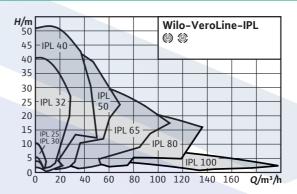


Series description: Wilo-VeroLine-IPL





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 <mark>4/2</mark>
IPL	In-line pu <mark>mp</mark>
40	Nominal diameter DN of the pipe connection
160	Nominal im <mark>peller diameter</mark>
4	Nominal 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 $^{1}/_{Q}$
- 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 ٠

Scope of delivery • Pump

Installation and operating instructions

Options

- Available in following designs as standard with 2-pole motors 3~400 V (n = 2900 rpm)
- with 4-pole motors 3~400 V (n = 1450 rpm)

Accessories

- Brackets for installation on a base
- PTC thermistor sensors, PTC resistor tripping relays, special motors
- Special mechanical seals .
- Control systems CR, CRn, CC-HVAC, VR-HVAC and switchgears

General notes – ErP (ecological design–) directive • The benchmark for most efficient water pumps is MEI \ge 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

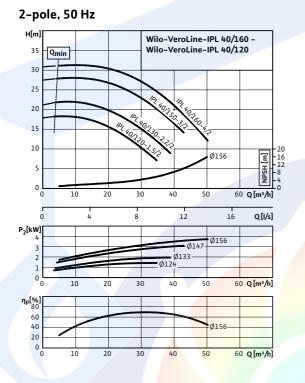
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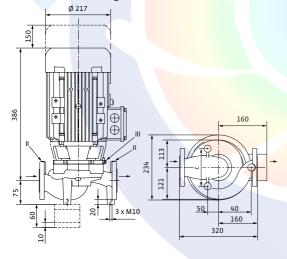


Data sheet: Wilo-VeroLine-IPL 40/150-3/2

Pump curves







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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 10 bar p_{max} pressure Temperature range at max. ambient -20...+120 °C temperature +40 °C 40 °C Max. ambient temperature Installation in closed buildings • **Pipe connections** DN 40 Nominal flange diameter Flanges (according to EN 1092-2) PN 10 (PN 16 on request) Flange with pressure-measurement $R^{1}/_{8}$ connections Materials Pump housing EN-GJL-250 EN-GJL-250 Lantern PPO-GF30 Impeller Pump shaft 1.4021 Mechanical seal AQEGG **Electrical connection** Mains connection 3~400 V, 50 Hz 2900 rpm Nominal speed п Motor/electronics Minimum Efficiency Index (MEI) ≥ 0.1 Integrated full motor protection Special version with PTC thermistor sensor (KLF) at additional charge IP 55 Protection class Insulation class F Nominal current (approx.) I_N 3~40 6.050 A 0 V Efficiency 0.846 η_{M}

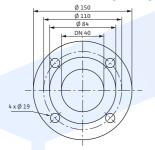
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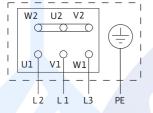


Data sheet: Wilo-VeroLine-IPL 40/150-3/2

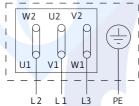
Dimension drawing, flange



Terminal diagram Star switching Y



Terminal diagram Delta switching Δ



Motor protection switch required onsite. Check the direction of rotation! To change the direction of rotation, swap any two phases.

$P_2 \le 3 \text{ kW}$	3~400 V Y	
	3~230 V ∆	
$P_2 \ge 4 \text{ kW}$	3~690 V Y	
	3~400 V ∆	

After removing the bridges, a $Y-\Delta$ start is possible.

Power factor	cos	0.84			
	φ	0.84			
Motor efficiency	n				
Motor entency	η_m				
	_{50%} /η m	82.5/84.9/84.6 %			
	_{75%} /η				
	m 100%				
Nominal motor power P2		3 kW			
Installation options					
Pipe installation (≤ 15 kW motor					
power)	•				
Information for order placements					
Weight approx.	т	37.60 kg			
Make		Wilo			
Make					
Туре		VeroLine-IPL 40/1	50-3/2		
Art no.	2089588				
Observe motor name plate data					

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تاسیسات مکانیکی (موتورخانه – استخر) تهویه و تخلیه دود سیستمهای پمپاژ ایمنی معماری اعلام حریق اطفاء حریق

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سرمایش و گرمایش موتورخانه نرمافزار فنی و مهندسی استخر، سونا و جکوزی سیستمهای پمپاژ

> تهــران، سعـدی شمـالـی، خیابان مـرادی نور، پـلاک ۳۱ تلفن: ۷۷۶۸۶۹۶۶ م۲۱–۷۱ فکس: ۷۷۶۸۶۹۶۹۶ ۲۰۰ EDUPUMP.IR WWW.EDUPUMP.IR