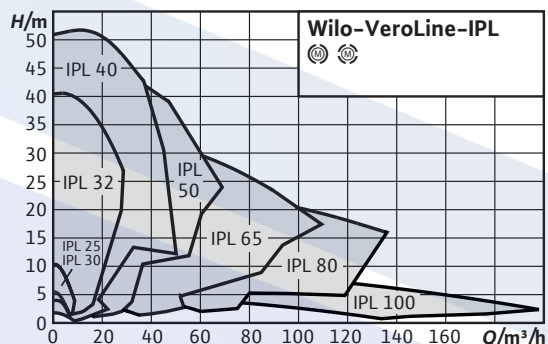


## Series description: Wilo-VeroLine-IPL



### 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 40/1604/2
<b>IPL</b>	In-line pump
<b>40</b>	Nominal diameter DN of the pipe connection
<b>160</b>	Nominal impeller diameter
<b>4</b>	Nominal motor power $P_2$ in kW
<b>2</b>	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  $-20\text{ °C}$  to  $+120\text{ °C}$
- 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  $R\frac{1}{8}$
- 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

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

### 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

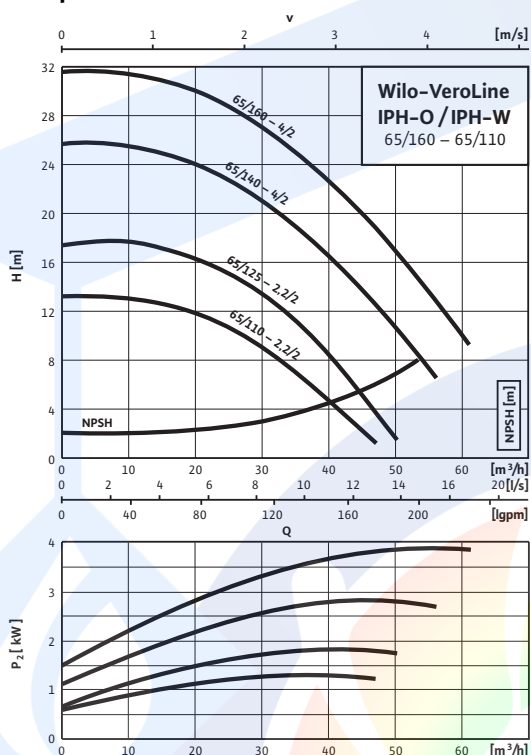
### General notes – ErP (ecological design-) directive

- The benchmark for most efficient water pumps is  $MEI \geq 0.70$
- 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](http://www.europump.org/efficiencycharts)

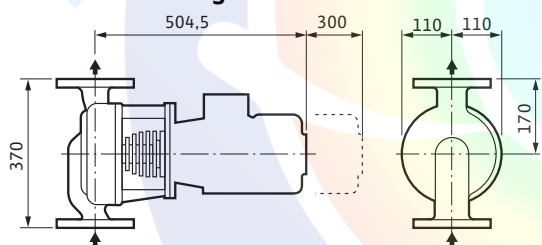
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## Data sheet: Wilo-VeroLine-IPH-O 65/110-2.2/2

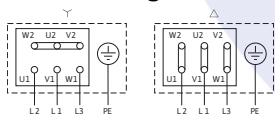
### Pump curves



### Dimension drawing



### Terminal diagram



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

After removing the bridges, Y-Δ start is possible.

### 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)	on request
Cooling and cold water	•
Heat transfer oil	Up to +350 °C

### Permitted field of application

Standard version for operating pressure	$p_{max}$	Heat transfer oil: 9 bar
Temperature range at max. ambient temperature +40 °C		-10...+350 °C
Max. ambient temperature		+40 °C
Installation in closed buildings		•

### Pipe connections

Nominal flange diameter	DN 65
Flanges (according to EN 1092-2)	PN 25
Flange with pressure-measurement connections	-

### Materials

Pump housing	1.0625
Lantern	EN-GJS-400-15
Impeller	EN-GJL-250
Pump shaft	1.4005 [AISI416]
Mechanical seal	AQ1VGG
Other mechanical seals	On request

### Electrical connection

Mains connection	3~400 V, 50 Hz
Nominal speed	$n$ 2850 rpm

### Motor/electronics

Integrated full motor protection	Special version with PTC thermistor sensor (KLF) at additional charge
Protection class	IP 55
Insulation class	F
Efficiency	$\eta_M$ 0.82
Power factor	$\cos \varphi$ 0.88
Motor winding up to 3 kW	230 V Δ/400 V Y, 50 Hz

## Data sheet: Wilo-VeroLine-IPH-O 65/110-2.2/2

### Information for order placements

Weight approx.	m	43.6 kg
Make	Wilo	
Type	VeroLine-IPH-O 65/110-2.2/2	
Art no.	2105778	

Observe motor name plate data

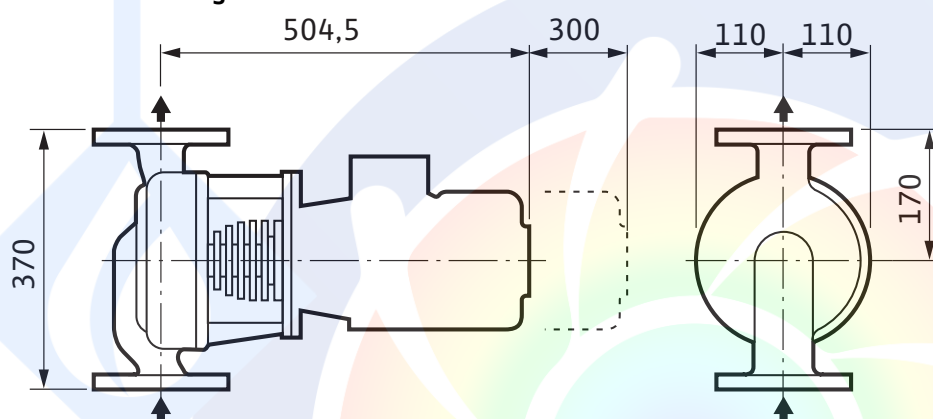
Motor winding from 4 kW 230 V Δ/400 V Y, 50 Hz

### Installation options

Pipe installation (≤ 15 kW motor power)	with horizontal shaft only
Support-bracket mounting	-

## Dimensions and dimension drawings: Wilo-VeroLine-IPH-O 65/110-2.2/2

### Dimension drawing



## Ordering information: Wilo-VeroLine-IPH-O 65/110-2.2/2

### Information for order placements

Make	Wilo	
Type	VeroLine-IPH-O 65/110-2.2/2	
Art no.	2105778	
EAN number	4048482091471	
Colour	Silver	
Minimum order quantity	1	
Minimum order quantity unit	PCE	
Weight (net)	kg	43.6
Length (net)	mm	559.5
Width (net)	mm	220
Height (net)	mm	370
Weight (gross)	kg	45.1
Length (gross)	mm	585
Width (gross)	mm	300
Height (gross)	mm	380
Packaging type	Cardboard box	



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## اولین و بزرگترین

سایت تخصصی سیستم‌های پمپاژ  
با امکان محاسبه آنلاین و انتخاب پمپ

## تولید بوستر پمپ آتش نشانی

در کلاس‌های S3 - S2 - S1  
مورد تایید سازمان آتش نشانی تهران



اولین و بزرگترین مرجع انتخاب آنلاین سیستم‌های پمپاژ

انتخاب آنلاین انواع بوستر پمپ

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صنعت  
معدن



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## آموزش

## مشاوره - طراحی - اجراء

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

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استخر، سونا و جکوزی  
سیستم‌های پمپاژ

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