

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

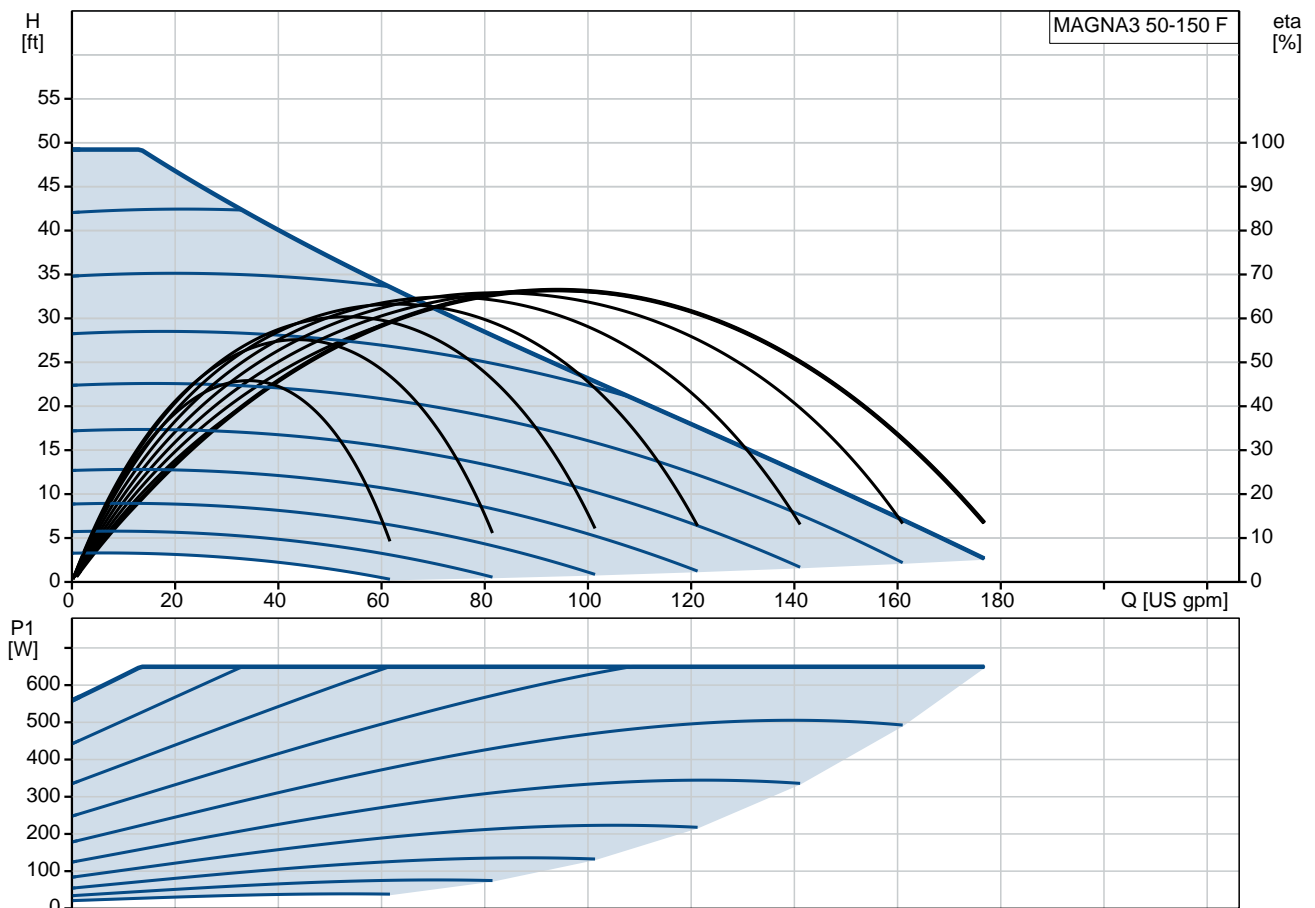


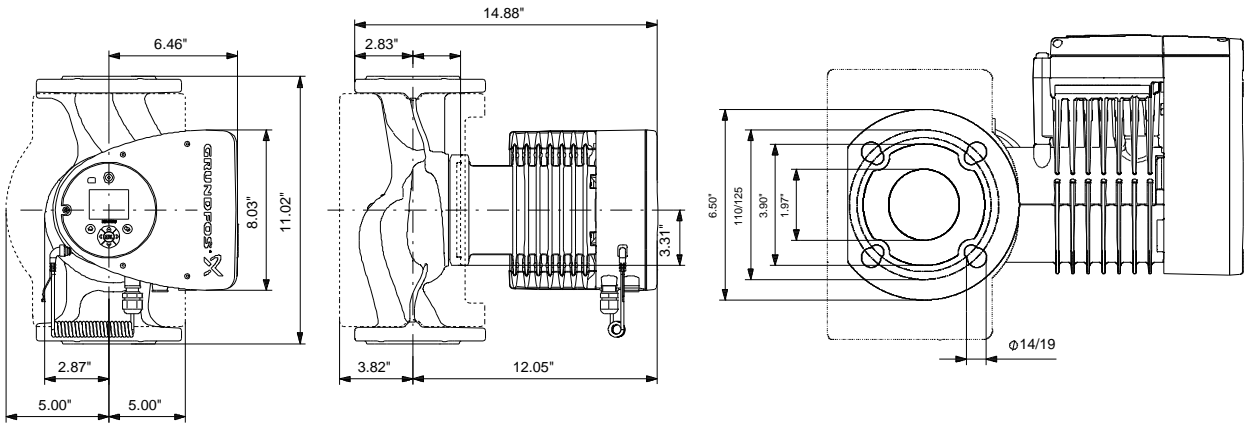
MAGNA3 50-150 F

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	Pump Data	Motor Data
Flow: _____	Maximum operating pressure: 174 psi	P1 max: 18.5 .. 650 W
Head: _____	Liquid temperature range: 14 .. 230 °F	Rated voltage: 208-230 V
Efficiency: _____	Maximum ambient temperature: 104 °F	Main frequency: 60 Hz
Liquid: Water	Approvals: 98544605	Enclosure class: X4D
Temperature: 140 °F	Flange standard: GF	Insulation class: F
NPSH required: ft	Pipe connection: GF53	
Viscosity: _____	Product number: 98126844	
Specific Gravity: 0.985		



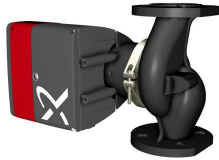


Materials:

Pump housing: Cast iron
 EN-GJL-250
 ASTM A48-250B

Impeller: PES 30%GF

Tender Text



Product No.: [98126844](#)

MAGNA3 50-150 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-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

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 temperature during operation: 140 °F
Density: 61.35 lb/ft³

Technical:

TF class: 110
Approvals on nameplate: 98544605

Materials:

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

Installation:

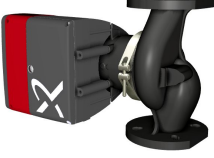
Range of ambient temperature: 32 .. 104 °F
Maximum operating pressure: 174 psi
Flange standard: GF
Pipe connection: GF53
Pressure stage: PN12
Port-to-port length: 11 1/16 in

Electrical data:

Power input - P1: 18.5 .. 650 W
Main frequency: 60 Hz
Rated voltage: 1 x 208-230 V
Maximum current consumption: 0.23 .. 2.87 A
Enclosure class (IEC 34-5): X4D
Insulation class (IEC 85): F

Others:

Energy (EEI): 0.17
Net weight: 42 lb
Gross weight: 46.8 lb
Shipping volume: 1630 ft³

Position	Count	Description
	1	<p>MAGNA3 50-150 F</p>  <p>Product No.: 98126844</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>The innovative clamp with only one screw enables easy repositioning of the pump head.</p> <p>The MAGNA3 is a pump with no maintenance requirements and with extremely low Life Cycle Cost.</p> <p>The pump is characterised by the following:</p> <ul style="list-style-type: none"> • 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 <p>The MAGNA3 is a single-phase pump.</p> <p>Characteristic features</p> <ul style="list-style-type: none"> • 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. <p>Communication The MAGNA3 enables communication via the following:</p> <ul style="list-style-type: none"> • wireless Grundfos GO Remote • fieldbus communication via CIM modules • digital inputs • relay outputs • analog input (more than a pump function as heat energy meter)



Company name:

Created by:

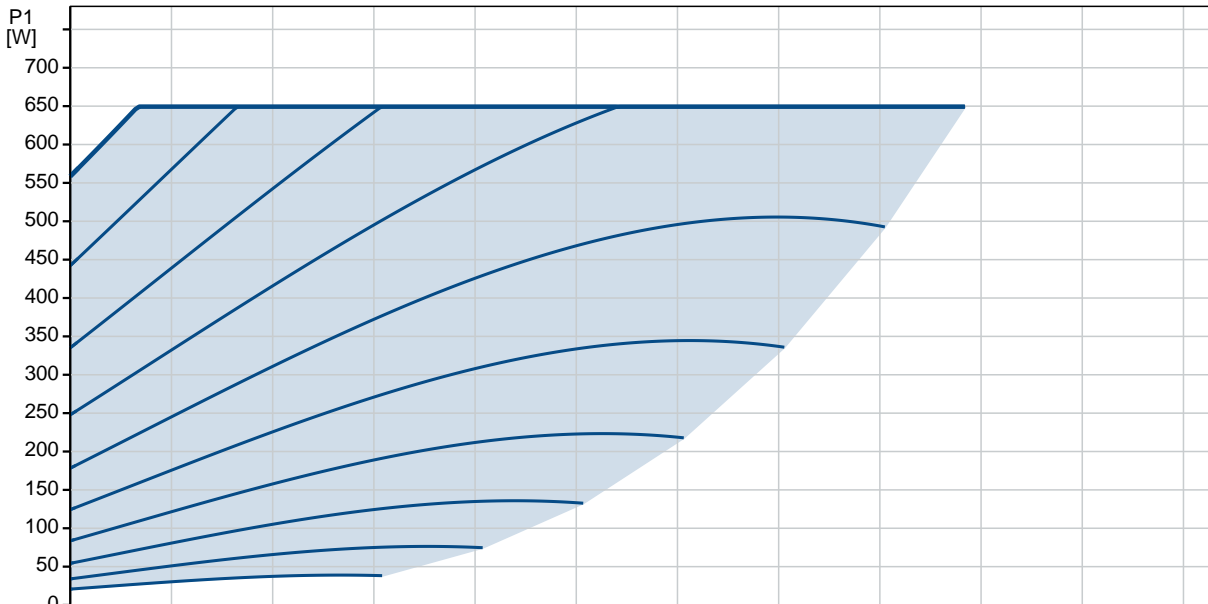
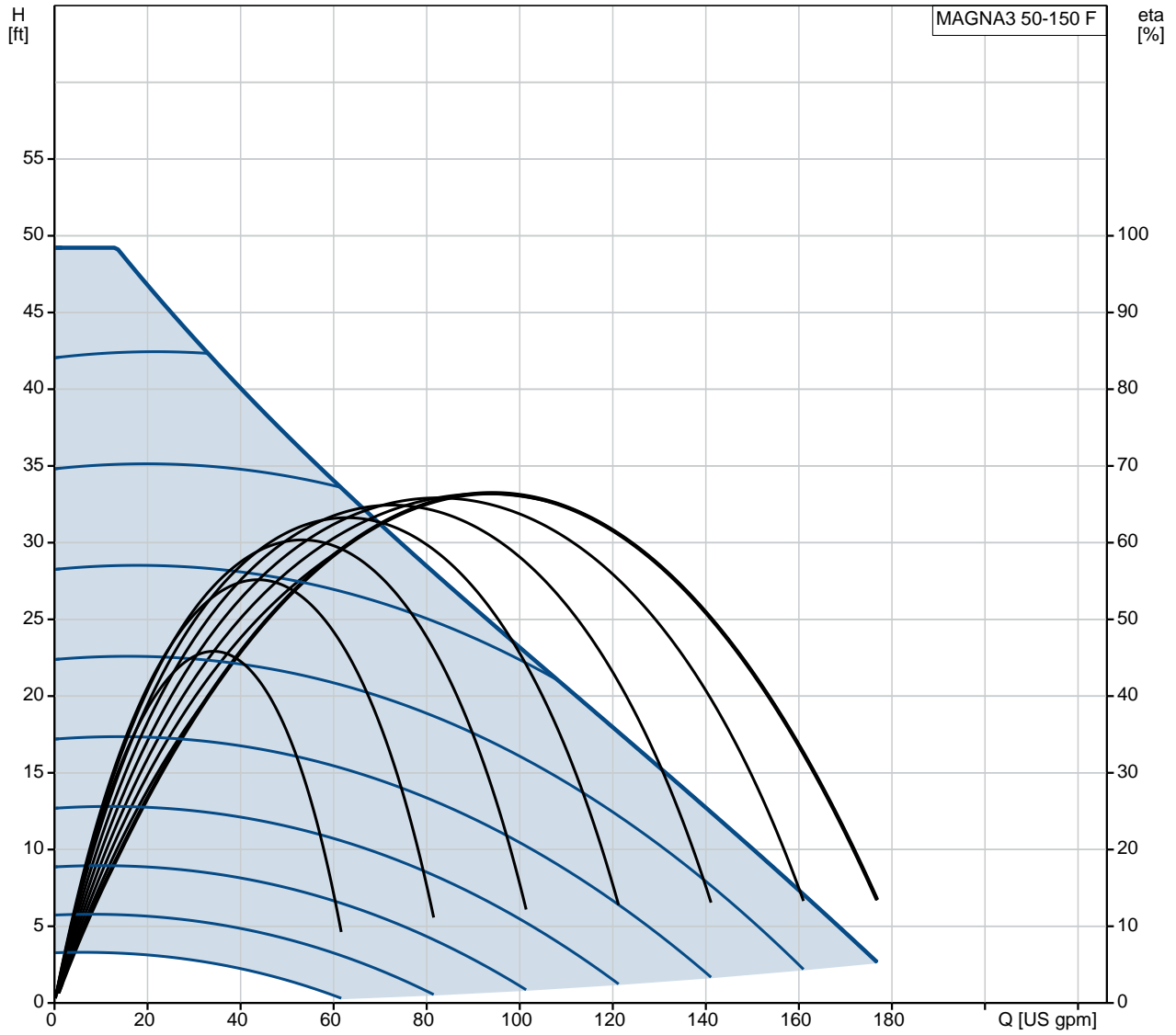
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Date:

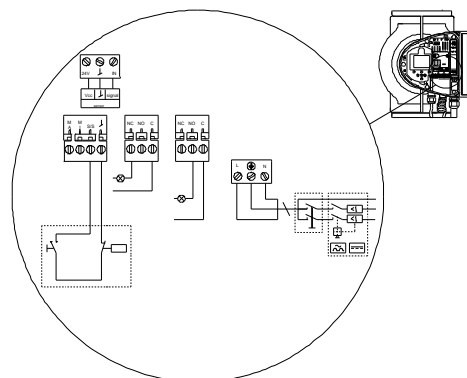
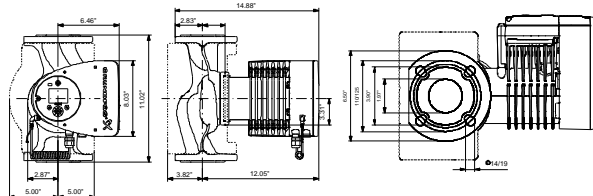
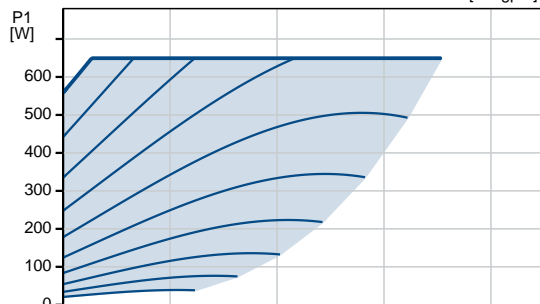
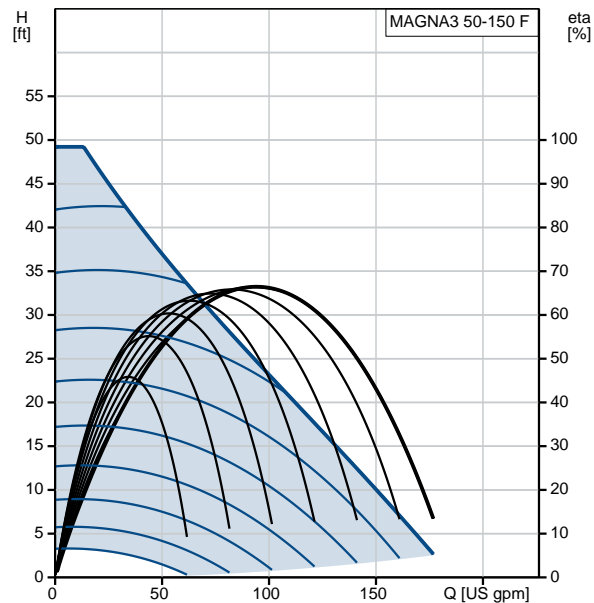
2/21/2018

Position	Count	Description
		<p>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.</p> <p>Liquid: Pumped liquid: Water Liquid temperature range: 14 .. 230 °F Liquid temperature during operation: 140 °F Density: 61.35 lb/ft³</p> <p>Technical: TF class: 110 Approvals on nameplate: 98544605</p> <p>Materials: Pump housing: Cast iron EN-GJL-250 ASTM A48-250B Impeller: PES 30%GF</p> <p>Installation: Range of ambient temperature: 32 .. 104 °F Maximum operating pressure: 174 psi Flange standard: GF Pipe connection: GF53 Pressure stage: PN12 Port-to-port length: 11 1/16 in</p> <p>Electrical data: Power input - P1: 18.5 .. 650 W Main frequency: 60 Hz Rated voltage: 1 x 208-230 V Maximum current consumption: 0.23 .. 2.87 A Enclosure class (IEC 34-5): X4D Insulation class (IEC 85): F</p> <p>Others: Energy (EEI): 0.17 Net weight: 42 lb Gross weight: 46.8 lb Shipping volume: 1630 ft³</p>

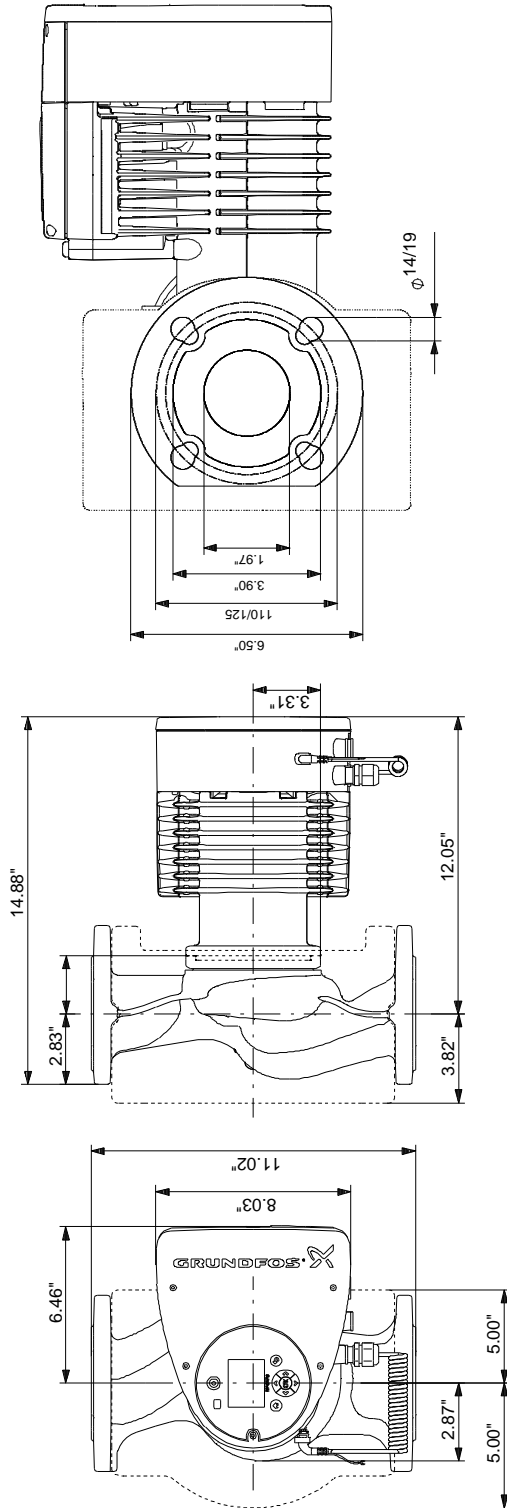
98126844 MAGNA3 50-150 F 60 Hz



Description	Value
General information:	
Product name:	MAGNA3 50-150 F
Product No.:	98126844
EAN:	5710629500069
Technical:	
Head max:	49.22 ft
TF class:	110
Approvals on nameplate:	98544605
Model:	D
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:	GF53
Pressure stage:	PN12
Port-to-port length:	11 1/16 in
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	14 .. 230 °F
Liquid temperature during operation:	140 °F
Density:	61.35 lb/ft ³
Electrical data:	
Power input - P1:	18.5 .. 650 W
Main frequency:	60 Hz
Rated voltage:	1 x 208-230 V
Maximum current consumption:	0.23 .. 2.87 A
Enclosure class (IEC 34-5):	X4D
Insulation class (IEC 85):	F
Others:	
Energy (EEI):	0.17
Net weight:	42 lb
Gross weight:	46.8 lb
Shipping volume:	1630 ft ³

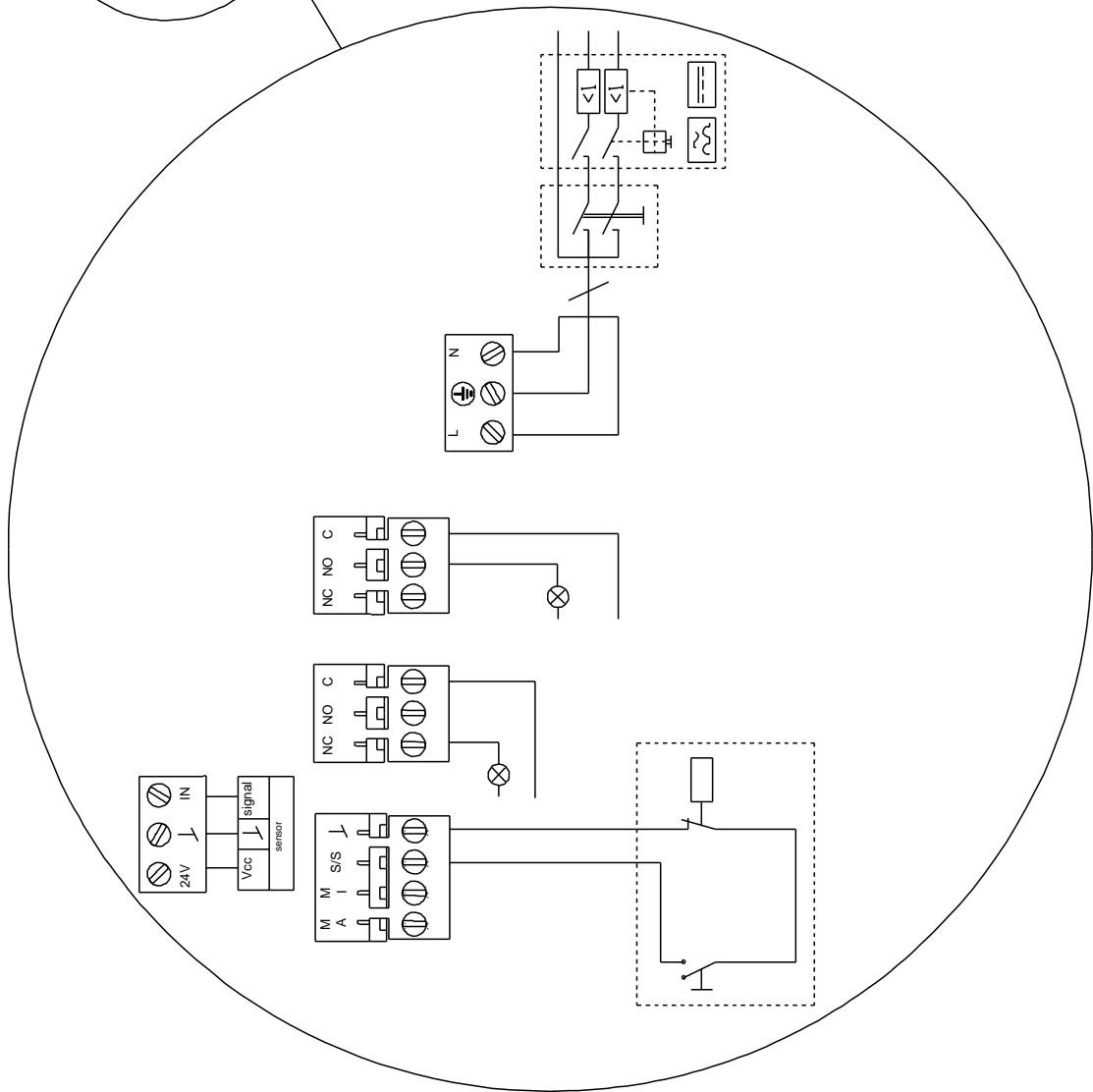
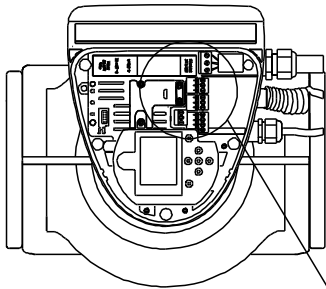


98126844 MAGNA3 50-150 F 60 Hz



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

98126844 MAGNA3 50-150 F 60 Hz



All units are [mm] unless otherwise presented.



Company name:

Created by:

Phone:

Date: 2/21/2018

Order Data:

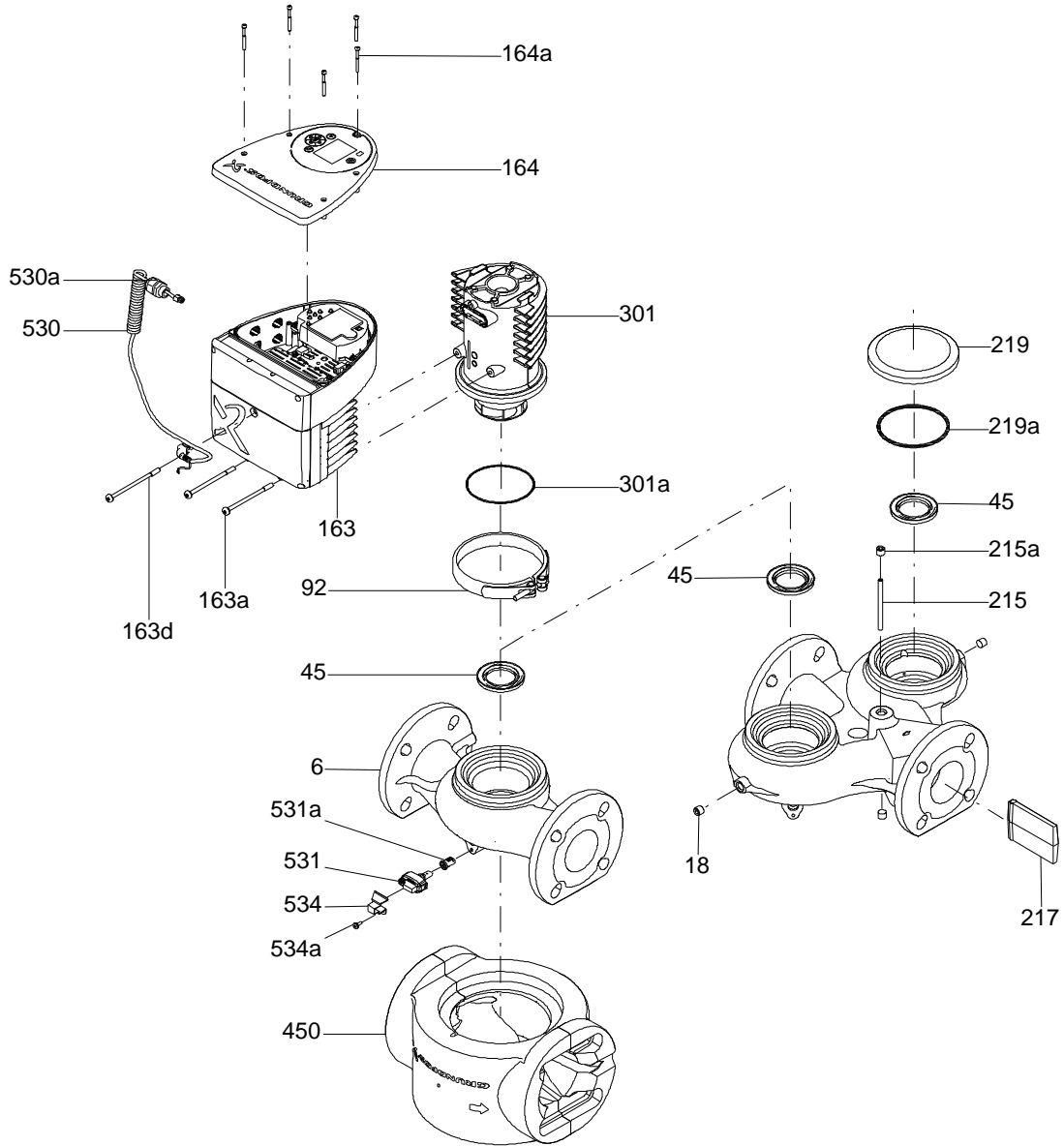
Product name: MAGNA3 50-150 F

Amount: 1

Product No.: 98126844

Total: Price on request

Exploded view (TM057299 MAGNA3 750-1600W)



Parts list MAGNA3 50-150 F, Prod number 98126844
Valid from 10.8.2017 (1732)

Position	Description	Annotation	Classification data	Part No.	Count	Unit
-	Pump housing cpl.				1	pcs
6	Pump housing				1	
45	Neck ring cpl.				1	
-	Control box				1	pcs
- 162	Control box cpl.				1	
	Spacer					
	Controlboard Leaded					
7a	Thread cutting 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	Socket head cap screw					
273b	Battery					
501	Displayboard cpl.					
163	Control box				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