



## Data sheet

### Hydraulic data

Maximum operating pressure $P_N$	10 bar
Head max $H_{max}$	10.3 m
Flow max $Q_{max}$	29.0 m <sup>3</sup> /h
Minimum suction head at 50 °C $m$	5 m
Minimum suction head at 95 °C $m$	12 m
Minimum suction head at 110 °C	18 m
Min. fluid temperature $T_{min}$	-20 °C
Max. fluid temperature $T_{max}$	110 °C
Min. ambient temperature $T_{min}$	-20 °C
Max. ambient temperature $T_{max}$	40 °C

### Motor data

Energy efficiency index (EEI)	≤0.20
Mains connection	1~230 V ±10%, 50/60 Hz
Min current $I_{min}$	0.17 A
Max current $I_{max}$	2.15 A
Rated power $P_2$	400 W
Min. speed $n_{min}$	950 1/min
Max. speed $n_{max}$	4100 1/min
Power consumption $P_{1 min}$	15 W
Power consumption $P_{1 max}$	490 W
Emitted interference	EN 61800-3;2004+A1;2012 /residential area (C1)
Interference resistance	EN 61800-3;2004+A1;2012 /industrial environment (C2)
Threaded cable connection	2 x M20x1.5
Insulation class	F
Protection class	IPX4D

### Materials

Pump housing	Grey cast iron
Impeller	PPS-GF40
Shaft	Stainless steel
Bearing	Carbon-graphite

**Installation dimensions**

Pipe connection on the discharge side <i>DNd</i>	DN 50
Pipe connection on the suction side <i>DNs</i>	DN 50
Port-to-port length <i>L0</i>	280 mm

**Equipment/function**

**Function**

Control mode	$\Delta p$ -v for variable differential pressure
	$\Delta p$ -c for constant differential pressure
	Constant speed (3 speed stages)
Multi pump operation	Main/Standby (with Connect Module Yonos MAXO)
Display	Setpoint
	Fault signals (error codes)

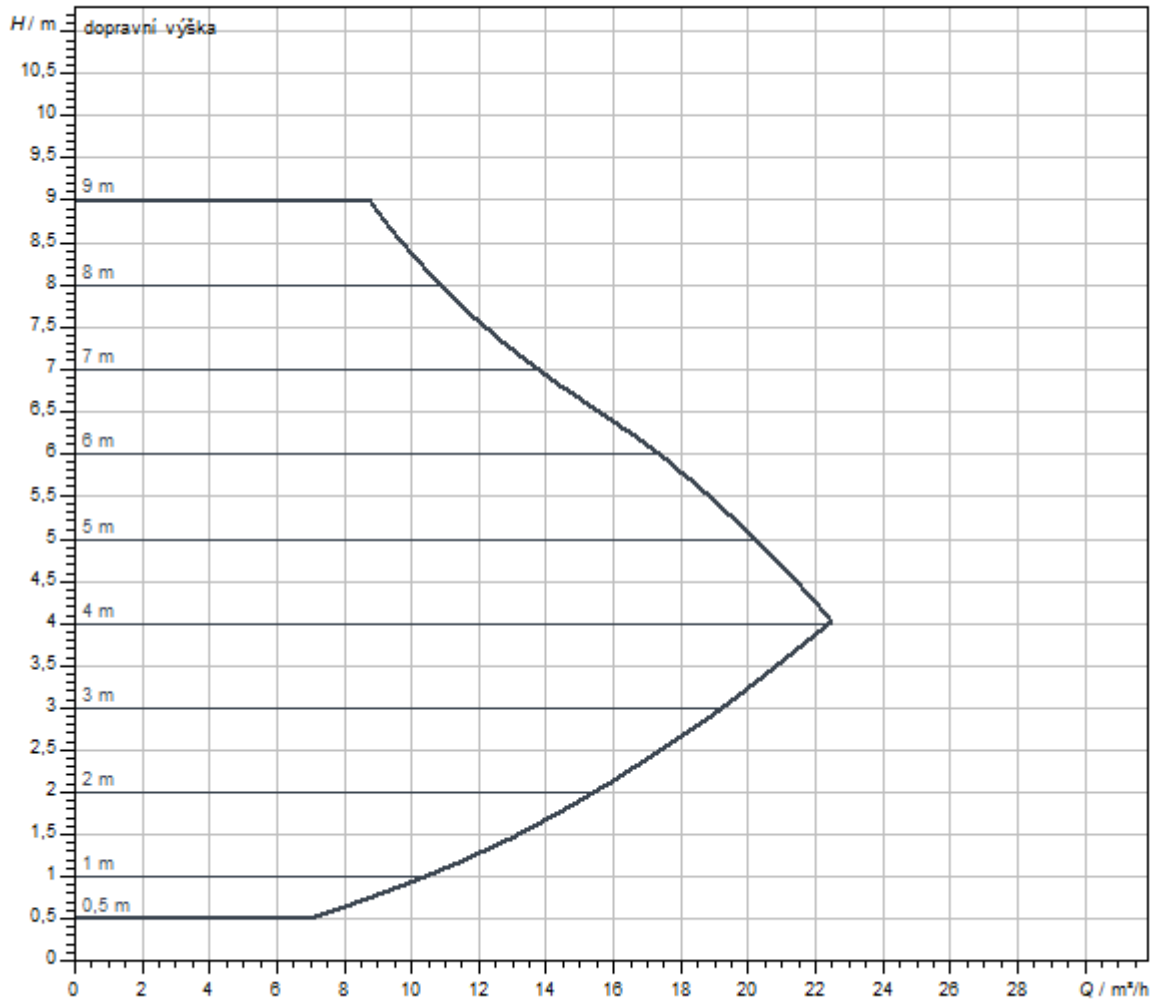
**Equipment**

Approvals and labels	CE
	VDE
	EAC
Display	LED segment display
Display information	Basic Version: LED display (small) for showing the set head or speed stage.
Pump control	Electronic-controlled pump
Quick electrical connection	Wilo plug
Thermal insulation shell	As accessory
Blocking-current proof motor	yes
Particle filter	yes

**Connectivity**

Digital input	Ext. OFF (via accessories Wilo-Connect module Yonos MAXO)
Digital output	SSM

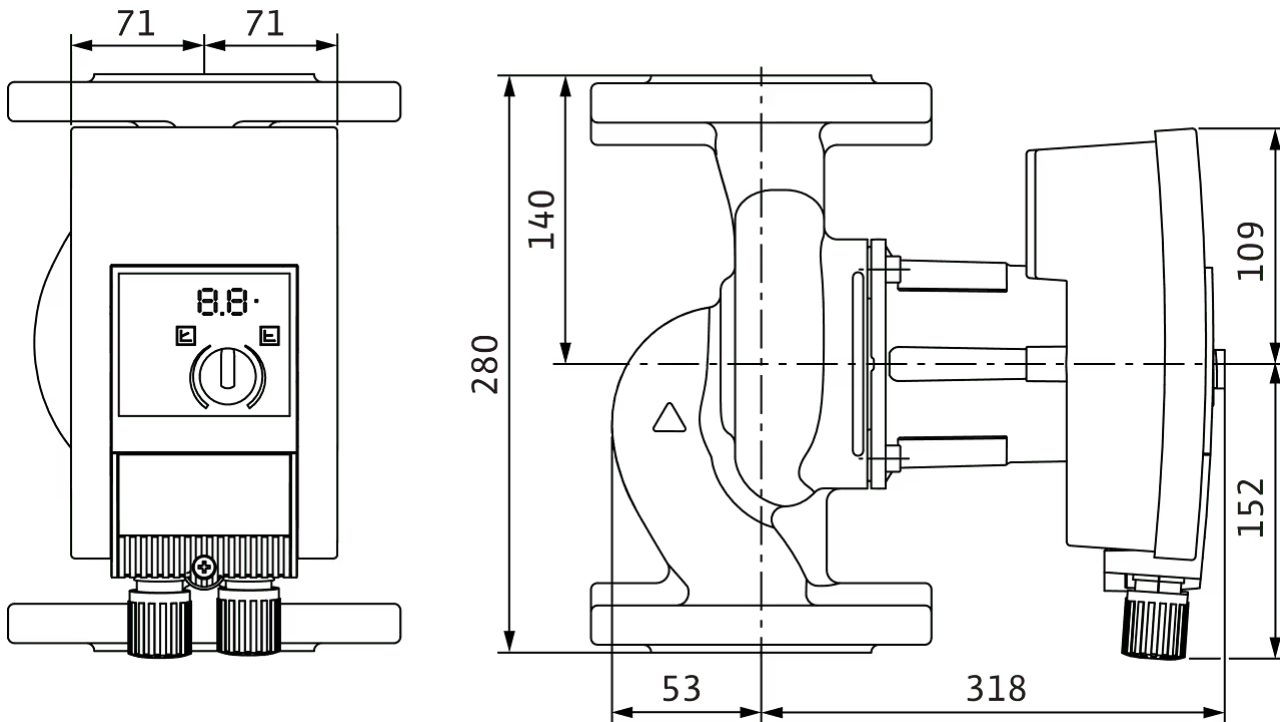
Pump curves



Fluid media	Water 100 %
Fluid temperature <i>T</i>	20,00 °C
speed at duty point <i>n hydr. @ OP</i>	3.543 1/min

Dimensions and dimensions drawings

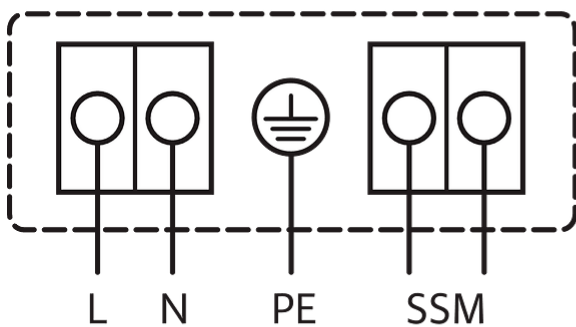
Yonos MAXO 50/0,5-9



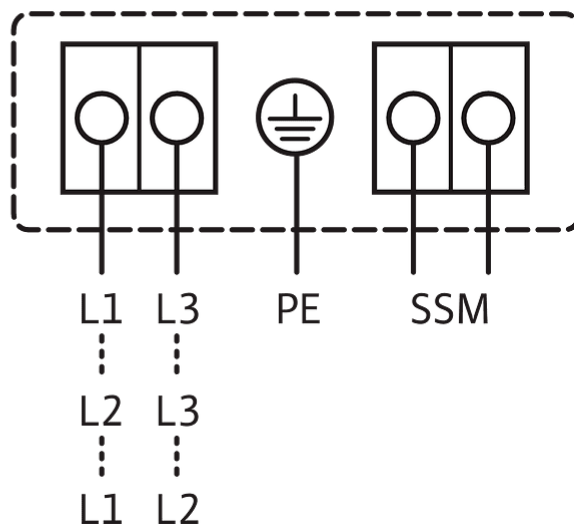
Wiring diagram

1~230V, 50/60 Hz

1~ 230 V, 50/60 Hz



3~230 V, 50/60 Hz



Collective fault signal  
 SSM: (NC contact in accordance with VDI 3814, load capacity 1 A, 250 V ~)

Standard: 1~230 V, 50/60 Hz

Option: 3~230 V, 50/60 Hz

## Tender text

High efficiency pump Wilo-Yonos MAXO electronically controlled,

Glandless circulator, synchronous motor according to ECM technology and integrated power control for continuous differential pressure control. Can be used for all heating, ventilation and air-conditioning applications.

Standard-equipped with:

- > Preselectable control modes for optimum load adjustment:  $\Delta p$ -c (differential pressure constant),  $\Delta p$ -v (differential pressure variable)
- > 3 speed stages (n = constant)

- > LED for setting the setpoint and displaying error messages
- > Electrical connection with the Wilo plug
- > Fault lamp and contact for collective fault signal

For flange-end pumps - flange versions:

- > Standard version for pumps DN 32 to DN 65: PN 6/10 combination flange (PN 16 flange according to EN 1092-2) for PN 6 and PN 16 counter flanges
- > Standard version for DN 80/DN 100 pumps: PN 6 flange (designed for PN 16 according to EN 1092-2) for PN 6 counter flange

## Operating Data

Min. fluid temperature $T_{\min}$	-20 °C
Max. fluid temperature $T_{\max}$	110 °C
Min. ambient temperature $T_{\min}$	-20 °C
Max. ambient temperature $T_{\max}$	40 °C
Maximum operating pressure $PN$	10 bar
Minimum suction head at 50 °C $m$	5 m
Minimum suction head at 95 °C $m$	12 m
Minimum suction head at 110 °C	18 m

## Motor data

Energy efficiency index (EEI)	≤0.20
Emitted interference	EN 61800-3;2004+A1;2012 /residential area (C1)
Interference resistance	EN 61800-3;2004+A1;2012 /industrial environment (C2)
Mains connection	1-230 V, 50/60 Hz
Power consumption $P_{1 \max}$	490 W
Min. speed $n_{\min}$	950 1/min
Max. speed $n_{\max}$	4100 1/min
Protection class motor	IPX4D
Threaded cable connection	2 x M20x1.5


## Materials

Pump housing	Grey cast iron
Impeller	PPS-GF40
Shaft	Stainless steel
Bearing	Carbon-graphite

## Installation dimensions

Pipe connection on the suction side $DNs$	DN 50
Pipe connection on the discharge side $DNd$	DN 50
Port-to-port length $L0$	280 mm

## Ordering information

Brand	Wilo
Product description	Yonos MAXO 50/0,5-9 PN 6/10
Net weight, approx. $m$	14.2 kg
Article number	<b>2120650</b> 

## Mechanical accessories

### Pipe installation

#### Counter flange kit

DN 50, PN 6 counter flange kit	2105580	EUR 64.-
DN 50, PN 10 counter flange kit	2105581	EUR 81.-

### Pipe installation, adapter fitting

#### Intermediate flange connecting piece F

Intermediate flange pieces F 3, DN 50x20mm, PN 6	110623098	EUR 56.-
Intermediate flange pieces F 3, DN 50x20mm, PN 10/16	110623190	EUR 65.-
Intermediate flange pieces F 5, DN 50x35mm, PN 6	110623293	EUR 74.-
Intermediate flange pieces F 5, DN 50x35mm, PN 10/16	110623396	EUR 88.-
Intermediate flange pieces F 4, DN 50x30mm, PN 6	110681292	EUR 66.-
Intermediate flange pieces F 4, DN 50x30mm, PN 10/16	110681395	EUR 71.-
Intermediate flange pieces F 40, DN 50x160mm, PN 10/16	2101156	EUR 537.-
Intermediate flange pieces F 2, DN 50x10mm, PN 6	110787690	EUR 47.-
Intermediate flange pieces F 2, DN 50x10mm, PN 10/16	110791494	EUR 50.-

### Thermal insulation

#### Thermal insulation shell Yonos MAXO

Thermal insulation shell Yonos MAXO 50/0,5-9(12)	2123376	EUR 27.-
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## Electrical accessories

### Pump control/accessories

#### Antenna GSM/GPRS

D-network dual-band antenna with 3 m cable	2533862	EUR 100.-
D-network tri-band antenna 10 m cable	2533863	EUR 385.-
D-network tri-band antenna 15 m cable	2533864	EUR 511.-
SMA/FME adapter	2545548	EUR 47.-

#### BMS base module

BMS base module	2533800	EUR 832.-
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#### Connection cable control modules/signalling modules

Control modules connecting cable	2533790	EUR 211.-
Signalling modules connecting cable	2533890	EUR 211.-

#### DDG impulse selector

DDG impulse selector	2533770	EUR 603.-
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#### Outdoor temperature sensor Pt 100

Outdoor temperature sensor Pt 100	2533772	EUR 135.-
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#### Pump signalling module

Signalling module pump 1-2	2533812	EUR 459.-
Signalling module pump 3-6	2533836	EUR 459.-

#### SC-HVAC signal board

SC-HVAC signal board	2119646	on request
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#### Signal converter retrofit kit

Signal converter 0-10 V / 0-20 mA	2534992	EUR 263.-
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#### Temperature module

Temperature module for systems with 4-6 pumps	2533771	EUR 1,182.-
Temperature module for systems with 1-3 pumps	2534991	EUR 1,461.-

### Pump control/Smart control system

#### SCe-HVAC system

SCe-HVAC system 1x10A-M-WM	2542281	on request
SCe-HVAC system 2x10A-M-WM	2542282	on request

SCe-HVAC system 3x10A-M-WM	2542283	on request
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### Pump control/interface module

#### Connect module Yonos MAXO

Wilo-Connect module Yonos MAXO	2210108	EUR 187,-
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### Differential pressure detection

#### DDG (4-20mA)

Wilo-DDG 10 Signal Trans.(4-20mA)2G VP.	2136454	EUR 363,-
Wilo-DDG 20 Signal Trans.(4-20mA)2G VP.	2136456	EUR 363,-
Wilo-DDG 40 Signal Trans.(4-20mA)2G VP.	2136458	EUR 363,-
Wilo-DDG 60 Signal Trans.(4-20mA)2G VP.	2136460	EUR 363,-
Wilo-DDG 100 Signal Trans.(4-20mA)	2211740	EUR 363,-

#### DDG power supply unit

DDG power supply unit	501865293	EUR 382,-
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#### DDG transducer

DDG transducer	501771990	EUR 1,775,-
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