

## Data sheet

## Operating data

|             |       |
|-------------|-------|
| Fluid media | Water |
|-------------|-------|

## Hydraulic data

|                                     |                         |
|-------------------------------------|-------------------------|
| Energy efficiency index (EEI)       | 0.17                    |
| Maximum operating pressure $PN$     | 6 bar                   |
| Head max $H_{\max}$                 | 15.5 m                  |
| Flow max hr $Q_{\max \text{ hr}}$   | 73.0 m <sup>3</sup> /h  |
| Flow max add $Q_{\max \text{ add}}$ | 112.0 m <sup>3</sup> /h |
| Minimum suction head at 50 °C $m$   | 7 m                     |
| Minimum suction head at 95 °C $m$   | 15 m                    |
| Minimum suction head at 110 °C      | 23 m                    |
| Min. fluid temperature $T_{\min}$   | -10 °C                  |
| Max. fluid temperature $T_{\max}$   | 90 °C                   |
| Min. ambient temperature $T_{\min}$ | -10 °C                  |
| Max. ambient temperature $T_{\max}$ | 40 °C                   |

## Motor data

|                                |                                                      |
|--------------------------------|------------------------------------------------------|
| Mains connection               | 1~230 V $\pm$ 10%, 50/60 Hz                          |
| Min current $I_{\min}$         | 0.3 A                                                |
| Max current $I_{\max}$         | 7.14 A                                               |
| Min. speed $n_{\min}$          | 500 1/min                                            |
| Max. speed $n_{\max}$          | 3200 1/min                                           |
| Power consumption $P_{1 \min}$ | 20 W                                                 |
| Power consumption $P_{1 \max}$ | 1645 W                                               |
| Interference emission          | EN 61800-3;2004+A1;2012 /residential area (C1)       |
| Interference immunity          | EN 61800-3;2004+A1;2012 /industrial environment (C2) |
| Insulation class               | F                                                    |
| Protection class               | IPX4D                                                |

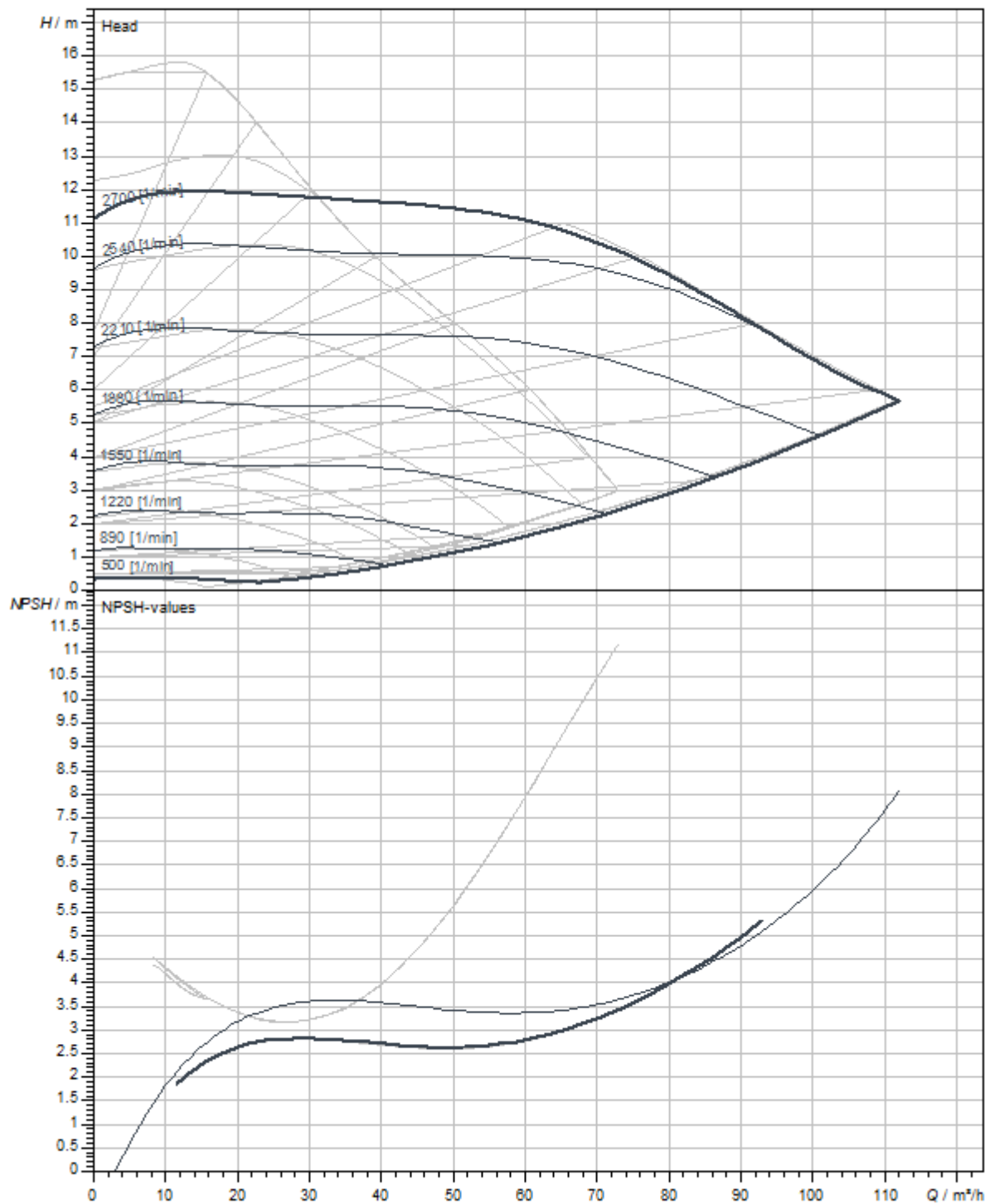
## Materials

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

## Installation dimensions

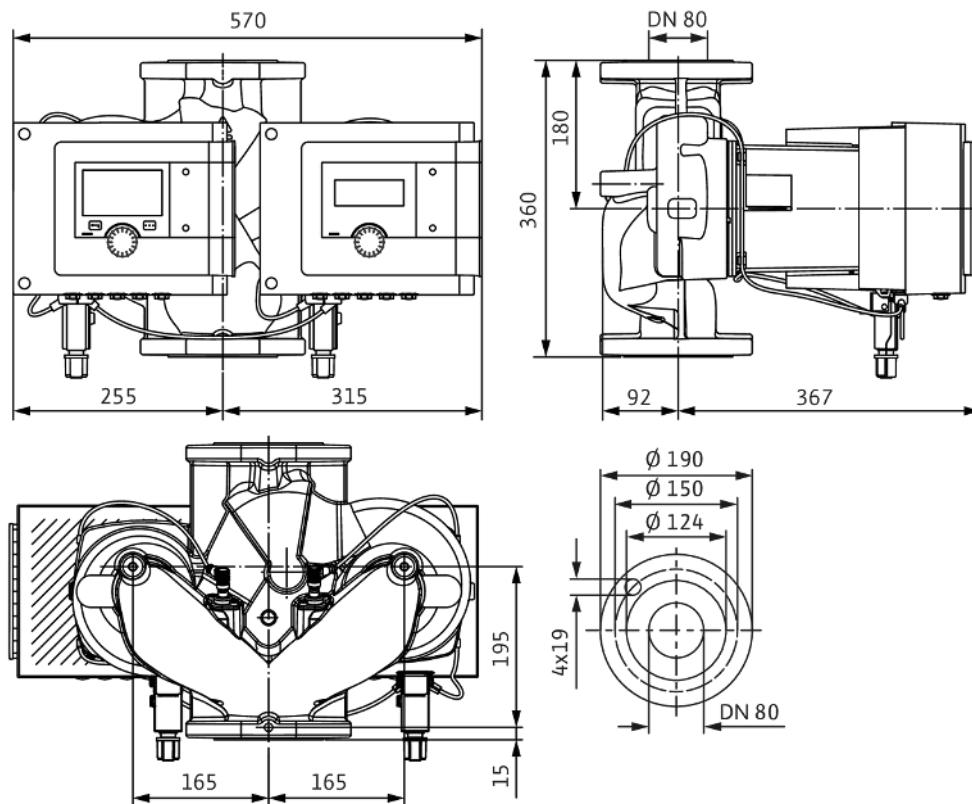
|                                              |        |
|----------------------------------------------|--------|
| Pipe connection on the discharge side $DN_d$ | DN 80  |
| Pipe connection on the suction side $DN_s$   | DN 80  |
| Port-to-port length $L_0$                    | 360 mm |

## Pump curves



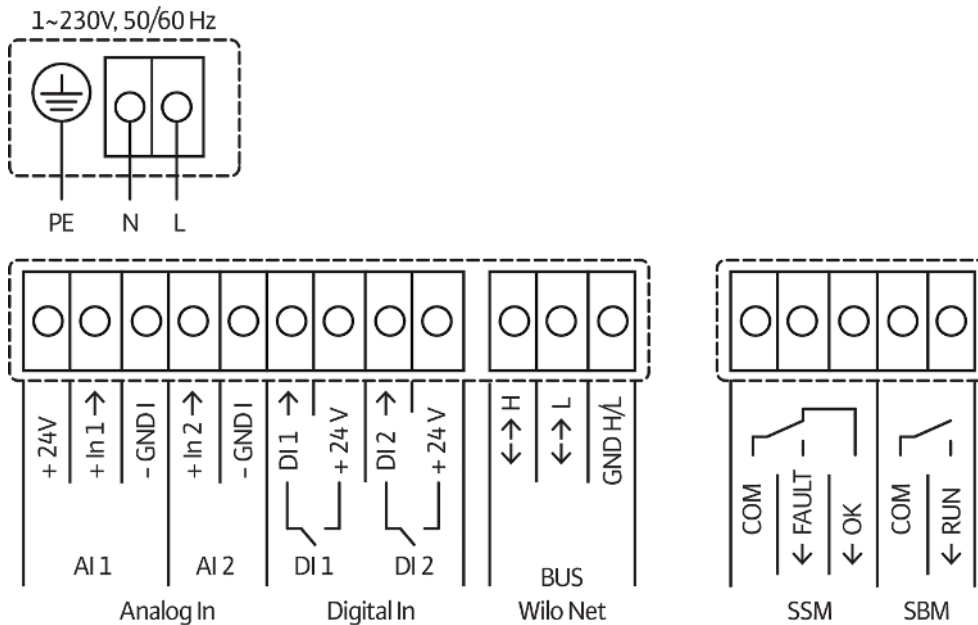
## Dimensions and dimensions drawings

### Stratos MAXO-D 80/0,5-16 PN6-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 80/0,5-16 PN6-R7 |
| Article number             | 2217990                         |
| EAN number                 | 4062679195698                   |
| 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>                | 360 mm  |
| Height with packaging          | 525 mm  |
| Height <i>H</i>                | 463 mm  |
| Width with packaging           | 600 mm  |
| Width <i>W</i>                 | 570 mm  |
| Gross weight, approx. <i>m</i> | 70.5 kg |
| Net weight, approx. <i>m</i>   | 65 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: Efficiency-optimised **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 $T$             | -10 °C |
| Ambient temperature $T$           | -10 °C |
| Maximum operating pressure $PN$   | 6 bar  |
| Minimum suction head at 50 °C $m$ | 7 m    |
| Minimum suction head at 95 °C $m$ | 15 m   |
| Minimum suction head at 110 °C    | 23 m   |

**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 $P_{1\max}$ | 1645 W                                               |
| Min. speed $n_{\min}$         | 500 1/min                                            |
| Max. speed $n_{\max}$         | 3200 1/min                                           |
| Protection class motor        | IPX4D                                                |
| Threaded cable connection     | 5 x M16x1.5                                          |

**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 $DNs$   | DN 80  |
| Pipe connection on the discharge side $DNd$ | DN 80  |
| Port-to-port length $LO$                    | 360 mm |

**Ordering information**

|                         |                                 |
|-------------------------|---------------------------------|
| Brand                   | Wilo                            |
| Product description     | Stratos MAXO-D 80/0,5-16 PN6-R7 |
| Net weight, approx. $m$ | 65 kg                           |
| Article number          | 2217990                         |