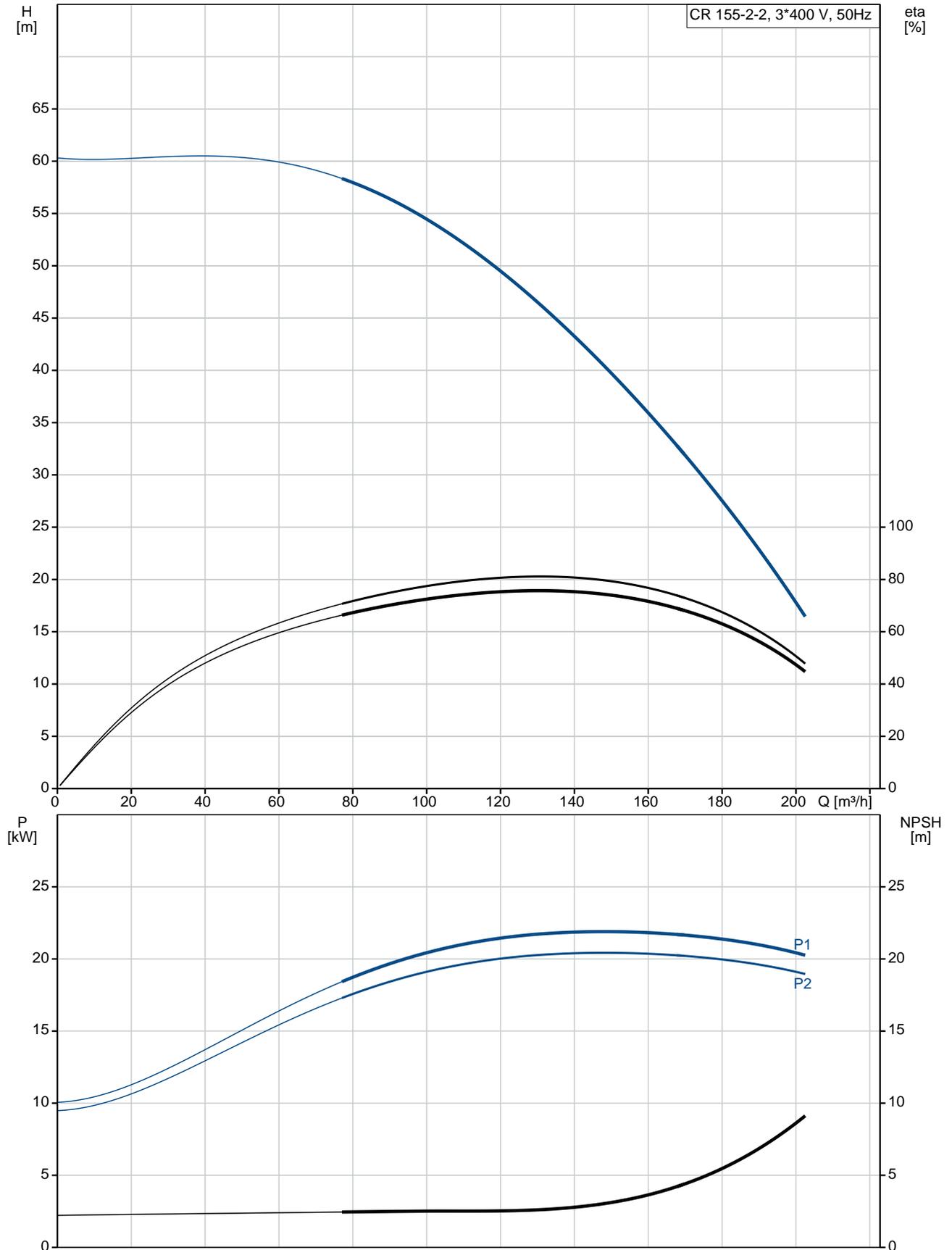


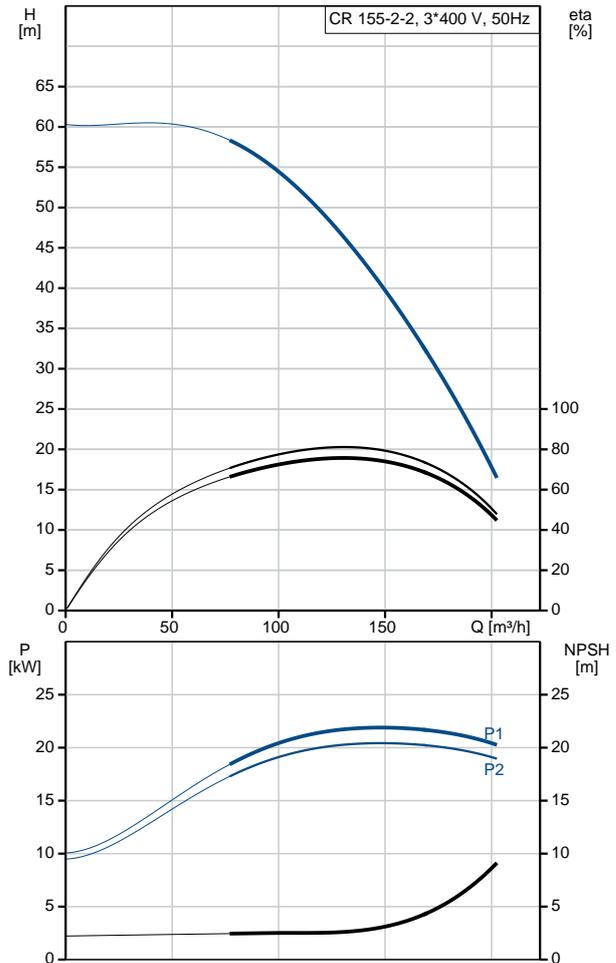
Position	Qty.	Description
	1	<p>CR 155-2-2 A-F-A-V-HQQV</p>  <p>Product No.: 99143264</p> <p>Vertical, multistage centrifugal pump with suction and discharge ports on same the level (in-line) enabling installation in a horizontal one-pipe system. The pump head and base are in cast iron – all other wetted parts are in stainless steel. The Grundfos cartridge shaft seal ensures high reliability, safe handling, easy access and service.</p> <p>Power transmission is via a rigid split coupling. Pipework connection is via DIN flanges.</p> <p>The pump is fitted with a 3-phase, fan-cooled asynchronous motor.</p> <p>Liquid:</p> <p>Pumped liquid: Water Liquid temperature range: -20 .. 90 °C Liquid temperature during operation: 20 °C Density: 998.2 kg/m³</p> <p>Technical:</p> <p>Rated flow: 155 m³/h Rated head: 37.7 m Pump orientation: Vertical Shaft seal arrangement: Single Code for shaft seal: HQQV Curve tolerance: ISO9906:2012 3B</p> <p>Materials:</p> <p>Base: Ductile cast iron EN 1563 EN-GJS-500-7 Impeller: Stainless steel EN 1.4301 Bearing: WC/WC Support bearing: Graflon Material certified according to: European standards</p> <p>Installation:</p> <p>Maximum ambient temperature: 60 °C Maximum operating pressure: 16 bar Max pressure at stated temp: 16 bar / 90 °C Type of connection: DIN Size of inlet connection: DN 150 Size of outlet connection: DN 150 Pressure rating for pipe connection: PN 16 Flange size for motor: FF300</p> <p>Electrical data:</p> <p>Motor standard: IEC Motor type: 180MB IE Efficiency class: IE3 Rated power - P2: 22 kW</p>

Position	Qty.	Description
		<p>Power (P2) required by pump: 22 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-415D/660-690Y V Rated current: 39.5/22.8 A Starting current: 830 % Cos phi - power factor: 0.90-0.90 Rated speed: 2950 rpm Efficiency: IE3 92,7% Motor efficiency at full load: 92.7-92.7 % Motor efficiency at 3/4 load: 93.7 % Motor efficiency at 1/2 load: 94.4 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F</p> <p>Controls: Frequency converter: Not prepared for VFD</p> <p>Others: Net weight: 284 kg Gross weight: 334 kg Shipping volume: 0.928 m³ Thrust handling device: N Approvals: CE, EAC, ACS, WRAS</p>

99143264 CR 155-2-2 A-F-A-V-HQQV 50 Hz



Description	Value
General information:	
Product name:	CR 155-2-2 A-F-A-V-HQQV
Product No:	99143264
EAN number:	5712607552930
Technical:	
Rated flow:	155 m³/h
Rated head:	37.7 m
Stages:	2
Impellers:	2
Number of reduced-diameter impellers:	2
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQV
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
Cooling:	IC 411
Materials:	
Base:	Ductile cast iron EN 1563 EN-GJS-500-7
Impeller:	Stainless steel EN 1.4301
Material code:	A
Code for rubber:	V
Bearing:	WC/WC
Support bearing:	Graflon
Material certified according to:	European standards
Installation:	
Maximum ambient temperature:	60 °C
Maximum operating pressure:	16 bar
Max pressure at stated temp:	16 bar / 90 °C
Type of connection:	DIN
Size of inlet connection:	DN 150
Size of outlet connection:	DN 150
Pressure rating for pipe connection:	PN 16
Flange size for motor:	FF300
Connect code:	F
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-20 .. 90 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor standard:	IEC
Motor type:	180MB
IE Efficiency class:	IE3
Rated power - P2:	22 kW
Power (P2) required by pump:	22 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-415D/660-690Y V
Rated current:	39.5/22.8 A
Starting current:	830 %
Cos phi - power factor:	0.90-0.90
Rated speed:	2950 rpm
Efficiency:	IE3 92,7%
Motor efficiency at full load:	92.7-92.7 %





Company name:

Created by:

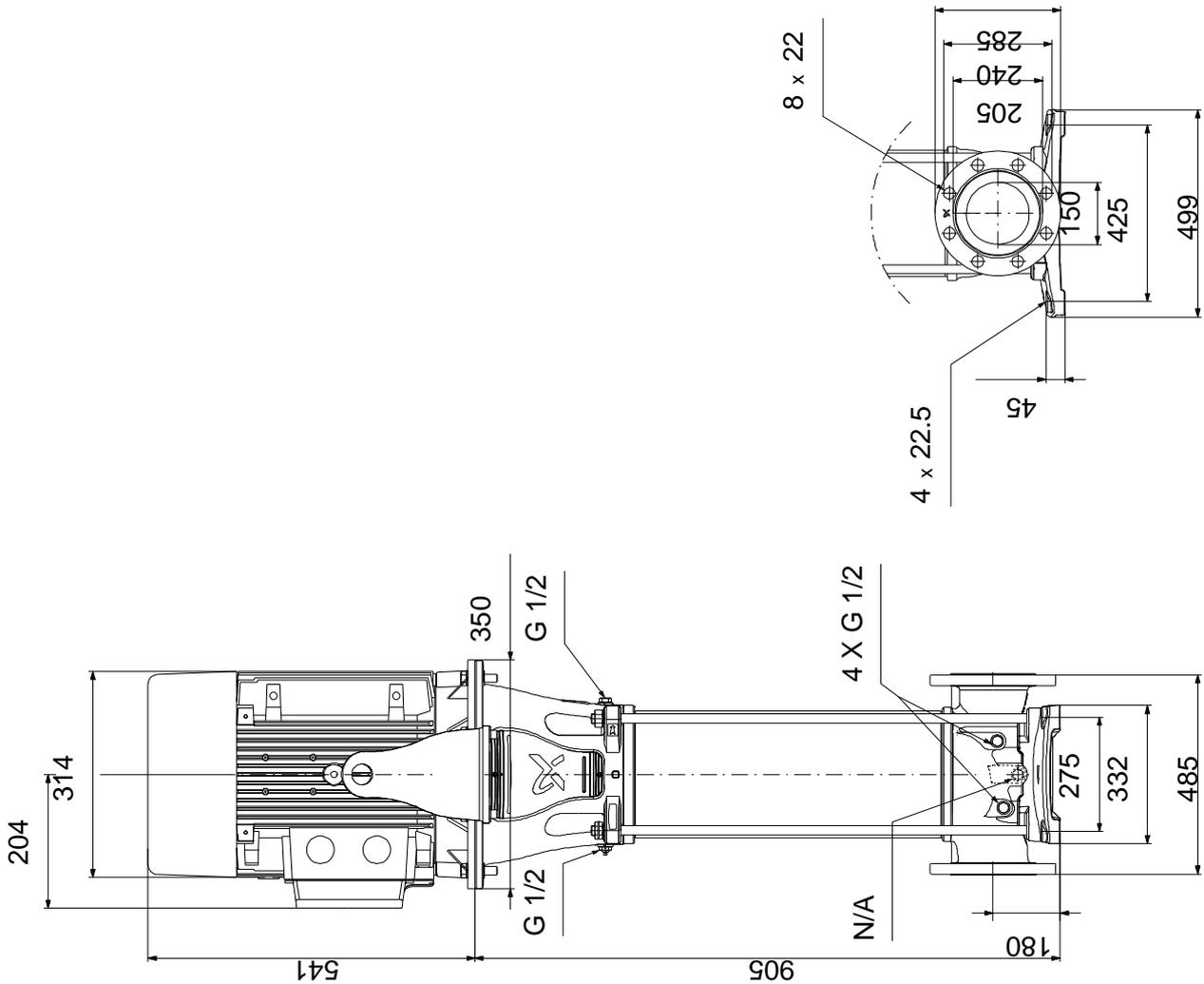
Phone:

Date:

12/09/2018

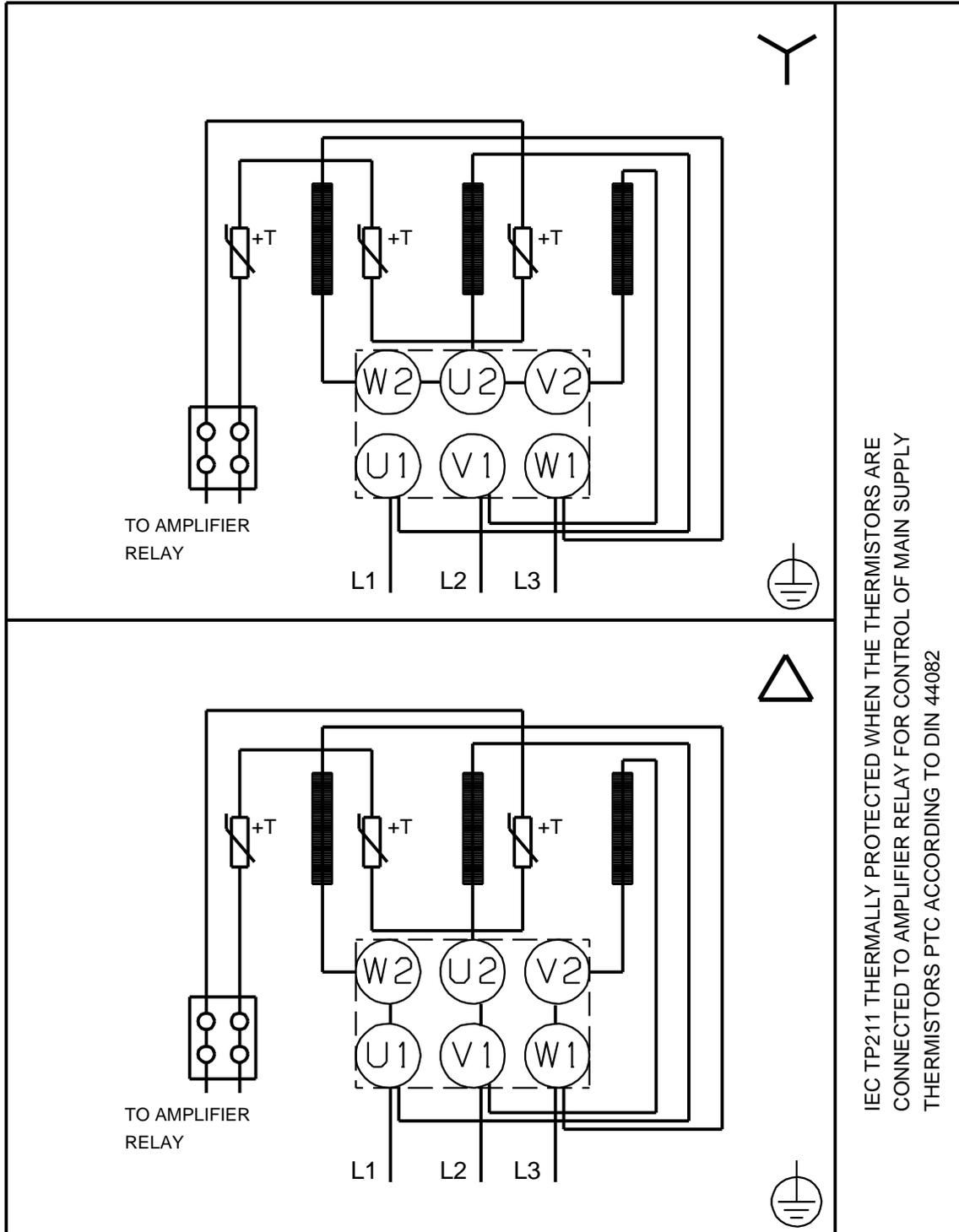
Description	Value
Motor efficiency at 3/4 load:	93.7 %
Motor efficiency at 1/2 load:	94.4 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	85U17530
Controls:	
Frequency converter:	Not prepared for VFD
Others:	
Net weight:	284 kg
Gross weight:	334 kg
Shipping volume:	0.928 m ³
Thrust handling device:	N
Approvals:	CE, EAC, ACS, WRAS

99143264 CR 155-2-2 A-F-A-V-HQQV 50 Hz



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

99143264 CR 155-2-2 A-F-A-V-HQQV 50 Hz



IEC TP211 THERMALLY PROTECTED WHEN THE THERMISTORS ARE
CONNECTED TO AMPLIFIER RELAY FOR CONTROL OF MAIN SUPPLY
THERMISTORS PTC ACCORDING TO DIN 44082

Note! All units are in [mm] unless others are stated.