

## 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 N



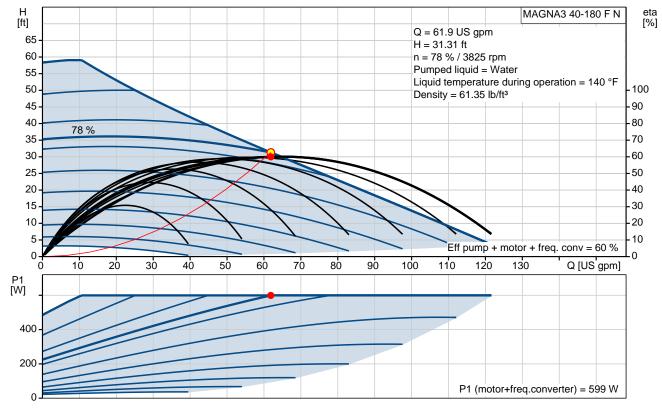
Full range of intelligent, high-efficiency circulators for heating, cooling, ground source heat pump systems and domestic hot water applications

Product photo could vary from the actual product

Conditions	of Service
Flow:	61.9 US gpm
Head:	31.31 ft
Efficiency:	60 %
Liquid:	Water
Temperature:	140 °F
NPSH required:	ft
Viscosity:	
Specific Gravity:	0.985

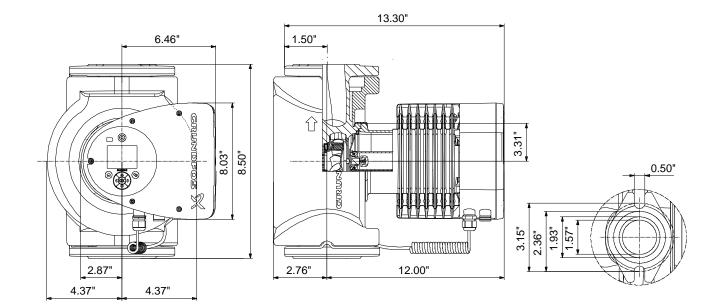
Pump Data	
Maximum operating pressure:	174.05 psi
Liquid temperature range:	14 230 °F
Maximum ambient temperature:	104 °F
Approvals:	98544604
Flange standard:	GF
Pipe connection:	GF15/26/40/43
Product number:	98126838

Motor Data			
P1 max:	16 600 W		
Rated voltage:	208-230 V		
Main frequency:	60 Hz		
Enclosure class:	X4D		
Insulation class:	F		





# Submittal Data



#### Materials:

Pump housing: Stainless steel

EN 1.4308

ASTM 351 CF8

Impeller: PES 30%GF



**Date:** 4/11/2019

Count | Description

MAGNA3 40-180 F N



Product No.: 98126838

#### 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)

Motor and electronic controller



**Date:** 4/11/2019

#### Count | Description

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
Selected liquid temperature: 140 °F
Density: 61.35 lb/ft³

Technical:

Actual calculated flow: 61.9 US gpm
Rated flow: 62.1 US gpm
Resulting head of the pump: 31.31 ft
TF class: 110
Approvals on nameplate: 98544604

Materials:

Pump housing: Stainless steel

EN 1.4308 ASTM 351 CF8

Impeller: PES 30%GF

Installation:

Range of ambient temperature: 32 .. 104 °F Maximum operating pressure: 174.05 psi

Flange standard: GF

Pipe connection: GF15/26/40/43

Pressure stage: PN12
Port-to-port length: 8 9/16 in

Electrical data:

Power input - P1: 16 .. 600 W
Main frequency: 60 Hz
Rated voltage: 1 x 208-230 V

Maximum current consumption: 0.18 .. 2.65 A

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

Others:

 Energy (EEI):
 0.19

 Net weight:
 35.6 lb

 Gross weight:
 38.7 lb

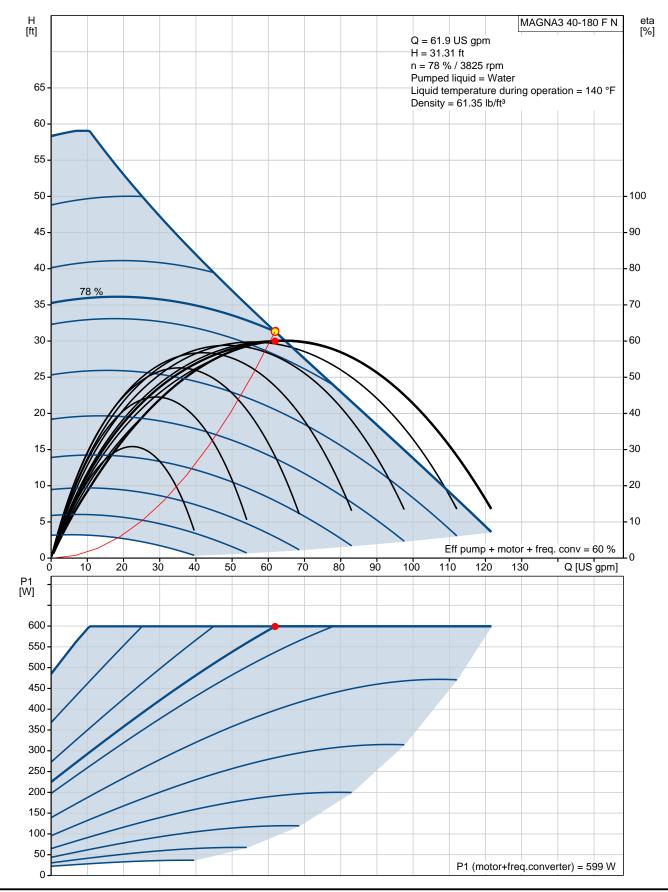
 Shipping volume:
 1060 ft³

 Custom tariff no.:
 8413.70.2005



**Date:** 4/11/2019

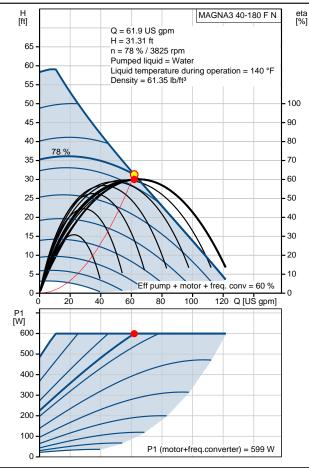
## 98126838 MAGNA3 40-180 F N 60 Hz

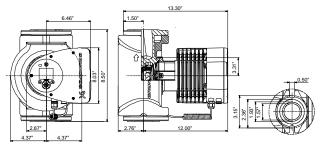


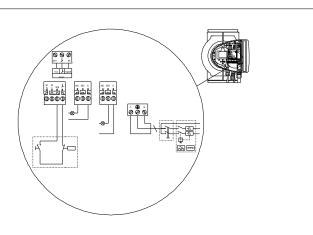


**Date:** 4/11/2019

Description	Value		
General information:			
Product name:	MAGNA3 40-180 F N		
Product No.:	98126838		
EAN:	5710629500007		
Technical:			
Actual calculated flow:	61.9 US gpm		
Rated flow:	62.1 US gpm		
Resulting head of the pump:	31.31 ft		
Head max:	59.06 ft		
TF class:	110		
Approvals on nameplate:	98544604		
Model:	D		
Materials:			
Pump housing:	Stainless steel		
	EN 1.4308		
	ASTM 351 CF8		
Impeller:	PES 30%GF		
Installation:			
Range of ambient temperature:	32 104 °F		
Maximum operating pressure:	174.05 psi		
Flange standard:	GF		
Pipe connection:	GF15/26/40/43		
Pressure stage:	PN12		
Port-to-port length:	8 9/16 in		
Liquid:			
Pumped liquid:	Water		
Liquid temperature range:	14 230 °F		
Selected liquid temperature:	140 °F		
Density:	61.35 lb/ft <sup>3</sup>		
Electrical data:			
Power input - P1:	16 600 W		
Main frequency:	60 Hz		
Rated voltage:	1 x 208-230 V		
Maximum current consumption:	0.18 2.65 A		
Enclosure class (IEC 34-5):	X4D		
Insulation class (IEC 85):	F		
Others:			
Energy (EEI):	0.19		
Net weight:	35.6 lb		
Gross weight:	38.7 lb		
Shipping volume:	1060 ft <sup>3</sup>		
Custom tariff no.:	8413.70.2005		



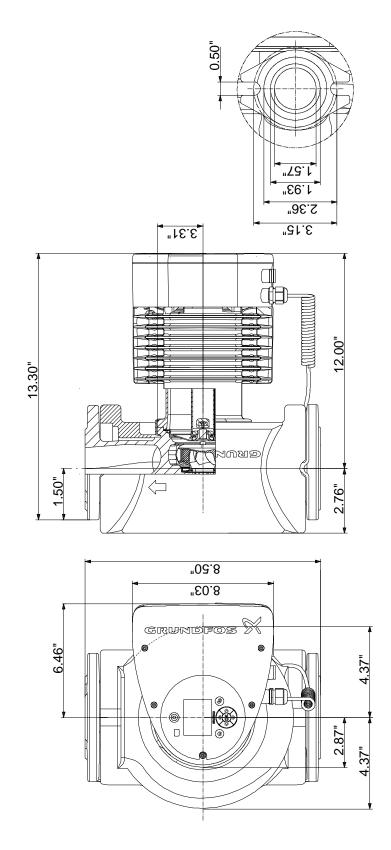






Date: 4/11/2019

# 98126838 MAGNA3 40-180 F N 60 Hz

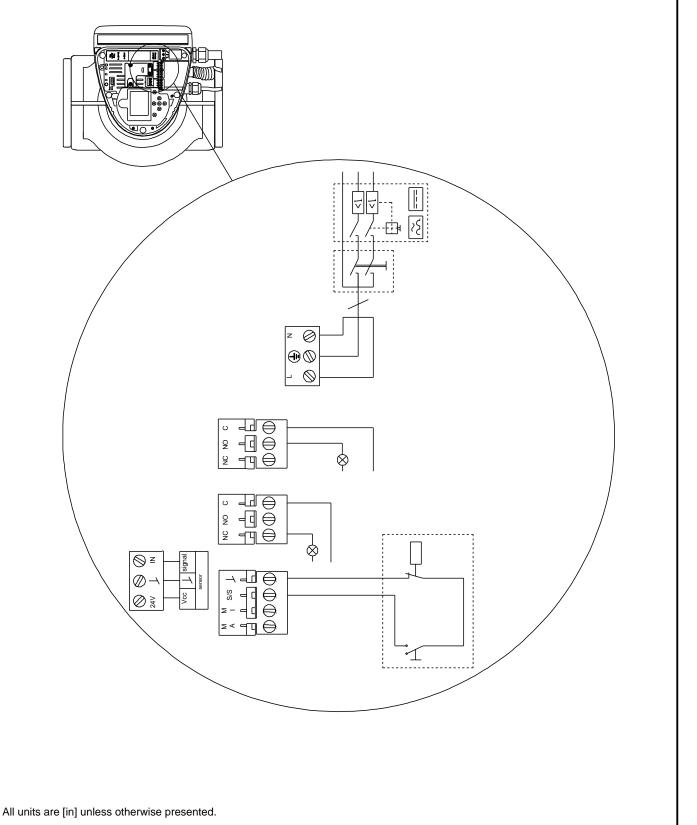


Note! All units are in [in] unless otherwise stated. Disclaimer: This simplified dimensional drawing does not show all details.



**Date:** 4/11/2019

# 98126838 MAGNA3 40-180 F N 60 Hz





**Date:** 4/11/2019

**Order Data:** 

Product name: MAGNA3 40-180 F N

Amount: 1

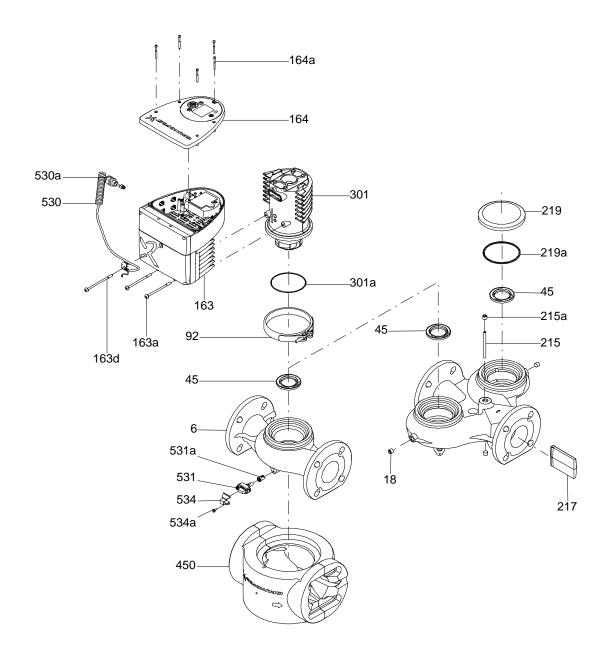
Product No.: 98126838

Total: Price on request



**Date:** 4/11/2019

(TM057299 MAGNA3 750-1600W)





**Date:** 4/11/2019

# Parts list MAGNA3 40-180 F N, Prod number 98126838 Produced After 1732 (production year and week number)

Position	Description	Annotation	Classification data	Part No.		Unit
	Gasket				2	pcs
	Control box				1	pcs
162	Control box cpl.				1	
	Spacer					
	Controlboard Leaded					
7a	Combi Slot Torx screw					
159a	Cable w/plug					
159b	Connector plug 3-pole					
159b	Connector plug 3-pole					
159b	Connector plug 4-pole					
159c	Pan washer head screw					
159d	Board					
160	Spacer					
163b	Compression spring					
164	Cover					
164a	Screw DELTA PT					
273b	Battery					
501	Displayboard cpl.					
163	Control box				1	
- 6	Pump housing cpl.				1	pcs
6	Pump housing				1	
45	Neck ring cpl.				1	
92	Clamp cpl.				1	pcs
163a	Pan head screw				2	pcs
163d	Pan head screw				1	pcs
301	Pump head				1	pcs
301b	Protector				1	pcs
450	Insulation				1	pcs
531	Sensor				1	pcs
534	Bracket				1	pcs
534a	Pan head thread forming screw				1	pcs