

### **Submittal Data**

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



#### MTRE 5-6/6 A-WB-A-HUUV

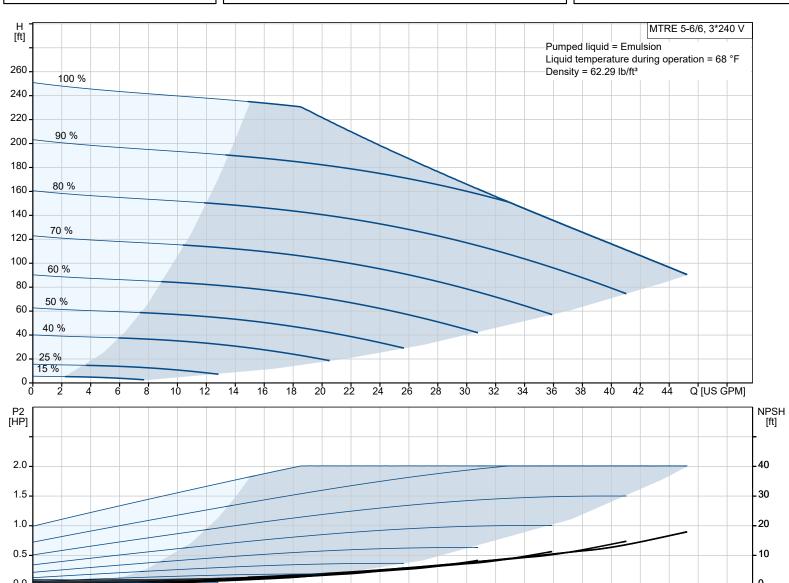
Vertical multistage centrifugal pump with integrated frequency converter designed for tank top mounting and for pumping of cooling lubricants and cutting oils for machine tools, cooling applications, industrial liquid transfer and similar applications.

Note! Product picture may differ from actual product

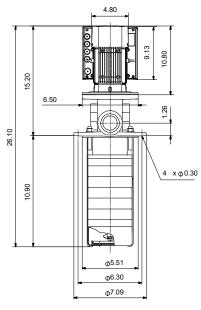
Conditions of Service		
Efficiency:	%	
Liquid:	Emulsion	
Temperature:	68 °F	
NPSH required:	ft	
Specific Gravity:	1.000	

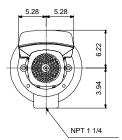
Pump Data	
Max pressure at stated temp:	363 psi / 194 °F
Liquid temperature range:	14 194 °F
Maximum ambient temperature:	104 °F
Shaft seal:	HUUV
Product number:	99529159

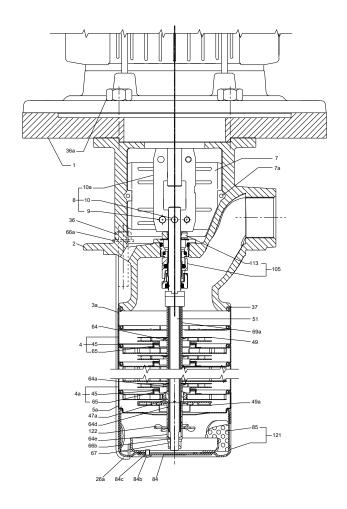
l
2 HP
200-240 V
60 Hz
IP55
F
ELEC
90C
88.9 %











#### Materials:

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

Material code: A



**Date:** 06/03/2023

Qty. | Description

MTRE 5-6/6 A-WB-A-HUUV



Product No.: 99529159

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:

- · 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 3-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.

Immersion depth: 10.9 in

Controls:

Frequency converter: Built-in

Liquid:

Pumped liquid: Emulsion
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: 3452 rpm

Rated flow: 30.4 US GPM
Rated head: 150.9 ft
Chambers: 6



**Date:** 06/03/2023

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: 4 x NPT 1/2"

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: 104 °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: 10.9 in
Flange size for motor: 56C

Electrical data:

Motor standard:

Motor type:

IE Efficiency class:

Rated power - P2:

Mains frequency:

Suitable for 50/60 Hz:

NEMA

90C

1E5

2 HP

60 Hz

Rated voltage: 3 x 200-240 V

Service factor: 1.00

Rated current: 5.40-4.60 A

Cos phi - power factor: 0.92

Rated speed: 360-4000 rpm

Motor efficiency at full load: 88.9 % Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F

Motor No: 99301706 Cable gland entry: 4 x NPT 1/2"

Others:

Terminal box position:

Minimum efficiency index, MEI ≥:

Net weight:

Gross weight:

Shipping volume:

Country of origin:

6

0.57

48.1 lb

80.5 lb

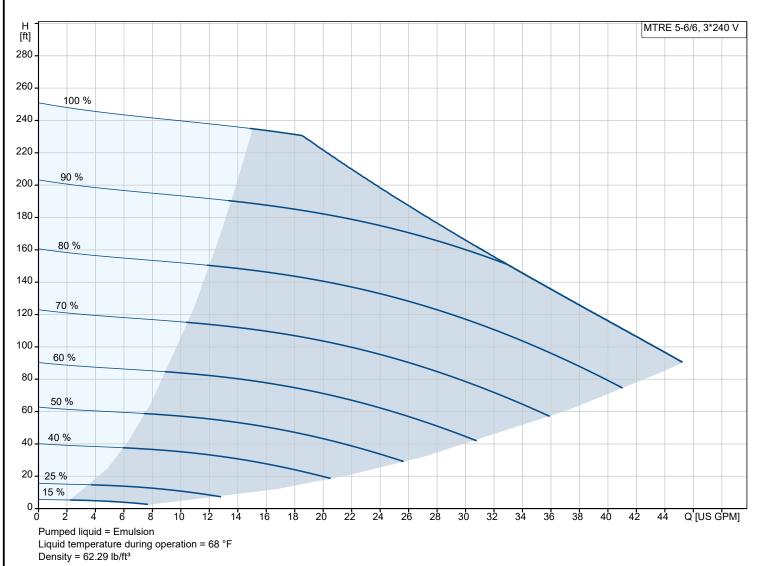
5.97 ft³

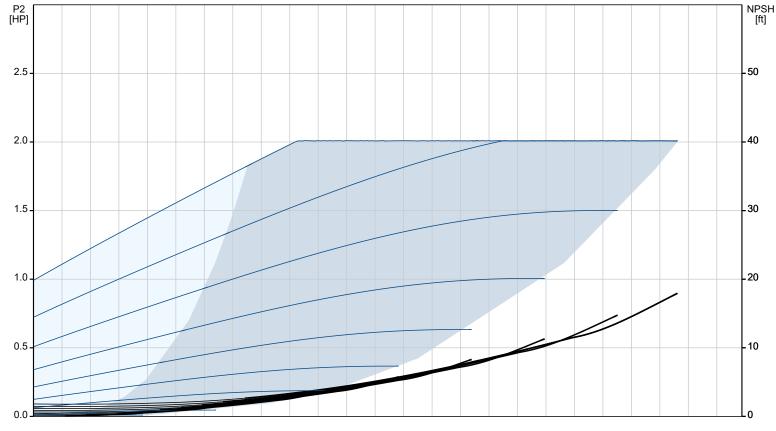
US

Custom tariff no.: 8413.70.2040



**Date:** 06/03/2023

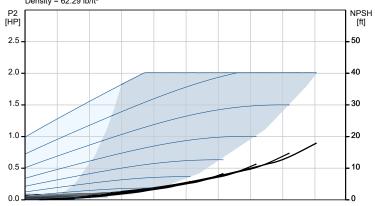


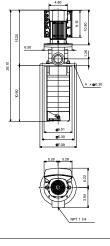




Date:	06/03/2023
Date.	00/03/2023

Date.		00/03/20	123			
H [ft]					MTRE 5	5-6/6, 3*240 V
260 - 100 %						
240 -						
220						
200 - 90 %						
180						
16080 %						
140						
70 %						
100 - 60 %						
60 50 %						
40 %						
20 - 25 %						
0 5	10	15 20	25	30 35	40	Q [US GPM]
0 5 Pumped I	10 liquid = Emulsion nperature during 62.29 lb/ft³			30 35	40	Q [US GI





	(C)
317 0 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	18 GND 11 DIAOC2 19 P1001100 17 P1001100 12 AO 9 GND
	102 1 DI2 21 LiqTec 20 GND 22 LiqTec 10 DI3OC1
387° 387° 387° 387° 387° 387° 387° 387°	4 At  2 DH  5 45 V  6 GND  A GENDUR A  Y GENDUR P  9 GENDUR B
	3 GND 15 +24 V 8 +24 V 26 +5 V 23 GND 25 GDS TX
	7 Al2

Description	Value
General information:	
Product name:	MTRE 5-6/6 A-WB-A-HUUV
Product No:	99529159
EAN number:	5713830572320
Technical:	
Pump speed on which pump data are based:	3452 rpm
Rated flow:	30.4 US GPM
Rated head:	150.9 ft
Chambers:	6
Impellers:	6
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:	A
Model:	A
Cable gland entry:	4 x NPT 1/2"
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

Installation:	
Material code:	A
Impeller:	AISI 304
Impeller:	EN 1.4301
Impeller:	Stainless steel
Pump head:	ASTM A48-25B
Fullip fleau.	EN 1301 EN-GJE-200

t max amb:	104 °F
Maximum operating pressure:	362.59 psi
Max pressure at stated temp:	363 psi / 194 °F

Max pressure at stated temp.	303 psi / 194 F
Type of connection:	NPT(F)
Size of outlet connection:	1 1/4 inch
Immersion depth:	10.9 in
Flange size for motor:	56C
Connect code:	WB

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

Donoity.	02.20 lb/lt
Electrical data:	
Motor standard:	NEMA
Motor type:	90C
IE Efficiency class:	IE5

IE Efficiency class:	IE5
Rated power - P2:	2 HP
Mains frequency:	60 Hz
Suitable for 50/60 Hz:	N
Rated voltage:	3 x 200-240 V
Service factor:	1.00
Rated current:	5.40-4.60 A
Cos phi - power factor:	0.92
Rated speed:	360-4000 rpm
Motor efficiency at full load:	88.9 %
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	ELEC
Motor No:	99301706
Cable gland entry:	4 x NPT 1/2"

Controls.	
Control panel:	Graphical

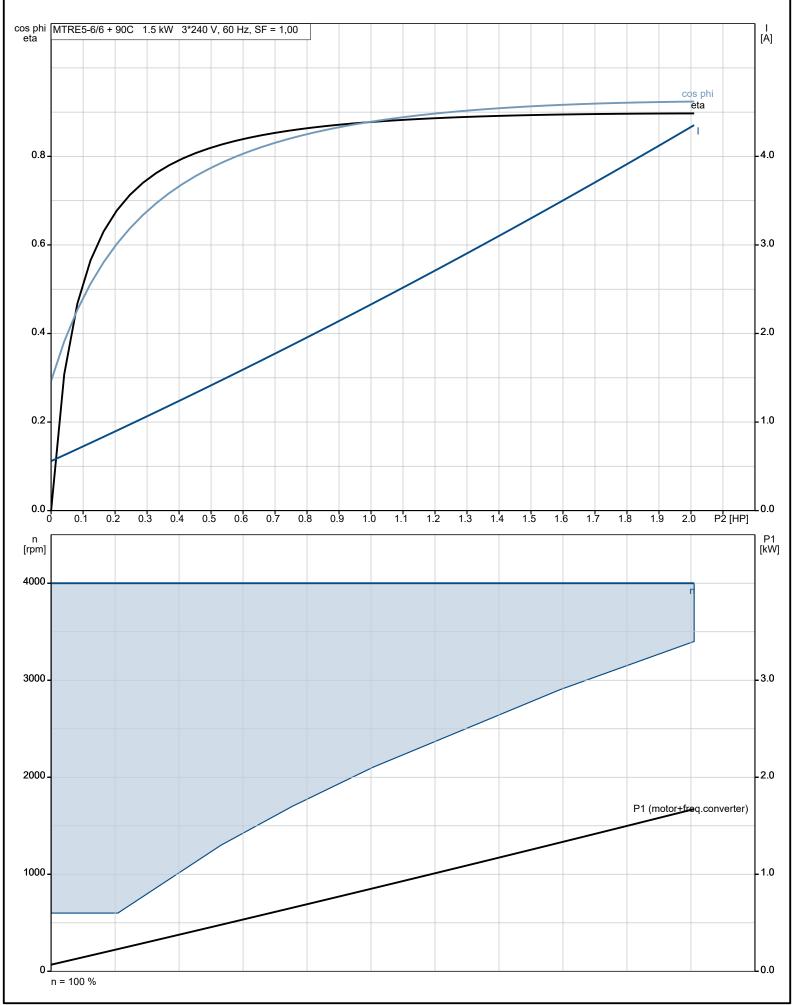


**Date:** 06/03/2023

December 1 and 1 a	V-I
Description	Value
Function Module:	FM300 - Advanced
Frequency converter:	Built-in
Others:	
Terminal box position:	6
Minimum efficiency index, MEI ≥:	0.57
Net weight:	48.1 lb
Gross weight:	80.5 lb
Shipping volume:	5.97 ft³
Country of origin:	US
Custom tariff no.:	8413.70.2040

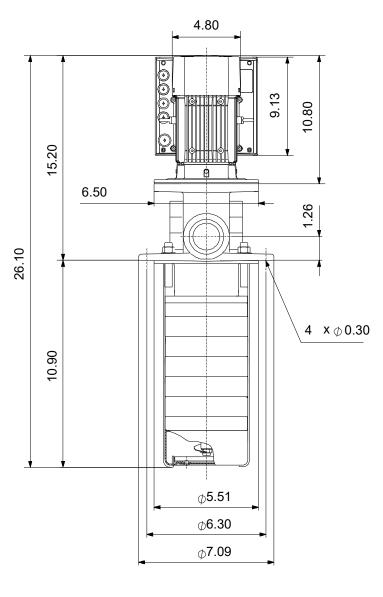


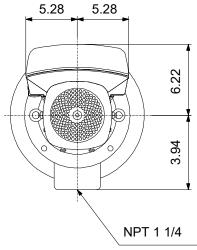
**Date:** 06/03/2023





**Date:** 06/03/2023







**Date:** 06/03/2023

