

Submittal Data

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



MTRE 1-9/9 A-WB-A-HUUV

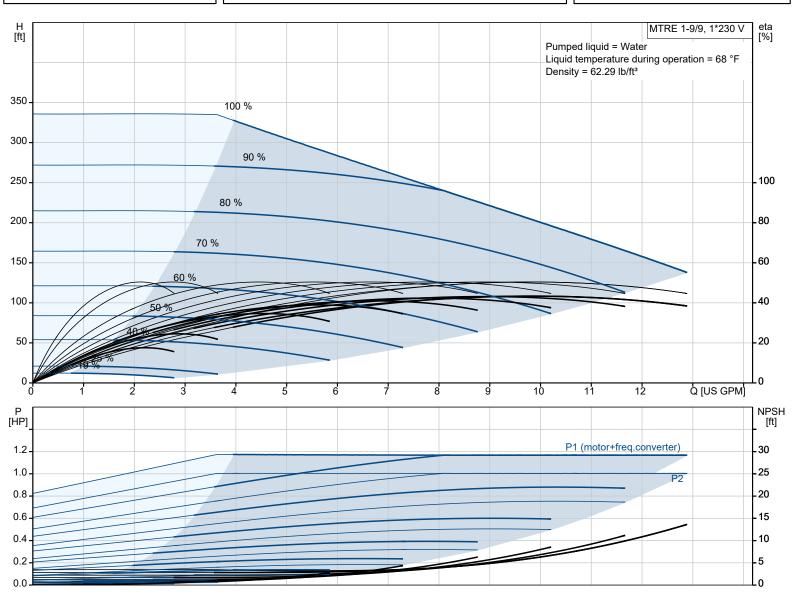
Vertical multistage centrifugal pump with integrated frequency converter designed for tank top mounting and for pumping of cooling lubricants and cutting oils for machine tools, cooling applications, industrial liquid transfer and similar applications.

Note! Product picture may differ from actual product

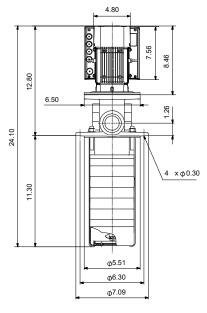
| Conditions of Service | | |
|-----------------------|-------|--|
| Liquid: | Water | |
| Temperature: | 68 °F | |
| Specific Gravity: | 1.000 | |

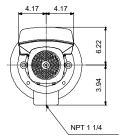
| Pump Data | | |
|------------------------------|------------------|--|
| Max pressure at stated temp: | 363 psi / 194 °F | |
| Liquid temperature range: | 14 194 °F | |
| Maximum ambient temperature: | 122 °F | |
| Shaft seal: | HUUV | |
| Product number: | 98400046 | |
| | | |

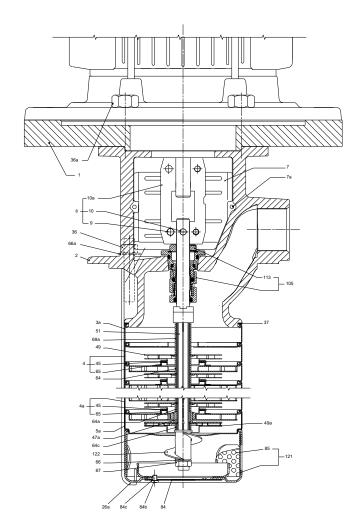
| Motor Data | | |
|---------------------------------------------------------------------------|--------------------------|--|
| Rated power - P2: | 1 HP | |
| Rated voltage: | 200-240 V | |
| Mains frequency: | 60 Hz | |
| Enclosure class: | IP55 | |
| Insulation class: | F | |
| Motor protection: | ELEC | |
| Motor type: | 80A | |
| Eta 1/1: | 85.2 % | |
| Enclosure class: Insulation class: Motor protection: Motor type: | IP55 F ELEC 80A | |











Materials:

Impeller: Stainless steel Impeller: AISI 304 Impeller: EN 1.4301

Material code: A



Date: 23/01/2023

Qty. | Description

MTRE 1-9/9 A-WB-A-HUUV



Product No.: 98400046

Multistage, immersible, self-priming, centrifugal pump for vertical installation in tanks etc.

The pump head and base are in cast iron – all other wetted parts are in stainless steel.

The pump has the following characteristics TEST:

- · Dimensions according to DIN 5440.
- · Impellers, intermediate chambers and spline shaft are made of Stainless steel.
- · Mechanical shaft seal according to EN 12756.
- Power transmission via sintered metal split coupling.

A cartridge shaft seal ensures high reliability, safe handling, and easy access and service.

The pump is fitted with a 1-phase, fan-cooled, permanent-magnet, synchronous motor.

The motor includes a frequency converter and PI controller in the motor terminal box. This enables continuously variable control of the motor speed, which again enables adaptation of the performance to a given requirement.

The operating panel on the motor terminal box features a four-inch TFT display, push-buttons and the Grundfos Eye indicator.

The display gives an intuitive and user-friendly interface to all functions.

The push-buttons are used to navigate through the menu structure to access pump and performance data on site and enable setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop".

The Grundfos Eye indicator on the operating panel provides visual indication of pump status:

- "Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights)
- "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights)
- "Alarm": Motor has stopped (flashing red indicator lights).

Communication with the pump is also possible by means of Grundfos GO Remote (accessory). The remote control enables further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption".

The terminal box has a number of inputs and outputs enabling the motor to be used in advanced applications where many inputs and outputs are required:

- two dedicated digital inputs
- three analog inputs, 0(4)-20 mA, 0-5 V, 0-10 V, 0.5 3.5 V
- 5 V voltage supply to potentiometer and sensor
- one analog output, 0-10 V, 0(4)-20 mA
- two configurable digital inputs or open-collector outputs
- two Pt100/Pt1000 inputs
- LigTec, dry-running protection sensor input
- Grundfos Digital Sensor input and output
- 24 V voltage supply for sensors
- two signal-relay outputs (potential-free contacts)
- GENIbus connection
- interface for Grundfos CIM fieldbus module.

Controls:

Frequency converter: Built-in

Liquid:

Pumped liquid: Water
Liquid temperature range: 14 .. 194 °F
Selected liquid temperature: 68 °F
Density: 62.29 lb/ft³

Technical:

Pump speed on which pump data are based: 3400 rpm

Rated flow: 9.69 US GPM
Rated head: 192.6 ft
Chambers: 9



Date: 23/01/2023

Qty. | Description

Drainage back to tank: N

Pump orientation: Vertical Code for shaft seal: HUUV Approvals: CE

Approvals for motor: CE, RCM, cURus, IE5, IES2,UKCA, SEPRO

Energy approvals for motor: CE

Curve tolerance: ISO9906:2012 3B Cable gland entry: 4xM20 blind plug

Materials:

Pump head: Cast iron

EN 1561 EN-GJL-200 ASTM A48-25B

Impeller: Stainless steel

EN 1.4301 AISI 304

Installation:

t max amb: 122 °F

Maximum operating pressure: 362.59 psi

Max pressure at stated temp: 363 psi / 194 °F

Type of connection: NPT(F)
Size of outlet connection: 1 1/4 inch
Immersion depth: 11.3 in
Flange size for motor: 56C

Electrical data:

Motor standard:

Motor type:

80A

IE Efficiency class:

Rated power - P2:

Mains frequency:

Suitable for 50/60 Hz:

Y

Rated voltage: 1 x 200-240 V

Service factor: 1.0

Rated current: 4.70-3.90 A

Cos phi - power factor: 0.99

Rated speed: 360-4000 rpm

Efficiency: 85.2%

Motor efficiency at full load: 85.2 %

Enclosure class (IEC 34-5): IP55

Insulation class (IEC 85): F

Motor No: 98362274

Cable gland entry: 4xM20 blind plug

Others:

Terminal box position: 6

Minimum efficiency index, MEI ≥: 0.70

Net weight: 38.3 lb

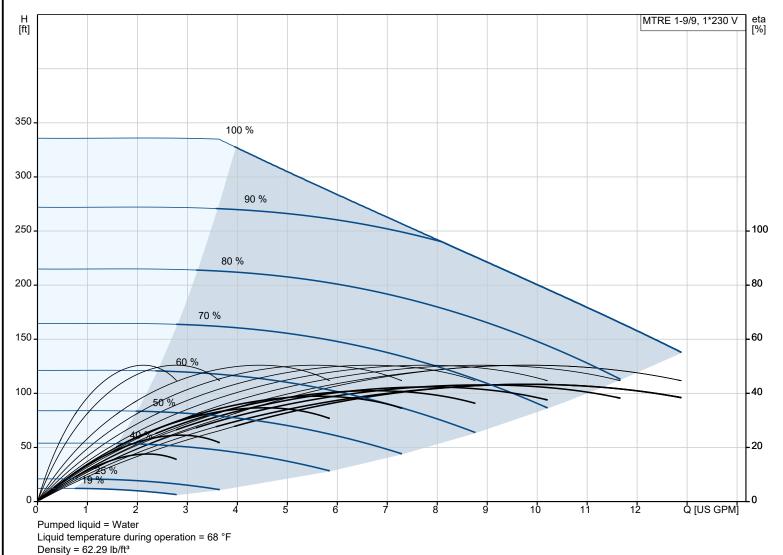
Gross weight: 71.4 lb

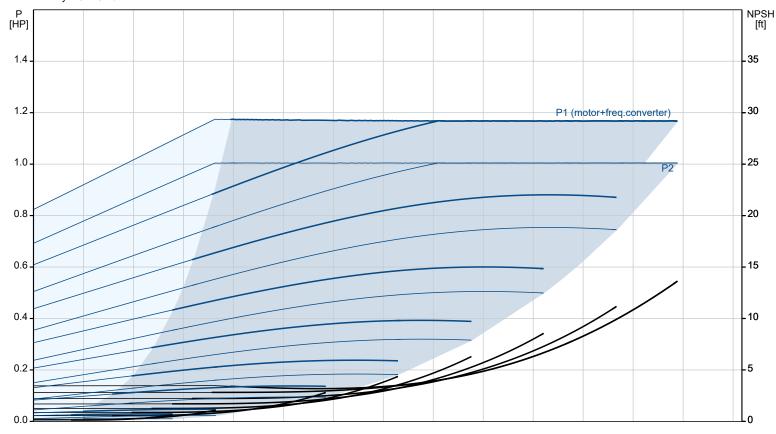
Shipping volume: 4.98 ft³
Country of origin: US

Custom tariff no.: 8413.70.2040



Date: 23/01/2023







Date: 23/01/2023

| Description | Value |
|------------------------------------------|------------------------------------------|
| General information: | |
| Product name: | MTRE 1-9/9 A-WB-A-HUUV |
| Product No: | 98400046 |
| EAN number: | 5711494355242 |
| Technical: | |
| Pump speed on which pump data are based: | 3400 rpm |
| Rated flow: | 9.69 US GPM |
| Rated head: | 192.6 ft |
| Chambers: | 9 |
| Impellers: | 9 |
| Number of reduced-diameter impellers: | 0 |
| Drainage back to tank: | N |
| Pump orientation: | Vertical |
| Code for shaft seal: | HUUV |
| Approvals: | CE |
| Approvals for motor: | CE, RCM, cURus, IE5, IES2,UKCA, SEPRO |
| Energy approvals for motor: | CE |
| Curve tolerance: | ISO9906:2012 3B |
| Pump version: | Α |
| Model: | Α |
| Cable gland entry: | 4xM20 blind plug |
| Materials: | |
| Pump head: | Cast iron |
| Pump head: | EN 1561 EN-GJL-200 |
| Pump head: | ASTM A48-25B |
| Impeller: | Stainless steel |
| Impeller: | EN 1.4301 |
| Impeller: | AISI 304 |
| Material code: | Α |
| Installation: | |
| t max amb: | 122 °F |
| Maximum operating pressure: | 362.59 psi |
| Max pressure at stated temp: | 363 psi / 194 °F |
| Type of connection: | NPT(F) |
| Size of outlet connection: | 1 1/4 inch |
| Immersion depth: | 11.3 in |
| Flange size for motor: | 56C |
| Connect code: | WB |
| Liquid: | |
| Pumped liquid: | Water |
| Liquid temperature range: | 14 194 °F |
| Selected liquid temperature: | 68 °F |
| Density: | 62.29 lb/ft³ |
| Electrical data: | NEMA |
| Motor standard: | NEMA |
| Motor type: | 80A |
| IE Efficiency class: | IE5 |
| Rated power - P2: | 1 HP |
| Mains frequency: | 60 Hz |
| Suitable for 50/60 Hz: | Υ |
| Rated voltage: | 1 x 200-240 V |
| Service factor: | 1.0 |
| Rated current: | 4.70-3.90 A |
| Coa phi power factor: | (1) (1)(1) |

0.99

85.2% 85.2 %

IP55

ELEC

98362274

4xM20 blind plug

F

360-4000 rpm

Cos phi - power factor:

Motor efficiency at full load:

Enclosure class (IEC 34-5):

Insulation class (IEC 85):

Built-in motor protection:

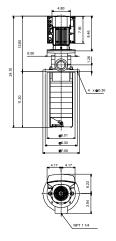
Cable gland entry:

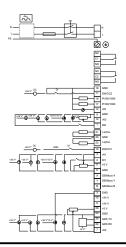
Rated speed: Efficiency:

Motor No:

Controls:

| H [ft] | MTRI | E 1-9/9, 1*230 V eta [%] |
|-----------|---------------------------------------------------------------------------|--------------------------|
| | | |
| 350 - | 100 % | |
| 300 - | 90 % | |
| 250 - | 80 % | 100 |
| 200 - | | -80 |
| 150 | 70 % | -60 |
| 100 | 58% | -40 |
| 50 - | 36 | -20 |
| 0 1 | 2 3 4 5 6 7 8 9 10 11 | Q [US GPM] |
| Liquid te | l liquid = Water emperature during operation = 68 °F = 62.29 lb/ft³ | |
| P [HP] | 0.00 | NPSH [ft] |
| 1.2 | P1 (motor+freq.cc | onverter)30 |
| 1.0 | | P2 - 25 |
| 0.8 | | -20 |
| 0.6 | | -15 |
| 0.4 | | 10 |
| 0.2 | | -5 |





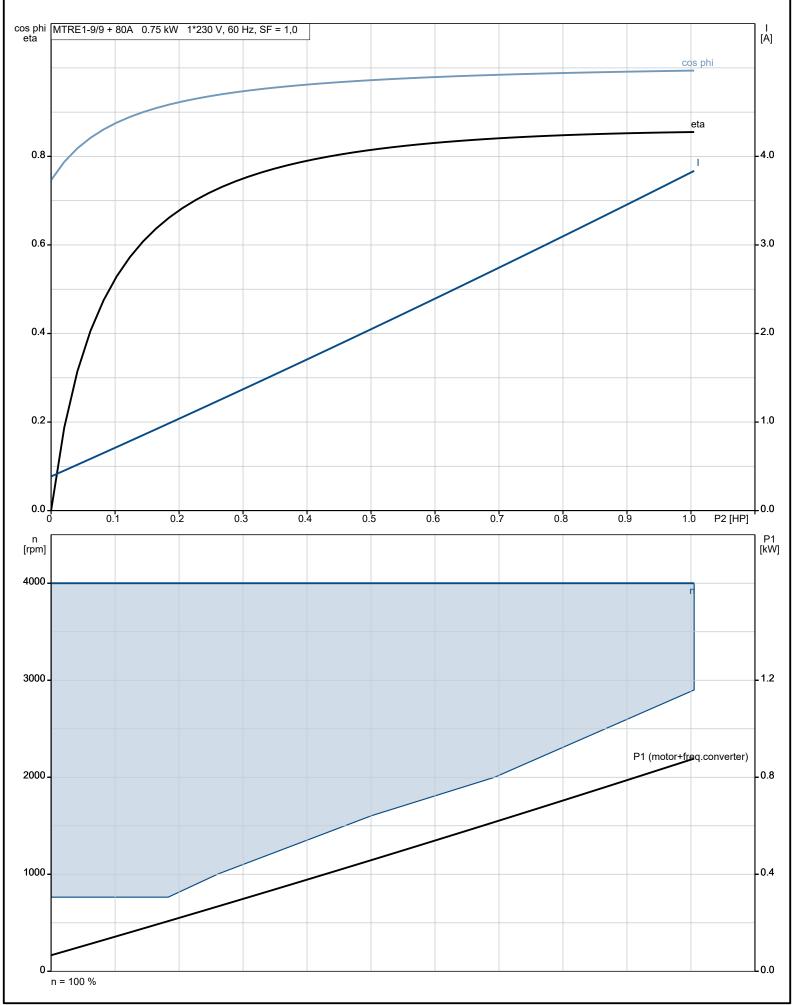


Date: 23/01/2023

| Description | Value |
|----------------------------------|----------------------|
| Control panel: | Graphical |
| Function Module: | FM300 - Advanced |
| Frequency converter: | Built-in |
| Others: | |
| Terminal box position: | 6 |
| Minimum efficiency index, MEI ≥: | 0.70 |
| Net weight: | 38.3 lb |
| Gross weight: | 71.4 lb |
| Shipping volume: | 4.98 ft ³ |
| Country of origin: | US |
| Custom tariff no.: | 8413.70.2040 |

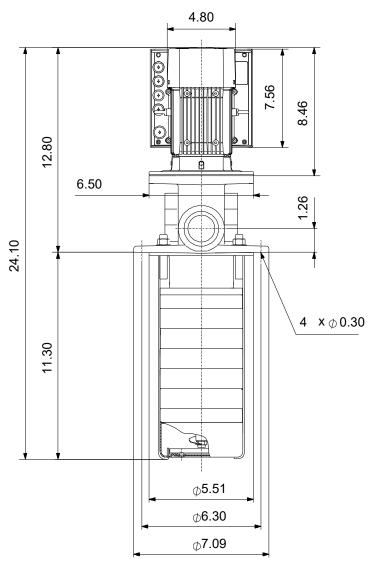


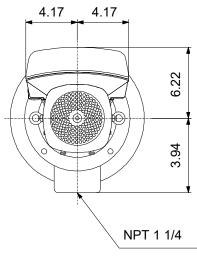
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