

## Data sheet

### Hydraulic data

Maximum operating pressure $P_N$	16 bar
Min. fluid temperature $T_{\min}$	-20 °C
Max. fluid temperature $T_{\max}$	140 °C
Min. ambient temperature $T_{\min}$	-15 °C
Max. ambient temperature $T_{\max}$	40 °C

### Motor data

Mains connection	3~400 V, 50 Hz
Voltage tolerance	±10 %
Rated power $P_2$	11 kW
Motor efficiency class	IE3
Rated current $I_N$	19.6 A
Rated speed $n$	2925 1/min
Power factor $\cos \varphi_{100}$	0.85
Insulation class	F
Protection class motor	IP55

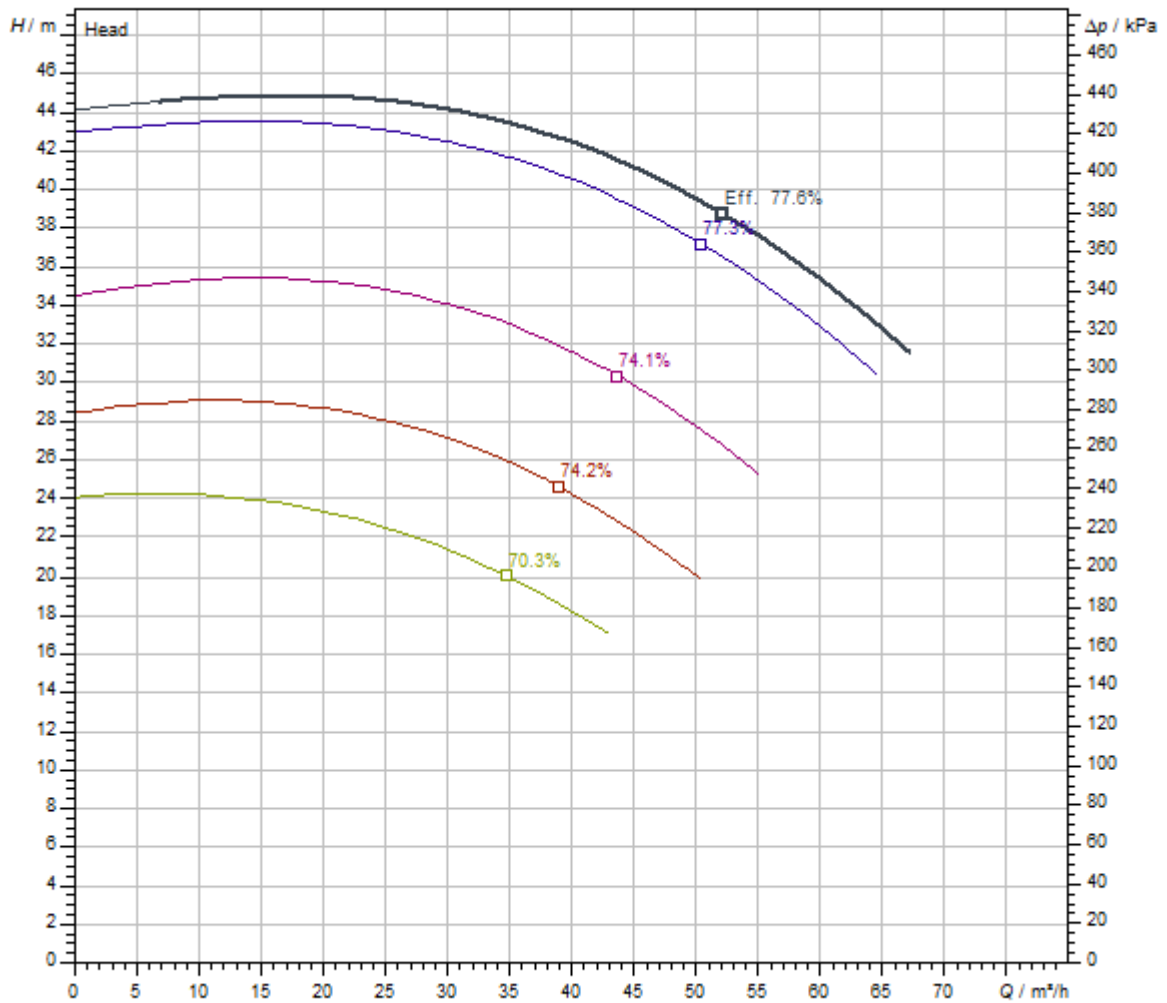
### Installation dimensions

Pipe connection on the suction side $DN_s$	DN 65
Pipe connection on the discharge side $DN_d$	DN 40

### Materials

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

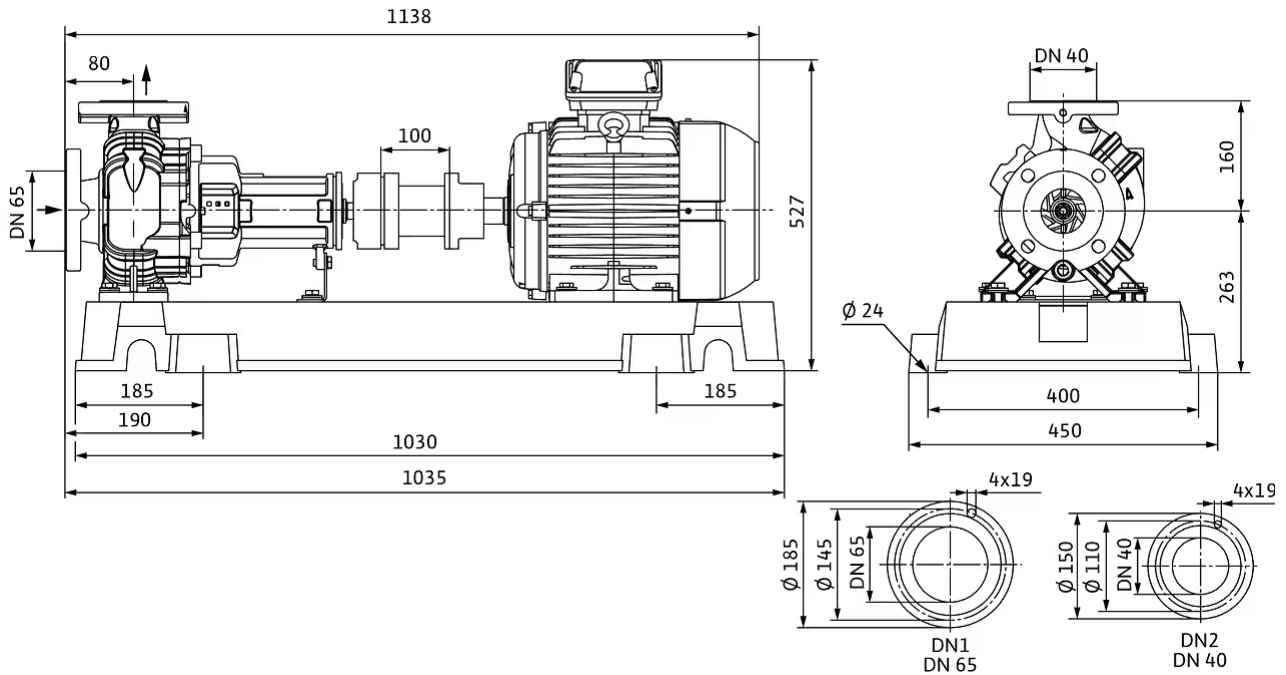
Pump curves



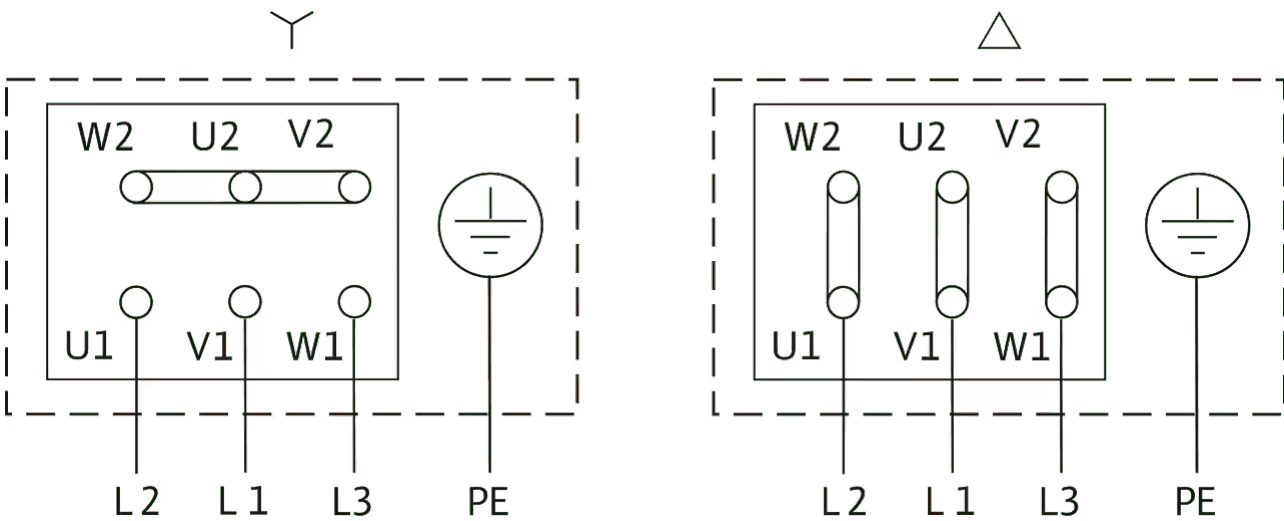
Standard	ISO 9906 3B
Fluid media	Water 100 %
Fluid temperature <i>T</i>	20.00 °C
speed at duty point <i>n hydr. @ OP</i>	2,963 1/min
Impeller diameter <i>d imp.</i>	175 mm

Dimensions and dimensions drawings

Atmos GIGA-N 40/160-11/2



Wiring diagram



Δ: Connection diagram delta connection

Y: Connection diagram star connection

Motor protection switch required on-site. Check the direction of rotation! To change the direction of rotation, exchange any two phases.

$P_2 \leq 3 \text{ kW}$  3~400 V Y

3~230 V Δ


$P_2 \geq 4 \text{ kW}$  3~690 V Y

3~400 V Δ

After removing the bridges, Y-Δ start is possible.

## Ordering information

### Product data

Brand	Wilo
Product description	Atmos GIGA-N 40/160-11/2
Article number	<b>6086544</b> 
EAN number	4048482981369
Colour	Green
Minimum order quantity	1
Date of sales availability	2019-03-01

### Packaging

Packaging type	Special pallet
Packaging property	Transport packaging
Pieces per pallet	1
Number per layer	1

### Dimension, weight

Length with packaging	1200 mm
Length <i>L</i>	1138 mm
Height with packaging	667 mm
Height <i>H</i>	527 mm
Width with packaging	500 mm
Width <i>W</i>	450 mm
Gross weight, approx. <i>m</i>	252 kg
Net weight, approx. <i>m</i>	241 kg

## Tender text

Single-stage centrifugal pump as baseplate pump in accordance with EN 733, with axial suction ports and radial pressure ports for installation on a base. Pump with support foot and flanged bearing bracket, coupling, coupling guard and motor mounted to same baseplate.

IEC motor with 3 PTC thermistor sensors. Shaft sealing with bidirectional bellows mechanical seal. Grey cast iron housing, stainless steel shaft, grey cast iron impeller. Cathaphoretic coating as standard for all cast iron components in contact with fluid.

Coupling variants:

- > Spacer coupling (standard)
- > Elastic coupling (variant P5, at a reduced price)

Impeller variants (for an additional charge):

- > Bronze

> Stainless steel

### NOTICE

The elastic coupling does not contain a spacer.

The spacer coupling is an elastic coupling with a spacer. The spacer reduces maintenance costs, and further motor orientation when changing the mechanical seal is not necessary.

## Materials

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

## Operating Data

Min. fluid temperature $T_{\min}$	-20 °C
Max. fluid temperature $T_{\max}$	140 °C
Maximum operating pressure $p$	16.0 bar
Max. ambient temperature $T_{\max}$	40 °C
Minimum efficiency index (MEI)	≥0.4


## Motor data

Mains connection	3~400 V, 50 Hz
Voltage tolerance	±10 %
Motor efficiency class	IE3
Rated power $P_2$	11000 W
Rated speed $n$	2925 1/min
Rated current $I_N$	19.6 A
Power factor $\cos \varphi_{100}$	0.85
Motor efficiency 50% $\eta_M 50\%$	90.6 %
Motor efficiency 75% $\eta_M 75\%$	91.1 %
Motor efficiency 100% $\eta_M 100\%$	91.2 %
Protection class	IP55
Insulation class	F

## Installation dimensions

Pipe connection on the suction side $DN_s$	DN 65
Pipe connection on the discharge side $DN_d$	DN 40

## Ordering information

Brand	Wilo
Net weight, approx. $m$	241 kg
Product description	Atmos GIGA-N 40/160-11/2
Article number	<b>6086544</b> 

## Installation type

### Continuous, infinitely variable control, differential pressure-sensitive CC-HVAC system

#### CC-HVAC system

CC-HVAC-System 1x24A-T34-SD-FC-BM	2527842
CC-HVAC-System 2x24A-T34-SD-FC-BM	2527843
CC-HVAC-System 3x24A-T34-SD-FC-BM	2527844

#### 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

#### Outdoor temperature sensor Pt 100

Outdoor temperature sensor Pt 100	2533772
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#### DDG impulse selector

DDG impulse selector	2533770
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#### BMS base module

BMS base module	2533800
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#### 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
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#### Communication module ModBus

Communication module Modbus RTU	2533869
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#### Communication module Profibus

Communication module Profibus DP	2533866
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#### Communication module GSM

GSM module	2533861
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#### Pump signalling module

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
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### Connection cable control modules/signalling modules

Control modules connecting cable	2533790
Signalling modules connecting cable	2533890

### DDG (4-20mA)

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

### DDG transducer

DDG transducer	501771990
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### DDG power supply unit

DDG power supply unit	501865293
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### PTC thermistor tripping unit

PTC thermistor tripping unit	509275993
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## Continuous, infinitely variable control, temperature-dependent CC-HVAC system

### CC-HVAC system

CC-HVAC-System 1x24A-T34-SD-FC-BM	2527842
CC-HVAC-System 2x24A-T34-SD-FC-BM	2527843
CC-HVAC-System 3x24A-T34-SD-FC-BM	2527844

### 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

### Outdoor temperature sensor Pt 100

Outdoor temperature sensor Pt 100	2533772
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### BMS base module

BMS base module	2533800
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### CC communication module BACnet

CC-communication module BACnet IP (slave)	2537051
CC-communication module BACnet MS/TP (slave)	2537050
<b>Communication module LON</b>	
Communication module LON	2533868
<b>Communication module ModBus</b>	
Communication module Modbus RTU	2533869
<b>Communication module Profibus</b>	
Communication module Profibus DP	2533866
<b>Communication module GSM</b>	
GSM module	2533861
<b>Pump signalling module</b>	
Signalling module pump 1-2	2533812
Signalling module pump 3-6	2533836
<b>Signal converter retrofit kit</b>	
Signal converter 0-10 V / 0-20 mA	2534992
<b>Temperature module</b>	
Temperature module for systems with 1-3 pumps	2534991
Temperature module for systems with 4-6 pumps	2533771
<b>Connection cable control modules/signalling modules</b>	
Control modules connecting cable	2533790
Signalling modules connecting cable	2533890
<b>PTC thermistor tripping unit</b>	
PTC thermistor tripping unit	509275993
<b>Continuous, infinitely variable control, differential pressure-sensitive SC-HVAC system</b>	
<b>SC/SC-FC-HVAC system</b>	
SC-FC-HVAC system 1x20A-FC-BM (direct starting)	2545454
SC-FC-HVAC system 1x24A-FC-BM (star-delta-starting)	2545478
SC-FC-HVAC system 2x20A-FC-BM (direct starting)	2545455
SC-FC-HVAC system 2x24A-FC-BM (star-delta-starting)	2545479
SC-FC-HVAC system 3x20A-FC-BM (direct starting)	2545456
SC-FC-HVAC system 3x24A-FC-BM (star-delta-starting)	2545480

SC-FC-HVAC system 4x20A-FC-BM (direct starting)	2545457
SC-FC-HVAC system 4x24A-FC-BM (star-delta-starting)	2545481
SC-HVAC system 1x20A-WM (direct starting)	2545338
SC-HVAC system 1x24A-WM (star-delta-starting)	2545362
SC-HVAC system 2x20A-WM (direct starting)	2545339
SC-HVAC system 2x24A-WM (star-delta-starting)	2545363
SC-HVAC system 3x20A-WM (direct starting)	2545340
SC-HVAC system 3x24A-WM (star-delta-starting)	2545364
SC-HVAC system 4x20A-WM (direct starting)	2545341
SC-HVAC system 4x24A-WM (star-delta-starting)	2545365

**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

**Outdoor temperature sensor Pt 100**

Outdoor temperature sensor Pt 100	2533772
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**DDG impulse selector**

DDG impulse selector	2533770
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**Communication module LON (SC)**

Communication module LON (SC)	2538243
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**SC communication module BACnet**

SC-communication module BACnet MS/TP (slave)	2538242
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**Communication module GSM (SC)**

Communication module GSM (SC)	2542216
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**Pump signalling module**

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

**SC-HVAC signal board**

SC-HVAC signal board	2119646
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**DDG (4-20mA)**

Wilo-DDG 10 Signal Trans.(4-20mA)2G VP.	2136454
Wilo-DDG 100 Signal Trans.(4-20mA)	2211740

Wilo-DDG 20 Signal Trans.(4-20mA)2G VP.	2136456
Wilo-DDG 40 Signal Trans.(4-20mA)2G VP.	2136458
Wilo-DDG 60 Signal Trans.(4-20mA)2G VP.	2136460

#### DDG transducer

DDG transducer	501771990
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#### DDG power supply unit

DDG power supply unit	501865293
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#### PTC thermistor tripping unit

PTC thermistor tripping unit	509275993
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### Continuous, infinitely variable control, temperature-dependent SC-HVAC system

#### SC/SC-FC-HVAC system

SC-FC-HVAC system 1x20A-FC-BM (direct starting)	2545454
SC-FC-HVAC system 1x24A-FC-BM (star-delta-starting)	2545478
SC-FC-HVAC system 2x20A-FC-BM (direct starting)	2545455
SC-FC-HVAC system 2x24A-FC-BM (star-delta-starting)	2545479
SC-FC-HVAC system 3x20A-FC-BM (direct starting)	2545456
SC-FC-HVAC system 3x24A-FC-BM (star-delta-starting)	2545480
SC-FC-HVAC system 4x20A-FC-BM (direct starting)	2545457
SC-FC-HVAC system 4x24A-FC-BM (star-delta-starting)	2545481
SC-HVAC system 1x20A-WM (direct starting)	2545338
SC-HVAC system 1x24A-WM (star-delta-starting)	2545362
SC-HVAC system 2x20A-WM (direct starting)	2545339
SC-HVAC system 2x24A-WM (star-delta-starting)	2545363
SC-HVAC system 3x20A-WM (direct starting)	2545340
SC-HVAC system 3x24A-WM (star-delta-starting)	2545364
SC-HVAC system 4x20A-WM (direct starting)	2545341
SC-HVAC system 4x24A-WM (star-delta-starting)	2545365

#### 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

#### Outdoor temperature sensor Pt 100

Outdoor temperature sensor Pt 100	2533772
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**Communication module LON (SC)**

Communication module LON (SC)	2538243
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**SC communication module BACnet**

SC-communication module BACnet MS/TP (slave)	2538242
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**Communication module GSM (SC)**

Communication module GSM (SC)	2542216
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**Pump signalling module**

Signalling module pump 1-2	2533812
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Signalling module pump 3-6	2533836
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**SC-HVAC signal board**

SC-HVAC signal board	2119646
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**PTC thermistor tripping unit**

PTC thermistor tripping unit	509275993
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## Electrical accessories

### Pump control

#### Wilo-EFC

EFC11 3x380-480V 50/60Hz IP55	2193439
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### Pump control/accessories

#### 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
SMA/FME adapter	2545548

#### BMS base module

BMS base module	2533800
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#### CC communication module BACnet

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

#### Communication module CC

CC communication module	2533850
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#### Communication module GSM

GSM module	2533861
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#### Communication module GSM (SC)

Communication module GSM (SC)	2542216
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#### Communication module LON

Communication module LON	2533868
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#### Communication module LON (SC)

Communication module LON (SC)	2538243
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#### Communication module ModBus

Communication module Modbus RTU	2533869
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#### Communication module Profibus

Communication module Profibus DP	2533866
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### Connection cable control modules/signalling modules

Control modules connecting cable	2533790
Signalling modules connecting cable	2533890

### DDG impulse selector

DDG impulse selector	2533770
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### Outdoor temperature sensor Pt 100

Outdoor temperature sensor Pt 100	2533772
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### Output filter EFC (150-500 m cable length)

24.2 A sin IP54 Wilo-EFC filter	6084564
24 A sin IP00 Wilo-EFC filter	6084579
24 A sin IP20 Wilo-EFC filter	6084905

### Output filter EFC du/dt (up to 150m cable length)

40 A du/dt IP54 Wilo-EFC filter	6084544
40 A du/dt IP00 Wilo-EFC filter	6084548
40 A du/dt IP20 Wilo-EFC filter	6084553

### Pump signalling module

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

### SC communication module BACnet

SC-communication module BACnet MS/TP (slave)	2538242
BACnet IP SC communication module	2553366

### SC-HVAC signal board

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

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

Temperature module for systems with 4-6 pumps	2533771
Temperature module for systems with 1-3 pumps	2534991

### Pump control/Comfort control system

#### CC-HVAC system

CC-HVAC-System 1x24A-T34-SD-FC-BM	2527842
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CC-HVAC-System 2x24A-T34-SD-FC-BM	2527843
CC-HVAC-System 3x24A-T34-SD-FC-BM	2527844

## Pump control/Smart control system

### SC/SC-FC-HVAC system

SC-HVAC system 1x20A-WM (direct starting)	2545338
SC-HVAC system 2x20A-WM (direct starting)	2545339
SC-HVAC system 3x20A-WM (direct starting)	2545340
SC-HVAC system 4x20A-WM (direct starting)	2545341
SC-HVAC system 1x24A-WM (star-delta-starting)	2545362
SC-HVAC system 2x24A-WM (star-delta-starting)	2545363
SC-HVAC system 3x24A-WM (star-delta-starting)	2545364
SC-HVAC system 4x24A-WM (star-delta-starting)	2545365
SC-FC-HVAC system 1x20A-FC-BM (direct starting)	2545454
SC-FC-HVAC system 2x20A-FC-BM (direct starting)	2545455
SC-FC-HVAC system 3x20A-FC-BM (direct starting)	2545456
SC-FC-HVAC system 4x20A-FC-BM (direct starting)	2545457
SC-FC-HVAC system 1x24A-FC-BM (star-delta-starting)	2545478
SC-FC-HVAC system 2x24A-FC-BM (star-delta-starting)	2545479
SC-FC-HVAC system 3x24A-FC-BM (star-delta-starting)	2545480
SC-FC-HVAC system 4x24A-FC-BM (star-delta-starting)	2545481

## Differential pressure detection

### DDG (4-20mA)

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

### DDG power supply unit

DDG power supply unit	501865293
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### DDG transducer

DDG transducer	501771990
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## Motor protection

### PTC thermistor tripping unit

PTC thermistor tripping unit

509275993

## Services

With Wilo as your partner, you can not only be sure of choosing high-quality product solutions, but also of benefiting from a comprehensive, worry-free package of well thought-out services. We collaborate to develop a service concept tailored to your individual needs; with our expertise and personal consultancy, we make sure that the operation of your systems is as energy-efficient, reliable and economical as possible. All the while our competent Wilo service technicians are ready to assist you with fast, reliable and on-time support.

## Recommended services

Supervision Norm-/SCP pumps	2219322
Commissioning Norm-/SCP pumps	2160452
Maintenance BASIC Norm-/SCP pumps	2160467
Maintenance COMFORT Norm-/SCP pumps	2160482
Wilo-Live Assistant Service	2216415

## More suitable services

Service Package L Norm-/SCP pumps	2219698
Service Package M Norm-/SCP pumps	2219669
Service Package S Norm-/SCP pumps	2219640
Extended Warranty Norm-/SCP pumps	2219591
Installation Norm-/SCP pumps	2219357
System Optimisation Norm-/SCP pumps	2219252
Energy Solutions Norm-/SCP pumps	2219287
Repair Norm-/SCP pumps	2219611