



Similar to figure

Data sheet

Hydraulic data

Minimum efficiency index (MEI)	≥0.4
Max. operating pressure p	10 bar
Maximum operating pressure PN	10 bar
Min. fluid temperature T_{\min}	-20 °C
Max. fluid temperature T_{\max}	120 °C
Max. ambient temperature T_{\max}	40 °C
Flow max Q_{\max}	55.9 m³/h
Opt. volume flow Q_{opt}	43.4 m³/h
Head max H_{\max}	26.6 m
Opt. delivery head H_{opt}	21.8 m
Height $H_{Q\min}$	26.6 m
Height H_{20}	26.2
Height H_{40}	22.8

Motor data

Mains connection	3~400 V, 50 Hz
Voltage tolerance	±10 %
Motor efficiency class	IE3
Rated power P_2	4 kW
Rated current I_N	7.75 A
Rated speed n	2900 1/min
Power factor $\cos \varphi_{100}$	0.83
Motor efficiency 50% $\eta_M 50\%$	86.1 %
Motor efficiency 75% $\eta_M 75\%$	87.5 %
Motor efficiency 100% $\eta_M 100\%$	88.1 %
Motor winding up to 3 kW	-
Motor winding from 4 kW	-
Insulation class	F
Protection class motor	IP55
Integrated full motor protection	-

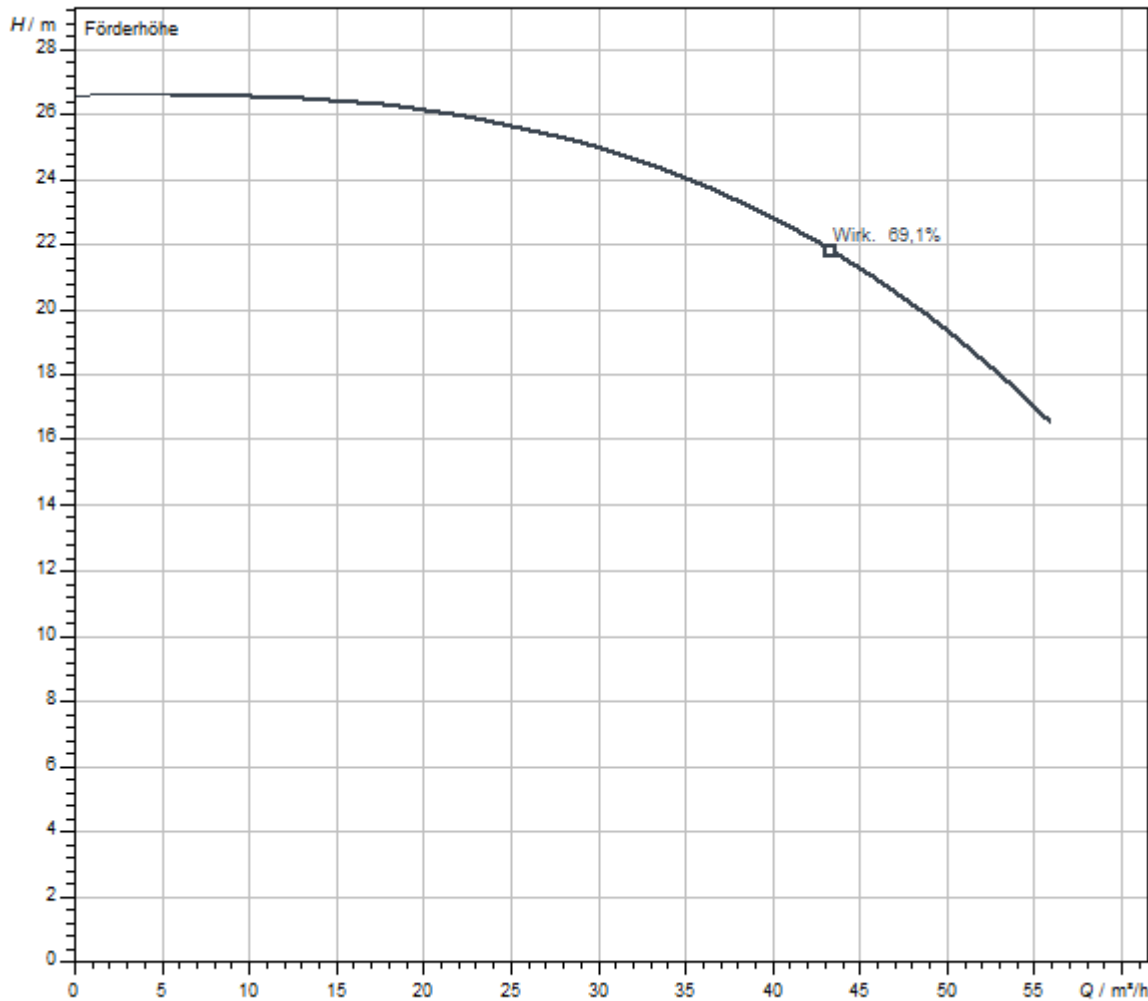
Materials

Pump housing	Grey cast iron
Impeller	PPE/PS-GF30
Shaft	Stainless steel
Mechanical seal	AQ1EGG
Lantern	Grey cast iron

Installation dimensions

Pipe connection on the suction side <i>DN_s</i>	DN 50
Pipe connection on the discharge side <i>DN_d</i>	DN 50
Port-to-port length <i>L₀</i>	340 mm

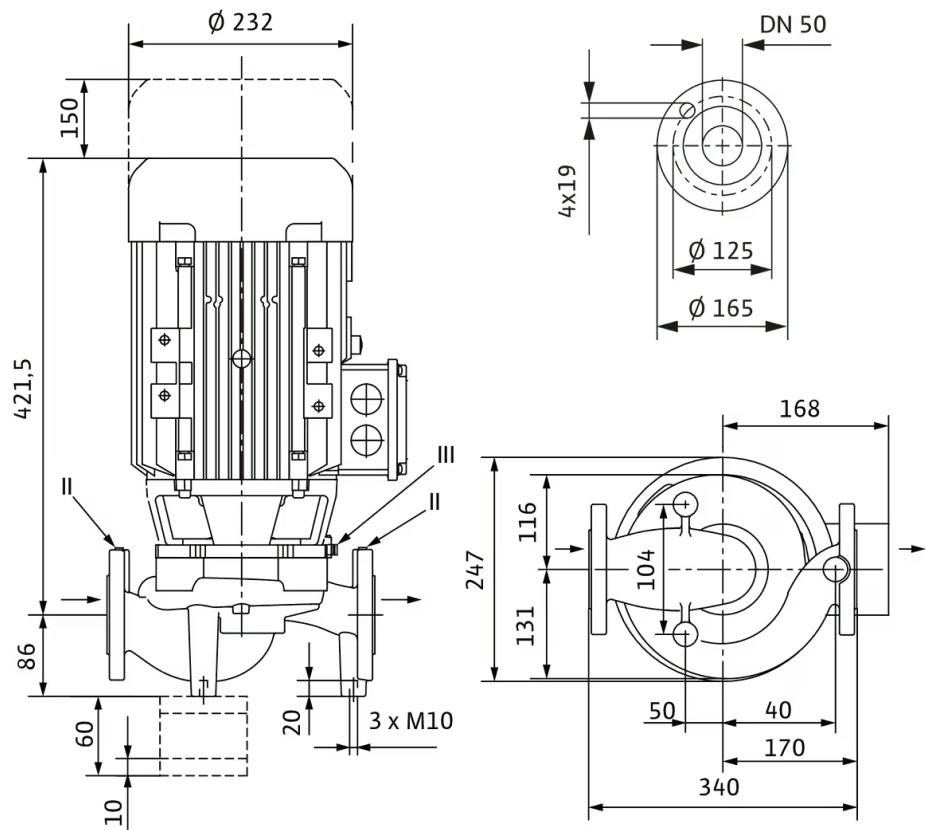
Pump curves



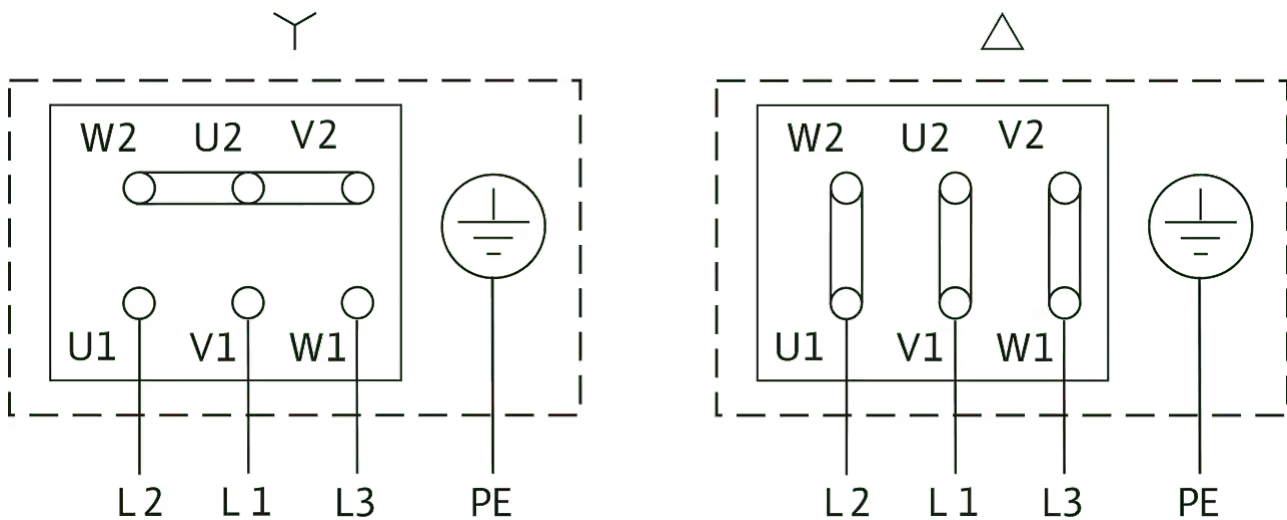
Fluid media	Wasser 100 %
Fluid temperature <i>T</i>	20,00 °C
speed at duty point <i>n hydr. @ OP</i>	2.900 1/min
Impeller diameter <i>d imp.</i>	145,5 mm

Dimensions and dimensions drawings

VeroLine-IPL 50/150-4/2



Wiring 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.

Ordering information

Product data

Brand	Wilo
Product description	VeroLine-IPL 50/150-4/2
Article number	2121212
EAN number	4048482214832
Colour	Green
Minimum order quantity	1
Date of sales availability	2015-09-01

Packaging

Packaging type	Cardboard box
Packaging property	Transport packaging
Pieces per pallet	1
Number per layer	1

Dimension, weight

Length with packaging	800 mm
Length <i>L</i>	507.5 mm
Height with packaging	525 mm
Height <i>H</i>	340 mm
Width with packaging	600 mm
Width <i>W</i>	247 mm
Gross weight, approx. <i>m</i>	57.4 kg
Net weight, approx. <i>m</i>	48.5 kg

Tender text

Single-stage glanded centrifugal pump with compact in-line design with directly flanged three-phase current motor and one-piece shaft or with lantern and standard motor rigidly connected by coupling (N version). The IPL series is suitable for pipe installation or installation on a base. Mounting brackets are available as accessories. With force-flushed circulation, bidirectional bellows

mechanical seal and cavitation-reducing plastic impeller.

Flanges with pressure measuring connections R 1/8. The pump housing and lantern are cathophoretic-coated.

The motor terminal box can be made of metal or plastic. If a metal terminal box is absolutely necessary, please order the appropriate special variant.

Operating Data

Min. fluid temperature T_{\min}	-20 °C
Max. fluid temperature T_{\max}	120 °C
Min. ambient temperature T_{\min}	-15 °C
Max. ambient temperature T_{\max}	40 °C
Maximum operating pressure PN	10 bar
Minimum efficiency index (MEI)	≥0.4

Motor data

Motor efficiency class	IE3
Mains connection	3~400 V, 50 Hz
Voltage tolerance	±10 %
Rated power P_2	4000 W
Rated speed n	2900 1/min
Rated current I_N	7.75 A
Power factor $\cos \varphi_{100}$	0.83
Motor efficiency 50% $\eta_M 50\%$	86.1 %
Motor efficiency 75% $\eta_M 75\%$	87.5 %
Motor efficiency 100% $\eta_M 100\%$	88.1 %
Insulation class	F
Protection class	IP55


Materials

Pump housing	Grey cast iron
Impeller	PPE/PS-GF30
Shaft	Stainless steel
Shaft seal	AQ1EGG
Lantern	Grey cast iron

Installation dimensions

Pipe connection on the suction side DN_s	DN 50
Pipe connection on the discharge side DN_d	DN 50
Port-to-port length L_0	340 mm

Ordering information

Brand	Wilo
Product description	VeroLine-IPL 50/150-4/2
Net weight, approx. m	48.5 kg
Article number	2121212 

Installation type

Continuous, infinitely variable control, differential pressure-sensitive CC-HVAC system

CC-HVAC system

CC-HVAC-System 1x10A-T34-DOL-FC-WM	2527824	EUR 12,482.-
CC-HVAC-System 2x10A-T34-DOL-FC-WM	2527825	EUR 13,388.-
CC-HVAC-System 3x10A-T34-DOL-FC-WM	2527826	EUR 14,082.-
CC-HVAC-System 4x10A-T34-DOL-FC-WM	2527827	EUR 15,074.-

Antenna GSM/GPRS

D-network dual-band antenna with 3 m cable	2533862	EUR 213.-
D-network tri-band antenna 10 m cable	2533863	EUR 640.-
D-network tri-band antenna 15 m cable	2533864	EUR 709.-

Outdoor temperature sensor Pt 100

Outdoor temperature sensor Pt 100	2533772	EUR 159.-
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DDG impulse selector

DDG impulse selector	2533770	EUR 691.-
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BMS base module

BMS base module	2533800	EUR 876.-
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CC communication module BACnet

CC-communication module BACnet IP (slave)	2537051	EUR 2,051.-
CC-communication module BACnet MS/TP (slave)	2537050	EUR 2,468.-

Communication module LON

Communication module LON	2533868	EUR 4,323.-
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Communication module ModBus

Communication module Modbus RTU	2533869	EUR 1,027.-
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Communication module Profibus

Communication module Profibus DP	2533866	EUR 1,504.-
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Communication module GSM

GSM module	2533861	EUR 1,663.-
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Pump signalling module

Signalling module pump 1-2	2533812	EUR 535.-
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Signalling module pump 3-6	2533836	EUR 517.-
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Signal converter retrofit kit

Signal converter 0-10 V / 0-20 mA	2534992	EUR 318.-
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Connection cable control modules/signalling modules

Control modules connecting cable	2533790	EUR 235.-
Signalling modules connecting cable	2533890	EUR 235.-

DDG (4-20mA)

Wilo-DDG 10 Signal Trans.(4-20mA)2G VP.	2136454	EUR 1,297.-
Wilo-DDG 100 Signal Trans.(4-20mA)	2211740	EUR 1,297.-
Wilo-DDG 20 Signal Trans.(4-20mA)2G VP.	2136456	EUR 1,297.-
Wilo-DDG 40 Signal Trans.(4-20mA)2G VP.	2136458	EUR 1,297.-
Wilo-DDG 60 Signal Trans.(4-20mA)2G VP.	2136460	EUR 1,297.-

PTC thermistor tripping unit

PTC thermistor tripping unit	509275993	EUR 728.-
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Continuous, infinitely variable control, temperature-dependent CC-HVAC system

CC-HVAC system

CC-HVAC-System 1x10A-T34-DOL-FC-WM	2527824	EUR 12,482.-
CC-HVAC-System 2x10A-T34-DOL-FC-WM	2527825	EUR 13,388.-
CC-HVAC-System 3x10A-T34-DOL-FC-WM	2527826	EUR 14,082.-
CC-HVAC-System 4x10A-T34-DOL-FC-WM	2527827	EUR 15,074.-

Antenna GSM/GPRS

D-network dual-band antenna with 3 m cable	2533862	EUR 213.-
D-network tri-band antenna 10 m cable	2533863	EUR 640.-
D-network tri-band antenna 15 m cable	2533864	EUR 709.-

Outdoor temperature sensor Pt 100

Outdoor temperature sensor Pt 100	2533772	EUR 159.-
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BMS base module

BMS base module	2533800	EUR 876.-
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CC communication module BACnet

CC-communication module BACnet IP (slave)	2537051	EUR 2,051.-
CC-communication module BACnet MS/TP (slave)	2537050	EUR 2,468.-

Communication module LON

Communication module LON	2533868	EUR 4,323.-
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Communication module ModBus

Communication module Modbus RTU	2533869	EUR 1,027.-
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Communication module Profibus

Communication module Profibus DP	2533866	EUR 1,504.-
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Communication module GSM

GSM module	2533861	EUR 1,663.-
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Pump signalling module

Signalling module pump 1-2	2533812	EUR 535.-
Signalling module pump 3-6	2533836	EUR 517.-

Signal converter retrofit kit

Signal converter 0-10 V / 0-20 mA	2534992	EUR 318.-
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Temperature module

Temperature module for systems with 1-3 pumps	2534991	EUR 1,371.-
Temperature module for systems with 4-6 pumps	2533771	EUR 1,085.-

Connection cable control modules/signalling modules

Control modules connecting cable	2533790	EUR 235.-
Signalling modules connecting cable	2533890	EUR 235.-

PTC thermistor tripping unit

PTC thermistor tripping unit	509275993	EUR 728.-
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Continuous, infinitely variable control, differential pressure-sensitive SC-HVAC system**SC/SC-FC-HVAC system**

SC-FC-HVAC system 1x10A-FC-WM (direct starting)	2545442	EUR 11,048.-
SC-FC-HVAC system 2x10A-FC-WM (direct starting)	2545443	EUR 11,706.-
SC-FC-HVAC system 3x10A-FC-WM (direct starting)	2545444	EUR 12,611.-
SC-FC-HVAC system 4x10A-FC-WM (direct starting)	2545445	EUR 13,348.-
SC-HVAC system 1x10A-WM (direct starting)	2545326	EUR 4,568.-
SC-HVAC system 2x10A-WM (direct starting)	2545327	EUR 4,984.-
SC-HVAC system 3x10A-WM (direct starting)	2545328	EUR 5,595.-
SC-HVAC system 4x10A-WM (direct starting)	2545329	EUR 5,997.-

Antenna GSM/GPRS

D-network dual-band antenna with 3 m cable	2533862	EUR 213.-
D-network tri-band antenna 10 m cable	2533863	EUR 640.-
D-network tri-band antenna 15 m cable	2533864	EUR 709.-

Outdoor temperature sensor Pt 100

Outdoor temperature sensor Pt 100	2533772	EUR 159.-
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DDG impulse selector

DDG impulse selector	2533770	EUR 691.-
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Communication module LON (SC)

Communication module LON (SC)	2538243	EUR 814.-
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SC communication module BACnet

SC-communication module BACnet MS/TP (slave)	2538242	EUR 814.-
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Communication module GSM (SC)

Communication module GSM (SC)	2542216	EUR 772.-
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Pump signalling module

Signalling module pump 1-2	2533812	EUR 535.-
Signalling module pump 3-6	2533836	EUR 517.-

SC-HVAC signal board

SC-HVAC signal board	2119646	EUR 279.-
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DDG (4-20mA)

Wilo-DDG 10 Signal Trans.(4-20mA)2G VP.	2136454	EUR 1,297.-
Wilo-DDG 100 Signal Trans.(4-20mA)	2211740	EUR 1,297.-
Wilo-DDG 20 Signal Trans.(4-20mA)2G VP.	2136456	EUR 1,297.-
Wilo-DDG 40 Signal Trans.(4-20mA)2G VP.	2136458	EUR 1,297.-
Wilo-DDG 60 Signal Trans.(4-20mA)2G VP.	2136460	EUR 1,297.-

PTC thermistor tripping unit

PTC thermistor tripping unit	509275993	EUR 728.-
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Continuous, infinitely variable control, temperature-dependent SC-HVAC system**SC/SC-FC-HVAC system**

SC-FC-HVAC system 1x10A-FC-WM (direct starting)	2545442	EUR 11,048.-
SC-FC-HVAC system 2x10A-FC-WM (direct starting)	2545443	EUR 11,706.-

SC-FC-HVAC system 3x10A-FC-WM (direct starting)	2545444	EUR 12,611.-
SC-FC-HVAC system 4x10A-FC-WM (direct starting)	2545445	EUR 13,348.-
SC-HVAC system 1x10A-WM (direct starting)	2545326	EUR 4,568.-
SC-HVAC system 2x10A-WM (direct starting)	2545327	EUR 4,984.-
SC-HVAC system 3x10A-WM (direct starting)	2545328	EUR 5,595.-
SC-HVAC system 4x10A-WM (direct starting)	2545329	EUR 5,997.-

Antenna GSM/GPRS

D-network dual-band antenna with 3 m cable	2533862	EUR 213.-
D-network tri-band antenna 10 m cable	2533863	EUR 640.-
D-network tri-band antenna 15 m cable	2533864	EUR 709.-

Outdoor temperature sensor Pt 100

Outdoor temperature sensor Pt 100	2533772	EUR 159.-
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Communication module LON (SC)

Communication module LON (SC)	2538243	EUR 814.-
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SC communication module BACnet

SC-communication module BACnet MS/TP (slave)	2538242	EUR 814.-
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Communication module GSM (SC)

Communication module GSM (SC)	2542216	EUR 772.-
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Pump signalling module

Signalling module pump 1-2	2533812	EUR 535.-
Signalling module pump 3-6	2533836	EUR 517.-

SC-HVAC signal board

SC-HVAC signal board	2119646	EUR 279.-
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PTC thermistor tripping unit

PTC thermistor tripping unit	509275993	EUR 728.-
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Mechanical accessories

Pipe installation, adapter fitting

Intermediate flange connecting piece F

Intermediate flange pieces F 3, DN 50x20mm, PN 10/16	110623190	EUR 70.-
Intermediate flange pieces F 5, DN 50x35mm, PN 10/16	110623396	EUR 99.-
Intermediate flange pieces F 4, DN 50x30mm, PN 10/16	110681395	EUR 92.-
Intermediate flange pieces F 40, DN 50x160mm, PN 10/16	2101156	EUR 545.-
Intermediate flange pieces F 2, DN 50x10mm, PN 10/16	110791494	EUR 61.-

Wall fixation/installation on a base

Mounting bracket kit

Mounting bracket F 3-12 SET	2040967	EUR 121.-
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Electrical accessories

Pump control

Wilo-EFC

EFC4 3x380-480V 50/60Hz IP55	2193436	EUR 3,309.-
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Pump control/accessories

Antenna GSM/GPRS

D-network dual-band antenna with 3 m cable	2533862	EUR 213.-
D-network tri-band antenna 10 m cable	2533863	EUR 640.-
D-network tri-band antenna 15 m cable	2533864	EUR 709.-
SMA/FME adapter	2545548	EUR 72.-

BMS base module

BMS base module	2533800	EUR 876.-
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CC communication module BACnet

CC-communication module BACnet MS/TP (slave)	2537050	EUR 2,468.-
CC-communication module BACnet IP (slave)	2537051	EUR 2,051.-

Communication module CC

CC communication module	2533850	EUR 339.-
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Communication module GSM

GSM module	2533861	EUR 1,663.-
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Communication module GSM (SC)

Communication module GSM (SC)	2542216	EUR 772.-
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Communication module LON

Communication module LON	2533868	EUR 4,323.-
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Communication module LON (SC)

Communication module LON (SC)	2538243	EUR 814.-
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Communication module ModBus

Communication module Modbus RTU	2533869	EUR 1,027.-
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Communication module Profibus

Communication module Profibus DP	2533866	EUR 1,504.-
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Connection cable control modules/signalling modules

Control modules connecting cable	2533790	EUR 235.-
Signalling modules connecting cable	2533890	EUR 235.-

DDG impulse selector

DDG impulse selector	2533770	EUR 691.-
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Outdoor temperature sensor Pt 100

Outdoor temperature sensor Pt 100	2533772	EUR 159.-
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Output filter EFC (150-500 m cable length)

10 A sin IP54 Wilo-EFC filter	6084562	EUR 2,157.-
10 A sin IP00 Wilo-EFC filter	6084577	EUR 707.-
10 A sin IP20 Wilo-EFC filter	6084903	EUR 757.-

Pump signalling module

Signalling module pump 1-2	2533812	EUR 535.-
Signalling module pump 3-6	2533836	EUR 517.-

SC communication module BACnet

SC-communication module BACnet MS/TP (slave)	2538242	EUR 814.-
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SC-HVAC signal board

SC-HVAC signal board	2119646	EUR 279.-
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Signal converter retrofit kit

Signal converter 0-10 V / 0-20 mA	2534992	EUR 318.-
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Temperature module

Temperature module for systems with 4-6 pumps	2533771	EUR 1,085.-
Temperature module for systems with 1-3 pumps	2534991	EUR 1,371.-

Pump control/Comfort control system

CC-HVAC system

CC-HVAC-System 1x10A-T34-DOL-FC-WM	2527824	EUR 12,482.-
CC-HVAC-System 2x10A-T34-DOL-FC-WM	2527825	EUR 13,388.-
CC-HVAC-System 3x10A-T34-DOL-FC-WM	2527826	EUR 14,082.-
CC-HVAC-System 4x10A-T34-DOL-FC-WM	2527827	EUR 15,074.-

Pump control/Smart control system

SC/SC-FC-HVAC system

SC-HVAC system 1x10A-WM (direct starting)	2545326	EUR 4,568.-
SC-HVAC system 2x10A-WM (direct starting)	2545327	EUR 4,984.-
SC-HVAC system 3x10A-WM (direct starting)	2545328	EUR 5,595.-
SC-HVAC system 4x10A-WM (direct starting)	2545329	EUR 5,997.-
SC-FC-HVAC system 1x10A-FC-WM (direct starting)	2545442	EUR 11,048.-
SC-FC-HVAC system 2x10A-FC-WM (direct starting)	2545443	EUR 11,706.-
SC-FC-HVAC system 3x10A-FC-WM (direct starting)	2545444	EUR 12,611.-
SC-FC-HVAC system 4x10A-FC-WM (direct starting)	2545445	EUR 13,348.-

Differential pressure detection

DDG (4-20mA)

Wilo-DDG 10 Signal Trans.(4-20mA)2G VP.	2136454	EUR 1,297.-
Wilo-DDG 20 Signal Trans.(4-20mA)2G VP.	2136456	EUR 1,297.-
Wilo-DDG 40 Signal Trans.(4-20mA)2G VP.	2136458	EUR 1,297.-
Wilo-DDG 60 Signal Trans.(4-20mA)2G VP.	2136460	EUR 1,297.-
Wilo-DDG 100 Signal Trans.(4-20mA)	2211740	EUR 1,297.-

Motor protection

PTC thermistor tripping unit

PTC thermistor tripping unit	509275993	EUR 728.-
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Surcharge for thermistor sensor (single pumps)

Surcharge for thermistor sensor <7.5 kW	KLF_7_EP	EUR 307.-
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Services

With Wilo as your partner, you can not only be sure of choosing high-quality product solutions, but also of benefiting from a comprehensive, worry-free package of well thought-out services. We collaborate to develop a service concept tailored to your individual needs; with our expertise and personal consultancy, we make sure that the operation of your systems is as energy-efficient, reliable and economical as possible. All the while our competent Wilo service technicians are ready to assist you with fast, reliable and on-time support.

Recommended services

Commissioning Glanded pumps	2219391
Maintenance COMFORT Glanded pumps	2219493

More suitable services

Extended Warranty Glanded pumps	2219590
WiloCare Comfort	2222876
WiloCare Comfort Plus	2222877