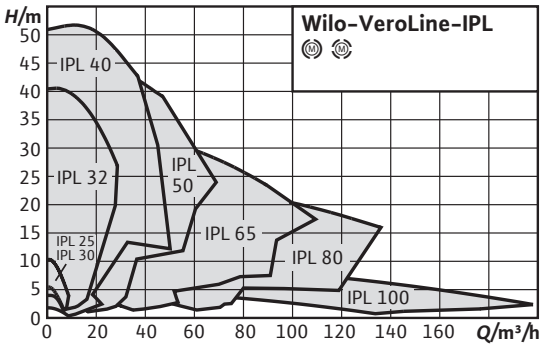
Series description: Wilo-VeroLine-IPL

ErP READY – APPLIES TO EUROPEAN DIRECTIVE FOR ENERGY RELATED PRODUCTS



Design
Glanded pump in in-line design with threaded connection or flange connection

Application
For pumping heating water (in accordance with VDI 2035), water-glycol mixtures and cooling and cold water without abrasive substances in heating, cold water and cooling water systems

Type key

Example	IPL 40/160-4/2
IPL	In-line pump
40	Nominal diameter DN of the pipe connection
160	Nominal impeller diameter
4	Rated motor power P_2 in kW
2	Number of poles

Special features/product advantages
- High-efficiency motors as standard; from 0.75 kW nominal motor power: motors with IE2 technology
- High corrosion protection thanks to cataphoretic coating
- Standard condensate drainage holes in the motor housings and lanterns
- Series version: Motor with one-piece shaft
- Version N: Standard motor B5 or V1 with stainless steel plug shaft
- Bidirectional mechanical seal with forced flushing
- Easy to install due to feet with threaded holes on pump housing

Technical data
- Permissible temperature range -20 °C to +120 °C
- Mains connection 3~400 V, 50 Hz (others on request)
- Protection class IP 55
- Nominal diameter Rp 1 to DN 100
- Max. operating pressure 10 bar (special version: 16 bar)

Description/design
Single-stage, low-pressure centrifugal pump in in-line design with
- Mechanical seal
- Flange connection with pressure measuring connection R $^1/_8$
- Motor with one-piece shaft

Materials
- Pump housing and lantern: EN-GJL-250
- Impeller: PPO fibreglass-reinforced ENGJL200 (depending on pump type)
- Shaft: 1.4021
- Mechanical seal: AQEGG; other mechanical seals on request

Scope of delivery
- Pump
- Installation and operating instructions

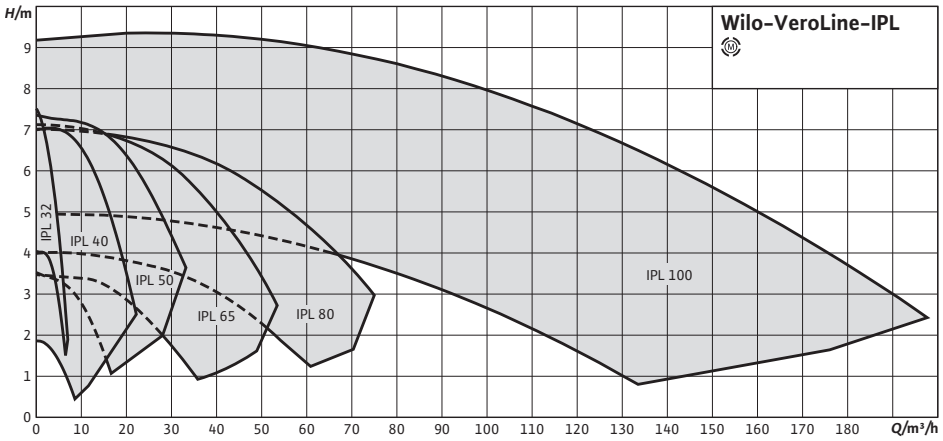
Options
- H4 variant with PN6/10 flanges (at additional charge)
- H5 variant with PN16 housing (at additional charge)
- Motors with efficiency class IE3, other voltages and frequencies, as well as ATEX approval on request

Accessories
- Mounting brackets for installation on a base
- PTC thermistor sensor, PTC resistor tripping relay
- Special motors
- Special mechanical seals
- Control systems CC-HVAC, VR-HVAC and switchgear

General notes – ErP (ecological design-) directive
- The benchmark for most efficient water pumps is MEI ≥ 0.70
- The efficiency of a pump with a trimmed impeller is usually lower than that of a pump with the full impeller diameter. The trimming of the impeller will adapt the pump to a fixed duty point, leading to reduced energy consumption. The minimum efficiency index (MEI) is based on the full impeller diameter.
- The operation of this water pump with variable duty points may be more efficient and economic when controlled, for example, by the use of a variable speed drive that matches the pump duty to the system.
- Information on benchmark efficiency is available at www.europump.org/efficiencycharts

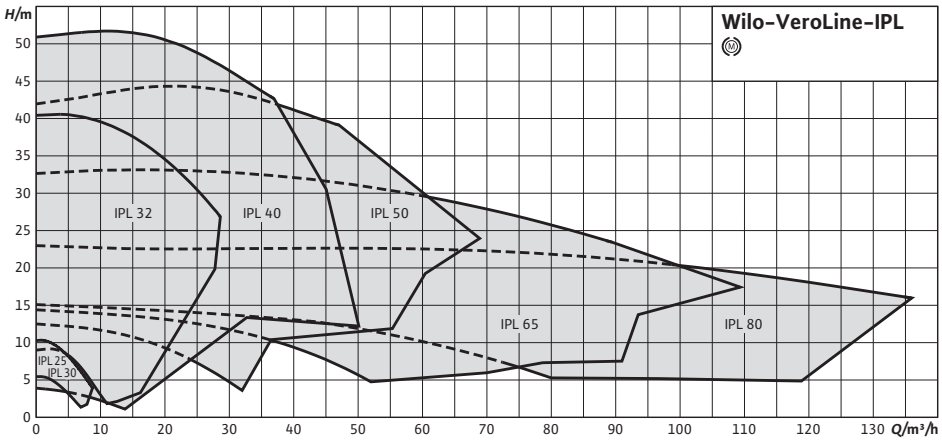
Duty chart: Wilo-VeroLine-IPL

Wilo-VeroLine-IPL (4-pole)



Duty chart: Wilo-VeroLine-IPL

Wilo-VeroLine-IPL (2-pole)



Technical data: Wilo-VeroLine-IPL

Approved fluids (other fluids on request)		
Heating water (in accordance with VDI 2035)		•
Water-glycol mixtures (for 20-40 vol.% glycol and fluid temperature ≤ 40 °C)		•
Cooling and cold water		•
Heat transfer oil		Special version at additional charge
Permitted field of application		
Standard version for operating pressure	p_{max}	10 bar
Special version for operating pressure	p_{max}	16 bar
Temperature range at max. ambient temperature +40 °C		-10...+120 °C (depending on the fluid)
Max. ambient temperature		40 °C
Installation in closed buildings		•
Outdoor installation		Special version at additional charge
Pipe connections		
Threaded connection		–
Nominal connection diameters DN		32 -100
Flanges (according to EN 1092-2)		PN 10 (PN 16 on request)
Flange with pressure-measurement connections		R $^{1}/_{8}$
Materials		
Pump housing		EN-GJL-250
Lantern		EN-GJL-250
Impeller		PPO-GF30
Impeller (special version)		–
Pump shaft		1.4021
Mechanical seal		AQEGG
Other mechanical seals		On request
Electrical connection		
Mains connection		3~400 V, 50 Hz
Nominal speed	n	1450/2900 rpm
Motor/electronics		
Integrated full motor protection		Special version with PTC thermistor sensor (KLF) at additional charge
Protection class		IP 55
Insulation class		F
Speed control		Wilo control system
Motor winding up to 3 kW		230 V Δ/400 V Y, 50 Hz
Motor winding from 4 kW		400 V Δ/690 V Y, 50 Hz
Installation options		

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Pipe installation (≤ 15 kW motor power)	•
Support-bracket mounting	•