

# Submittal Data

PROJECT:	UNIT TAG:	QUANTITY:	
	 TYPE OF SERVICE:		
REPRESENTATIVE:	 SUBMITTED BY:	 DATE:	
ENGINEER:	 APPROVED BY:	 DATE:	
CONTRACTOR:	ORDER NO.:	 DATE:	

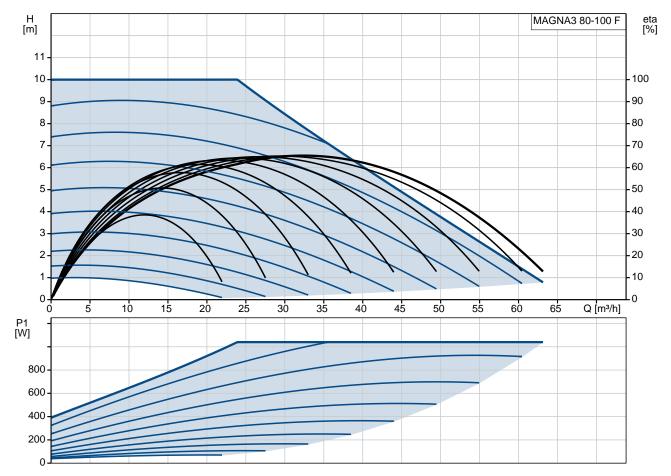


# MAGNA3 80-100 F

The newest high-end circulator solution, a large number of electronicly controlled operation features and by far exceeding the demands from the EuP directive.

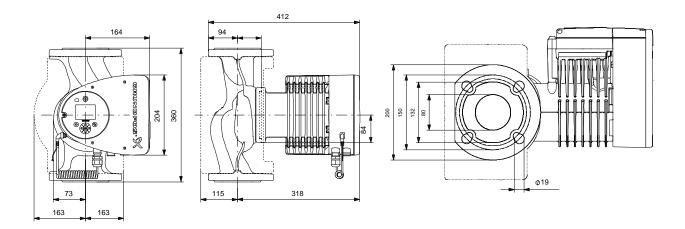
Note! Product picture may differ from actual product

Conditions of Service		Pump Da	Motor Data		
Flow:		Maximum operating pressure:	12 bar	P1 max:	31 1041 W
Head:		Liquid temperature range:	-10 110 °C	Rated voltage:	208-230 V
Efficiency:		Maximum ambient temperature:	40 °C	Mains frequency:	60 Hz
Liquid:	Water	Approvals:	ETL, FCC W_RADIAL	Enclosure class:	X4D
Temperature:	60 °C	Flange standard:	GF	Insulation class:	F
NPSH required:	m	Pipe connection:	GF80		
Viscosity:		Product number:	On request		
Specific Gravity:	0.985				



# Submittal Data





# Materials:

Pump housing:	Cast iron EN-GJL-250
	ASTM A48-250B
Impeller:	PES 30%GF



28/11/2017

**Tender Text** 



Product No.: On request MAGNA3 80-100 F

MAGNA3 - More than a pump

With its unrivalled efficiency, all-encompassing range and built-in communication capabilities plus functionalities replacing system components, the MAGNA3 is ideal for engineers and specifiers looking to create high-performance systems for buildings.

This pump in the Grundfos Master Class will fit both heating and cooling applications perfectly, making it the obvious choice for almost any building project – old or new.

The MAGNA3 is of the canned-rotor type, i.e. pump and motor form an integral unit without shaft seal and with only two gaskets for sealing. The bearings are lubricated by the pumped liquid.

The innovative clamp with only one screw enables easy repositioning of the pump head.

The MAGNA3 is a pump with no maintenance requirements and with extremely low Life Cycle Cost.

The pump is characterised by the following:

- controller integrated in the control box
- control panel with TFT display on the control box
- control box prepared for optional CIM modules
- built-in differential-pressure and temperature sensor
- cast-iron pump housing (depending on model)
- carbon-fibre-reinforced composite rotor can
- stainless-steel bearing plate and rotor cladding
- aluminium alloy stator housing
- air-cooled power electronics

The MAGNA3 is a single-phase pump.

Characteristic features

- AUTOADAPT.
- FLOWADAPT and FLOWLIMIT (more than a pump function as it reduces the need for pump throttling valves).
- Proportional-pressure control.
- Constant-pressure control.
- Constant-temperature control.
- Constant-curve duty.
- Max. or min. curve duty.
- Automatic Night Setback.
- No external motor protection required.
- Insulating shells supplied with single-head pumps for heating systems.
- Large temperature range where the liquid temperature and the ambient temperature are independent of each other.

### Communication

The MAGNA3 enables communication via the following:

- wireless Grundfos GO Remote
- fieldbus communication via CIM modules
- digital inputs
- relay outputs
- analog input (more than a pump function as heat energy meter)



Date:

### Motor and electronic controller

The MAGNA3 incorporates a 4-pole synchronous, permanent-magnet motor (PM motor). This motor type is characterised by higher efficiency than a conventional asynchronous squirrel-cage motor.

The pump speed is controlled by an integrated frequency converter.

A differential-pressure and temperature sensor is incorporated in the pump.

# Liquid:

Pumped liquid:	Water
Liquid temperature range:	-10 110 °C
Liquid temperature during	operation: 60 °C
Density:	983.2 kg/m³

# Technical:

TF class:	110
Approvals on nameplate:	ETL, FCC W_RADIAL

#### Materials:

Pump housing:	Cast iron
	EN-GJL-250
	ASTM A48-250B
Impeller:	PES 30%GF

# Installation:

0 40 °C
12 bar
GF
GF80
PN12
360 mm

#### **Electrical data:**

Power input - P1:	31 1041 W
Mains frequency:	60 Hz
Rated voltage:	1 x 208-230 V
Maximum current consumption:	0.32 4.6 A
Enclosure class (IEC 34-5):	X4D
Insulation class (IEC 85):	F

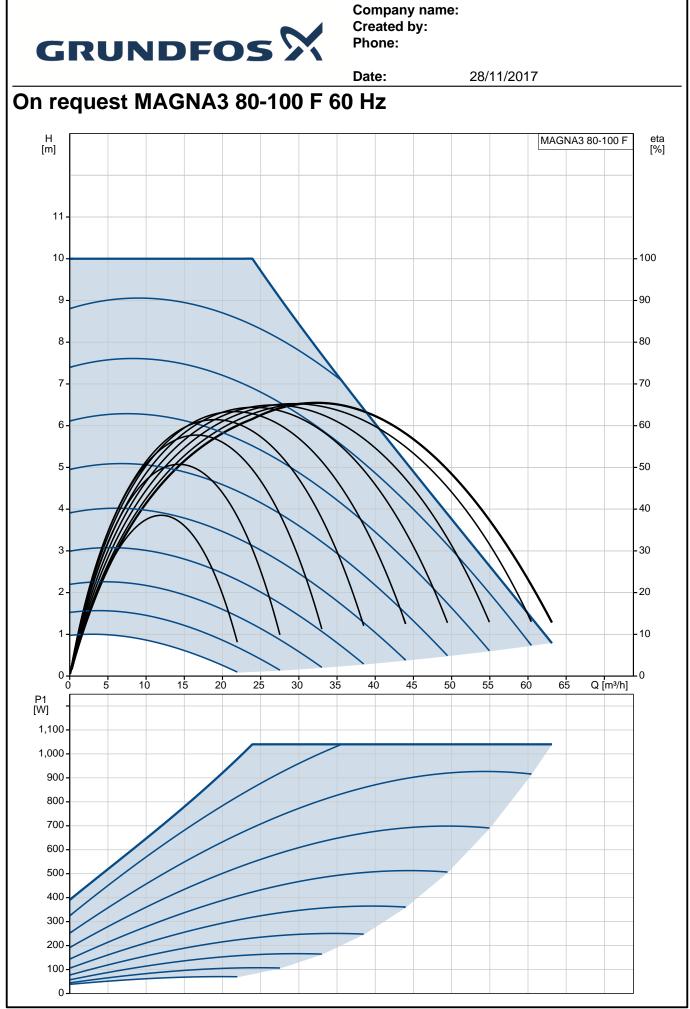
# Others:

Energy (EEI):	0.17
Net weight:	29.9 kg
Gross weight:	32.6 kg
Shipping volume:	0.072 m³

			ompany name: eated by:	
	D		ione:	
			ate:	28/11/2017
Position	Qty.		ite.	20/11/2017
	1	MAGNA3 80-100 F		
		Product No.: On request		
		MAGNA3 – More than a pump With its unrivalled efficiency, all-encompassing functionalities replacing system components, th to create high-performance systems for building	e MAGNA3 is idea	communication capabilities plus al for engineers and specifiers looking
		This pump in the Grundfos Master Class will fit it the obvious choice for almost any building pro	both heating and o bject – old or new.	cooling applications perfectly, making
		The MAGNA3 is of the canned-rotor type, i.e. p and with only two gaskets for sealing. The bear	ings are lubricated	by the pumped liquid.
		The innovative clamp with only one screw enab The MAGNA3 is a pump with no maintenance r		
		The pump is characterised by the following: • controller integrated in the control box		
		<ul> <li>control panel with TFT display on the control b</li> <li>control box prepared for optional CIM modules</li> </ul>		
		• built-in differential-pressure and temperature s		
		<ul> <li>cast-iron pump housing (depending on model)</li> <li>carbon-fibre-reinforced composite rotor can</li> </ul>		
		<ul> <li>stainless-steel bearing plate and rotor cladding</li> <li>aluminium alloy stator housing</li> </ul>	g	
		air-cooled power electronics		
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		Characteristic features		
		<ul> <li>AUTOADAPT.</li> <li>FLOWADAPT and FLOWLIMIT (more than a p valves).</li> </ul>	pump function as i	t reduces the need for pump throttling
		<ul><li>Proportional-pressure control.</li><li>Constant-pressure control.</li></ul>		
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		Max. or min. curve duty.		
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		<ul> <li>Insulating shells supplied with single-head pur</li> <li>Large temperature range where the liquid tem of each other.</li> </ul>		
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		analog input (more than a pump function as he	eat energy meter)	



			Date:		28/11/2017
Position	Qty.	Description			
		Motor and electronic controller	fficiency than a cor an integrated freq	ventional asy uency convert	ter.
		Liquid: Pumped liquid: Liquid temperature range: Liquid temperature during opera Density:	Water -10 110 °C tion: 60 °C 983.2 kg/m³		
		<b>Technical:</b> TF class: Approvals on nameplate:	110 ETL, FCC W_RAE	DIAL	
		<b>Materials:</b> Pump housing:	Cast iron EN-GJL-250 ASTM A48-250B		
		Impeller:	PES 30%GF		
		Installation: Range of ambient temperature: Maximum operating pressure: Flange standard: Pipe connection: Pressure rating: Port-to-port length:	0 40 °C 12 bar GF GF80 PN12 360 mm		
		Electrical data: Power input - P1: Mains frequency: Rated voltage: Maximum current consumption: Enclosure class (IEC 34-5): Insulation class (IEC 85):	31 1041 W 60 Hz 1 x 208-230 V 0.32 4.6 A X4D F		
		Others: Energy (EEI): Net weight: Gross weight: Shipping volume:	0.17 29.9 kg 32.6 kg 0.072 m <sup>3</sup>		



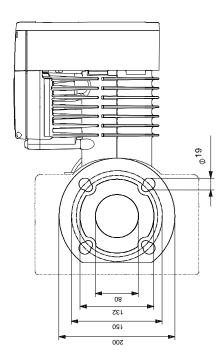


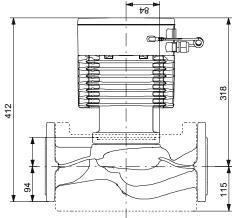
		Date:	28/11/2017
Description	Value	H [m]	MAGNA3 80-100 F
General information:			
Product name:	MAGNA3 80-100 F	11 -	
Product No:	On request		
EAN number:	On request	10 -	100
	•	9-	- 90
Technical:		8-	- 80
Head max:	100 dm	°-	
TF class:	110	7 -	70
Approvals on nameplate:	ETL, FCC W_RADIAL	6 -	-60
Model:	A		
		5-	50
Materials:		4-	
Pump housing:	Cast iron		
	EN-GJL-250	3	
	ASTM A48-250B	2-	20
mpeller:	PES 30%GF		
		1-4	10
Installation:	0 10 00		0 20 30 40 50 60 Q [m <sup>3</sup> /h]
Range of ambient temperature:	0 40 °C		v ∠v 3v 4v 5v 6v Q [m³/h]
Maximum operating pressure:	12 bar	P1 - [W]	
Flange standard:	GF	1,000 -	
Pipe connection:	GF80	<b>—</b> 800 <b>—</b>	
Pressure rating:	PN12	000 -	
Port-to-port length:	360 mm	600 -	
		//	
Liquid:	Mater	400-	
Pumped liquid:	Water	200	
Liquid temperature range:	-10 110 °C		
Liquid temperature during operation:	60 °C	0_	
Density:	983.2 kg/m <sup>3</sup>		
Electrical data:		164	
Power input - P1:	31 1041 W		
Mains frequency:	60 Hz		
Rated voltage:	1 x 208-230 V		
Maximum current consumption:	0.32 4.6 A		
Enclosure class (IEC 34-5):	X4D	73	
Insulation class (IEC 85):	F	163	
Others:			
Energy (EEI):	0.17		
Net weight:	29.9 kg		
Gross weight:	32.6 kg		
Shipping volume:	0.072 m <sup>3</sup>		
Energy (EEI): Net weight: Gross weight:	29.9 kg 32.6 kg		

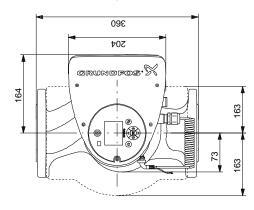


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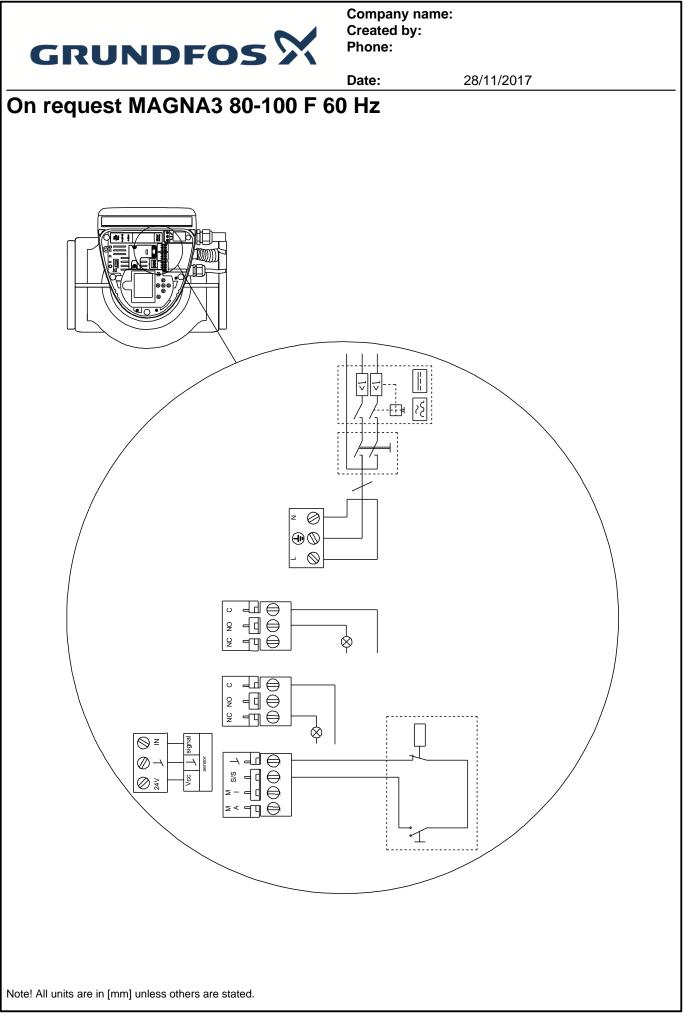
# On request MAGNA3 80-100 F 60 Hz







Note! All units are in [mm] unless others are stated. Disclaimer: This simplified dimensional drawing does not show all details.





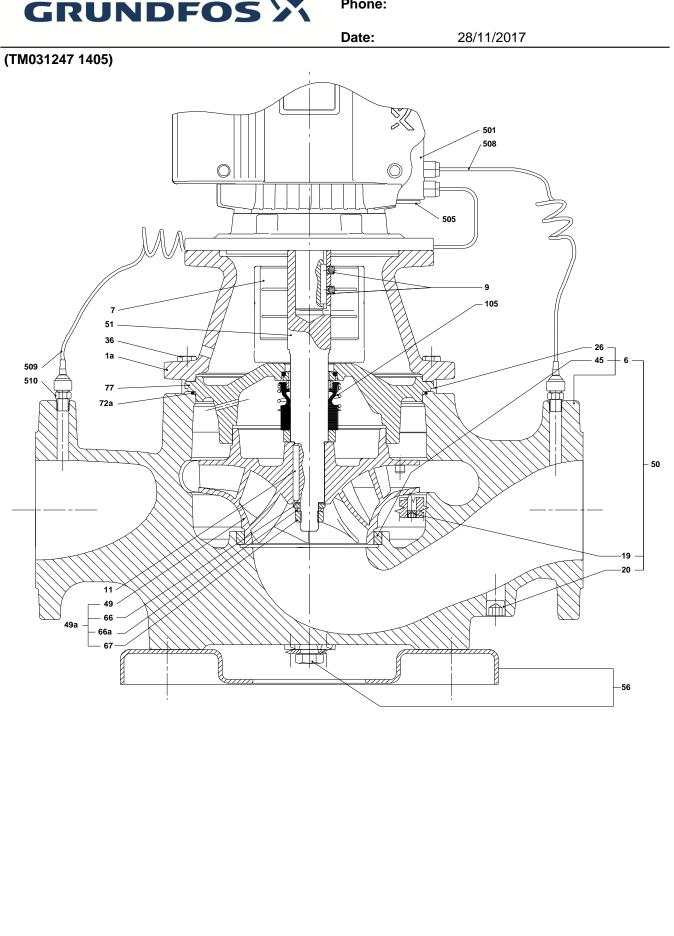
28/11/2017

**Order Data:** 

Product name:MAGNA3 80-100 FAmount:1Product No:On request

Total: Price on request





TM031247