

MPN

NORMAL PRIMING MAGNETIC DRIVE
CENTRIFUGAL PUMPS PVDF OR PP



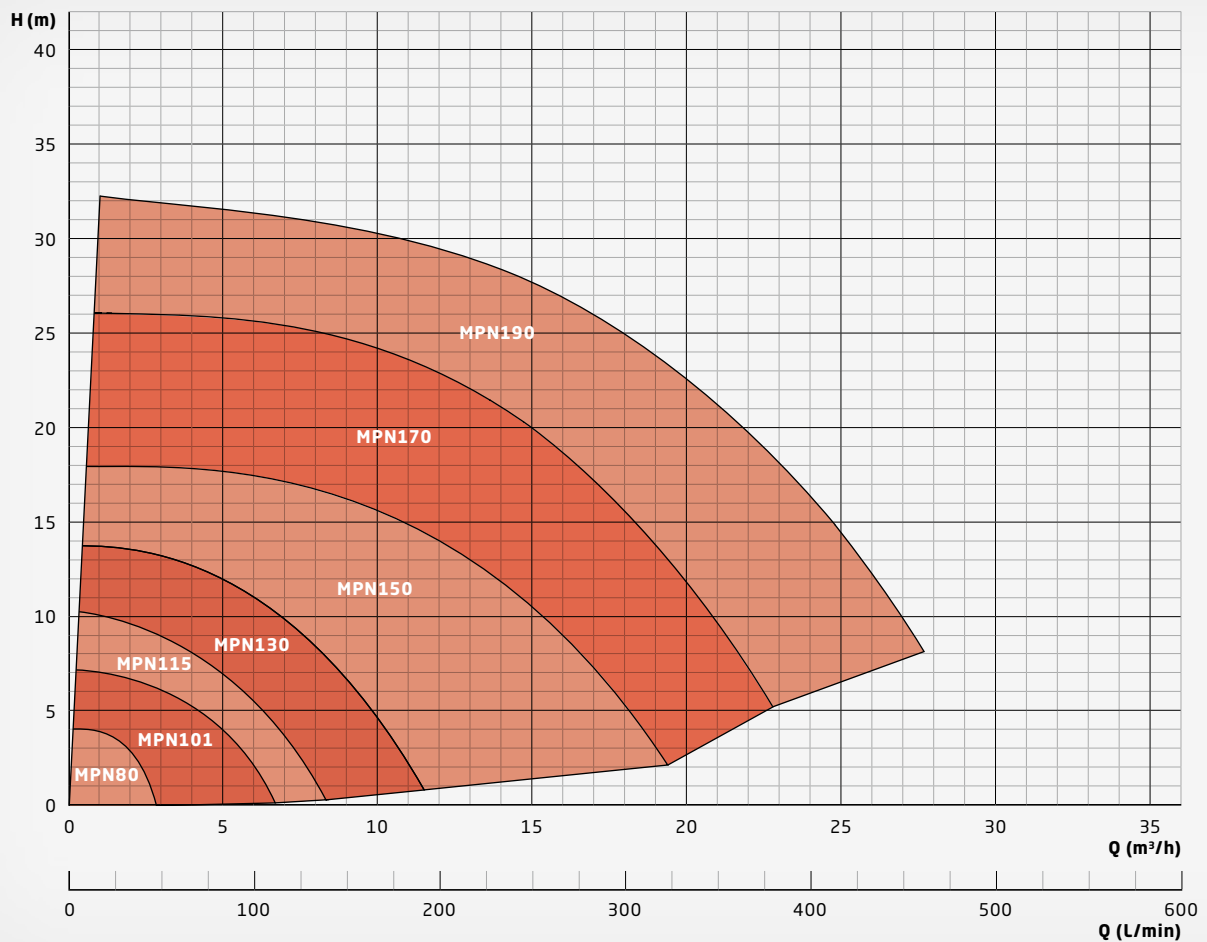
MPN

Normal priming, magnetic drive centrifugal pumps

- Housing and impeller materials:** PVDF, PP
Elastomers: EPDM, FKM (e. g. Viton®), FEP, FFKM (e. g. Kalrez®)
Bushing materials: PTFE-GF, Al₂O₃-ceramics, SiC (silicon carbide), graphite carbon

The MPN series is one of the most proven plastic magnetic drive pumps in the industry. Having been continuously improved over the decades, there are some ten thousand MPN pumps in use worldwide. The MPN series features a contact- and abrasion-free magnetic drive system, so that no mechanical seal is required to seal the pump.

PERFORMANCE CHART



Advantages:

- + Hermetically sealed and absolutely leak-free (no mechanical seal)
- + Particularly suited for toxic, environmentally harmful and corrosive media
- + Runs in partial dry run conditions due to large diameter slide bearings

Solid particles up to 3 mm in size and 10% volume are allowed. The maximum viscosity is 150 mPas; the maximum allowed temperature is 95°C. All sizes are also available in ATEX-certified versions under the name MPN-EX for ATEX zones 1 and 2.





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DESCRIPTION

Characteristics	Chemical-resistant, single-stage, magnetic drive centrifugal pump
Features	<ul style="list-style-type: none">· Hermetically sealed and absolutely leak-free (no mechanical seal)· Powerful magnetic drive with neodymium magnets· Practically maintenance-free in normal operation due to extra-large slide bearings· Runs in partial dry run conditions due to large diameter PTFE slide bearings - design without impeller shaft· All wet parts made of high-quality, corrosion-resistant plastics (PVDF or PP)· Threaded connections (ISO 228-1) as standard· Optionally available with flanges (from size 130)· Universally applicable, low-noise and compact close-coupled design· Approved for use in explosive atmospheres ATEX zones 1 and 2· Optionally available with housing parts made of conductive plastic with approval for ATEX zone 1· Corrosion-resistant paint finish· All stainless steel screws in 1.4571 (316Ti)· FDA-certified materials (PVDF versions)
Fields of application	<p>Delivery of acids, bases, lye or other corrosive, harmful or toxic liquids in such applications, where even small leakages are not acceptable and a hermetically sealed pump is required.</p> <p>Delivery of highly pure and sensitive liquids, where contamination must absolutely be avoided.</p> <p>For example in the following applications:</p> <ul style="list-style-type: none">· Plating and surface coating· Semiconductor technology and solar cell production· PCB and electronics manufacturing· Wastewater and fresh water treatment· Laboratory equipment and medical technology,· Emission controls and gas scrubbers· Battery production and energy storage· High-purity applications, demineralized water, ultrapure water

TYPES

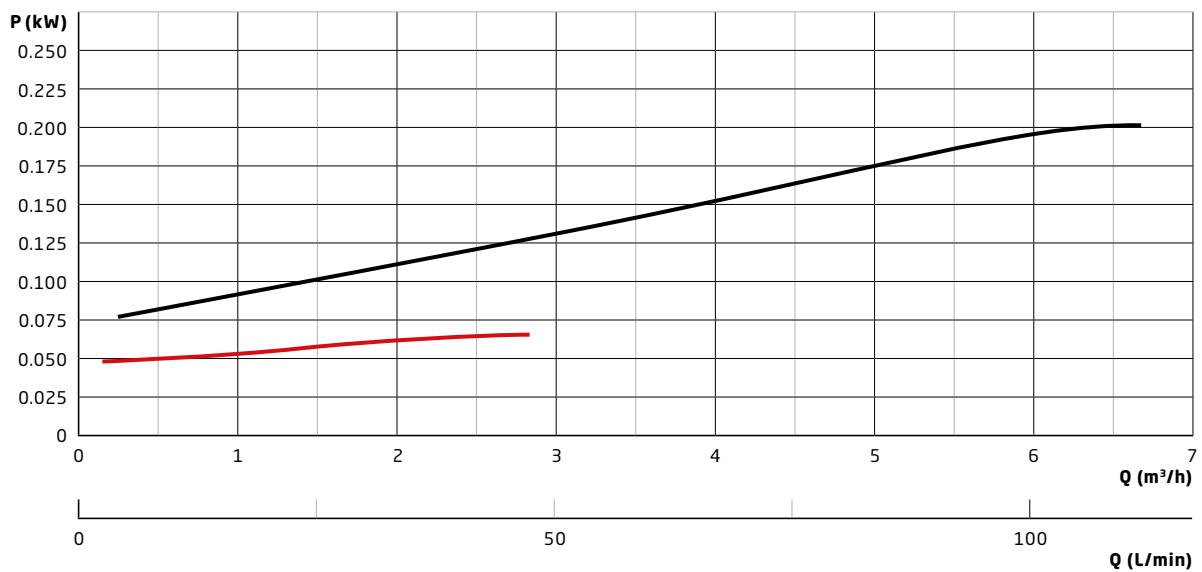
Characteristics	<ul style="list-style-type: none"> · Pump housing / wet end: PVDF, PP · Elastomers: FKM, EPDM, FEP, FFKM · Material of slide bearings: PTFE/Al₂O₃, SiC/SiC
Standard motors (available from stock)	<ul style="list-style-type: none"> · Three-phase motors: D230/Y400 V-3ph @ 50 Hz, D277/Y480 V-3ph @ 60 Hz, IP 55, Ins.-Cl. F, also with PTC · All motors from 0.75 kW have energy efficiency class IE3 · Single-phase motors (up to 1.1 kW: 230 V-1ph, 50 / 60 Hz, IP 55, Isol.-Kl. F) · ATEX-certified motors (temperature rating T3)
Special motors (available on request, for example)	<ul style="list-style-type: none"> · Special voltages and frequencies · ATEX-certified motors (temperature rating T4) · Three-phase motors with integrated drive / frequency converter · Four-pole motors with 1450 rpm @ 50 Hz / 1650 rpm @ 60 Hz · UL- and CSA-certified motors · Special types of protection, e.g. IP 65 · Special insulation classes, e.g. tropical insulation · Multi-voltage, e.g. D220-290/Y380-500 V, 50 Hz; D220-332/Y380-575 V, 60 Hz · Direct-current motors (DC or BLDC)
Operating conditions	<ul style="list-style-type: none"> · Max. flow rate: up to 35 m³/h · Max. delivery head: up to 32 m · Liquid temperature: -5 to 95°C (PVDF), resp. 0 to 80°C (PP) · Ambient temperature: -10 to 40°C, higher temperatures on request · Pumps can be adapted to high-density liquids (up to 2.0) · Depending on operating conditions and pump model, MPN pumps can run dry for certain amounts of time - up to several hours



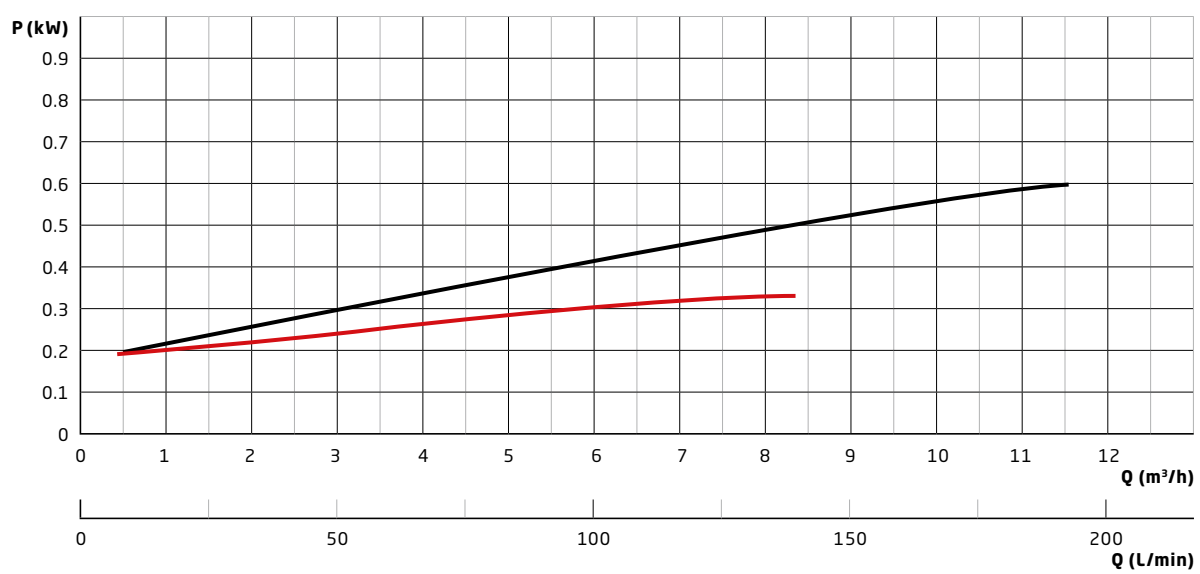
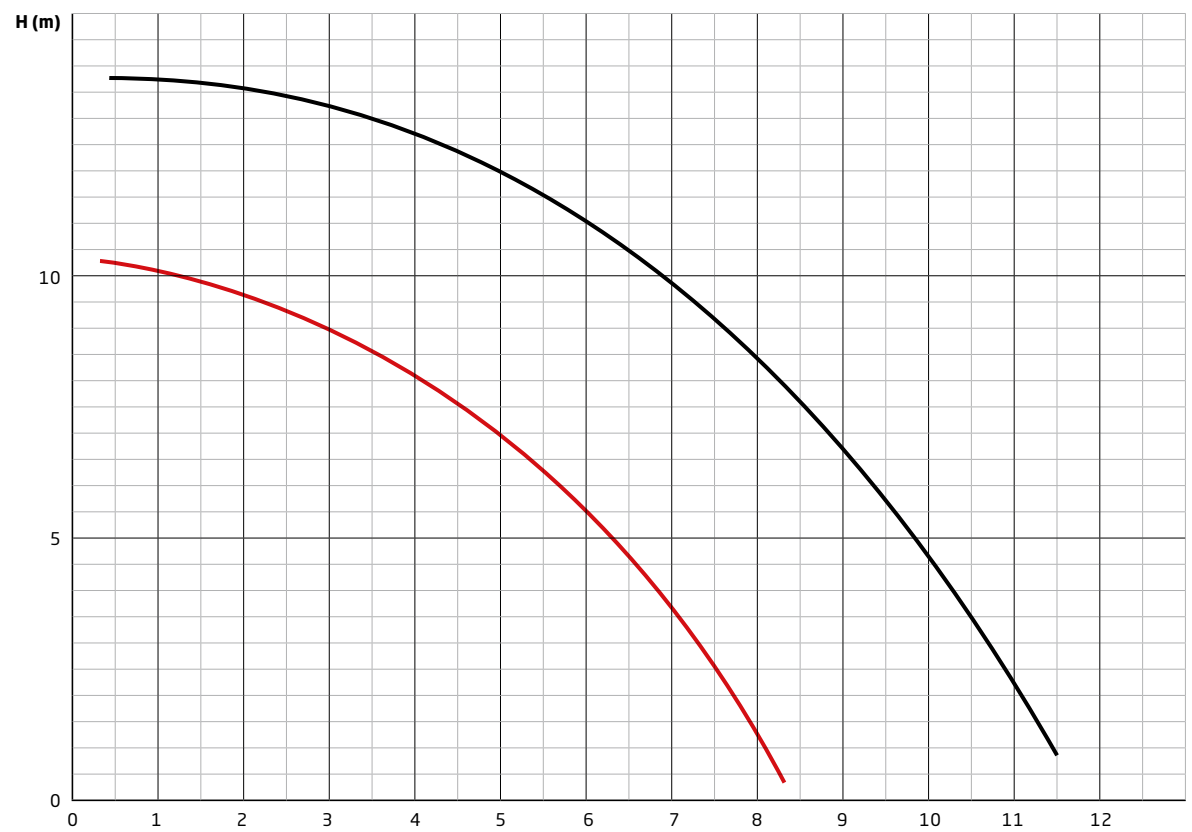
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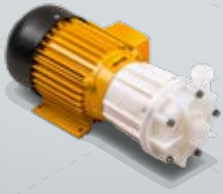
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PERFORMANCE CURVE **MPN 80** (0.18 kW) / **MPN 101** (0.18 kW)



PERFORMANCE CURVE **MPN 115** (0.25 kW) / **MPN 130** (0.55 kW)

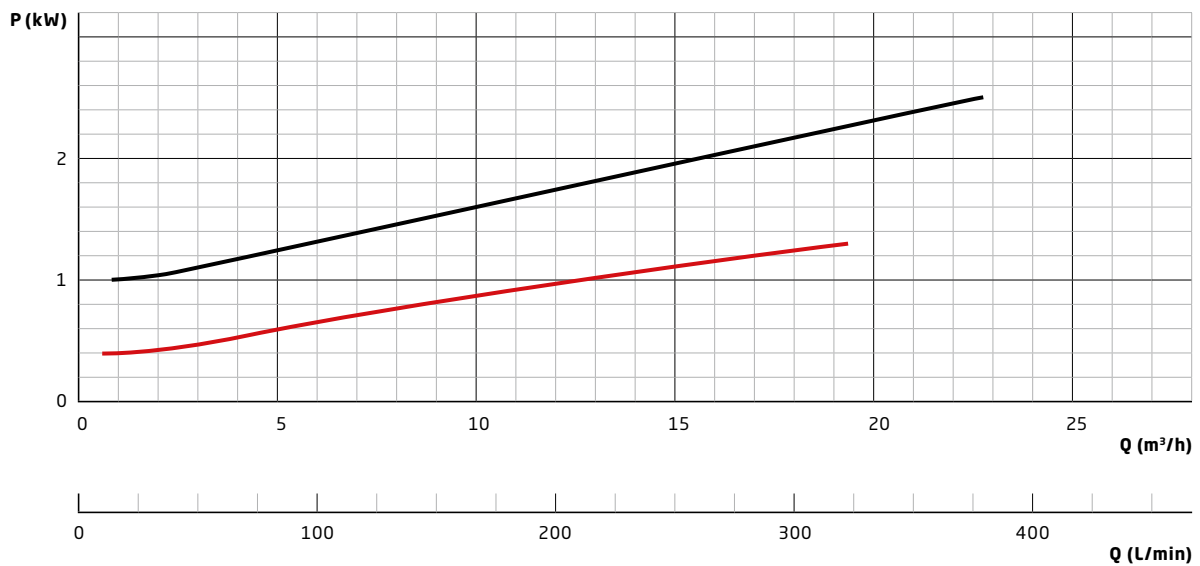
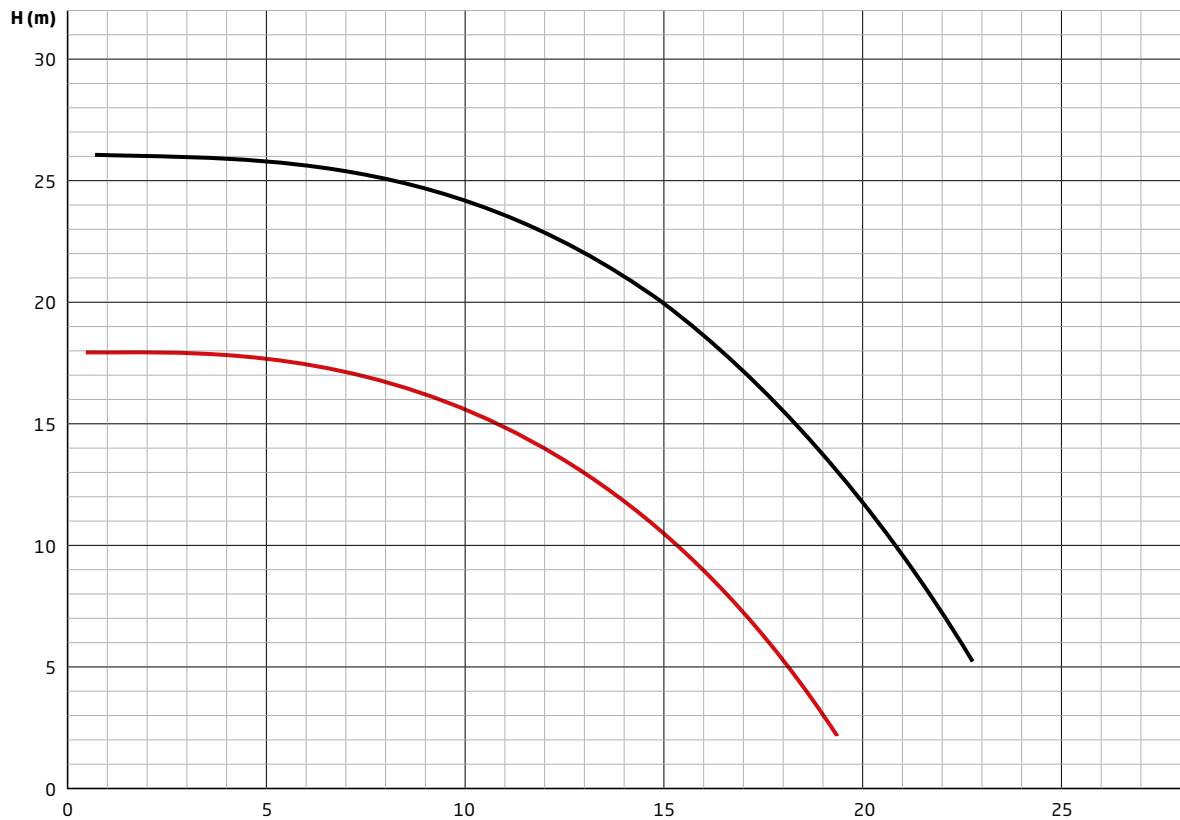




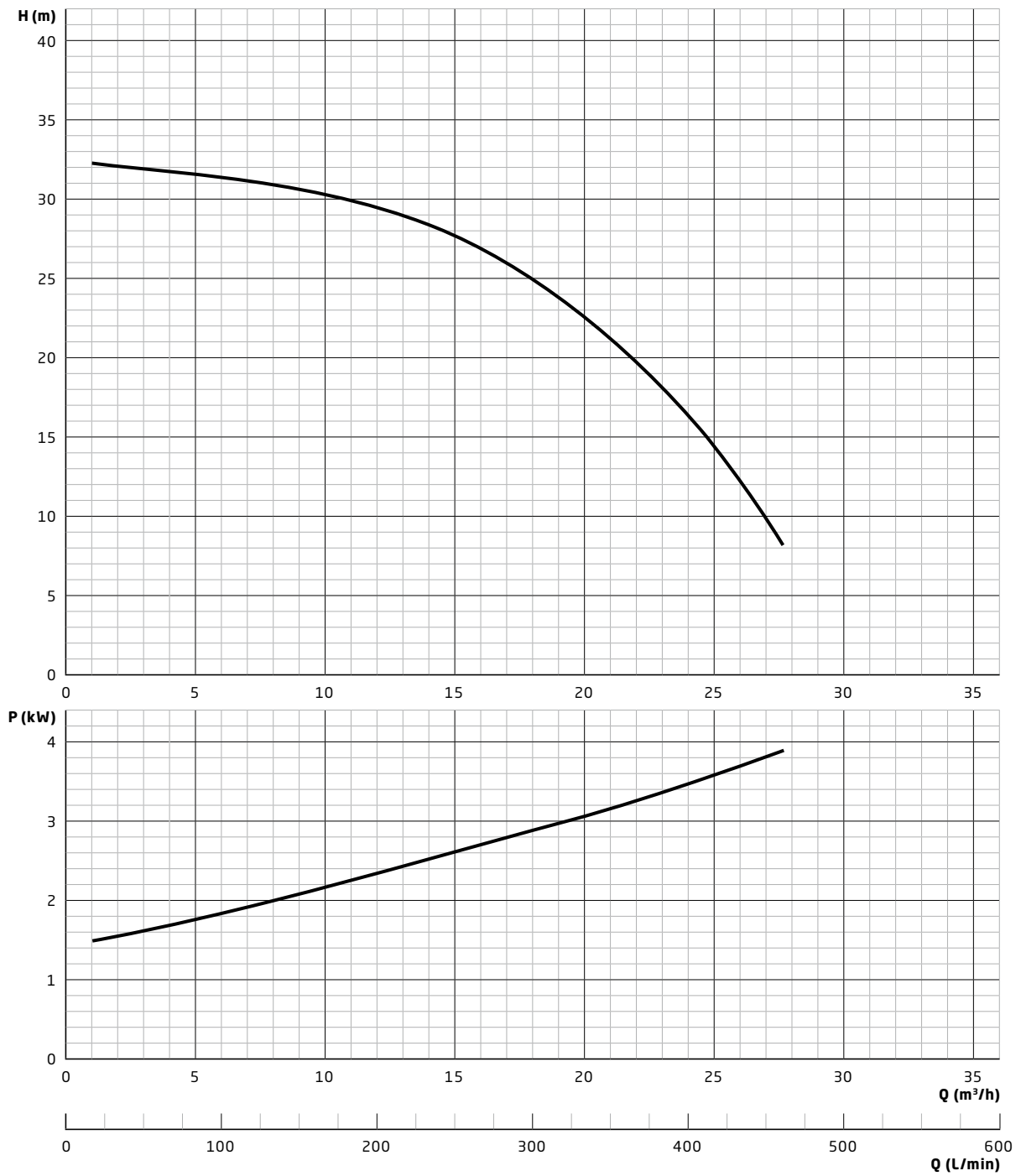
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PERFORMANCE CURVE **MPN 150** (1.1 kW) / **MPN 170** (2.2 kW)



PERFORMANCE CURVE MPN 190 (3.0/4.0kW)

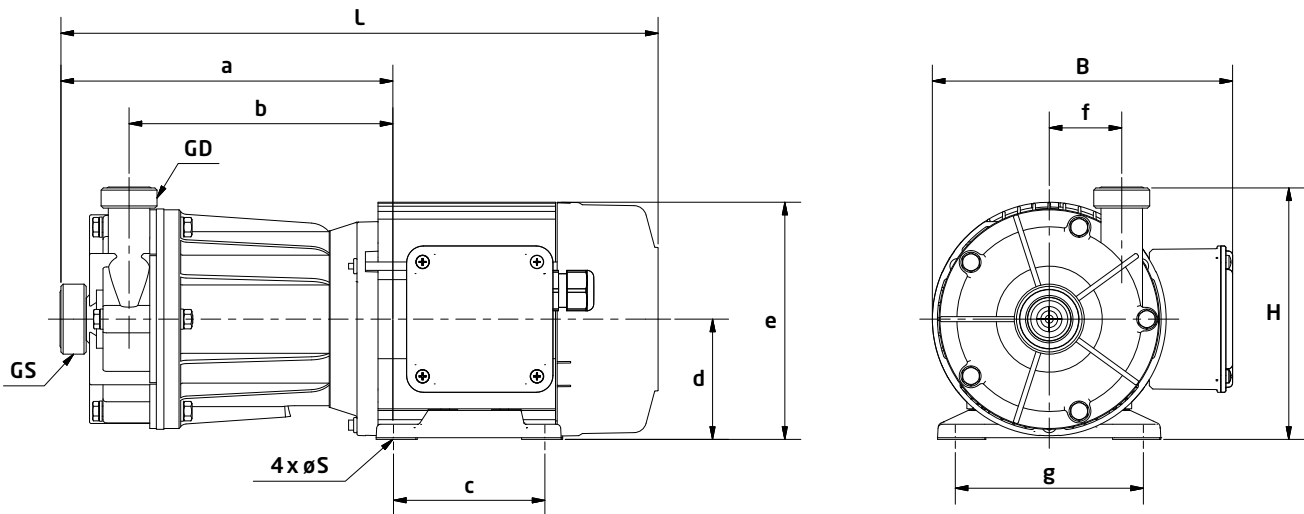




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DIMENSIONS



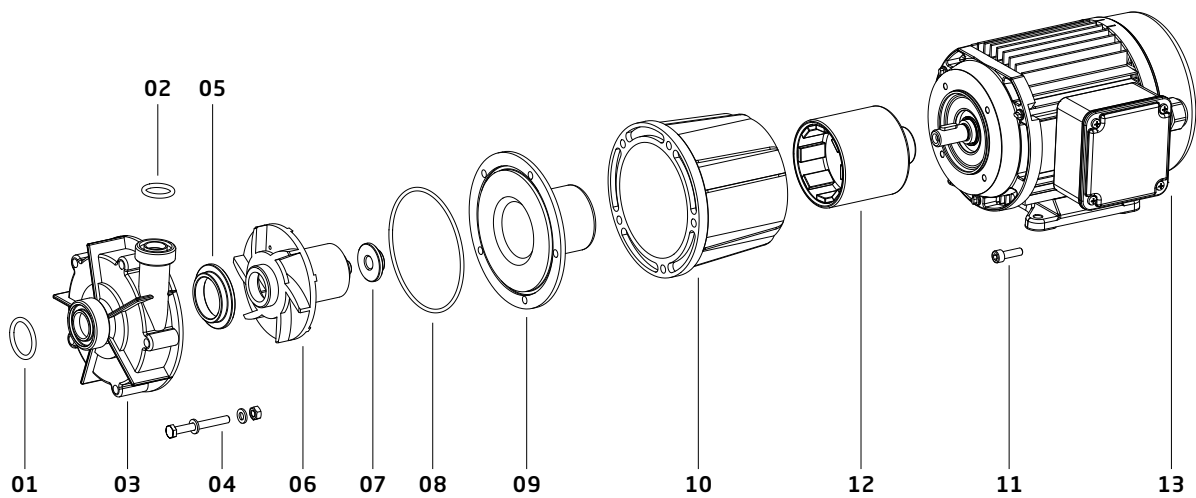
Type	GS		GD		L (mm)	B (mm)	H (mm)	S (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)
	Thread	DN	Thread	DN												
80	G $\frac{3}{4}$ "	10	G $\frac{3}{4}$ "	10	297	152	108	6	157	122	71	56	113	25	90	4
101	G1"	15	G1"	15	301	152	118	6	161	127	71	56	113	31	90	4
115	G1"	15	G1"	15	353.3	165	134	7	184	147	80	63	126	37	100	5
130	G1 $\frac{1}{4}$ "	20	G1"	15	380	183	149	7	197	157	90	71	141	43	112	8
150	G1 $\frac{1}{2}$ "	25	G1 $\frac{1}{4}$ "	20	440.5	209	171	10	230	182	100	80	159	47	125	18
170	G2"	32	G1 $\frac{1}{2}$ "	25	517	230	191	10	278	225	125	90	178	59	140	28
190	G2"	32	G1 $\frac{1}{2}$ "	25	547	256	211	12	294	236	140	100	198	66	160	38

FITTINGS

SCHMITT offers an extensive range of fittings to facilitate the installation of the pump into your system:

- flange adaptors
- hose connectors
- welding connectors for stainless steel pipes
- reducers
- NPT threaded adaptors
- inlet strainers for vertical pumps
- extension pipes for vertical pumps

SPARE PARTS LIST



Position	Description	Available materials
01	O-ring (inlet port)	FKM, EPDM, FEP, FFKM
02	O-ring (outlet port)	FKM, EPDM, FEP, FFKM
03	Pump housing incl. slide bearing ring	Housing: PVDF, PP Ring: Ceramics Al ₂ O ₃ , SiC
04	Hexagon bolt, washer, nut	V4A (1.4571)
05	Front bearing	PTFE, SiC
06	Impeller	PVDF, PP
07	Back bearing	PTFE, SiC
08	Housing seal	FKM, EPDM, FEP, FFKM
09	Backplate incl. slide bearing ring	Housing: PVDF, PP Ring: Ceramics Al ₂ O ₃ , SiC
10	Flange	PP, aluminium
11	Cylinder bolt	V4A (1.4571)
12	Drive magnet	
13	Motor	



SCHMITT-Kreiselpumpen GmbH & Co. KG

Einsteinstraße 33

76275 Ettlingen, Germany

Fax: +49 7243 5453-22

E-mail: sales@schmitt-pumpen.de

Direct line:

Telephone: +49 7243 5453-0

www.schmitt-pumpen.de

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