

# Submittal Data

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

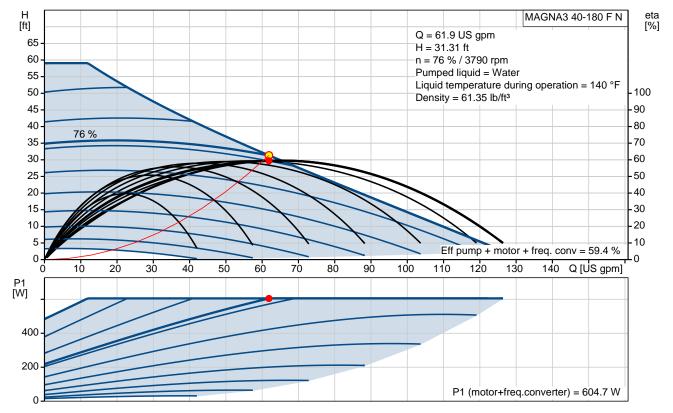
# MAGNA3 40-180 F N



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

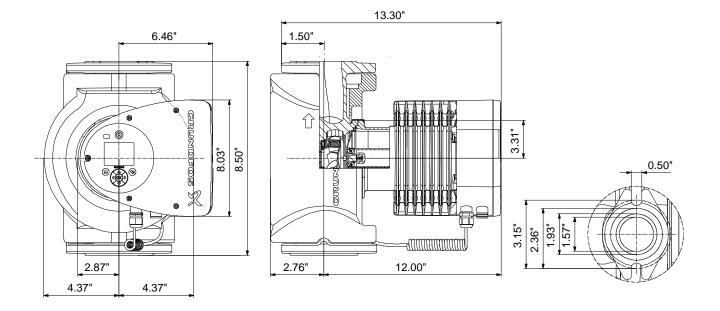
Product photo could vary from the actual product

Conditions of Service		Pump Data	Motor Data		
Flow: Head: Efficiency: Liquid: Temperature: NPSH required: Viscosity: Specific Gravity:	61.9 US gpm 31.31 ft 59.4 % Water 140 °F ft 0.985	Maximum operating pressure: Liquid temperature range: Maximum ambient temperature: Approvals: Flange standard: Pipe connection: Product number:	174.05 psi 14 230 °F 104 °F 98544604 GF GF15/26/40/43 98126810	P1 max: Rated voltage: Main frequency: Enclosure class: Insulation class:	16 606 W 115 V 60 Hz X4D F



# Submittal Data





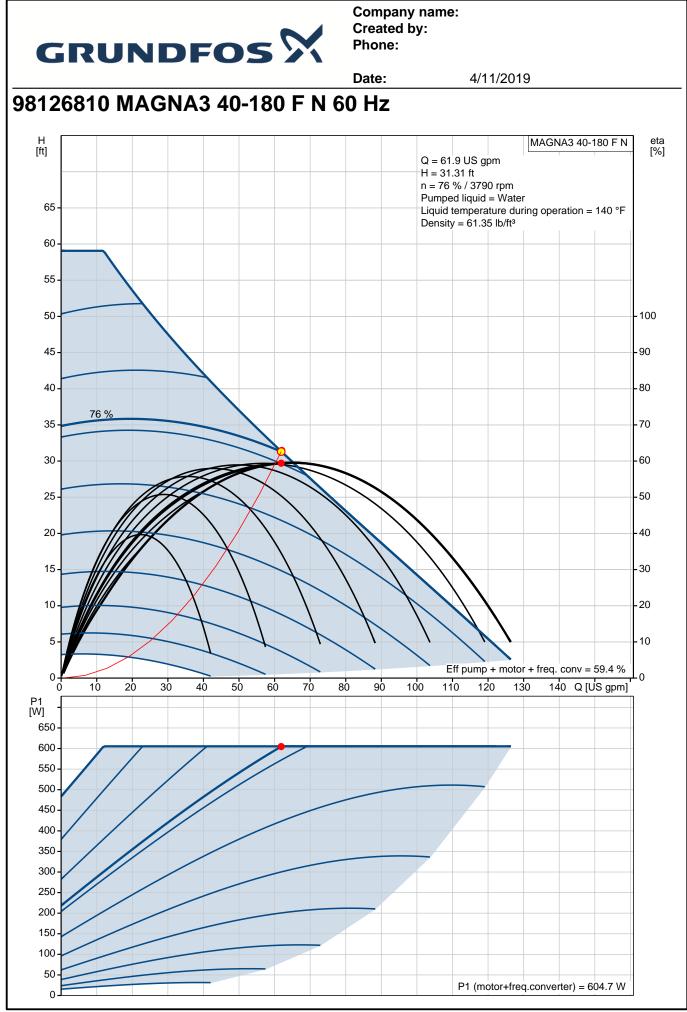
### Materials:

Stainless steel
EN 1.4308
ASTM 351 CF8
PES 30%GF

C	RUNDFOS	Company r Created by Phone:						
		Date:	4/11/2019					
Count	Description							
1	MAGNA3 40-180 F N							
	Product No.: 98126810							
	MAGNA3 – More than a pump With its unrivalled efficiency, all-encompassing ra replacing system components, the MAGNA3 is ic high-performance systems for buildings.	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						
	This pump in the Grundfos Master Class will fit b obvious choice for almost any building project –	oth heating and co old or new.	poling applications perfectly, making it the					
	The MAGNA3 is of the canned-rotor type, i.e. pu only two gaskets for sealing. The bearings are lu The innovative clamp with only one screw enable The MAGNA3 is a pump with no maintenance re	bricated by the pu es easy reposition	imped liquid. ing of the pump head.					
	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 se • 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 pro- • Proportional-pressure control. • Constant-pressure control. • Constant-temperature 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 pum • Large temperature range where the liquid temp other.	ps for heating sys	tems.					
	Communication The MAGNA3 enables communication via the fol • wireless Grundfos GO Remote • fieldbus communication via CIM modules • digital inputs • relay outputs • analog input (more than a pump function as hea	-						
	Motor and electronic controller							



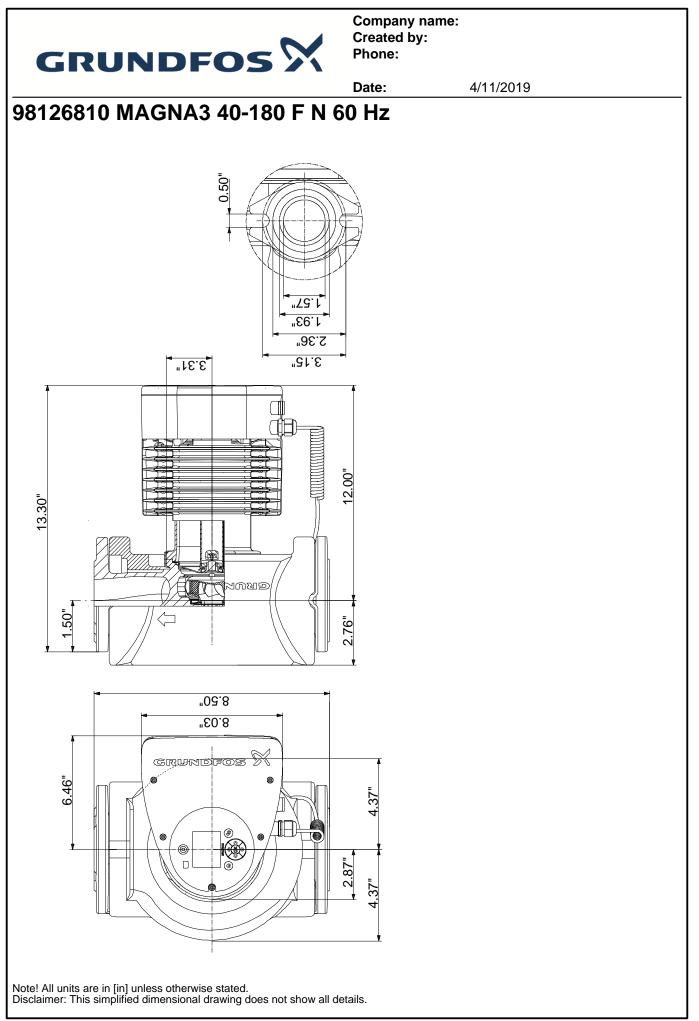
Description							
The MAGNA3 incorporates a 4-pole synchronous, permanent-magnet motor (PM motor). This motor type is characterised by higher efficiency than a conventional asynchronous squirrel-cage motor.							
The pump speed is controlled by an integrated frequency converter. A differential-pressure and temperature sensor is incorporated in the pump.							
	Wator						
Donoky.	0110010/10						
Technical:							
Approvals on nameplate:	98544604						
Materials:							
Pump housing:	Stainless steel						
	EN 1.4308						
	ASTM 351 CF8						
Impeller:	PES 30%GF						
Installation							
	22 104 °E						
for to portiongth.	0 0/ 10 11						
Electrical data:							
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						
	Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density: Technical: Actual calculated flow: Rated flow: Resulting head of the pump: TF class: Approvals on nameplate: Materials: Pump housing: Impeller: Imstallation: Range of ambient temperature: Maximum operating pressure: Flange standard: Pipe connection: Pressure stage: Port-to-port length: Electrical data: Power input - P1: Main frequency: Rated voltage: Maximum current consumption: Enclosure class (IEC 34-5): Insulation class (IEC 85): Others: Energy (EEI): Net weight: Gross weight: Shipping volume:	Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density:Water $140  ^{\circ}F$ $61.35  lb/ft^3$ Selected liquid temperature: Density: $140  ^{\circ}F$ $61.35  lb/ft^3$ Technical: Actual calculated flow: Rated flow: Resulting head of the pump: $91.31  ft$ TF class: Approvals on nameplate: Pump housing: $61.9  US  gpm$ $98544604$ Materials: Pump housing: $110$ $98544604$ Materials: Pump housing:Stainless steel $EN 1.4308$ $ASTM 351  CF8$ PES 30%GFInstallation: Range of ambient temperature: Flange standard: $Pipe connection:$ $Pipe connection:Pipe connection:Pint2Port-to-port length:Pint2Port-to-port length:Pint2Pi$	Liquid: Pumped liquid: Water Liquid temperature range: 14 230 °F Selected liquid temperature: 140 °F Density: 61.35 lb/ft <sup>3</sup> 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: 16 606 W Main frequency: 60 Hz Rated voltage: 1 x 115 V Maximum current consumption: 0.26 5.26 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>	Liquid:WaterPumped liquid:WaterLiquid temperature range:14230 °FSelected liquid temperature:140 °FDensity:61.35 lb/ft³Technical:Actual calculated flow:61.9 US gpmRated flow:62.1 US gpmResulting head of the pump:31.31 ftTF class:110Approvals on nameplate:98544604Materials:Pump housing:Stainless steelEN 1.4308ASTM 351 CF8Impeller:PES 30%GFInstallation:Range of ambient temperature:22104 °FMaximum operating pressure:174.05 psiFlange standard:GFPipe connection:GF 15/26/40/43Pressure stage:PN12Port-to-port length:8 9/16 inElectrical data:Power input - P1:16606 WMain frequency:60 HzRated voltage:1 x 115 VMaximum current consumption:0.265.26 AEnclosure class (IEC 34-5):X4DInsulation class (IEC 85):FOthers:Energy (EEI):0.19Net weight:35.6 lbGross weight:38.7 lbShipping volume:1060 ft³	Liquid: Pumped liquid: Water Liquid temperature range: $14 230 \text{ °F}$ Selected liquid temperature: $140 \text{ °F}$ Density: $61.35 \text{ lb/ft}^3$ Technical: Actual calculated flow: $61.9 \text{ US gpm}$ Rated flow: $62.1 \text{ US gpm}$ Resulting head of the pump: $31.31 \text{ ft}$ 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: $32 104 \text{ °F}$ Maximum operating pressure: $174.05 \text{ psi}$ Flange standard: GF Pipe connection: GF15/26/40/43 Pressure stage: PN12 Port-to-port length: $8 \text{ 9/16} \text{ in}$ Electrical data: Power input - P1: $16 606 \text{ W}$ Main frequency: $60 \text{ Hz}$ Rated voltage: $1 \times 115 \text{ V}$ Maximum current consumption: $0.26 5.26 \text{ A}$ Enclosure class (IEC 34-5): X4D Insulation class (IEC 35): F Others: Energy (EEI): $0.19$ Net weight: $35.6 \text{ lb}$ Gross weight: $38.7 \text{ lb}$ Shipping volume: $1060 \text{ fr}^3$		

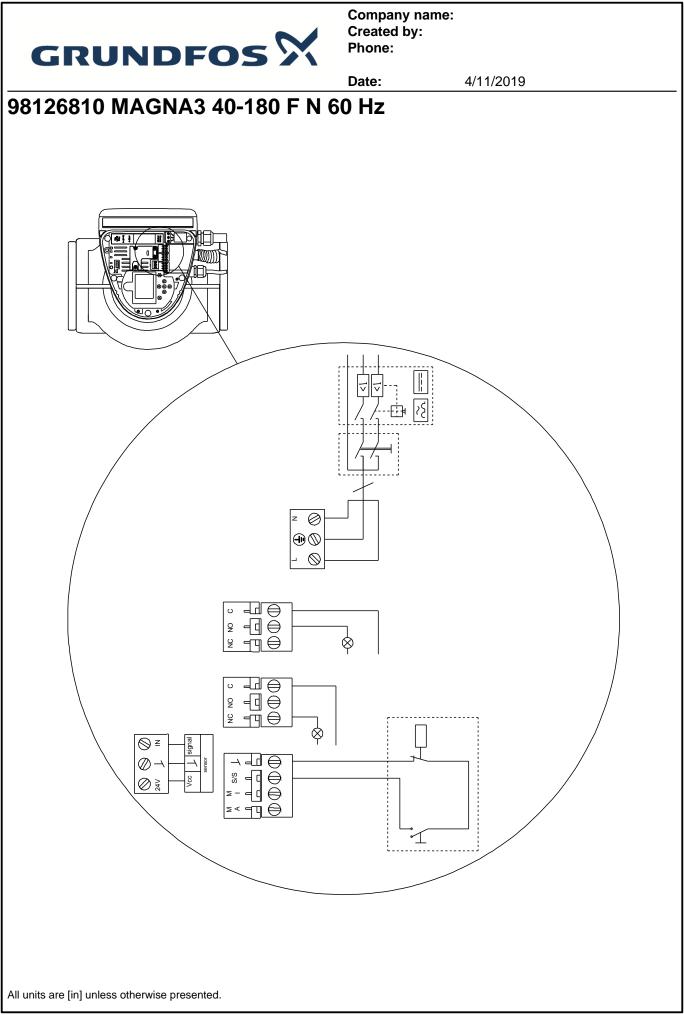


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		Date:	4/11/2019
Description	Value	H [ft]	MAGNA3 40-180 F N
General information:			Q = 61.9 US gpm H = 31.31 ft
Product name:	MAGNA3 40-180 F N	65 -	n = 76 % / 3790 rpm
Product No.:	98126810	60 -	Pumped liquid = Water Liquid temperature during operation = 140 °F
EAN:	5710629499721	55 -	Density = $61.35 \text{ lb/ft}^3$
Technical:			
Actual calculated flow:	61.9 US gpm	50 -	- 100
Rated flow:	62.1 US gpm	45 -	- 90
Resulting head of the pump:	31.31 ft	40 -	- 80
Head max:	59.06 ft	35 - 76 %	70
TF class:	110		
Approvals on nameplate:	98544604	30 -	-60
Model:	D	25 -	50
Materials:		20	40
Pump housing:	Stainless steel		
r amp nousing.	EN 1.4308	15 -	-30
	ASTM 351 CF8	10	
Impeller:	PES 30%GF	5 <b></b>	
Installation:	FE3 30%GF		Eff pump + motor + freq. conv = 59.4 %
Range of ambient temperature:	32 104 °F	0 20	0 40 60 80 100 120 Q [US gpm]
Maximum operating pressure:		P1 - [W]	
	174.05 psi GF	600 -	
Flange standard:	-	/ /	
Pipe connection:	GF15/26/40/43	500 -	
Pressure stage:	PN12	400 -	
Port-to-port length:	8 9/16 in	300 -	
Liquid:			
Pumped liquid:	Water	200 -	
Liquid temperature range:	14 230 °F	100-	
Selected liquid temperature:	140 °F		P1 (motor+freq.converter) = 604.7 W
Density:	61.35 lb/ft <sup>3</sup>		
Electrical data:			13.30*
Power input - P1:	16 606 W	6.4	6°
Main frequency:	60 Hz		
Rated voltage:	1 x 115 V		
Maximum current consumption:	0.26 5.26 A		
Enclosure class (IEC 34-5):	X4D		
Insulation class (IEC 85):	F		
Others:			
Energy (EEI):	0.19	2.87*	2.76" 12.00"
Net weight:	35.6 lb	4.37" 4.37"	
Gross weight:	38.7 lb		
Shipping volume:	1060 ft <sup>3</sup>		
Custom tariff no.:	8413.70.2005		







4/11/2019

### **Order Data:**

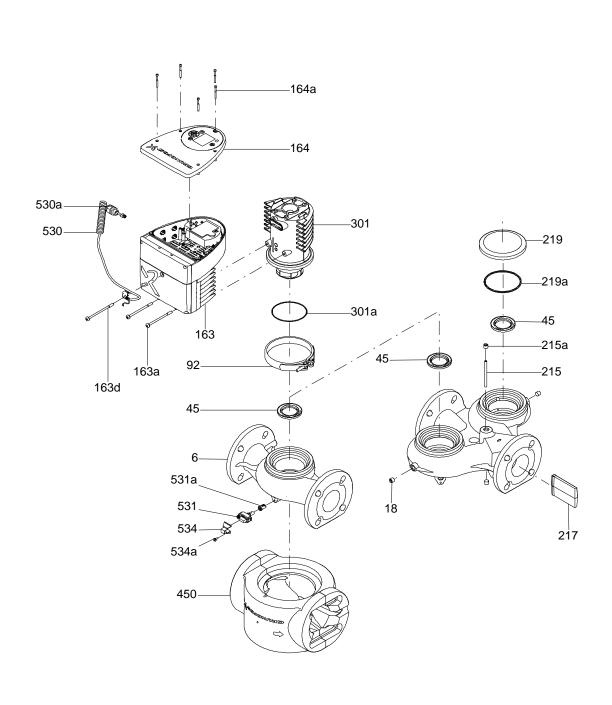
Product name:MAGNA3 40-180 F NAmount:1Product No.:98126810

Total: Price on request



4/11/2019

(TM057299 MAGNA3 750-1600W)





4/11/2019

## Parts list MAGNA3 40-180 F N, Prod number 98126810 Produced After 1732 (production year and week number)

Positio	n 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