



Description

Date:

15/06/2022

# Qty. Secondary seal material: EPDM (ethylene-propylene rubber) EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.

A circulation of liquid through the duct of the air vent screw ensures lubrication and cooling of the shaft seal.

The flanges have tappings for mounting of pressure gauges.

The motor stool forms connection between the pump housing and the motor, and is equipped with a manual air vent screw for venting of the pump housing and the shaft seal chamber. The sealing between motor stool and pump housing is an O-ring.

The central part of the motor stool is provided with guards for protection against the shaft and coupling. The pump shaft is fastened directly on the motor shaft with key and set screws.

## Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electrical tolerances comply with IEC 60034.

The motor is flange-mounted with free-hole flange (FF).

Motor-mounting designation in accordance with IEC 60034-7: IM B 5, IM V 1 (Code I) / IM 3001, IM 3011 (Code II).

The motor efficiency is classified as IE3 in accordance with IEC 60034-30-1. The motor has thermistors (PTC sensors) in the windings in accordance with DIN 44081/DIN 44082. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

Thermal switches must be connected to an external control circuit in a way which ensures that the automatic reset cannot cause accidents. The motors must be connected to a motor-protective circuit breaker according to local regulations.

The motor can be connected to a variable speed drive for adjustment of pump performance to any duty point. Grundfos CUE offers a range of variable speed drives. Please find more information in Grundfos Product Center.

### **Further product details**

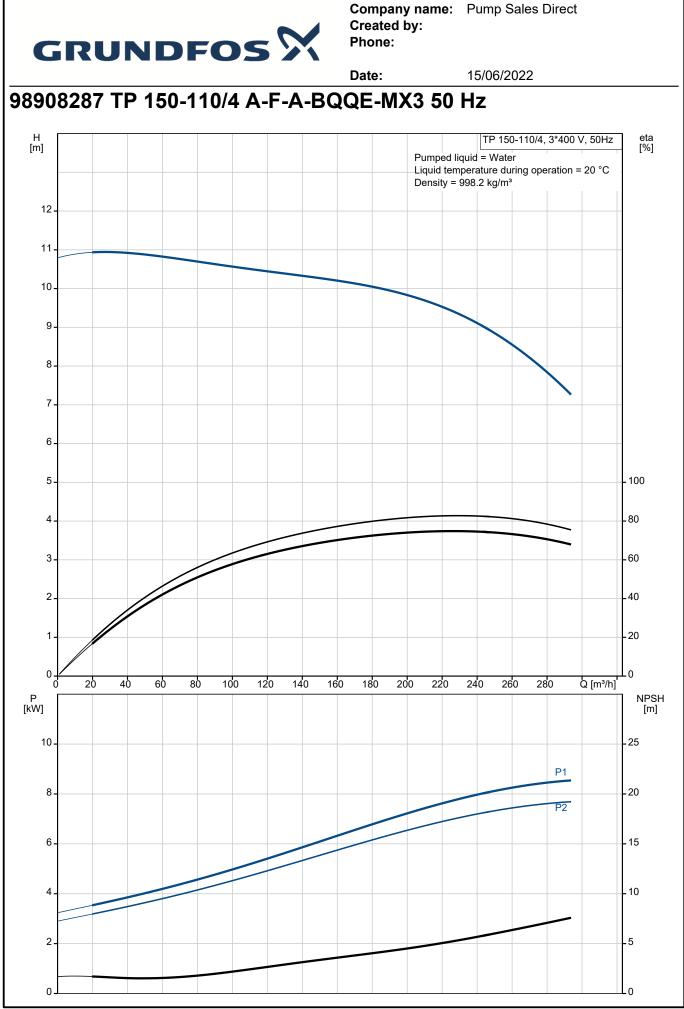
Cast-iron parts have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.

## **Technical data**

Liquid:WaterPumped liquid:WaterLiquid temperature range:-25 120 °CSelected liquid temperature:20 °CDensity:998.2 kg/m³	
Technical:Pump speed on which pump data are based:1460Rated flow:224 m³/hRated head:9.52 mActual impeller diameter:196-178 mmCode for shaft seal:BQQECurve tolerance:ISO9906:2012 3B2	
Materials: Pump housing: EN-GJL-250 ASTM class 35 Impeller: Cast iron EN-GJL-200 ASTM class 30	
Installation:	



	Date:	15/06/2022
v. Description		
Range of ambient temperature:	-20 55 °C	
Maximum operating pressure:	16 bar	
Max pressure at stated temp:	16 bar / 120 °C	
Type of connection:	DIN	
Size of connection:	DN 150	
Pressure rating for connection:	PN 16	
Port-to-port length:	800 mm	
Flange size for motor:	FF265	
Electrical data:		
Motor type:	SIEMENS	
IE Efficiency class:	IE3	
Rated power - P2:	7.5 kW	
Mains frequency:	50 Hz	
Rated voltage:	3 x 380-420D/660-725Y V	
Rated current:	14.3/8.3 A	
Starting current:	820-820 %	
Cos phi - power factor:	0.84	
Rated speed:	1465 rpm	
Efficiency:	IE3 90,4%	
Motor efficiency at full load:	90.4-90.4 %	
Motor efficiency at 3/4 load:	91.1-91.1 %	
Motor efficiency at 1/2 load:	90.8-90.8 %	
Number of poles:	4	
Enclosure class (IEC 34-5):	IP55	
Insulation class (IEC 85):	F	
Motor No:	83V15222	
	03113222	
Others:	0.70	
Minimum efficiency index, MEI ≥:		
Net weight:	233 kg	
Gross weight:	272 kg	
Shipping volume:	0.98 m <sup>3</sup>	
Danish VVS No.:	381718110	
Finnish LVI No.:	4616152	



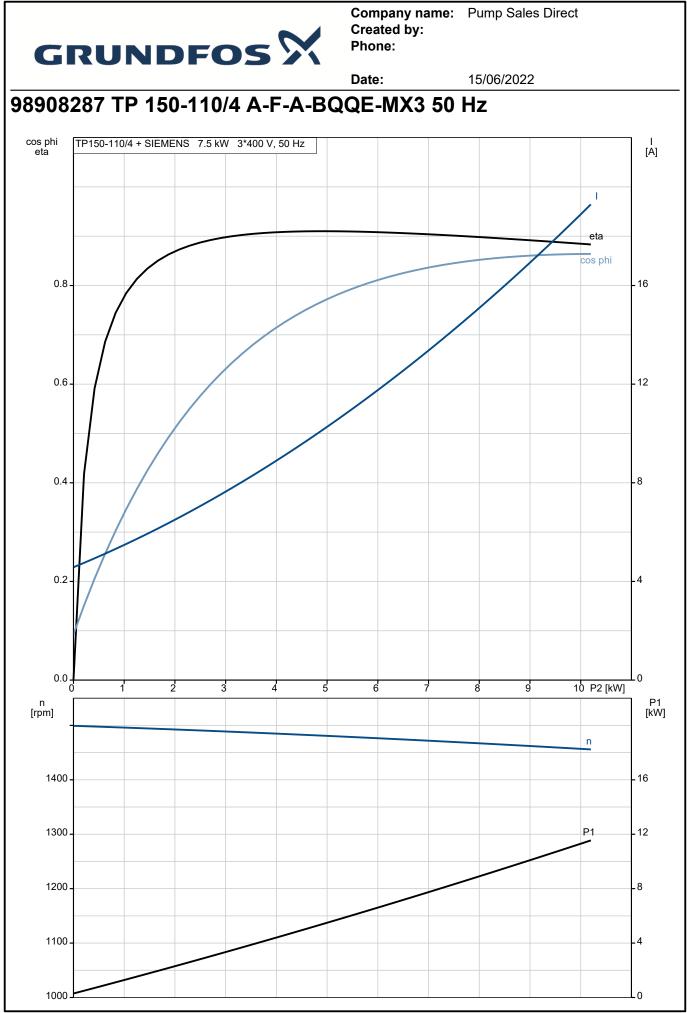


		Date:	15/06/2022	
Description	Value	H [m]	TP 150-110/4, 3*400 V, 50Hz	eta [%]
General information:			Pumped liquid = Water Liquid temperature during operation = 20 °C	
Product name:	TP 150-110/4 A-F-A-BQQE-MX3	12 -	Density = 998.2 kg/m <sup>3</sup>	
Product No:	98908287	11		
EAN number:	5712603382630	10 -		
Technical:		9		
Pump speed on which pump data are based:	1460 rpm	8 -		
Rated flow:	224 m³/h	7 -		
Rated head:	9.52 m	6 -		
Maximum head:	110 dm	0		
Actual impeller diameter:	196-178 mm	5 -		- 100
Code for shaft seal:	BQQE	4		- 80
Curve tolerance:	ISO9906:2012 3B2	_		
Pump version:	A	3 -		- 60
Materials:	<i>/</i>	2		- 40
Pump housing:	Cast iron	1		- 20
Pump housing:	EN-GJL-250	- /		
Pump housing:	ASTM class 35	- 0 <del>/ 0 5</del>	50 100 150 200 250 Q [m³/h]	Lo
Impeller:	Cast iron	P [kW]		NPSH
Impeller:	EN-GJL-200	[kW] 10 -		[m] - 25
	ASTM class 30	10	P1	-23
Impeller: Material code:	ASTIM class 50	8 -		- 20
Installation:	A		P2	
Range of ambient temperature:	-20 55 °C	6 -		- 15
		4		- 10
Maximum operating pressure:	16 bar	*		- 10
Max pressure at stated temp:	16 bar / 120 °C	2 -		- 5
Type of connection:	DIN DN 450			
Size of connection:	DN 150	0		Lo
Pressure rating for connection:	PN 16	-		
Port-to-port length:	800 mm	202	300	
Flange size for motor:	FF265			
Connect code:	F			
Liquid:	10/-4			
Pumped liquid:	Water -25 120 °C			
Liquid temperature range:				
Selected liquid temperature:	20 °C	150		
Density:	998.2 kg/m³	295 240		
Electrical data:			5 50	
Motor type:	SIEMENS			
IE Efficiency class:	IE3			
Rated power - P2:	7.5 kW			
Mains frequency:	50 Hz		220 220 5 × Ø 18	
Rated voltage:	3 x 380-420D/660-725Y V			
Rated current:	14.3/8.3 A			
Starting current:	820-820 %	_	Υ	
Cos phi - power factor:	0.84			
Rated speed:	1465 rpm	_ 8** 8	-т <b>К</b> -т	
Efficiency:	IE3 90,4%	_      ੈ		
Motor efficiency at full load:	90.4-90.4 %			
Motor efficiency at 3/4 load:	91.1-91.1 %	TO AMPLIFIER		
Motor efficiency at 1/2 load:	90.8-90.8 %	RELAY L1		
Number of poles:	4	_		
Enclosure class (IEC 34-5):	IP55		T T T T T T T T T T T T T T T T T T T	
Insulation class (IEC 85):	F	₿** ■₿		
Built-in motor protection:	PTC			
Motor No:	83V15222			
Controls:		TO AMPLIFIER RELAY		
Frequency converter:	NONE			

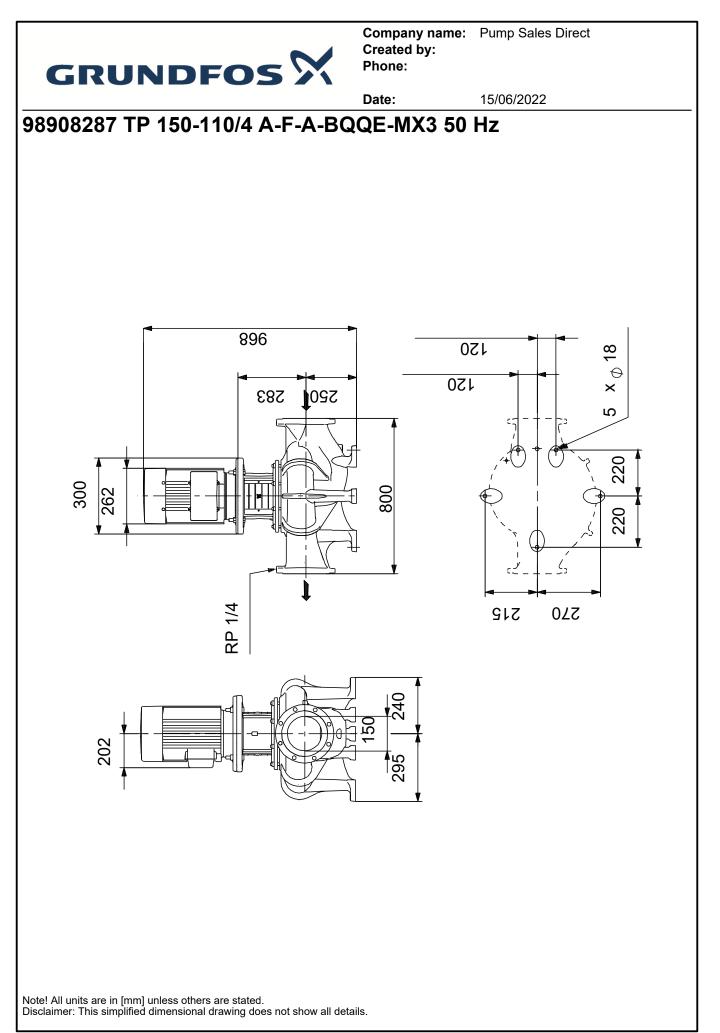
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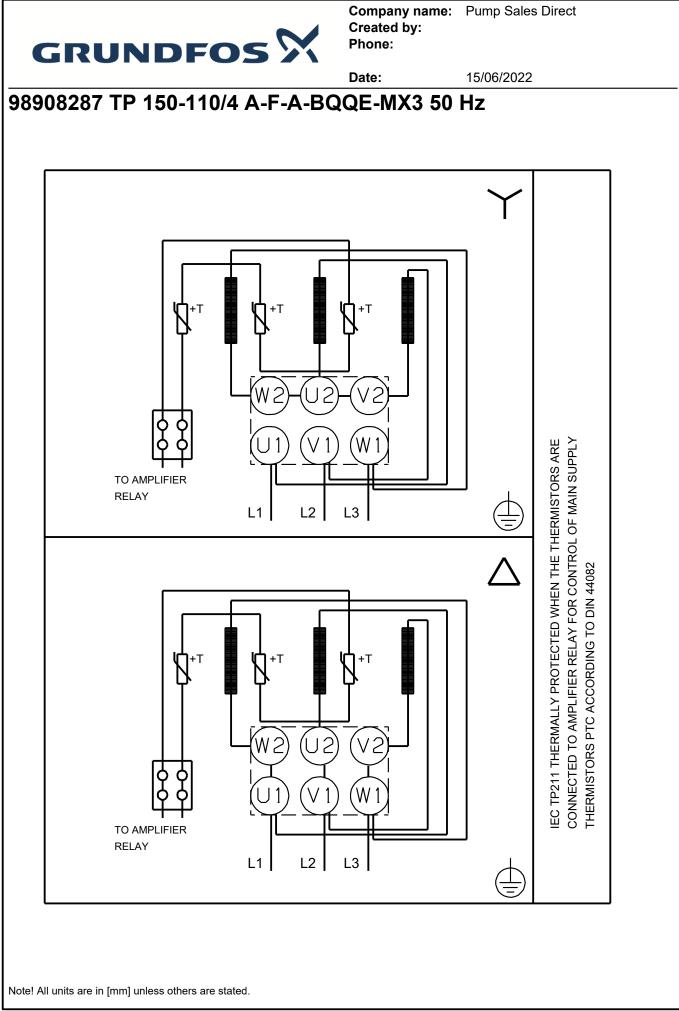


		Date:	15/06/2022
Description	Value		
Others:			
Minimum efficiency index, MEI ≥:	0.70		
Net weight:	233 kg		
Gross weight:	272 kg		
Shipping volume:	0.98 m³		
Danish VVS No.:	381718110		
Finnish LVI No.:	4616152		



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15/06/2022

## Order Data:

Product name: TP 150-110/4 Amount: 1 Product No: 98908287

Total: Price on request