Water



# Data sheet

# **Operating data**

Fluid media

# Hydraulic data

Energy efficiency index (EEI)	0.17
Maximum operating pressure <i>PN</i>	10 bar
Head max <i>H</i> <sub>max</sub>	9.0 m
Flow max hr <i>Q</i> max hr	34.0 m³/h
Flow max add <i>Q</i> max add	52.0 m³/h
Minimum suction head at 50 °C <i>m</i>	5 m
Minimum suction head at 95 °C <i>m</i>	12 m
Minimum suction head at 110 °C	18 m
Min. fluid temperature <i>T</i> <sub>min</sub>	-10 °C
Max. fluid temperature <i>T</i> <sub>max</sub>	90 °C
Min. ambient temperature T <sub>min</sub>	-10 °C
Max. ambient temperature T <sub>max</sub>	40 °C

Motor data	
Mains connection	1~230 V ±10%, 50/60 Hz
Min current I <sub>min</sub>	0.2 A
Max current I <sub>max</sub>	2.4 A
Min. speed <i>n</i> <sub>min</sub>	650 1/min
Max. speed <i>n</i> <sub>max</sub>	3050 1/min
Power consumption P <sub>1 min</sub>	10 W
Power consumption P <sub>1 max</sub>	550 W
Power consumption $P_{1 \max}$	550 W EN 61800- 3;2004+A1;2012 /residential area (C1)
	EN 61800- 3;2004+A1;2012 /residential
Interference emission	EN 61800- 3;2004+A1;2012 /residential area (C1) EN 61800- 3;2004+A1;2012 /industrial

## Materials

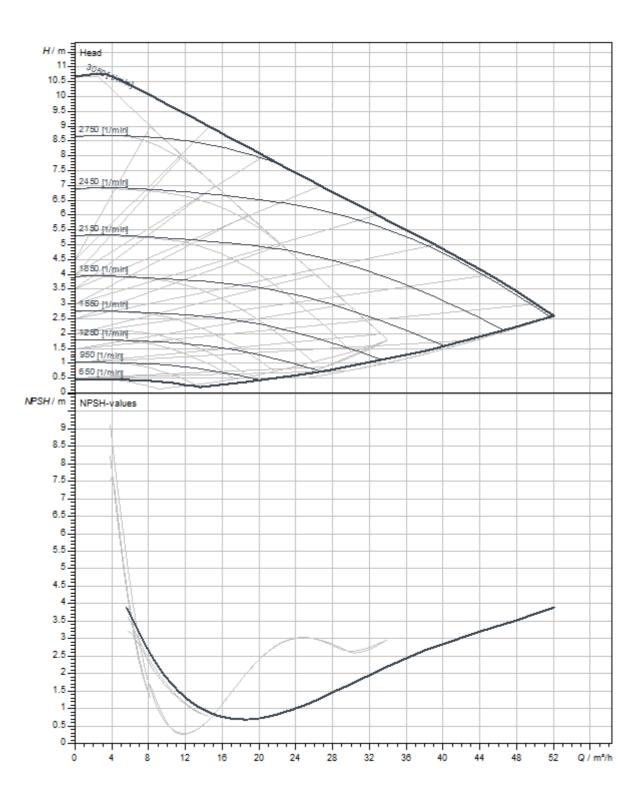
Pump housing	Cast iron
Impeller	PPS-GF40
Shaft	1.4028, DLC-coated
Bearing	Carbon, antimony- impregnated

# 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



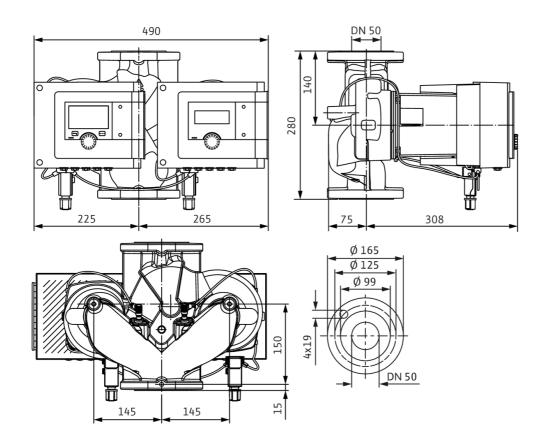
# **Pump curves**





# Dimensions and dimensions drawings

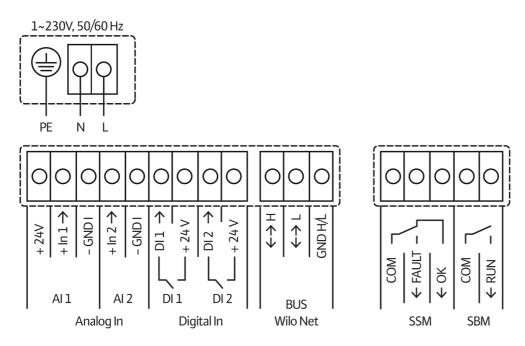
# Stratos MAXO-D 50/0,5-9 PN6/10-R7





# Wiring diagram

Standard: 1~ 230 V, 50/60 Hz, Option: 3~ 230 V, 50/60 Hz



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

# **Ordering information**

#### **Product data**

Brand	Wilo
Product description	Stratos MAXO-D 50/0,5-9 PN6/10-R7
Article number	2217980
EAN number	4062679195599
Colour	Green/black/silver
Minimum order quantity	1
Date of sales availability	2021-09-01

**Dimension**, weight

Length with packaging	800 mm
Length <i>L</i>	280 mm
Height with packaging	394 mm
Height <i>H</i>	404 mm
Width with packaging	600 mm
Width W	490 mm
Gross weight, approx. <i>m</i>	41.1 kg
Net weight, approx. <i>m</i>	37 kg

## Packaging

Number per layer	2
Packaging property	Transport packaging
Packaging type	Cardboard box
Pieces per pallet	4



# Tender text

Premium smart-pump Wilo-Stratos MAXO-D-R7

High-efficiency in-line glandless twin-head pump with EC motor and electronic power adjustment. Can be used for cold water, heating water and water/glycol mixtures. Energy efficiency index (EEI) between  $\leq 0.17$  and  $\leq 0.19$  depending on pump type.

#### **Control modes:**

- Permanent, automatic power adjustment to system requirements without setpoint specification Wilo
  Dynamic Adapt plus (factory setting). Up to 20% energy savings compared to dp-v control mode.
- > Constant temperature (T-const.)
- > Constant differential temperature (dT-const.)
- > Needs-based volume flow optimisation of the feeder pump through connectivity and communication between multiple pumps (Multi-Flow Adaptation).
- > Constant volume flow (Q-const.)
- > Differential pressure control (dp-c) to a remote point in the pipe network (index circuit evaluator)
- > Constant differential pressure (dp-c)
- > Variable differential pressure (dp-v) with the option to set the nominal duty point
- > Constant speed (n-const.)
- > User-defined **PID** control

#### **Functions:**

- > Heat quantity measurement
- > Cooling quantity measurement
- > Pump automatically deactivates when no flow is detected (No-Flow Stop)
- > Switchover between heating and cooling mode (automatic, external or manual) (automatic, possible with Stratos MAXO temperature sensor)
- > Adjustable volume flow limiter using the Q-Limit function (Q<sub>min.</sub> and Q<sub>max.</sub>)
- > Operating modes of twin-head pumps: Efficiencyoptimised parallel operation for dp-c and dp-v, main and standby operation
- > Ability to save and restore configured pump settings (3 restoration points)
- > Fault and warning messages shown in plain text with advice on resolving the issue
- > Pump venting function for automatic venting of the rotor chamber
- > Automatic setback operation (possible with Stratos MAXO temperature sensor)
- > Automatic deblocking function and integrated full motor protection
- > Dry-running detection

## Display:

- > Control mode
- > Setpoint
- > Volume flow
- Temperature (possible with Stratos MAXO temperature sensor)
- > Power consumption
- > Electric consumption
- > Active influences (e.g. STOP, No-Flow Stop)

## Version:

- > 2 configurable analogue inputs: 0–10 V, 2–10 V, 0– 20 mA, 4–20 mA and commercially available PT1000; +24 V DC power supply
- > 2 configurable **digital inputs** (Ext. OFF, Ext. Min, Ext. Max, heating/cooling, manual override (uncoupled from building automation), operation lock (key lock and remote operation configuration protection))
- > 2 configurable signal relays for run signals and fault messages
- Slot for Wilo-CIF modules with interfaces for building automation BA (optional accessories: CIF modules Modbus RTU, Modbus TCP, BACnet MS/TP, BACnet IP, LON, PLR, CANopen)
- > Wilo Net as a Wilo system bus for communication between Wilo products, e.g. Multi-Flow Adaptation; twin-head pump operation and Wilo-Smart Gateway
- > Automatic emergency operation with definable pump speed for exceptional circumstances, e.g. bus communication or sensor value malfunction
- > **Graphic colour display** (4.3 inches) with one-button manual operation
- > Use the Wilo-Assistant app to read and set operating data and –among other things– set up a commissioning protocol through the Bluetooth interface (no further accessories required)
- Integrated dual pump management (twin-head pumps are prewired) when using 2 single pumps as twin-head pump unit (connection via Wilo Net)
- > Cable break detection when using an analogue signal (in connection with 2–10 V or 4–20 mA)
- > Outdoor installation with weather protection possible in accordance with the installation and operating instructions
- > Pre-set date and time

## Scope of delivery

- > Pump
- > 2x optimised Wilo-Connector, suitable for all sizes
- > 4x threaded cable gland, M16 x 1.5
- > 2x gaskets
- > Concise Installation and operating instructions



## **Optional accessories:**

- > CIF module: Modbus TCP, Modbus RTU, BACnet IP, BACnet MS/TP, LON, PLR, CANopen
- > PT 1000 (B) pipe contact sensor (for domestic hot water)
- > PT 1000 (AA) sensor for installation in immersion well
- > Differential pressure sensor
- > Smart Gateway
- Stratos MAXO temperature sensor (can be retrofitted for recording and displaying the fluid temperature and using the temperature-controlled control modes T-const., dT-const.)

# **Operating data**

Fluid media	Water
Fluid temperature <i>T</i>	-10 °C
Ambient temperature <i>T</i>	-10 °C
Maximum operating pressure <i>PN</i>	10 bar
Minimum suction head at 50 °C <i>m</i>	5 m
Minimum suction head at 95 °C <i>m</i>	12 m
Minimum suction head at 110 °C	18 m

# Materials

Pump housing	Cast iron
Impeller	PPS-GF40
Shaft	1.4028, DLC-coated
Bearing	Carbon, antimony- impregnated

## Installation dimensions

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

## Motor data

Energy efficiency index (EEI)	0.17
Interference emission	EN 61800- 3;2004+A1;2012 /residential area (C1)
Interference immunity	EN 61800- 3;2004+A1;2012 /industrial environment (C2)
Mains connection	1~230 V, 50/60 Hz
Power consumption $P_{1 \max}$	550 W
Min. speed n <sub>min</sub>	650 1/min
Max. speed <i>n</i> <sub>max</sub>	3050 1/min
Protection class motor	IPX4D
Threaded cable connection	5 x M16x1.5

## **Ordering information**

Brand	Wilo
Product description	Stratos MAXO-D 50/0,5-9 PN6/10-R7
Net weight, approx. <i>m</i>	37 kg
Article number	2217980