Hydraulic data

Maximum operating pressure PN	10 bar
Min. fluid temperature for HVAC applications T_{min}	0 °C
Max. fluid temperature for HVAC T	80 °C
Min. ambient temperature T_{min}	0 °C
Max. ambient temperature T_{max}	40 °C
Max. permitted total water hardness	3.57 mmol/l (20°dH)

Motor data

Energy efficiency index (EEI)	0.17
Mains connection	1~230 V, 50/60 Hz
Rated power P_2	0.48 kW
Rated current I_N	2.49 A
Min. speed n_{min}	650 1/min
Max. speed n_{max}	3600 1/min
Power consumption $P_{1\,min}$	10.0 W
Power consumption $P_{1\,max}$	570.0 W
Interference emission	EN 61800-3;2004+A1;2012 /residential area (C1)
Interference immunity	EN 61800-3;2004+A1;2012 /industrial environment (C2)
Speed control	Frequency converter
Insulation class	F
Protection class motor	IPX4D
Motor protection	Internal protection overheating and overcurrent

Materials

Pump housing	Stainless steel
Impeller	PPS-GF40
Shaft	1.4122, DLC-coated
Bearing	Carbon-graphite

Installation dimensions

Pipe connection on the suction side DNs	DN 40
Pipe connection on the pressure side DNd	DN 40
Port-to-port length $L0$	250 mm

Wilo-Stratos MAXO-Z 40/0,5-12

Wilo-Stratos MAXO-Z
40/0,5-12
1~230 V – DN 40

3600 1/min
3240 1/min
2880 1/min
2520 1/min
2160 1/min
1800 1/min
1440 1/min
1080 1/min
650 1/min

P_1/W
n= const

3600 1/min
2160 1/min
650 1/min

Wilo-Stratos MAXO-Z
40/0,5-12
1~230 V – DN 40

max.
1600 1/min

P_1/W
Δp-c

max.
12m
10m
8m
6m
4m
2m
0,5m
1600 1/min
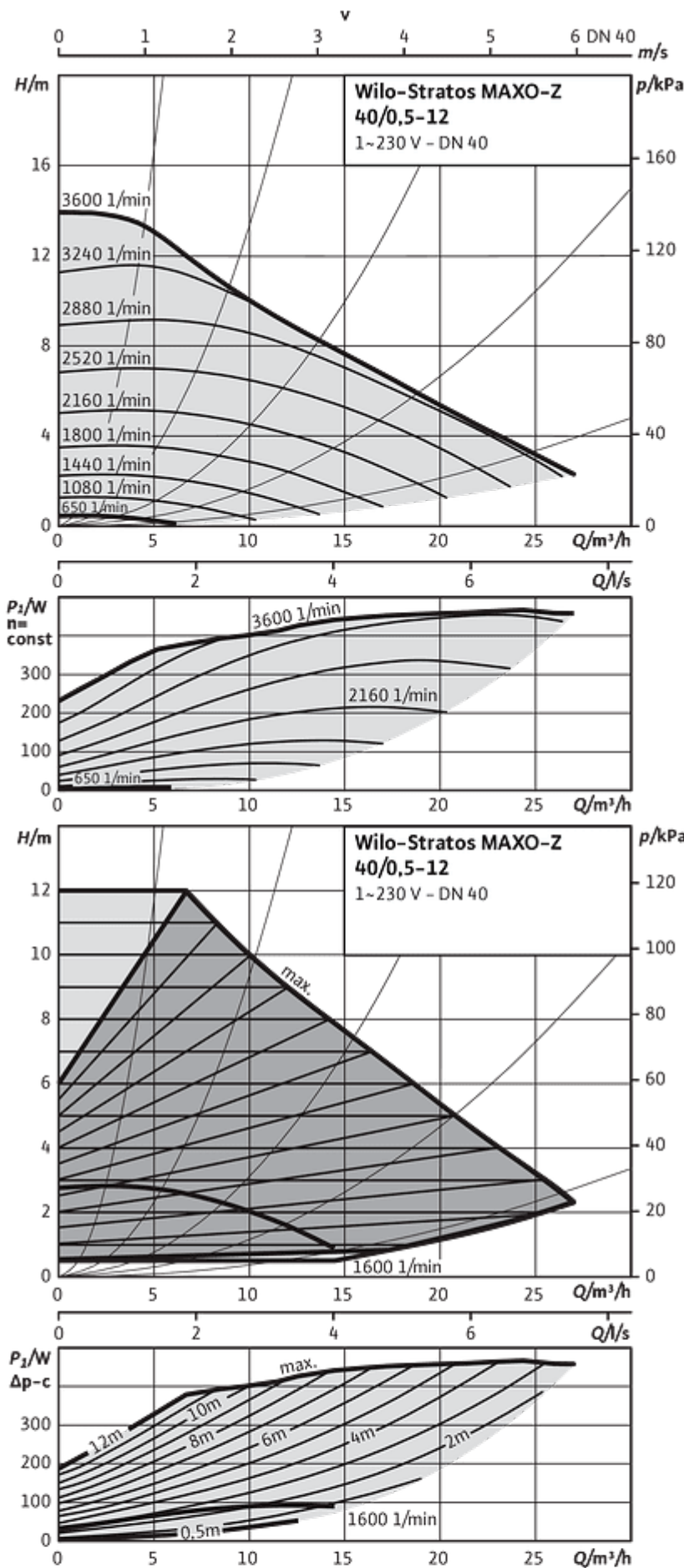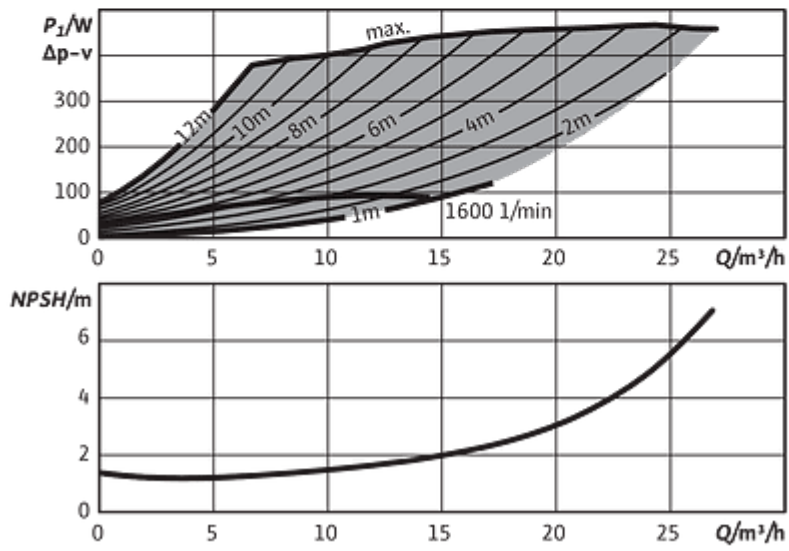
Stratos MAXO-Z 40/0,5-12 PN 6/10
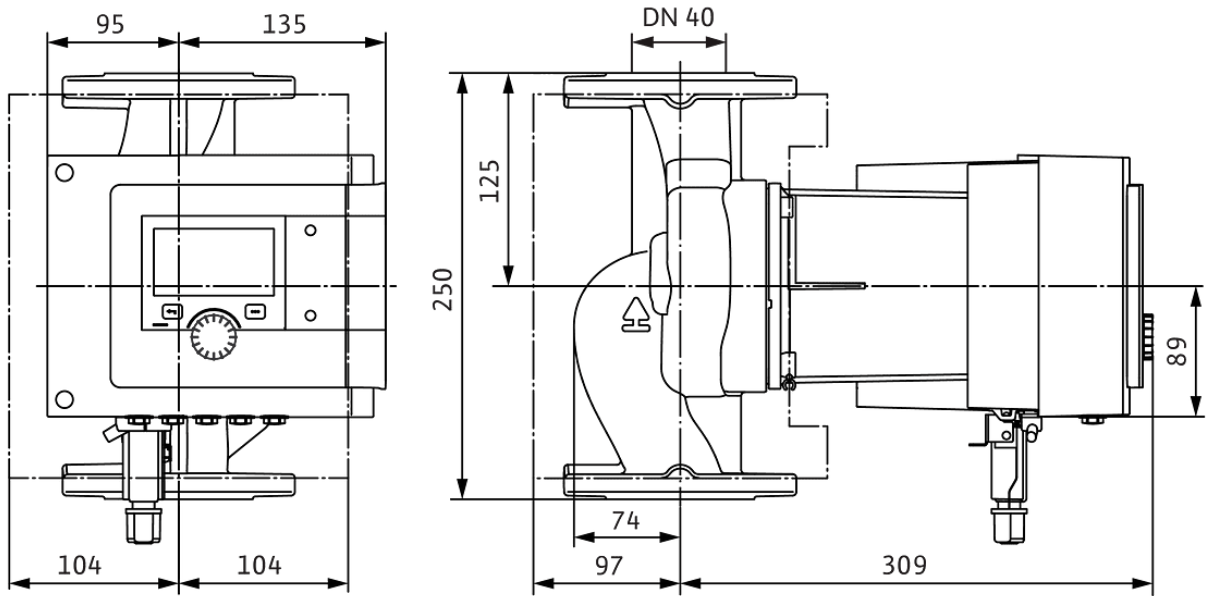
Standard: 1~ 230 V, 50/60 Hz, Option: 3~ 230 V, 50/60 Hz

1~230V, 50/60 Hz

PE   N   L

+24V | +In1 ↑ | –GND I | +In2 ↑ | –GND I | DI1 ↑ | +24V | DI2 ↑ | +24V | ↔→ H | ↔→ L | GND H/L | COM | ↓ FAULT – | ↓ OK | COM | ↓ RUN –

AI 1   AI 2   DI 1   DI 2

Analog In   Digital In   BUS   Wilo Net   SSM   SBM
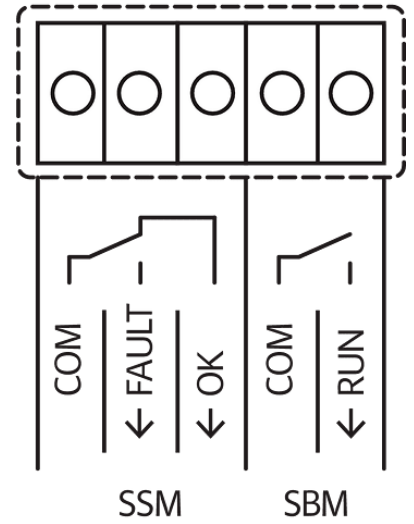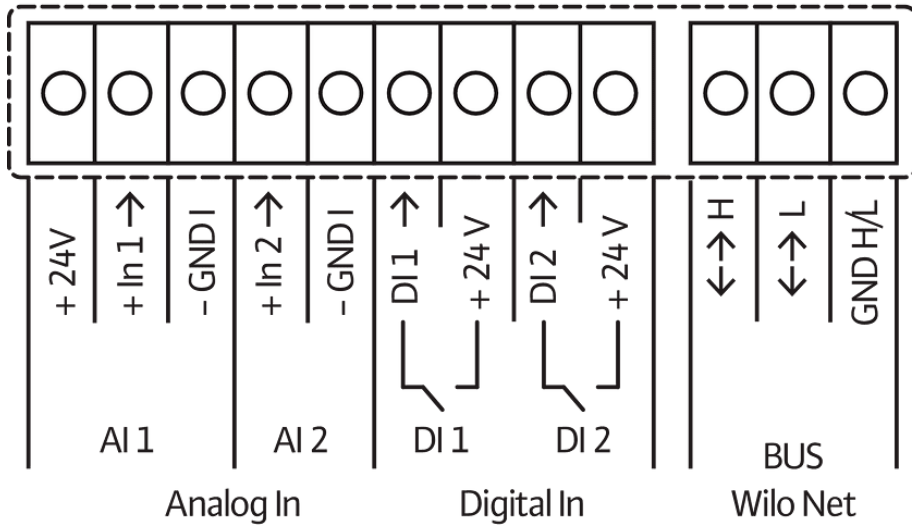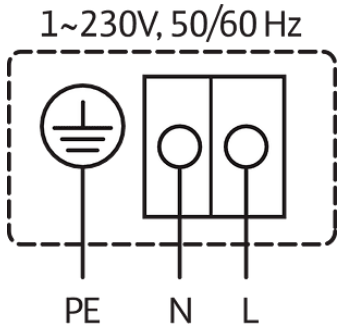
SSM: Collective fault signal (NC contact in accordance with VDI 3814, load capacity 1 A, 250 V ~)

Product data

Brand	Wilo
Product description	Stratos MAXO-Z 40/0,5-12
Article number	2164675
EAN number	4048482700175
Colour	Green/black/silver
Minimum order quantity	1
Date of sales availability	2018-11-01

Packaging

Number per layer	4
Packaging property	Transport packaging
Packaging type	Cardboard box
Pieces per pallet	8

Dimension, weight

Length with packaging	800 mm
Length L	410 mm
Height with packaging	394 mm
Height H	250 mm
Width with packaging	600 mm
Width W	239 mm
Gross weight, approx. m	21.9 kg
Net weight, approx. m	17 kg

Premium smart-pump Wilo-Stratos MAXO-Z

High-efficiency inline glandless pump with EC motor and electronic power adjustment. Can be used for drinking water, cold water, heating water and water/glycol mixtures. Energy efficiency index (EEI) between ≤ 0.17 and ≤ 0.19 depending on pump type.

Control modes:

> Permanent, automatic performance adaptation to system requirements without setpoint specification **Wilo Dynamic Adapt plus**. Up to 20% energy savings compared to dp-v control mode.

> Constant temperature **(T-const.,** factory setting**)**

> 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)

> Adjustable volume flow limiter using the Q-Limit function **($Q_{min.}$ and $Q_{max.}$)**

> 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**

> Automatic **deblocking function** and integrated **full motor protection**

> **Dry-running detection**

> Automatic detection of thermal disinfection (for domestic hot water circulation) in conjunction with a separate temperature sensor

Operating data

Fluid media	Water
Fluid temperature T	0 °C
Ambient temperature T	0 °C
Maximum operating pressure PN	10 bar
Minimum suction head at 50 °C m	5.0 m
Minimum suction head at 95 °C m	12.0 m
Minimum suction head at 110 °C	18.0 m
Max. permitted total water hardness	3.57 mmol/l (20°dH)

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 $P_{1\,max}$	570.0 W
Min. speed n_{min}	650 1/min
Max. speed n_{max}	3600 1/min
Protection class motor	IPX4D
Threaded cable connection	5 x M16x1.5

Materials

Pump housing	Stainless steel
Impeller	PPS-GF40
Shaft	1.4122, DLC-coated
Bearing	Carbon-graphite

Installation dimensions

Pipe connection on the suction side DNs	DN 40
Pipe connection on the pressure side DNd	DN 40
Port-to-port length $L0$	250 mm

Display:

- Control mode
- Setpoint
- Volume flow
- Temperature
- 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 **operational 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, CAN)
- Wilo Net as a Wilo system bus for communication between Wilo products, e.g. **Multi-Flow Adaptation**; double pump operation and Wilo-Smart Gateway
- **Integrated temperature sensor**
- 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)
- 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
- Thermal insulation shell for heating applications

Scope of delivery:

- Pump
- Optimised Wilo-Connector
- 2x threaded cable connection M16 x 1.5
- Washers for flange screws M12 and M16 (for nominal connection diameters DN 32 to DN 65)
- 2x gaskets for threaded connection

Information for order placements

Brand	Wilo
Product description	Stratos MAXO-Z 40/0,5-12
Net weight, approx. *m*	17 kg
Article number	2164675

> Thermal insulation shell

> Concise Installation and operating instructions

Optional accessories:

> ClimaForm cold insulation to avoid the formation of condensate

> CIF module: Modbus TCP, Modbus RTU, BACnet IP, BACnet MS/TP, LON, PLR, CAN

> PT 1000 (B) pipe contact sensor (for domestic hot water)

> PT 1000 (AA) sensor for installation in immersion well

> Differential pressure sensor

> Smart Gateway