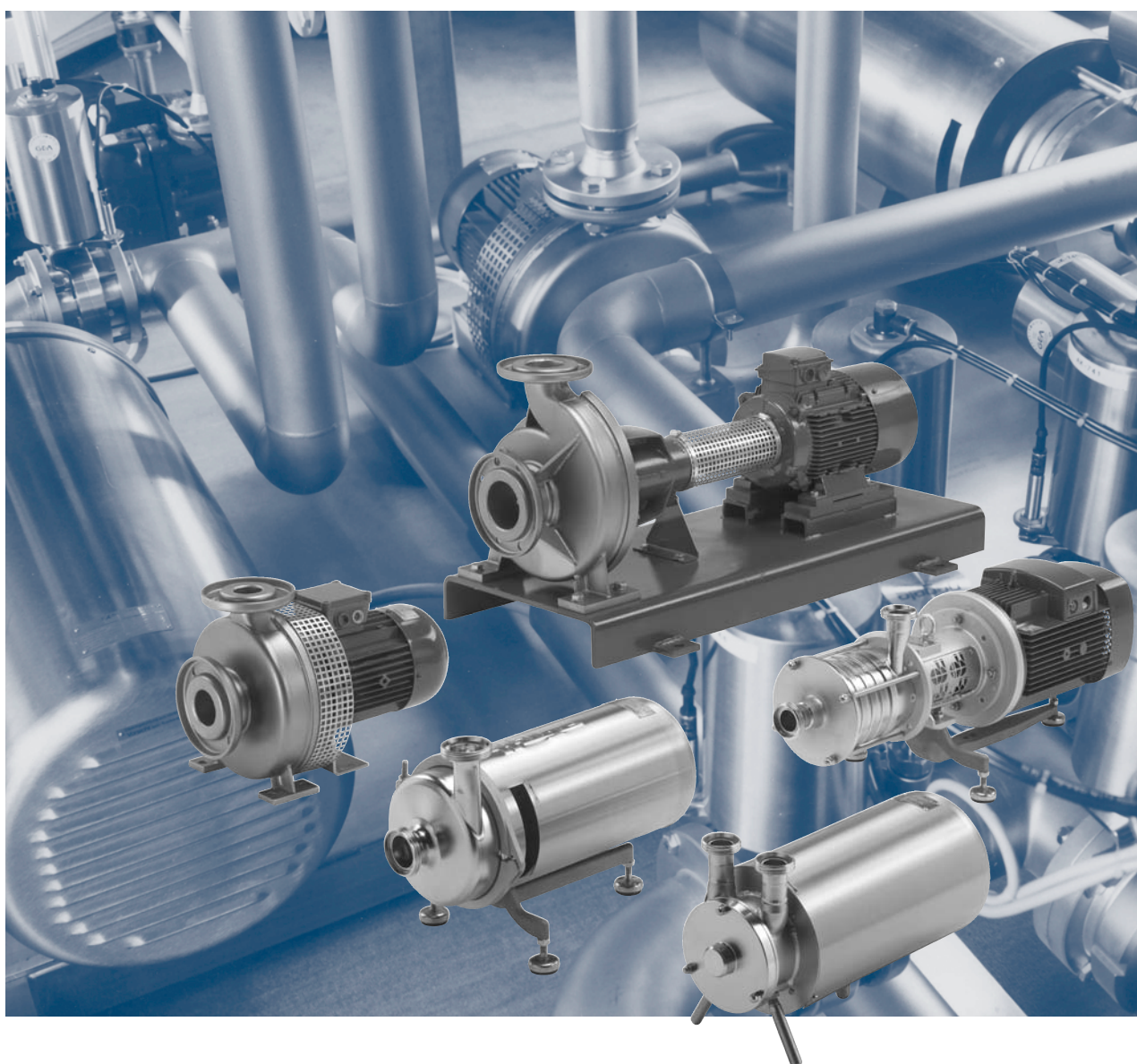


HILGE sanitary pumps

50 Hz



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Hilge sanitary pumps

Stainless steel sanitary pumps designed for a wide range of hygienic and sanitary applications such as

- breweries
- beverage industry
- dairies
- food industry
- pharmaceutical industry
- biotechnology industry
- cosmetics industry
- water treatment systems
- semi-conductor industry
- textile industry.

The Hilge range of sanitary pumps comprises the below pumps types - each state-of-the-art within its specific field of application. The pumps can be fitted with a variety of features to adapt to specific pumping tasks. In addition, it is possible to customise the pumps for optimum function or performance in relation to the job at hand.

Euro-HYGIA®

Euro-HYGIA® pumps are all single-stage, end-suction centrifugal pumps. The pumps offer heads up to 70 metres, flow rates up to 108 m³/h and an operating pressures up to 16 bar. Pipe connections range from DN 25 to DN 125 and the motor sizes from 0.55 to 22 kW.

For further information, see page 6.

Contra

Contra pumps are single-stage or multistage, end-suction centrifugal pumps. The pumps offer heads up to 160 metres, flow rates up to 55 m³/h and operating pressures up to 25 bar. Pipe connections range from DN 25 to DN 80 and motor sizes from 0.55 to 18.5 kW.

For further information, see page 8.

SIPLA

SIPLA pumps are all single-stage, self-priming side-channel pumps. The pumps offer heads up to 56 metres, flow rates up to 80 m³/h and operating pressures up to 10 bar. Pipe connections range from DN 32 to DN 80 and motor sizes from 0.55 to 22 kW.

For further information, see page 10.

MAXA

MAXA pumps are all single-stage, end-suction centrifugal pumps. MAXA pumps are designed according to DIN EN 733. The pumps offer heads up to 97 metres, flow rates up to 820 m³/h and operating pressures up to 10 bar. Pipe connections range from DN 80 to DN 150 and motor sizes from 7.5 to 90 kW.

For further information, see page 12.

MAXANA

MAXANA pumps are all single-stage, end-suction centrifugal pumps. MAXANA pumps are designed according to DIN EN 733. The pumps offer heads up to 97 metres, flow rates up to 165 m³/h and operating pressures up to 10 bar. Pipe connections range from DN 32 to DN 80 and motor sizes from 2.2 to 55 kW.

For further information, see page 12.

Hygienic design

The Hilge sanitary pumps have been designed in accordance with the strictest hygienic design criteria.

The surface finish of the materials used is of the utmost importance - both for physical properties and with regard to preventing possible breeding grounds for bacteria and germs.

Fully drainable models are available, and the use of AISI 316L (DIN EN 1.4404/1.4435) cold-rolled and/or forged stainless steel ensures a homogeneous pore-free surface, in contrast to cast materials.

The design requirements and materials used as well as material surface finish are subject to a variety of national and international rules and regulations, guidelines and laws. Among these are the EU machinery directive, GMP Rules and Regulations, FDA Regulations, 3A sanitary standard, EU Foodstuff Hygienic Guidelines, DIN EN 12462 Biotechnology, the recommendations of the EHEDG (European Hygienic Equipment Design Group) and QHD (Qualified Hygienic Design).

Shaft seals

Depending on the application and pumped liquid, single or double mechanical shaft seal arrangements are available to ensure trouble-free operation.

Double seal arrangements are offered as either a tandem or back-to-back seal arrangement.

The single shaft seals used are inboard mechanical seals with an optimum position in the pumped liquid in order to ensure lubrication, cooling as well as CIP (Cleaning-In-Place) and SIP (Sterilisation-In-Place). Standard seals have seal faces of carbon/stainless steel and O-rings of EPDM. Other seal face material combinations are available on request.

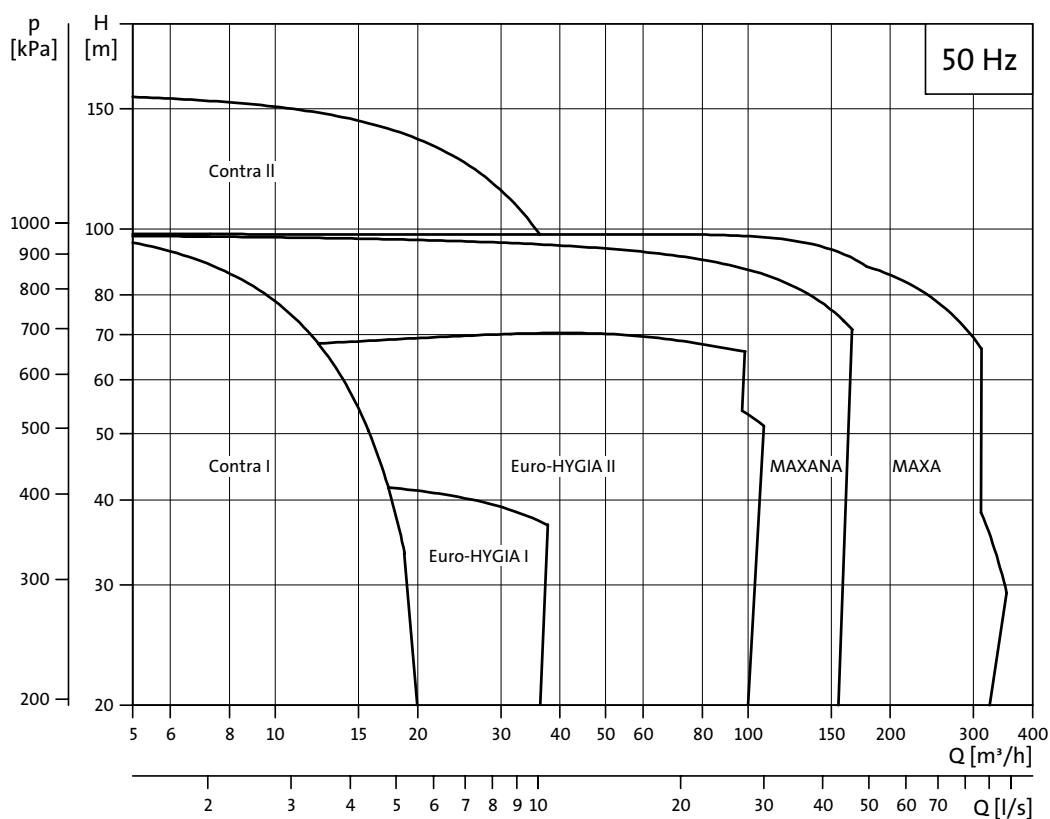
Connections

A variety of connections are available. These include sterile threads to DIN 11864-1 PN 16 and sterile flanges to DIN 11864-2 PN 16.

Other connections such as SMS, RJT, DIN or ISO clamp connections and Tri-Clover are available on request.

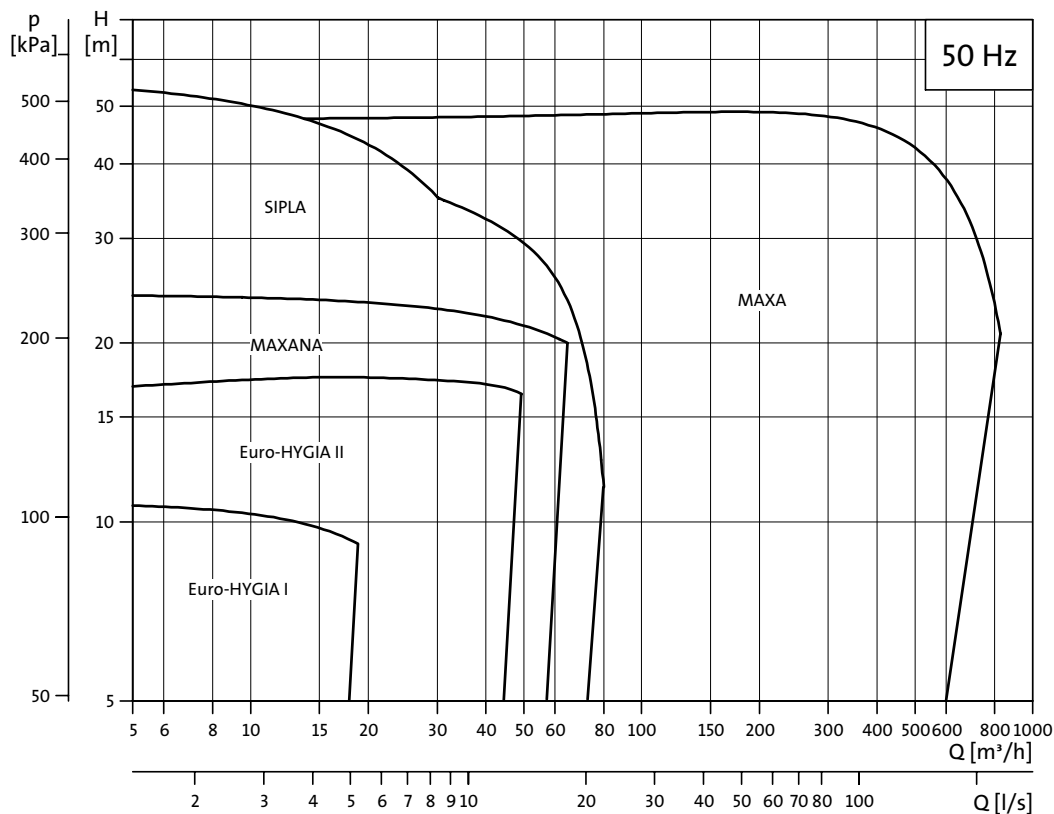
Special sterile threaded fittings and flanges can also be supplied.

Performance range, 2-pole



TM02 9739 3704

Performance range, 4-pole



TM02 9740 3704

Euro-HYGIA®s



CR8963

Fig. 1 Euro-HYGIA®

Technical data

Euro-HYGIA® I and II

Head:	up to 70 m
Flow rate:	up to 108 m ³ /h
(Euro-HYGIA® III - on request):	up to 250 m ³ /h
Operating pressure:	up to 16 bar
Operating temperature:	95°C (up to 150°C on request)
Sterilisation temperature:	140°C (SIP)

Applications

The unique hygienic design and the use of materials make the Euro-HYGIA® pump range suitable for:

Food and beverage industry

- Liquid transfer in breweries and dairies
- Mixing in soft drink applications
- Food processing plants.

Pharmaceutical industry

- Pure water systems (WFI)
- Biotechnology
- Cosmetics.

Other industrial applications

- Semi-conductor manufacturing
- CIP (Cleaning-In-Place) systems.

Construction

Euro-HYGIA® pumps are single-stage, end-suction centrifugal pumps designed to meet the hygienic requirements of sterile process technology. The pumps are CIP and SIP capable in compliance with the DIN EN 12462 performance criteria.

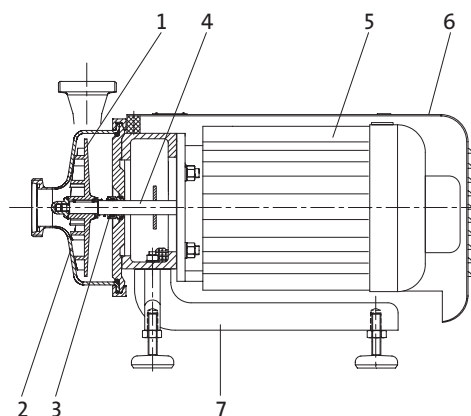


The design of the wetted parts meets the Qualified Hygienic Design (QHD) standard, EHEDG test certificate for CIP cleanability (TNO), 3A sanitary standard (USA) and GOST (Russia).

The pump housing is made of heavy-duty, rolled and deep-drawn CrNiMo steel DIN EN 1.4404/1.4435, equivalent to AISI 316L.

Three impeller types are available depending on the application: Semi-open, closed and free-flow impeller. For further information, see page 19.

The pumps have a mechanical shaft seal and a fan-cooled asynchronous motor with enclosure class IP 55.



TM02 9607 3504

Fig. 2 Sectional drawing of Euro-HYGIA® I Bloc-SUPER on combi-foot

Materials

Pos.	Component	Material	DIN EN
1	Impeller	CrNiMo steel	1.4404/ 1.4435
2	Pump housing	CrNiMo steel	1.4404/ 1.4435
3	Shaft seal	Sterile applications: SiC/SiC/EPDM Hygienic applications: Carbon/ stainless steel/EPDM or FKM	
4	Pump shaft	CrNiMo steel	1.4571
5	Motor		
6	Shroud	Stainless steel	
7	Support	Stainless steel/cast iron	

Design variations

Hilge offers the below design variations for Euro-HYGIA® pumps:

Standard variation	Short description
Euro-HYGIA® Adapta®	Horizontal installation, Adapta® motor stool
Euro-HYGIA® Adapta® SUPER	Horizontal installation, Adapta® motor stool, motor with stainless steel shroud
Euro-HYGIA® Bloc	Horizontal installation
Euro-HYGIA® Bloc-SUPER	Horizontal installation, motor with stainless steel shroud
Variations on request	Short description
Euro-HYGIA® Adapta®-V	Vertical installation, Adapta® motor stool
Euro-HYGIA® Bloc-V	Vertical installation
Euro-HYGIA® CN	Horizontal installation, long-coupled version mounted on baseplate
Euro-HYGIA® tronic	Horizontal/vertical installation, motor with built-in frequency converter (up to 7.5 kW)

For further information, see page 23.

Mechanical shaft seal

Hilge offers the following three seal arrangements as standard:

- single seal
- double tandem seal
- double back-to-back seal.

The mechanical shaft seals used are single inboard mechanical shaft seals with an optimum position in the pumped liquid. This ensures lubrication, cooling as well as CIP and SIP according to the criteria of hygienic design.

Standard seals have seal faces of carbon/stainless steel and O-rings of EPDM.

On request Hilge offers other seal face material combinations.

For further information, see page 20.

Surface treatment

As standard all wetted parts are electro-polished to improve corrosion-resistance and surface finish.

Connections

Depending on the nominal diameter of the Euro-HYGIA® pump, Hilge offers the following pipe connections as standard:

- Threads to DIN 11851, PN 25-40
- Flanges to DIN EN 1092-1, PN 10 (DIN 2633/42, PN 10) (industrial applications only)
- Pipe threads to DIN ISO 228, PN 10 (max.)
- Sterile threads to DIN 11864-1, PN 16
- Sterile flanges to DIN 11864-2, PN 16.

Other connections are available on request, e.g. SMS, RJT, clamp connections to DIN, ISO, Tri-Clover, special sterile threaded fittings and flanges.

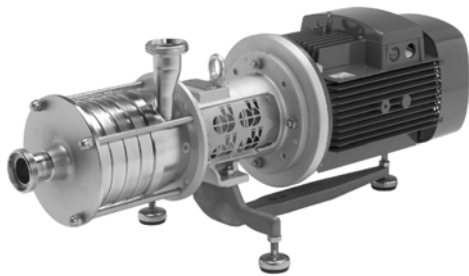
For further information about pipe connections for Euro-HYGIA® pumps, see page 27 to 28.

Product features and benefits

Euro-HYGIA® pumps offer the following product features and benefits:

- A wide range of support possibilities for both motor and pump.
- Extremely reliable operation under most working conditions.
- Optimised hydraulics for high efficiency - reduced power consumption.
- MultiFunction inducer for NPSH reduction or pumping of liquids containing gas (Euro-HYGIA® II).
- Motors for special voltages and frequencies.
- Euro-HYGIA® Adapta® and Euro-HYGIA® CN with explosion- or flameproof three-phase motors are available for ATEX-applications.
- Motors for variable speed drive with built-in frequency converter as "tronic". Available for motor sizes up to 7.5 kW.
- Mobile pumps mounted on two-wheel stainless steel trolley with on/off switch and electric cable.
- DN 15 diaphragm valve drain for sterile processes.
- DN 15 drain connection.
- Heating jacket for pump housing.
- Integral flange ring for bolted housing closure (HPM).
- Special paint finish for drive and cast iron or steel parts.

Contra



CR8961

Fig. 3 Contra pump

Technical data

Contra I and II

Head:	up to 160 m
Flow rate:	up to 55 m ³ /h
Operating pressure:	up to 25 bar
Operating temperature:	95°C (up to 150°C on request)
Sterilisation temperature:	140°C (SIP)

Applications

The unique hygienic design and the use of materials makes the Contra pump range suitable for pressure boosting in:

Food and beverage industry

- Breweries and dairies
- Carbonising systems
- Food processing plants.

Pharmaceutical industry

- Purification systems
- Pure water systems (WFI).

Other industrial applications

- Surface treatment systems
- Water processing systems
- CIP feeding systems.

Construction

Contra pumps are either single-stage or multi-stage, end-suction centrifugal pumps designed in accordance with the Qualified Hygienic Design (QHD) criteria, the EHEDG certification and the 3A sanitary material specification.

The pumps are CIP and SIP capable in compliance with the DIN EN 12462 performance criteria. Furthermore, the pumps meet the GMP requirements for FDA-approved materials.



Fig. 4 Certification

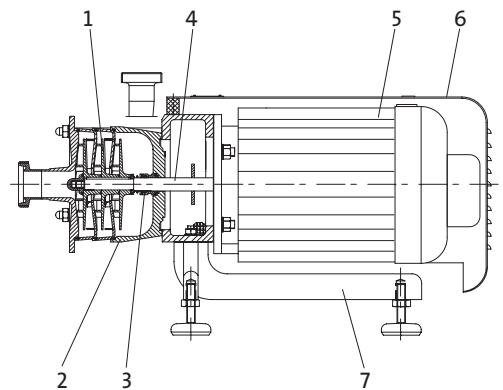
The pump housing is made of rolled and forged stainless steel, DIN EN 1.4404/1.4435, equivalent to AISI 316L. This guarantees a homogeneous pore-free surface, in contrast to cast materials.

The Contra pumps have open diffusers. The O-ring seal locations for the housing and impellers are designed to meet the criteria of hygienic design with metal-to-metal contact seal areas and no pump housing dead-ends.

Contra pumps are fitted with a semi-open impeller as standard. For further information, see page 19.

The vertical versions are fully self-draining through the suction port of the pumps.

The pumps have a mechanical shaft seal and a fan-cooled asynchronous motor with enclosure class IP 55.



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Fig. 5 Sectional drawing of Contra I Bloc-SUPER on combi-foot

Materials

Pos.	Component	Material	EN/DIN
1	Impeller	CrNiMo steel	1.4404/ 1.4435
2	Pump housing	CrNiMo steel	1.4404/ 1.4435
3	Shaft seal	Sterile applications: SiC/SiC/ EPDM Hygienic applications: Carbon/ stainless steel/EPDM or FKM	
4	Pump shaft	CrNiMo steel	1.4571/ 1.4462
5	Motor		
6	Shroud	Stainless steel	
7	Support	Stainless steel/cast iron	

Design variations

Hilge offers the below design variations for Contra pumps:

Standard variation	Short description
Contra Adapta®	Horizontal installation, Adapta® motor stool
Contra Adapta® SUPER	Horizontal installation, Adapta® motor stool, motor with stainless steel shroud
Contra Adapta®-V	Vertical installation, Adapta® motor stool
Contra Bloc	Horizontal installation
Contra Bloc-SUPER	Horizontal installation, motor with stainless steel shroud
Variations on request	Short description
Contra Bloc-V	Vertical installation
Contra CN	Horizontal installation, long-coupled version mounted on baseplate
Contra tronic	Horizontal/vertical installation, motor with built-in frequency converter (up to 7.5 kW)

Mechanical shaft seal

Hilge offers the following three seal arrangements as standard:

- single seal
- double tandem seal
- double back-to-back seal.

The mechanical shaft seals used are single inboard mechanical shaft seals with an optimum position in the pumped liquid. This ensures lubrication, cooling as well as CIP and SIP according to the criteria of hygienic design.

Standard seals have seal faces of carbon/stainless steel and O-rings of EPDM.

On request Hilge offers other seal face material combinations.

For further information, see page 20.

Surface treatment

As standard all wetted parts are electro-polished to improve corrosion-resistance and surface finish.

Connections

Depending on the nominal diameter of the Contra pump, Hilge offers the below pipe connections as standard:

- Threads to DIN 11851, PN 25-40
- Flanges to DIN EN 1092-1, PN 10 (DIN 2642, PN 10) (industrial applications only)
- Pipe threads to DIN ISO 228, PN 10 (max.)
- Sterile threads to DIN 11864-1, PN 16
- Sterile flanges to DIN 11864-2, PN 16.

Other connections are available on request, e.g. SMS, RJT, clamp connections to DIN, ISO, Tri-Clover, special sterile threaded fittings and flanges.

For further information about pipe connections for Contra pumps, see page 29 to page 34.

Product features and benefits

The Contra pumps have the following product features and benefits:

- A wide range of support possibilities for both motor and pump.
- Extremely reliable operation under most working conditions.
- Optimised hydraulics for high efficiency - reduced power consumption.
- Contra Adapta® and CN with explosion- or flame-proof motors are available for ATEX-applications.
- Motors with special voltages and frequencies.
- Pump with water-cooled motor for clean room applications.
- Adapta® "tronic" versions are fitted with motors for variable speed drive with built-in frequency converter. Available for motor sizes up to 7.5 kW.
- Flush or barrier fluid systems for tandem or back-to-back double mechanical seals.
- Mobile pumps mounted on two-wheel trolley with on/off switch.
- Special paint for motor, cast iron and carbon steel parts (except for Adapta® Bloc).

SIPLA



Fig. 6 SIPLA pump

Technical data

SIPLA pumps

Head:	up to 56 m
Flow rate:	up to 80 m ³ /h
Operating pressure:	up to 10 bar
Operating temperature:	95°C
Sterilisation temperature:	140°C (SIP)

Applications

The unique hygienic design, the use of materials and the exceptional self-priming capability make the SIPLA pump range suitable for:

Food and beverage industry

- Transfer of yeast
- Transfer of cheese whey.

Pharmaceutical industry

- Transfer of glycerine.

Other industrial applications

- CIP returned pumping.

Construction

SIPLA pumps are single-stage, self-priming side-channel pumps designed in accordance with the 3A sanitary standard.



Fig. 7 Certification

The pump housing and front cover are made of precision cast stainless steel DIN EN 1.4404 and the impeller nut of stainless steel DIN EN 1.4435, equivalent to AISI 316L.

SIPLA pumps are fitted with an open star impeller as standard.

The pump shaft is made of stainless steel DIN EN 1.4571 (equal to AISI 316Ti).

Thanks to its unique side-channel design, the SIPLA pump is capable of handling liquids with a high content of air as in CIP return systems.

The pumps have a mechanical shaft seal and a fan-cooled asynchronous motor with enclosure class IP 55.

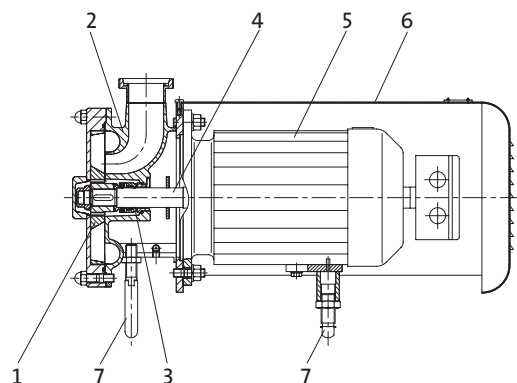


Fig. 8 Sectional drawing of SIPLA Bloc-SUPER on stainless steel ball feet

Materials

Pos.	Component	Material	EN/DIN
1	Impeller	CrNiMo steel	1.4404
2	Pump housing	CrNiMo steel	1.4404
3	Shaft seal	Hygienic applications: Carbon/ stainless steel /EPDM or FKM	
4	Pump shaft	CrNiMo steel	1.4571
5	Motor		
6	Shroud	Stainless steel	
7	Support	Stainless steel/cast iron	

Design variations

Hilge offers the below design variations for SIPLA pumps:

Standard variation	Short description
SIPLA Adapta® SUPER	Horizontal installation, Adapta® motor stool, motor with stainless steel shroud
SIPLA Bloc	Horizontal installation
SIPLA Bloc-SUPER	Horizontal installation, motor with stainless steel shroud
Variations on request	Short description
SIPLA CN	Horizontal installation, long-coupled version mounted on baseplate
SIPLA tronic	Horizontal/vertical installation, motor with built-in frequency converter (up to 7.5 kW)

For further information, see page 24.

Mechanical shaft seal

SIPLA pumps are fitted with a single inboard mechanical shaft seal with an optimum position in the pumped liquid that ensuring efficient CIP, SIP, cooling and lubrication.

As standard Hilge offers a shaft seal with seal faces of carbon/stainless steel and O-rings of either EPDM or FKM.

On request Hilge offers shaft seals with seal faces of silicon carbide/silicon carbide and an O-ring of EPDM or FKM.

For further information, see page 20.

Surface treatment

As standard all wetted parts are electro-polished to improve corrosion-resistance and surface finish.

Connections

Depending on the nominal diameter of the SIPLA pump, Hilge offers threaded pipe connections according to DIN 11851.

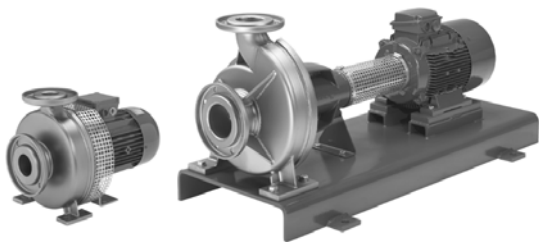
Optional connections are threaded connections: SMS, RJT, IDF clamp connections to DIN and clamps Tri-Clamp/Tri-Clover.

Product features and benefits

The SIPLA pumps have the following product features and benefits:

- A wide range of support possibilities for both motor and pump.
- Extremely reliable operation under most working conditions.
- Optimised hydraulics for high efficiency - reduced power consumption.
- Motors for variable speed drive with built-in frequency converter, "tronic". Available for motor sizes up to 7.5 kW.
- ATEX-certified pumps available on request.

MAXA and MAXANA



TM03 0170 4304

Fig. 9 MAXANA and MAXA pumps

Technical data

MAXA pumps

Head:	97 m
Flow rate:	up to 820 m ³ /h
Operating pressure:	up to 10 bar
Operating temperature:	95°C (up to 150°C on request)
Sterilisation temperature:	140°C (SIP)

MAXANA pumps

Head:	up to 97 m
Flow rate:	up to 165 m ³ /h
Operating pressure:	up to 10 bar
Operating temperature:	95°C (up to 150°C on request)
Sterilisation temperature:	140°C (SIP)

Applications

The MAXA and MAXANA pumps meet the requirements:

Pump type	Standard
MAXANA	3A0
MAXA	3A0, 3A1 and 3A2

The MAXA and MAXANA pump ranges are suitable for:

Food and beverage industry

- Gentle pumping of mash and wort, and beer filtration (hot side)
- Dairies
- Food processing.

Other industrial applications

- Water treatment plants
- Chemical handling systems
- Liquids with a high content of solid particles.

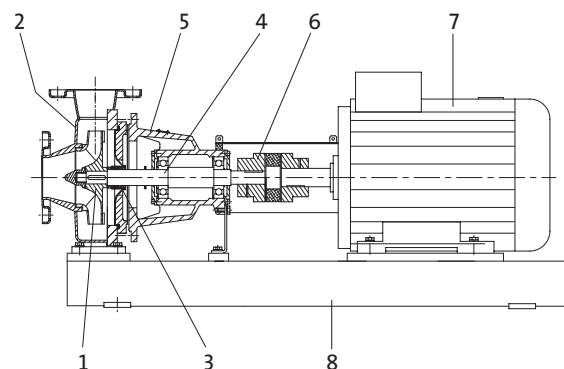
Construction

The MAXA and MAXANA pumps are single-stage, end-suction centrifugal pumps designed for heavy-duty operation in industrial processes.

The major dimensions and characteristics of these pumps correspond to DIN EN 733 and DIN EN 22858.

The pump housing are made of heavy-duty, rolled and deep-drawn stainless steel in quality DIN EN 1.4404. The back plate is made of rolled stainless steel DIN EN 1.4571.

The pumps feature closed impellers with optimised blade entry angles made of steel quality DIN EN 1.4571. For further information about impeller types, see page 19.



TM02 9609 3504

Fig. 10 Sectional drawing of MAXANA-CN on baseplate

Materials

Pos.	Component	Material	EN/DIN
1	Impeller	CrNiMo steel	1.4404/ 1.4435
2	Pump housing	CrNiMo steel	1.4404/ 1.4435
3	Shaft seal	Sterile applications: SiC/SiC/ EPDM Hygienic applications: Carbon/ stainless steel/EPDM or FKM	
4	Pump shaft	CrNiMo steel	1.4401/ 1.4571
5	Bearing bracket	Stainless steel	
6	Coupling		
7	Motor		
8	Baseplate	Stainless steel	

Design variations

Hilge offers the below design variations for MAXA and MAXANA pumps:

Standard variation	Short description
MAXA L	Horizontal installation
MAXA CN	Horizontal installation, mounted on base-plate
MAXANA Adapta®	Horizontal installation, Adapta® motor stool
MAXANA Bloc	Horizontal installation
Variations on request	Short description
MAXA DIN	Horizontal installation, mounted on base-plate
MAXA CN	Horizontal installation, mounted on base-plate
MAXA Bloc	Horizontal installation
MAXA tronic	Horizontal installation, motor with built-in frequency converter (up to 7.5 kW)
MAXANA CN	Horizontal installation, mounted on base-plate
MAXANA L	Horizontal installation, mounted on pump foot or motor foot
MAXANA tronic	Horizontal installation, motor with built-in frequency converter (up to 7.5 kW)

For further information, see page 25.

Mechanical shaft seal

Hilge offers the following three seal arrangements as standard:

- single seal
- double tandem seal
- double back-to-back seal.

As standard MAXA and MAXANA pumps are fitted with a single inboard mechanical shaft seal with an optimum position in the pumped liquid ensuring efficient cleaning, cooling and lubrication.

The mechanical shaft seal is in accordance with DIN EN 12756.

Standard seals have seal faces of carbon/stainless steel and O-rings of EPDM.

On request Hilge offers other seal face material combinations.

For further information, see page 20.

Surface treatment

As standard all wetted parts are made of corrosion-resistant chrome-nickel-molybdenum steel.

Hilge offers industrial variants that are electro-polished.

Connections

Depending on the nominal diameter of the MAXA and MAXANA pumps, Hilge offers a standard flanged connection according to DIN EN 1092-1, PN 10 (DIN 2632, PN 10).

Optional connections include connections in accordance with ANSI and JIS standards.

Product features and benefits

The MAXA and MAXANA pumps have the following product features and benefits:

- A wide range of support possibilities for both motor and pump.
- Extremely reliable operation under most working conditions.
- Optimised hydraulics for high efficiency - reduced power consumption.
- On request the pumps are available with the discharge port positioned at the top, to the right or to the left.
- Double mechanical seals, depending on model, either with flushing or barrier fluid.
- Packed gland as shaft seal, single or flushed with C-bearing support to DIN EN 22858 and shaft sleeve.
- Motors with special voltages and frequencies.
- Adapta® and CN available with a flameproof three-phase motor for ATEX-applications.
- Motors for variable speed drive with built-in frequency converter as "tronic". Available for motor sizes up to 7.5 kW.
- Housing drain connection DN 15; other sizes available.
- Housing with heating jacket.
- Special paint for motor and steel components.
- MAXA Adapta® and MAXANA Adapta® pumps available with trolley.

Product range, 50 Hz

Pump range	Euro-HYGIA I	Euro-HYGIA II★	Contra I	Contra II	SIPLA 3.1	SIPLA 6.1	SIPLA 12.1	SIPLA 18.1	SIPLA 28.1	SIPLA 52.1	SIPLA 65.1	SIPLA 90.1★	MAXA	MAXANA
Hydraulic data														
Max. head [m]	43	70	105	160	23	34	25	28	38	36	56	44	98	98
Flow rate [m ³ /h]	0-39	0-108	0-23	0-53	0-4.5	0-6	0-12	0-18	0-26	0-42	0-65	0-80	20-800	0-165
Max. operating temperature [°C]	95	95	95	95	95	95	95	95	95	95	95	95	95	95
Max. temperature [°C] – on request	150	150	140	140	140	140	140	140	140	140	140	140	150	150
Max. operating pressure [bar]	16	16	25	25	10	10	10	10	10	10	10	10	10	10
Max. pump efficiency [%]	62	68	55	62	16.5	18.5	24	24	29	30	34	35	87	72
Motor data														
Motor power [kW]	0.55-5.5	0.75-22	0.55-5.5	0.75-18.5	0.55-0.75	1.5-2.2	1.5-2.2	3-4	4-5.5	7.5-11	11-15	18.5-22	3-90	0.55-55
Design														
Bloc	●	●	●	●	●	●	●	●	●	●	●	●	○	●
Bloc SUPER	●	●	●	●	●	●	●	●	●	●	●	●		
Bloc-V	○	○	○	○										
Adapta®	●	●	●	●										●
Adapta® SUPER	●	●	●	●	●	●	●	●	●	●	●	●		
Adapta®-V	○	○	●	●										
CN	○	○	○	○	○	○	○	○	○	○	○	○	●	○
L													●	○
Tronic version	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Materials														
Pump housing: CrNiMo stainless steel 1.4404	●	●			●	●	●	●	●	●	●	●	●	●
Pump housing: Stainless steel 1.4404/1.4435			●	●										
Pipe connection★★★														
Threads, DIN 11851, PN 25-40	●	●	●	●	●	●	●	●	●	●	●	●		
Threads, DIN ISO 228, PN 10	○	○	○	○										
Sterile threads, DIN 11864-1, PN 16	○	○	○	○	○	○	○	○	○	○	○	○		
Flanges, DIN EN 1092-1 (DIN 2632)													●	●
Flanges, DIN EN 1092-1 (DIN 2642)★★★★	○	○	○	○	○	○	○	○	○	○	○	○		
Sterile flanges, DIN 11864-2, PN 16	○	○	○	○										
SMS	○	○	○	○	○	○	○	○	○	○	○	○		
RJT	○	○	○	○	○	○	○	○	○	○	○	○		
DIN clamp connection	○	○	○	○	○	○	○	○	○	○	○	○		
Clamps Tri-Clover/Tri-Clamp	○	○	○	○	○	○	○	○	○	○	○	○		
Special sterile threaded fittings and flanges	○	○	○	○										
Impeller types														
Semi-open	●	●	●	●	●	●	●	●	●	●	●	●		
Closed	●	●											●	●
Two-channel (closed)													○	○
Free-flow	○	○												

● Standard.

○ Available on request.

★ SIPLA 90.1 pumps offer flow rates up to 90 m³/h - on request.

★★ Euro-HYGIA® II pumps offer flow rates up to 130 m³/h - on request. Euro-HYGIA® III pumps offer flow rates up to 250 m³/h - on request.

★★★ For information about pipe connection, see page 27.

★★★★ For industrial applications only.

Type keys

Euro-HYGIA®

Example	Euro-HYGIA®	I	Bloc	40	32	2.2	4
Pump range							
Size							
Design							
Nominal diameter of suction port (DN)							
Nominal diameter of discharge port (DN)							
Motor power (P ₂)							
Number of poles							

Contra

Example	Contra	I/1	Bloc	32	25	1.5	2
Pump range							
Size/Stages							
Design							
Nominal diameter of suction port (DN)							
Nominal diameter of discharge port (DN)							
Motor power (P ₂)							
Number of poles							

SIPLA

Example	SIPLA	3.1	Bloc	32	32	0.75	4
Pump range							
Size							
Design							
Nominal diameter of suction port (DN)							
Nominal diameter of discharge port (DN)							
Motor power (P ₂)							
Number of poles							

MAXA

Example	MAXA	80-250	CN	100	80	37	2
Pump range							
Size							
Design							
Nominal diameter of suction port (DN)							
Nominal diameter of discharge port (DN)							
Motor power (P ₂)							
Number of poles							

MAXANA

Example	MAXANA	32-200	Bloc	50	32	5.5	2
Pump range							
Size							
Design							
Nominal diameter of suction port (DN)							
Nominal diameter of discharge port (DN)							
Motor power (P ₂)							
Number of poles							

Motor

The motor is a totally enclosed, fan-cooled standard motor with main dimensions to IEC and DIN standards. Electrical tolerances to IEC 34.

Mounting designation

Pump range	Mounting designation - IEC 34-7	
	Horizontal installation	Vertical installation
Euro-HYGIA®		
Contra	IM 1001 (IM B3)	IM 1011 (IM V5)
SIPLA	IM 3001 (IM B5)	IM 3011 (IM V1)
MAXA	IM 2001 (IM B35)	IM 2011 (IM V15)
MAXANA		

Relative humidity: Max. 95%

Enclosure class: IP 55

Insulation class: F, to IEC 85

Ambient temperature: Max. 40°C

In humid locations, the lowest drain hole in the motor must be opened. In such cases the motor enclosure class is IP 44.

Motor ranges

Euro-HYGIA® I

P ₂ kW	2-pole	4-pole
0.55		
0.75		
1.1		
1.5		
2.2		
3.0		
4.0		
5.5		

The grey shaded areas indicate non-available motors.

Euro-HYGIA® II

P ₂ kW	2-pole	4-pole
0.75		
1.1		
1.5		
2.2		
3.0		
4.0		
5.5		
7.5		
11.0		
15.0		
18.5		
22.0		

The grey shaded areas indicate non-available motors.

Contra I

P ₂ kW	2-pole						4-pole
	1-stage	2-stage	3-stage	4-stage	5-stage	6-stage	1-stage
0.55							
0.75							
1.1							
1.5							
2.2							
3.0							
4.0							
5.5							

The grey shaded areas indicate non-available motors.

Contra II

P ₂ kW	2-pole					4-pole
	1-stage	2-stage	3-stage	4-stage	5-stage	1-stage
0.75						
1.1						
1.5						
2.2						
3.0						
4.0						
5.5						
7.5						
11.0						
15.0						
18.5						

The grey shaded areas indicate non-available motors.

SIPLA

P ₂ kW	4-pole							
	Size							
	3.1	6.1	12.1	18.1	28.1	52.1	65.1	90.1
0.75								
1.1								
1.5								
2.2								
3.0								
4.0								
5.5								
7.5								
11.0								
15.0								
18.5								

The grey shaded areas indicate non-available motors.

MAXA, 2-pole

kW	2-pole				
	Size				
	80-160	80-200	80-250	100-200	100-250
7.5					
11.0					
15.0					
18.5					
22.0					
30.0					
37.0					
45.0					
55.0					
75.0					
90.0					

The grey shaded areas indicate non-available motors.

MAXA, 4-pole

kW	4-pole												
	Size												
	80-160	80-200	80-250	80-315	100-200	100-250	100-315	125-250	125-315	150-250	150-315	150-400	200-400
3.0													
4.0													
5.5													
7.5													
11.0													
15.0													
18.5													
22.0													
30.0													
37.0													
45.0													
55.0													
75.0													
90.0													

The grey shaded areas indicate non-available motors.

MAXANA, 2-pole

kW	2-pole										
	Size										
	32-160	32-200	40-160	40-200	50-125	50-160	50-200	65-125	65-160	65-200	65-250
2.2											
3.0											
4.0											
5.5											
7.5											
11.0											
15.0											
18.5											
22.0											
30.0											
37.0											
45.0											
55.0											

The grey shaded areas indicate non-available motors.

MAXANA, 4-pole

kW	4-pole										
	Size										
	32-160	32-200	40-160	40-200	50-125	50-160	50-200	65-125	65-160	65-200	65-250
0.55											
0.75											
1.1											
1.5											
2.2											
3.0											
4.0											
5.5											

The grey shaded areas indicate non-available motors.

Electrical data of standard motors

2-pole, 3 x 220-240/380-415 V

P2 [kW]	I _{1/1} [A]	cosφ	η[%]	n [min ⁻¹]
0.55	1.36	0.82	71	2800
0.75	1.73	0.86	73	2855
1.1	2.40	0.87	77	2845
1.5	3.25	0.85	79	2860
2.2	4.55	0.85	82	2880

2-pole, 3 x 380-415/660-690 V

P2 [kW]	I _{1/1} [A]	cosφ	η[%]	n [min ⁻¹]
3.0	6.1	0.85	84	2890
4.0	7.8	0.86	86	2905
5.5	10.3	0.89	86.5	2925
7.5	13.8	0.89	88	2930
11.0	20.0	0.88	89.5	2940
15.0	26.5	0.90	90	2940
18.5	32.5	0.91	91	2940
22.0	39.0	0.88	91.7	2940
30.0	53.0	0.89	92.3	2945
37.0	65.0	0.89	92.8	2945
45.0	78.0	0.89	93.6	2960
55.0	96.0	0.88	93.6	2970
75.0	130.0	0.88	94.5	2975
90.0	154.0	0.89	95.1	2975

4-pole, 3 x 220-240/380-415 V

P2 [kW]	I _{1/1} [A]	cosφ	η[%]	n [min ⁻¹]
0.55	1.45	0.82	67	1395
0.75	1.86	0.81	72	1395
1.1	2.55	0.81	77	1415
1.5	3.40	0.81	79	1420
2.2	4.70	0.82	82	1420

4-pole, 3 x 380-415/660-690 V

P2 [kW]	I _{1/1} [A]	I _{1/1} [A]	η[%]	n [min ⁻¹]
3.0	6.40	0.82	83	1420
4.0	8.20	0.83	85	1440
5.5	11.4	0.81	86	1455
7.5	15.2	0.82	87	1455
11.0	21.5	0.84	88.5	1460
15.0	28.5	0.84	90	1460
18.5	35.0	0.83	90.5	1460
22.0	41.0	0.84	91.2	1460
30.0	55.0	0.86	91.8	1465
37.0	66.0	0.87	92.9	1470
45.0	80.0	0.87	93.4	1470
55.0	100.0	0.85	93.5	1480
75.0	136.0	0.85	94.2	1485
90.0	160.0	0.86	94.6	1485

Electrical data of standard motors with built-in frequency converter

2-pole, 3 x 380-415 V

P2 [kW]	I _{1/1} [A]
1.1	2.4
1.5	3.25
2.2	4.55
3.0	6.1
4.0	7.8
5.5	10.3
7.5	13.8

4-pole, 3 x 380-415 V

P2 [kW]	I _{1/1} [A]
1.1	2.55
1.5	3.4
2.2	4.7
3.0	6.4
4.0	8.2
5.5	11.4
7.5	15.2

Motor protection

Three-phase motors must be connected to a motor starter.

All three-phase standard motors can be connected to an external frequency converter. The connection of a frequency converter will often overload the motor insulation system, and the motor will be more noisy than during normal operation. In addition, large motors are loaded by bearing currents caused by the frequency converter.

In the case of frequency converter operation, the following should be considered:

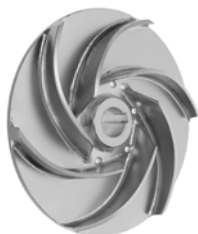
- In 2- and 4-pole motors of frame size 250 and upwards, one of the motor bearings should be electrically isolated to prevent damaging currents from passing through the motor bearings.
- In the case of noise-sensitive applications, the motor noise can be reduced by fitting a dU/dt filter between the motor and the frequency converter. In particularly noise-sensitive applications, we recommend to fit a sinusoidal filter.
- The length of the cable between motor and frequency converter affects the motor load. It should therefore be checked that the cable length meets the specifications laid down by the frequency converter supplier.
- For supply voltages between 500 and 690 V, fit either a dU/dt filter to reduce voltage peaks or use a motor with reinforced insulation.
- For supply voltages of 690 V, use a motor with reinforced insulation and fit a dU/dt filter.

Impeller types

Hilge offers four impeller types selected on the basis of the pumped liquid and application.

Not all impeller types are available for the complete product range.

Semi-open impeller



GR9394

Fig. 11 Semi-open impeller

This electro-polished stainless steel impeller is available in three versions according to the application.

Impeller construction	Application	Surface finish
Cast	Industrial/hygienic	3A0 to 3A1
Sheet metal formed	Industrial/hygienic	3A0 to 3A1
Milled	Industrial/hygienic/sterile	3A2 to 3A3

For further information about surface finish requirements, see page 22.

The impeller is suitable for both low-viscosity and particle-containing pumped liquids.

Closed impeller



Two-channel, closed

Closed

GR9391 - GR9392

Fig. 12 Closed impeller

These two electro-polished stainless steel impellers are available in two versions according to the application.

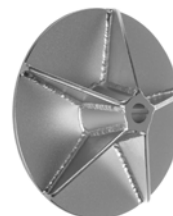
Impeller construction	Application	Surface finish
Cast	Industrial/hygienic	3A0 to 3A1
Sheet metal formed	Industrial/hygienic	3A0 to 3A1

For further information about surface finish requirements, see page 22.

The two-channel impeller is suitable for pumped liquids containing solid particles.

The closed impeller is suitable for pumped liquids with a low content of solid particles. This impeller has the highest efficiency.

Free-flow impeller



GR9393

Fig. 13 Free-flow impeller

This electro-polished stainless steel impeller is available in two versions according to the application.

Impeller construction	Application	Surface finish
Cast	Industrial/hygienic	3A0 to 3A1
Sheet metal formed	Industrial/hygienic	3A0 to 3A1

For further information about surface finish requirements, see page 22.

The free-flow impeller is a non-clogging impeller designed for pumped liquids with a high content of solid particles or fibres.

Surface treatment

All non-wetted parts of the pumps are given the following surface treatment.

1. Priming colour
 - Epoxy resin (RAL 7032)
 - Thickness of film: 50 to 70 µm.
2. Top coat (standard)
 - Epoxy resin (RAL 5010)
 - Thickness of film: 50 to 70 µm.

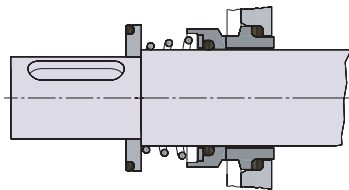
Mechanical shaft seal

The operating range of the shaft seal depends on the type of shaft seal, operating pressure and liquid temperature.

Standard shaft seals are mentioned below; other shaft seals are available on request.

Hygienic applications

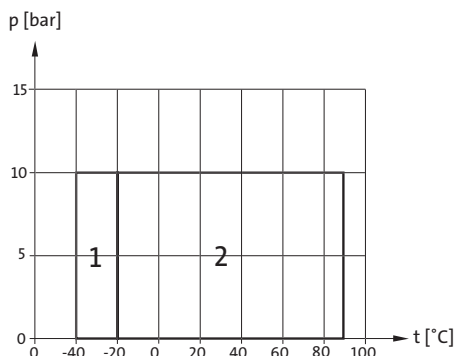
As standard Hilge offers a single shaft seal fitted with a metal spring as seal driver for hygienic applications.



TM02 9660 3604

Fig. 14 Single seal for hygienic applications.

This shaft seal has seal faces of carbon/stainless steel and O-rings of either EPDM or FKM.

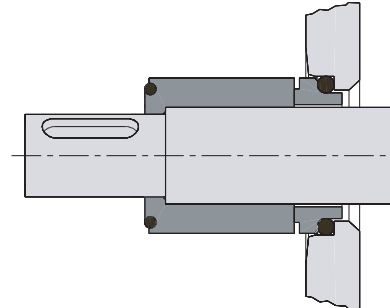


TM03 0121 4104

Fig. 15 Operating range of shaft seal with metal spring as seal driver for hygienic applications.

Sterile applications

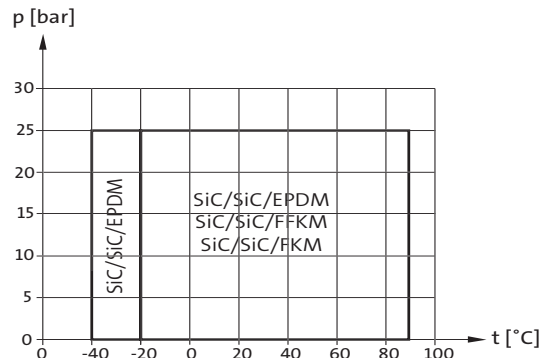
As standard Hilge offers a closed O-ring seal for sterile applications.



TM02 9664 3604

Fig. 16 Single seal for sterile applications.

The O-ring seal has seal faces of silicon carbide/silicon carbide (SiC/SiC) and O-rings of EPDM (optionally FFKM (white) or FKM).



TM03 0118 4104

Fig. 17 Operating range of closed O-ring seal for sterile applications.

Seals for sanitary pumps

Shaft seal	Pump range				
	Euro-HYGIA®	Contra	SIPLA	MAXA	MAXANA
Single seal	●	●	●	●	●
Tandem	○	○		○	○
Back-to-back	○	○		○	○

- Standard.
- On request.

Approvals and certificates

The design, materials used and surface finish are subject to a variety of national and international rules and regulations. Among these are the 3A sanitary standard, the recommendations of EHEDG (European Hygienic Equipment Design Group) and the QHD (Qualified Hygienic Design).

3A sanitary standard



Fig. 18 3A symbol

The 3A sanitary standard provide material specifications and determination of surface finish.

The goal is to protect consumable products from contamination and to ensure that all surfaces can be cleaned (CIP).

The 3A symbol is used by manufacturers to indicate conformance to 3A standards.

For further information about surface finish of hygienic pumps, see page 22.

EHEDG (European Hygienic Equipment Design Group)



Fig. 19 EHEDG symbol

The EHEDG is a testing system describing the criteria for the safe and hygienic design of equipment intended for the processing of food.

The goal is to ensure the microbiological safety of the end product, e.g. the pumped liquid.

The EHEDG symbol is used by manufacturers to indicate conformance to EHEDG recommendations.

QHD (Qualified Hygienic Design)



Fig. 20 QHD symbol

Qualified Hygienic Design (QHD) stands for a two-phase testing system for the hygienic design and the cleanability of components, machinery and plant for aseptic or sterile applications.

The goal is to ensure that all surfaces can be cleaned (CIP).

The QHD symbol is used by manufacturers to indicate conformance to QHD guidelines.

Certificates

General information

Hilge offers a number of certificates and approvals for different purposes. The following types are available:

- Hygienic design certificates (certificates guaranteeing compliance with the 3A sanitary standard, the EHEDG and the QHD recommendations)
- material certificates (certificates stating material specifications)
- performance certificates (test reports guaranteeing and certifying test data of QH, current consumption, speed, curves, etc.)
- authorized test by third party (surveyed performance test)
- ATEX-approved sanitary pumps (according to ATEX-directive 94/9/EC)

The certificates must be ordered with the pump.



Surface finish of hygienic pumps

In order to meet the demands of the pharmaceutical, food and the beverage industries Hilge has developed the below surface finish requirements:

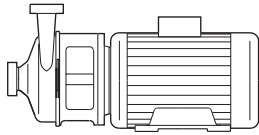
Code	Application	Material	Surface finish
3A0.01	Industrial	CrNiMo steel	
3A1.02	Hygienic	CrNiMo steel	Ra≤3.2µm
3A2.03	Sterile	1.4404/1.4435 (AISI 316L)	Ra≤0.8µm
3A1.04	Pharmaceutical	1.4435, Fe≤3%	Ra≤3.2µm
3A2.05	Sterile	1.4435, Fe≤1%	Ra≤0.8µm
3A3.06	Sterile	1.4435, Fe≤1%	Ra≤0.4µm
3A3.07	Sterile	1.4404/1.4435 (AISI 316L)	Ra≤0.4µm
3A2.33	Sterile	1.4404/1.4435 Fe≤3% (AISI 316L)	Ra≤0.8µm
3A3.37	Sterile	1.4404/1.4435 Fe≤3% (AISI 316L)	Ra≤0.4µm

Certificate	Standard
3A sanitary design certificate	
EHDG test report	
QHD test report	
Material specification report	
Material report with certificate	
CE declaration of conformity ATEX-approved pump	
Inspection certificate	EN 10.204 3.1.B
Inspection certificate - Lloyds Register of Shipping (LRS), - Det Norske Veritas (DNV), - Germanischer Lloyd (GL), - Bureau Veritas (BV), etc.	EN 10.204 3.1.C
Surface roughness report	
Motor test report	
Standard test report	ISO 9906
Vibration report	
Certificate of compliance with the order	EN 10.204 2.1
Test report - non-specific inspection and testing	EN 10.204 2.2
Report Cleaned and dried pump	
Report Electro-polished pump	

Design variations

Hilge offers each pump range in different designs. Principal sketches of each design variant are shown below.

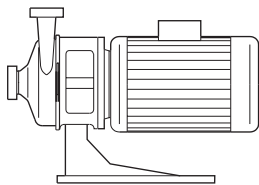
Bloc on motor foot



TM03 0079 3904

Fig. 21 Example of Euro-HYGIA® Bloc on motor foot

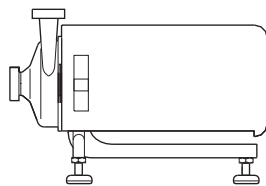
Bloc on stainless steel foot



TM03 0080 3904

Fig. 22 Example of Euro-HYGIA® Bloc on stainless steel foot

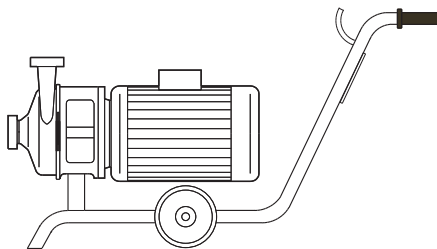
Bloc-SUPER



TM03 0081 3904

Fig. 23 Example of Euro-HYGIA® Bloc-SUPER with shroud and on stainless steel combi-foot

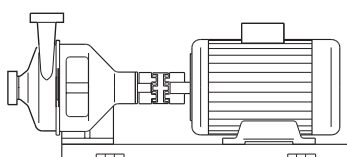
Bloc on stainless steel trolley



TM03 0086 3904

Fig. 24 Example of Euro-HYGIA® Bloc on stainless steel trolley

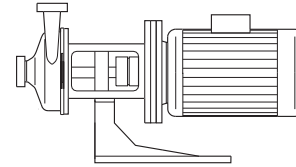
CN



TM03 0085 3904

Fig. 25 Example of Euro-HYGIA® CN on baseplate

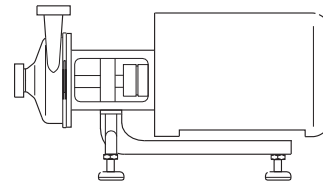
Adapta®



TM03 0082 3904

Fig. 26 Example of Euro-HYGIA® Adapta® on cast iron foot

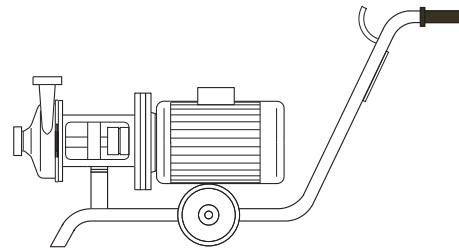
Adapta®-SUPER



TM03 0083 3904

Fig. 27 Example of Euro-HYGIA® Adapta®-SUPER on stainless steel combi-foot

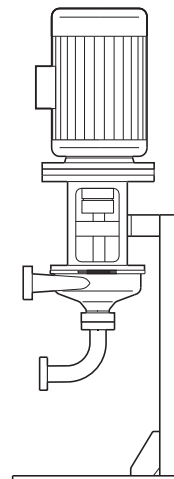
Adapta® on stainless steel trolley



TM03 0087 3904

Fig. 28 Example of Euro-HYGIA® Adapta® on stainless steel trolley

Adapta®-V



TM03 0088 3904

Fig. 29 Example of Euro-HYGIA® Adapta®-V on pedestal and with suction elbow connection

The tables below state possible designs and versions of each pump range.

Each version number is described in the version key on page 26.

Euro-HYGIA® I

Design	Version number														
Adapta® *	1	2	3	18	19	23	24	31	50	51	52	60	61		
Adapta®-SUPER**	1	2	3	18	19	23	31	50	52	60	61				
Adapta®-V*	8	9	10	11	31	50	51	52	60	61					
Bloc	1	2	3	5	6	7	18	19	23	24	50	60	61		
Bloc-SUPER**	1	2	3	5	6	7	18	19	23	50	60	61			
Bloc-V	8	9	10	11	50	60	61								
CN	25	26	27	28	29	30	31	32	33	34	50	51	52	60	61

* Size I.

** SUPER = motor with stainless steel shroud.

Euro-HYGIA® II

Design	Version number														
Adapta® *	1	2	3	18	19	22	23	24	31	50	51	52	60	61	
Adapta®-SUPER**	1	2	3	18	19	22	23	31	50	52	60	61			
Adapta®-V*	8	9	10	11	31	50	51	52	60	61					
Bloc	1	2	3	5	6	7	18	19	23	24	50	60	61		
Bloc-SUPER**	1	2	3	5	6	7	18	19	23	50	60	61			
Bloc-V	8	9	10	11	50	60	61								
CN	25	26	27	28	29	30	31	32	33	34	50	51	52	60	61

* Size II up to frame size 160; frame size 180 is size III.

** SUPER = motor with stainless steel shroud.

Contra I

Design	Version number														
Adapta® *	1	2	3	18	19	23	24	31	50	51	52				
Adapta®-SUPER**	1	2	3	18	19	23	31	50	52						
Adapta®-V*	8	9	10	11	31	50	51	52							
Bloc	1	2	3	5	6	7	18	19	23	24	50				
Bloc-SUPER**	1	2	3	5	6	7	18	19	23	50					
Bloc-V	8	9	10	11	50										
CN	25	26	27	28	29	30	31	32	33	34	50	51	52		

* Size I.

** SUPER = motor with stainless steel shroud.

Contra II

Design	Version number													
Adapta® *	1	2	3	18	19	22	23	24	31	50	51	52		
Adapta®-SUPER**	1	2	3	18	19	22	23	31	50	52				
Adapta®-V*	8	9	10	11	31	50	51	52						
Bloc	1	2	3	5	6	7	18	19	23	24	50			
Bloc-SUPER**	1	2	3	5	6	7	18	19	23	50				
Bloc-V	8	9	10	11	50									
CN	25	26	27	28	29	30	31	32	33	34	35	50	51	52

* Size II up to frame size 160; frame size 180 is size III.

** SUPER = motor with stainless steel shroud.

SIPLA 3.1

Design	Version number													
Adapta® *	1	2	3	18	19	23	31	51	52	53				
Adapta®-SUPER**	1	2	3	18	19	23	31	52	53					
Bloc	4	5	18	19	32	33	51	54						
Bloc-SUPER**	4	18												
CN	25	26	27	28	30	31	32	33	34	51	52			

* Size I.

** SUPER = motor with stainless steel shroud.

SIPLA 6.1

Design	Version number													
Adapta® *	1	2	3	18	19	23	31	50	51	52	53			
Adapta®-SUPER**	1	2	3	18	19	23	31	50	52	53				
Bloc	4	5	18	19	32	33	50	51	54					
Bloc-SUPER**	4	18	50											
CN	25	26	27	28	30	31	32	33	34	50	51	52		

* Size I.

** SUPER = motor with stainless steel shroud.

SIPLA 12.1

Design	Version number													
Adapta® *	1	2	3	18	19	23	31	50	51	52	53			
Adapta®-SUPER**	1	2	3	18	19	23	31	50	52	53				
Bloc	4	5	18	19	32	33	50	51	54					
Bloc-SUPER**	4	18	50											
CN	25	26	27	28	30	31	32	33	34	50	51	52		

* Size I.

** SUPER = motor with stainless steel shroud.

SIPLA 18.1

Design	Version number												
	1	2	3	18	19	23	31	50	51	52	53		
Adapta® *	1	2	3	18	19	23	31	50	51	52	53		
Adapta®-SUPER**	1	2	3	18	19	23	31	50	52	53			
Bloc	4	5	18	19	32	33	50	51	54				
Bloc-SUPER**	4	18	50										
CN	25	26	27	28	30	31	32	33	34	50	51	52	

* Size II.

** SUPER = motor with stainless steel shroud.

SIPLA 28.1

Design	Version number												
	1	2	3	18	19	23	31	50	51	52	53		
Adapta® *	1	2	3	18	19	23	31	50	51	52	53		
Adapta®-SUPER**	1	2	3	18	19	23	31	50	52	53			
Bloc	4	5	18	19	32	33	50	51	54				
Bloc-SUPER**	4	18	50										
CN	25	26	27	28	30	31	32	33	34	50	51	52	

* Size II.

** SUPER = motor with stainless steel shroud.

SIPLA 52.1

Design	Version number												
	1	2	3	18	19	23	31	50	51	52	53		
Adapta® *	1	2	3	18	19	23	31	50	51	52	53		
Adapta®-SUPER**	1	2	3	18	19	23	31	50	52	53			
Bloc	4	5	18	19	50	54							
Bloc-SUPER**	4	18	50	54									
CN	25	26	27	28	30	31	32	33	34	50	51	52	

* Size II.

** SUPER = motor with stainless steel shroud.

SIPLA 65.1

Design	Version number												
	22	31	51	52	53								
Adapta® *	22	31	51	52	53								
Adapta®-SUPER**	4	22	31	52									
Bloc	4	5											
Bloc-SUPER**	4												
CN	25	26	27	28	30	31	32	33	34	51	52		

* Size III.

** SUPER = motor with stainless steel shroud.

SIPLA 90.1

Design	Version number												
	22	31	51	52	53								
Adapta® *	22	31	51	52	53								
Adapta®-SUPER**	4	22	31	52									
Bloc	4	5											
Bloc-SUPER**	4												
CN	25	26	27	28	30	31	32	33	34	51	52		

* Size III.

** SUPER = motor with stainless steel shroud.

MAXA

Design	Version number												
	1	2	22	31	50	51	52						
Adapta® *	1	2	22	31	50	51	52						
Adapta® **	22	31	51	52									
Adapta®-V*	8	10	31	50	51	52							
Adapta®-V**	16	31	51	52									
L	5	6	7	21	31	50	51	52					
C***	25	26	27	28	29	30	31	32	33	34	50	51	52
CN****	25	26	27	28	29	30	31	32	33	34	50	51	52

* Size II.

** Size III.

*** CN with shaft sleeve.

**** N.

MAXANA

Design	Version number												
	1	2	22	31	50	51	52						
Adapta® *	1	2	22	31	50	51	52						
Adapta® **	22	31	51	52									
Adapta®-SUPER***	8	10	31	50	51	52							
Bloc	16	31	51	52									
L	5	6	7	21	31	50	51	52					
C****	25	26	27	28	29	30	31	32	33	34	50	51	52
CN*****	25	26	27	28	29	30	31	32	33	34	50	51	52

* Size II.

** Size III.

*** SUPER = motor with stainless steel shroud.

**** CN with shaft sleeve.

***** N.

Version key

Version number	Description
1	On cast iron foot
2	On stainless steel foot
3	Without foot/stainless steel ball feet
4	On stainless steel ball feet
5	On motor foot
6	On motor foot with carbon steel plinth
7	On motor foot with stainless steel plinth
8	On stainless steel pedestal without suction elbow
9	On stainless steel pedestal with suction elbow
10	Without pedestal and suction elbow*
11	Without pedestal but with suction elbow
16	On vertical frame without suction elbow*
18	On stainless steel trolley, normal wheels
19	On stainless steel trolley, anti-static wheels
21	On pump and motor support feet (\leq frame size 112)
22	On Adapta® foot (\leq 45 kW, size III)
23	On stainless steel combi-foot
24	Wall-mounting (Euro-HYGIA®: Only available as HPM, Contra; 3 stages are standard)
25	Without baseplate**
26	With coupling (<15 kW only with DKM spacer)**
27	With spacer coupling (\geq 15 kW only; <15 kW on request)**
28	Without coupling**
29	Without spacer coupling**
30	With motor**
31	Without motor**
32	On carbon steel baseplate**
33	On stainless steel baseplate**
34	Stand-proof coupling guard**
35	Chemical standard - baseplate with anchor bolt holes**
50	With built-in frequency converter (tronic) - from 1.5 to 7.5 kW
51	Motor with increased-safety explosion protection (EEx e II T1-T3)***
52	Motor with flameproof-enclosure explosion protection (EEx de IIC T1-T4)***
53	Hydraulic drive
54	Electric motor and hydraulic drive through second shaft end
60	KLM (clamp ring) - see figure below
61	HPM (flange) - see figure below

* In connection with Adapta® size III.

** Design CN. All combinations are possible with baseplate mounted. Motor and coupling size and type should be given to determine baseplate size.

*** For further information on pumps conforming to the ATEX 94/9/EC directive, contact Philipp Hilge GmbH & Co KG.

Housing sealing for Euro-HYGIA pumps

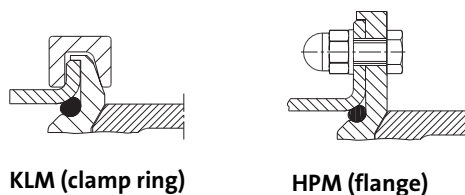


Fig. 30 KLM and HPM housing sealing

Euro-HYGIA® I

Connections	DIN	32/25	32/32	40/25	40/32	40/40	50/32	50/40	50/50	65/40	65/50
	OD	1 1/4 / 1	1 1/4 / 1 1/4	1 1/2 / 1	1 1/2 / 1 1/4	1 1/2 / 1 1/2	2 / 1 1/4	2 / 1 1/2	2 / 2	2 1/2 / 1 1/2	2 1/2 / 2
Threaded connection DIN 11851 (3A0-3A1)	a ₁	75	75	75	75	75	75	75	75	75	75
	e ₁	85	85	85	85	85	85	85	75	85	75
	h ₂	170	170	170	170	170	170	170	170	170	170
	e ₅	109	109	120	120	120	135	135	135	145	145
	h ₃	132	132	133	133	133	148	148	148	160	160
Aseptic threaded connection DIN 11864-1* (3A0-3A3)	a ₁	86	86	82	82	82	78	78	78	78	78
	e ₁	85	85	85	85	85	85	85	75	85	75
	h ₂	183	187	183	187	188	187	188	188	188	188
	e ₅	105	105	108	108	108	136	136	136	146	146
	h ₃	120	120	131	131	131	144	144	144	156	156
Aseptic flange DIN 11864-2** (3A0-3A3)	a ₁	81	81	76	76	76	72	72	72	67	67
	e ₁	85	85	85	85	85	85	85	75	85	75
	h ₂	182	182	182	182	182	182	182	182	182	182
	e ₅	112	112	122	122	122	135	135	135	142	142
	h ₃	115	115	125	125	125	138	138	138	145	145
Clamp to DIN 32676 (3A0-3A2)	a ₁	87	87	77	77	77	73	73	73	75	75
	e ₁	85	85	85	85	85	85	85	75	85	75
	h ₂	178	178	178	178	170	178	170	178	170	178
	e ₅	113	113	123	123	123	136	136	136	150	150
	h ₃	111	111	121	121	121	134	134	134	148	148
Flange DIN EN 1092-1*** (DIN 2633/42) PN 10 (3A0)	a ₁	75	75	75	75	75	75	75	75	75	75
	e ₁	85	85	85	85	85	85	85	75	85	75
	h ₂	170	170	170	170	170	170	170	170	170	170
	e ₅	105	105	115	115	115	128	128	128	145	145
	h ₃	103	103	113	113	113	126	126	126	143	143
Clamp to Tri-Clover ITE-Tri-Clamp (3A0-3A2)	a ₁	-	-	88	-	88	-	86	86	70	70
	e ₁	-	-	85	-	85	-	85	75	85	75
	h ₂	-	-	185	-	185	-	185	185	185	185
	e ₅	-	-	123	-	123	-	On request			
	h ₃	-	-	121	-	121	-	On request			
Weld neck flange DIN EN 1092-1 (DIN 2633) PN 16 (3A0)	a ₁	100(10)	100(10)	100	100	100	97	97	97	97	97
	e ₁	85	85	85	85	85	85	85	75	85	75
	h ₂	170	197	170	197	199	197	199	202	199	202
	e ₅	On request									
	h ₃	On request									
Threaded connection DIN ISO 228 (male) (3A0)	a ₁	85	85	81	81	81	80	80	80	-	-
	e ₁	85	85	85	85	85	85	85	75	-	-
	h ₂	170	170	170	170	170	170	170	170	-	-
	e ₅	On request								-	-
	h ₃	On request								-	-

Tolerances to DIN EN 735 connection dimensions for centrifugal pumps.

* Aseptic threaded connection for pipes to DIN 11850 row 2/3, Form A.

** Aseptic grooved flange for pipes to DIN 11850 row 2/3, Form A.

*** DN_s/DN_d - fixed/loose flange (DN_s 65 as DIN 2642-loose flange).

(10) Dimensions for KLM version. For HPM version dimension a₁ is 91mm for DN_s 32.

Dimensions e₅ and h₃ for vertical version. Discharge branch cannot be completely drained (not eccentric).

Euro-HYGIA® II

Connections	DIN	50/50	65/50	65/65	80/50	80/65	80/80	100/65	100/80	100/100	125/80	125/100
	OD	2 / 2	2 ¼ / 2	2 ½ / 2 ½	3 / 2	3 / 2 ½	3 / 3	4 / 2 ½	4 / 3	4 / 4	5 / 3	5 / 4
Threaded connection DIN 11851 (3A0-3A1)	a ₁	116	116	116	116	116	116	116	116	116	116	116
	e ₁	98	98	98	98	98	85.5	98	85.5	85.5	85.5	85.5
	h ₂	200	200	200	200	200	200	200	200	200	200	200
	e ₅	135	145	145	175	175	175	190	190	190	-	-
	h ₃	148	160	160	190	190	190	209	209	209	-	-
Aseptic threaded connection DIN 11864-1* (3A0-3A3)	a ₁	112	119	119	125	125	125	133	133	133	-	-
	e ₁	98	98	98	98	98	85.5	98	85.5	85.5	-	-
	h ₂	206	206	213	206	213	220	213	220	227	-	-
	e ₅	136	146	146	175	175	175	191	191	191	-	-
	h ₃	144	156	156	187	187	187	205	205	205	-	-
Aseptic flange DIN 11864-2** (3A0-3A3)	a ₁	106.5	108.5	108.5	110.5	110.5	110.5	110.5	110.5	110.5	-	-
	e ₁	98	98	98	98	98	85.5	98	85.5	85.5	-	-
	h ₂	200.5	200.5	202.5	200.5	202.5	205.5	202.5	205.5	204.5	-	-
	e ₅	135.5	142.5	142.5	169.5	169.5	169.5	179.5	179.5	179.5	-	-
	h ₃	138.5	145.5	145.5	172.5	172.5	172.5	182.5	182.5	182.5	-	-
Clamp to DIN 32676 (3A0-3A2)	a ₁	102.5	111	111	111	111	111	111	111	111	-	-
	e ₁	98	98	98	98	98	85.5	98	85.5	85.5	-	-
	h ₂	209	209	228	209	228	206	228	206	205	-	-
	e ₅	136.5	150	150	175	175	175	185	185	185	-	-
	h ₃	134.5	148	148	173	173	173	183	183	183	-	-
Flange DIN EN 1092-1*** (DIN 2633/42) PN 10 (3A0)	a ₁	116	116	116	116	116	116	116	116	116	116	116
	e ₁	98	98	98	98	98	85.5	98	85.5	85.5	85.5	85.5
	h ₂	200	200	200	200	200	200	200	200	200	200	200
	e ₅	128	145	145	170	170	170	185	185	185	-	-
	h ₃	126	143	143	168	168	168	183	183	183	-	-
Clamp to Tri-Clover ITE-Tri-Clamp (3A0-3A2)	a ₁	109.6	109.6	109.6	111.6	111.6	111.6	111.6	111.6	111.6	-	-
	e ₁	98	98	98	98	98	98	98	98	85.5	-	-
	h ₂	215.6	215.6	215.6	215.6	215.6	225	215.6	225	215.6	-	-
	e ₅	On request									-	-
	h ₃	On request									-	-
Weld neck flange DIN EN 1092-1 (DIN 2633) PN 16 (3A0)	a ₁	126	128	128	133	133	133	135	135	135	-	-
	e ₁	98	98	98	98	98	85.5	98	85.5	85.5	-	-
	h ₂	232	232	234	232	234	228	234	228	229	-	-
	e ₅	On request									-	-
	h ₃	On request									-	-
Flange APV FN1/FG1 PN 10 (3A0-3A1)	a ₁	105	107	107	107	107	107	107	107	107	145	145
	e ₁	98	98	98	98	98	85.5	98	85.5	85.5	85.5	85.5
	h ₂	199	199	224	199	224	200	224	200	200	200	200
	e ₅	On request									-	-
	h ₃	On request									-	-

Tolerances to DIN EN 735 connection dimensions for centrifugal pumps.

- * Aseptic threaded connection for pipes to DIN 11850 row 2/3, Form A.
- ** Aseptic grooved flange for pipes to DIN 11850 row 2/3, Form A.
- *** DN_s/DN_d - fixed/loose flange (DN_s 1255 as DIN 2642-loose flange. **Attention!** This type of connection cannot be used for Bloc-SUPER with frame size 160. Use weld neck flange to DIN 2633.
Dimensions e₅ and h₃ for vertical version. Discharge branch cannot be completely drained (not eccentric).

Contra I

Connections	DIN	25/25	32/25	32/32	40/32	40/40	25/25	32/25	32/32	40/32	40/40
	OD	1 / 1	1 1/4 / 1	1 1/4 / 1 1/4	1 1/2 / 1 1/4	1 1/2 / 1 1/2	1 / 1	1 1/4 / 1	1 1/4 / 1 1/4	1 1/2 / 1 1/4	1 1/2 / 1 1/2
		1-Stage					2-Stage				
Threaded connection DIN 11851 (3A0-3A1)	a ₁	117	120	123	124	127	143	146	149	150	153
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	160	160	160	160	160	160	160	160	160	160
	e ₅	106	109	109	120	120	106	109	109	120	120
	h ₃	119	122	122	133	133	119	122	122	133	133
Aseptic threaded connection DIN 11864-1* (3A0-3A3)	a ₁	114	118	121	122	125	140	144	147	149	151
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	157	157	158	158	158	157	157	158	158	158
	e ₅	106	105	105	108	108	106	105	105	108	108
	h ₃	116	120	120	131	131	116	120	120	131	131
Aseptic flange DIN 11864-2*** (3A0-3A3)	a ₁	113.5	113.6	116.5	116.6	119.5	139.5	139.5	142.5	142.5	145.5
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	156.5	156.5	153.5	153.5	152.5	156.5	156.5	153.5	153.5	152.5
	e ₅	112	112	112	122	122	112	112	112	122	122
	h ₃	115	115	115	125	125	115	115	115	125	125
Clamp to DIN 32676 (3A0-3A2)	a ₁	109.5	109.5	112.5	112.5	115.5	135.5	135.5	138.5	138.5	141.5
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	152.5	152.5	149.5	149.5	148.5	152.5	152.5	149.5	149.5	148.5
	e ₅	113	113	113	123	123	113	113	113	123	123
	h ₃	111	111	111	121	121	111	111	111	121	121
Flange DIN EN 1092-1*** (DIN 2642) PN 10 (3A0)	a ₁	101	101	104	104	107	127	127	130	130	133
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	144	144	141	141	140	144	144	141	141	140
	e ₅	105	105	105	115	115	105	105	105	115	115
	h ₃	103	103	103	113	113	103	103	103	113	113
Clamp to Tri-Clover ITE-Tri-Clamp (3A0-3A2)	a ₁	116.6	-	-	-	125	142.6	-	-	-	151
	f ₂	1	-	-	-	7	1	-	-	-	7
	h ₂	160	-	-	-	158	160	-	-	-	158
	e ₅	95	-	-	-	123	95	-	-	-	123
	h ₃	93	-	-	-	121	93	-	-	-	121
Weld neck flange DIN EN 1092-1 (DIN 2633) PN 16 (3A0)	a ₁	117	121	124	133	136	143	147	150	159	162
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	160	160	160	160	169	160	160	160	160	169
	e ₅	On request					On request				
	h ₃	On request					On request				
Threaded connection DIN ISO 228 (male) (3A0)	a ₁	113	113	116	121	124	139	139	142	147	150
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	156	156	153	153	157	156	156	153	153	157
	e ₅	On request					On request				
	h ₃	On request					On request				

Tolerances to DIN EN 735 connection dimensions for centrifugal pumps.

* Aseptic threaded connection for pipes to DIN 11850 row 2/3, Form A.

** Aseptic grooved flange for pipes to DIN 11850 row 2/3, Form A.

*** DN_s/DN_d - loose flange

Dimensions e₅ and h₃ for vertical version. Discharge branch can be completely drained (eccentric).

Connections	DIN	25/25	32/25	32/32	40/32	40/40	25/25	32/25	32/32	40/32	40/40
	OD	1 / 1	1 1/4 / 1	1 1/4 / 1 1/4	1 1/2 / 1 1/4	1 1/2 / 1 1/2	1 / 1	1 1/4 / 1	1 1/4 / 1 1/4	1 1/2 / 1 1/4	1 1/2 / 1 1/2
		3-Stage					4-Stage				
Threaded connection DIN 11851 (3A0-3A1)	a ₁	169	172	175	176	179	195	198	201	202	205
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	160	160	160	160	160	160	160	160	160	160
	e ₅	106	109	109	120	120	106	109	109	120	120
	h ₃	119	122	122	133	133	119	122	122	133	133
Aseptic threaded connection DIN 11864-1* (3A0-3A3)	a ₁	166	170	173	174	177	192	196	199	201	203
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	157	157	158	158	158	157	157	158	158	158
	e ₅	106	105	105	108	108	106	105	105	108	108
	h ₃	116	120	120	131	131	116	120	120	131	131
Aseptic flange DIN 11864-2** (3A0-3A3)	a ₁	165.5	165.5	168.5	168.5	171.5	191.5	191.5	194.5	194.5	197.5
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	156.5	156.5	153.5	153.5	152.5	156.5	156.5	153.5	153.5	152.5
	e ₅	112	112	112	122	122	112	112	112	122	122
	h ₃	115	115	115	125	125	115	115	115	125	125
Clamp to DIN 32676 (3A0-3A2)	a ₁	161.5	161.5	164.5	164.5	167.5	187.5	187.5	190.5	190.5	193.5
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	152.5	152.5	149.5	149.5	148.5	152.5	152.5	149.5	149.5	148.5
	e ₅	113	113	113	123	123	113	113	113	123	123
	h ₃	111	111	111	121	121	111	111	111	121	121
Flange DIN EN 1092-1*** (DIN 2642) PN 10 (3A0)	a ₁	153	153	156	156	159	179	179	182	182	185
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	144	144	141	141	140	144	144	141	141	140
	e ₅	105	105	105	115	115	105	105	105	115	115
	h ₃	103	103	103	113	113	103	103	103	113	113
Clamp to Tri-Clover ITE-Tri-Clamp (3A0-3A2)	a ₁	168.6	-	-	-	177	194.6	-	-	-	203
	f ₂	1	-	-	-	7	1	-	-	-	7
	h ₂	160	-	-	-	158	160	-	-	-	158
	e ₅	95	-	-	-	123	95	-	-	-	123
	h ₃	93	-	-	-	121	93	-	-	-	121
Weld neck flange DIN EN 1092-1 (DIN 2633) PN 16 (3A0)	a ₁	169	173	176	185	188	195	199	202	211	214
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	160	160	160	160	169	160	160	160	160	169
	e ₅	On request					On request				
	h ₃	On request					On request				
Threaded connection DIN ISO 228 (male) (3A0)	a ₁	165	165	168	173	176	191	191	194	199	202
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	156	156	153	153	157	156	156	153	153	157
	e ₅	On request					On request				
	h ₃	On request					On request				

Tolerances to DIN EN 735 connection dimensions for centrifugal pumps.

* Aseptic threaded connection for pipes to DIN 11850 row 2/3, Form A.

** Aseptic grooved flange for pipes to DIN 11850 row 2/3, Form A.

*** DN_s/DN_d - loose flange

Dimensions e₅ and h₃ for vertical version. Discharge branch can be completely drained (eccentric).

Connections	DIN	25/25	32/25	32/32	40/32	40/40	25/25	32/25	32/32	40/32	40/40
	OD	1 / 1	1 1/4 / 1	1 1/4 / 1 1/4	1 1/2 / 1 1/4	1 1/2 / 1 1/2	1 / 1	1 1/4 / 1	1 1/4 / 1 1/4	1 1/2 / 1 1/4	1 1/2 / 1 1/2
		5-Stage					6-Stage				
Threaded connection DIN 11851 (3A0-3A1)	a ₁	221	224	227	228	231	247	250	253	254	257
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	160	160	160	160	160	160	160	160	160	160
	e ₅	106	109	109	120	120	106	109	109	120	120
	h ₃	119	122	122	133	133	119	122	122	133	133
Aseptic threaded connection DIN 11864-1* (3A0-3A3)	a ₁	218	222	225	226	229	244	248	251	253	255
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	157	157	158	158	158	157	157	158	158	158
	e ₅	106	105	105	108	108	106	105	105	108	108
	h ₃	116	120	120	131	131	116	120	120	131	131
Aseptic flange DIN 11864-2** (3A0-3A3)	a ₁	217.5	217.5	220.5	220.5	223.5	243.5	243.5	246.5	246.5	249.5
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	156.5	156.5	153.5	153.5	152.5	156.5	156.5	153.5	153.5	152.5
	e ₅	112	112	112	122	122	112	112	112	122	122
	h ₃	115	115	115	125	125	115	115	115	125	125
Clamp to DIN 32676 (3A0-3A2)	a ₁	213.5	213.5	216.5	216.5	219.5	239.5	239.5	242.5	242.5	245.5
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	152.5	152.5	149.5	149.5	148.5	152.5	152.5	149.5	149.5	148.5
	e ₅	113	113	113	123	123	113	113	113	123	123
	h ₃	111	111	111	121	121	111	111	111	121	121
Flange DIN EN 1092-1*** (DIN 2642) PN 10 (3A0)	a ₁	205	205	209	209	211	231	231	234	234	237
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	144	144	141	141	140	144	144	141	141	140
	e ₅	105	105	105	115	115	105	105	105	115	115
	h ₃	103	103	103	113	113	103	103	103	113	113
Clamp to Tri-Clover ITE-Tri-Clamp (3A0-3A2)	a ₁	220.6	-	-	-	229	246.6	-	-	-	255
	f ₂	1	-	-	-	7	1	-	-	-	7
	h ₂	160	-	-	-	158	160	-	-	-	158
	e ₅	95	-	-	-	123	95	-	-	-	123
	h ₃	93	-	-	-	121	93	-	-	-	121
Weld neck flange DIN EN 1092-1 (DIN 2633) PN 16 (3A0)	a ₁	221	225	228	237	240	247	251	254	263	266
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	160	160	160	160	169	160	160	160	160	169
	e ₅	On request					On request				
	h ₃	On request					On request				
Threaded connection DIN ISO 228 (male) (3A0)	a ₁	217	217	220	225	228	243	243	246	251	254
	f ₂	1	1	4	4	7	1	1	4	4	7
	h ₂	156	156	153	153	157	156	156	153	153	157
	e ₅	On request					On request				
	h ₃	On request					On request				

Tolerances to DIN EN 735 connection dimensions for centrifugal pumps.

* Aseptic threaded connection for pipes to DIN 11850 row 2/3, Form A.

** Aseptic grooved flange for pipes to DIN 11850 row 2/3, Form A.

*** DN_s/DN_d - loose flange

Dimensions e₅ and h₃ for vertical version. Discharge branch can be completely drained (eccentric).

Contra II

Connections	DIN	50/40	50/50	65/50	65/65	80/65	50/40	50/50	65/50	65/65	80/65
	OD	2 / 1½	2 / 2	2½ / 2	2½ / 2½	3 / 2½	2 / 1½	2 / 2	2½ / 2	2½ / 2½	3 / 2½
1-Stage						2-Stage					
Threaded connection DIN 11851 (3A0-3A1)	a ₁	124	127	132	140	145	156	159	164	172	177
	f ₂	0	3	3	11	11	0	3	3	11	11
	h ₂	205	205	205	205	205	205	205	205	205	205
	e ₅	135	135	145	145	175	135	135	145	145	175
	h ₃	148	148	160	160	190	148	148	160	160	190
Aseptic threaded connection DIN 11864-1* (3A0-3A3)	a ₁	120	123	128	136	142	152	155	160	168	174
	f ₂	0	3	3	11	11	0	3	3	11	11
	h ₂	203	201	201	201	201	203	201	201	201	201
	e ₅	136	136	146	146	175	136	136	146	146	175
	h ₃	144	144	156	156	187	144	144	156	156	187
Aseptic flange DIN 11864-2*** (3A0-3A3)	a ₁	113	116	117	125	127	145	148	149	157	159
	f ₂	0	3	3	11	11	0	3	3	11	11
	h ₂	198	196	196	191	191	198	196	196	191	191
	e ₅	135.5	135.5	142.5	142.5	169.5	135.5	135.5	142.5	142.5	169.5
	h ₃	138.5	138.5	145.5	145.5	172.5	138.5	138.5	145.5	14.5	172.5
Clamp to DIN 32676 (3A0-3A2)	a ₁	110	113	120	128	128	142	145	152	160	160
	f ₂	0	3	3	11	11	0	3	3	11	11
	h ₂	194	192	192	193	193	194	192	192	193	193
	e ₅	136.5	136.5	150	150	175	136.5	136.5	150	150	175
	h ₃	134.5	134.5	148	148	173	134.5	134.5	148	148	173
Flange DIN EN 1092-1*** (DIN 2642) PN 10 (3A0)	a ₁	102	105	115	123	122	134	137	147	155	154
	f ₂	0	3	3	11	11	0	3	3	11	11
	h ₂	185	183	183	188	188	185	183	183	188	188
	e ₅	128	128	145	145	170	128	128	145	145	170
	h ₃	126	126	143	143	168	126	126	143	143	168
Clamp to Tri-Clover ITE-Tri-Clamp (3A0-3A2)	a ₁	146	149	-	-	-	178	181	-	-	-
	f ₂	0	3	3	11	11	0	3	3	11	11
	h ₂	201	199	199	194	194	201	199	199	194	194
	e ₅	On request					On request				
	h ₃	On request					On request				
Weld neck flange DIN EN 1092-1 (DIN 2633) PN 16 (3A0)	a ₁	134	137	137	145	-	166	169	169	177	-
	f ₂	0	3	3	11	-	0	3	3	11	-
	h ₂	214	215	215	210	-	214	215	215	210	-
	e ₅	On request					On request				
	h ₃	On request					On request				
AVP-FG1 Threaded connection DIN ISO 228 (male) (3A0)	a ₁	113	116	116	124	-	145	148	148	156	-
	f ₂	0	3	3	11	-	0	3	3	11	-
	h ₂	-	194	194	189	-	-	194	194	189	-
	e ₅	On request					On request				
	h ₃	On request					On request				

Tolerances to DIN EN 735 connection dimensions for centrifugal pumps.

* Aseptic threaded connection for pipes to DIN 11850 row 2/3, Form A.

** Aseptic grooved flange for pipes to DIN 11850 row 2/3, Form A.

*** DN_s/DN_d - loose flange

Dimensions e₅ and h₃ for vertical version. Discharge branch can be completely drained (eccentric).

Connections	DIN	50/40	50/50	65/50	65/65	80/65	50/40	50/50	65/50	65/65	80/65
	OD	2 / 1½	2 / 2	2½ / 2	2½ / 2½	3 / 2½	2 / 1½	2 / 2	2½ / 2	2½ / 2½	3 / 2½
		3-Stage					4-Stage				
Threaded connection DIN 11851 (3A0-3A1)	a ₁	188	191	196	204	209	220	223	228	236	241
	f ₂	0	3	3	11	11	0	3	3	11	11
	h ₂	205	205	205	205	205	205	205	205	205	205
	e ₅	135	135	145	145	175	135	135	145	145	175
	h ₃	148	148	160	160	190	148	148	160	160	190
Aseptic threaded connection DIN 11864-1* (3A0-3A3)	a ₁	184	187	192	200	206	216	219	224	232	238
	f ₂	0	3	3	11	11	0	3	3	11	11
	h ₂	203	201	201	201	201	203	201	201	201	201
	e ₅	136	136	146	146	175	136	136	146	146	175
	h ₃	144	144	156	156	187	144	144	156	156	187
Aseptic flange DIN 11864-2** (3A0-3A3)	a ₁	177	180	181	189	191	209	212	213	221	223
	f ₂	0	3	3	11	11	0	3	3	11	11
	h ₂	198	196	196	191	191	198	196	196	191	191
	e ₅	135.5	135.5	142.5	142.5	169.5	135.5	135.5	142.5	142.5	169.5
	h ₃	138.5	138.5	145.5	14.5	172.5	138.5	138.5	145.5	14.5	172.5
Clamp to DIN 32676 (3A0-3A2)	a ₁	174	177	184	192	192	206	209	216	224	224
	f ₂	0	3	3	11	11	0	3	3	11	11
	h ₂	194	192	192	193	193	194	192	192	193	193
	e ₅	136.5	136.5	150	150	175	136.5	136.5	150	150	175
	h ₃	134.5	134.5	148	148	173	134.5	134.5	148	148	173
Flange DIN EN 1092-1*** (DIN 2642) PN 10 (3A0)	a ₁	166	169	179	187	186	198	201	211	219	218
	f ₂	0	3	3	11	11	0	3	3	11	11
	h ₂	185	183	183	188	188	185	183	183	188	188
	e ₅	128	128	145	145	170	128	128	145	145	170
	h ₃	126	126	143	143	168	126	126	143	143	168
Clamp to Tri-Clover ITE-Tri-Clamp (3A0-3A2)	a ₁	210	213	-	-	-	242	245	-	-	-
	f ₂	0	3	3	11	11	0	3	3	11	11
	h ₂	201	199	199	194	194	201	199	199	194	194
	e ₅	On request					On request				
	h ₃	On request					On request				
Weld neck flange DIN EN 1092-1 (DIN 2633) PN 16 (3A0)	a ₁	198	201	201	209	-	230	233	233	241	-
	f ₂	0	3	3	11	-	0	3	3	11	-
	h ₂	214	215	215	210	-	214	215	215	210	-
	e ₅	On request					On request				
	h ₃	On request					On request				
AVP-FG1 Threaded connection DIN ISO 228 (male) (3A0)	a ₁	177	180	180	188	-	209	212	212	220	-
	f ₂	0	3	3	11	-	0	3	3	11	-
	h ₂	-	194	194	189	-	-	194	194	189	-
	e ₅	On request					On request				
	h ₃	On request					On request				

Tolerances to DIN EN 735 connection dimensions for centrifugal pumps.

* Aseptic threaded connection for pipes to DIN 11850 row 2/3, Form A.

** Aseptic grooved flange for pipes to DIN 11850 row 2/3, Form A.

*** DN_s/DN_d - loose flange

Dimensions e₅ and h₃ for vertical version. Discharge branch can be completely drained (eccentric).

Connections	DIN	50/40	50/50	65/50	65/65	80/65
	OD	2 / 1½	2 / 2	2½ / 2	2½ / 2½	3 / 2½
5-Stage						
Threaded connection DIN 11851 (3A0-3A1)	a ₁	252	255	260	268	273
	f ₂	0	3	3	11	11
	h ₂	205	205	205	205	205
	e ₅	135	135	145	145	175
	h ₃	148	148	160	160	190
Aseptic threaded connection DIN 11864-1* (3A0-3A3)	a ₁	248	251	256	264	270
	f ₂	0	3	3	11	11
	h ₂	203	201	201	201	201
	e ₅	136	136	146	146	175
	h ₃	144	144	156	156	187
Aseptic flange DIN 11864-2** (3A0-3A3)	a ₁	241	244	245	253	255
	f ₂	0	3	3	11	11
	h ₂	198	196	196	191	191
	e ₅	135.5	135.5	142.5	142.5	169.5
	h ₃	138.5	138.5	145.5	14.5	172.5
Clamp to DIN 32676 (3A0-3A2)	a ₁	238	241	248	256	256
	f ₂	0	3	3	11	11
	h ₂	194	192	192	193	193
	e ₅	136.5	136.5	150	150	175
	h ₃	134.5	134.5	148	148	173
Flange DIN EN 1092-1*** (DIN 2642) PN 10 (3A0)	a ₁	230	233	243	251	250
	f ₂	0	3	3	11	11
	h ₂	185	183	183	188	188
	e ₅	128	128	145	145	170
	h ₃	126	126	143	143	168
Clamp to Tri-Clover ITE-Tri-Clamp (3A0-3A2)	a ₁	274	277	-	-	-
	f ₂	0	3	3	11	11
	h ₂	201	199	199	194	194
	e ₅	On request				
	h ₃	On request				
Weld neck flange DIN EN 1092-1 (DIN 2633) PN 16 (3A0)	a ₁	262	265	265	273	-
	f ₂	0	3	3	11	-
	h ₂	214	215	215	210	-
	e ₅	On request				
	h ₃	On request				
AVP-FG1 Threaded connection DIN ISO 228 (male) (3A0)	a ₁	241	244	244	252	-
	f ₂	0	3	3	11	-
	h ₂	-	194	194	189	-
	e ₅	On request				
	h ₃	On request				

Tolerances to DIN EN 735 connection dimensions for centrifugal pumps.

* Aseptic threaded connection for pipes to DIN 11850 row 2/3, Form A.

** Aseptic grooved flange for pipes to DIN 11850 row 2/3, Form A.

*** DN_s/DN_d - loose flange

Dimensions e₅ and h₃ for vertical version. Discharge branch can be completely drained (eccentric).

MAXA

MAXA, frame size 80-160

Connections	DIN	100/80	125/80	125/100	150/80
	OD	4 / 3	5 / 3	5 / 4	6 / 3
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	125	125	-	125
	h ₂	225	225	-	225

MAXA, frame size 80-200

Connections	DIN	100/80	100/100	125/80	125/100	150/80	150/100
	OD	4 / 3	4 / 4	5 / 3	5 / 4	6 / 3	6 / 4
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	125	125	-	-	-	125
	h ₂	250	250	-	-	-	250

MAXA, frame size 80-250

Connections	DIN	100/80	100/100	125/80	125/100	150/80	150/100
	OD	4 / 3	4 / 4	5 / 3	5 / 4	6 / 3	6 / 4
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	125	-	-	125	125	125
	h ₂	280	-	-	280	280	280

MAXA, frame size 80-315

Connections	DIN	100/80	100/100	125/80	125/100	150/80	150/100
	OD	4 / 3	4 / 4	5 / 3	5 / 4	6 / 3	6 / 4
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	125	125	125	125	125	125
	h ₂	315	315	315	315	315	315

MAXA, frame size 100-200

Connections	DIN	125/100	125/125	150/100	150/125
	OD	5 / 4	5 / 5	6 / 4	6 / 5
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	125	125	125	125
	h ₂	280	280	280	280

MAXA, frame size 100-250

Connections	DIN	125/100	125/125	150/100	150/125
	OD	5 / 4	5 / 5	6 / 4	6 / 5
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	140	140	-	140
	h ₂	280	280	-	280

MAXA, frame size 125-250

Connections	DIN	150/125	150/150	175/125	200/125	200/150
	OD	6 / 5	6 / 6	7 / 5	8 / 5	8 / 6
Flange DIN EN 1092-1*** (DIN 2632) (3A0)	a ₁	-	-	-	140	-
	h ₂	-	-	-	355	-
Flange DIN EN 1092-1*** (DIN 2633) (3A0)	a ₁	140	140	140	-	140
	h ₂	355	355	355	-	355

MAXA, frame size 100-315

Connections	DIN	125/100	125/125	150/100	150/125
	OD	5 / 4	5 / 5	6 / 4	6 / 5
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	140	140	140	140
	h ₂	315	315	315	315

MAXA, frame size 125-315

Connections	DIN	150/125	200/150
	OD	6 / 5	8 / 6
Flange DIN EN 1092-1*** (DIN 2633) (3A0)	a ₁	140	140
	h ₂	355	355

MAXA, frame size 150-250

Connections	DIN	200/150	250/150	250/200
	OD	8 / 6	10 / 6	10 / 8
Flange DIN EN 1092-1*** (DIN 2632) (3A0)	a ₁	160	160	160
	h ₂	375	375	375
Flange DIN EN 1092-1*** (DIN 2633) (3A0)	a ₁	160	160	-
	h ₂	375	375	-

MAXA, frame size 150-315

Connections	DIN	200/150	250/150	250/200
	OD	8 / 6	10 / 6	10 / 8
Flange DIN EN 1092-1*** (DIN 2632) (3A0)	a ₁	160	160	160
	h ₂	400	400	400
Flange DIN EN 1092-1*** (DIN 2633) (3A0)	a ₁	-	160	-
	h ₂	-	400	-

MAXA, frame size 150-400

Connections	DIN	200/150	200/200
	OD	8 / 6	8 / 8
Flange DIN EN 1092-1*** (DIN 2632) (3A0)	a ₁	160	160
	h ₂	450	450

MAXA, frame size 200-400

Connections	DIN	200/200	250/200
	OD	8 / 8	10 / 8
Flange DIN EN 1092-1*** (DIN 2632) (3A0)	a ₁	175	175
	h ₂	530	530

MAXANA

MAXANA, frame size 32-160

Connections	DIN	50/32	50/40	65/32	65/40
	OD	2 / 1/1/4	2 / 1/4	2 1/2 / 1 1/4	2 1/2 / 1 1/4
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	80	80	80	80
	h ₂	160	160	160	160

MAXANA, frame size 32-200

Connections	DIN	40/25	50/32	50/40	65/32	65/40	65/50
	OD	1 1/2 / 1	2 / 1/1/4	2 / 1/4	2 1/2 / 1 1/4	2 1/2 / 1 1/4	2 1/2 / 2
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	-	80	80	80	80	80
	h ₂	-	180	180	180	180	180

MAXANA, frame size 40-160

Connections	DIN	65/40	65/50	80/40	80/50
	OD	2 1/2 / 1 1/4	2 1/2 / 2	3 / 1 1/4	3 / 2
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	80	80	80	80
	h ₂	160	160	160	160

MAXANA, frame size 40-200

Connections	DIN	65/40	65/50	80/40	80/50
	OD	2 1/2 / 1 1/4	2 1/2 / 2	3 / 1 1/4	3 / 2
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	100	100	100	100
	h ₂	180	180	180	180

MAXANA, frame size 50-125

Connections	DIN	65/50	65/65	80/50	80/65
	OD	2 1/2 / 2	2 1/2 / 2 1/2	3 / 2	3 / 2 1/2
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	100	100	100	100
	h ₂	160	160	160	160

MAXANA, frame size 50-160

Connections	DIN	65/50	65/65	80/50	80/65
	OD	2 1/2 / 2	2 1/2 / 2 1/2	3 / 2	3 / 2 1/2
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	100	100	100	100
	h ₂	180	180	180	180

MAXANA, frame size 50-200

Connections	DIN	65/50	65/65	80/50	80/65
	OD	2 1/2 / 2	2 1/2 / 2 1/2	3 / 2	3 / 2 1/2
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	100	100	100	100
	h ₂	200	200	200	200

MAXANA, frame size 65-125

Connections	DIN	80/65	100/65	80/80	100/80
	OD	3 / 2 1/2	3 1/2 / 2 1/2	3 / 3	3 1/2 / 3
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	100	100	100	100
	h ₂	180	180	180	180

MAXANA, frame size 65-160

Connections	DIN	80/65	80/80	100/65	100/80
	OD	3 / 2 1/2	3 / 3	3 1/2 / 2 1/2	3 1/2 / 3
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	100	100	100	100
	h ₂	200	200	200	200

MAXANA, frame size 65-200

Connections	DIN	80/65	80/80	100/65	100/80
	OD	3 / 2 1/2	3 / 3	3 1/2 / 2 1/2	3 1/2 / 3
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	100	100	100	100
	h ₂	225	225	225	225

MAXANA, frame size 65-250

Connections	DIN	80/65	80/80	100/65	100/80
	OD	3 / 2 1/2	3 / 3	3 1/2 / 2 1/2	3 1/2 / 3
Kremo-flange DIN EN 1092-1 (DIN 2633) (3A0)	a ₁	100	100	100	100
	h ₂	250	250	250	250

Mechanical installation

The pump should **never** be installed with the motor pointing downwards.

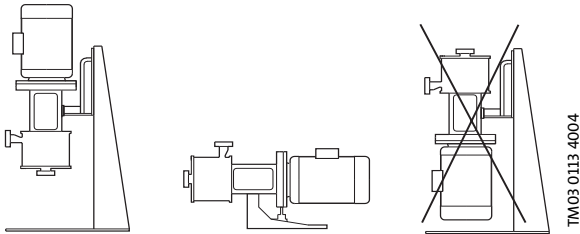


Fig. 31 Installation

The pumps must be installed in such a way that strain from the pipework is not transferred to the pump housing.

When installed outdoors, the motor must be provided with a suitable cover to avoid condensation on the electronic components and to protect the pump and motor against the direct effects of the elements.

Space requirements

Vertical installation

- Pumps fitted with motors up to and including 4 kW require a 300 mm clearance above the motor, please see the figure below.
- Pumps fitted with motors of 5.5 kW and up require at least a 1 metre clearance above the motor to allow the use of lifting equipment.

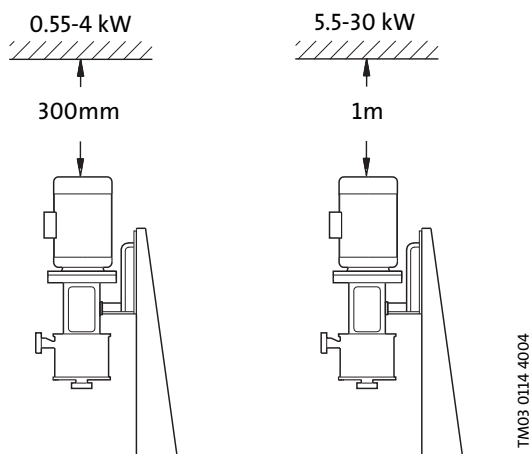


Fig. 32 Vertical installation

Horizontal installation

- Pumps fitted with motors up to and including 4 kW require a 300 mm clearance behind the motor, please see the figure below.
- Pumps fitted with motors of 5.5 kW and up require a 300 mm clearance behind and a 1 metre clearance above the motor to allow the use of lifting equipment.

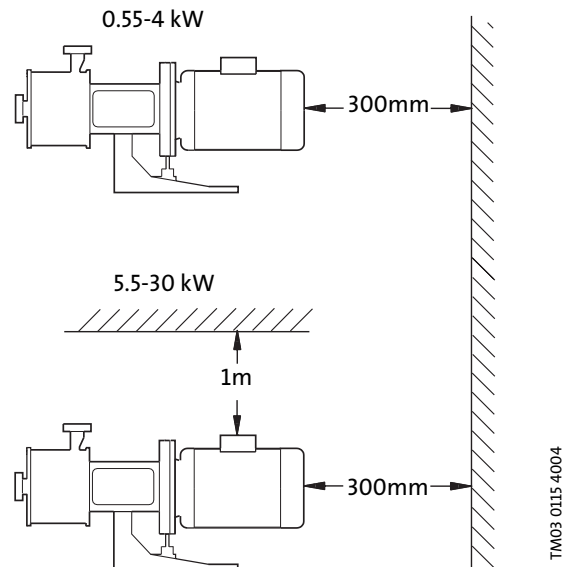


Fig. 33 Horizontal installation

Foundation and vibration dampening

In order to achieve optimum operation and to reduce noise and vibration to a minimum, it may be necessary to consider vibration dampening of the pump in certain cases. Generally this should always be considered in the case of pumps with motors larger than 11 kW. Smaller motors, however, may also cause undesirable noise and vibration.

Noise and vibration are generated by the rotations in the motor and pump and by the flow in pipes and fittings. The effect on the environment is subjective and depends on correct installation and the state of the remaining system.

Foundation

Pumps should be installed on a plane and rigid concrete foundation which is the optimum solution for vibration dampening.

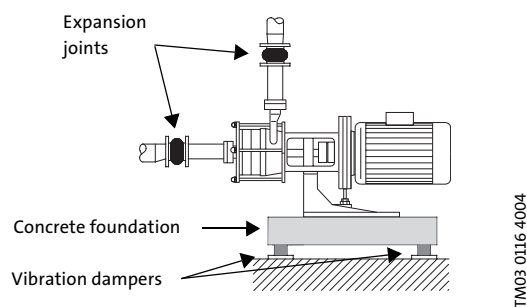


Fig. 34 Example of foundation of a Contra II pump

As a rule of thumb, the weight of a concrete foundation should be 1.5 x the pump weight.

Dampening

To prevent the transmission of vibrations to buildings, it is advisable to isolate the pump foundation from building parts by means of vibration dampers.

The selection of the right vibration damper requires the following data:

- forces transmitted through the damper
- motor speed considering speed control, if any
- required dampening in % (suggested value is 70%).

Which is the right damper varies from installation to installation, and a wrong damper may increase the vibration level. Vibration dampers should therefore be sized by the supplier.

If the pump is installed on a pedestal with vibration dampers, expansion joints should always be fitted on the pump flanges. This is important to prevent the pump from "hanging" in the flanges.

Expansion joints

Expansion joints are installed to

- absorb expansions/contractions in the pipework caused by changing liquid temperature
- reduce mechanical strains in connection with pressure surges in the pipework
- isolate mechanical structure-borne noise in the pipework (only rubber bellows expansion joints).

Note: Expansion joints must not be installed to compensate for inaccuracies in the pipework such as centre displacement of flanges.

Fit expansion joints at a distance of minimum 1 to 1½ x DN diameter from the pump on the suction as well as on the discharge side. This prevents the development of turbulence in the expansion joints, resulting in better suction conditions and a minimum pressure loss on the pressure side. At high water velocities (> 5 m/s) it is advisable to install larger expansion joints corresponding to the pipework.

Expansion joints with limit rods can be used to minimize the forces caused by the expansion joints. Expansion joints with limit rods are always recommended for flanges larger than DN 100.

The pipes should be anchored so that they do not stress the expansion joints and the pump. Follow the supplier's instructions and pass them on to advisers or pipe installers.

Terminal box positions

The below terminal box positions are possible for all pump ranges.

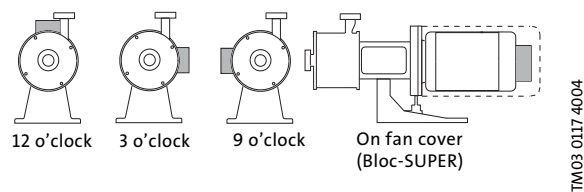
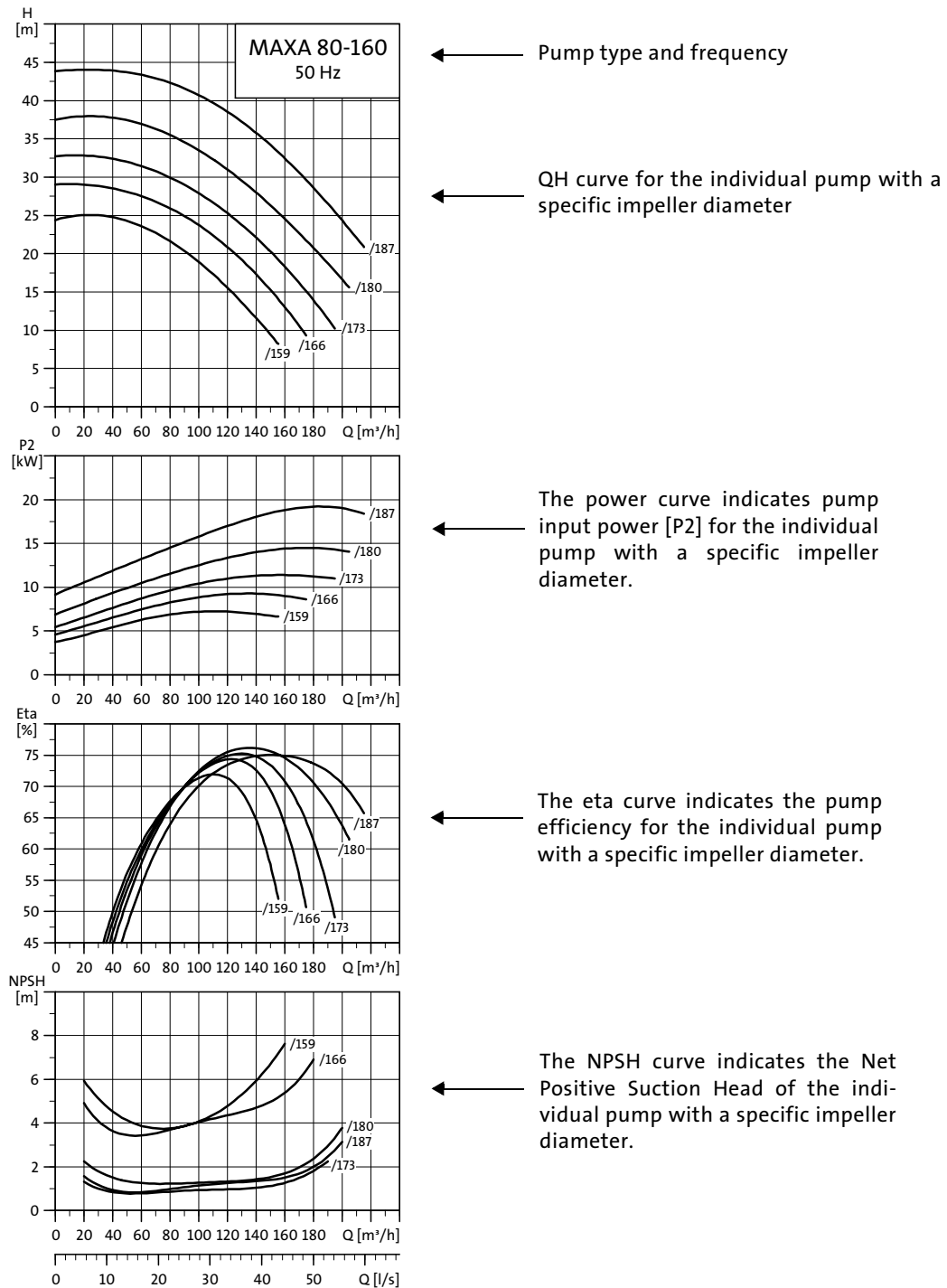


Fig. 35 Possible terminal box positions

How to read the curve charts



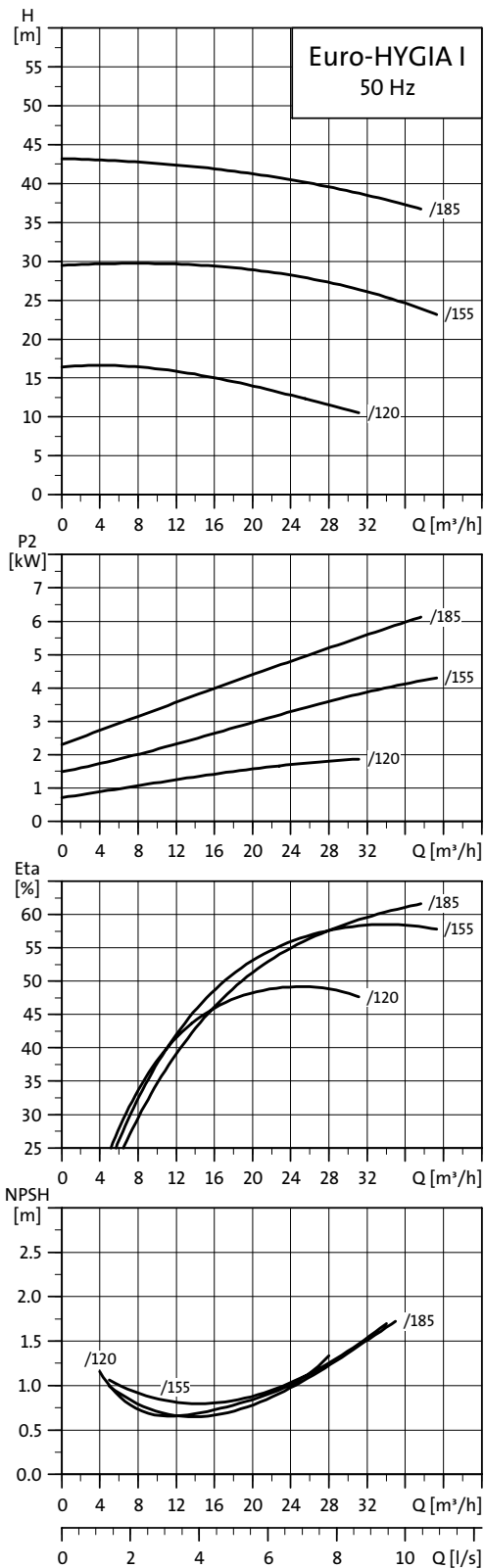
TM02 9722 3704

Curve conditions

The guidelines below apply to the curves shown on the following pages:

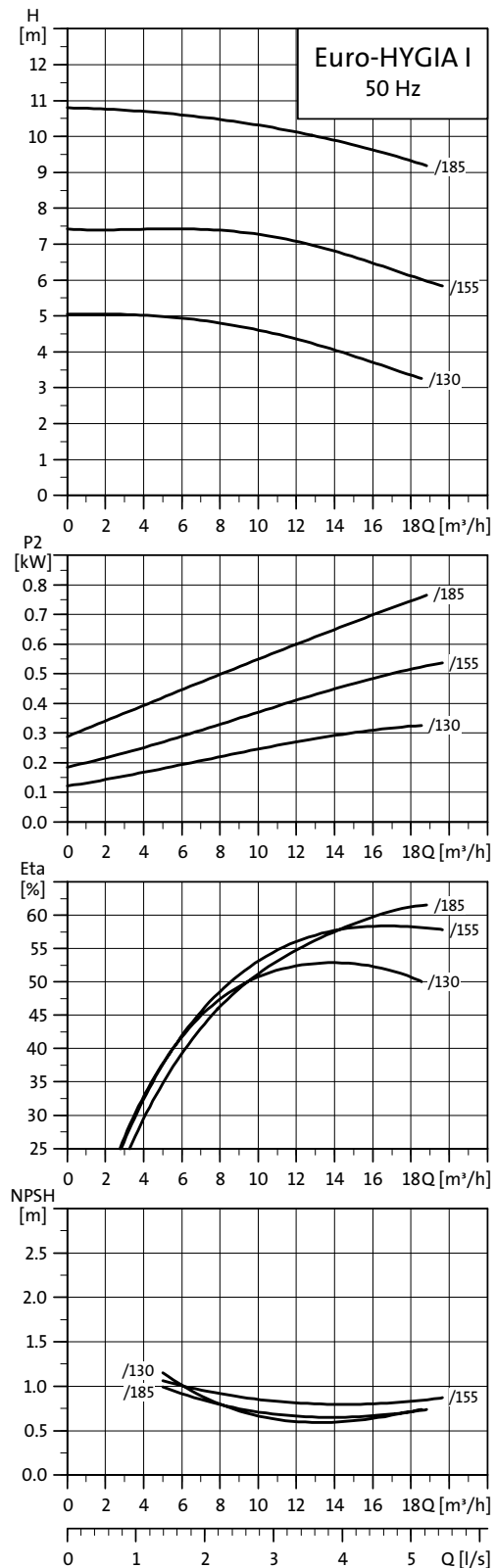
1. Tolerances to ISO 9906, Annex A.
2. QH curves of the individual pumps are shown with expected speed of a three-phase standard motor.
3. Measurements have been made with airless water at a temperature of +20°C.
4. The curves apply to a kinematic viscosity of $\nu = 1 \text{ mm}^2/\text{s}$ (1 cSt).
5. If the pumped liquid density and/or viscosity is higher than that of water, it may be necessary to use a motor with a higher performance.

Euro-HYGIA® I, 2-pole



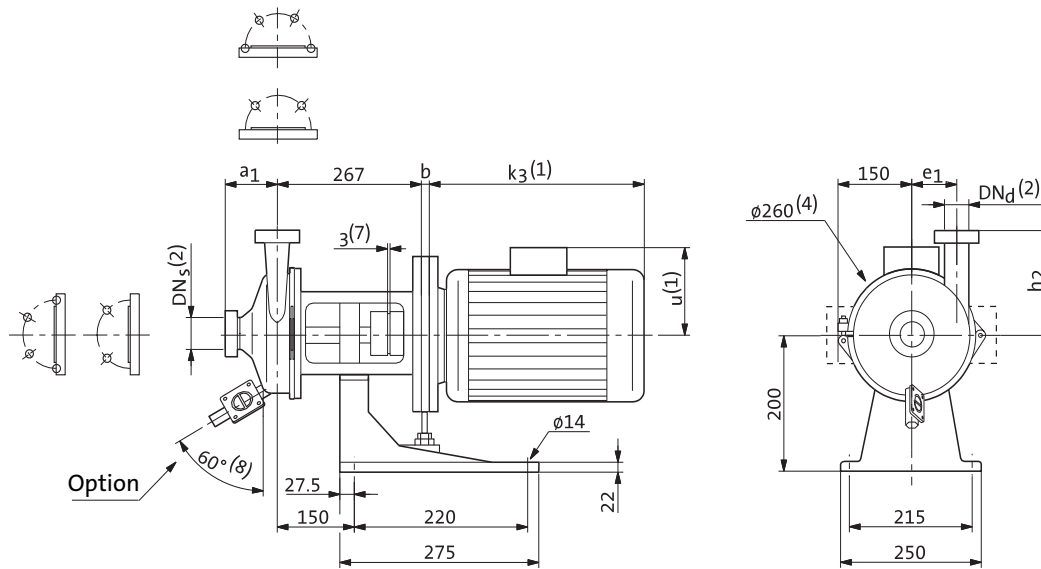
TM02 9742 3704

Euro-HYGIA® I, 4-pole



TM02 9741 3704

Euro-HYGIA® I Adapta® on cast iron foot



Annular housing with clamp ring (KLM)

TM03 0039 3804

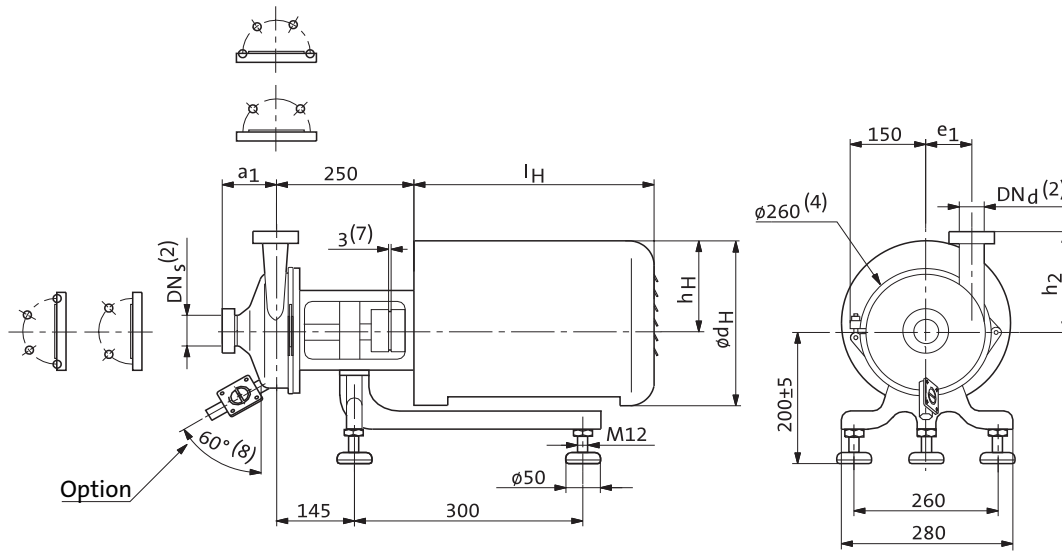
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On cast iron foot		
			b	k ₃ ⁽¹⁾	u ⁽¹⁾
0.55	1450	80	0	245	145
0.75	1450	80	0	245	145
1.1	2900	80	0	245	145
1.1	1450	90S	10	285	150
1.5	2900	90S	10	285	150
1.5	1450	90L	10	285	150
2.2	2900	90L	10	285	150
2.2	1450	100L	20	320	175
3.0	2900	100L	20	320	175
4.0	2900	112M	20	340	185
5.5	2900	132S	40	390	205

Dimensions depend on housing size (DN_s, DN_d, a₁, h₂, e₁), see table of connections on page 27.

- (1) Motor dimensions depend on make, max. size for basic design given.
- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (7) N-Eupex coupling.
- (8) Option: Drain-Gemü membrane valve DN 15. Drain-clamp connection to DIN 32676 DN 15 (45° angle).

Euro-HYGIA® I Adapta® SUPER on stainless steel combi-foot (frame size 80-90)



Annular housing with clamp ring (KLM)

TM03 0040 3804

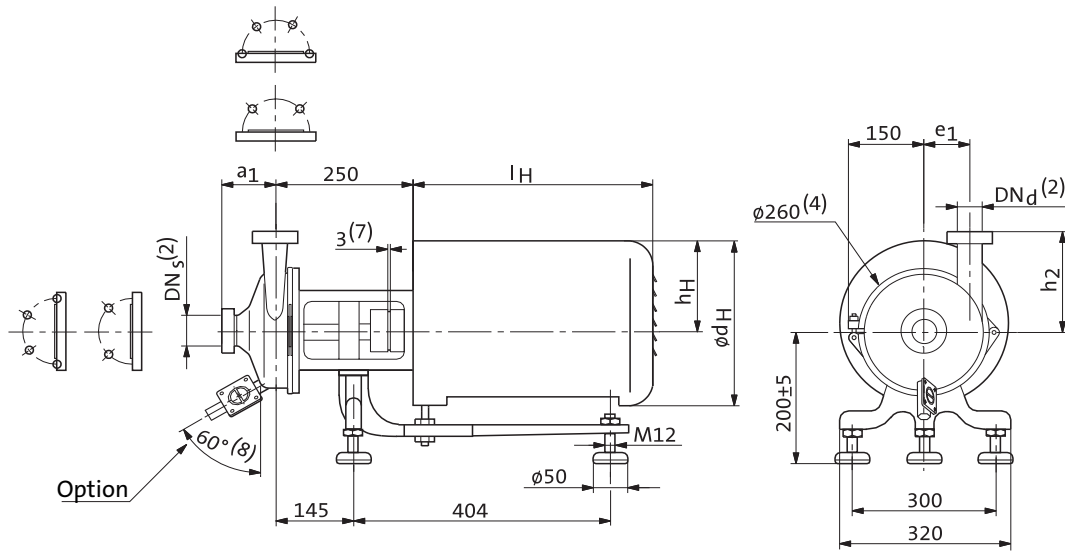
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On stainless steel combi-foot		
			l _H	h _H	ø d _H
0.55	1450	80	370	180	320
0.75	1450	80	370	180	320
1.1	2900	80	370	180	320
1.1	1450	90S	370	180	320
1.5	2900	90S	370	180	320
1.5	1450	90L	370	180	320
2.2	2900	90L	370	180	320

Dimensions depend on housing size (DN_s, DN_d, a₁, h₂, e₁), see table of connections on page 27.

- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (7) N-Eupex coupling.
- (8) Option: Drain-Gemü membrane valve DN 15. Drain-clamp connection to DIN 32 676 DN 15 (45° angle).

Euro-HYGIA® I Adapta® SUPER on stainless steel combi-foot (frame size 100-132)



Annular housing with clamp ring (KLM)

TM03 0041 3804

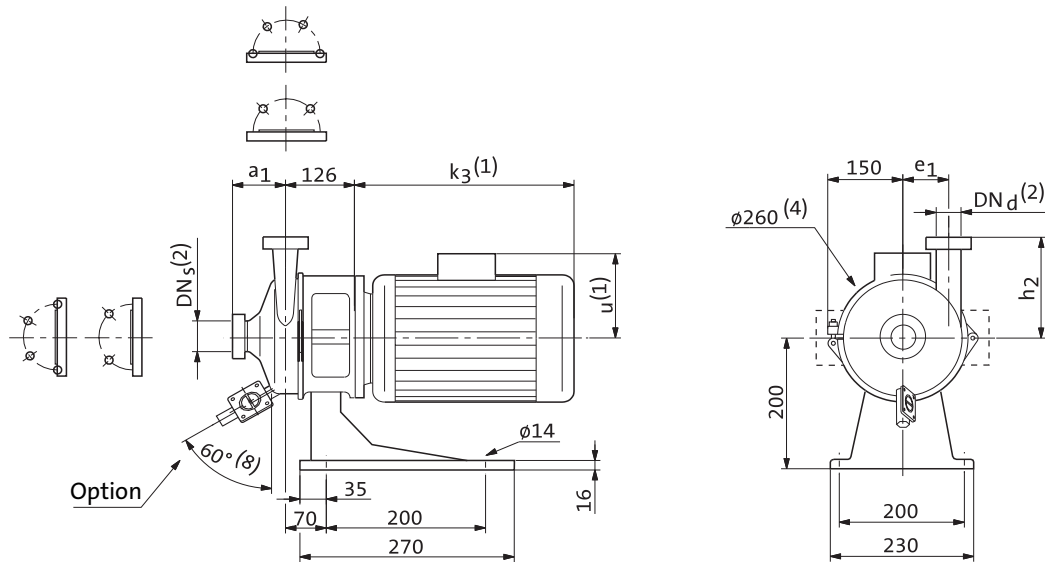
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On stainless steel combi-foot		
			l _H	h _H	ø d _H
2.2	1450	100L	460	210	370
3.0	2900	100L	460	210	370
4.0	2900	112M	460	210	370
5.5	2900	132S	510	240	420

Dimensions depend on housing size (DN_s, DN_d, a₁, h₂, e₁), see table of connections on page 27.

- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (7) N-Eupex coupling.
- (8) Option: Drain-Gemü membrane valve DN 15. Drain-clamp connection to DIN 32 676 DN 15 (45° angle).

Euro-HYGIA® I Bloc on cast iron foot



Annular housing with clamp ring (KLM)

TM03 0042 3804

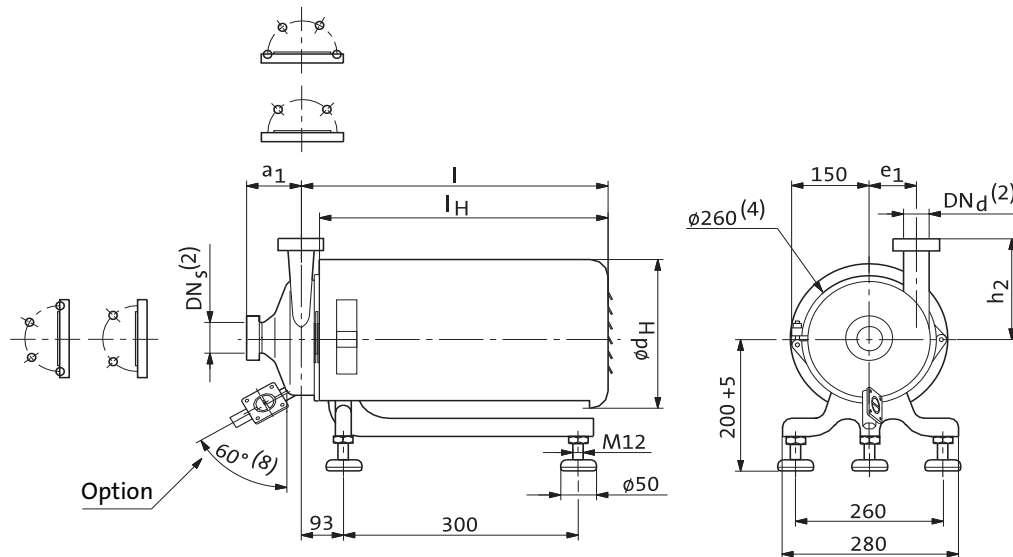
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	Cast iron foot	
			k ₃ ⁽¹⁾	u ⁽¹⁾
0.55	1450	80	258	124
0.75	1450	80	258	124
1.1	2900	80	258	124
1.1	1450	90S	282	130
1.5	2900	90S	282	130
1.5	1450	90L	282	130
2.2	2900	90L	282	130
2.2	1450	100L	327	158
3.0	2900	100L	327	158
4.0	2900	112M	355	171
5.5	2900	112M	391	171

Dimensions depend on housing size (DN_s, DN_d, a₁, h₂, e₁), see table of connections on page 27.

- (1) Motor dimensions depend on make, max. size for basic design given.
- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (8) Option: Drain-Gemü membrane valve DN 15. Drain-clamp connection to DIN 32 676 DN 15 (45° angle).

Euro-HYGIA® I Bloc-SUPER on stainless steel combi-foot



Annular housing with clamp ring (KLM)

TM03 0043 3804

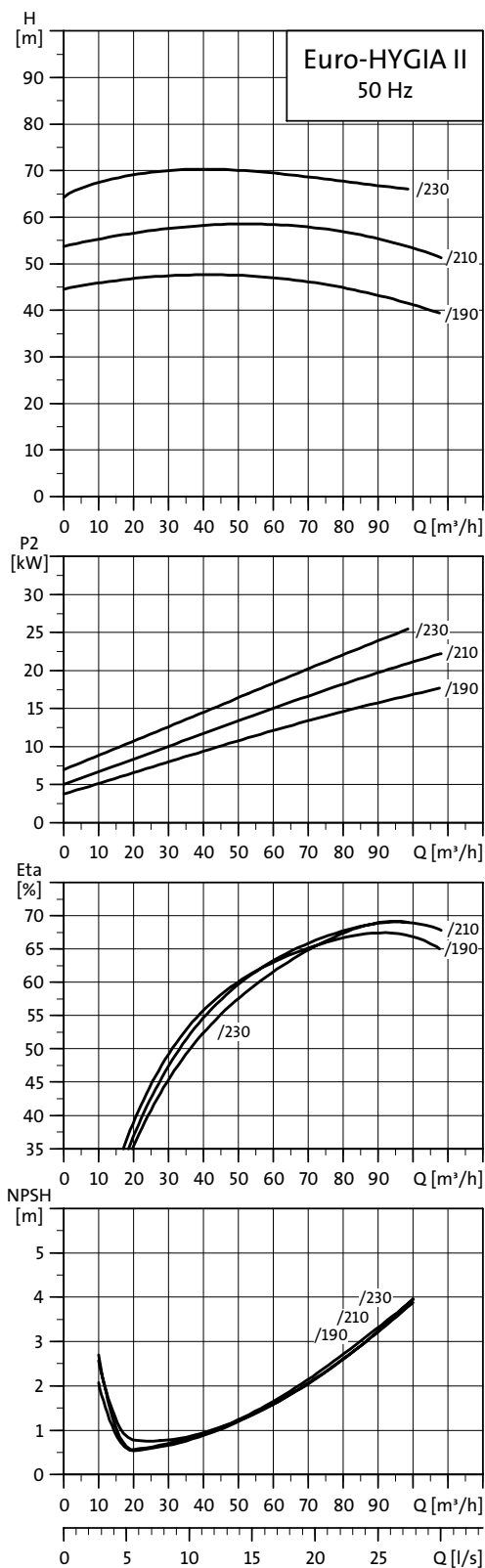
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On stainless steel combi-foot		
			l	l _H	∅ d _H
0.55	1450	80	470	410	220
0.75	1450	80	470	410	220
1.1	2900	80	470	410	220
1.1	1450	90S	470	410	220
1.5	2900	90S	470	410	220
1.5	1450	90L	470	410	220
2.2	2900	90L	470	410	220
2.2	1450	100L	540	480	270
3.0	2900	100L	540	480	270
4.0	2900	112M	540	480	270
5.5	2900	112M	580	520	270

Dimensions depend on housing size (DN_s, DN_d, a₁, h₂, e₁), see table of connections on page 27.

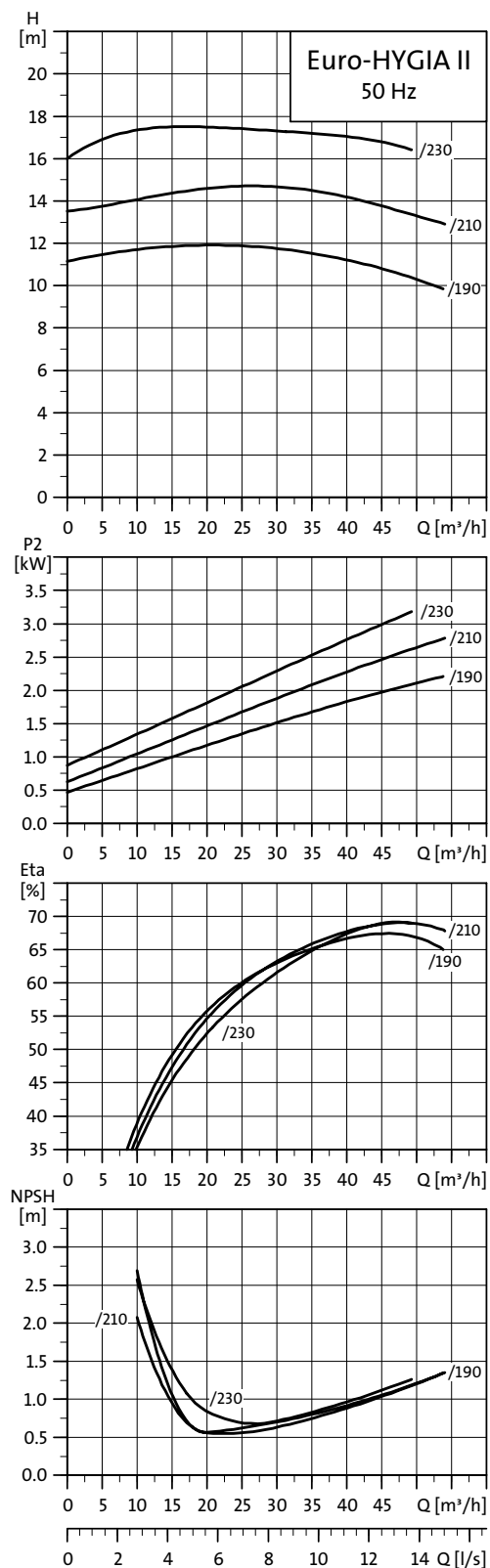
- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (8) Option: Drain-Gemü membrane valve DN 15. Drain-clamp connection to DIN 32 676 DN 15 (45° angle).

Euro-HYGIA® II, 2-pole



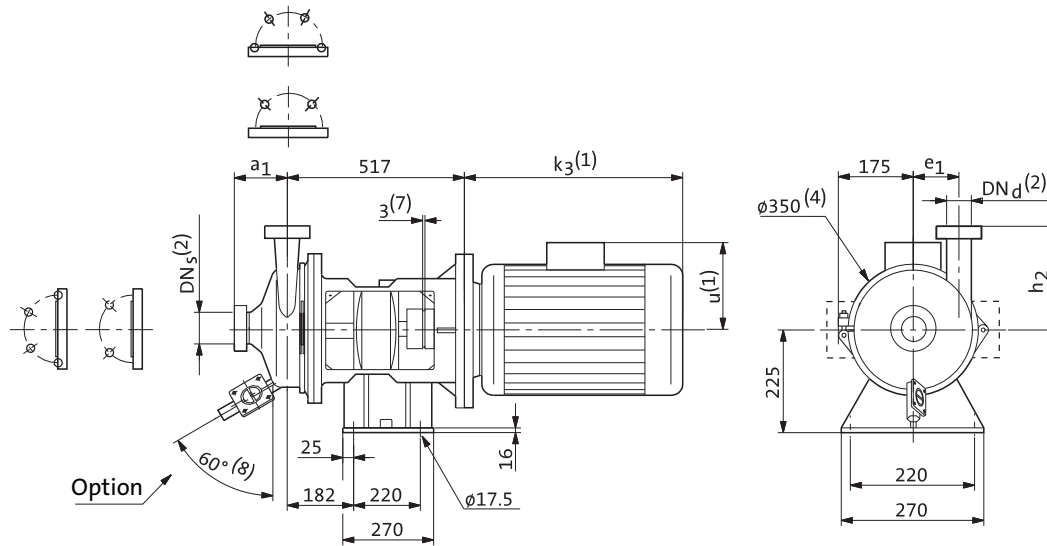
TM02 9746 3704

Euro-HYGIA® II, 4-pole



TM02 9745 3704

Euro-HYGIA® II Adapta® on Adapta® foot (frame size 180M)



Annular housing with clamp ring (KLM)

TM03 0056 3804

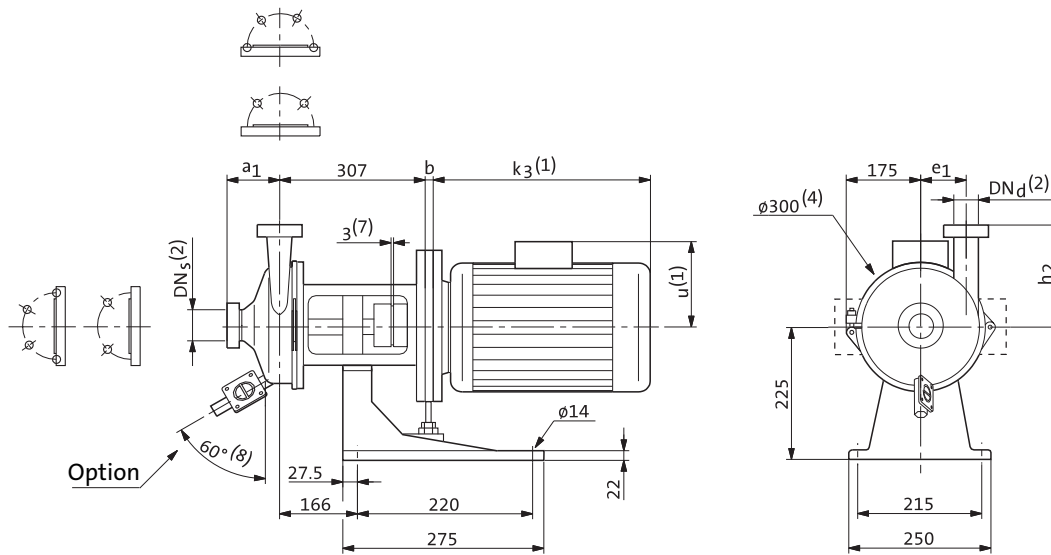
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On cast iron foot	
			k ₃ ⁽¹⁾	u ⁽¹⁾
22.0	2900	180M	605	265

Dimensions depend on housing size (DN_s, DN_d, a₁, h₂, e₁), see table of connections on page 28.

- (1) Motor dimensions depend on make, max. size for basic design given.
- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (7) N-Eupex coupling.
- (8) Option: Drain-Gemü membrane valve DN 15. Drain-clamp connection to DIN 32 676 DN 15 (45° angle).

Euro-HYGIA® II Adapta® on cast iron foot (frame size 100-160)



Annular housing with clamp ring (KLM)

TM03 0057 3804

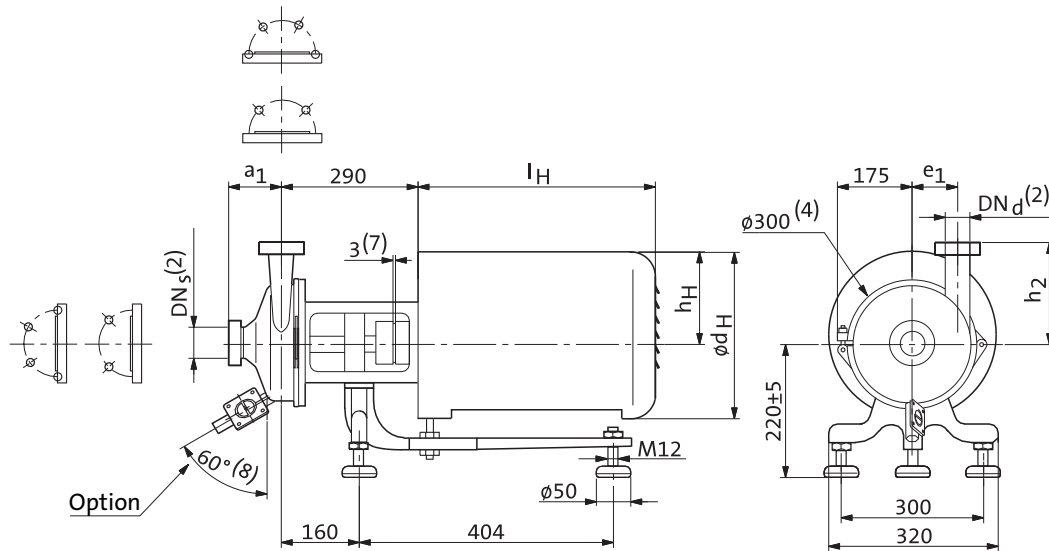
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On cast iron foot		
			b	k ₃ ⁽¹⁾	u ⁽¹⁾
2.2	1450	100L	0	320	175
3.0	1450	100L	0	320	175
3.0	2900	100L	0	320	175
4.0	1450	112M	0	340	185
4.0	2900	112M	0	340	185
5.5	1450	132S	20	390	205
5.5	2900	132S	20	390	205
7.5	2900	132S	20	390	205
7.5	1450	132M	20	420	205
11.0	2900	160M	51	490	240
15.0	2900	160M	51	490	240
18.5	2900	160L	51	530	240

Dimensions depend on housing size (DN_s, DN_d, a₁, h₂, e₁), see table of connections on page 28.

- (1) Motor dimensions depend on make, max. size for basic design given.
- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (7) N-Eupex coupling.
- (8) Option: Drain-Gemü membrane valve DN 15. Drain-clamp connection to DIN 32 676 DN 15 (45° angle).

Euro-HYGIA® II Adapta® SUPER on stainless steel combi-foot (frame size 100-160)



Annular housing with clamp ring (KLM)

TM03 0059 3804

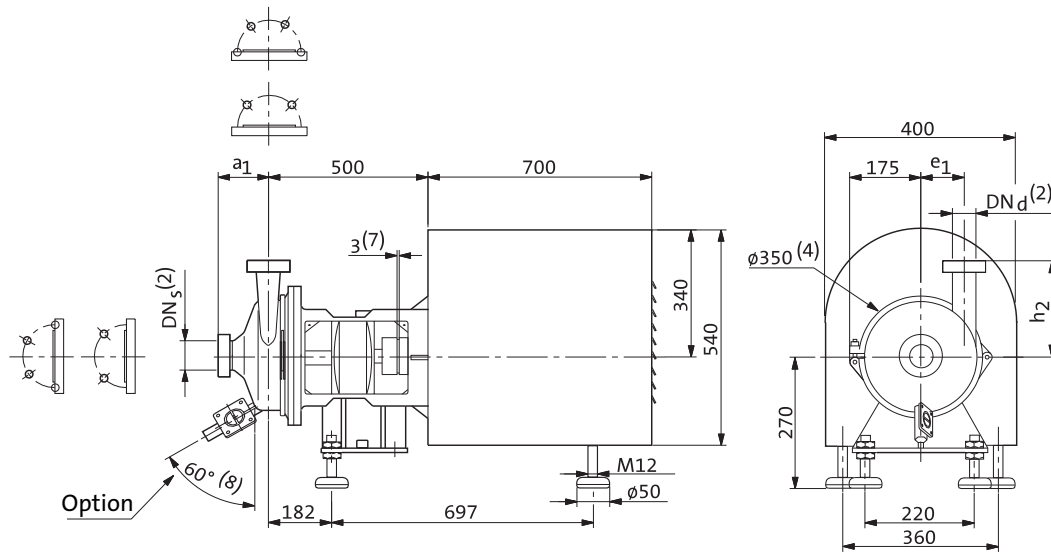
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On stainless steel combi-foot		
			l _H	h _H	ø d _H
2.2	1450	100L	510	240	420
3.0	1450	100L	510	240	420
3.0	2900	100L	510	240	420
4.0	1450	112M	510	240	420
4.0	2900	112M	510	240	420
5.5	1450	132S	510	240	420
5.5	2900	132S	510	240	420
7.5	2900	132S	510	240	420
7.5	1450	132M	510	240	420
11.0	2900	160M	650	285	485
15.0	2900	160M	650	285	485
18.5	2900	160L	650	285	485

Dimensions depend on housing size (DN_s, DN_d, a₁, h₂, e₁), see table of connections on page 28.

- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (7) N-Eupex coupling.
- (8) Option: Drain-Gemü membrane valve DN 15. Drain-clamp connection to DIN 32 676 DN 15 (45° angle).

Euro-HYGIA® II Adapta® SUPER on machine pads (frame size 180)



Annular housing with clamp ring (KLM)

TM03 0058 3804

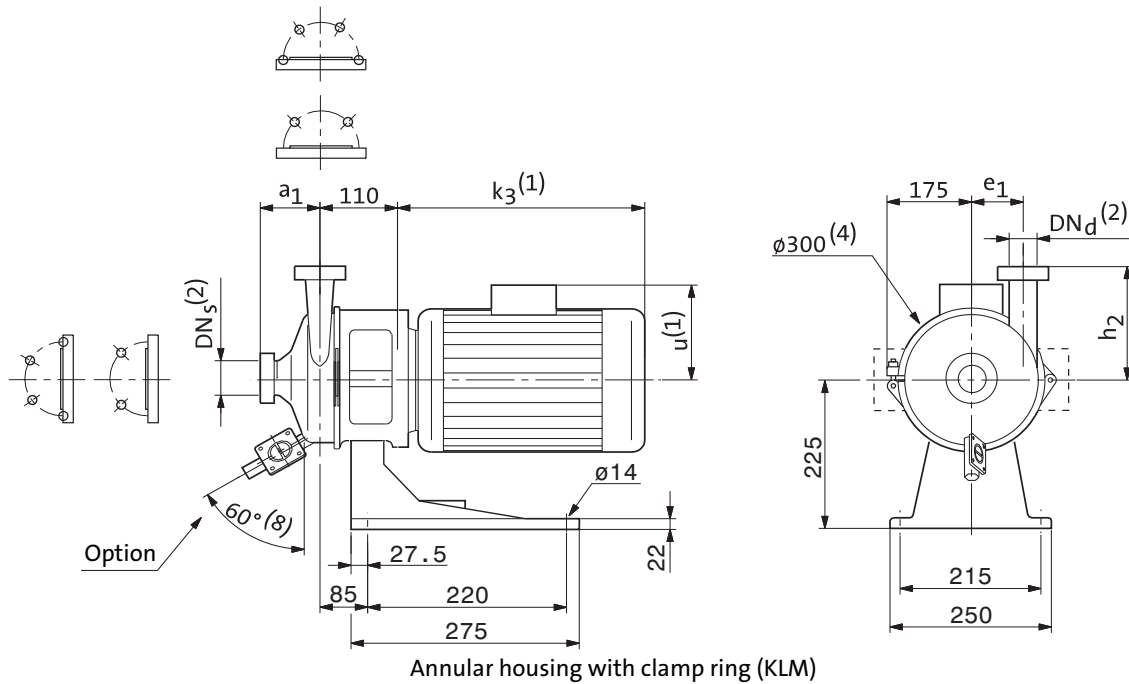
Technical data

P2 [kW]	n [min ⁻¹]	IEC size
22.0	2900	180M

Dimensions depend on housing size (DN_s, DN_d, a₁, h₂, e₁), see table of connections on page 28.

- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (7) N-Eupex coupling.
- (8) Option: Drain-Gemü membrane valve DN 15. Drain-clamp connection to DIN 32 676 DN 15 (45° angle).

Euro-HYGIA® II Bloc on cast iron foot (frame size 90-132)



TM03 0060 3804

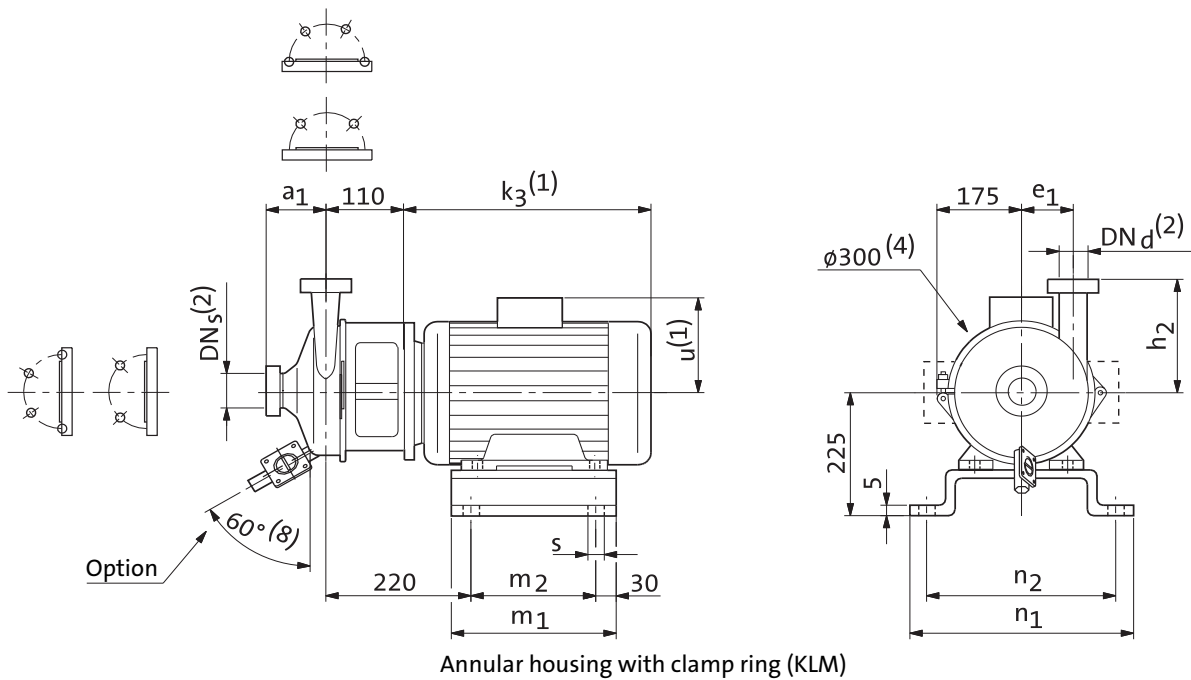
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On cast iron foot	
			k ₃ ⁽¹⁾	u ⁽¹⁾
0.75	1450	90S	282	130
1.5	1450	90L	282	130
1.5	2900	90S	282	130
2.2	2900	90L	282	130
2.2	1450	100L	312	163
3.0	1450	100L	312	163
3.0	2900	100L	312	163
4.0	1450	112M	335	176
4.0	2900	112M	335	176
5.5	1450	112M	371	176
5.5	2900	112M	371	176
7.5	1450	132M	433	196
7.5	2900	132S	433	196
11.0	2900	132M	433	196

Dimensions depend on housing size (DN_s, DN_d, a₁, h₂, e₁), see table of connections on page 28.

- (1) Motor dimensions depend on make, max. size for basic design given.
- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (8) Option: Drain-Gemü membrane valve DN 15. Drain-clamp connection to DIN 32 676 DN 15 (45° angle).

Euro-HYGIA® II Bloc on motor foot with stainless steel plinth (frame size 160)



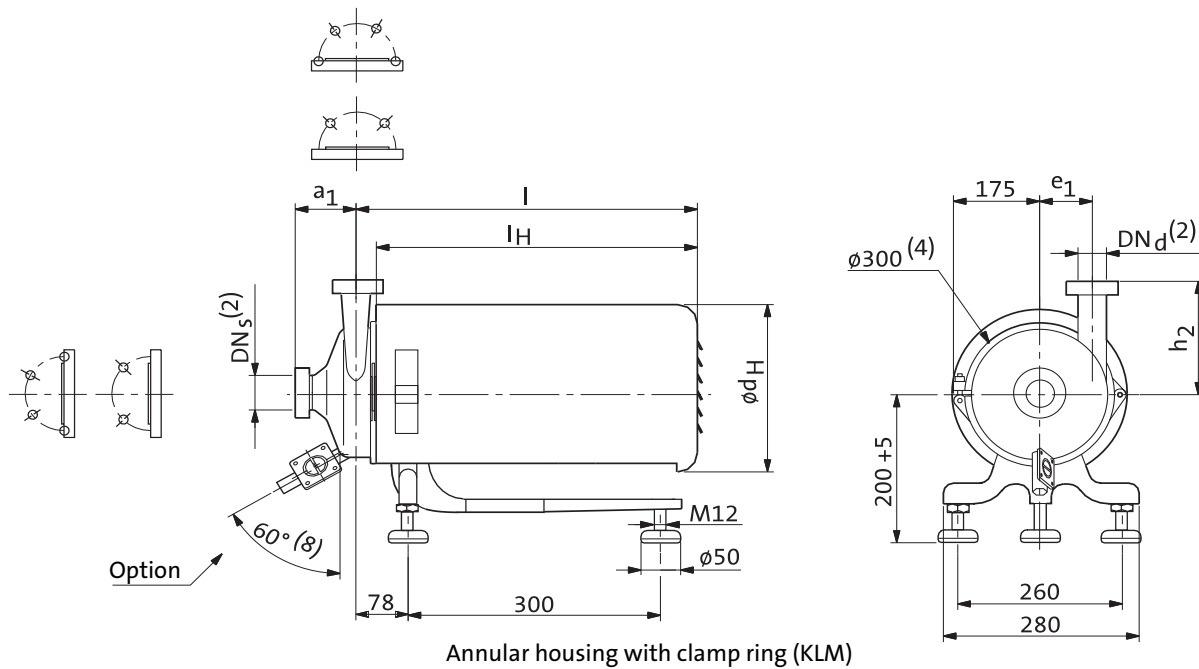
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On motor foot with stainless steel plinth						
			k ₃ ⁽¹⁾	u ⁽¹⁾	m ₁	m ₂	ø s	n ₁	n ₂
15.0	2900	160M	522	226	310	250	13	410	380
18.5	2900	160L	562	226	310	250	13	410	380
22.0	2900	160L	562	226	310	250	13	410	380

Dimensions depend on housing size (DN_s, DN_d, a₁, h₂, e₁), see table of connections on page 28.

- (1) Motor dimensions depend on make, max. size for basic design given.
- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (8) Option: Drain-Gemü membrane valve DN 15. Drain-clamp connection to DIN 32 676 DN 15 (45° angle).

Euro-HYGIA® II Bloc-SUPER on stainless steel combi-foot (frame size 90-132)



TM03 0062 3804

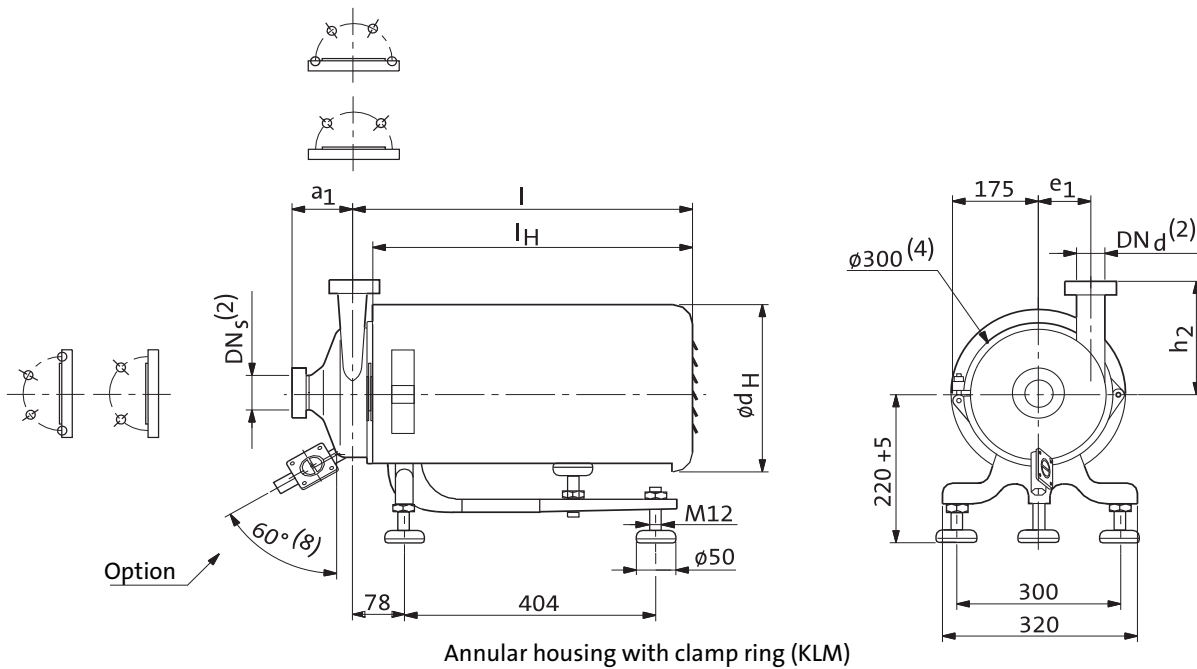
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On stainless steel combi-foot		
			l	l _H	ø d _H
0.75	1450	90S	540	480	270
1.5	1450	90L	540	480	270
1.5	2900	90S	540	480	270
2.2	2900	90L	540	480	270
2.2	1450	100L	540	480	270
3.0	1450	100L	540	480	270
3.0	2900	100L	540	480	270
4.0	1450	112M	540	480	270
4.0	2900	112M	540	480	270
5.5	1450	112M	580	520	270
5.5	2900	112M	580	520	270
7.5	1450	132M	660	600	320
7.5	2900	132S	660	600	320
11.0	2900	132M	660	600	320

Dimensions depend on housing size (DN_s, DN_d, a₁, h₂, e₁), see table of connections on page 28.

- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (8) Option: Drain-Gemü membrane valve DN 15. Drain-clamp connection to DIN 32 676 DN 15 (45° angle).

Euro-HYGIA® II Bloc-SUPER on stainless steel combi-foot (frame size 160)



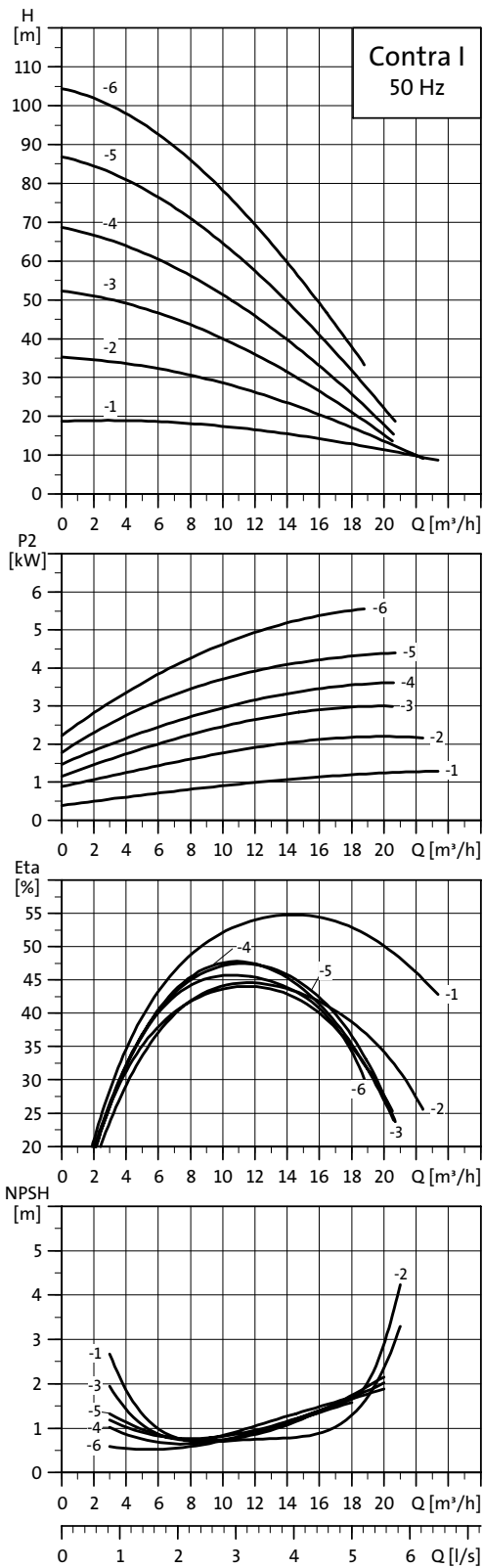
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On stainless steel combi-foot		
			l	l _H	ø d _H
15.0	2900	160M	810	750	350
18.5	2900	160L	810	750	350
22.0	2900	160L	810	750	350

Dimensions depend on housing size (DN_s, DN_d, a₁, h₂, e₁), see table of connections on page 28.

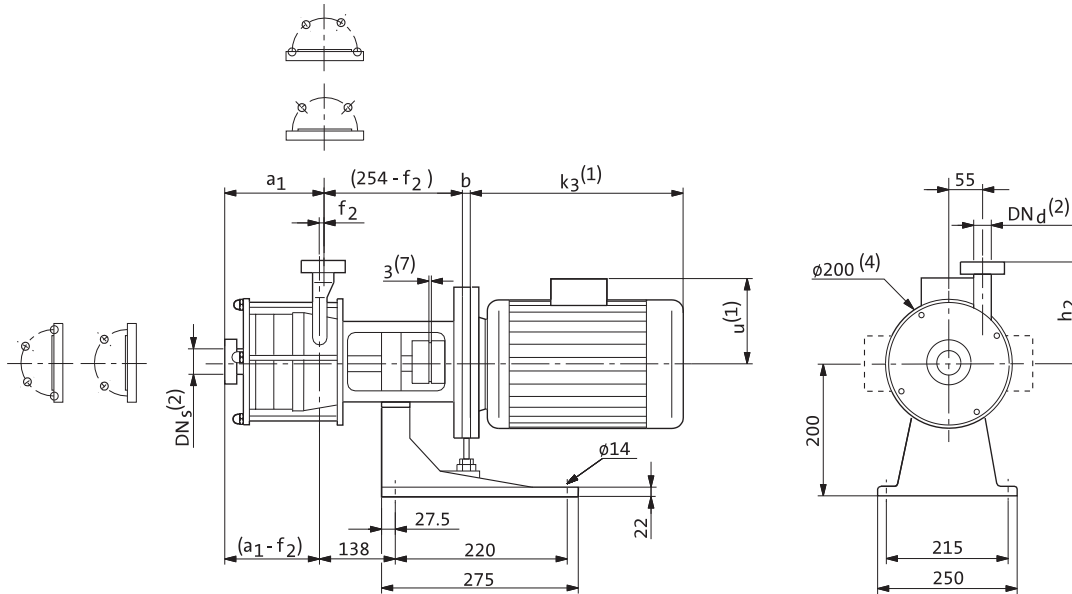
- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (8) Option: Drain-Gemü membrane valve DN 15. Drain-clamp connection to DIN 32 676 DN 15 (45° angle).

Contra I, 2-pole



TM02 9749 3704

Contra I Adapta® on cast iron foot



TM03 0064 3804

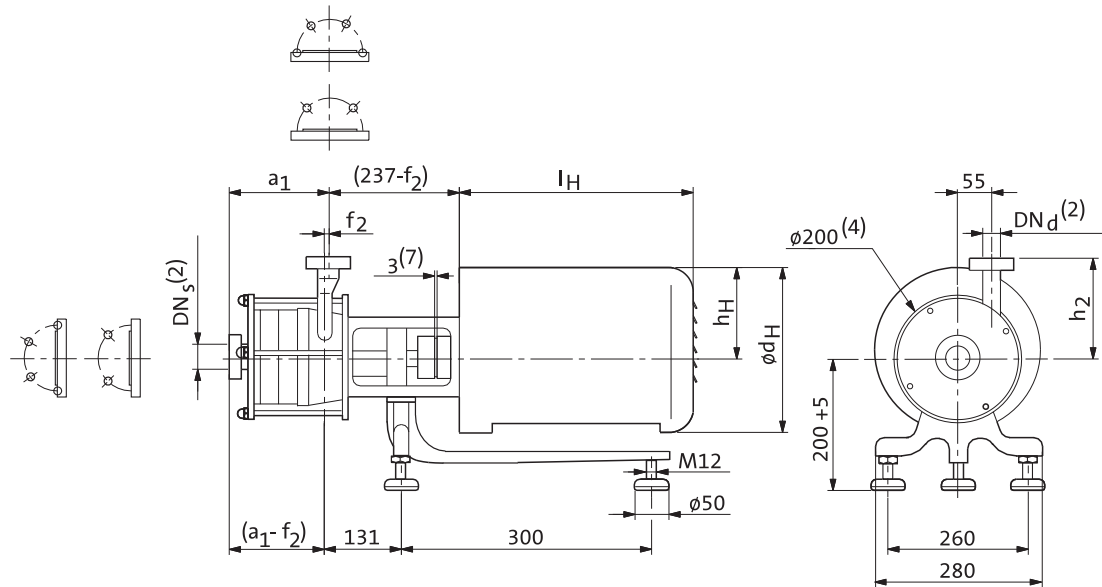
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On cast iron foot		
			b	k ₃ ⁽¹⁾	u ⁽¹⁾
0.55	1450	80	0	245	145
0.75	1450	80	0	245	145
0.75	2900	80	0	245	145
1.1	2900	80	0	245	145
1.1	1450	90S	10	285	150
1.5	2900	90S	10	285	150
1.5	1450	90L	10	285	150
2.2	2900	90L	10	285	150
2.2	1450	100L	20	320	175
3.0	2900	100L	20	320	175
4.0	2900	112M	20	340	185
5.5	2900	132S	40	390	205

Dimensions depend on housing size (DN_s, DN_d, a₁, f₂, h₂), see table of connections on page 29.

- (1) Motor dimensions depend on make, max. size for basic design given.
- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (7) Coupling of our choice.

Contra I Adapta® SUPER on stainless steel combi-foot (frame size 80-90)



TM03 0065 3804

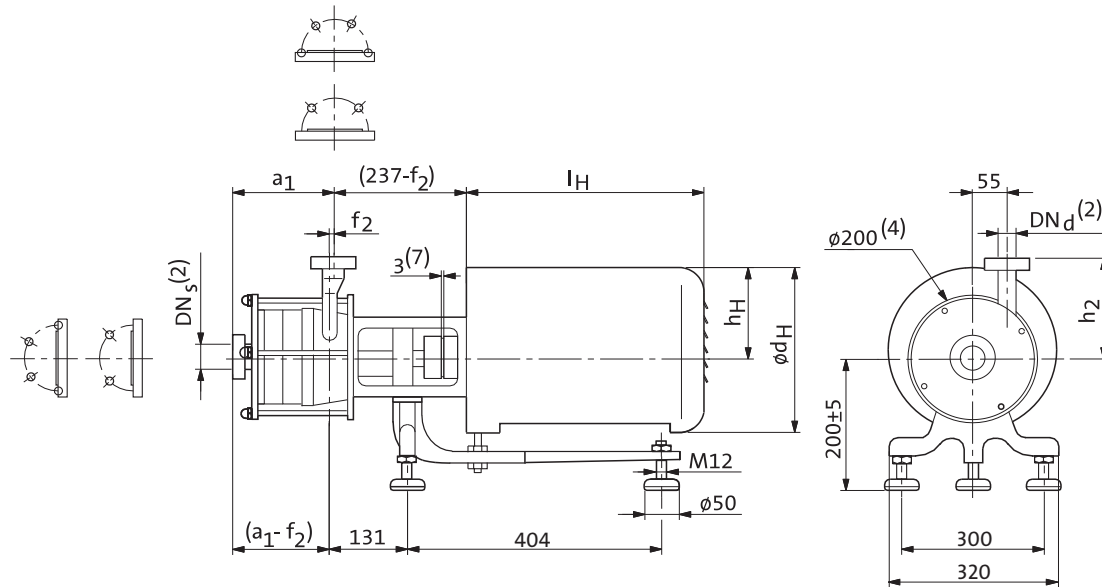
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On stainless steel combi-foot		
			l _H	h _H	ø d _H
0.55	1450	80	370	180	320
0.75	1450	80	370	180	320
0.75	2900	80	370	180	320
1.1	2900	80	370	180	320
1.1	1450	90S	370	180	320
1.5	2900	90S	370	180	320
1.5	1450	90L	370	180	320
2.2	2900	90L	370	180	320

Dimensions depend on housing size (DN_s, DN_d, a₁, f₂, h₂), see table of connections on page 29.

- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (7) Coupling of our choice.

Contra I Adapta® SUPER on stainless steel combi-foot (frame size 100-132)



TM03 0066 3804

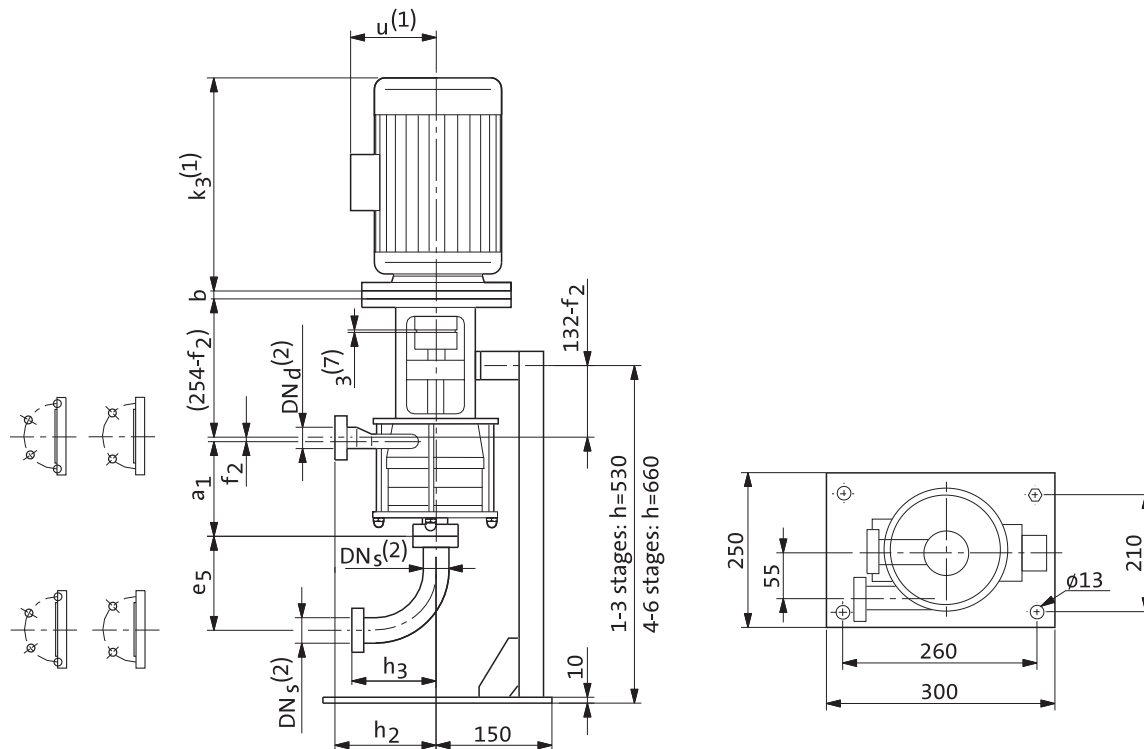
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On stainless steel combi-foot		
			l _H	h _H	∅ d _H
2.2	1450	100L	460	210	370
3.0	2900	100L	460	210	370
4.0	2900	112M	460	210	370
5.5	2900	132S	510	240	420

Dimensions depend on housing size (DN_s, DN_d, a₁, f₂, h₂), see table of connections on page 29.

- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (7) Coupling of our choice.

Contra I Adapta®-V on stainless steel pedestal with/without suction elbow



For installing, removing and servicing the pump lifting points should be foreseen directly above the pump and removable lengths incorporate into the suction line.

TM03 0067 3804

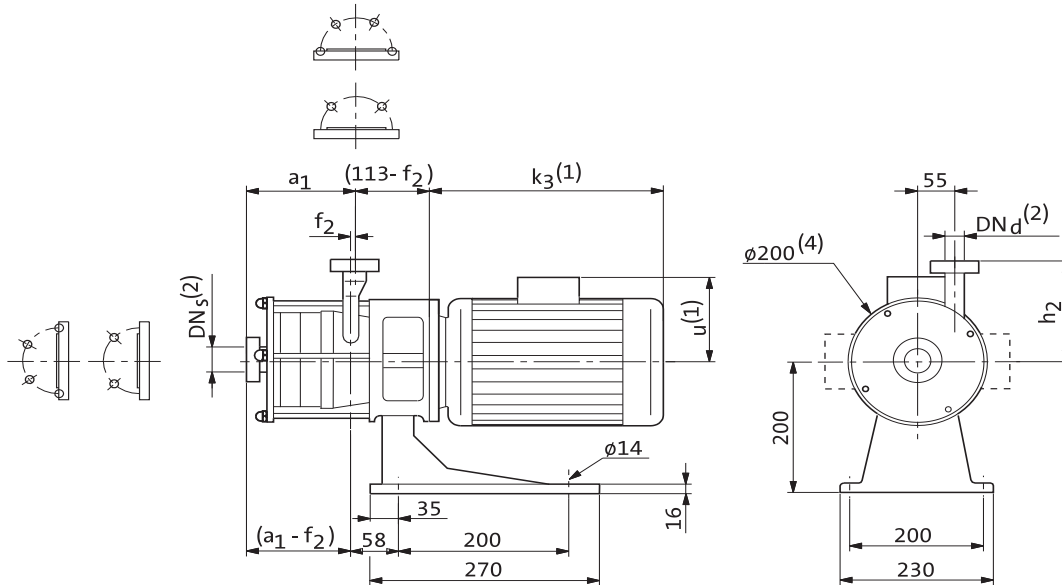
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On stainless steel pedestal with/without suction elbow		
			b	k ₃ ⁽¹⁾	u ⁽¹⁾
0.55	1450	80	0	245	145
0.75	1450	80	0	245	145
0.75	2900	80	0	245	145
1.1	2900	80	0	245	145
1.1	1450	90S	10	285	150
1.5	2900	90S	10	285	150
1.5	1450	90L	10	285	150
2.2	2900	90L	10	285	150
2.2	1450	100L	20	320	175
3.0	2900	100L	20	320	175
4.0	2900	112M	20	340	185
5.5	2900	132S	40	390	205

Dimensions depend on housing size (DN_s, DN_d, a₁, e₅, f₂, h₂, h₃), see table of connections on page 29.

- (1) Motor dimensions depend on make, max. size for basic design given.
- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (7) Coupling of our choice.

Contra I Bloc on cast iron foot



TMO3 0068 3804

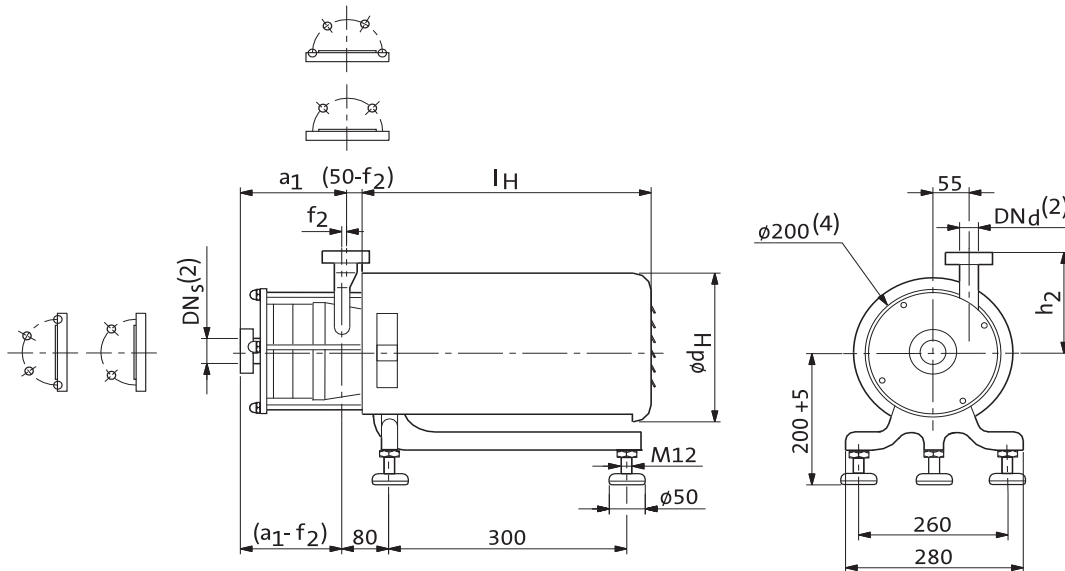
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On cast iron foot	
			k ₃ ⁽¹⁾	u ⁽¹⁾
0.55	1450	80	258	124
0.75	1450	80	258	124
0.75	2900	80	258	124
1.1	2900	80	258	124
1.1	1450	90S	282	130
1.5	2900	90S	282	130
1.5	1450	90L	282	130
2.2	2900	90L	282	130
2.2	1450	100L	332	158
3.0	2900	100L	332	158
4.0	2900	112M	391	171
5.5	2900	112M	391	171

Dimensions depend on housing size (DN_s, DN_d, a₁, f₂, h₂), see table of connections on page 29.

- (1) Motor dimensions depend on make, max. size for basic design given.
- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.

Contra I Bloc-SUPER on stainless steel combi-foot



TM03 0069 3804

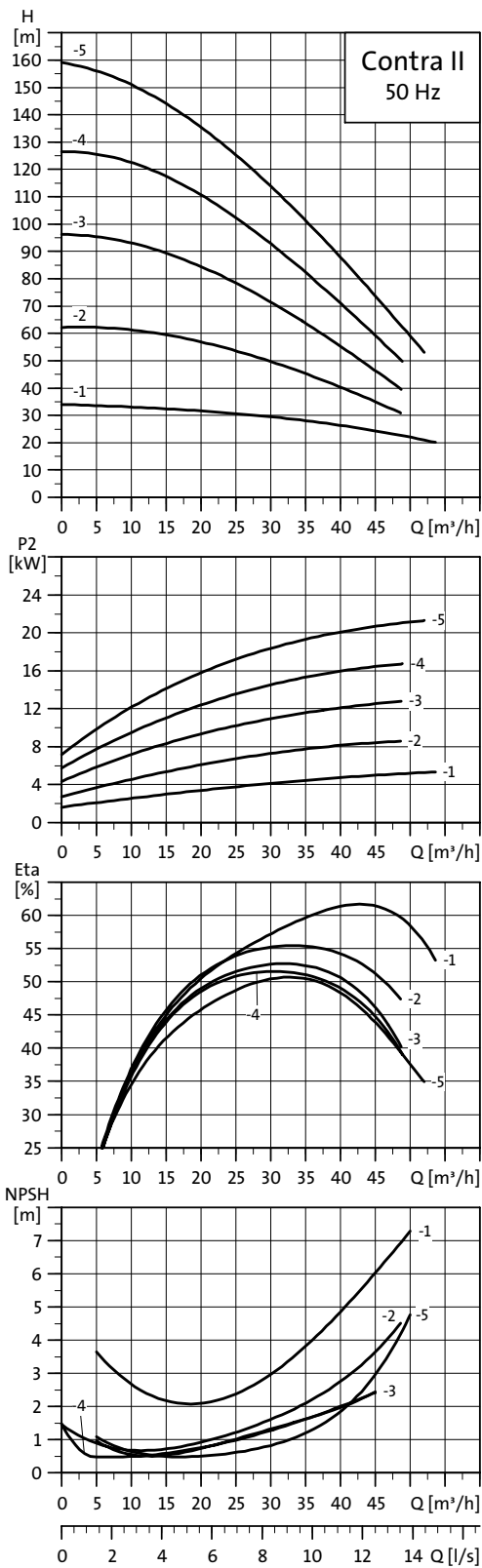
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On stainless steel combi-foot	
			l _H	ø d _H
0.55	1450	80	410	220
0.75	1450	80	410	220
0.75	2900	80	410	220
1.1	2900	80	410	220
1.1	1450	90S	410	220
1.5	2900	90S	410	220
1.5	1450	90L	410	220
2.2	2900	90L	410	220
2.2	1450	100L	480	270
3.0	2900	100L	480	270
4.0	2900	112M	520	270
5.5	2900	112M	520	270

Dimensions depend on housing size (DN_s, DN_d, a₁, f₂, h₂), see table of connections on page 29.

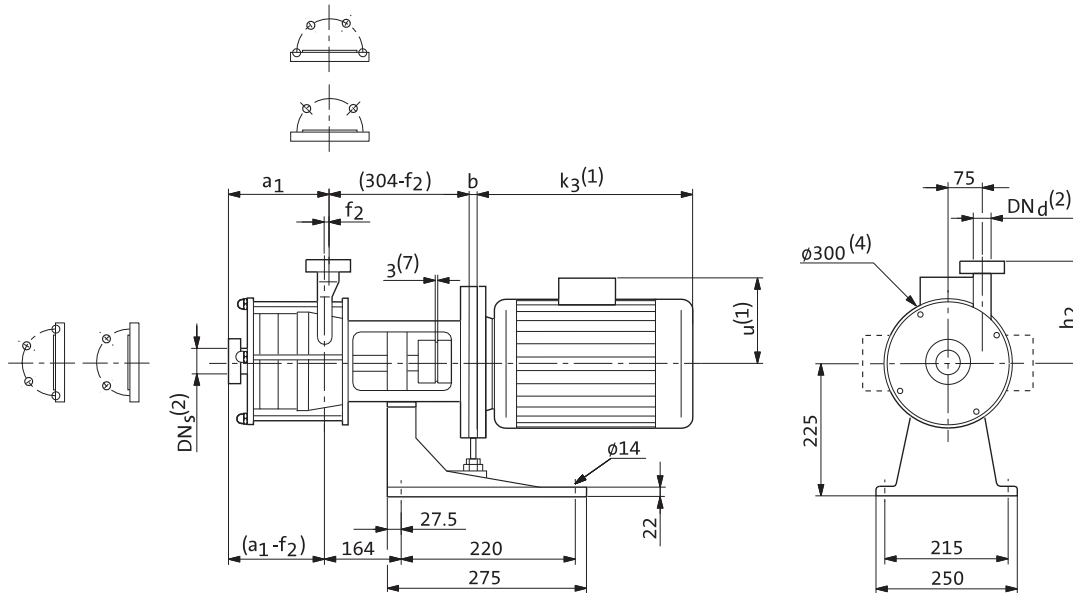
- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.

Contra II, 2-pole



TM02 9750 3704

Contra II Adapta® on cast iron foot



TM03 0070 3804

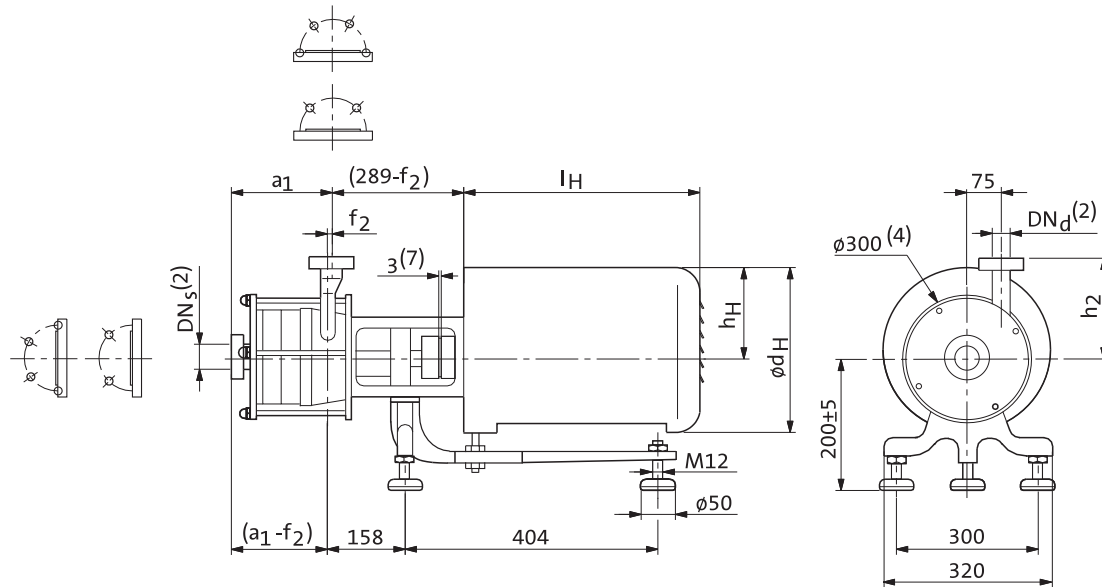
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On cast iron foot		
			b	k ₃ ⁽¹⁾	u ⁽¹⁾
3.0	2900	100L	-	320	175
4.0	1450	112M	-	340	185
4.0	2900	112M	-	340	185
5.5	1450	132S	20	390	205
5.5	2900	132S	20	390	205
7.5	2900	132S	20	390	205
7.5	1450	132M	20	420	205
11.0	2900	160M	51	490	240
15.0	2900	160M	51	490	240
18.5	2900	160L	51	530	240

Dimensions depend on housing size (DN_s, DN_d, a₁, f₂, h₂), see table of connections on page 32.

- (1) Motor dimensions depend on make, max. size for basic design given.
- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (7) N-Eupex coupling.

Contra II Adapta® SUPER on stainless steel combi-foot (frame size 100-160)



TM03 00713804

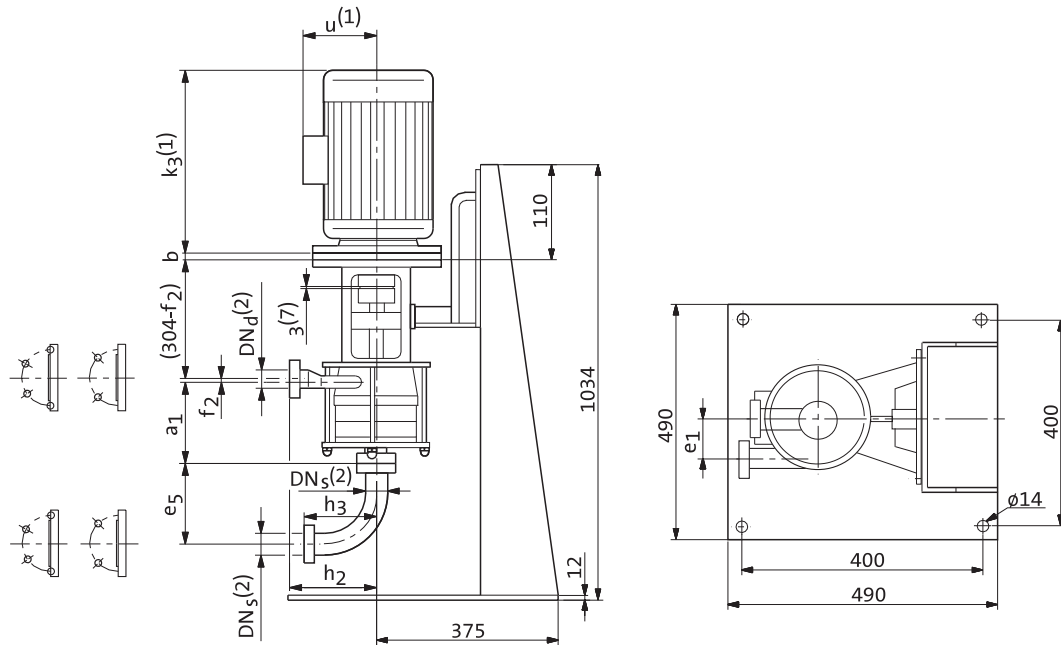
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On stainless steel combi-foot		
			l _H	h _H	ø d _H
3.0	2900	100L	510	240	420
4.0	1450	112M	510	240	420
4.0	2900	112M	510	240	420
5.5	1450	132S	510	240	420
5.5	2900	132S	510	240	420
7.5	2900	132S	510	240	420
7.5	1450	132M	510	240	420
11.0	2900	160M	650	285	485
15.0	2900	160M	650	285	485
18.5	2900	160L	650	285	485

Dimensions depend on housing size (DN_s, DN_d, a₁, f₂, h₂), see table of connections on page 32.

- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.
- (7) N-Eupex coupling.

Contra II Adapta®-V on stainless steel pedestal with/without suction elbow (frame size 100-160)



For installing, removing and servicing the pump, lifting points should be foreseen directly above the pump and removable lengths incorporated into the suction line. Discharge port is asymmetric; the pump can be drained completely.

TM03 0072 3804

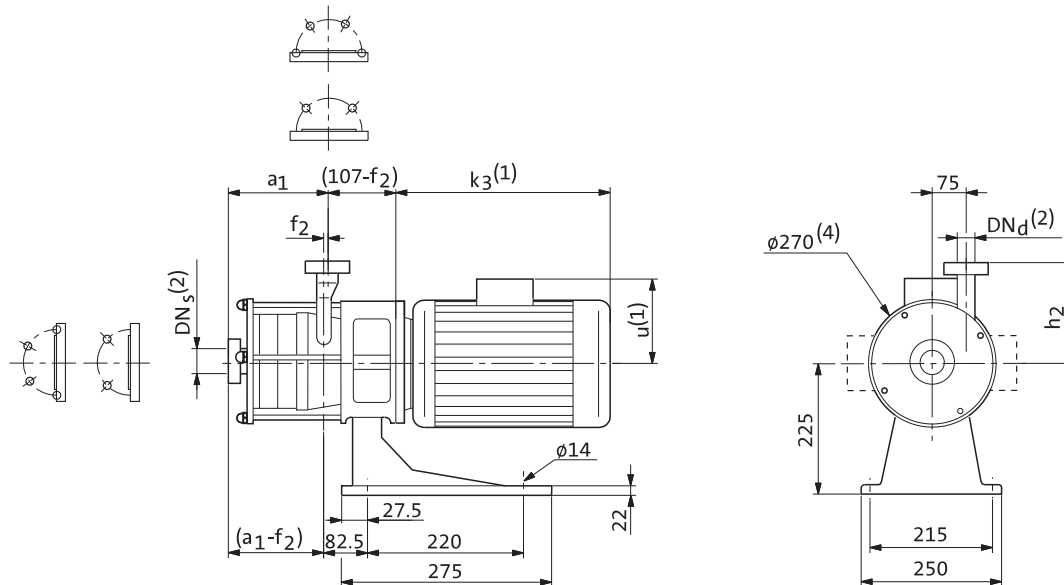
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On stainless steel pedestal with/without suction elbow		
			b	k ₃ ⁽¹⁾	u ⁽¹⁾
2.2	1450	100L	0	320	175
3.0	1450	100L	0	320	175
3.0	2900	100L	0	320	175
4.0	1450	112M	0	340	185
4.0	2900	112M	0	340	185
5.5	1450	132S	20	390	205
5.5	2900	132S	20	390	205
7.5	2900	132S	20	390	205
7.5	1450	132M	20	420	205
11.0	2900	160M	51	490	240
15.0	2900	160M	51	490	240
18.5	2900	160L	51	530	240

Dimensions depend on housing size (DN_s, DN_d, a₁, f₂, h₂, h₃, e₁, e₅), see table of connections on page 32.

- (1) Motor dimensions depend on make, max. size for basic design given.
- (2) Other sizes and special connections are available on request.
- (7) N-Eupex coupling.

Contra II Bloc on cast iron foot (frame size 90-132)



TM03 0073 3804

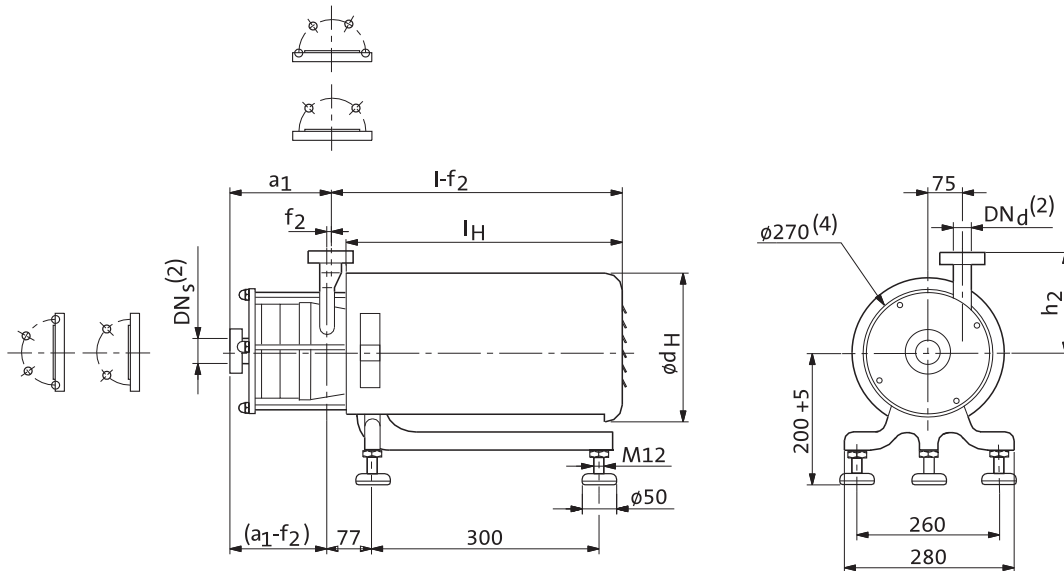
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On cast iron foot	
			k ₃ ⁽¹⁾	u ⁽¹⁾
0.75	1450	90S	282	130
1.1	1450	90S	282	130
1.5	1450	90L	282	130
1.5	2900	90S	282	130
2.2	2900	90L	282	130
2.2	1450	100L	312	163
3.0	1450	100L	312	163
3.0	2900	100L	312	163
4.0	2900	112M	335	176
4.0	1450	112M	335	176
5.5	2900	112M	371	176
7.5	2900	132S	433	196
11.0	2900	132M	433	196

Dimensions depend on housing size (DN_s, DN_d, a₁, f₂, h₂), see table of connections on page 32.

- (1) Motor dimensions depend on make, max. size for basic design given.
- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.

Contra II Bloc-SUPER on stainless steel combi-foot (frame size 90-132)



TM03 0074 3804

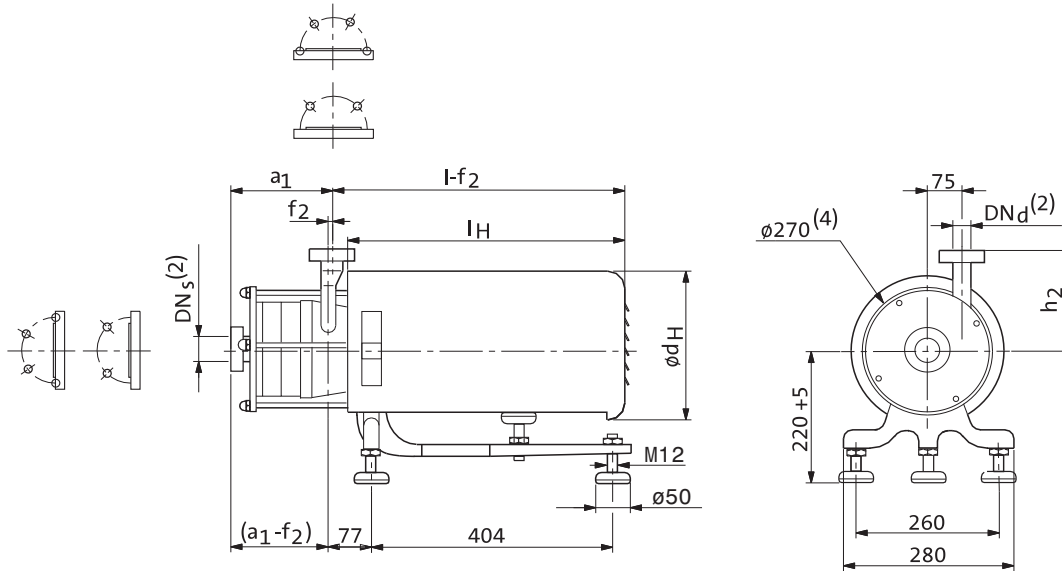
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On stainless steel combi-foot		
			l	l _H	∅ d _H
0.75	1450	90S	521	480	270
1.1	1450	90S	521	480	270
1.5	1450	90L	521	480	270
1.5	2900	90S	521	480	270
2.2	2900	90L	521	480	270
2.2	1450	100L	521	480	270
3.0	1450	100L	521	480	270
3.0	2900	100L	521	480	270
4.0	2900	112M	561	520	270
4.0	1450	112M	561	520	270
5.5	2900	112M	561	520	270
7.5	2900	132S	641	600	320
11.0	2900	132M	641	600	320

Dimensions depend on housing size (DN_s, DN_d, a₁, f₂, h₂), see table of connections on page 32.

- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.

Contra II Bloc-SUPER on stainless steel combi-foot (frame size 160)



TM03 0075 3804

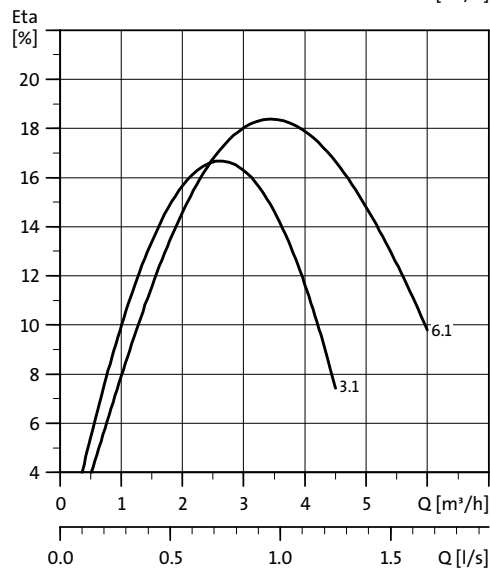
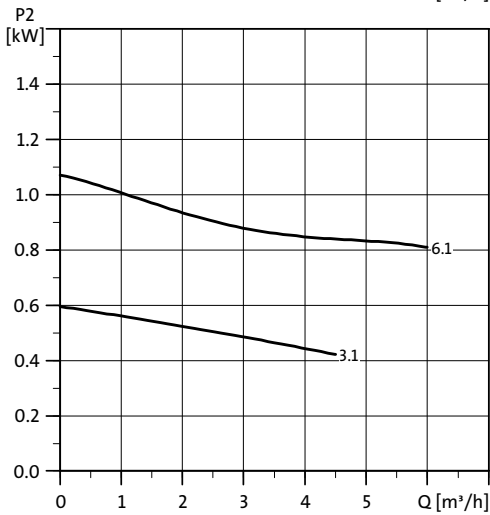
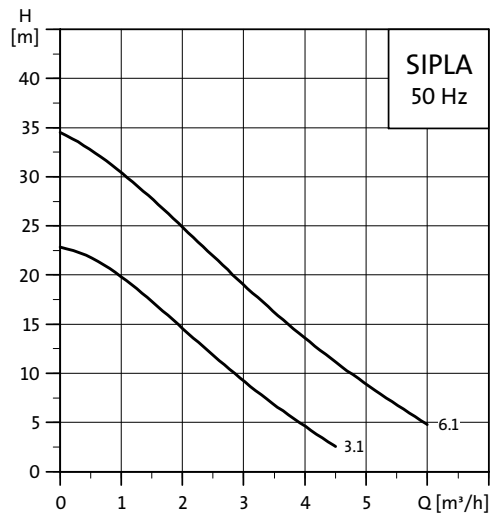
Technical data

P2 [kW]	n [min ⁻¹]	IEC size	On stainless steel combi-foot		
			l	l _H	ø d _H
15.0	2900	160M	791	750	350
18.5	2900	160L	791	750	350

Dimensions depend on housing size (DN_s, DN_d, a₁, f₂, h₂), see table of connections on page 32.

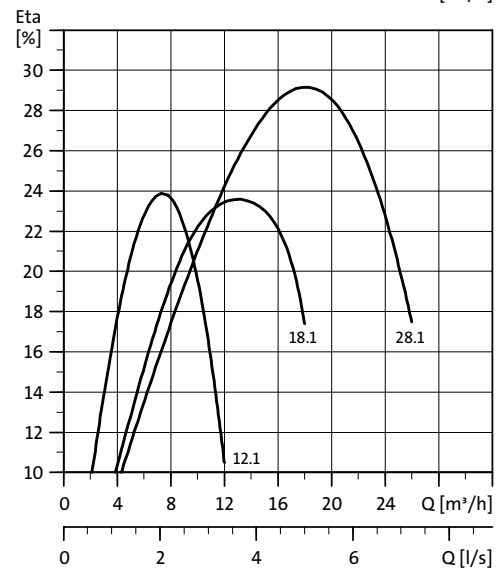
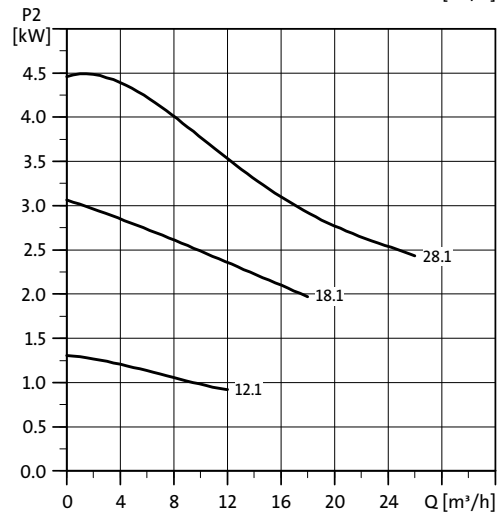
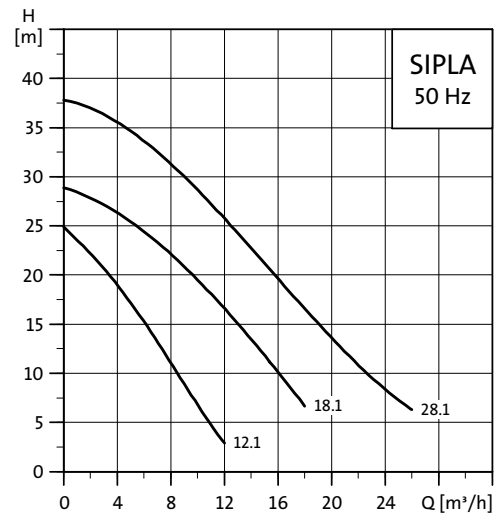
- (2) Other sizes and special connections are available on request.
- (4) Largest diameter of pump without motor.

SIPLA 3.1 and 6.1, 4-pole



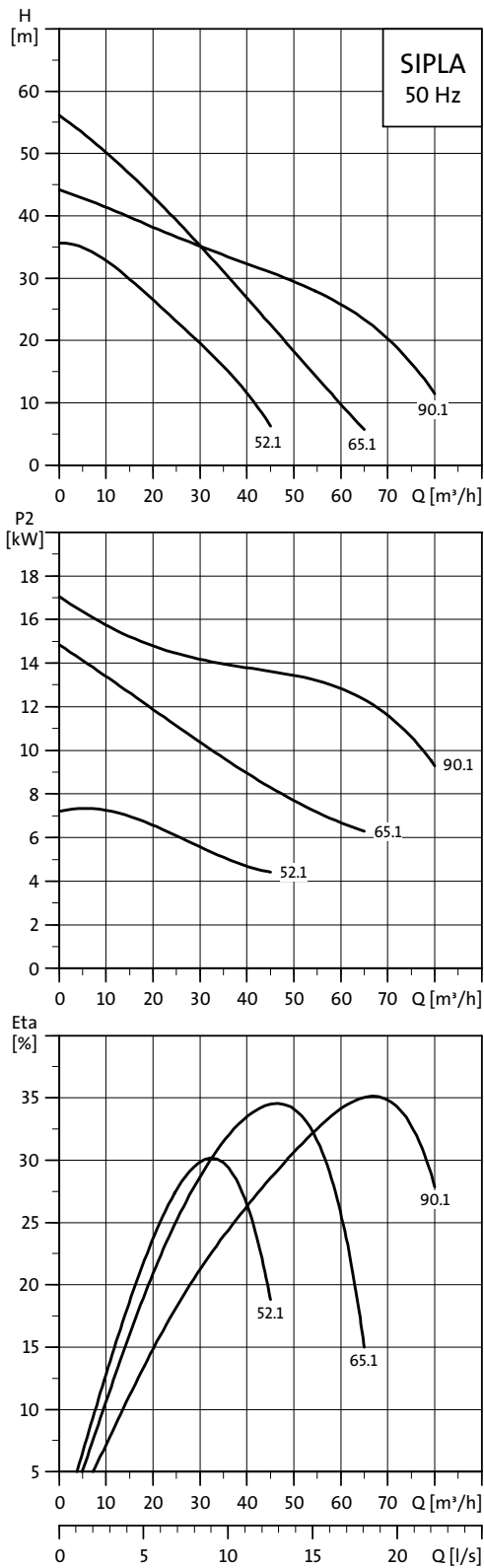
TM02 9683 3704

SIPLA 12.1, 18.1 and 28.1, 4-pole



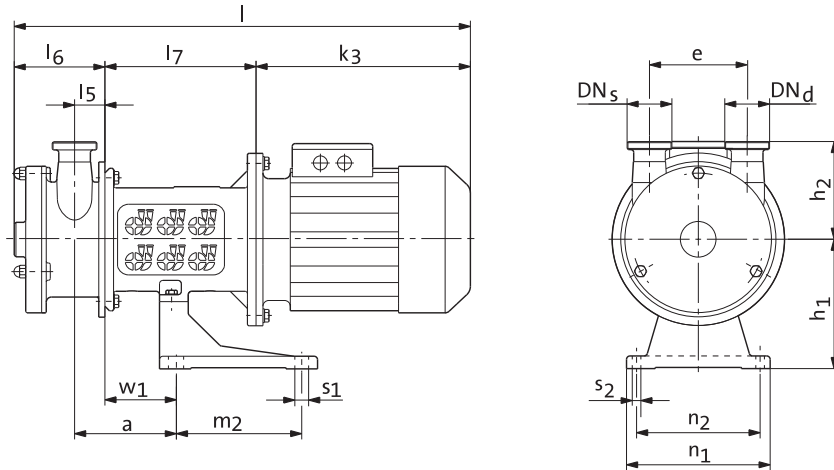
TM02 9683 3704

SIPLA 52.1, 65.1 and 90.1, 4-pole



TM02 9689 3704

SIPLA Adapta® SUPER on cast iron foot

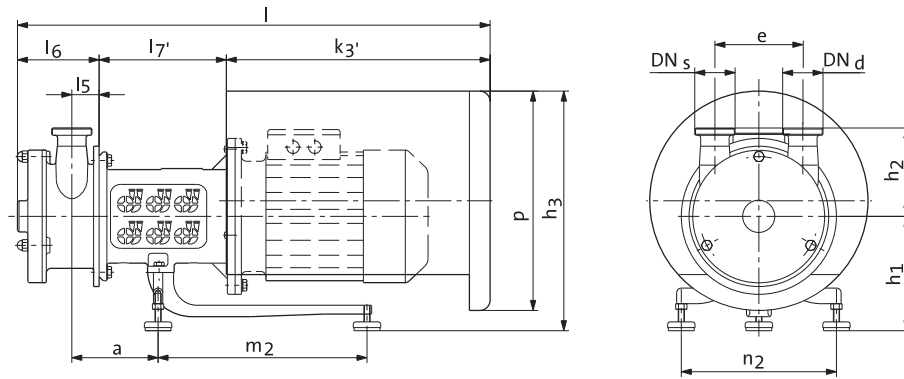


TM02 9655 3604

Technical data

Pump type	DN _s /DN _d	a	l	Pump			Motor			On cast iron foot								
				e	l ₅	l ₆	IEC size	P2 [kW]	k ₃	Size	w ₁	m ₂	n ₁	n ₂	s ₁ /s ₂	h ₁	h ₂	l ₇
3.1	32	145	563	100	40	108	80M	0.55	234	I	105	220	250	215	24/14	200	150	221
3.1	32	145	598	100	40	108	80M	0.75	269	I	105	220	250	215	24/14	200	150	221
6.1/12.1	40	161	640	120	56	137	90L	1.5	282	I	105	220	250	215	24/14	200	150	221
6.1/12.1	40	161	691	120	56	137	100L	2.2	313	I	105	220	250	215	24/14	200	150	241
18.1	50	174	734	170	52	158	100L	3.0	313	II	122	220	250	215	24/14	225	170	263
18.1	50	174	755	170	52	158	112M	4.0	334	II	122	220	250	215	24/14	225	170	263
28.1	65	178	762	170	56	165	112M	4.0	334	II	122	220	250	215	24/14	225	170	263
28.1	65	178	822	170	56	165	132S	5.5	374	II	122	220	250	215	24/14	225	170	283
52.1	65	178	836	170	56	179	132M	7.5	374	II	122	220	250	215	24/14	225	200	283
52.1	65	178	971	170	56	179	160M	11.0	478	II	122	220	250	215	24/14	225	200	314
65.1	80	204	1170	240	68	221	160M	11.0	478	III	136	220	270	220	17.5	225	200	471
65.1	80	204	1170	240	68	221	160L	15.0	478	III	136	220	270	220	17.5	225	200	471
90.1	80	204	1300	240	68	227	180M	18.5	602	III	136	220	270	220	17.5	225	200	471
90.1	80	204	1300	240	68	227	180L	22.0	602	III	136	220	270	220	17.5	225	200	471

SIPLA Adapta® SUPER on combi-foot

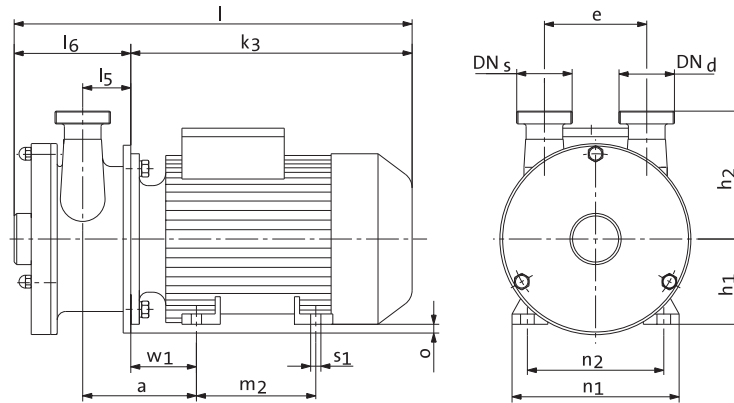


TM02 9656 3604

Technical data

Pump type	DN _s / DN _d	a	l	h ₁	h ₂	h ₃	Pump			Motor		AD		On combi-foot			Shroud		
							e	l ₅	l ₆	IEC size	P2 [kW]	Size	l ₇ '	Size	m ₂	n ₂	Size	p	k ₃ '
3.1	32	138	682	200	150	380	100	40	108	80M	0.55	I	204	I	300	260	1.1	320	370
3.1	32	138	682	200	150	380	100	40	108	80M	0.75	I	204	I	300	260	1.1	320	370
6.1/ 12.1	40	154	711	200	150	380	120	56	137	90L	1.5	I	204	I	300	260	1.1	320	370
6.1/ 12.1	40	154	851	200	150	410	120	56	137	100L	2.2	I	204	II	404	300	1.2	370	460
18.1	50	167	914	220	170	460	170	52	158	100L	3.0	II	246	II	404	300	2.2	420	510
18.1	50	167	914	220	170	460	170	52	158	112M	4.0	II	246	II	404	300	2.2	420	510
28.1	65	171	921	220	170	460	170	56	165	112M	4.0	II	246	II	404	300	2.2	420	510
28.1	65	171	921	220	170	460	170	56	165	132S	5.5	II	246	II	404	300	2.2	420	510
52.1	65	171	935	220	200	460	170	56	179	132M	7.5	II	246	II	404	300	2.2	420	510
52.1	65	171	1075	220	200	503	170	56	179	160M	11.0	II	245	II	404	300	2.3	485	650

SIPLA Bloc

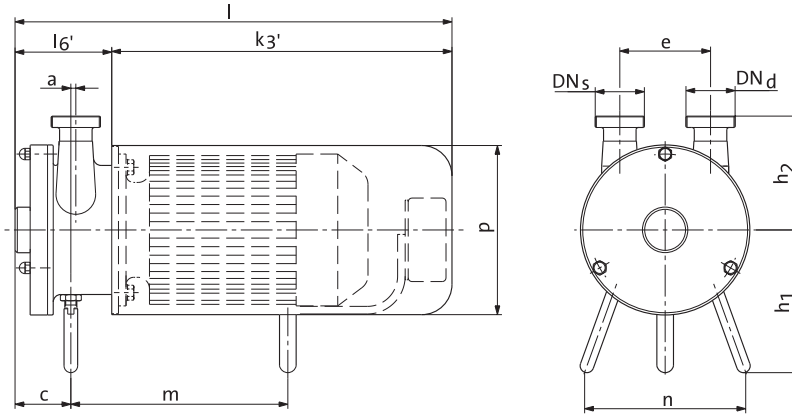


TM02 96573604

Technical data

Pump type	DN _s / DN _d	a	l	o	h ₂	Pump			Motor								
						e	l ₅	l ₆	IEC size	P2 [kW]	h ₁	k ₃	m ₂	n ₁	n ₂	s ₁	w ₁
3.1	32	90	342	30	150	100	40	108	80M	0.55	80	234	100	150	125	9.5	50
3.1	32	90	377	30	150	100	40	108	80M	0.75	80	269	100	150	125	9.5	50
6.1/ 12.1	40	134	464	10	150	120	56	137	100L	1.5	100	327	140	196	160	12	78
6.1/ 12.1	40	134	450	10	150	120	56	137	100L	2.2	100	327	140	196	160	12	78
18.1	50	130	485	35	170	170	52	158	100L	3.0	100	327	140	196	160	12	78
18.1	50	142	511	35	170	170	52	158	112M	4.0	112	353	140	226	190	12	90
28.1	65	146	518	23	170	170	56	165	112M	4.0	112	353	140	226	190	12	90
52.1	65	145	553	28	200	170	56	179	132M	7.5	132	374	178	256	216	12	89
65.1	80	176	699	25	200	240	68	221	160L	11.0	160	478	254	300	254	15	108
65.1	80	176	699	25	200	240	68	221	160L	15.0	160	478	254	300	254	15	108
90.1	80	189	829	25	200	240	68	227	180M	18.5	180	602	241	339	279	15	121
90.1	80	189	829	25	200	240	68	227	180L	22.0	180	602	279	339	279	15	121

SIPLA Bloc-SUPER on stainless steel ball feet

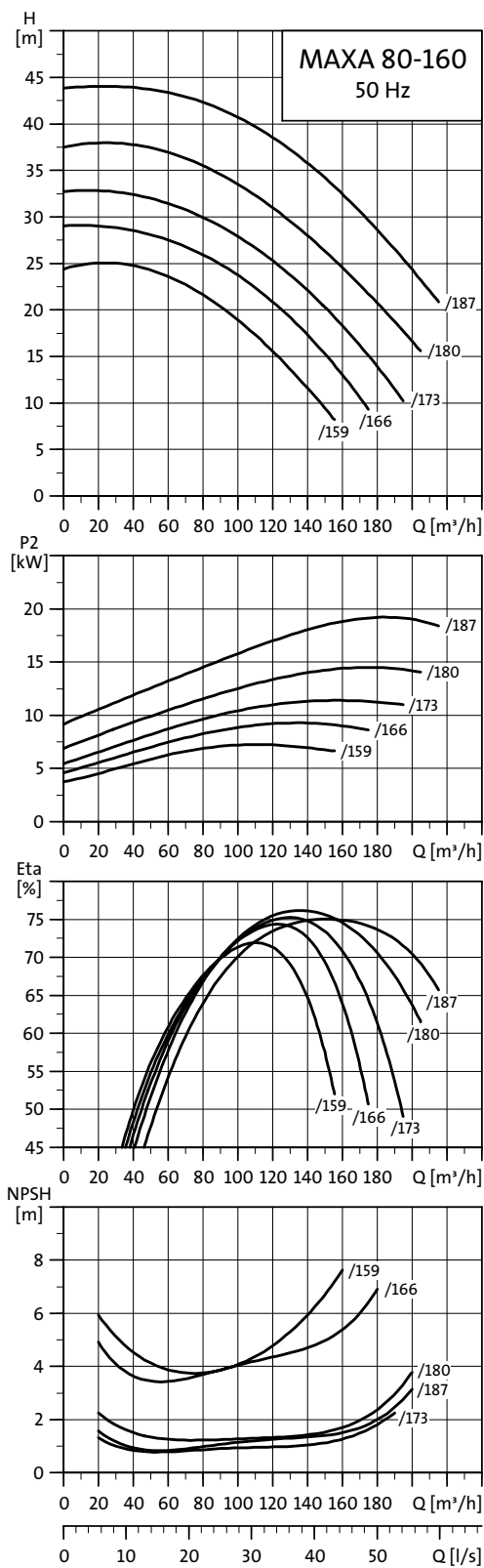


TM02 9658 3604

Technical data

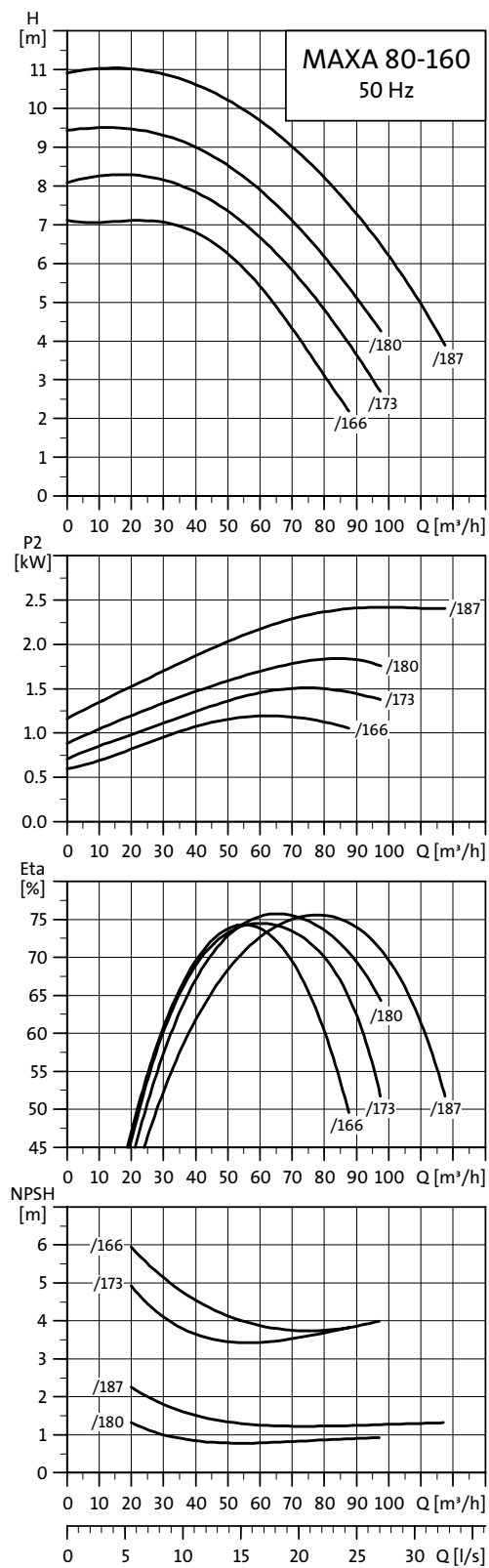
Pump type	DN _s / DN _d	h ₁	h ₂	l	n	m	Pump				Motor		Shroud	
							e	l ₆ '	a	c	IEC size	P2 [kW]	p	k ₃ '
3.1	32	155	150	508	200	220	100	98	0	67	80M	0.55	224	410
3.1	32	155	150	508	200	220	100	98	0	67	80M	0.75	224	410
6.1/12.1	40	200	150	608	220	255	120	128	7	74	100L	1.5	274	480
6.1/12.1	40	200	150	608	220	255	120	128	7	74	100L	2.2	274	480
18.1	50	200	170	628	225	280	170	148	23	83	100L	3.0	274	480
18.1	50	200	170	628	225	280	170	148	23	83	112M	4.0	274	480
28.1	65	200	170	634	225	280	170	154	22	87	112M	4.0	274	480
52.1	65	200	200	768	225	300	170	168	23	100	132M	7.5	324	600
65.1	80	200	200	858	225	400	240	208	24	129	160L	11.0	374	650
65.1	80	200	200	858	225	400	240	208	24	129	160L	15.0	374	650
90.1	80	200	200	864	225	400	240	214	21	138	180M	18.5	374	650
90.1	80	200	200	864	225	400	240	214	21	138	180L	22.0	374	650

MAXA 80-160/XXX, 2-pole



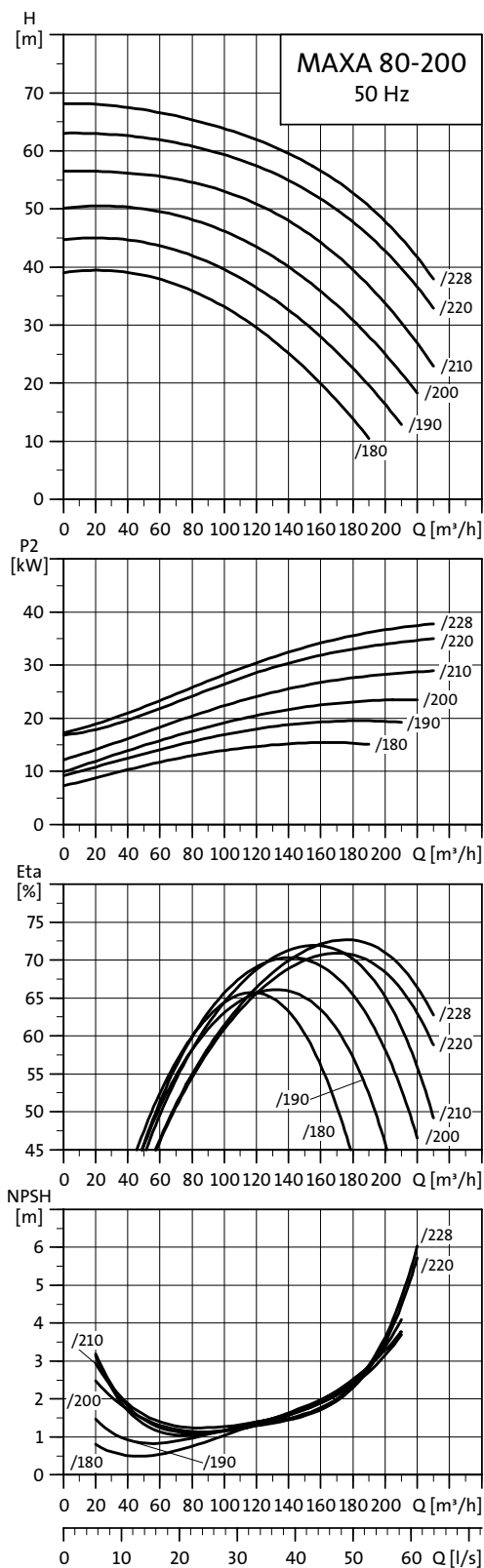
TM02 9722 3704

MAXA 80-160/XXX, 4-pole



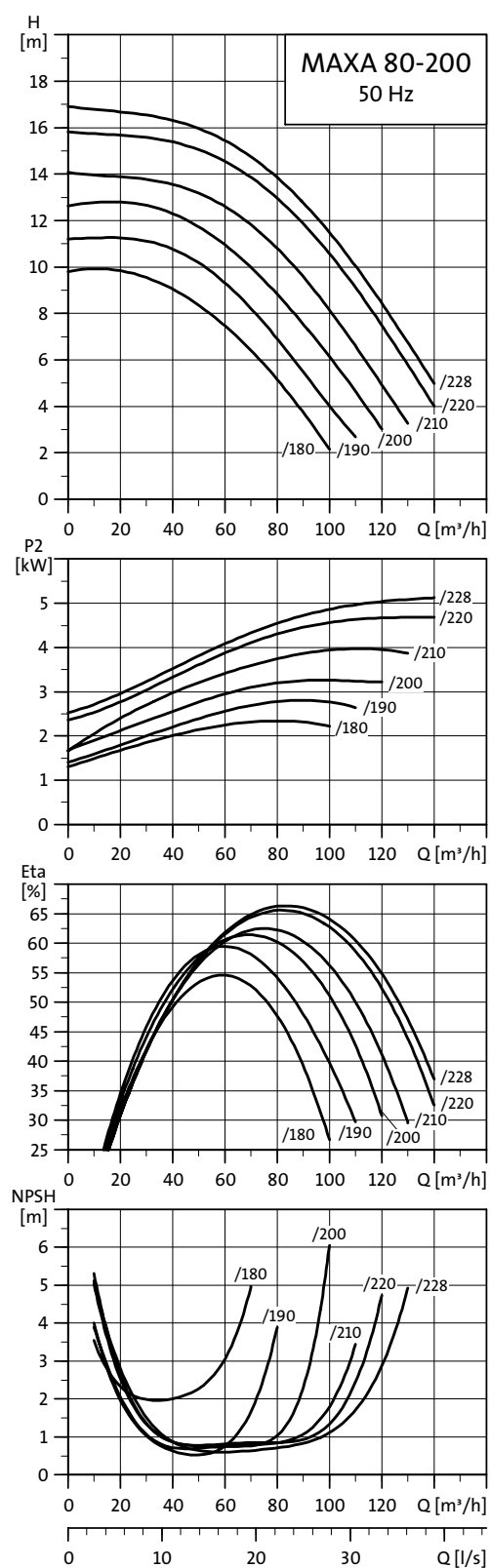
TM02 9727 3704

MAXA 80-200/XXX, 2-pole



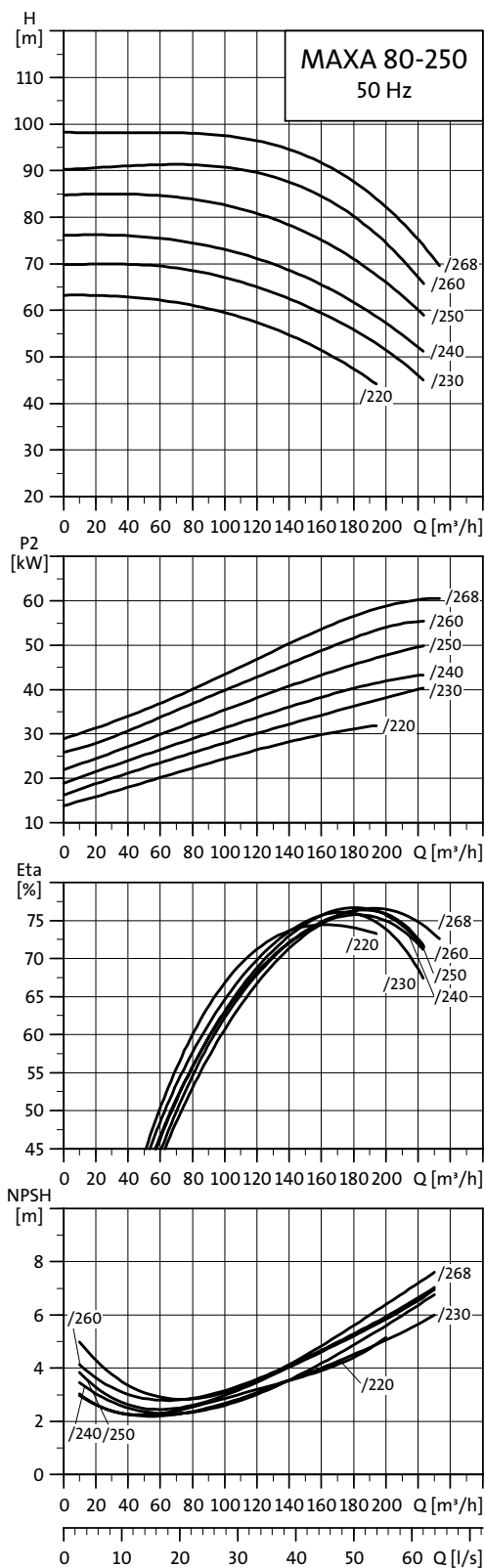
TM02 9723 3704

MAXA 80-200/XXX, 4-pole



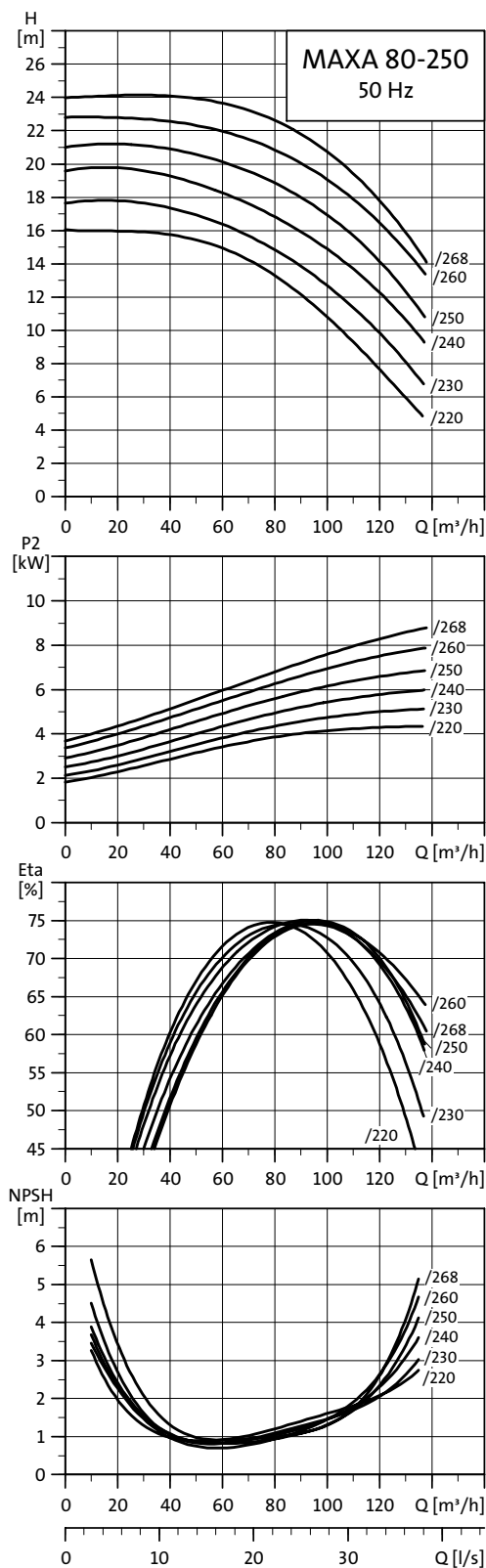
TM02 9728 3704

MAXA 80-250/XXX, 2-pole



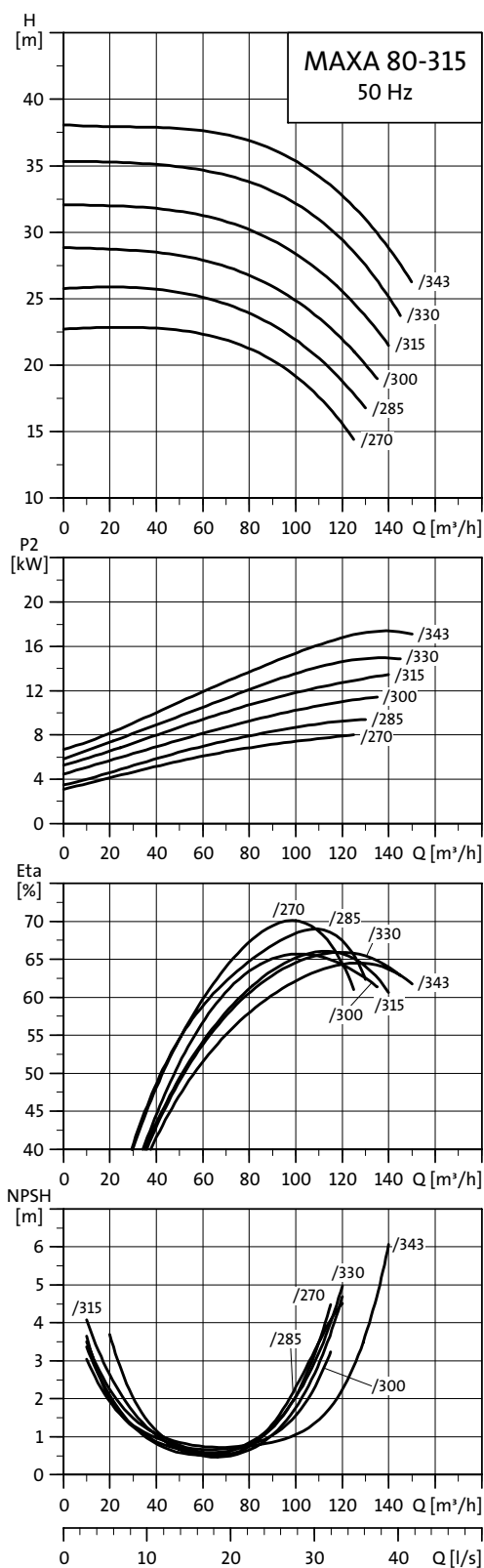
TM02 9724 3704

MAXA 80-250/XXX, 4-pole



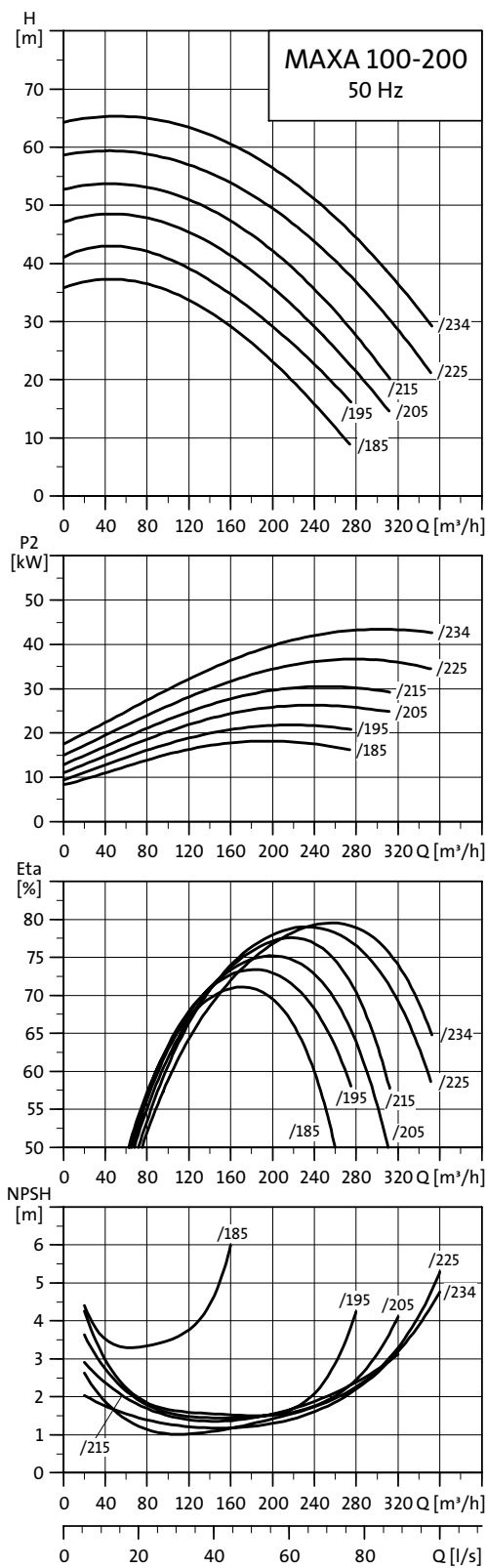
TM02 9729 3704

MAXA 80-315/XXX, 4-pole



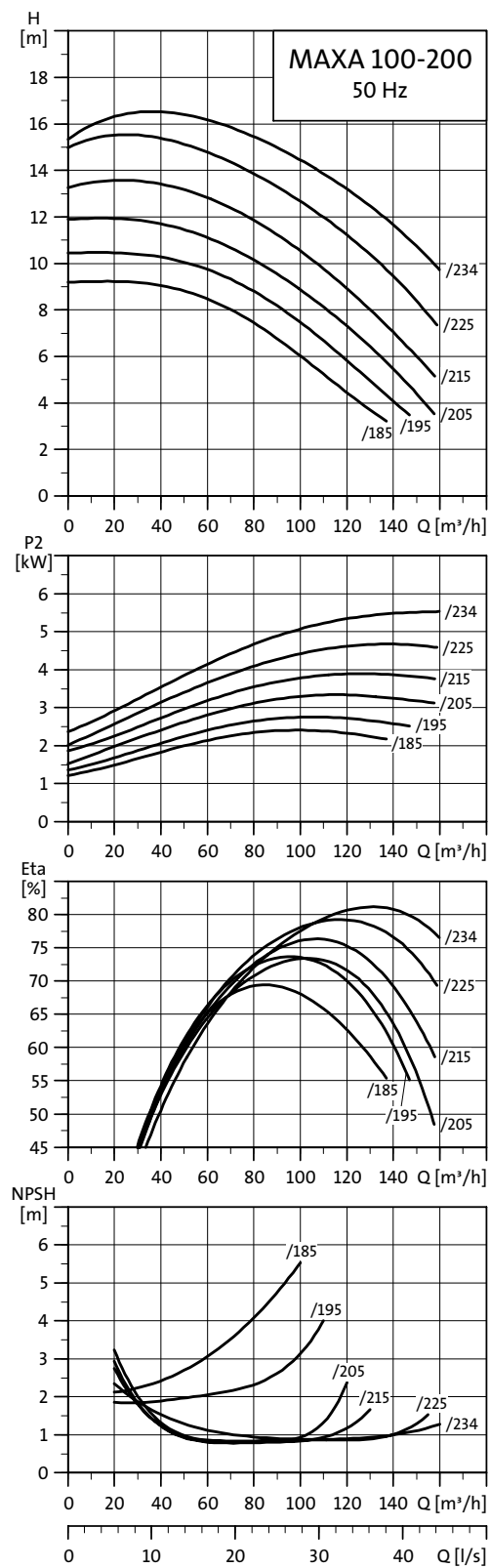
TM02 9730 3704

MAXA 100-200/XXX, 2-pole



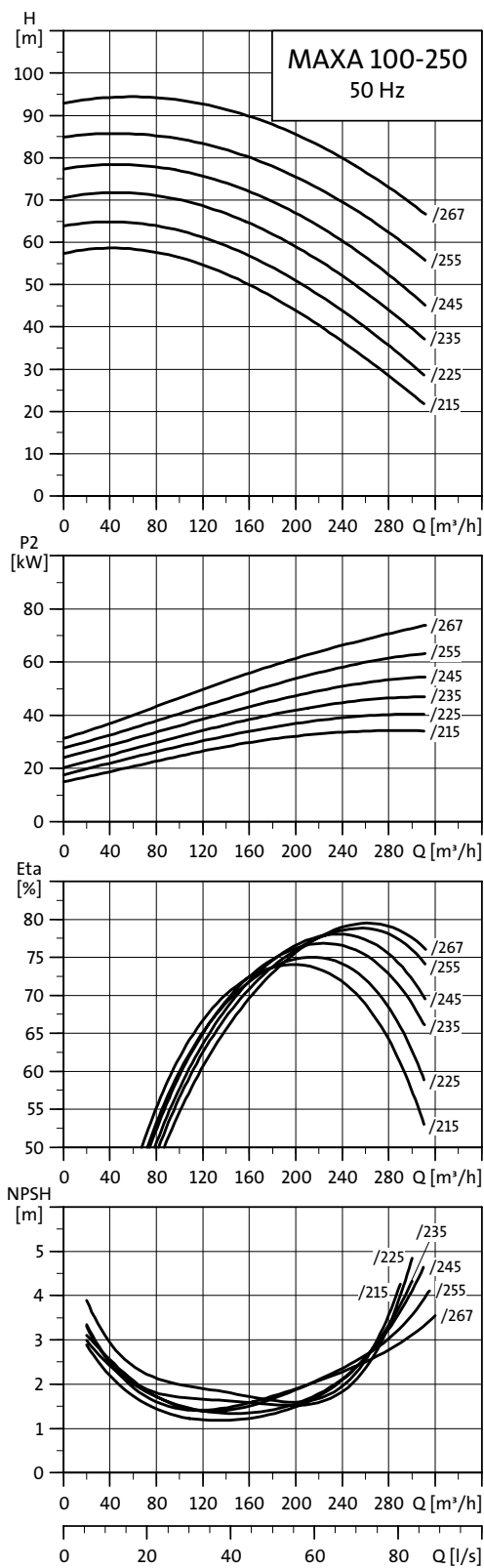
TM02 9725 3704

MAXA 100-200/XXX, 4-pole



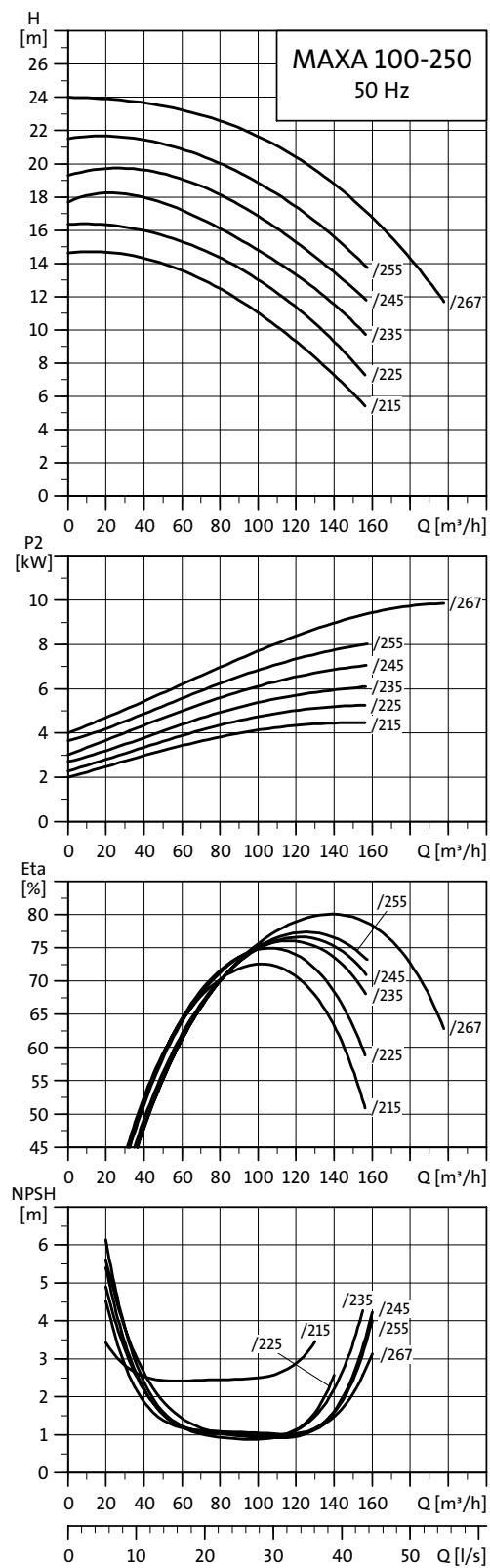
TM02 9731 3704

MAXA 100-250/XXX, 2-pole



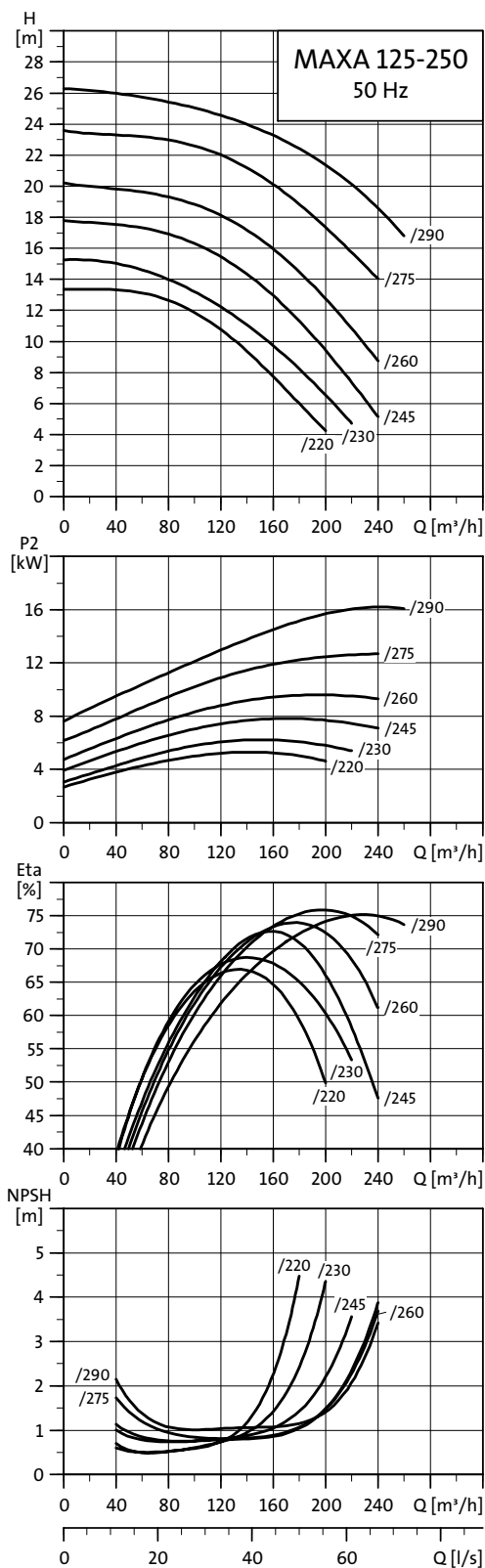
TM02 9726 3704

MAXA 100-250/XXX, 4-pole



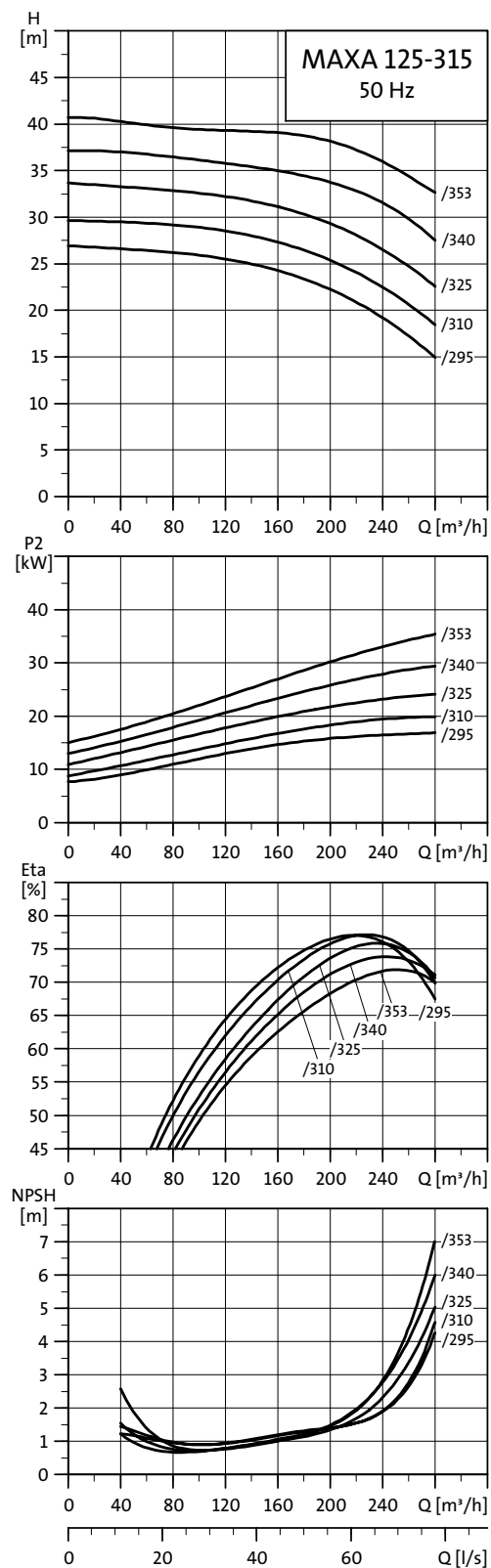
TM02 9732 3704

MAXA 125-250/XXX, 4-pole



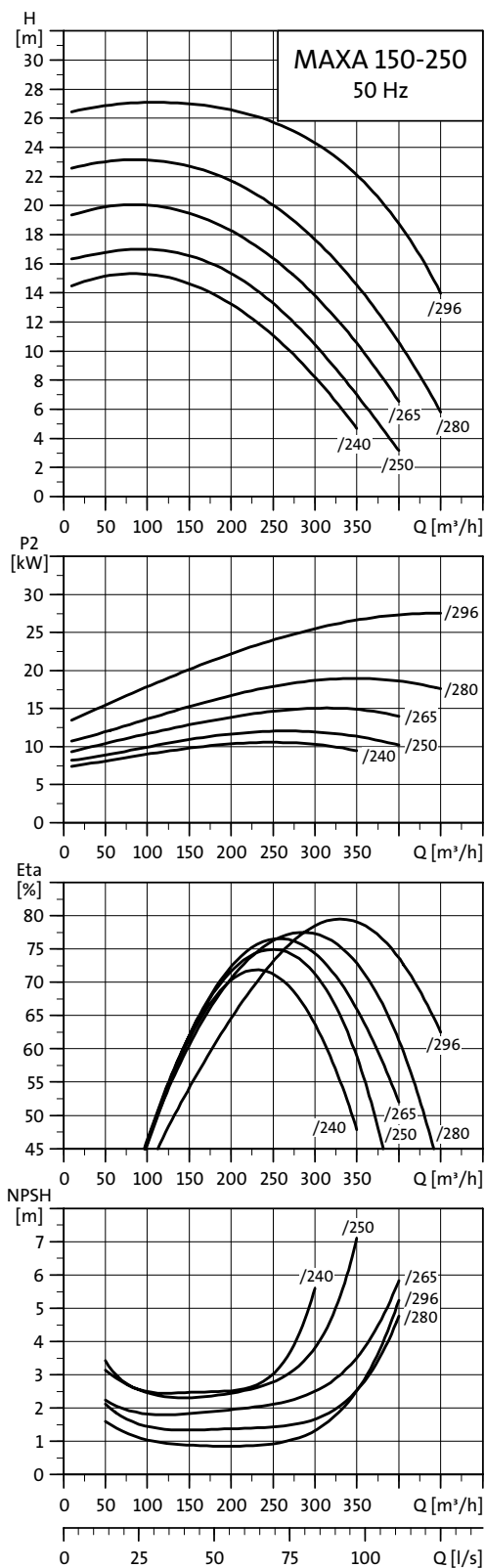
TM02 9733 3704

MAXA 125-315/XXX, 4-pole



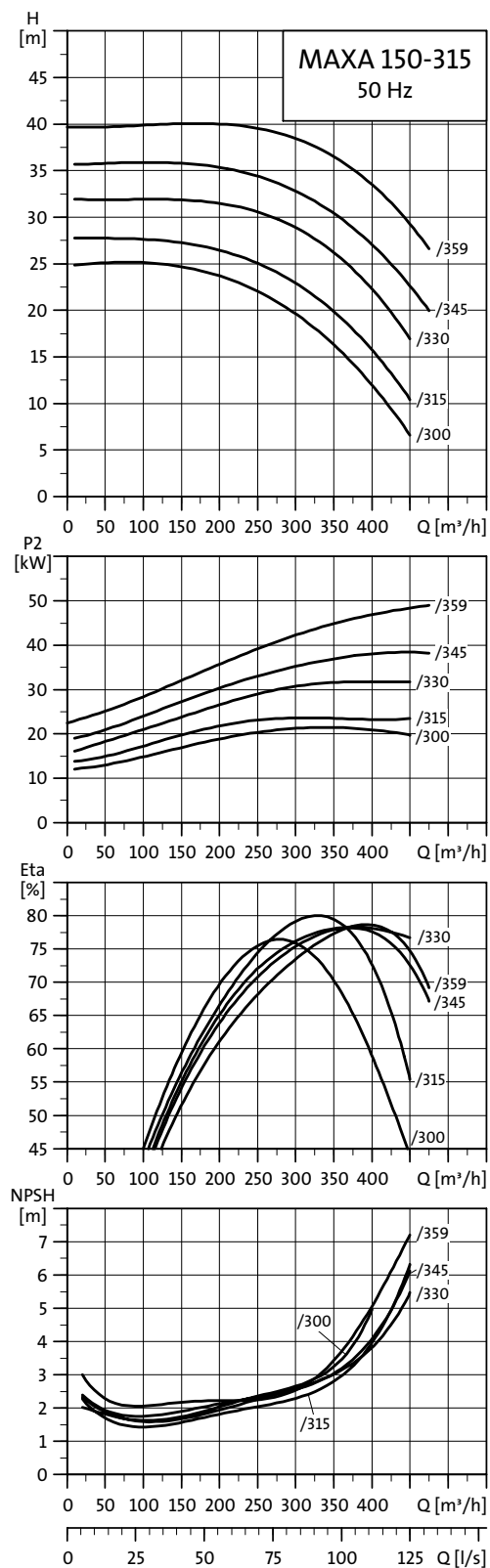
TM02 9734 3704

MAXA 150-250/XXX, 4-pole



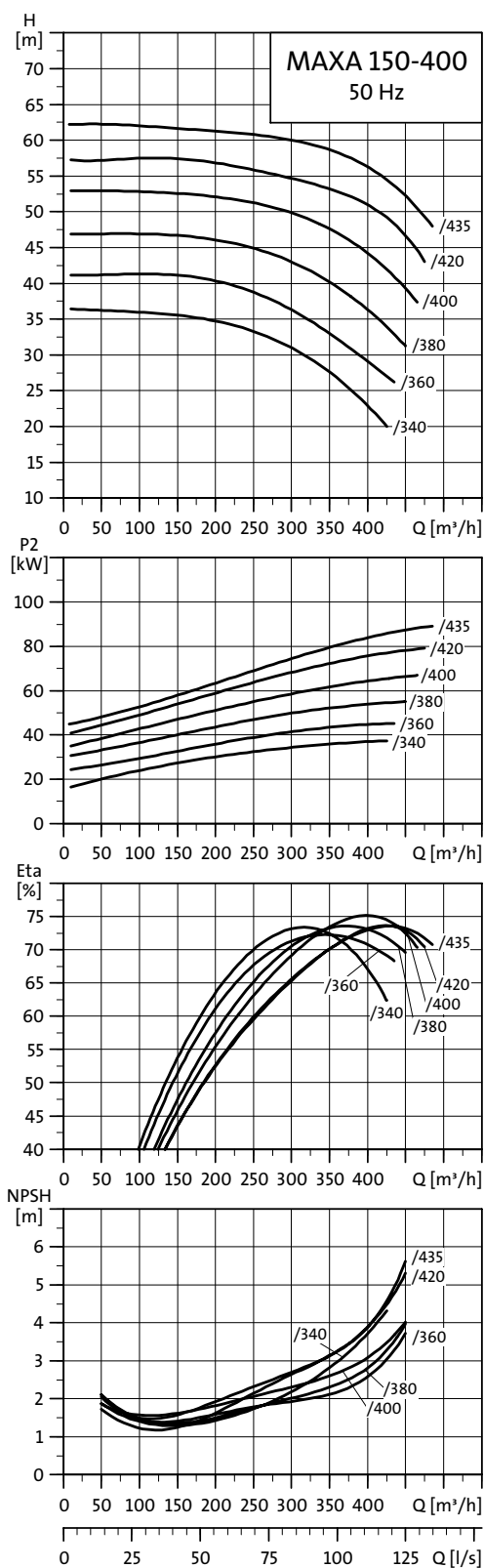
TM02 9735 3704

MAXA 150-315/XXX, 4-pole



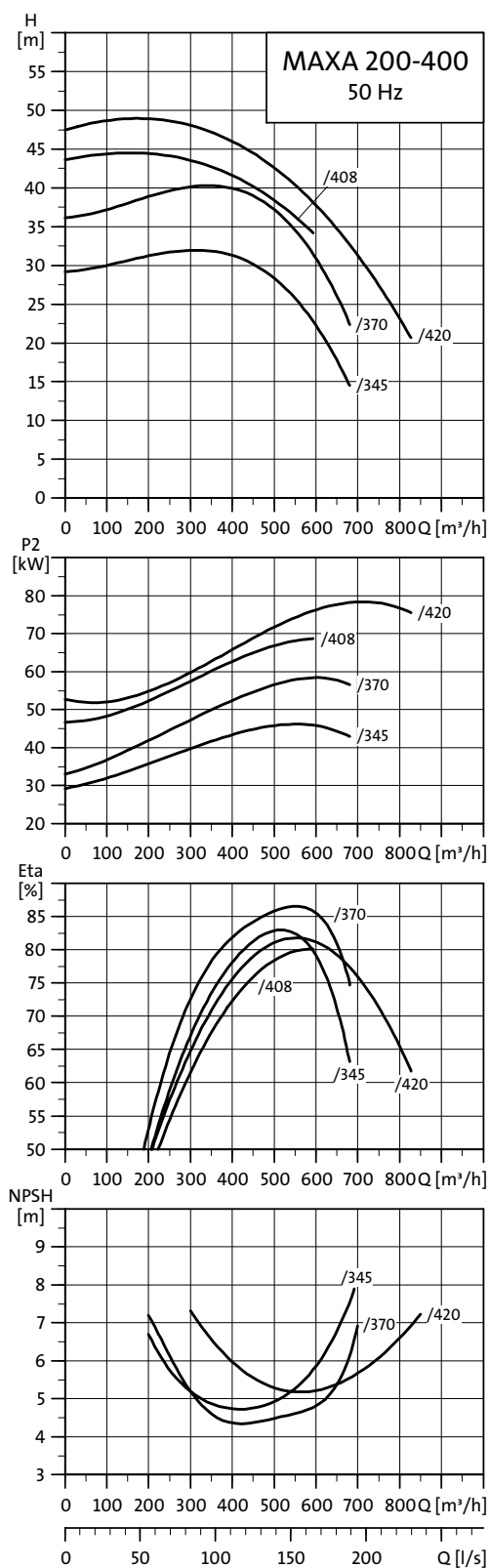
TM02 9736 3704

MAXA 150-400/XXX, 4-pole



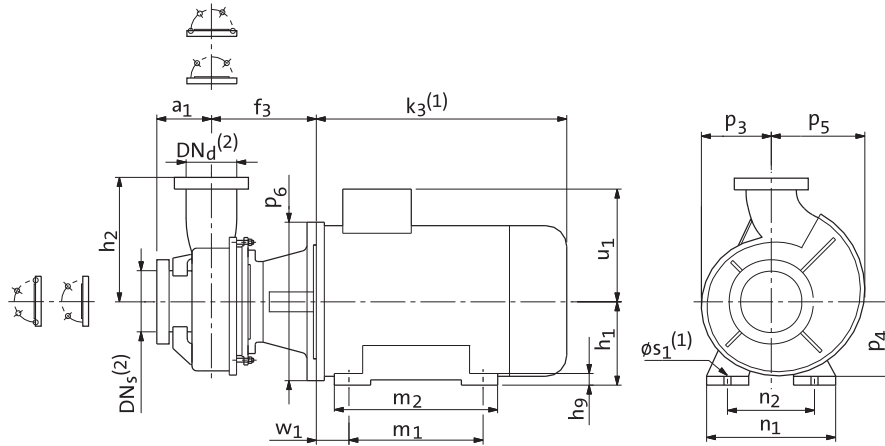
TM02 9737 3704

MAXA 200-400/XXX, 4-pole



TM02 9738 3704

MAXA L



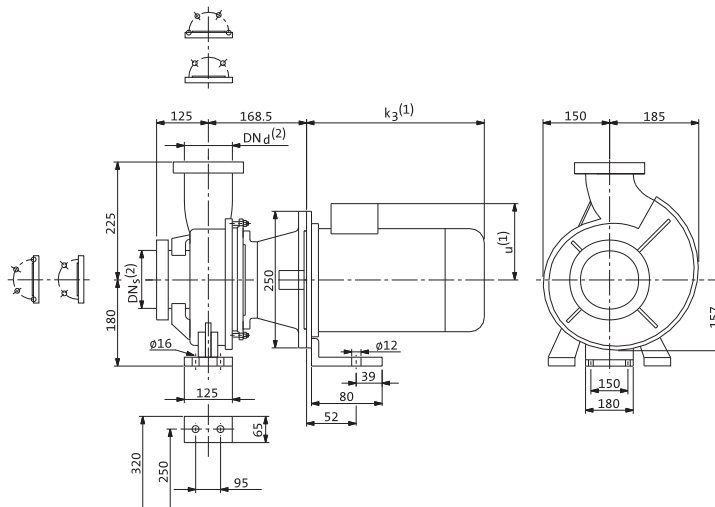
TM02 9653 3604

Technical data, 2-pole

Pump size	P2 [kW]	IEC size	k ₃ ⁽¹⁾	a ₁	f ₃	h ₂	p ₃	p ₄	p ₅	DN ₅ ⁽²⁾	DN _d ⁽²⁾	p ₆	u ⁽¹⁾	w ₁	h ₁	m ₁	m ₂	n ₁	n ₂	h ₉	s ₁	Net weight [kg]				
80-160	11.0	160M	490	125	218	225	150	157	185	100 (125, 150)	80 (100)	350	240	108	160	210	256	300	254	18	15	118				
	15.0	160M	490	125	218	225	150	157	185			350	240	108	160	210	256	300	254	18	15	131				
	18.5	160L	530	125	218	225	150	157	185			350	240	108	160	254	300	300	254	18	15	148				
	22.0	180M	605	125	218	225	150	157	185			350	265	121	180	241	287	339	279	18	15	164				
80-200	15.0	160M	490	125	220	250	170	171	205			100 (125, 150)	80 (100)	350	240	108	160	210	256	300	254	18	15	166		
	18.5	160L	530	125	220	250	170	171	205					350	240	108	160	254	300	300	254	18	15	183		
	22.0	180M	605	125	220	250	170	171	205					350	265	121	180	241	287	339	279	18	15	199		
	30.0	200L	665	125	220	250	170	171	205					400	310	133	200	305	355	388	318	24	19	249		
	37.0	200L	665	125	220	250	170	171	205					400	310	133	200	305	355	388	318	24	19	272		
80-250	30.0	200L	665	125	220	280	180	189	220					125 (150)	100 (125)	400	310	133	200	305	355	388	318	24	19	264
	37.0	200L	665	125	220	280	180	189	220							400	310	133	200	305	355	388	318	24	19	287
100-200	18.5	160L	530	125	220	280	170	171	205							125 (150)	100 (125)	350	240	108	160	254	300	300	254	18
	22.0	180M	605	125	220	280	170	171	205	350	265							121	180	241	287	339	279	18	15	212
	30.0	200L	665	125	220	280	170	171	205	400	310							133	200	305	355	388	318	24	19	262
	37.0	200L	665	125	220	280	170	171	205	400	310							133	200	305	355	388	318	24	19	285

(1) Motor dimensions depend on make, max. size for basic design given.

(2) Flange dimensions are according to DIN EN 1092-1 (DIN 2632). Nominal diameter in parenthesis are available on request.



* This sketch applies to pump size 80-160 only
For pump sizes 80-200 to 125-250, see previous page.

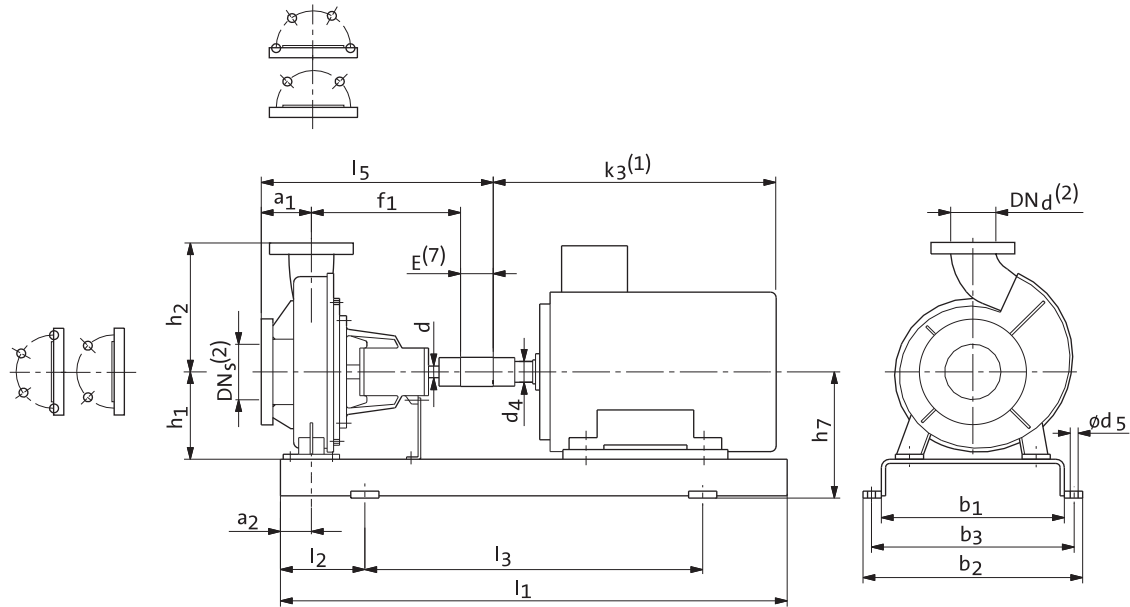
TM03 0142 4104

Technical data, 4-pole

Pump size	P2 [kW]	IEC size	k ₃ ⁽¹⁾	a ₁	f ₃	h ₂	p ₃	p ₄	p ₅	DN ₅ ⁽²⁾	DN _d ⁽²⁾	p ₆	u ⁽¹⁾	w ₁	h ₁	m ₁	m ₂	n ₁	n ₂	h ₉	s ₁	Net weight [kg]			
80-160*	3.0	100L	320	125	168.5	225	150	157	185	100 (125, 150)	80 (100)	250	175	52	180	-	-	-	-	-	-	-	77		
	4.0	112M	340	125	168.5	225	150	157	185			250	185	52	180	-	-	-	-	-	-	-	-	82	
80-200	5.5	132S	390	125	200	250	170	171	205			300	205	89	132	140	180	256	216	15	12	12	116		
	7.5	132M	420	125	200	250	170	171	205			300	205	89	132	178	218	256	216	15	12	12	129		
80-250	5.5	132S	390	125	200	280	180	189	220			300	205	89	132	140	180	256	216	15	12	12	123		
	7.5	132M	420	125	200	280	180	189	220			300	205	89	132	178	218	256	216	15	12	12	136		
	11.0	160M	490	125	220	280	180	189	220			350	240	108	160	210	256	300	254	18	15	12	163		
80-315	5.5	132S	390	125	200	315	208	215	225			300	205	89	132	140	180	256	216	15	12	12	136		
	7.5	132M	420	125	200	315	208	215	225			300	205	89	132	178	218	256	216	15	12	12	149		
	11.0	160M	490	125	220	315	208	215	225			350	240	108	160	210	256	300	254	18	15	12	176		
	15.0	160L	530	125	220	315	208	215	225			350	240	108	160	254	300	300	254	18	15	12	193		
	18.5	180M	605	125	220	315	208	215	225			350	265	121	180	241	287	339	279	18	15	12	267		
	22.0	180L	605	125	220	315	208	215	225			350	265	121	180	279	325	339	279	18	15	12	282		
100-200	5.5	132S	390	125	200	280	170	171	205			125 (150)	100 (125)	300	205	89	132	140	180	256	216	15	12	12	123
	7.5	132M	420	125	200	280	170	171	205					300	205	89	132	178	218	256	216	15	12	12	136
100-250	5.5	132S	390	140	200	280	180	189	220					300	205	89	132	140	180	256	216	15	12	12	131
	7.5	132M	420	140	200	280	180	189	220					300	205	89	132	178	218	256	216	15	12	12	144
	11.0	160M	490	140	220	280	180	189	220					350	240	108	160	210	256	300	254	18	15	12	171
	15.0	160L	530	140	220	280	180	189	220					350	240	108	160	254	300	300	254	18	15	12	188
100-315	7.5	132M	420	140	200	315	208	215	255					300	205	89	132	178	218	256	216	15	12	12	166
	11.0	160M	490	140	220	315	208	215	255	350	240			108	160	210	256	300	254	18	15	12	193		
	15.0	160L	530	140	220	315	208	215	255	350	240			108	160	254	300	300	254	18	15	12	210		
	18.5	180M	605	140	220	315	208	215	255	350	265			121	180	241	287	339	279	18	15	12	284		
	22.0	180L	605	140	220	315	208	215	255	350	265			121	180	279	325	339	279	18	15	12	299		
	30.0	200L	665	140	220	315	208	215	255	400	310			133	200	305	355	388	318	24	19	12	366		
	125-250	7.5	132M	420	140	200	355	200	206	260	150 (200)			125 (150)	300	205	89	132	178	218	256	216	15	12	12
11.0		160M	490	140	220	355	200	206	260	350					240	108	160	210	256	300	254	18	15	12	187
15.0		160L	530	140	220	355	200	206	260	350					240	108	160	254	300	300	254	18	15	12	204
18.5		180M	605	140	220	355	200	206	260	350					265	121	180	241	287	339	279	18	15	12	278
22.0		180L	605	140	220	355	200	206	260	350					265	121	180	279	325	339	279	18	15	12	293

- (1) Motor dimensions depend on make, max. size for basic design given.
- (2) Flange dimensions are according to DIN EN 1092-1 (DIN 2632).
- (3) Nominal diameter in parenthesis are available on request.
- (6) Pumps fitted with motors of IEC size 100 and 112 are supported with pump foot and motor foot; from IEC size 132 pumps are fitted with motor foot only.

MAXA CN



TMO2 9654 3604

Technical data, 2-pole

Pump size	P2 [kW]	IEC size	k ₃ ⁽¹⁾	l ₅	E ⁽⁷⁾	f ₁	a ₁	h ₁	h ₂	h ₇	ø d	ø d ₄	DN ₅ ⁽²⁾	DN _d ⁽²⁾	a ₂	l ₁	l ₂	l ₃	b ₁	b ₂	b ₃	d ₅	Baseplate size	Net weight [kg]	
80-160	11.0	160M	600	559	74	360	125	180	225	290	24	42	100 (125, 150)	80 (100)	75	1250	205	840	480	590	540	24	6	212	
	15.0	160M	600	559	74	360	125	180	225	290	24	42			75	1250	205	840	480	590	540	24	6	225	
	18.5	160L	640	559	74	360	125	180	225	290	24	42			75	1250	205	840	480	590	540	24	6	240	
	22.0	180M	715	665	80	360	125	180	225	290	24	48			75	1250	205	840	480	590	540	24	6	255	
	30.0	200L	775	573	88	360	125	180	225	310	24	55			75	1250	205	840	480	590	540	24	6	305	
80-200	15.0	160M	600	669	74	470	125	180	250	290	32	42			75	1250	205	840	480	590	540	24	6	235	
	18.5	160L	640	669	74	470	125	180	250	290	32	42			75	1250	205	840	480	590	540	24	6	250	
	22.0	180M	715	676	80	470	125	180	250	290	32	48			75	1250	205	840	480	590	540	24	6	265	
	30.0	200L	775	683	88	470	125	180	250	310	32	55			75	1250	205	840	480	590	540	24	6	315	
	37.0	200L	775	683	88	470	125	180	250	310	32	55			75	1250	205	840	480	590	540	24	6	338	
	45.0	225M	840	683	88	470	125	180	250	365	32	55		75	1600	270	1060	580	710	650	28	7	542		
80-250	30.0	200L	775	683	88	470	125	200	280	310	32	55		90	1250	205	840	480	590	540	24	6	330		
	37.0	200L	775	683	88	470	125	200	280	310	32	55		90	1250	205	840	480	590	540	24	6	353		
	45.0	225M	840	683	88	470	125	200	280	365	32	55		90	1600	270	1060	580	710	650	28	7	557		
	55.0	250M	930	697	102	470	125	200	280	390	32	60		90	1600	270	1060	580	710	650	28	7	662		
	75.0	280S	1040	697	102	470	125	200	280	420	32	65		90	1800	300	1200	650	780	720	28	8	861		
	90.0	280M	1040	697	102	470	125	200	280	420	32	65		90	1800	300	1200	650	780	720	28	8	901		
100-200	18.5	160L	640	669	74	470	125	200	280	310	32	42		125 (150)	100 (125)	90	1250	205	840	480	590	540	24	6	263
	22.0	180M	715	676	80	470	125	200	280	310	32	48				90	1250	205	840	480	590	540	24	6	278
	30.0	200L	775	683	88	470	125	200	280	310	32	55				90	1250	205	840	480	590	540	24	6	328
	37.0	200L	775	683	88	470	125	200	280	310	32	55	90			1250	205	840	480	590	540	24	6	351	
	45.0	225M	840	683	88	470	125	200	280	365	32	55	90			1600	270	1060	580	710	650	28	7	555	
	55.0	250M	930	697	102	470	125	200	280	390	32	60	90			1600	270	1060	580	710	650	28	7	660	
100-250	75.0	280S	1040	697	102	470	125	200	280	420	32	65	90		1800	300	1200	650	780	720	28	8	859		
	30.0	200L	775	698	88	470	140	225	280	335	32	55	90		1250	205	840	480	590	540	24	6	339		
	37.0	200L	775	698	88	470	140	225	280	335	32	55	90		1250	205	840	480	590	540	24	6	362		
	45.0	225M	840	698	88	470	140	225	280	365	32	55	90		1600	270	1060	580	710	650	28	7	566		
	55.0	250M	930	712	102	470	140	225	280	390	32	60	90		1600	270	1060	580	710	650	28	7	671		
	75.0	280S	1040	712	102	470	140	225	280	420	32	65	90		1800	300	1200	650	780	720	28	8	870		
90.0	280M	1040	712	102	470	140	225	280	420	32	65	90	1800	300	1200	650	780	720	28	8	910				

Technical data, 4-pole

Pump size	P2 [kW]	IEC size	k ₃ ⁽¹⁾	l ₅	E ⁽⁷⁾	f ₁	a ₁	h ₁	h ₂	h ₇	∅ d	∅ d ₄	DN _s ⁽²⁾	DN _d ⁽²⁾	a ₂	l ₁	l ₂	l ₃
80-160	3.0	100L	380	543	58	360	125	180	225	282	24	28	100 (125, 150)	80 (100)	75	1120	190	740
	4.0	112M	400	543	58	360	125	180	225	282	24	28			75	1120	190	740
80-200	2.2	100L	380	653	58	470	125	180	250	282	32	28			75	1120	190	740
	3.0	100L	380	653	58	470	125	180	250	282	32	28			75	1120	190	740
	4.0	112M	400	653	58	470	125	180	250	282	32	28			75	1120	190	740
80-250	5.5	132S	470	663	68	470	125	180	250	282	32	38			75	1120	190	740
	4.0	112M	400	653	58	470	125	200	280	310	32	28			90	1250	205	840
	5.5	132S	470	663	68	470	125	200	280	310	32	38			90	1250	205	840
	7.5	132M	500	663	68	470	125	200	280	310	32	38			90	1250	205	840
80-315	11.0	160M	600	669	74	470	125	200	280	310	32	42			90	1250	205	840
	5.5	132S	470	663	68	470	125	250	315	360	32	38			90	1250	205	840
	7.5	132M	500	663	68	470	125	250	315	360	32	38			90	1250	205	840
	11.0	160M	600	669	74	470	125	250	315	360	32	42			90	1250	205	840
	15.0	160L	640	669	74	470	125	250	315	360	32	42			90	1250	205	840
	18.5	180M	715	675	80	470	125	250	315	360	32	48			90	1250	205	840
100-200	22.0	180L	715	675	80	470	125	250	315	360	32	48			90	1250	205	840
	3.0	100L	380	653	58	470	125	200	280	302	32	28	125 (150)	100 (125)	90	1120	190	740
	4.0	112M	400	653	58	470	125	200	280	302	32	28			90	1120	190	740
	5.5	132S	470	663	68	470	125	200	280	302	32	38			90	1120	190	740
7.5	132M	500	663	68	470	125	200	280	302	32	38	90			1120	190	740	
100-250	4.0	112M	400	668	58	470	140	225	280	335	32	28			90	1250	205	840
	5.5	132S	470	678	68	470	140	225	280	335	32	38			90	1250	205	840
	7.5	132M	500	678	68	470	140	225	280	335	32	38			90	1250	205	840
100-315	11.0	160M	600	684	74	470	140	225	280	335	32	42			90	1250	205	840
	15.0	160L	640	684	74	470	140	225	280	335	32	42			90	1250	205	840
	7.5	132M	500	678	68	470	140	250	315	360	32	38			90	1250	205	840
	11.0	160M	600	684	74	470	140	250	315	360	32	42			90	1250	205	840
	15.0	160L	640	684	74	470	140	250	315	360	32	42			90	1250	205	840
	18.5	180M	715	690	80	470	140	250	315	360	32	48			90	1250	205	840
125-250	22.0	180L	715	690	80	470	140	250	315	360	32	48			90	1250	205	840
	30.0	200L	775	698	88	470	140	250	315	360	32	55			90	1250	205	840
	7.5	132M	500	678	68	470	140	250	355	360	32	38			90	1250	205	840
	11.0	160M	600	684	74	470	140	250	355	360	32	42	90	1250	205	840		
125-315	15.0	160L	640	684	74	470	140	250	355	360	32	42	90	1250	205	840		
	18.5	180M	715	690	80	470	140	250	355	360	32	48	90	1250	205	840		
	11.0	160M	600	744	74	530	140	280	355	420	42	42	150 (200)	125 (150)	110	1600	270	1060
	15.0	160L	640	744	74	530	140	280	355	420	42	42			110	1600	270	1060
	18.5	180M	715	750	80	530	140	280	355	420	42	48			110	1600	270	1060
	22.0	180L	715	750	80	530	140	280	355	420	42	48			110	1600	270	1060
30.0	200L	775	758	88	530	140	280	355	420	42	55	110			1600	270	1060	
37.0	225S	840	772	102	530	140	280	355	420	42	60	110			1600	270	1060	

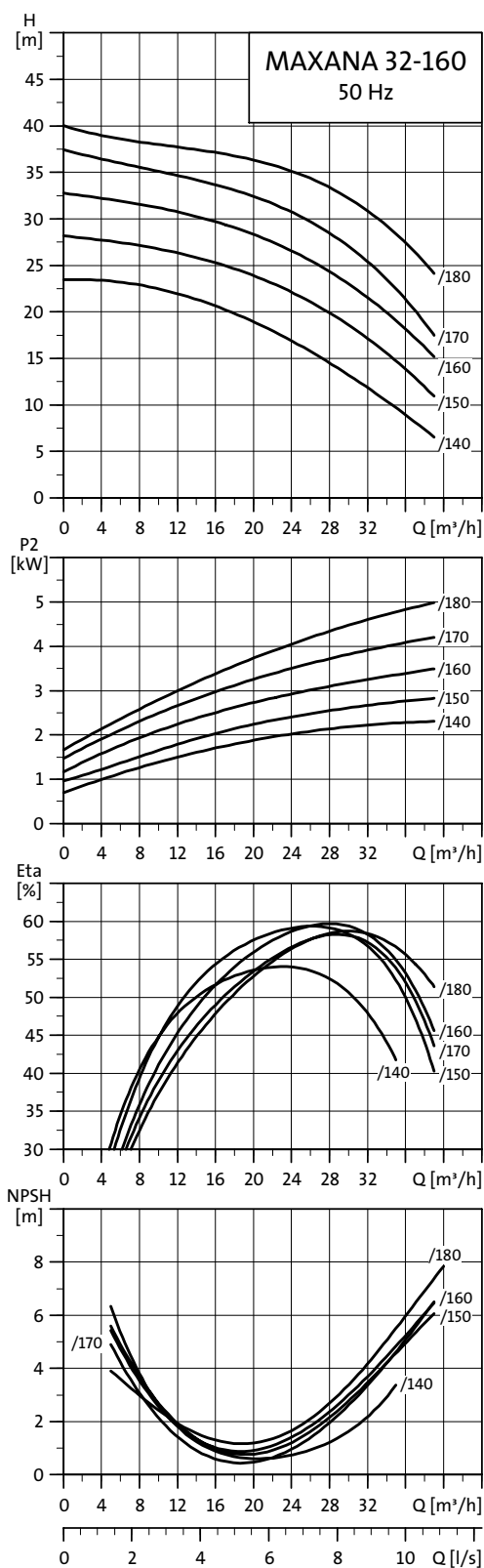
To be continued on the next page.

Continued from previous page.

Pump size	P2 [kW]	IEC size	k ₃ ⁽¹⁾	l ₅	E ⁽⁷⁾	f ₁	a ₁	h ₁	h ₂	h ₇	∅ d	∅ d ₄	DN _s ⁽²⁾	DN _d ⁽²⁾	a ₂	l ₁	l ₂	l ₃
150-250	11.0	160M	600	764	74	530	160	280	375	420	42	42	200 (250)	150	110	1600	270	1060
	15.0	160L	640	764	74	530	160	280	375	420	42	42			110	1600	270	1060
	18.5	180M	715	770	80	530	160	280	375	420	42	48			110	1600	270	1060
	22.0	180L	715	770	80	530	160	280	375	420	42	48			110	1600	270	1060
	30.0	200L	775	778	88	530	160	280	375	420	42	55			110	1600	270	1060
150-315	15.0	160L	640	764	74	530	160	280	400	420	42	42			110	1800	300	1200
	18.5	180M	715	770	80	530	160	280	400	420	42	48			110	1800	300	1200
	22.0	180L	715	770	80	530	160	280	400	420	42	48			110	1800	300	1200
	30.0	200L	775	778	88	530	160	280	400	420	42	55			110	1800	300	1200
	37.0	225S	840	792	102	530	160	280	400	420	42	60			110	1800	300	1200
	45.0	225M	840	792	102	530	160	280	400	420	42	60		110	1800	300	1200	
150-400	55.0	250M	930	792	102	530	160	280	400	420	42	65		110	1800	300	1200	
	30.0	200L	775	778	88	530	160	315	450	455	42	55		110	1800	300	1200	
	37.0	225S	840	792	102	530	160	315	450	455	42	60		110	1800	300	1200	
	45.0	225M	840	792	102	530	160	315	450	455	42	60		110	1800	300	1200	
	55.0	250M	930	792	102	530	160	315	450	455	42	65		110	1800	300	1200	
	75.0	280S	1040	806	116	530	160	315	450	455	42	75		110	1800	300	1200	
200-400	90.0	280M	1040	806	116	530	160	315	450	455	42	75		110	1800	300	1200	
	30.0	200L	775	814	88	551	175	315	530	455	42	55		200	110	1800	300	1200
	37.0	225S	840	828	102	551	175	315	530	455	42	60			110	1800	300	1200
	45.0	225M	840	828	102	551	175	315	530	455	42	60	110		1800	300	1200	
	55.0	250M	930	828	102	551	175	315	530	455	42	65	110		1800	300	1200	
	75.0	280S	1040	842	116	551	175	315	530	455	42	75	110		1800	300	1200	
90.0	280M	1040	842	116	551	175	315	530	455	42	75	110	1800		300	1200		

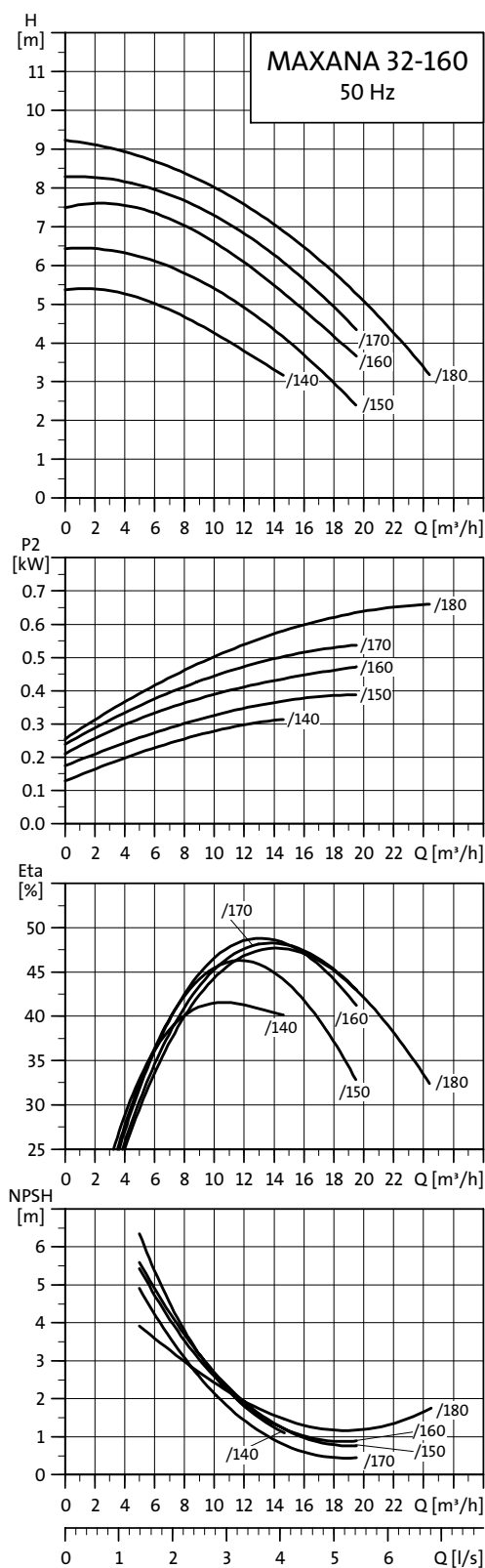
- (1) Motor dimensions depend on make, max. size for basic design given.
 (2) Flange dimensions are according to DIN EN 1092-1 (DIN 2632).
 (3) Nominal diameter in parenthesis are available on request.
 (7) Coupling of our choice.
 Larger motors, threaded pipework connections and special flanges are available on request.

MAXANA 32-160/XXX, 2-pole



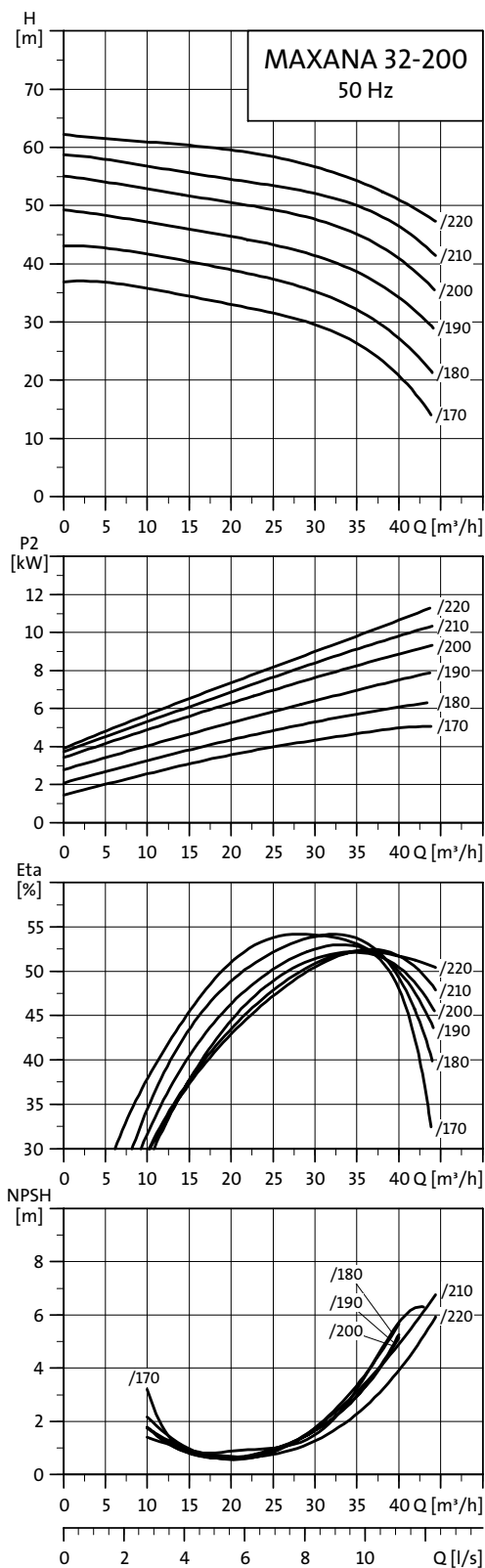
TM02 9699 3704

MAXANA 32-160/XXX, 4-pole



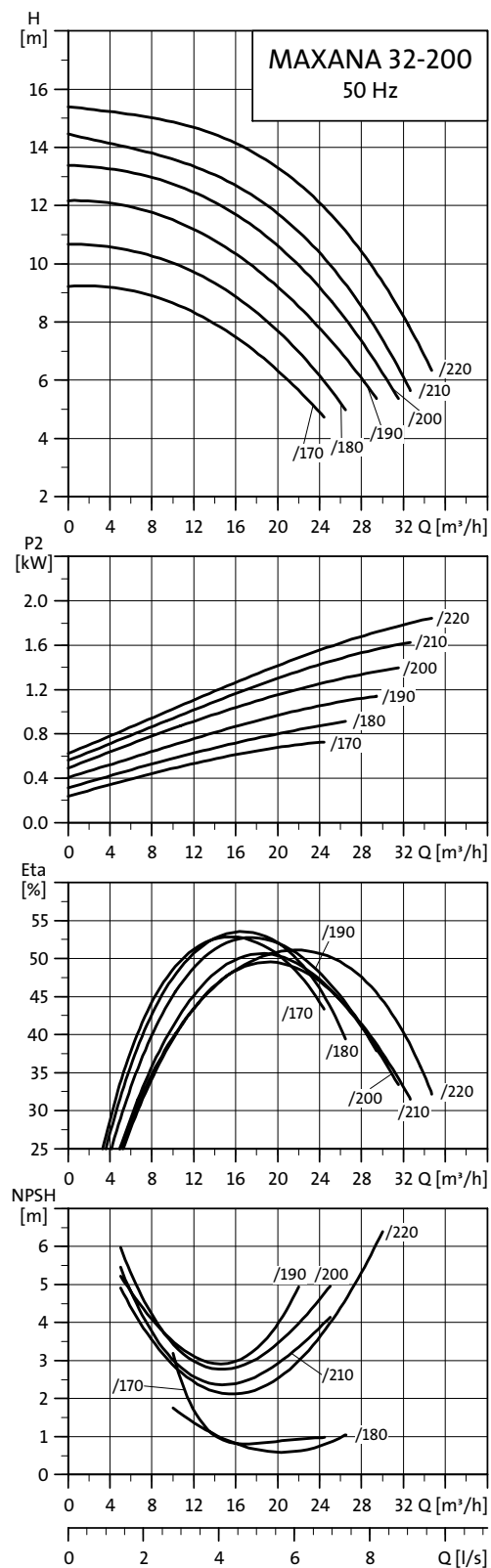
TM02 9710 3704

MAXANA 32-200/XXX, 2-pole



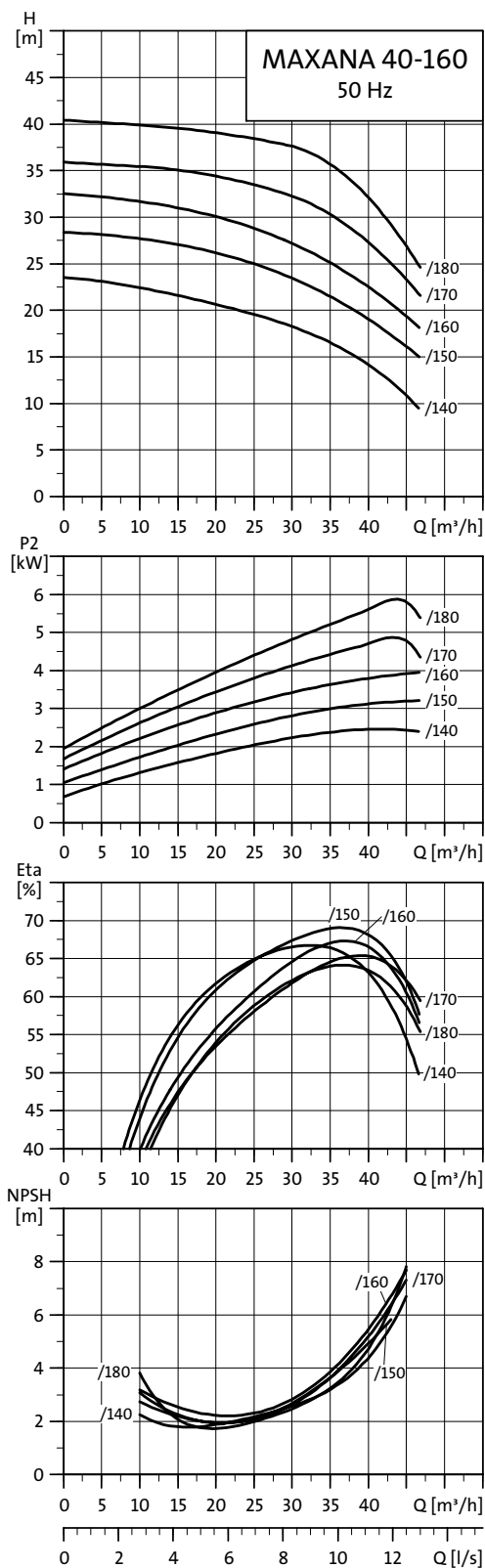
TM02 9700 3704

MAXANA 32-200/XXX, 4-pole



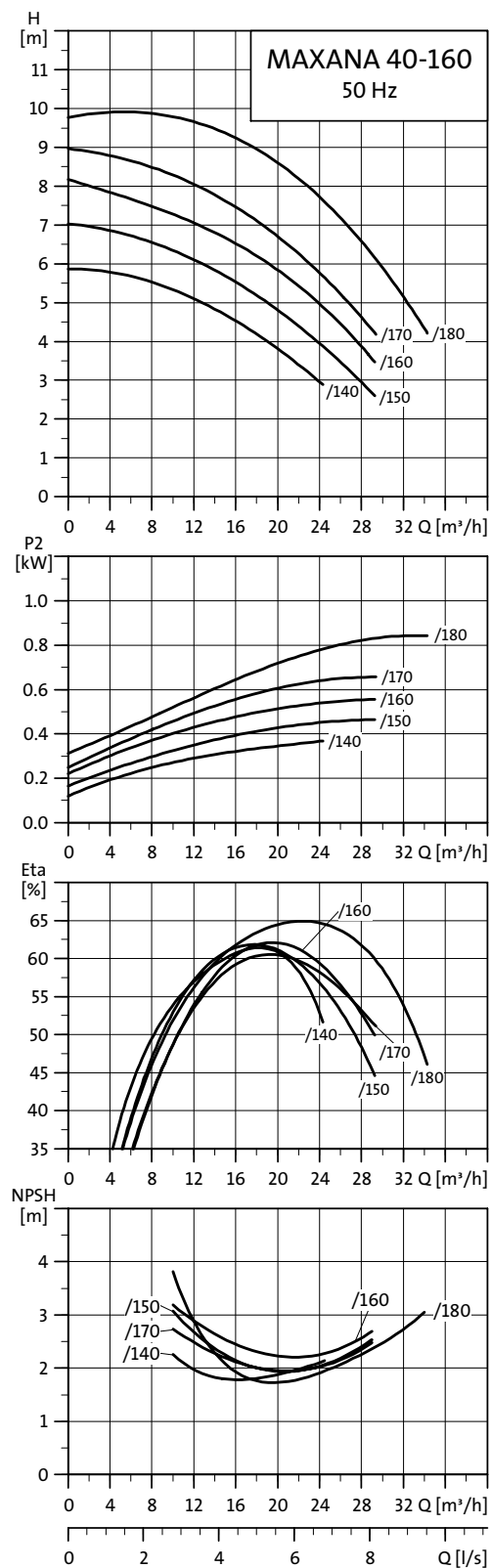
TM02 9711 3704

MAXANA 40-160/XXX, 2-pole



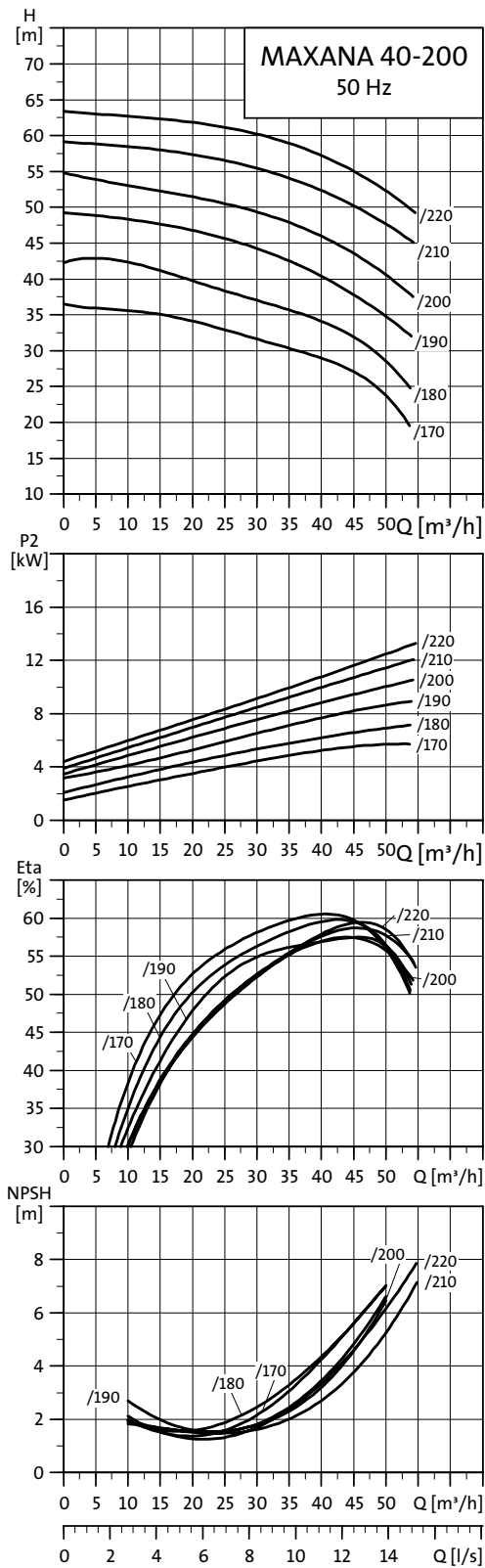
TM02 9701 3704

MAXANA 40-160/XXX, 4-pole



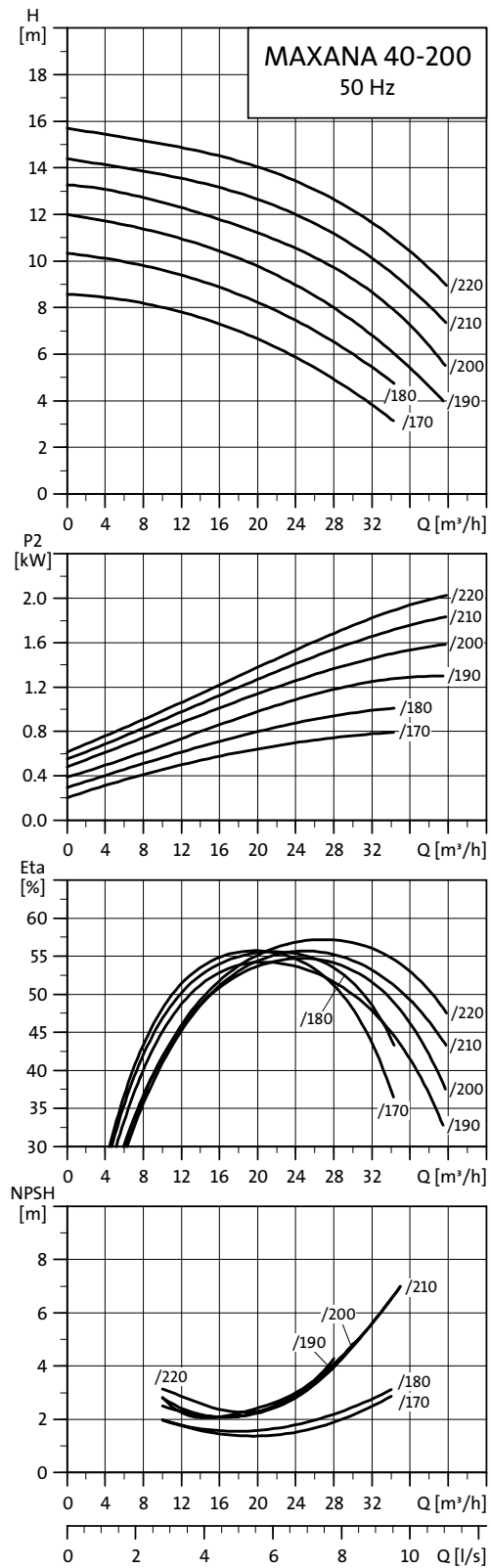
TM02 9712 3704

MAXANA 40-200/XXX, 2-pole



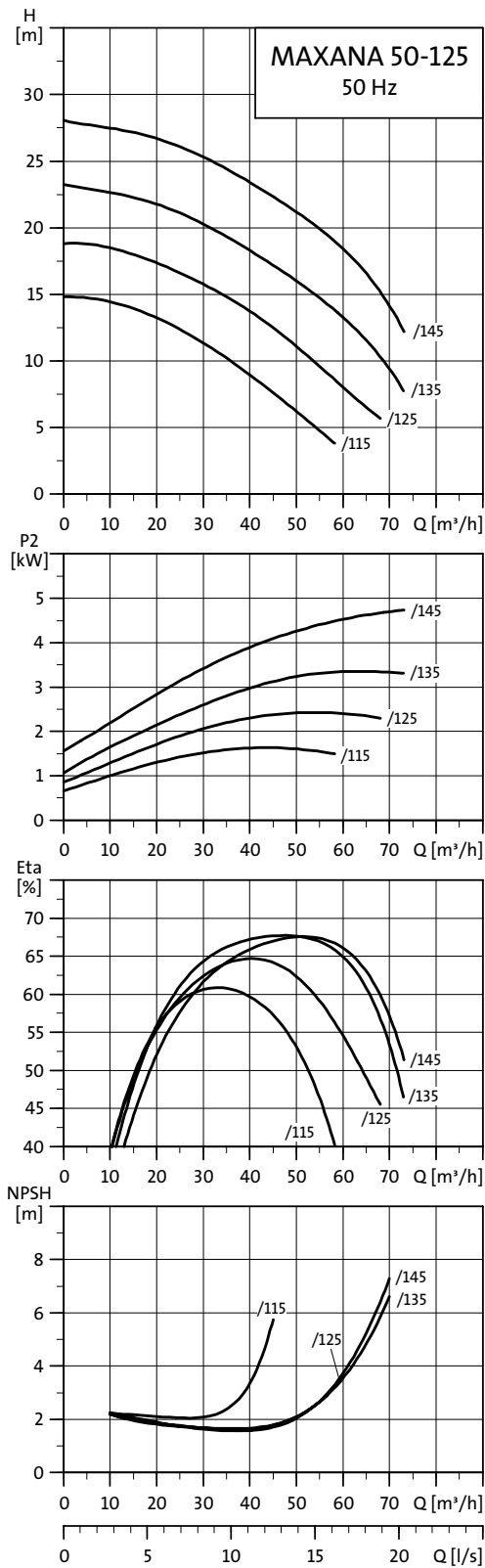
TM02 9702 3704

MAXANA 40-200/XXX, 4-pole



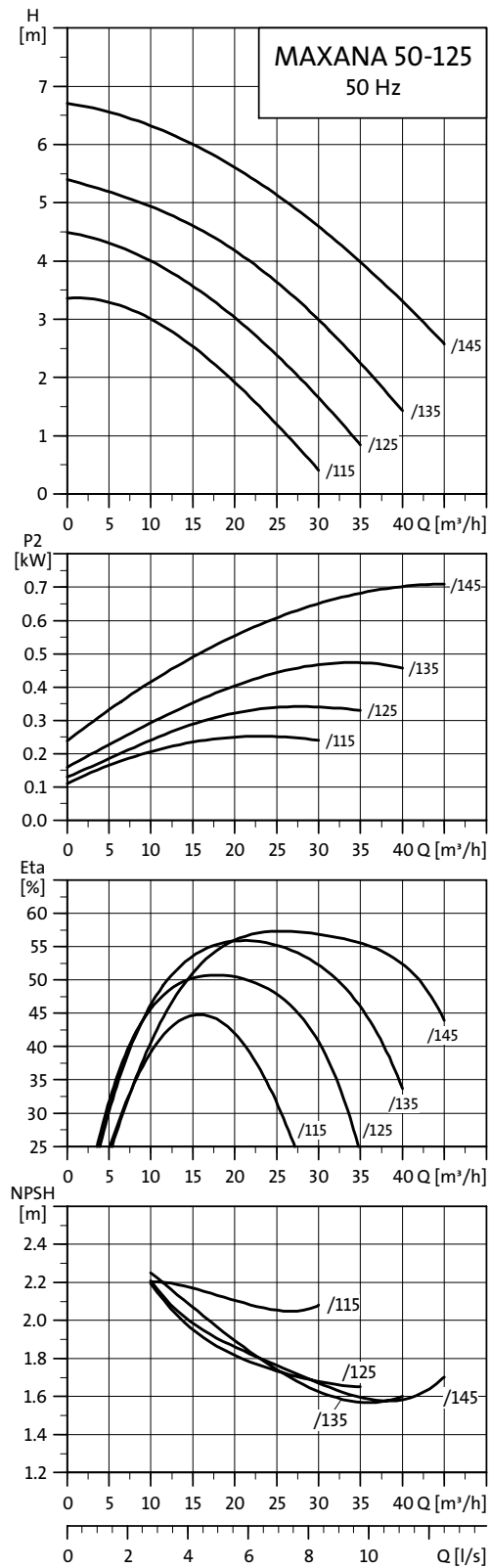
TM02 9713 3704

MAXANA 50-125/XXX, 2-pole



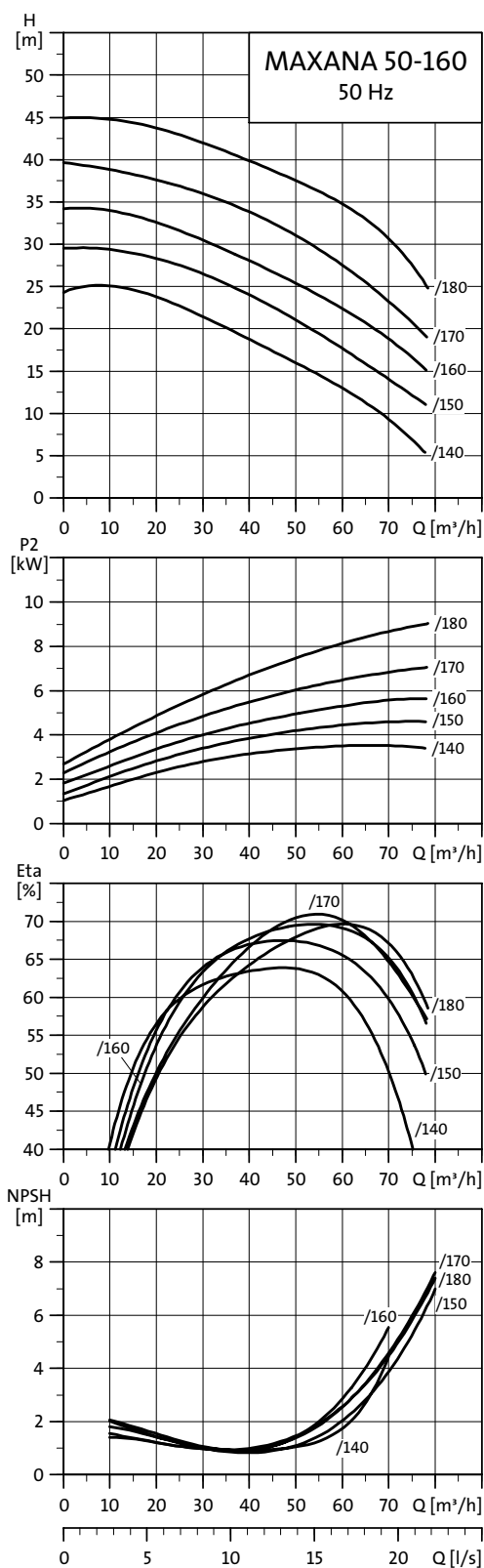
TM02 9703 3704

MAXANA 50-125/XXX, 4-pole



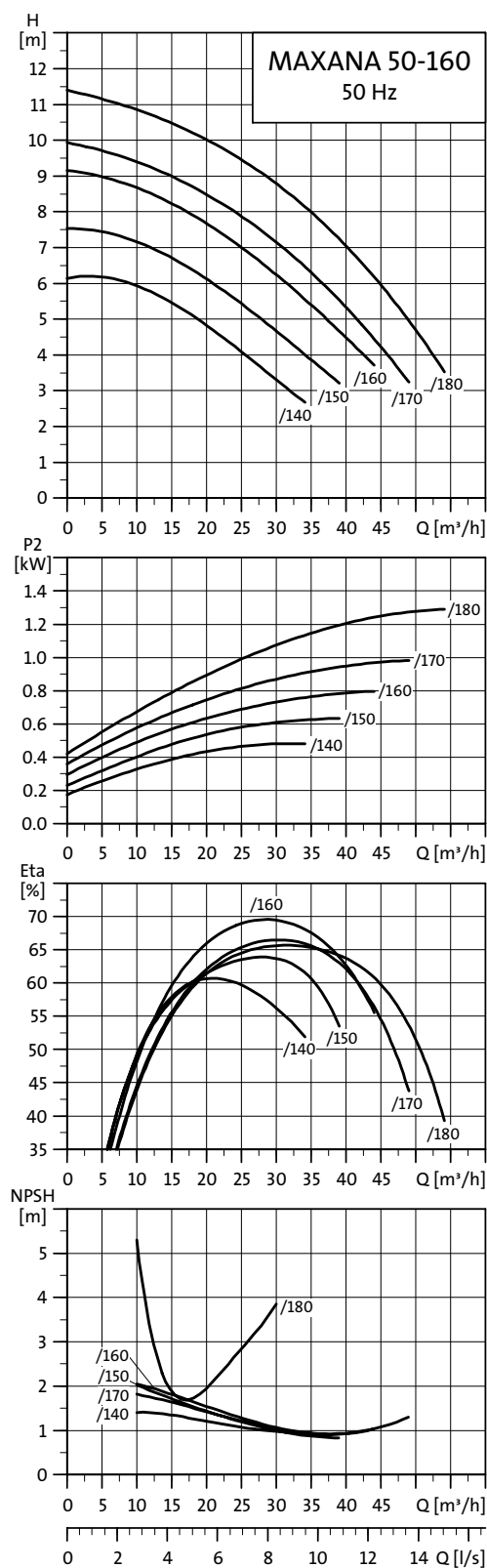
TM02 9714 3704

MAXANA 50-160/XXX, 2-pole



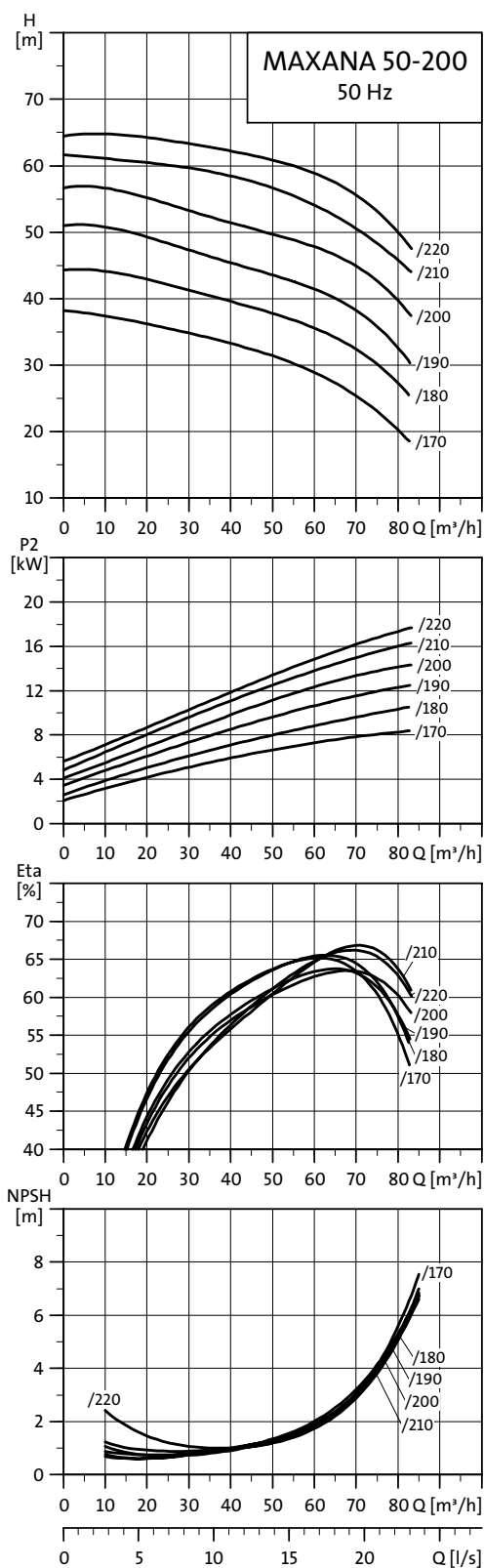
TM02 9704 3704

MAXANA 50-160/XXX, 4-pole



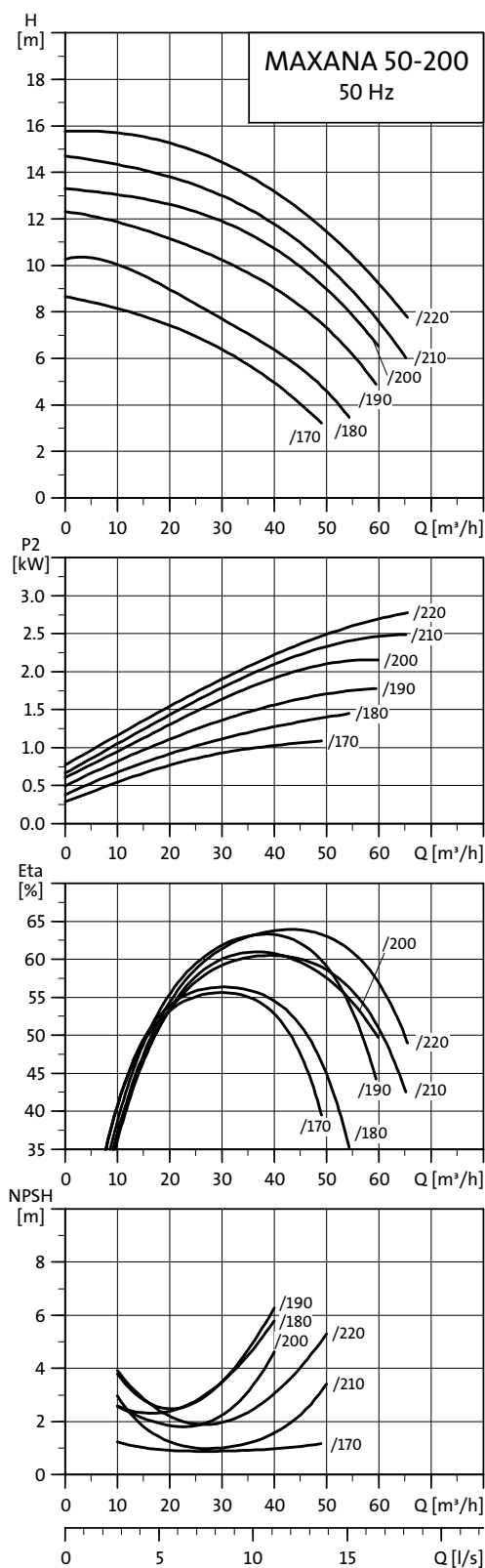
TM02 9715 3704

MAXANA 50-200/XXX, 2-pole



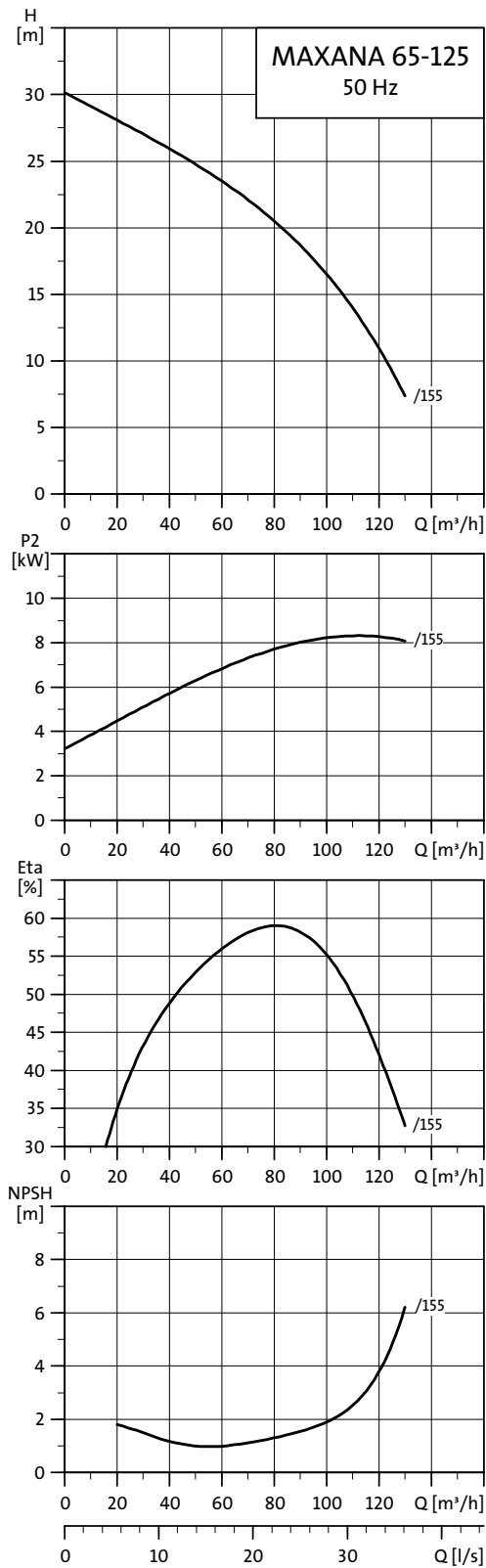
TM02 9705 3704

MAXANA 50-200/XXX, 4-pole



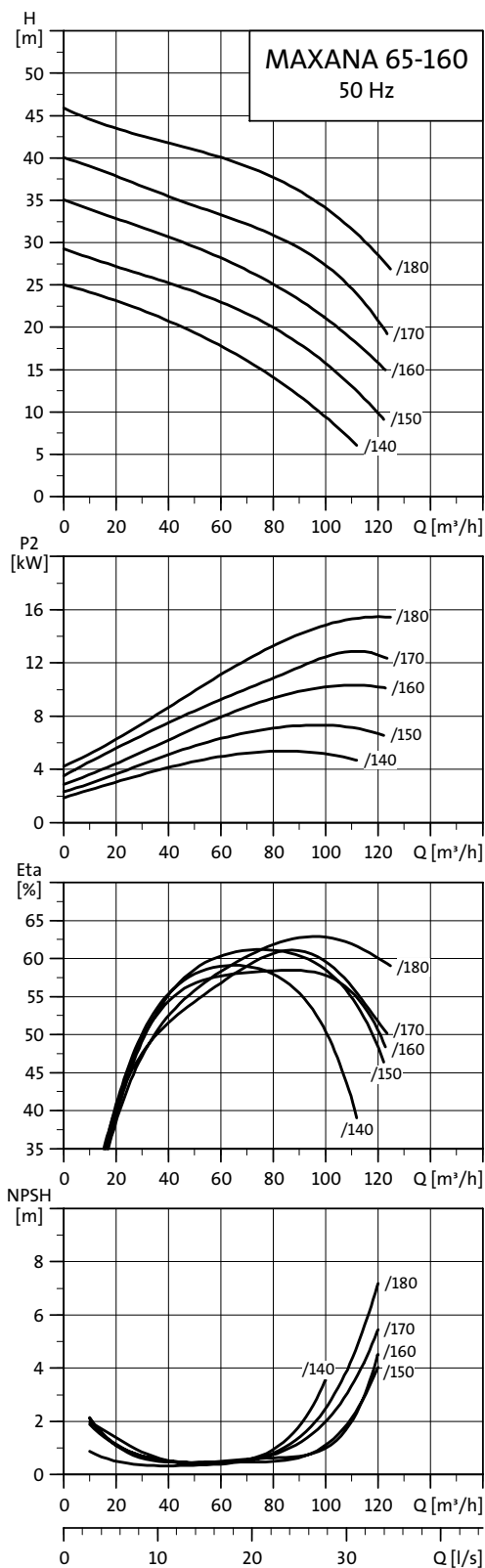
TM02 9716 3704

MAXANA 65-125/XXX, 2-pole



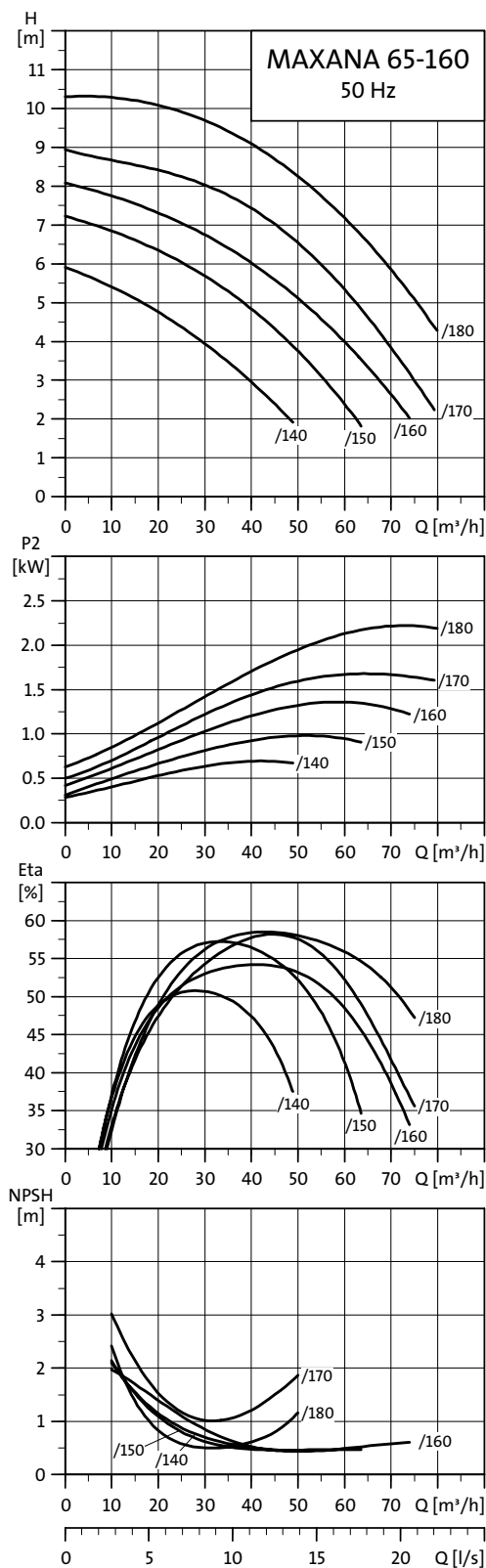
TM02 9706 3704

MAXANA 65-160/XXX, 2-pole



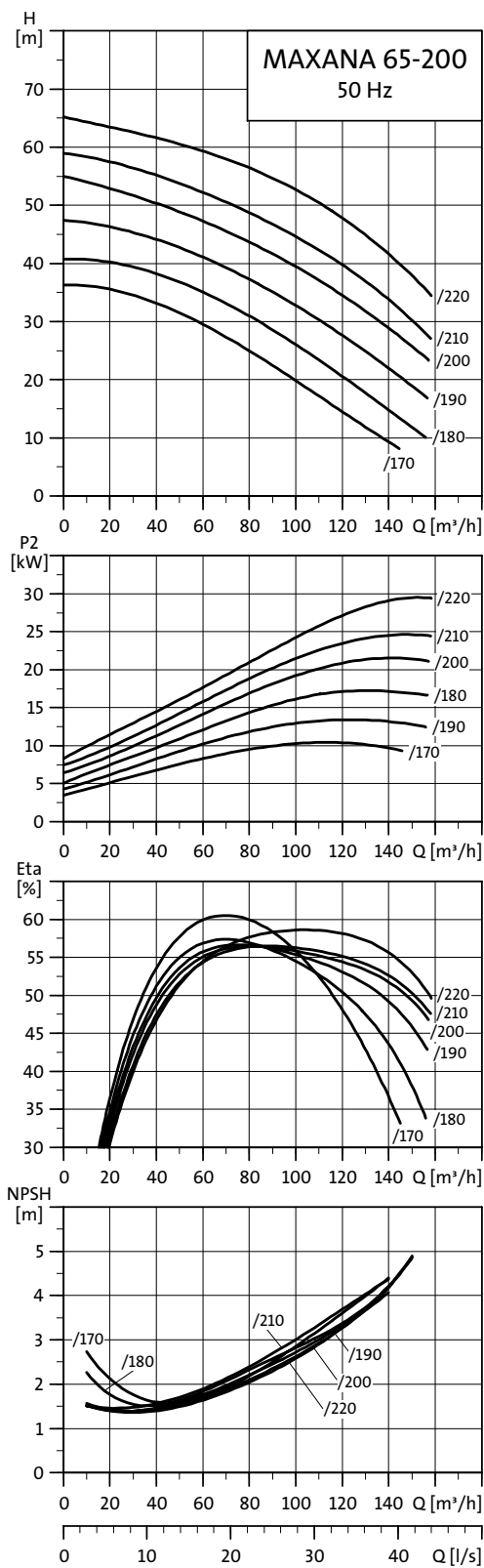
TM02 9707 3704

MAXANA 65-160/XXX, 4-pole



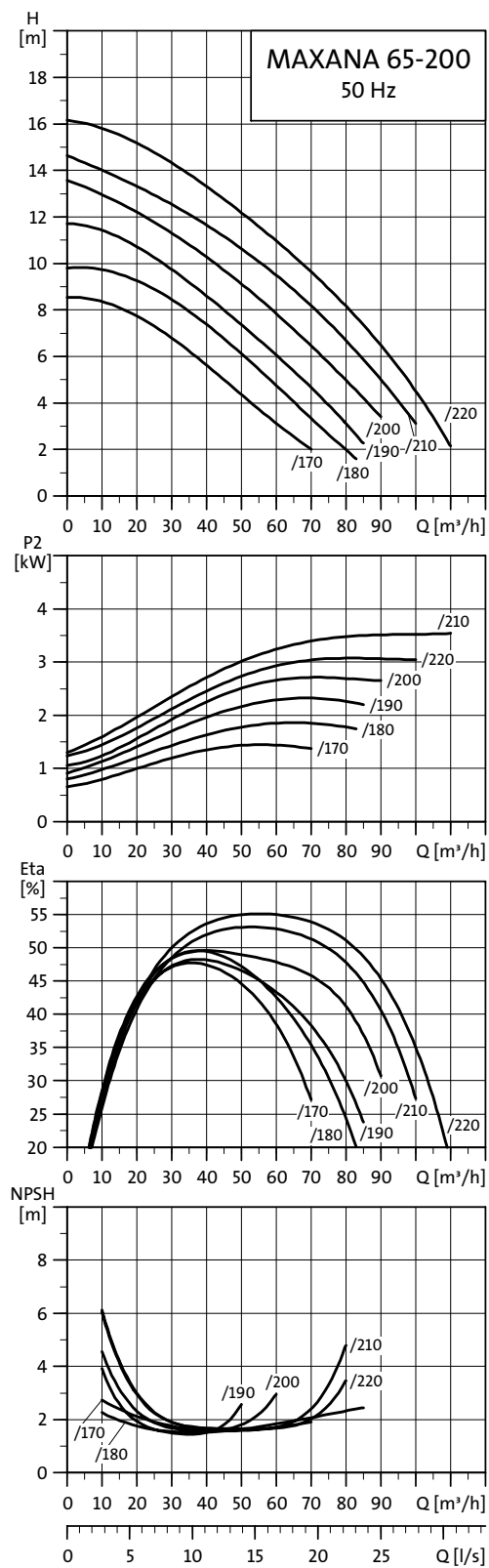
TM02 9717 3704

MAXANA 65-200/XXX, 2-pole



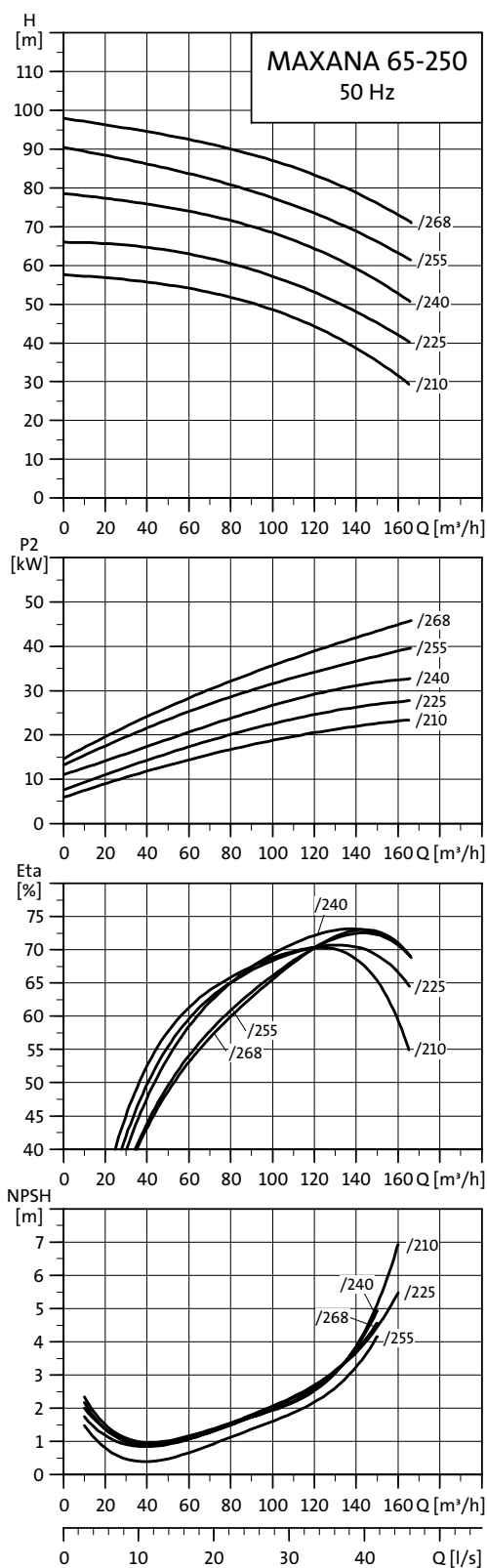
TM02 9708 3704

MAXANA 65-200/XXX, 4-pole



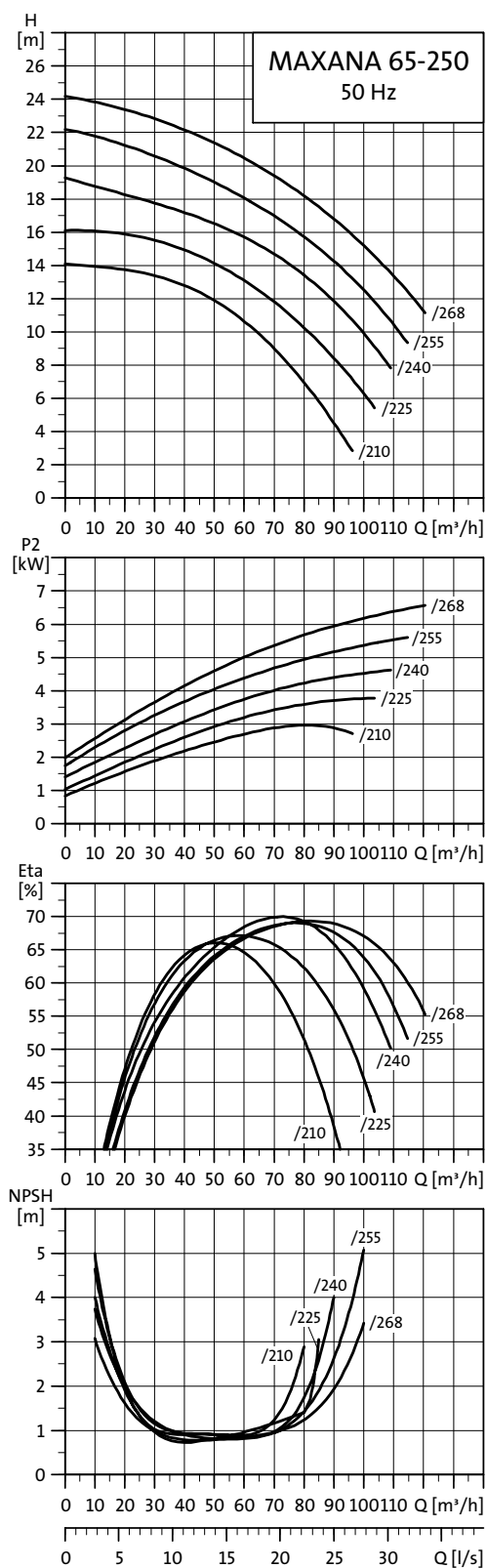
TM02 9718 3704

MAXANA 65-250/XXX, 2-pole



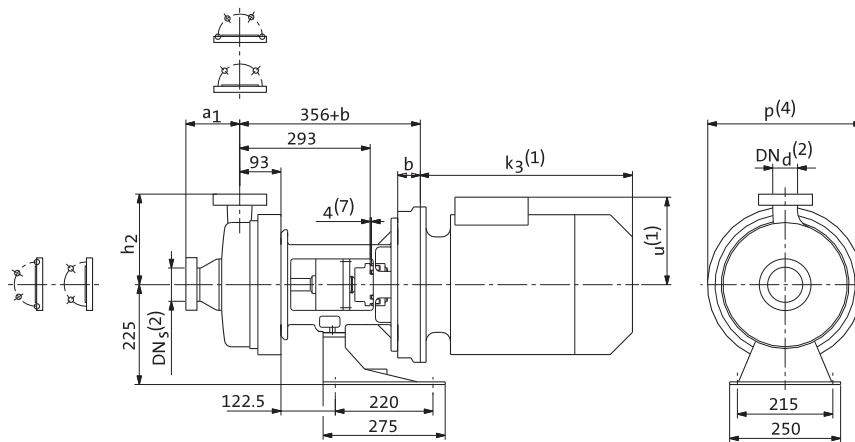
TM02 9709 3704

MAXANA 65-250/XXX, 4-pole



TM02 9719 3704

MAXANA Adapta® on stainless steel foot



TMO2 9652 3604

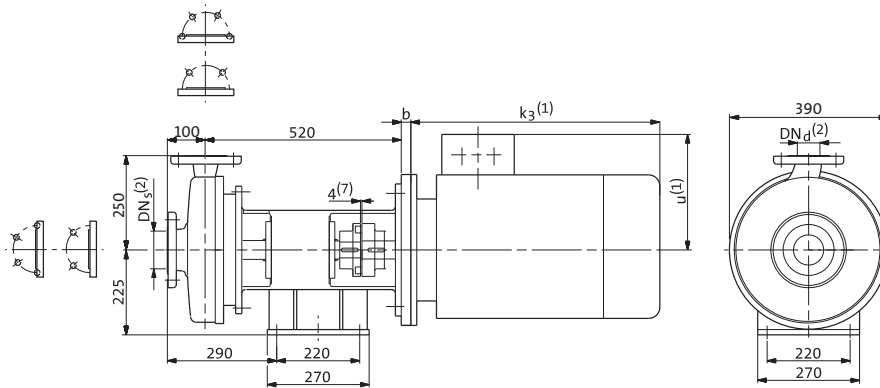
Technical data

Pump size	P2 [kW]	IEC size	k ₃	u ⁽¹⁾	a ₁	h ₂	p ⁽⁴⁾	b	DN _s ⁽⁶⁾	DN _d ⁽⁶⁾	Net weight [kg]	
32-160	3.0	100L	320	175	80	160	264	0	50 (65)	32 (40)	71	
	4.0	112M	340	185	80	160	264	0			78	
	5.5	132S	390	205	80	160	264	20			90	
32-200	3.0	100L	320	175	80	180	316	0			77	
	4.0	112M	340	185	80	180	316	0			84	
	5.5	132S	390	205	80	180	316	20			96	
	7.5	132S	390	205	80	180	316	20		106		
	11.0	160M	490	240	80	180	316	51		127		
40-160	4.0	112M	340	195	80	160	264	0		65 (80)	40 (50)	79
	5.5	132S	390	205	80	160	264	20				91
	7.5	132S	390	205	80	160	264	20				101
	11.0	160M	490	240	80	160	264	51				140
40-200	7.5	132S	390	205	100	180	316	20	107			
	11.0	160M	490	290	100	180	316	51	126			
	15.0	160M	490	290	100	180	316	51	139			
50-125	3.0	100L	320	175	100	160	264	0	80 (100)		50 (65)	76
	4.0	112M	340	185	100	160	264	0				83
	5.5	132S	390	205	100	160	264	20				95
	7.5	132S	390	205	100	160	264	20				105
50-160	5.5	132S	390	205	100	180	288	20				93
	7.5	132S	390	205	100	180	288	20		103		
	11.0	160M	490	240	100	180	288	51		115		
	15.0	160M	490	240	100	180	288	51		135		
50-200	11.0	160M	490	240	100	200	316	51		129		
	15.0	160M	490	240	100	200	316	51		142		
65-125	4.0	112M	340	185	100	180	288	0		80 (100)	65 (80)	86
	5.5	132S	390	205	100	180	288	20				98
	7.5	132S	390	205	100	180	288	20	108			
65-160	5.5	132S	390	205	100	200	308	20	98			
	7.5	132S	390	205	100	200	308	20	108			
	11.0	160M	490	240	100	200	308	51	127			
	15.0	160M	490	240	100	200	308	51	140			
65-200	11.0	160M	490	240	100	225	348	51	134			
	15.0	160M	490	240	100	225	348	51	147			

Dimensions depend on housing size (DN_s, DN_d, a₁, h₂), see table of connections on page 36.

- (1) Motor dimensions depend on make, max. size for basic design given.
- (2) Flange dimensions are according to DIN EN 1092-1 (DIN 2632). Nominal diameter in parenthesis are available on request.
- (4) Largest diameter of pump without motor.
- (7) N-Eupex coupling.

MAXANA Adapta® on Adapta® foot



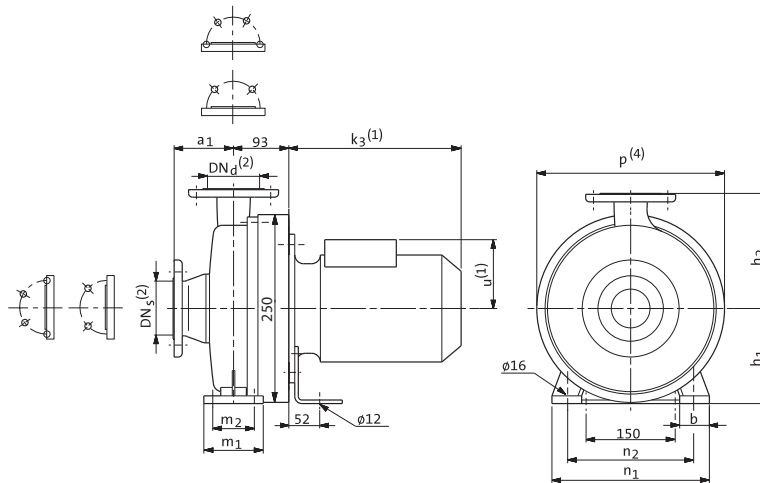
TM03 0183 4404

Technical data

P2 [kW]	n [min ⁻¹]	IEC size	b	k ₃ ⁽¹⁾	u ⁽¹⁾
15.0	2900	160M	-	490	240
18.5	2900	160L	-	530	240
22.0	2900	180L	-	605	265
30.0	2900	200L	25	665	310
37.0	2900	200L	25	665	310
45.0	2900	225M	30	700	330

- (1) Motor dimensions depend on make, max. size for basic design given.
 (2) Other sizes and special connections are available on request.
 (7) N-Eupex coupling.

MAXANA Bloc on pump and motor foot



TM03 0202 4504

Technical data, 2-pole

Pump size	P2 [kW]	IEC size	$k_3^{(1)}$	$u^{(1)}$	a_1	h_1	h_2	$p^{(4)}$	m_1	m_2	n_1	n_2	b	$DN_5^{(2)}$	$DN_d^{(2)}$	Net weight [kg]	
32-160	2.2	90L	285	150	80	132	160	264	100	70	240	190	50	50 (65)	32 (40)	34	
	3.0	100L	320	175	80	132	160	264	100	70	240	190	50			40	
	4.0	112M	340	185	80	132	160	264	100	70	240	190	50			47	
	5.5	112M	340	185	80	132	160	264	100	70	240	190	50			59	
32-200	3.0	100L	320	175	80	160	180	316	100	70	240	190	50			46	
	4.0	112M	340	185	80	160	180	316	100	70	240	190	50			53	
	5.5	112M	340	185	80	160	180	316	100	70	240	190	50	65			
40-160	4.0	112M	340	185	80	132	160	264	100	70	240	190	50	65 (80)	40 (50)	48	
	5.5	112M	340	185	80	132	160	264	100	70	240	190	50			60	
50-125	3.0	100L	320	175	100	132	160	264	100	70	240	190	50		80 (100)	50 (65)	45
	4.0	112M	340	185	100	132	160	264	100	70	240	190	50				52
	5.5	112M	340	185	100	132	160	264	100	70	240	190	50				64
50-160	5.5	112M	340	185	100	160	180	288	100	70	265	212	50			62	
65-125	4.0	112M	340	185	100	160	180	288	125	95	280	212	65	65 (80)		65 (80)	55
	5.5	112M	340	185	100	160	180	288	125	95	280	212	65				67
65-160	5.5	112M	340	185	100	160	200	308	125	95	280	212	65		67		

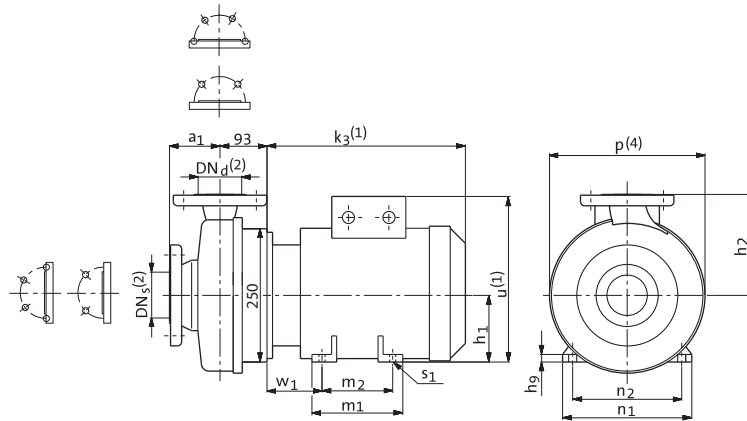
Technical data, 4-pole

Pump size	P2 [kW]	IEC size	$k_3^{(1)}$	$u^{(1)}$	a_1	h_1	h_2	$p^{(4)}$	m_1	m_2	n_1	n_2	b	DN _s ⁽²⁾	DN _d ⁽²⁾	Net weight [kg]						
32-160	0.55	80	245	145	80	132	160	264	100	70	240	190	50	50 (65)	32 (40)	27						
	0.75	90S	285	150	80	132	160	264	100	70	240	190	50			28						
32-200	0.75	90S	285	150	80	160	180	316	100	70	240	190	50			65 (80)	40 (50)	34				
	1.1	90S	285	150	80	160	180	316	100	70	240	190	50					37				
	1.5	90L	285	150	80	160	180	316	100	70	240	190	50					40				
40-160	0.55	80	245	145	80	132	160	264	100	70	240	190	50					65 (80)	40 (50)	28		
	0.75	90S	285	150	80	132	160	264	100	70	240	190	50	29								
	1.1	90S	285	150	80	132	160	264	100	70	240	190	50	32								
40-200	1.5	90L	285	150	80	132	160	264	100	70	240	190	50	65 (80)	40 (50)					35		
	1.1	90S	285	150	100	160	180	316	100	70	265	212	50							38		
	1.5	90L	285	150	100	160	180	316	100	70	265	212	50							41		
50-125	2.2	100L	320	175	100	160	180	316	100	70	265	212	50							65 (80)	40 (50)	48
	0.55	80	245	145	100	132	160	264	100	70	240	190	50									32
	0.75	90S	285	150	100	132	160	264	100	70	240	190	50									33
50-160	1.1	90S	285	150	100	160	180	288	100	70	265	212	50			65 (80)	40 (50)					36
	1.5	90L	285	150	100	160	180	288	100	70	265	212	50									34
	2.2	100L	320	175	100	160	180	288	100	70	265	212	50									38
50-200	1.5	90L	285	150	100	160	200	316	100	70	265	212	50					80 (100)	65 (80)			44
	2.2	100L	320	175	100	160	200	316	100	70	265	212	50									44
	3.0	100L	320	175	100	160	200	316	100	70	265	212	50									51
	4.0	112M	340	185	100	160	200	316	100	70	265	212	50	53								
65-125	0.75	90S	285	150	100	160	180	288	125	95	280	212	65	80 (100)	65 (80)							58
	1.1	90S	285	150	100	160	180	288	125	95	280	212	65									36
65-160	0.75	90S	285	150	100	160	200	308	125	95	280	212	65							80 (100)	65 (80)	39
	1.1	90S	285	150	100	160	200	308	125	95	280	212	65									36
	1.5	90L	285	150	100	160	200	308	125	95	280	212	65									39
	2.2	100L	320	175	100	160	200	308	125	95	280	212	65			43						
	3.0	100L	320	175	100	160	200	308	125	95	280	212	65			49						
65-200	1.5	90L	285	150	100	180	225	348	125	95	320	250	65			80 (100)	65 (80)					51
	2.2	100L	320	175	100	180	225	348	125	95	320	250	65					50				
	3.0	100L	320	175	100	180	225	348	125	95	320	250	65					56				
	4.0	112M	340	185	100	180	225	348	125	95	320	250	65					58				
	5.5	112M	340	185	100	180	225	348	125	95	320	250	65					63				
																		76				

Dimensions depend on housing size (DN_s, DN_d, a₁, h₂), see table of connections on page 36.

- (1) Motor dimensions depend on make, max. size for basic design given.
- (2) Flange dimensions are according to DIN EN 1092-1 (DIN 2632). Nominal diameter in parenthesis are available on request.
- (4) Largest diameter of pump without motor.

MAXANA Bloc on motor foot



TM03 0201 4504

Technical data

Pump size	P2 [kW]	IEC size	a ₁	h ₁	h ₂	p	m ₁	m ₂	n ₁	n ₂	h ₉	s ₁	DN _s ⁽²⁾	DN _d ⁽²⁾	Net weight [kg]	
32-200	7.5	132S	80	132	180	316	180	140	256	216	15	12	50 (65)	32 (40)	75	
	11.0	132S	80	132	180	316	180	140	256	216	15	12			94	
	15.0	160M	80	160	180	316	256	210	300	254	18	15			107	
40-160	7.5	132S	80	132	160	264	180	140	256	216	15	12	65 (80)	40 (50)	70	
	11.0	132S	80	132	160	264	180	140	256	216	15	12			89	
40-200	7.5	132S	100	132	180	316	180	140	256	216	15	12			76	
	11.0	132S	100	132	180	316	180	140	256	216	15	12			95	
	15.0	160M	100	160	180	316	256	210	300	254	18	15			108	
50-125	18.5	160L	100	160	180	316	300	254	300	254	18	15		125		
	7.5	132S	100	132	160	264	180	140	256	216	15	12		50 (65)	65 (80)	74
	7.5	132S	100	132	180	288	180	140	256	216	15	12				72
	11.0	132S	100	132	180	288	180	140	256	216	15	12				91
	15.0	160M	100	160	180	288	256	210	300	254	18	15				104
18.5	160L	100	160	180	288	300	254	300	254	18	15	121				
50-200	11.0	132S	100	132	200	316	180	140	256	216	15	12	80 (100)	65 (80)	98	
	15.0	160M	100	160	200	316	256	210	300	254	18	15			111	
	18.5	160L	100	160	200	316	300	254	300	254	18	15			128	
	22.0	160L	100	160	200	316	300	254	300	254	18	15			149	
65-125	7.5	132S	100	132	180	288	180	140	256	216	15	12	80 (100)		65 (80)	77
	7.5	132S	100	132	200	308	180	140	256	216	15	12				77
	11.0	132S	100	132	200	308	180	140	256	216	15	12				96
	15.0	160M	100	160	200	308	256	210	300	254	18	15				109
	18.5	160L	100	160	200	308	300	254	300	254	18	15				126
65-160	22.0	160L	100	160	200	308	300	254	300	254	18	15	147			
	11.0	132S	100	132	225	348	180	140	256	216	15	12	80 (100)	65 (80)	103	
	15.0	160M	100	160	225	348	256	210	300	254	18	15			116	
	18.5	160L	100	160	225	348	300	254	300	254	18	15			133	
	18.5	160L	100	160	225	348	300	254	300	254	18	15			133	
22.0	160L	100	160	225	348	300	254	300	254	18	15	154				

Dimensions depend on housing size (DN_s, DN_d, a₁, h₂), see table of connections on page 36.

- (1) Motor dimensions depend on make, max. size for basic design given.
- (2) Flange dimensions are according to DIN EN 1092-1 (DIN 2632). Nominal diameter in parenthesis are available on request.
- (4) Largest diameter of pump without motor.

Further product documentation

In addition to printed data booklets, Grundfos offers product documentation in WebCAPS.

WebCAPS

WebCAPS is a **Web-based Computer Aided-Product Selection** program and a web-version of WinCAPS.

Available on Grundfos' homepage, www.grundfos.com, WebCAPS offers

- detailed technical information
- dimensional drawings of each pump
- wiring diagrams of each pump.

Click **Catalogue** and select a product from the extensive product catalogue.

Click **Replacement** and select the right replacement pump based on the current installation.

Click **Literature** to select and download Grundfos documentation by browsing the product ranges or performing a specific search. The literature includes:
- Data booklets
- Installation and operating instructions
- Service instructions.

Click **Product search** and select a product from the extensive product catalogue.

Click **Service** to find information on service kits and spare parts.

If you are a registered user click **Log in to:**
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- Default units
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- US units.

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WebCAPS

Fig. 36 WebCAPS

WebCAPS



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