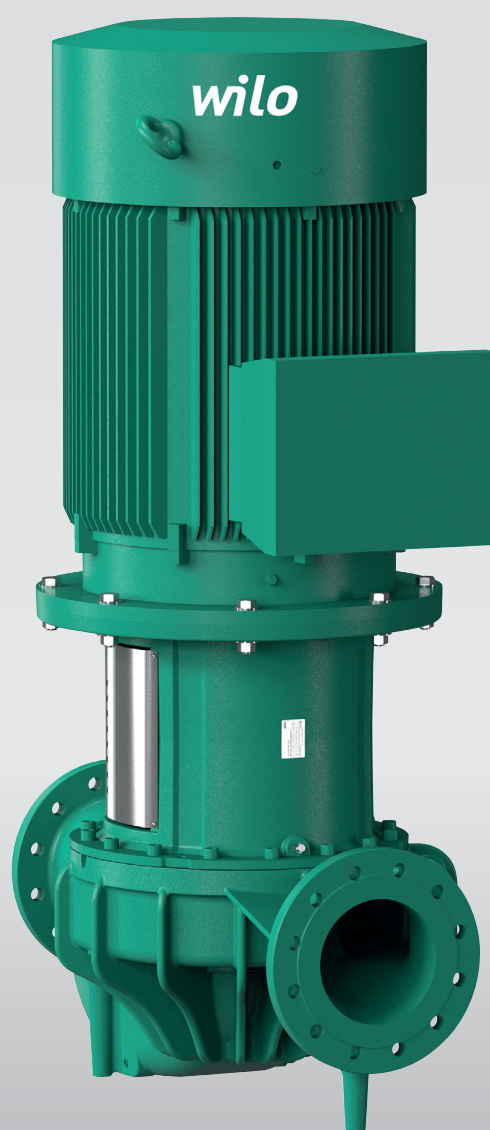


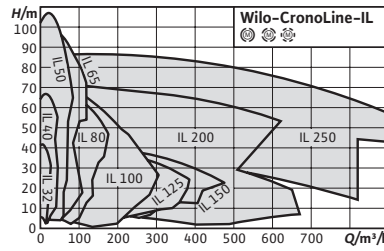
Pioneering for You

**wilo**

*Range leaflet - Edition 03/2017 - 50 Hz*

## **Wilo-CronoLine-IL**





**Accessories**

- Brackets for installation on a base
- PTC thermistor sensor, PTC resistor tripping relay
- Special motors
- Special mechanical seals
- SC-HVAC, CC-HVAC control systems and switchgears

Series extension



**Wilo-CronoLine-IL**



**Design**

Glanded pump in in-line design with flange connection

**Application**

Pumping of heating water (acc. to VDI 2035), cold water and water/glycol mixtures without abrasive substances in heating, cold water and cooling systems.

**Type key**

- Example **IL 40/160-4/2**
- IL** 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**

- Reduced life cycle costs thanks to optimized efficiency
- Standard condensate drainage holes in the motor housings
- Can be used flexibly in air-conditioning and cooling systems, with application benefits due to direct draining of condensate via optimised lantern design (patented)
- High standard of corrosion protection thanks to cathaphoretic coating
- High worldwide availability of standard motors (according to Wilo specifications) and standard mechanical seals

Technical data (series)	
Minimum Efficiency Index (MEI)	≥ 0.4
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 $p_{max}$	13 bar (up to +140 °C) / 16 bar (up to +120 °C)
Special version for operating pressure $p_{max}$	25 bar
Temperature range at max. ambient temperature +40 °C	-20...+140 °C (depending on the fluid)

• = appropriate, - = not appropriate

Technical data (series)	
Ambient temperature	-15°C ... 40°C
Installation in closed buildings	•
Outdoor installation	Special version at additional charge
Electrical connection	
Mains connection	3~400 V, 50 Hz (others on request)
Motor/electronics	
Integrated full motor protection	Special version with PTC thermistor sensor (KLF) at additional charge
Protection class	IP 55
Insulation class	F

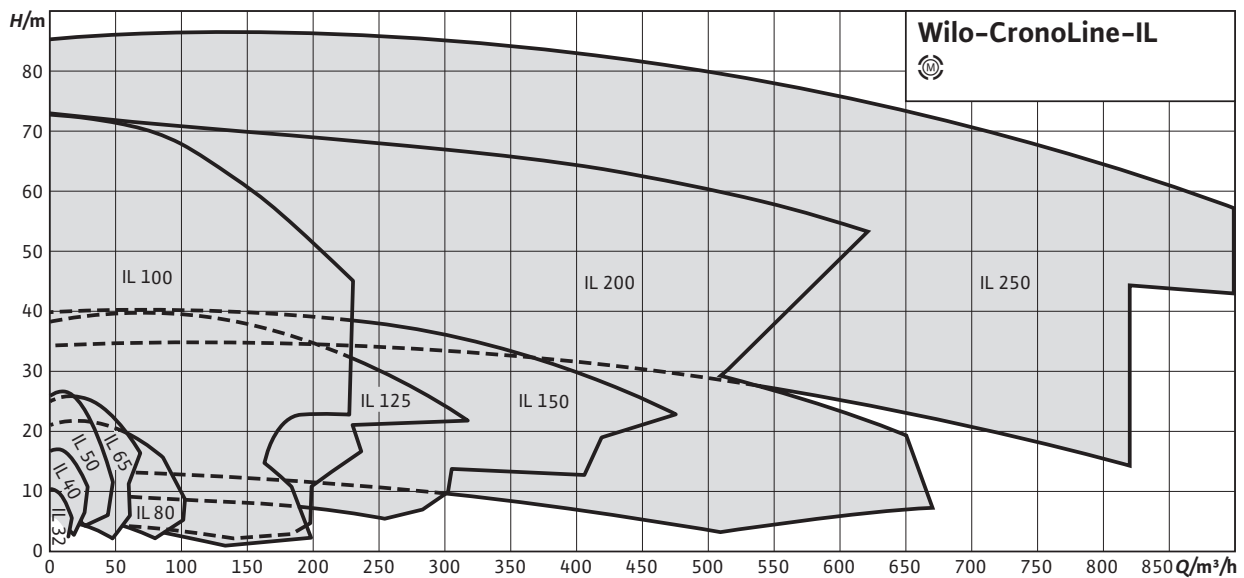
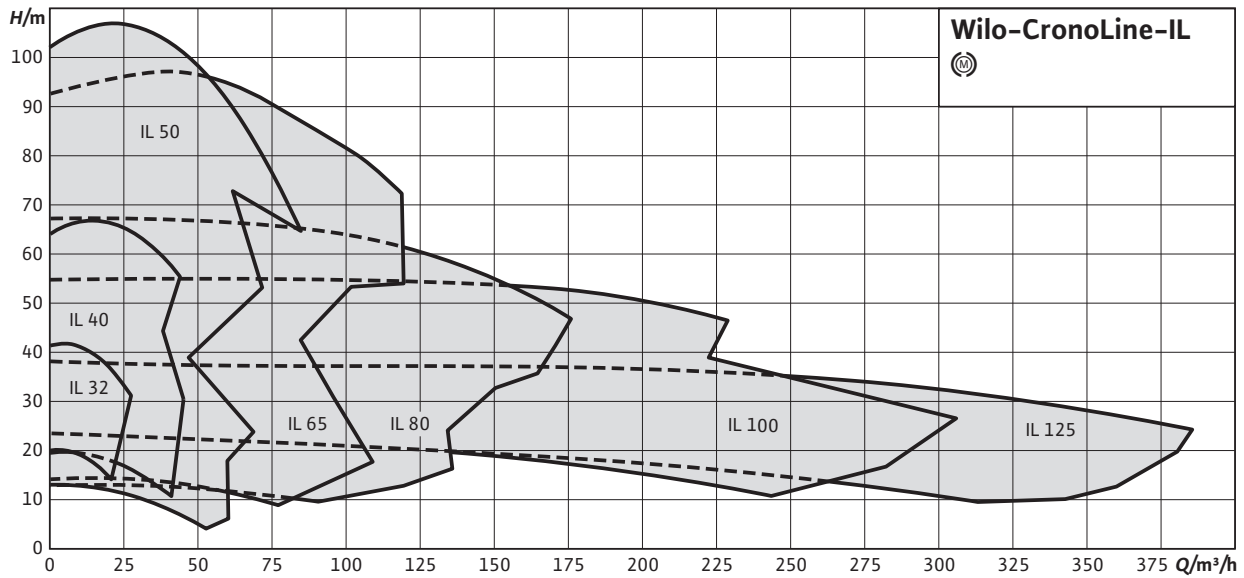
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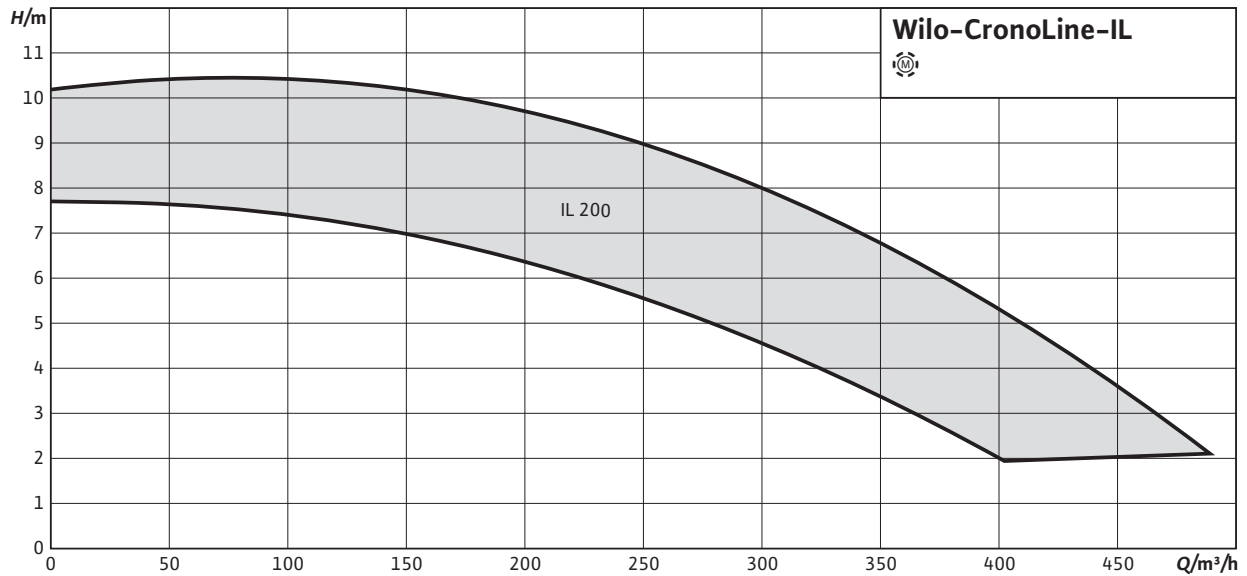
Technical data (series)	
Pipe installation ( $\leq 15$ kW motor power)	•
Support-bracket mounting	•
Materials	
Pump housing	EN-GJL-250

• = appropriate, - = not appropriate

Technical data (series)	
Lantern	EN-GJL-250
Impeller	EN-GJL-200
Pump shaft	1.4122
Mechanical seal	AQEGG
Other mechanical seals	On request

• = appropriate, - = not appropriate





**Scope of delivery**

- Pump
- Installation and operating instructions

**Options**

- ...-L1 variant with bronze impeller (at additional charge)
- ...-H1 variant with housing made of spheroidal cast iron (at additional charge)
- ...-P4 variant for maximum operating pressure of 25 bar (see Wilo price list)
- 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
- SC-HVAC, CC-HVAC control systems and switchgears

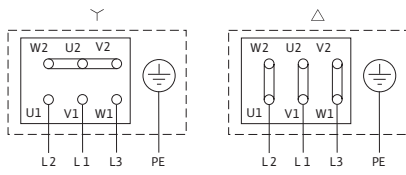
**Note**

- Motors with an energy efficiency class of IE3 for motors ≥ 0.75 kW

**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](http://www.europump.org/efficiencycharts)
- Pumps with power consumption > 150 kW or a volume flow  $Q_{BEP} < 6 \text{ m}^3/\text{h}$  are not subject to the Ecodesign Directive for water pumps. Therefore, no MEI value is shown.

Terminal diagram



Δ: Connection diagram delta connection  
Y: Connection diagram star connection

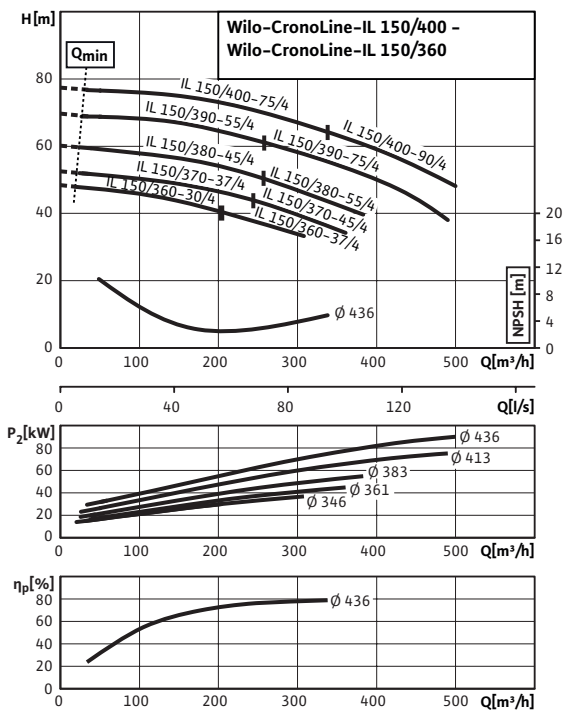
Motor protection switch required on-site. Check the direction of rotation! To change the direction of rotation, exchange any two phases.

$P_2 \leq 3 \text{ kW}$	3~400 V Y
	3~230 V Δ
$P_2 \geq 4 \text{ kW}$	3~690 V Y
	3~400 V Δ

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

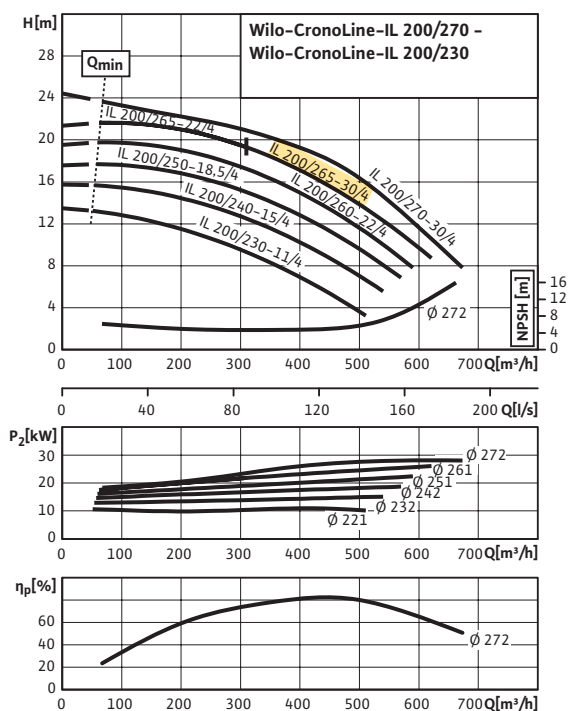
Pump curves

CronoLine-IL 150/360-30/4 - 150/400-90/4 (4-pole, 50 Hz)

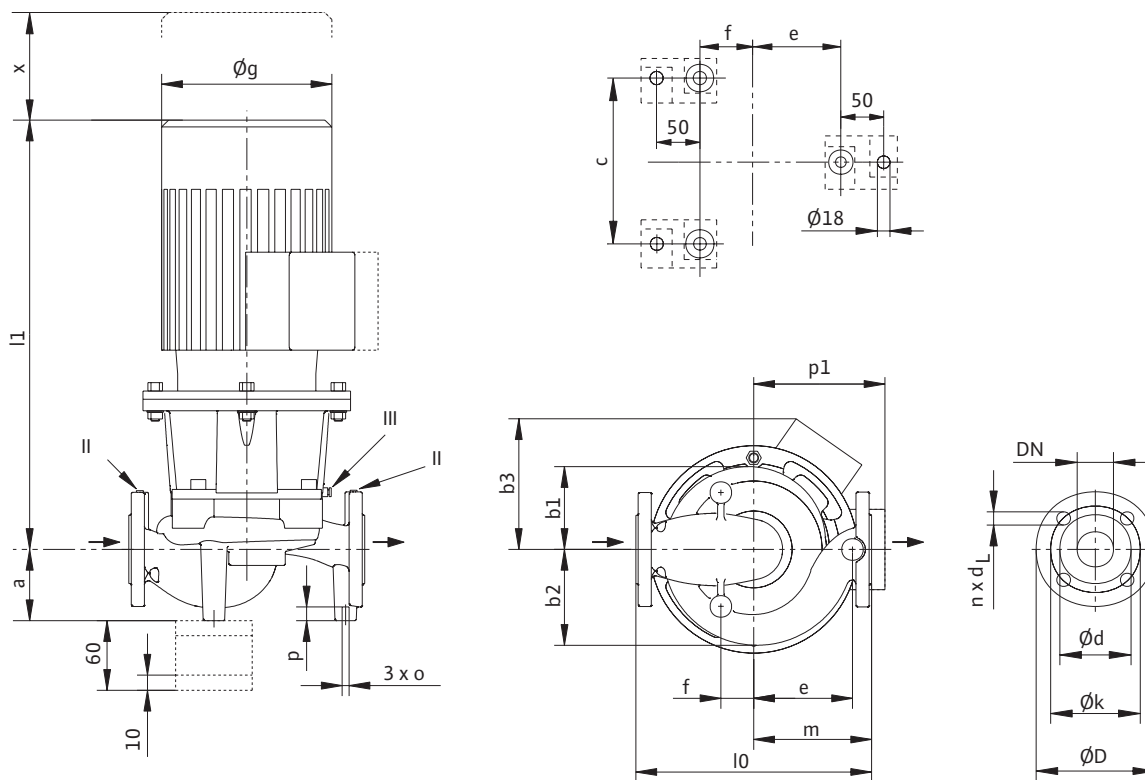


Pump curves

CronoLine-IL 200/230-11/4 - 200/270-30/4 (4-pole, 50 Hz)



Dimension drawing



II pressure gauge connection R<sup>3</sup>/<sub>8</sub>; III venting R<sup>3</sup>/<sub>8</sub>

Dimensions, weights (4-pole)															
Wilo-CronoLine-IL...	Over-all length	Dimensions													Weight approx. m kg
		l0	a	b1	b2	c mm		e	f	∅g	l1	m	o	p	
150/360-30/4	940	215	285	309	284	374	142	356	964	400	M16	32	299	160	519
150/360-37/4	940	215	285	309	284	374	142	456	1140	400	M16	32	299	160	587
150/370-37/4	940	215	285	309	284	374	142	456	1140	400	M16	32	299	160	587
150/370-45/4	940	215	285	309	284	374	142	456	1200	400	M16	32	299	160	622
150/380-45/4	940	215	285	309	284	374	142	456	1200	400	M16	32	299	160	622
150/380-55/4	940	215	285	309	284	374	142	522	1235	400	M16	32	365	160	881
150/390-55/4	940	215	285	309	284	374	142	522	1235	400	M16	32	365	160	881
150/390-75/4	940	215	285	309	284	374	142	527	1367	400	M16	32	435	160	977
150/400-75/4	940	215	285	309	284	374	142	527	1367	400	M16	32	435	160	977
150/400-90/4	940	215	285	309	284	374	142	527	1367	400	M16	32	435	160	1005
200/230-11/4	800	245	281	362	330	270	165	312	822	370	M16	25	250	140	352
200/240-15/4	800	245	281	362	330	270	165	312	869	370	M16	25	250	140	374
200/250-18,5/4	800	245	281	362	330	270	165	349	931	370	M16	25	272	140	405
200/260-22/4	800	245	281	362	330	270	165	349	931	370	M16	25	272	140	456
200/265-22/4	800	245	281	362	330	270	165	349	931	370	M16	25	272	140	456
200/265-30/4	800	245	281	362	330	270	165	356	994	370	M16	25	299	140	518
200/270-30/4	800	245	281	362	330	270	165	356	994	370	M16	25	299	140	518

Flange dimensions / nominal diameter of connection						
Wilo-CronoLine-IL...	Nominal diameter of flange/pipe connection	Pressure stage	Pump flange dimensions			
			DN	PN	∅D	∅d mm
150/360... - 150/400...	150	16	285	211	240	8 x 23
200/230... - 200/270...	200					

Pump flange dimensions according to EN 1092-2, n = number of drilled holes

Motor data (4-pole), minimum efficiency index, article numbers							
Wilo-CronoLine-IL...	Motor efficiency level	Rated power P <sub>2</sub> kW	Rated current (approx.) I <sub>N</sub> 3~400 V A	Power factor cos φ	Rated speed n rpm	Motor efficiency η <sub>m 50%</sub> /η <sub>m 75%</sub> /η <sub>m 100%</sub> %	Art no.
150/360-37/4	IE3	37.00	71.30	0.84	1450	90.9/92.6/93.9	2160663
150/370-37/4	IE3	37.00	71.30	0.84	1450	90.9/92.6/93.9	2169771
150/370-45/4	IE3	45.00	83.10	0.83	1450	91.7/93.2/94.2	2160662
150/380-45/4	IE3	45.00	83.10	0.83	1450	91.7/93.2/94.2	2169770
150/380-55/4	IE3	55.00	97.50	0.86	1450	92.0/93.6/94.6	2160661
150/390-55/4	IE3	55.00	97.50	0.86	1450	92.0/93.6/94.6	2169769
150/390-75/4	IE3	75.00	134.10	0.86	1450	94.0/94.8/95.0	2160660
150/400-75/4	IE3	75.00	134.10	0.86	1450	94.0/94.8/95.0	2169768
150/400-90/4	IE3	90.00	163.60	0.84	1450	93.9/95.0/95.2	2160659
200/230-11/4	IE3	11.00	22.00	0.80	1450	90.1/91.6/91.4	2120827
200/240-15/4	IE3	15.00	29.80	0.81	1450	90.7/91.7/92.1	2120828
200/250-18,5/4	IE3	18.50	34.30	0.83	1450	91.7/92.5/92.6	2120829
200/260-22/4	IE3	22.00	40.20	0.85	1450	92.0/93.0/93.0	2120830
200/265-22/4	IE3	22.00	40.20	0.85	1450	92.0/93.0/93.0	2120831
200/265-30/4	IE3	30.00	55.50	0.86	1450	92.2/93.0/93.6	2120832
200/270-30/4	IE3	30.00	55.50	0.86	1450	92.2/93.0/93.6	2120833

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