



Data sheet

Hydraulic data

| | |
|------------------------------------|--------|
| Minimum efficiency index (MEI) | ≥0.4 |
| Maximum operating pressure P_N | 16 bar |
| Min. fluid temperature T_{min} | -20 °C |
| Max. fluid temperature T_{max} | 120 °C |
| Min. ambient temperature T_{min} | 0 °C |
| Max. ambient temperature T_{max} | 50 °C |

Drive

| | |
|-------------------------------|-------------------|
| Mains connection | 3~400 V, 50/60 Hz |
| Number of poles | 4 |
| Motor efficiency class | IE5 |
| Rated power P_2 | 4 kW |
| Rated current I_N | 7.1 A |
| Rated speed n | 2960 1/min |
| Max. speed n_{max} | 2960 1/min |
| Power consumption $P_{1 max}$ | 4600 W |
| Emitted interference | EN 61800-3 |
| Interference resistance | EN 61800-3 |
| Insulation class | F |
| Protection class motor | IP55 |
| Threaded cable connection | 1 x M25x1.5 |

Materials

| | |
|--------------|------------------------------|
| Pump housing | Grey cast iron |
| Impeller | PPE/PS-GF30 |
| Shaft | Stainless steel |
| Shaft seal | AQ1EGG |
| Lantern | 5.1301/EN-GJL-250 KTL-coated |

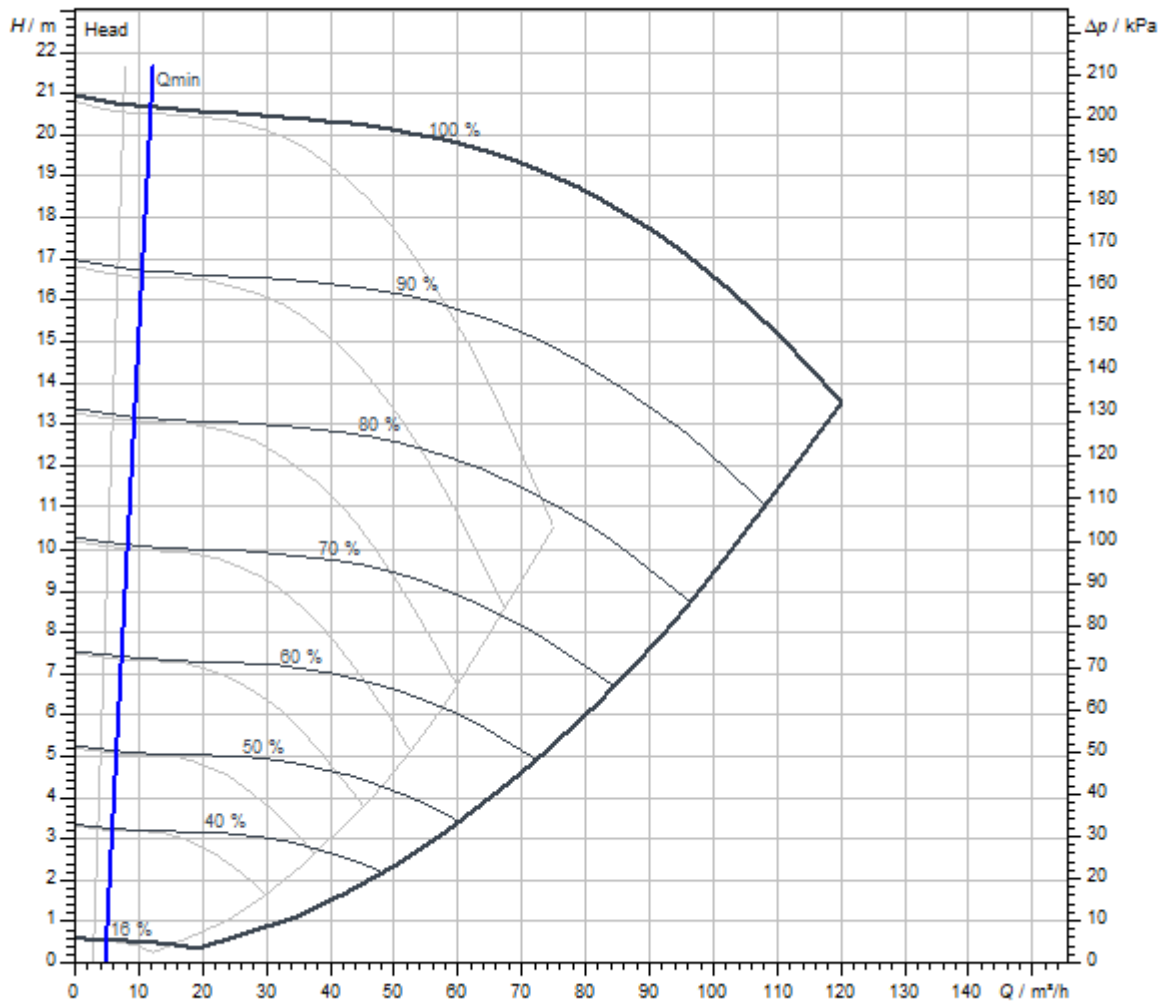
Approved liquids (other liquids upon request)

| | |
|--|--------------------------------------|
| Heating water (as per VDI 2035) | yes |
| Heat carrier oil | Special version at additional charge |
| Cooling and cold water circulation systems | yes |
| Water-glycol mixtures (at 20 – 40 vol. % glycol and fluid temperature ≤ 40 °C) | yes |

Installation dimensions

| | |
|--|--------|
| Port-to-port length L_0 | 340 mm |
| Pipe connection on the suction side DN_s | DN 65 |
| Pipe connection on the discharge side DN_d | DN 65 |

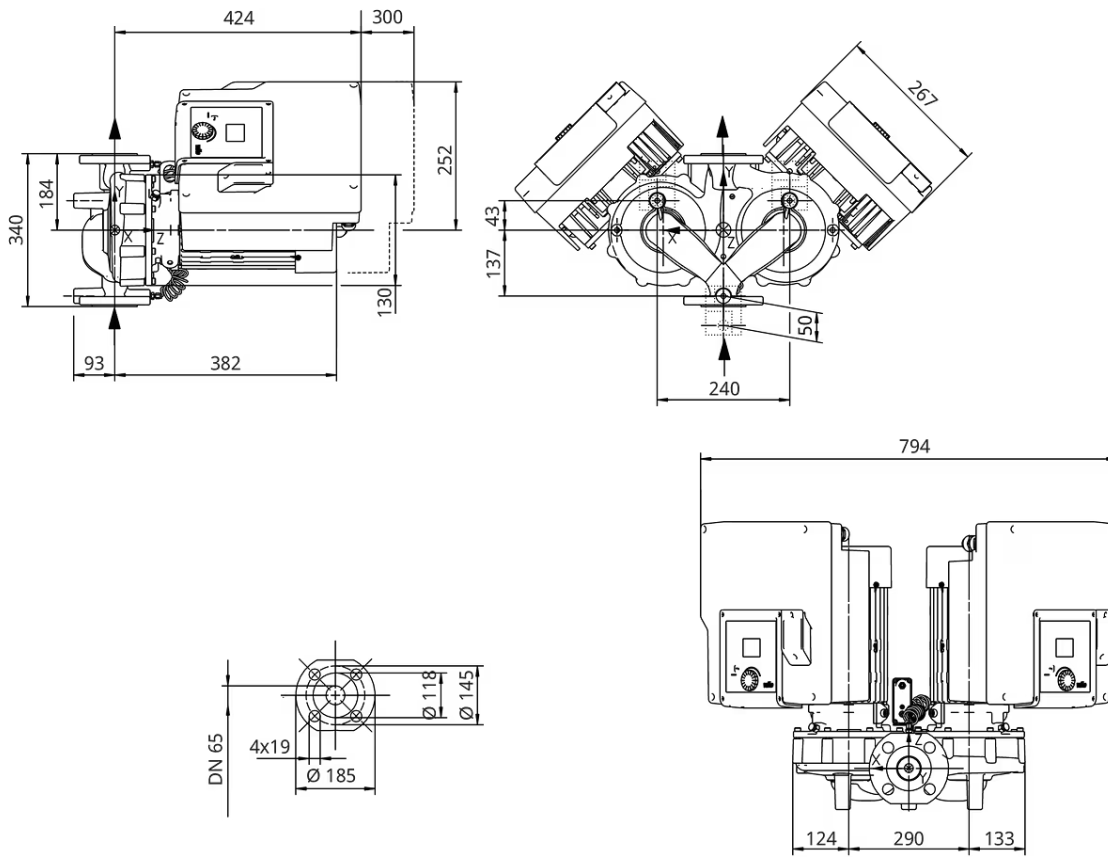
Pump curves



| | |
|---|-------------|
| Fluid media | Water 100 % |
| Fluid temperature <i>T</i> | 20.00 °C |
| speed at duty point <i>n hydr. @ OP</i> | 2,962 1/min |

Dimensions and dimensions drawings

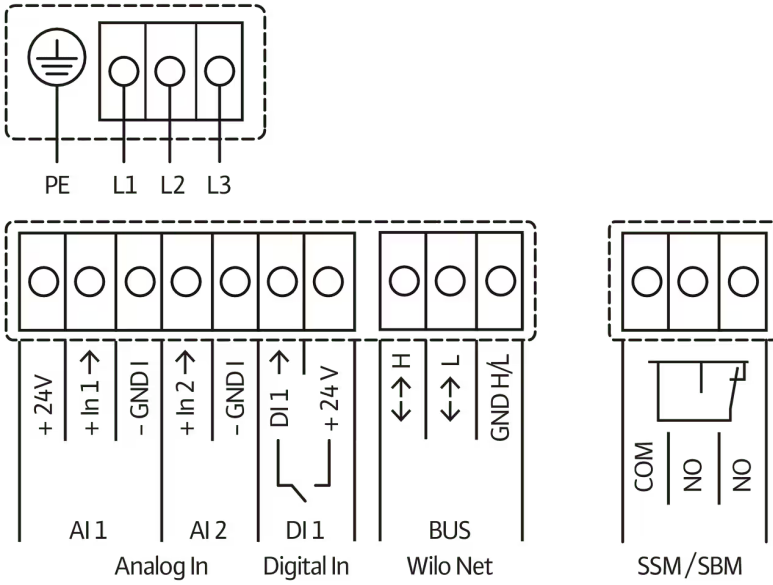
Yonos GIGA2.0-D 65/1-20/4,0



Wiring diagram

3~ 380 V...440 V, 50/60 Hz

3~380V...440V, 50/60 Hz



Tender text

In-line pump with high energy efficiency with EC motor of energy efficiency class IE5 in accordance with IEC 60034-30-2, hydraulics with minimum efficiency index $MEI \geq 0.4$ and electronic power adjustment in glanded pump design. The pump is configured as a single-stage low-pressure centrifugal pump with flange connection and mechanical seal. The **Yonos GIGA2.0-D** has been predominantly designed for pumping heating water (acc. to VDI 2035), cold water and water-glycol mixtures without abrasive substances in heating, air conditioning and cooling systems.

Design:

- > Single-stage low-pressure centrifugal pump with one-piece shaft in monobloc design
- > Spiral housing in in-line design (suction and discharge ports with the same flanges in a line)
- > PN 16 flange – in accordance with EN 1092-2
- > Pressure measuring connections (R 1/8) for mounted differential pressure sensor (version ...-R1 without differential pressure sensor)
- > Pump housing and lantern/motor flange with cataphoretic coating as standard
- > Mechanical seal for pumping water up to $T_{max.} = +120\text{ °C}$. A glycol admixture of 20 % to +40 % by volume is permitted up to $T \leq +40\text{ °C}$. An alternative mechanical seal must be provided in water-glycol mixtures with glycol proportions > 40 % up to max. 50 % by volume and a fluid temperature of > +40 °C up to max. +120 °C or fluids other than water. When using water-glycol mixtures, the use of an S1 variant with a corresponding mechanical seal is generally recommended.
- > Connection voltages:
 - > 3~440 V $\pm 10\%$ 50/60 Hz; 3~400 V $\pm 10\%$ 50/60 Hz; 3~380 V -5 % +10 % 50/60 Hz
 - > Version M-: 1~220 V ... 240 V ($\pm 10\%$), 50/60 Hz
- > Compliance with electromagnetic compatibility without additional measures
 - > Interference emission for residential environment according to EN 61800-3:2018
 - > Interference immunity for industrial environments according to EN 61800-3:2018

Control modes:

- > Variable differential pressure (**dp-v**)
- > Constant differential pressure (**dp-c**)
- > Constant speed (**n-const.**)
- > User-defined **PID** control

Functions:

- > **Operating modes of twin-head pump:**
 - Main/standby operation**, efficiency-optimised **parallel operation** for dp-c and dp-v
- > Integrated **full motor protection**

Display in the "Home screen" of the graphic display:

- > Control mode currently set
- > Current setpoint
- > Current actual value
- > Current volume flow (only if a differential pressure sensor is connected)
- > Current power consumption

Version:

- > **1 analogue input:** 0 ... 10 V, 2 ... 10 V, 0 ... 20 mA, 4 ... 20 mA only for sensor value from differential pressure sensor
- > **1 analogue input:** 0 ... 10 V, 2 ... 10 V, 0 ... 20 mA, 4 ... 20 mA only for external setpoint sensor
- > **1 digital input** (Ext. OFF)
- > **2 Signal relays** for **run signals and fault messages**
- > **Slot for Wilo-CIF modules** with interfaces for building automation (BA) (optional accessories: CIF modules Ethernet, Modbus RTU, BACnet MS/TP, LON, PLR, CAN)
- > **Wilo Net** as Wilo system bus for communication during twin-head pump operation
- > **Automatic emergency operation** with definable pump speed for exceptional circumstances, e.g. bus communication or sensor value malfunction
- > **Rotatable, graphic colour display** (2 inches) with one button manual operation level
- > Integrated **dual pump management** (twin-head pumps are prewired) connection via Wilo Net
- > **Cable break detection** when using an analogue signal (in connection with 2 ... 10 V or 4 ... 20 mA)
- > Standard **condensate drainage holes** in the motor housing (closed upon delivery)
- > **Air vent valve** on the lantern

Scope of delivery:

- > Pump
- > Installation and operating instructions and declaration of conformity

Accessories must be ordered separately:

3 mounting brackets with fixation material for installation on a base

- > Blind flanges for twin-head pump housing
- > For connection to building automation:
 - > CIF module PLR
 - > CIF module LON
 - > CIF module BACnet MS/TP
 - > Modbus RTU CIF module
 - > CIF module CANopen
 - > CIF module Ethernet Multi-protocol (Modbus TCP, BACnet/IP)
 - > Connection M12 RJ45 CIF Ethernet
- > Differential pressure sensor DPS 2 ... 10 V
- > Differential pressure sensor DPS 4 ... 20 mA

Operating Data

| | |
|-------------------------------------|------------|
| Min. fluid temperature T_{\min} | -20 °C |
| Max. fluid temperature T_{\max} | 120 °C |
| Min. ambient temperature T_{\min} | 0 °C |
| Max. ambient temperature T_{\max} | 50 °C |
| Maximum operating pressure P_N | 16 bar |
| Minimum efficiency index (MEI) | ≥ 0.4 |

Motor data

| | |
|-------------------------|-------------------|
| Motor efficiency class | IE5 |
| Emitted interference | EN 61800-3 |
| Interference resistance | EN 61800-3 |
| Mains connection | 3~400 V, 50/60 Hz |
| Rated power P_2 | 4000 W |
| Max. speed n_{\max} | 2960 1/min |
| Rated current I_N | 7.1 A |
| Insulation class | F |
| Protection class motor | IP55 |
| Motor protection | PTC integrated |


Materials

| | |
|--------------|------------------------------|
| Pump housing | Grey cast iron |
| Impeller | PPE/PS-GF30 |
| Shaft | Stainless steel |
| Shaft seal | AQ1EGG |
| Lantern | 5.1301/EN-GJL-250 KTL-coated |

Installation dimensions

| | |
|---|--------|
| Pipe connection on the suction side DNs | DN 65 |
| Pipe connection on the discharge side DNd | DN 65 |
| Port-to-port length $L0$ | 340 mm |

Ordering information

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|-------------------------|--|
| Brand | Wilo |
| Product description | Yonos GIGA2.0-D 65/1-20/4,0 |
| Net weight, approx. m | 74.8 kg |
| Article number | 2205885  |

Installation type

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

CCe-HVAC system

| | |
|-------------------------|---------|
| CCe-HVAC system 1 x 2.2 | 2536676 |
| CCe-HVAC system 2 x 2.2 | 2536677 |
| CCe-HVAC system 3 x 2.2 | 2536678 |
| CCe-HVAC system 4 x 2.2 | 2536679 |
| CCe-HVAC system 5 x 2.2 | 2536680 |
| CCe-HVAC system 6 x 2.2 | 2536681 |

Antenna GSM/GPRS

| | |
|--|---------|
| D-network dual-band antenna with 3 m cable | 2533862 |
| D-network tri-band antenna 10 m cable | 2533863 |
| D-network tri-band antenna 15 m cable | 2533864 |

DDG impulse selector

| | |
|----------------------|---------|
| DDG impulse selector | 2533770 |
|----------------------|---------|

BMS base module

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|-----------------|---------|
| BMS base module | 2533800 |
|-----------------|---------|

CC communication module BACnet

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|--|---------|
| CC-communication module BACnet IP (slave) | 2537051 |
| CC-communication module BACnet MS/TP (slave) | 2537050 |

Communication module LON

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|--------------------------|---------|
| Communication module LON | 2533868 |
|--------------------------|---------|

Communication module ModBus

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|---------------------------------|---------|
| Communication module Modbus RTU | 2533869 |
|---------------------------------|---------|

Communication module Profibus

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|----------------------------------|---------|
| Communication module Profibus DP | 2533866 |
|----------------------------------|---------|

Communication module CC

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|-------------------------|---------|
| CC communication module | 2533850 |
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Communication module GSM

| | |
|------------|---------|
| GSM module | 2533861 |
|------------|---------|

Pump signalling module

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|----------------------------|---------|
| Signalling module pump 1-2 | 2533812 |
| Signalling module pump 3-6 | 2533836 |

Signal converter retrofit kit

| | |
|-----------------------------------|---------|
| Signal converter 0-10 V / 0-20 mA | 2534992 |
|-----------------------------------|---------|

Connection cable control modules/signalling modules

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|-------------------------------------|---------|
| Control modules connecting cable | 2533790 |
| Signalling modules connecting cable | 2533890 |

DDG transducer

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|----------------|-----------|
| DDG transducer | 501771990 |
|----------------|-----------|

DDG power supply unit

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|-----------------------|-----------|
| DDG power supply unit | 501865293 |
|-----------------------|-----------|

Extension kit differential pressure sensor for Y-piece application

| | |
|-----------------------|---------|
| Extension for DDG-kit | 2166098 |
|-----------------------|---------|

Continuous, infinitely variable control, temperature-dependent CCe-HVAC system

CCe-HVAC system

| | |
|-------------------------|---------|
| CCe-HVAC system 1 x 2.2 | 2536676 |
| CCe-HVAC system 2 x 2.2 | 2536677 |
| CCe-HVAC system 3 x 2.2 | 2536678 |
| CCe-HVAC system 4 x 2.2 | 2536679 |
| CCe-HVAC system 5 x 2.2 | 2536680 |
| CCe-HVAC system 6 x 2.2 | 2536681 |

Antenna GSM/GPRS

| | |
|--|---------|
| D-network dual-band antenna with 3 m cable | 2533862 |
| D-network tri-band antenna 10 m cable | 2533863 |
| D-network tri-band antenna 15 m cable | 2533864 |

BMS base module

| | |
|-----------------|---------|
| BMS base module | 2533800 |
|-----------------|---------|

CC communication module BACnet

| | |
|--|---------|
| CC-communication module BACnet IP (slave) | 2537051 |
| CC-communication module BACnet MS/TP (slave) | 2537050 |

Communication module LON

| | |
|--------------------------|---------|
| Communication module LON | 2533868 |
|--------------------------|---------|

Communication module ModBus

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|---------------------------------|---------|
| Communication module Modbus RTU | 2533869 |
|---------------------------------|---------|

Communication module Profibus

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|----------------------------------|---------|
| Communication module Profibus DP | 2533866 |
|----------------------------------|---------|

Communication module CC

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|-------------------------|---------|
| CC communication module | 2533850 |
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Communication module GSM

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|------------|---------|
| GSM module | 2533861 |
|------------|---------|

Pump signalling module

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|----------------------------|---------|
| Signalling module pump 1-2 | 2533812 |
|----------------------------|---------|

| | |
|----------------------------|---------|
| Signalling module pump 3-6 | 2533836 |
|----------------------------|---------|

Signal converter retrofit kit

| | |
|-----------------------------------|---------|
| Signal converter 0-10 V / 0-20 mA | 2534992 |
|-----------------------------------|---------|

Temperature module

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|---|---------|
| Temperature module for systems with 1-3 pumps | 2534991 |
|---|---------|

| | |
|---|---------|
| Temperature module for systems with 4-6 pumps | 2533771 |
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Connection cable control modules/signalling modules

| | |
|----------------------------------|---------|
| Control modules connecting cable | 2533790 |
|----------------------------------|---------|

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|-------------------------------------|---------|
| Signalling modules connecting cable | 2533890 |
|-------------------------------------|---------|

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

SCe-HVAC system

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|--------------------------|---------|
| SCe-HVAC system 1x10A-WM | 2545254 |
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| SCe-HVAC system 2x10A-WM | 2545255 |
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| SCe-HVAC system 3x10A-WM | 2545256 |
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|--------------------------|---------|
| SCe-HVAC system 4x10A-WM | 2545257 |
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Antenna GSM/GPRS

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|--|---------|
| D-network dual-band antenna with 3 m cable | 2533862 |
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|---------------------------------------|---------|
| D-network tri-band antenna 10 m cable | 2533863 |
|---------------------------------------|---------|

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|---------------------------------------|---------|
| D-network tri-band antenna 15 m cable | 2533864 |
|---------------------------------------|---------|

DDG impulse selector

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|----------------------|---------|
| DDG impulse selector | 2533770 |
|----------------------|---------|

Communication module LON (SC)

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|-------------------------------|---------|
| Communication module LON (SC) | 2538243 |
|-------------------------------|---------|

SC communication module BACnet

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|--|---------|
| SC-communication module BACnet MS/TP (slave) | 2538242 |
|--|---------|

Communication module GSM (SC)

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|-------------------------------|---------|
| Communication module GSM (SC) | 2542216 |
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Pump signalling module

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|----------------------------|---------|
| Signalling module pump 1-2 | 2533812 |
|----------------------------|---------|

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|----------------------------|---------|
| Signalling module pump 3-6 | 2533836 |
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SC-HVAC signal board

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|----------------------|---------|
| SC-HVAC signal board | 2119646 |
|----------------------|---------|

DDG transducer

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|----------------|-----------|
| DDG transducer | 501771990 |
|----------------|-----------|

DDG power supply unit

| | |
|-----------------------|-----------|
| DDG power supply unit | 501865293 |
|-----------------------|-----------|

Extension kit differential pressure sensor for Y-piece application

| | |
|-----------------------|---------|
| Extension for DDG-kit | 2166098 |
|-----------------------|---------|

Continuous, infinitely variable control, temperature-dependent SCe-HVAC system

SCe-HVAC system

| | |
|--------------------------|---------|
| SCe-HVAC system 1x10A-WM | 2545254 |
|--------------------------|---------|

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|--------------------------|---------|
| SCe-HVAC system 2x10A-WM | 2545255 |
|--------------------------|---------|

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|--------------------------|---------|
| SCe-HVAC system 3x10A-WM | 2545256 |
|--------------------------|---------|

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|--------------------------|---------|
| SCe-HVAC system 4x10A-WM | 2545257 |
|--------------------------|---------|

Antenna GSM/GPRS

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|--|---------|
| D-network dual-band antenna with 3 m cable | 2533862 |
|--|---------|

| | |
|---------------------------------------|---------|
| D-network tri-band antenna 10 m cable | 2533863 |
|---------------------------------------|---------|

| | |
|---------------------------------------|---------|
| D-network tri-band antenna 15 m cable | 2533864 |
|---------------------------------------|---------|

Communication module LON (SC)

| | |
|--|---------|
| Communication module LON (SC) | 2538243 |
| SC communication module BACnet | |
| SC-communication module BACnet MS/TP (slave) | 2538242 |
| Communication module GSM (SC) | |
| Communication module GSM (SC) | 2542216 |
| Pump signalling module | |
| Signalling module pump 1-2 | 2533812 |
| Signalling module pump 3-6 | 2533836 |
| SC-HVAC signal board | |
| SC-HVAC signal board | 2119646 |