTRICAL PROTECTION AND WATER LEVEL CONTROL Unit with thermal magnetic circuit-breaker included Maximum permissible power • 3-phase 50 Hz - 230 V = 2.2 kW 400 V = 5.5 kW • single-phase 50 Hz - 230 V = 1.5 kW CMN 04 - Operation in single-electrode mode with automatic reset by adjustable timer or in 3-electrode mode				
	Description	Amps	1-ph 230 V power	3-ph 400 V power	
	CMN 04 M06	1 to 1.6 A		0.37 kW	T 004 AE 01
	CMN 04 M07	1.6 to 2.5 A		0.55 and 0.75 kW	T 004 AE 02
	CMN 04 M08	2.5 to 4 A		1.1 kW	T 004 AE 03
	CMN 04 M10	4 to 6 A	0.37 kW	1.5 and 2.2 kW	T 004 AE 04
	CMN 04 M14	6 to 10 A	0.55 and 0.75 kW	3 kW	T 004 AE 05
	CMN 04 M16	9 to 14 A	1.1 and 1.5 kW	4 and 5.5 kW	T 004 AE 06
2	WATER LEVEL CONTROL UNIT Unit without cut-out, without thermal relay For single-phase electropumps up to 1,500 W				T 000 AE 93
3	CME 50 single-electrode with automatic reset by timer adjustable supplied with detection ELECTRODE KIT for CME 50 • electrode connected to 30 m of cable				
4	WATER LEVEL CONTROL Unit without cut-out and without relay for remote control use of circuit breaker ES 2001				T 000 AE 91
5	LEVEL ELECTRODE FOR CMN 04 and ES 2001				T 000 AE 05
	SINGLE-CORE CABLE FOR ABOVE ELECTRODE Cross-section 2.5 mm^2				T 000 AE 13
6	BLADDER TANKS for the automation and distribution of water under pressure See Section F12.1 - Used in conjunction with a manometric contactor, it allows automatic running and stopping of the pump				

Accessories for 4” submersible pumps


7/8


9


10

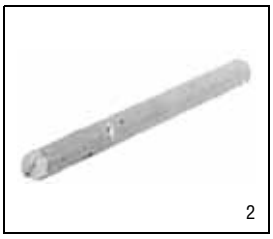

11


12

Ref.	Description		Code
	SUSPENSION ROPE		T 000 AM 01
7	(for depths greater than 50 m, double or triple the rope)		
	Z2 CND 18/12 (AISI 316) stainless steel with plastic coating		
8	CABLE GRIP (single) for the above rope		T 000 AM 02
	SLINGING EYE TUBE		
9	• 1”1/4 male/male made of stainless steel for rope of maximum Ø: 12 mm		T 000 AM 60
	• 2” male/male made of stainless steel for rope of maximum Ø: 12 mm		T 000 AM 61
	SLINGING QUICK COUPLING		T 000 AM 84
	ELECTRICAL CONNECTORS for 4” motors		
	- 3-phase (T3) and single-phase (S2) motors		
	4 x 1.5 mm^2 flat electrical cable	1.5	T 000 AE 82
	• 4 conductors (with no junction connected to the 4” electropump)	2.5	T 000 AE 83
10	• standard connector	5	T 000 AE 84
		15	T 000 AE 85
		30	T 000 AE 86
		50	T 000 AE 87
	• 316 L stainless steel connector	1.5	T 000 AE 88
		2.5	T 000 AE 89
	SPECIAL SUBMERSIBLE ELECTRICAL CABLE		
	4-conductor cable to be connected by junction	4x1.5 mm^2	T 000 AE 36
11	to the motor cable output of the electropump	4x2.5 mm^2	T 000 AE 37
		4x4 mm^2	T 000 AE 24
		4x6 mm^2	T 000 AE 44
	FACTORY JUNCTION TO BE MADE ON CABLE		
	Additional cost for connection in the factory by heat-shrink	4x1.5 mm^2	T 000 AE 95
	sleeving	4x2.5 mm^2	T 000 AE 95
		4x4 mm^2	T 000 AE 96
		4x6 mm^2	T 000 AE 96
	Additional cost for connection in the factory by site		T 000 AE 46
	junction box		
	JUNCTION		
12	Heat-shrink sleeving for 4 x 1.5 mm^2 and 4 x 2.5 mm^2 cables		T 000 AE 28
	Heat-shrink sleeving for 4 x 4 mm^2 and 4 x 6 mm^2 cables		T 000 AE 30
	Site junction box		T 000 AE 29
	MANOMETRIC CONTACTOR and MANOMETER for		
	bladder tank		
	See Equipment		

Accessories for 6” submersible pumps


1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3


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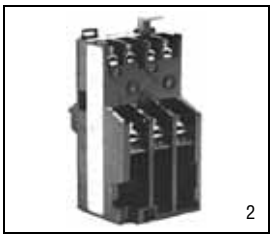
Ref.	Description		Code
1	WATER LEVEL CONTROL Unit without cut-out and without relay, for remote control use of circuit breaker ES 2001		T 000 AE 91
2	LEVEL ELECTRODE FOR ES 2001		T 000 AE 05
	SINGLE-CORE CABLE FOR ABOVE ELECTRODE Cross-section 2.5 mm²		T 000 AE 13
3	SPECIAL SUBMERSIBLE FLAT ELECTRICAL CABLE FOR 6” PUMPS FITTED WITH 4” MOTORS 4 x 1.5 mm² flat electrical cable	1.5	T 000 AE 82
	• 4 conductors (with no junction connected to the 4” electropump)	2.5	T 000 AE 83
	• standard connector	5	T 000 AE 84
		15	T 000 AE 85
		30	T 000 AE 86
		50	T 000 AE 87
	• 316 L stainless steel connector	1.5	T 000 AE 88
		2.5	T 000 AE 89
	4-conductor cable to be connected by junction to the motor cable output of the electropump	4x1.5 mm²	T 000 AE 36
		4x2.5 mm²	T 000 AE 37
		4x4 mm²	T 000 AE 24
		4x6 mm²	T 000 AE 44
	FACTORY JUNCTION TO BE MADE ON CABLE Additional cost for connection in the factory by heat-shrink sleeving	4x1.5 mm²	T 000 AE 95
		4x2.5 mm²	T 000 AE 95
		4x4 mm²	T 000 AE 96
		4x6 mm²	T 000 AE 96
	Additional cost for connection in the factory by site junction box		T 000 AE 46
4	JUNCTION Heat-shrink sleeving for 4 x 1.5 mm² and 4 x 2.5 mm² cables		T 000 AE 28
	Heat-shrink sleeving for 4 x 4 mm² and 4 x 6 mm² cables		T 000 AE 30
	Site junction box		T 000 AE 29

Equipment


1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Ref.	Description			Code
1	PROTECTION CIRCUIT-BREAKER Electrical protection supplied without a relay (see selection chart below for determining the relay) - LE1 - M Single-phase or three-phase 230 V protection circuit-breaker (9 A max.) - LE1 - M Three-phase 400 V protection circuit-breaker (9 A max.) - LE1 - D12 Three-phase 400 V protection circuit-breaker (12 A max.) - LE1 - D18 Three-phase 400 V protection circuit-breaker (18 A max.) - LE1 - D25 Three-phase 400 V protection circuit-breaker (25 A max.)			 T 000 AE 19 T 000 AE 20 T 000 AE 21 T 000 AE 47 T 000 AE 49
2	RELAY FOR ABOVE PROTECTION CIRCUIT-BREAKER			
	Description	Amps	Maximum current	
	Thermal relay (Specify the relay type on the order)	0.54 to 0.8 A	0.8 A	T 000 AE 72
		0.8 to 1.2 A	1.2 A	T 000 AE 73
		1.2 to 1.8 A	1.8 A	T 000 AE 74
		1.8 to 2.6 A	2.6 A	T 000 AE 75
		2.6 to 3.7 A	3.7 A	T 000 AE 76
		3.7 to 5.5 A	5.5 A	T 000 AE 77
		5.5 to 8 A	8 A	T 000 AE 78
		8 to 11.5 A	11.5 A	T 000 AE 79
	(For LE1-D12)	9 to 13 A	13 A	T 000 AE 39
	(For LE1-D18)	13 to 18 A	18 A	T 000 AE 48
	(For LE1-D25)	17 to 25 A	25 A	T 000 AE 50
3	MANOMETRIC CONTACTORS			
	• 2-POLE - Rating 0.9 to 6 bar with adjustment screw and interval screw Preset in factory to 1.5 / 3 bar Maximum thermal rated current 16 A at 230 V - 50 Hz 1/2" F hydraulic connection. With 1/4" pressure connector			T 000 AE 32
	• 3-POLE - Rating 0.9 to 6 bar with adjustment screw and interval screw Preset in factory to 1.5 / 3 bar Maximum thermal rated current 20 A 1/2" F hydraulic connection. With 1/4" pressure connector Run/stop switch **CAUTION**: This accessory does not remove the need for correct protection of the pump by a circuit-breaker with correctly set relay			T 000 AE 52
	• 3-POLE - Rating 1.2 to 12 bar with adjustment screw and interval screw Preset in factory to 6 / 8 bar Maximum thermal rated current 20 A 1/2" F hydraulic connection. With 1/4" pressure connector Run/stop switch **CAUTION**: This accessory does not remove the need for correct protection of the pump by a circuit-breaker with correctly set relay			T 000 AE 33
	• SINGLE-POLE - Reverse contactor (stops the pump in the event of pressure loss in the pipe) Preset in factory to 0.5 - 1.4 bar Maximum thermal rated current 10 A 1/2" F hydraulic connection With 1/4" pressure connector For control circuit			T 000 AE 53
4	MANOMETER			
	• 0 to 6 bar - 1/4" M opening			T 000 AM 12
	• 0 to 12 bar - 1/4" M opening			T 000 AM 13
5	NON-RETURN VALVE Brass body FF connector Maximum operating pressure: 10 bar Maximum temperature: 80°C			
	• 3/4" F			T 000 AM 50
	• 1" F			T 000 AM 51
	• 1"1/4 F			T 000 AM 52

I - SCOPE OF APPLICATION

These General Conditions of Sale ("GCS") shall apply to the sale of all products, components, software and services (referred to as "Products") proposed or sold by the Seller to the Client. Said GCS shall also apply to all quotation or offers made by the Seller, and are an integral part of all orders. "Seller" is understood to mean all companies directly or indirectly controlled by LEROY-SOMER. As a complementary measure, orders are also subject to the latest version in force of the Inter-Union General Conditions of Sale for France of the F.I.E.E.C. (*Fédération des Industries Electriques, Electroniques et de Communication* [Federation of Electrical, Electronic and Communication Industries]), inasmuch as they are not contrary to the GCS.

The acceptance of the Seller's offers or quotations, or any order, entails the acceptance without reservation of these GCS and rules out all contrary provisions shown on all other documents and, in particular, on the Client's order forms and the Client's General Conditions of Purchase.

If the sale concerns castings, by way of derogation to Paragraph 1 above, said castings shall be subject to the latest version in force of the *Conditions Générales Contractuelles des Fonderies Européennes* [General Contractual Conditions of European Foundries].

The Products and services sold pursuant to these GCS may under no circumstances be used for applications in the nuclear field, as such sales expressly fall under technical specifications and specific contracts that the Seller reserves the right to refuse.

II - ORDERS

All orders, even those taken by the Seller's agents and representatives, and regardless of the transmission method, shall only bind the Seller after written acceptance thereby of the order.

The Seller reserves the option of modifying the characteristics of its Products without notice. However, the Client shall retain the possibility of specifying the characteristics on which its commitment is contingent.

In the absence of any such express stipulation, the Client may not refuse delivery of new, modified Products.

The Seller may not be held liable for an unsatisfactory selection of Products if said selection results from conditions of use that are incomplete and/or mistaken, or not disclosed to the Seller by the Client.

Except in the event of a stipulation to the contrary, the offers and quotations remitted by the Seller shall only be valid for thirty days as from the date on which they are drawn up.

Where the Products must comply with standards, specific regulations and/or be received by control and inspection agencies, the price request must be accompanied by the technical specification, all terms and conditions the Seller must comply with. Reference shall be made thereto on the quotation or offer. Approval and attendance costs shall always be borne by the Client.

III - PRICES

Tariffs are expressed exclusive of tax and may be revised without notice.

Prices are either deemed to be firm for the period of validity specified on the quotation, or subject to a revision formula attached to the offer and which specifies, according to the regulations, parameters pertaining to the materials, products, various services and salaries for which the indices are published in the B.O.C.C.R.F. (*Bulletin Officiel de la Concurrence, de la Consommation et de la Répression des Fraudes* [French Official Journal of Competition and Consumer Matters, and Anti-Fraud Measures]).

All additional costs, in particular approval costs, specific checks, etc., shall be invoiced in addition.

IV - DELIVERY

Sales are governed by the latest edition in force of the INCOTERMS published by the Internal Chamber of Commerce ("I.C.C. INCOTERMS").

The Products shall be dispatched according to the conditions stated on the order acknowledgement issued by the Seller for all orders of Products.

Except in the event of specific provisions, the prices correspond to Products that are made available in the Seller's factories, including basic packaging.

Except in the event of a provision to the contrary, the Products shall always be transported at the risk of the addressee. In all cases, it shall be the responsibility of the addressee to make any claims to the carrier, within the delivery time and in the forms specified by law, concerning the state or number of parcels received, and to concomitantly provide the Seller with a copy of such declaration. Failure to comply with said procedure shall exempt the Seller from any liability. In any event, the Seller's liability may not exceed the amount of the indemnities received from its insurers.

If the provisions concerning transportation are amended by the Client subsequent to the acceptance of the order, the Seller reserves the right to invoice any supplemental costs that may result therefrom.

Except in the event of a contractual or statutory obligation to the contrary, packaging shall not be returnable.

In the event that a delivery of Products is delayed for a reason not attributable to the Seller, the Products stored on the Seller's premises shall be insured at the exclusive risk of the Client. Consideration for storage, costs will be invoiced at a rate of 1% (*one per cent*) of the total amount of the order, per week or partial week of storage, with no deductible or *de minimis* amount, as from the date of Products availability provided for in the contract. Upon expiration of a period of thirty days as from said date, the Seller may, at its discretion, either freely dispose of the Products and/or agree with the Client on a new delivery date for said Products, or invoice the Client in full for payment, according to the timeframes and amount provided for contractually. In any event, down payments shall inure to the Seller as indemnities, without prejudice to any other action the Seller may take.

V - DELIVERY TIME

The Seller shall only be bound by the delivery time mentioned on its order acknowledgement. Said delivery time shall only start to run as from the date of issuance of the order acknowledgement by the Seller, and subject to the fulfilment of the conditions provided for on the confirmation receipt, in particular receipt of the down payment for the order, notification of the opening of an operative irrevocable and confirmed documentary credit that complies in all respects to the Seller's request (*in particular regarding the amount , currency, validity and licence*), acceptance of the payment conditions accompanied by the implementation of any guarantees requested, etc.

Exceeding delivery time shall not grant the Client entitlement to damages and/or penalties.

Except in the event of a specific condition to the contrary, the Seller reserves the right to make partial deliveries.

Delivery times shall be interrupted by right and without the need for any judicial formalities, by any failure to pay or late payment by the Client.

VI - TESTS - QUALIFICATION

The Products manufactured by the Seller are checked and tested before leaving its factories. Clients may be present at said tests if specified on the order.

Specific tests and/or trials, as well as approval of Products, requested by the Client, whether carried out on the Client's premises or in the Seller's factories, on site, or by control and inspection agencies, must be specified on the order and are always at Client's expense.

Prototypes for Products specially developed or adapted for a Client must be qualified by the Client before serial production in order to ensure that it is compatible with the other components that make up its equipment, and that it is adapted to the intended use. Said qualification will also enable the Client to ensure that the Products comply with the technical specification. In this respect, the Client and Seller shall sign a Product Approval Form in two original, one of which shall be retained by the Client and one by the Seller.

In the event that the Client requires delivery without having firstly qualified the Products, said Products shall be delivered as they stand and shall always be deemed to be prototypes ; the Client shall then be solely liable for using the Products or delivering them to its own clients. However, the Seller may also decide not to deliver the Products that have not received the Client's prior approval.

VII - PAYMENT CONDITIONS

All sales shall be deemed to be completed and payable at the Seller's registered office, without any possible derogation, regardless of the payment method, where the contract was concluded and where delivery was made.

Where the Client is located out of French territory, invoices shall be payable in cash upon receipt, or by a bank draft or a bill of exchange, within 30 (thirty) days net.

All early payment compared to the deadline fixed shall give right to a discount of 0.2% (*nought point two* per cent) per month, of the amount concerned of the invoice.

Except in the event of provisions to the contrary, where the Client is located outside of French Territory, invoices shall be payable in cash against remittance of shipping documents, or by irrevocable documentary credit confirmed by a first rate French bank, at Client's expense.

Payment shall be understood to mean the funds being made available on the Seller's bank account and must imperatively be made in the invoicing currency.

Pursuant to French Law no. 2001-420 of 15 May 2001, failure to pay an invoice when due shall trigger, after service of formal notice that has remained without effect, payment to the Seller of a flat-rate penalty on the due date of the receivable, which shall be applied to amount inclusive of tax of monies owed if the invoice is liable to VAT (*Value Added Tax*), and the suspension of pending orders. Said penalty is equal to the European Central Bank Rate + 7 basis points.

The collection of said monies via litigation shall trigger an increase of 15% (*fifteen per cent*) of the amount claimed, with a minimum of Euros 500 exclusive of tax (*five hundred euros exclusive of tax*), with tax in addition if due.

Moreover, subject to compliance with the statutory provisions in force, in the event of total or partial failure to pay any invoice or instalment whatsoever, regardless of the payment method used, all amounts that remain owed to the Seller (*including its subsidiaries, affiliated or allied companies, whether French or foreign*) for all deliveries and services, regardless of the due date originally provided for, shall immediately become due.

Notwithstanding any specific payment conditions provided for between the parties, the Seller reserves the right to require, in the event of a decline in the Client's credit rating, a payment incident or bankruptcy of the Client :

- the payment in cash, before the Products leave the factory, for all orders currently being fulfilled,
- down payments to be made on all orders,
- alternative or different payment guarantees.

VIII - PAYABLE AND RECEIVABLE BALANCE

Except where prohibited by law, the Seller and the Client expressly agree to balance their payables and receivables arising from their trade relations, even if all conditions defined by law for legal balancing are not met.

For the application of said clause, the Seller shall mean any company of the LEROY-SOMER Group.

IX - TRANSFER OF RISK / RESERVE OF TITLE

Risk shall be transferred as soon as the Products are made available, according to the delivery conditions stipulated on the order acknowledgement.

The transfer to the Client of title shall take place after payment in full. In the event that the restitution of the Products delivered is claimed by the Seller, the Seller is entitled to retain any down payment as compensation.

Remittance of a bill that creates an obligation to pay (*bill of exchange or other*) shall not constitute payment and discharge.

For as long as the price has not been paid in full, the Client is required to inform the Seller, within twenty-four hours, of the sequestration, requisition or confiscation of the Products for the benefit of a third party, and to take all protective measures to make known the Seller's property right in the event of action by creditors, and to cause such right to be respected.

X - CONFIDENTIALITY

Each of the parties undertakes to maintain the confidentiality of all technical, trade, financial or other information received from the other party, whether orally, in writing or by any other means of communication, when any order is negotiated and/or fulfilled.

This confidentiality obligation shall apply throughout the period during which the order is fulfilled and for 5 (five) years subsequent to completion or cancellation thereof, regardless of the reasons therefor.

XI - INDUSTRIAL AND INTELLECTUAL PROPERTY

Data, studies, results, information or software, whether patentable or not obtained by the Seller when any order is fulfilled shall remain the exclusive property of the Seller.

With the exception of instruction and maintenance manuals, documents of any nature remitted to the Client shall remain the exclusive property of the Seller and must be returned to it upon request, even if the Client was invoiced for part of the cost of the study, and said documents may not be disclosed to third parties or used without the Seller's prior written agreement.

XII - CANCELLATION / TERMINATION

The Seller reserves the right to cancel or terminate immediately, at the Seller's discretion, by right and without the need for any judicial formalities, the contract in the event of failure to pay any portion whatsoever of the price, when due, or in the event of any breach of any of the Client's contractual obligations. Down payments and any amount already paid shall remain in Seller's hands in the form of indemnities, without prejudice to the Seller's right to claim damages. In the event that the contract is cancelled, the Products must be returned to the Seller immediately, regardless of where the Products are located, at Client's expense and risk, under penalty of 10% (*ten per cent*) of the value thereof, per week's delay.

XIII - WARRANTY

The Seller warrants the Products against all operating defects caused by a material or manufacturing fault, for a period of twelve months as from the date on which the Products are made available, unless a different statutory provision subsequently applies, under the conditions defined below.

The warranty may only be triggered insofar as the Products have been stored, used and maintained in accordance with the Seller's instructions and manuals. The warranty does not apply where the defect results, in particular, from :

- inadequate monitoring, maintenance or storage,
- normal wear and tear on the Products,
- servicing or modification of the Products without the Seller's prior written authorisation,
- abnormal use of the Products or use of the Products for a purpose other than that intended,
- faulty installation of the Products on the premises of the Client and/or the end user,
- failure by the Client to disclose the purpose or conditions of use of the Products,
- failure to use genuine spare parts,
- force majeure or any event that is beyond the control of the Seller.

In any case, the warranty is limited to the replacement or repair of the parts or Products deemed faulty by the Seller's technical departments. If the repair is entrusted to a third party, the repair shall only be carried out once the Seller has agreed to the quotation for the repair.

All Products returns must have been given the Seller's prior, written authorisation.

The Products to be repaired must be dispatched carriage paid, to the address given by the Seller. If the Products are not accepted under warranty, their return to the Client shall be invoiced to the Client or the end user.

This warranty shall apply to the Seller's Products that are made readily available and therefore does not cover the de-installation and re-installation of said Products in the equipment into which it is mounted.

Repair, modification or replacement of any part or Product during the warranty period may not result in the warranty period being extended.

The provisions of this article constitute the Seller's sole obligation concerning the warranty of the Products delivered.

XIV - LIABILITY

The Seller's liability is strictly limited to the obligations stipulated in these GCS and those expressly accepted by the Seller. All penalties and indemnities provided for therein constitute lump sum damages that include discharge for the Seller and are exclusive of any other penalty or indemnification.

With the exception of the Seller's gross negligence and the compensation of bodily injury, the Seller's liability shall be limited, in total, to the contractual amount, exclusive of tax, of the Product(s) that give(s) right to compensation.

The Seller may under no circumstances be required to indemnify consequential, indirect and / or punitive damages that the Client may use as the basis for a claim; as a result, the Seller may not be required to indemnify, in particular, production losses, operating losses or lost profit or, in general, any damage eligible for indemnification other than bodily injury or damage to property.

The Client undertakes to hold harmless the Seller and / or its insurers from any and all claims made by its insurers and/or any third party in a contractual relation with the Client, in excess of the limit and for the exclusions listed above.

XV - SPARE PARTS AND ACCESSORIES

Spare parts and accessories shall be supplied upon request, to the extent of their availability. Associated costs shall be invoiced in addition.

The Seller reserves the right to require a minimum quantity or invoicing amount per order.

XVI - WASTE MANAGEMENT

The Products that form the purpose of the sale does not fall within the scope of the European Directive 2002/96/EC (WEEE) dated January 27th, 2003, and all related legislation of Member States of the European Union that result therefrom, on the composition of electrical and electronic equipment and the disposal of waste from such equipment.

In accordance with Article L 541-2 of the French Environment Code, it is the responsibility of the waste holder to ensure the disposal thereof or to cause the disposal thereof at its own expense.

XVII - FORCE MAJEURE

With the exception of the Client's obligation to pay the monies owed to the Seller in respect of an order, the Client and Seller may not be held liable for the total or partial failure to perform their contractual obligations if such failure results from the occurrence of a force majeure. Delays or disturbances in production that totally or partially result from war (whether declared or not), terrorist act, strikes, riots, accidents, fires, floods, natural disasters, transportation delays, shortage of components or materials, governmental decision or action (including prohibition on import/export or the withdrawal of an import/export licence) shall, in particular, be deemed a force majeure.

If one of the parties is delayed or prevented from performing its obligations by reason of this Article for a period in excess of 180 consecutive days, each party may then terminate, by right and without any need for judicial formalities, the unperformed part of the order, by written notice to the other party, without liability. However, the Client shall be required to pay the price agreed pertaining to the Products already delivered on the date of termination.

XVIII - PROHIBITION ON UNLAWFUL PAYMENTS

The Client shall refrain from being engaged in any activity that would expose the Seller or any of its affiliates to a risk of penalties under laws and regulations of any relevant jurisdiction prohibiting improper payments, including but not limited to bribes or gifts of an obviously unreasonable amount, to any government or agency officials, to political parties or their officials or candidates for public office, or to any employee of any customer or supplier.

XIX - TRADE COMPLIANCE LAWS

The Client agrees that all applicable import, export control and sanctions laws, regulations, orders and requirements, as they may be amended from time to time, including without limitation those of the European Union, the United States of America, and the jurisdictions in which the Seller and the Client are established or from which Products may be supplied, and the requirements of any licences, authorisations, general licences or licence exceptions relating thereto ("Trade Compliance Laws") will apply to its receipt and use of Products, as well as related services and technology. In no event shall the Client use, transfer, release, export or re-export the Products, related services or technology in violation of Trade Compliance Laws.

Seller shall have no obligation to supply any Products, or services unless and until it has received any necessary licences or authorisations or has qualified for general licences or licence exceptions under Trade Compliance Laws.

If for any reason any such licences, authorisations or approvals are denied or revoked, or if there is a change in any Trade Compliance Laws that would prohibit Seller from fulfilling the contract, or would in the reasonable judgement of Seller otherwise expose Seller and/or Seller's Affiliate(s) to a risk of liability under Trade Compliance Laws, Seller shall be relieved without liability of all obligations under the contract.

XX - SEVERABILITY

All clauses and/or provisions of these General Conditions that are deemed or become null or void shall not cause the nullity or voidance of the contract, but solely the clause and/or provision concerned.

XXI - DISPUTES

THIS CONTRACT SHALL BE GOVERNED BY AND INTERPRETED IN ACCORDANCE WITH THE LAWS OF FRANCE.

ANY DISPUTE IN RELATION TO THE INTERPRETATION OR THE EXECUTION OF THIS CONTRACT NOT AMICABLY SETTLED BETWEEN THE PARTIES WITHIN A 30 DAY PERIOD, SHALL BE SETTLED BY THE COMPETENT COURT OF ANGOULÊME (FRANCE), EVEN IN THE CASE OF INTRODUCTION OF THIRD PARTIES OR THE ENVOLVEMENT OF SEVERAL DEFENDANTS. HOWEVER, THE SUPPLIER RESERVES THE EXCLUSIVE RIGHT TO BRING THE DISPUTE TO THE COMPETENT COURTS OF THE SELLER OR THE CLIENT.

LEROY SOMER ®

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338 567 258 RCS ANGOULÊME
S.A. au capital de 62 779 000 €

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