

Company name: Created by: Phone:

**Date:** 1/12/2016

Position | Count | Description

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**MAGNA3 80-100 F** 



Product No.: 98126856

## 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-fiber-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)



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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: 14 .. 230 °F Liquid temp: 140 °F Density: 61.35 lb/ft3

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:

Range of ambient temperature: 32 .. 104 °F Maximum operating pressure: 174 psi Flange standard: GF Pipe connection: **GF80** Pressure stage: PN12 Port-to-port length: 14 3/16 in

Electrical data:

Power input - P1: 31 .. 1041 W 60 Hz Main frequency: 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):

Others:

Energy (EEI): 0.17 66 lb Net weight: Gross weight: 71.8 lb Shipping volume: 2.54 ft3



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Description	Value
General information:	
Product name:	MAGNA3 80-100 F
Product No.:	98126856
EAN:	5710629500182
Price:	On request
Technical:	
Head max:	32.81 ft
TF class:	110
Approvals on nameplate:	ETL, FCC W_RADIAL
Model:	A
Materials:	
	Cast iron
Pump housing:	EN-GJL-250
	ASTM A48-250B
Impeller	PES 30%GF
Impeller:	PES 30%GF
Installation:	
Range of ambient temperature:	32 104 °F
Maximum operating pressure:	174 psi
Flange standard:	GF
Pipe connection:	GF80
Pressure stage:	PN12
Port-to-port length:	14 3/16 in
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	14 230 °F
Liquid temp:	140 °F
Density:	61.35 lb/ft <sup>3</sup>
Floorisch dere	
Electrical data:	31 1041 W
Power input - P1:	
Main 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:	66 lb
Gross weight:	71.8 lb
Shipping volume:	2.54 ft <sup>3</sup>

