

| | | | | | |
|-----------------|--------------------|------------------|------------------------------|-----------|-------|
| PROJECT: | Magna-3 | UNIT TAG: | _____ | QUANTITY: | 1 |
| REPRESENTATIVE: | Hurley Engineering | TYPE OF SERVICE: | Cast Iron Pump Configuration | DATE: | _____ |
| ENGINEER: | TBD | SUBMITTED BY: | Devin Carle | DATE: | _____ |
| CONTRACTOR: | TBD | APPROVED BY: | _____ | DATE: | _____ |
| | | ORDER NO.: | _____ | DATE: | _____ |

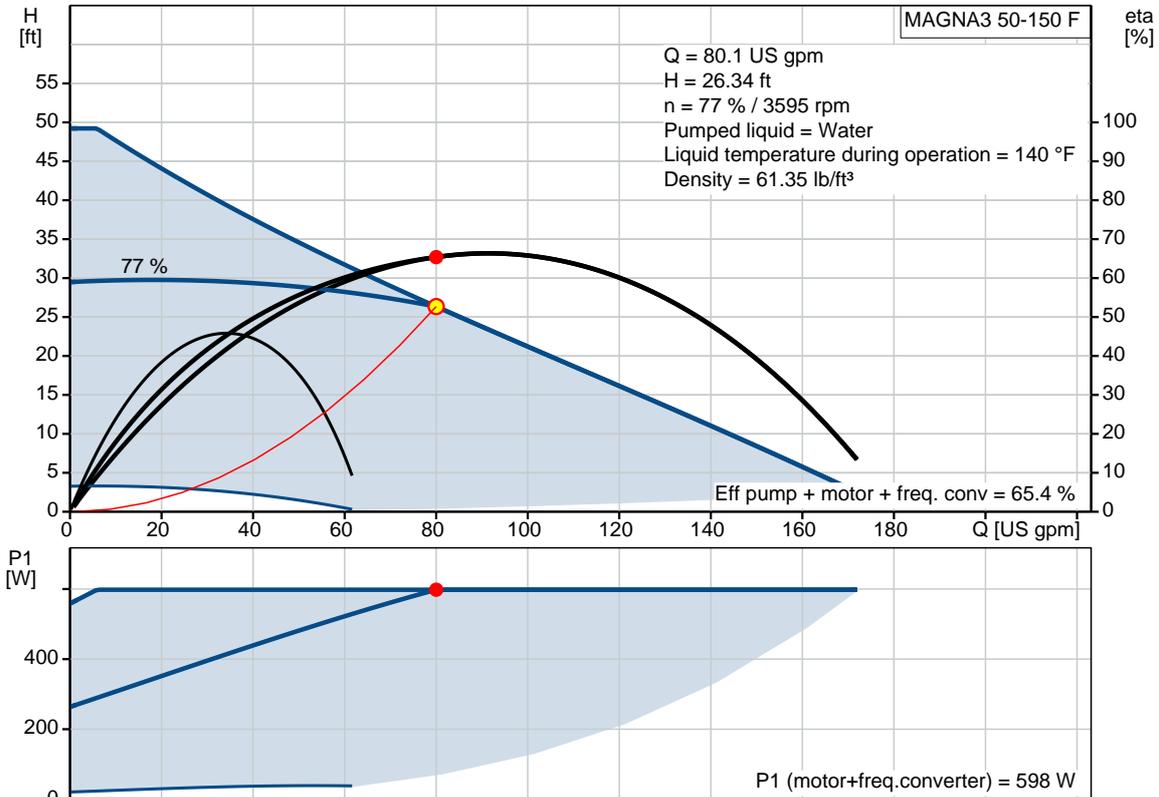


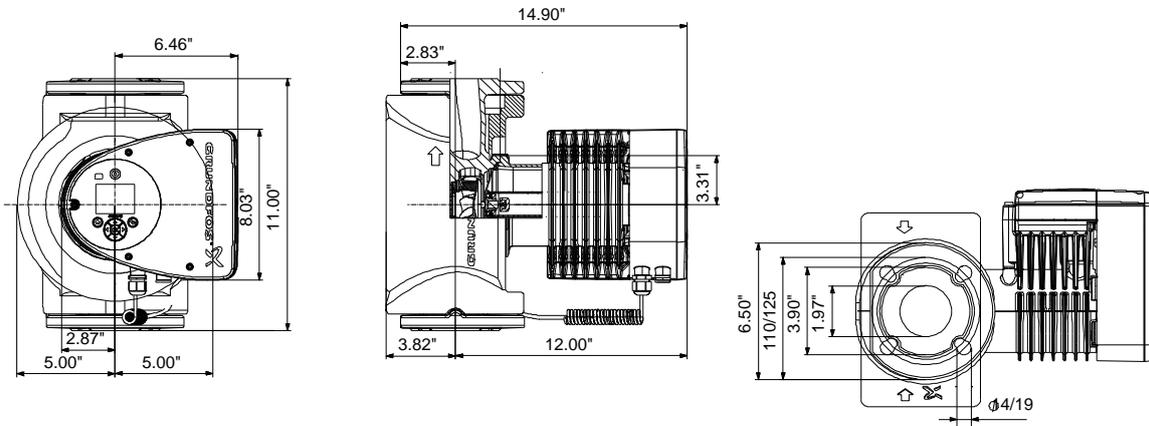
MAGNA3 50-150 F

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: | 80.1 US gpm | Maximum operating pressure: | 174.05 psi | P1 max: | 18.5 .. 598 W |
| Head: | 26.34 ft | Liquid temperature range: | 14 .. 230 °F | Rated voltage: | 208-230 V |
| Efficiency: | 65.4 % | 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

| Count | Description |
|-------|---|
| 1 | <p data-bbox="288 405 518 441">MAGNA3 50-150 F</p> <div data-bbox="379 510 600 669" data-label="Image"> </div> <p data-bbox="288 734 568 763">Product No.: 98126844</p> <p data-bbox="288 792 1372 902">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 data-bbox="288 909 1337 965">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 data-bbox="288 996 1362 1137">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.</p> <p data-bbox="288 1169 890 1469">The pump is characterised by the following:</p> <ul data-bbox="288 1205 890 1469" 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 data-bbox="288 1469 724 1498">The MAGNA3 is a single-phase pump.</p> <p data-bbox="288 1529 552 1559">Characteristic features</p> <ul data-bbox="288 1559 1331 1939" 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 data-bbox="288 1971 916 2027">Communication The MAGNA3 enables communication via the following:</p> |



Company name: Hurley Engineering
Created by:
Phone:

Date: 3/19/2020

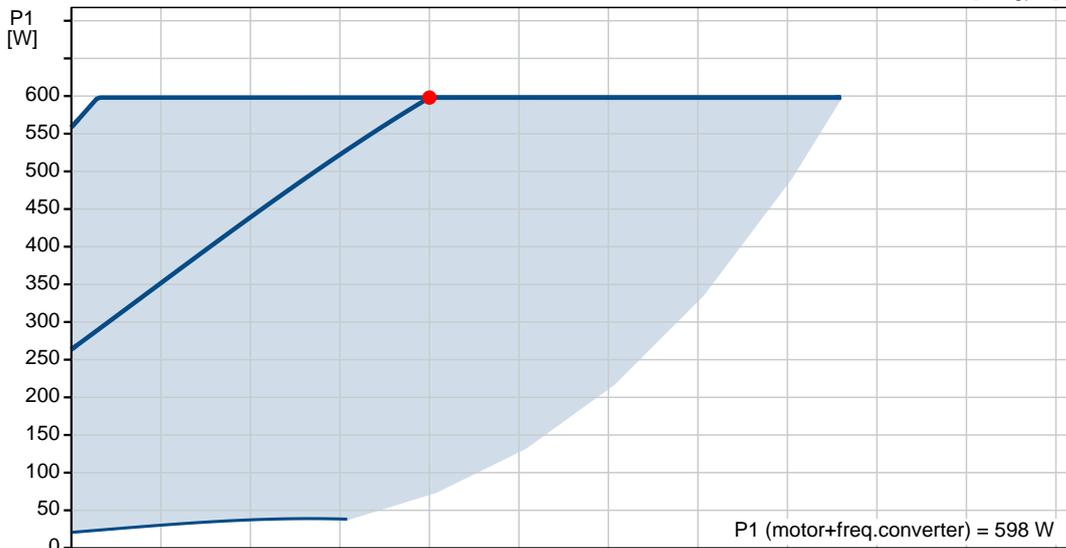
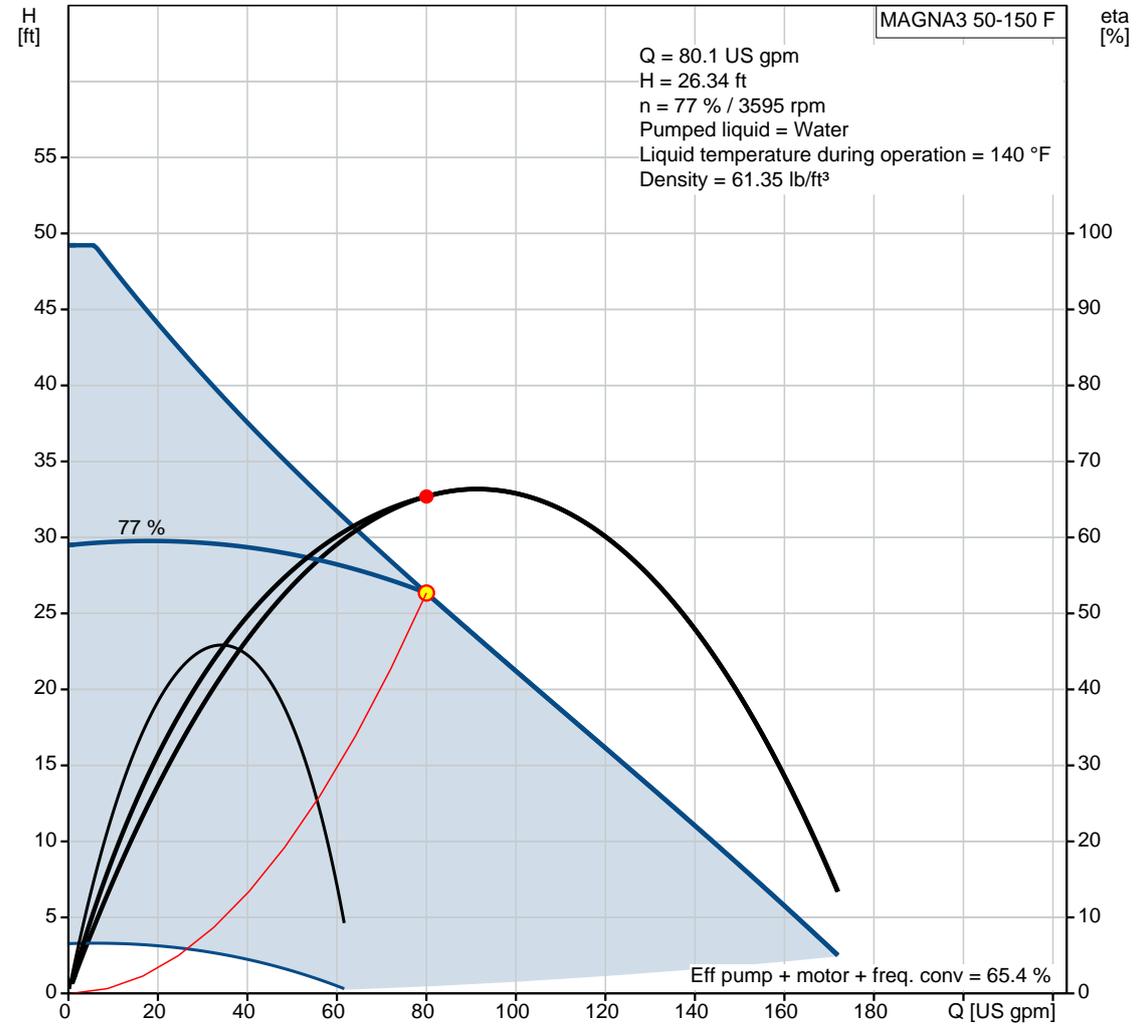
| Count | Description |
|-------|--|
| | <ul style="list-style-type: none">• wireless Grundfos GO Remote• fieldbus communication via CIM modules• digital inputs• relay outputs• analog input (more than a pump function as heat energy meter) <p>Motor and electronic controller The MAGNA3 incorporates a 4-pole 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 Selected liquid temperature: 140 °F Density: 61.35 lb/ft³</p> <p>Technical: Actual calculated flow: 80.1 US gpm Resulting head of the pump: 26.34 ft 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: 174.05 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 .. 598 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: 43.3 lb Gross weight: 47.9 lb Shipping volume: 1630 ft³ Country of origin: US Custom tariff no.: 8413.70.2005</p> |



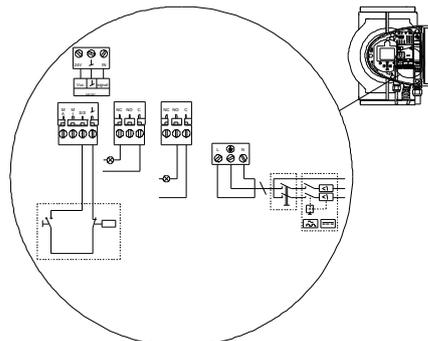
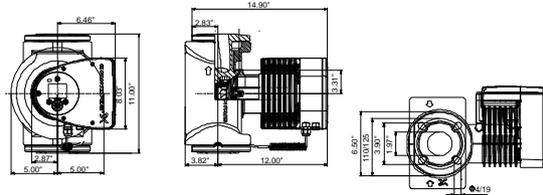
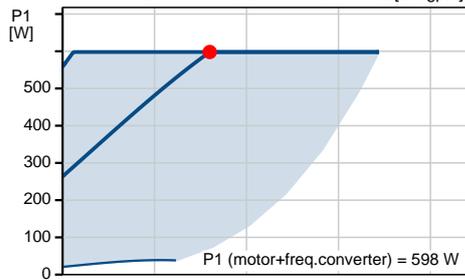
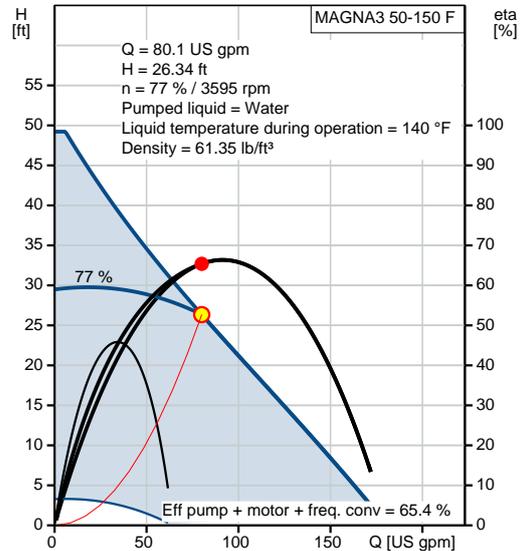
Company name: Hurley Engineering
Created by:
Phone:

Date: 3/19/2020

98126844 MAGNA3 50-150 F 60 Hz



| Description | Value |
|-------------------------------|--|
| General information: | |
| Product name: | MAGNA3 50-150 F |
| Product No.: | 98126844 |
| EAN: | 5710629500069 5710629500069 |
| Technical: | |
| Actual calculated flow: | 80.1 US gpm |
| Resulting head of the pump: | 26.34 ft |
| 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: | 174.05 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 |
| Selected liquid temperature: | 140 °F |
| Density: | 61.35 lb/ft ³ |
| Electrical data: | |
| Power input - P1: | 18.5 .. 598 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: | 43.3 lb |
| Gross weight: | 47.9 lb |
| Shipping volume: | 1630 ft ³ |
| Country of origin: | US |
| Custom tariff no.: | 8413.70.2005 |

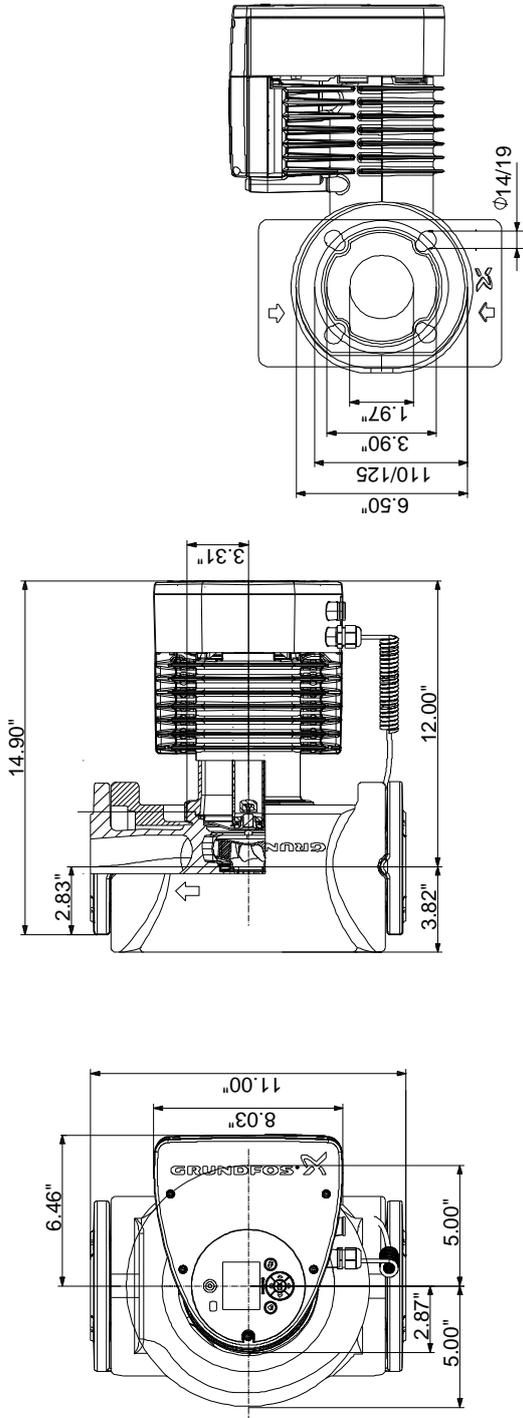




Company name: Hurley Engineering
Created by:
Phone:

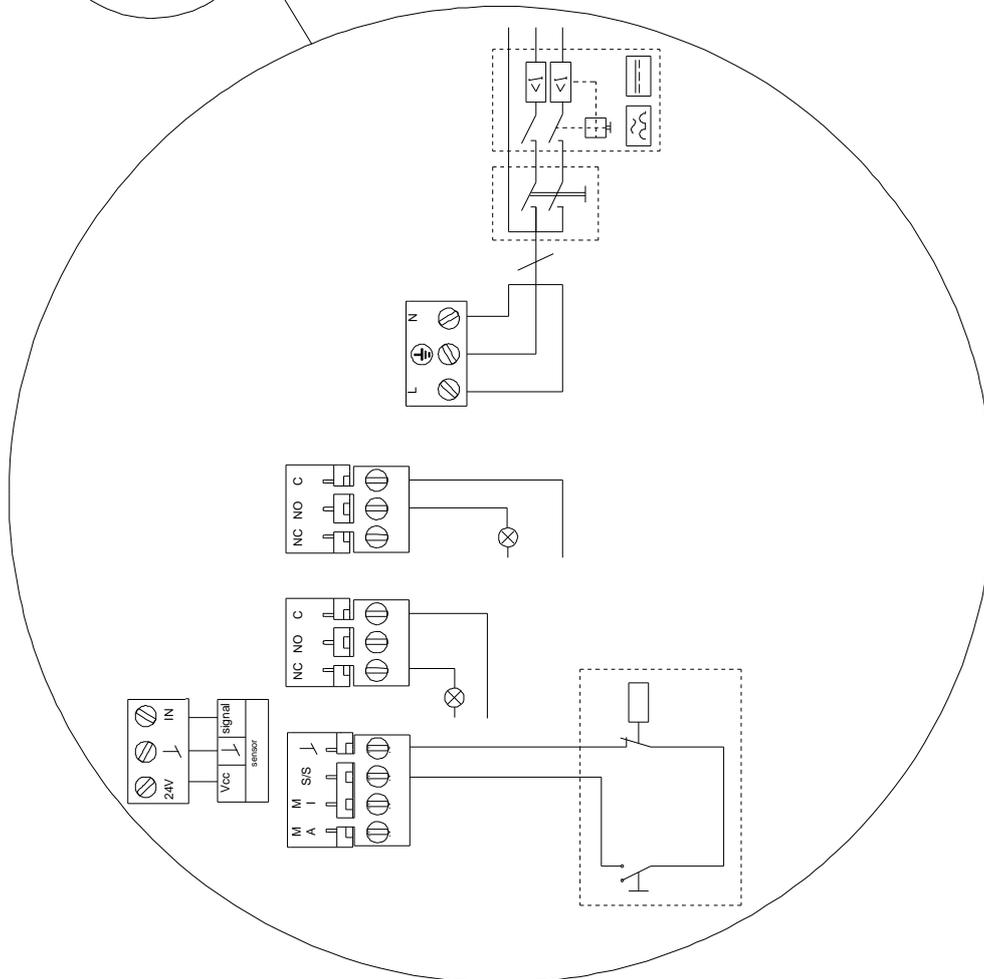
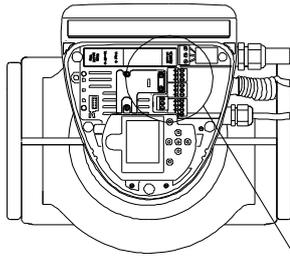
Date: 3/19/2020

98126844 MAGNA3 50-150 F 60 Hz



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

98126844 MAGNA3 50-150 F 60 Hz



All units are [in] unless otherwise presented.