

## Submittal Data

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



## MAGNA3 40-180 F

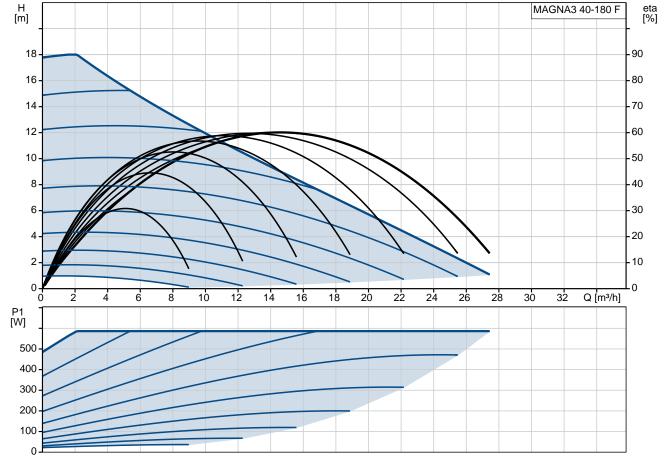
The newest high-end circulator solution, a large number of electronicly controlled operation features and by far exceeding the demands from the EuP directive.

Note! Product picture may differ from actual product

Conditions of Service		
Flow:		
Head:		
Efficiency:		
Liquid:	Water	
Temperature:	60 °C	
NPSH required:	m	
Viscosity:		
Specific Gravity:	0.985	

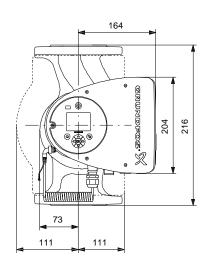
Pump Data			
	Maximum operating pressure:	12 bar	
	Liquid temperature range:	-10 110 °C	
	Maximum ambient temperature:	40 °C	
	Approvals:	ETL, FCC W_RADIAL	
	Flange standard:	GF	
	Pipe connection:	GF15/26/40/43	
	Product number:	On request	

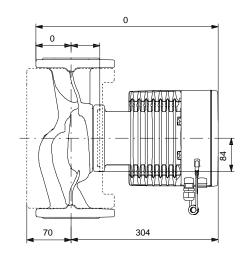
Motor Data			
P1 max:	16 587 W		
Rated voltage:	208-230 V		
Mains frequency:	60 Hz		
Enclosure class:	X4D		
Insulation class:	F		

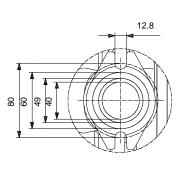




## **Submittal Data**







### Materials:

Pump housing: Cast iron

EN-GJL-250

ASTM A48-250B

Impeller: PES 30%GF



**Date:** 28/11/2017

### **Tender Text**



Note! Product picture may differ from actual product

Product No.: On request MAGNA3 40-180 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:** 28/11/2017

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:

Range of ambient temperature: 0 .. 40 °C Maximum operating pressure: 12 bar Flange standard: GF

Pipe connection: GF15/26/40/43

Pressure rating: PN12
Port-to-port length: 216 mm

Electrical data:

Power input - P1: 16 .. 587 W
Mains frequency: 60 Hz
Rated voltage: 1 x 208-230 V
Maximum current consumption: 0.18 .. 2.61 A

Enclosure class (IEC 34-5): X4D Insulation class (IEC 85): F

Others:

Energy (EEI): 0.18

Net weight: 16.1 kg

Gross weight: 17.6 kg

Shipping volume: 0.04 m³



**Date:** 28/11/2017

Position | Qty. | Description

1 MAGNA3 40-180 F



Note! Product picture may differ from actual product

Product No.: On request

#### 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:** 28/11/2017

Position | Qty. | Description

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:

Range of ambient temperature: 0 .. 40 °C Maximum operating pressure: 12 bar Flange standard: GF

Pipe connection: GF15/26/40/43

Pressure rating: PN12
Port-to-port length: 216 mm

Electrical data:

Power input - P1: 16 .. 587 W
Mains frequency: 60 Hz
Rated voltage: 1 x 208-230 V
Maximum current consumption: 0.18 .. 2.61 A

Enclosure class (IEC 34-5): X4D Insulation class (IEC 85): F

Others:

Energy (EEI): 0.18

Net weight: 16.1 kg

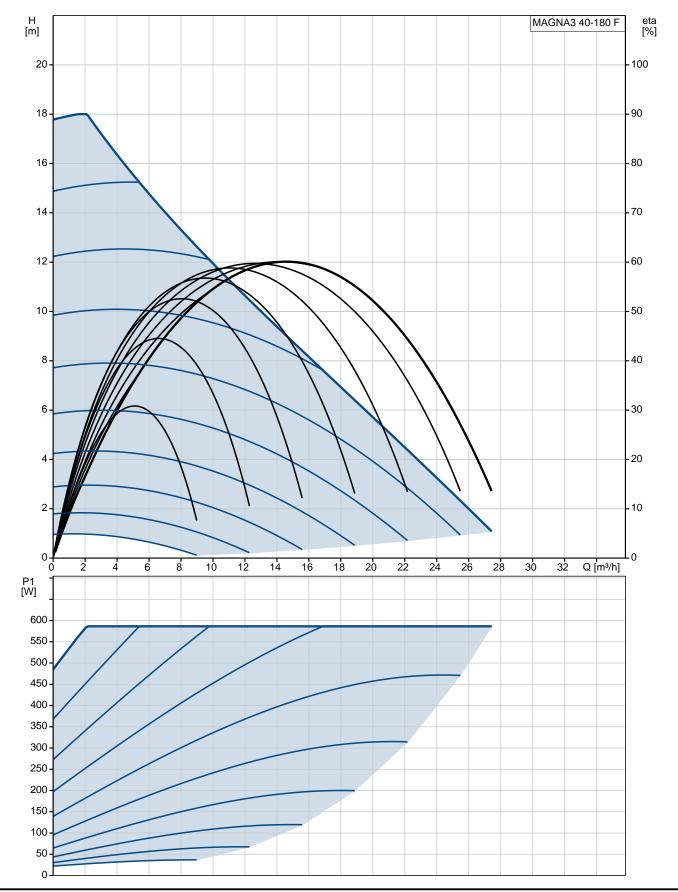
Gross weight: 17.6 kg

Shipping volume: 0.04 m³



**Date:** 28/11/2017

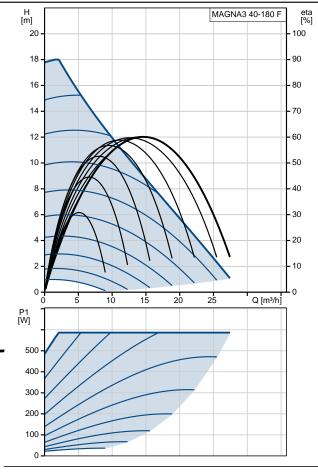
# On request MAGNA3 40-180 F 60 Hz

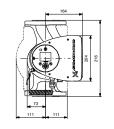


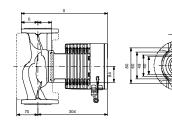


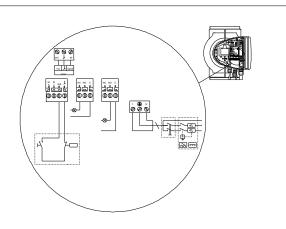
**Date:** 28/11/2017

Description	Value	
General information:		
Product name:	MAGNA3 40-180 F	
Product No:	On request	
EAN number:	On request	
	•	
Technical:		
Head max:	180 dm	
TF class:	110	
Approvals on nameplate:	ETL, FCC W_RADIAL	
Model:	A	
Materials:		
Pump housing:	Cast iron	
	EN-GJL-250	
	ASTM A48-250B	
Impeller:	PES 30%GF	
Installation:		
Range of ambient temperature:	0 40 °C	
Maximum operating pressure:	12 bar	
Flange standard:	GF	
Pipe connection:	GF15/26/40/43	
Pressure rating:	PN12	
Port-to-port length:	216 mm	
Liquid:		
Pumped liquid:	Water	
Liquid temperature range:	-10 110 °C	
Liquid temperature during operation:	60 °C	
Density:	983.2 kg/m³	
Electrical data:		
Power input - P1:	16 587 W	
Mains frequency:	60 Hz	
Rated voltage:	1 x 208-230 V	
Maximum current consumption:	0.18 2.61 A	
Enclosure class (IEC 34-5):	X4D	
Insulation class (IEC 85):	F	
Otherwa		
Others:	0.40	
Energy (EEI):	0.18	
Net weight:	16.1 kg	
Gross weight:	17.6 kg	
Shipping volume:	0.04 m <sup>3</sup>	





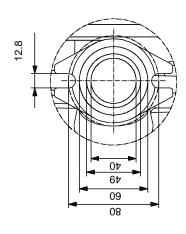


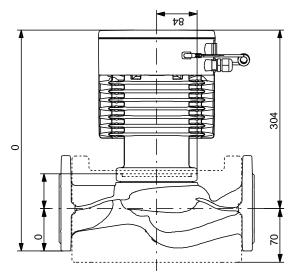


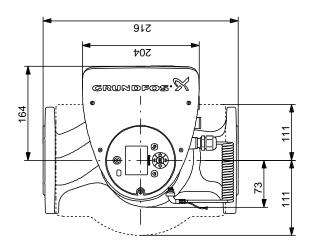


**Date:** 28/11/2017

# On request MAGNA3 40-180 F 60 Hz





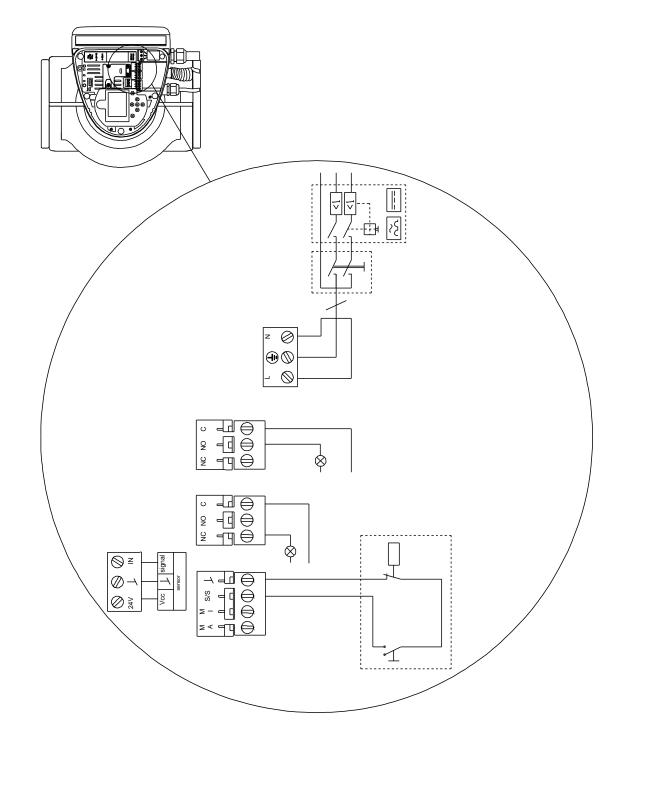


Note! All units are in [mm] unless others are stated. Disclaimer: This simplified dimensional drawing does not show all details.



**Date:** 28/11/2017

# On request MAGNA3 40-180 F 60 Hz



Note! All units are in [mm] unless others are stated.



**Date:** 28/11/2017

**Order Data:** 

Product name: MAGNA3 40-180 F

Amount: 1

Product No: On request

Total: Price on request



Date:

