



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	45 kW
Motor efficiency class	IE3
Rated current I_N	77.5 A
Rated speed n	2960 1/min
Power factor $\cos \varphi_{100}$	0.86
Insulation class	F
Protection class motor	IP55

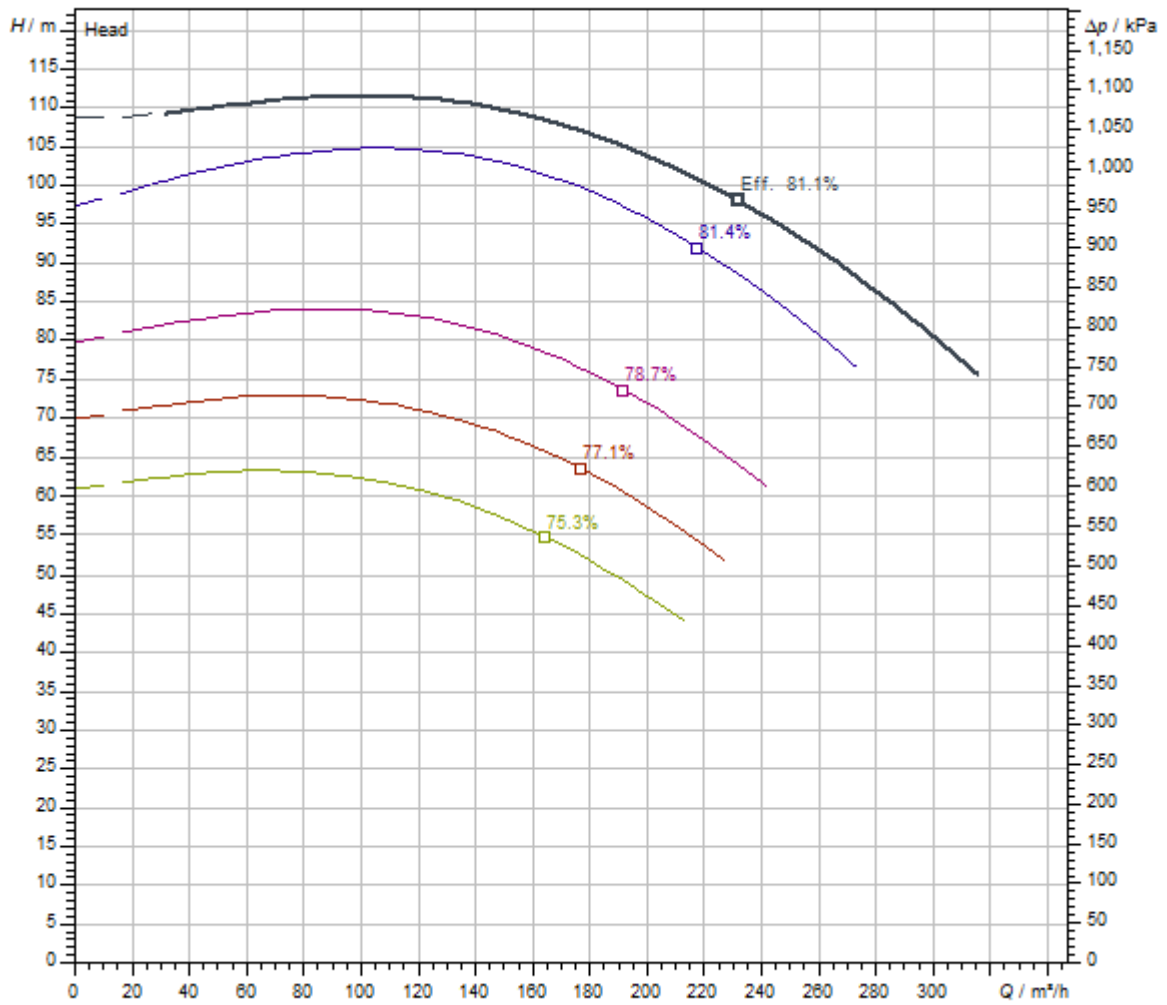
Installation dimensions

Pipe connection on the suction side DN_s	DN 100
Pipe connection on the discharge side DN_d	DN 80

Materials

Pump housing	Grey cast iron
Impeller	Grey cast iron
Shaft	Stainless steel
Mechanical seal	AQ1EGG
Lantern	Grey cast iron

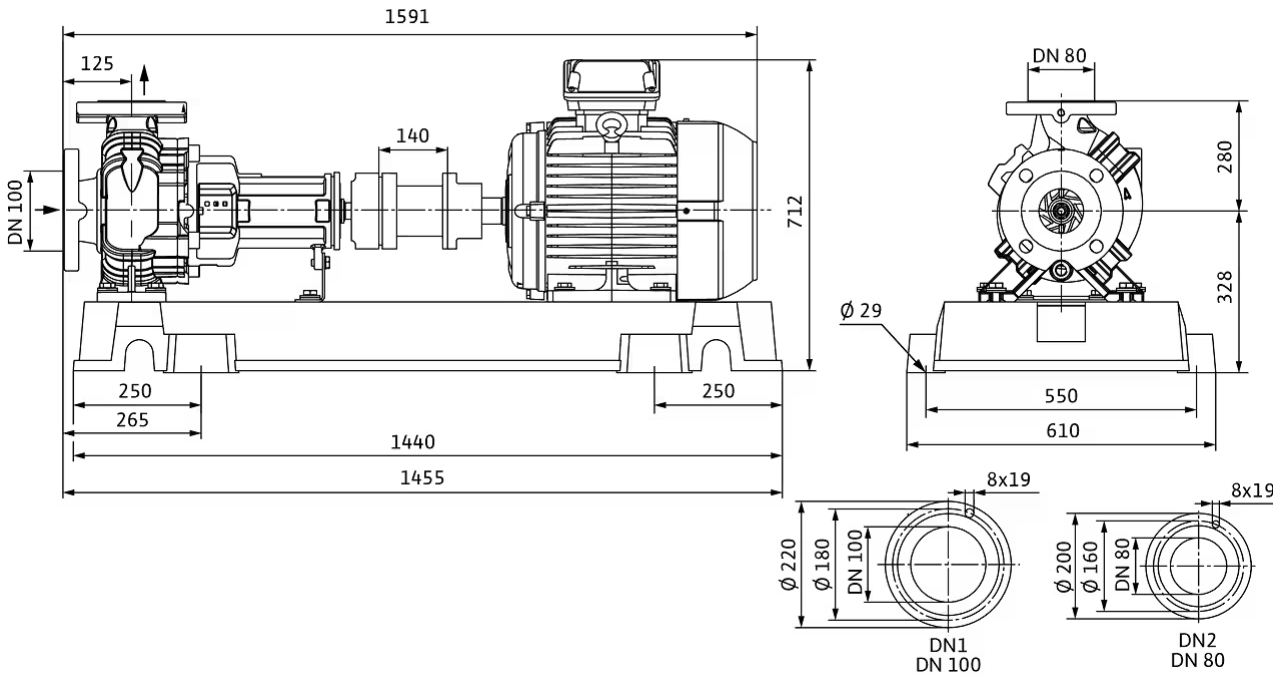
Pump curves



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>	2,984 1/min
Impeller diameter <i>d imp.</i>	273 mm

Dimensions and dimensions drawings

Atmos GIGA-N 80/250-45/2



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 80/250-45/2
Article number	6086445 
EAN number	4048482984261
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	1900 mm
Length <i>L</i>	1591 mm
Height with packaging	852 mm
Height <i>H</i>	712 mm
Width with packaging	800 mm
Width <i>W</i>	610 mm
Gross weight, approx. <i>m</i>	749 kg
Net weight, approx. <i>m</i>	706 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	Grey cast iron
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	45000 W
Rated speed n	2960 1/min
Rated current I_N	77.5 A
Power factor $\cos \varphi_{100}$	0.86
Motor efficiency 50% $\eta_M 50\%$	94.2 %
Motor efficiency 75% $\eta_M 75\%$	94.5 %
Motor efficiency 100% $\eta_M 100\%$	94.2 %
Protection class	IP55
Insulation class	F

Installation dimensions

Pipe connection on the suction side DN_s	DN 100
Pipe connection on the discharge side DN_d	DN 80

Ordering information

Brand	Wilo
Net weight, approx. m	706 kg
Product description	Atmos GIGA-N 80/250-45/2
Article number	6086445

Installation type

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

CC-HVAC system

CC-HVAC-System 1x89A-T34-SD-FC-BM	2527878
CC-HVAC-System 2x89A-T34-SD-FC-BM	2527879
CC-HVAC-System 3x89A-T34-SD-FC-BM	2527880
CC-HVAC-System 4x89A-T34-SD-FC-BM	2527881

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
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Signalling module pump 3-6	2533836
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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 1x89A-T34-SD-FC-BM	2527878
CC-HVAC-System 2x89A-T34-SD-FC-BM	2527879
CC-HVAC-System 3x89A-T34-SD-FC-BM	2527880
CC-HVAC-System 4x89A-T34-SD-FC-BM	2527881

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

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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	
Communication module Modbus RTU	2533869
Communication module Profibus	
Communication module Profibus DP	2533866
Communication module GSM	
GSM module	2533861
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
Temperature module	
Temperature module for systems with 1-3 pumps	2534991
Temperature module for systems with 4-6 pumps	2533771
Connection cable control modules/signalling modules	
Control modules connecting cable	2533790
Signalling modules connecting cable	2533890
PTC thermistor tripping unit	
PTC thermistor tripping unit	509275993

Electrical accessories

Pump control

Auto Control Inverters

1.1 Kw Inverter	2815036
18.5 Kw Inverter	2816036
30 Kw Inverter	2816039
7.5 Kw Inverter	2816047
3 Kw Inverter	2816055
1.5 Kw Inverter	2816056
2.2 Kw Inverter	2816057
4 Kw Inverter	2816058
5.5 Kw Inverter	2816059
11 Kw Inverter	2816060
15 Kw Inverter	2816061
22 Kw Inverter	2816062
37 Kw Inverter	2816063
45 Kw Inverter	2816064
55 Kw Inverter	2816065
75 Kw Inverter	2816066
90 Kw Inverter	2816067
110 Kw Inverter	2816068

Wilo-EFC

EFC45 3x380-480V 50/60Hz IP55	2193445
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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
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CC-communication module BACnet IP (slave)	2537051
Communication module CC	
CC communication module	2533850
Communication module GSM	
GSM module	2533861
Communication module GSM (SC)	
Communication module GSM (SC)	2542216
Communication module LON	
Communication module LON	2533868
Communication module LON (SC)	
Communication module LON (SC)	2538243
Communication module ModBus	
Communication module Modbus RTU	2533869
Communication module Profibus	
Communication module Profibus DP	2533866
Connection cable control modules/signalling modules	
Control modules connecting cable	2533790
Signalling modules connecting cable	2533890
DDG impulse selector	
DDG impulse selector	2533770
Outdoor temperature sensor Pt 100	
Outdoor temperature sensor Pt 100	2533772
Output filter EFC (150-500 m cable length)	
90 A sin IP54 Wilo-EFC filter	6084570
115 A sin IP00 Wilo-EFC filter	6084584
115 A sin IP23 Wilo-EFC filter	6084910
Output filter EFC du/dt (up to 150m cable length)	
90 A du/dt IP54 Wilo-EFC filter	6084545
90 A du/dt IP00 Wilo-EFC filter	6084549
90 A du/dt IP20 Wilo-EFC filter	6084554

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 1x89A-T34-SD-FC-BM	2527878
CC-HVAC-System 2x89A-T34-SD-FC-BM	2527879
CC-HVAC-System 3x89A-T34-SD-FC-BM	2527880
CC-HVAC-System 4x89A-T34-SD-FC-BM	2527881

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
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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

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