

## Submittal Data

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

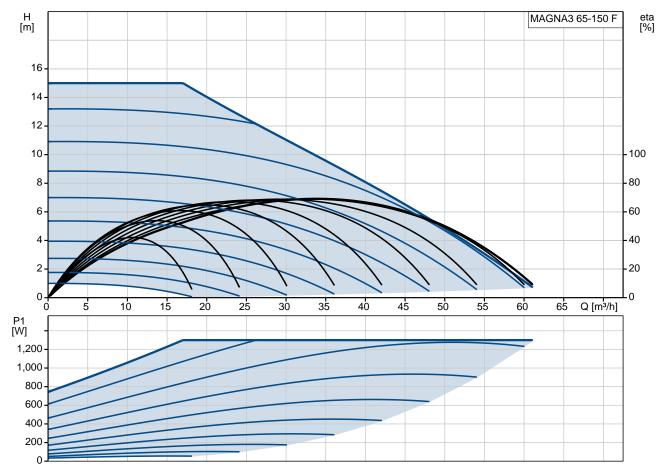


### MAGNA3 65-150 F

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

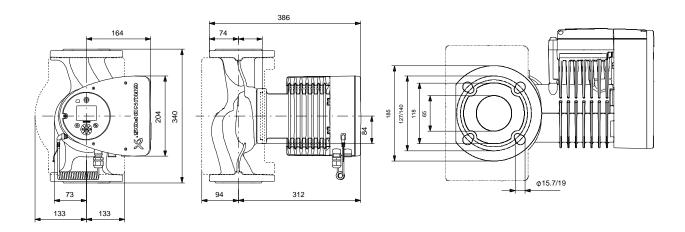
Note! Product picture may differ from actual product

Conditions of Service		Pump Da	Motor Data		
Flow: Head:		Maximum operating pressure: Liquid temperature range:	12 bar -10 110 °C	P1 max: Rated voltage:	29 1301 W 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:	GF65		
Viscosity:		Product number:	On request		
Specific Gravity:	0.985				



## Submittal Data





#### Materials:

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



28/11/2017

**Tender Text** 



Product No.: On request MAGNA3 65-150 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-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/m <sup>3</sup>

#### 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:	GF65
Pressure rating:	PN12
Port-to-port length:	340 mm

#### **Electrical data:**

Power input - P1:	29 1301 W
Mains frequency:	60 Hz
Rated voltage:	1 x 208-230 V
Maximum current consumption:	0.3 5.68 A
Enclosure class (IEC 34-5):	X4D
Insulation class (IEC 85):	F

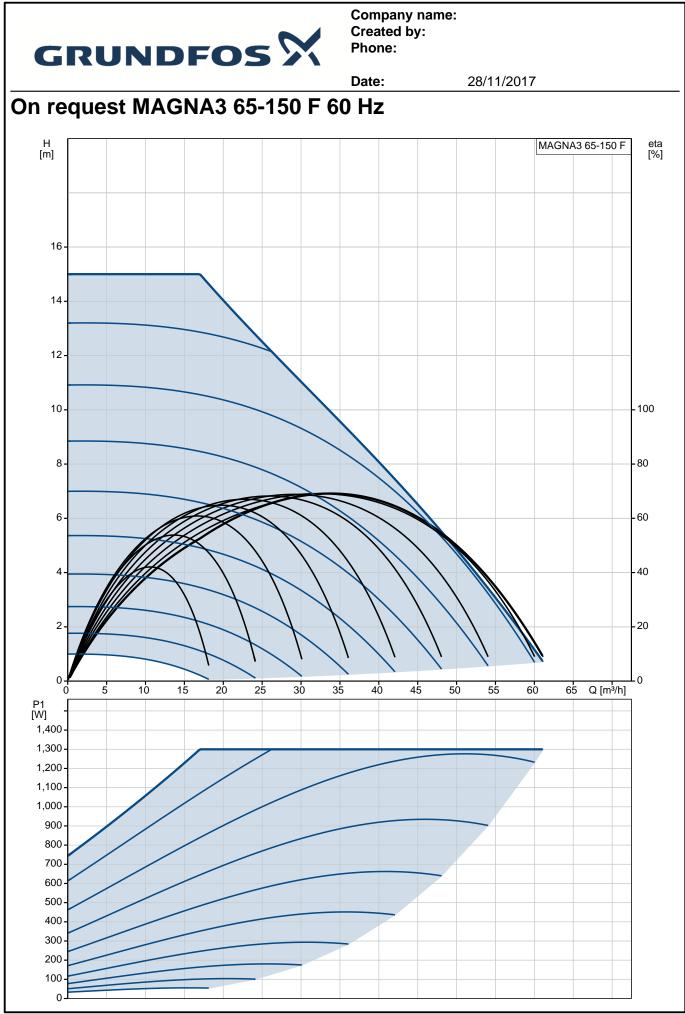
#### Others:

Energy (EEI):	0.17
Net weight:	24.6 kg
Gross weight:	26.8 kg
Shipping volume:	0.057 m³

G	R		Company na Created by: Phone:	ame:
			Date:	28/11/2017
Position	Qty.	Description		
	1	MAGNA3 65-150 F		
		Product No.: On request MAGNA3 – More than a pump With its unrivalled efficiency, all-encompas functionalities replacing system componen	sing range and b	built-in communication capabilities plus is ideal for engineers and specifiers looking
		to create high-performance systems for bu	ildings. rill fit both heating	g and cooling applications perfectly, making
		The MAGNA3 is of the canned-rotor type, i and with only two gaskets for sealing. The The innovative clamp with only one screw The MAGNA3 is a pump with no maintenan The pump is characterised by the following controller integrated in the control box control panel with TFT display on the con control box prepared for optional CIM mo built-in differential-pressure and temperat cast-iron pump housing (depending on m carbon-fibre-reinforced composite rotor ca stainless-steel bearing plate and rotor cla aluminium alloy stator housing air-cooled power electronics The MAGNA3 is a single-phase pump.	i.e. pump and mo bearings are lubi enables easy rep nce requirements g: trol box dules cure sensor odel) an	otor form an integral unit without shaft seal ricated by the pumped liquid.
		<ul> <li>valves).</li> <li>Proportional-pressure control.</li> <li>Constant-pressure control.</li> <li>Constant-temperature control.</li> <li>Constant-curve duty.</li> <li>Max. or min. curve duty.</li> <li>Automatic Night Setback.</li> <li>No external motor protection required.</li> <li>Insulating shells supplied with single-head</li> </ul>	d pumps for heat temperature and the following:	d the ambient temperature are independent



			Date:	28	8/11/2017
Position	Qty.	Description			
		Motor and electronic controller The MAGNA3 incorporates a 4-r type is characterised by higher e The pump speed is controlled by A differential-pressure and temp	efficiency than a con an integrated frequ	ventional asynch lency converter.	
		<b>Liquid:</b> 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_RAD	IAL	
		<b>Materials:</b> Pump housing:	Cast iron EN-GJL-250		
		Impeller:	ASTM A48-250B 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 GF65 PN12 340 mm		
		Electrical data: Power input - P1: Mains frequency: Rated voltage: Maximum current consumption: Enclosure class (IEC 34-5): Insulation class (IEC 85):	29 1301 W 60 Hz 1 x 208-230 V 0.3 5.68 A X4D F		
		Others: Energy (EEI): Net weight: Gross weight: Shipping volume:	0.17 24.6 kg 26.8 kg 0.057 m <sup>3</sup>		



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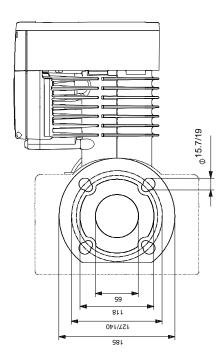


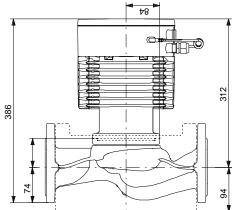
		Date:	28/11/2017
Description	Value	H [m]	MAGNA3 65-150 F
General information:			
Product name:	MAGNA3 65-150 F		
Product No:	On request	16 -	
EAN number:	On request	14 -	
Technical:			
Head max:	150 dm	12 -	
TF class:	110		
Approvals on nameplate:	ETL, FCC W_RADIAL	10 -	100
Model:	A	8-	- 80
Materials:			-60
Pump housing:	Cast iron	6-	
	EN-GJL-250	4-	40
	ASTM A48-250B		
Impeller:	PES 30%GF	2-	
Installation:			A FUILINN W
Range of ambient temperature:	0 40 °C	0 1	0 20 30 40 50 60 Q [m <sup>3</sup> /h]
Maximum operating pressure:	12 bar	P1 [W]	
Flange standard:	GF		
Pipe connection:	GF65	1,200 -	
Pressure rating:	PN12	1,000 -	
Port-to-port length:	340 mm	800 -	
Liquid:		600 -	
Pumped liquid:	Water	400 -	
Liquid temperature range:	-10 110 °C	200 -	
Liquid temperature during operation:	60 °C		
Density:	983.2 kg/m <sup>3</sup>		
Electrical data:		164	
Power input - P1:	29 1301 W		
Mains frequency:	60 Hz		
Rated voltage:	1 x 208-230 V		
Maximum current consumption:	0.3 5.68 A		
Enclosure class (IEC 34-5):	X4D	<b>■</b> 73 ■	94 312 015.7/19
Insulation class (IEC 85):	F	133 133	
	•		
Others: Energy (EEI):	0.17		
Net weight:	24.6 kg		
Gross weight:	24.6 kg 26.8 kg		
Shipping volume:	0.057 m <sup>3</sup>		
Shipping volume:			

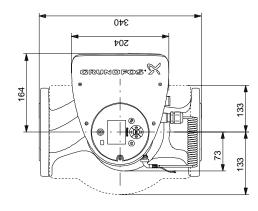


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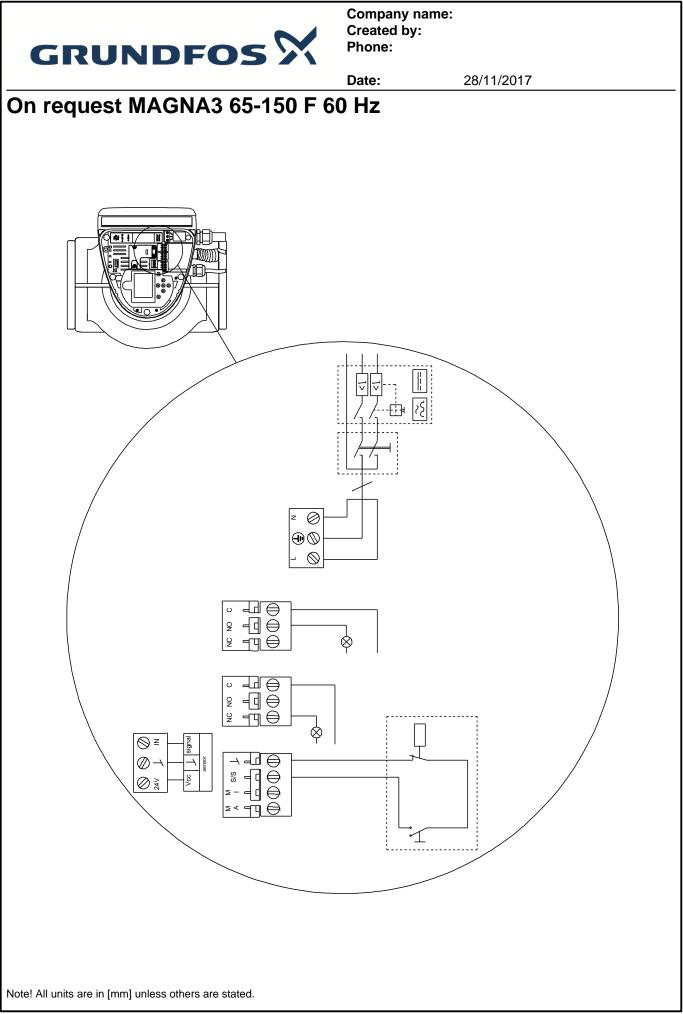
# On request MAGNA3 65-150 F 60 Hz







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





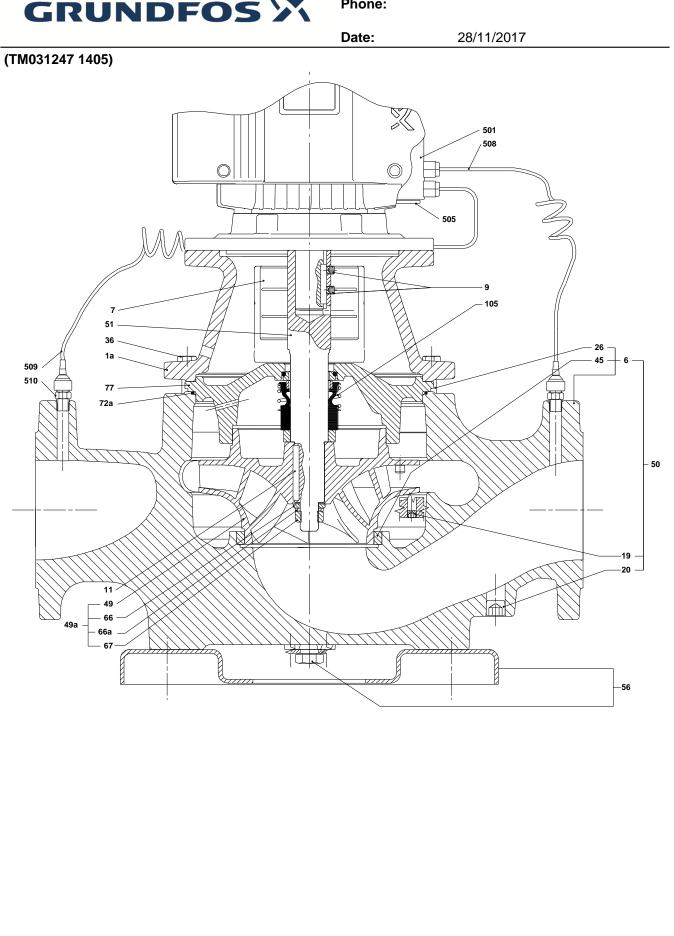
28/11/2017

#### **Order Data:**

Product name:MAGNA3 65-150 FAmount:1Product No:On request

Total: Price on request





TM031247