
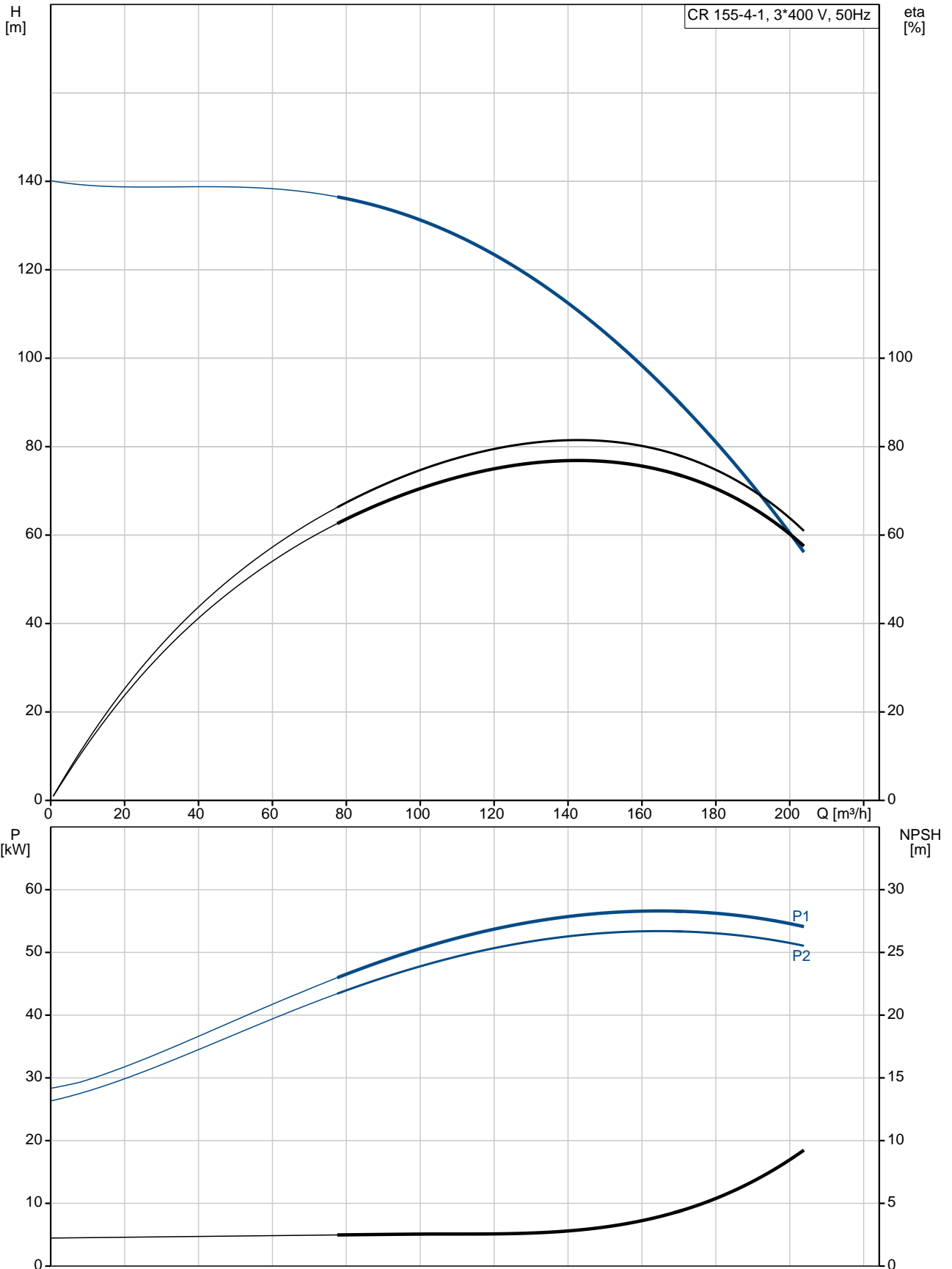


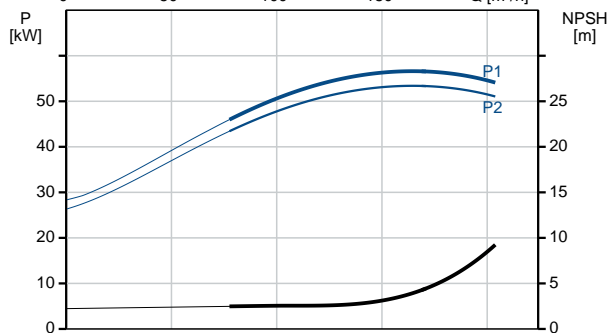
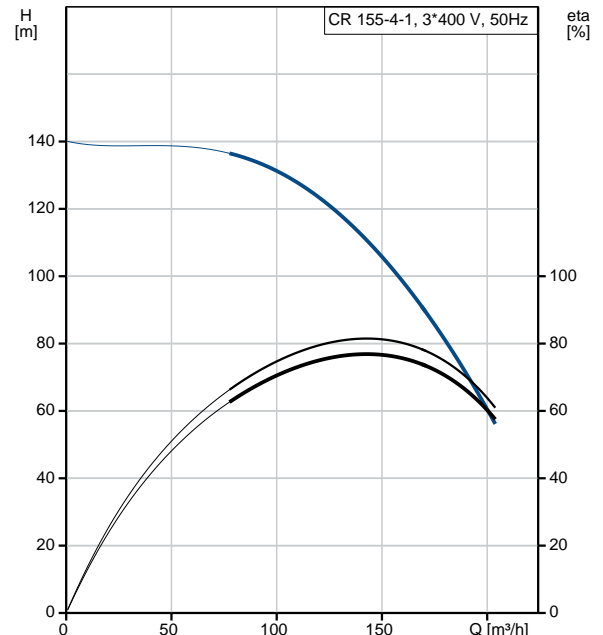
Position	Qty.	Description
	1	<p><b>CR 155-4-1 A-F-A-V-HQQV</b></p>  <p>Product No.: <a href="#">99143268</a></p> <p>Vertical, multistage centrifugal pump with suction and discharge ports on same the level (in-line) enabling installation in a horizontal one-pipe system. The pump head and base are in cast 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><b>Liquid:</b>  Pumped liquid: Water  Liquid temperature range: -20 .. 90 °C  Liquid temperature during operation: 20 °C  Density: 998.2 kg/m<sup>3</sup></p> <p><b>Technical:</b>  Rated flow: 155 m<sup>3</sup>/h  Rated head: 102.1 m  Pump orientation: Vertical  Shaft seal arrangement: Single  Code for shaft seal: HQQV  Curve tolerance: ISO9906:2012 3B</p> <p><b>Materials:</b>  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><b>Installation:</b>  Maximum ambient temperature: 55 °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: FF500</p> <p><b>Electrical data:</b>  Motor standard: IEC  Motor type: SIEMENS  IE Efficiency class: IE3  Rated power - P2: 55 kW</p>

Position	Qty.	Description
		<p>Power (P2) required by pump: 55 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-420D/660-725Y V  Rated current: 99,0-90,0/57,0-52,0 A  Starting current: 670-670 %  Cos phi - power factor: 0.89  Rated speed: 2975 rpm  Efficiency: IE3 94,3%  Motor efficiency at full load: 94.3-94.3 %  Motor efficiency at 3/4 load: 94.5-94.5 %  Motor efficiency at 1/2 load: 93.9-93.9 %  Number of poles: 2  Enclosure class (IEC 34-5): 55 Dust/Jetting  Insulation class (IEC 85): F</p> <p><b>Controls:</b>  Frequency converter: Not prepared for VFD</p> <p><b>Others:</b>  Net weight: 637 kg  Gross weight: 798 kg  Shipping volume: 2.03 m<sup>3</sup>  Thrust handling device: N  Approvals: CE, EAC, ACS, WRAS</p>

## 99143268 CR 155-4-1 A-F-A-V-HQQV 50 Hz



Description	Value
<b>General information:</b>	
Product name:	CR 155-4-1 A-F-A-V-HQQV
Product No:	<a href="#">99143268</a>
EAN number:	5712607553012
<b>Technical:</b>	
Rated flow:	155 m <sup>3</sup> /h
Rated head:	102.1 m
Stages:	4
Impellers:	4
Number of reduced-diameter impellers:	1
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
<b>Materials:</b>	
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
<b>Installation:</b>	
Maximum ambient temperature:	55 °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:	FF500
Connect code:	F
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	-20 .. 90 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m <sup>3</sup>
<b>Electrical data:</b>	
Motor standard:	IEC
Motor type:	SIEMENS
IE Efficiency class:	IE3
Rated power - P2:	55 kW
Power (P2) required by pump:	55 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	99,0-90,0/57,0-52,0 A
Starting current:	670-670 %
Cos phi - power factor:	0.89
Rated speed:	2975 rpm
Efficiency:	IE3 94,3%
Motor efficiency at full load:	94.3-94.3 %





Company name:

Created by:

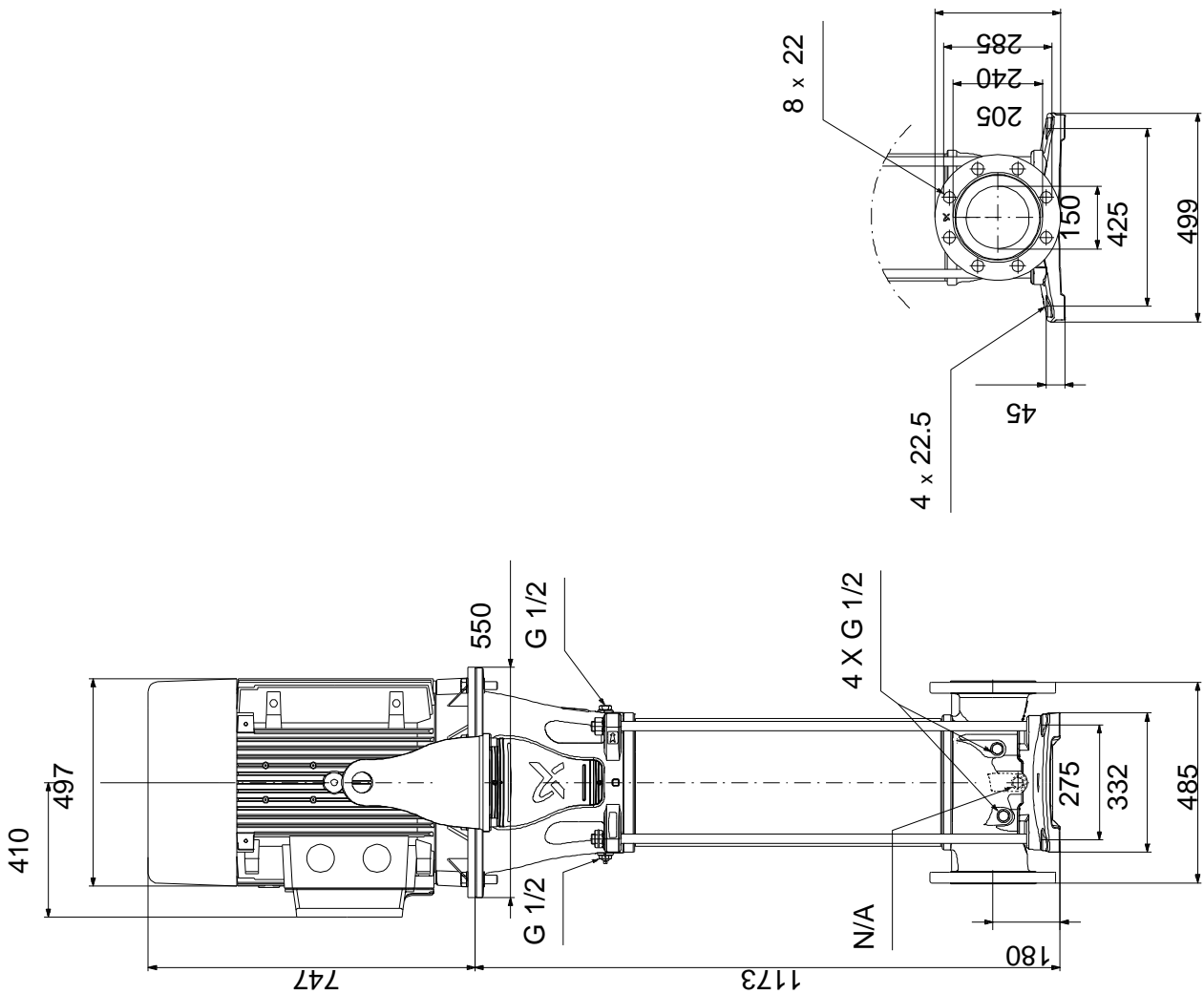
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12/09/2018

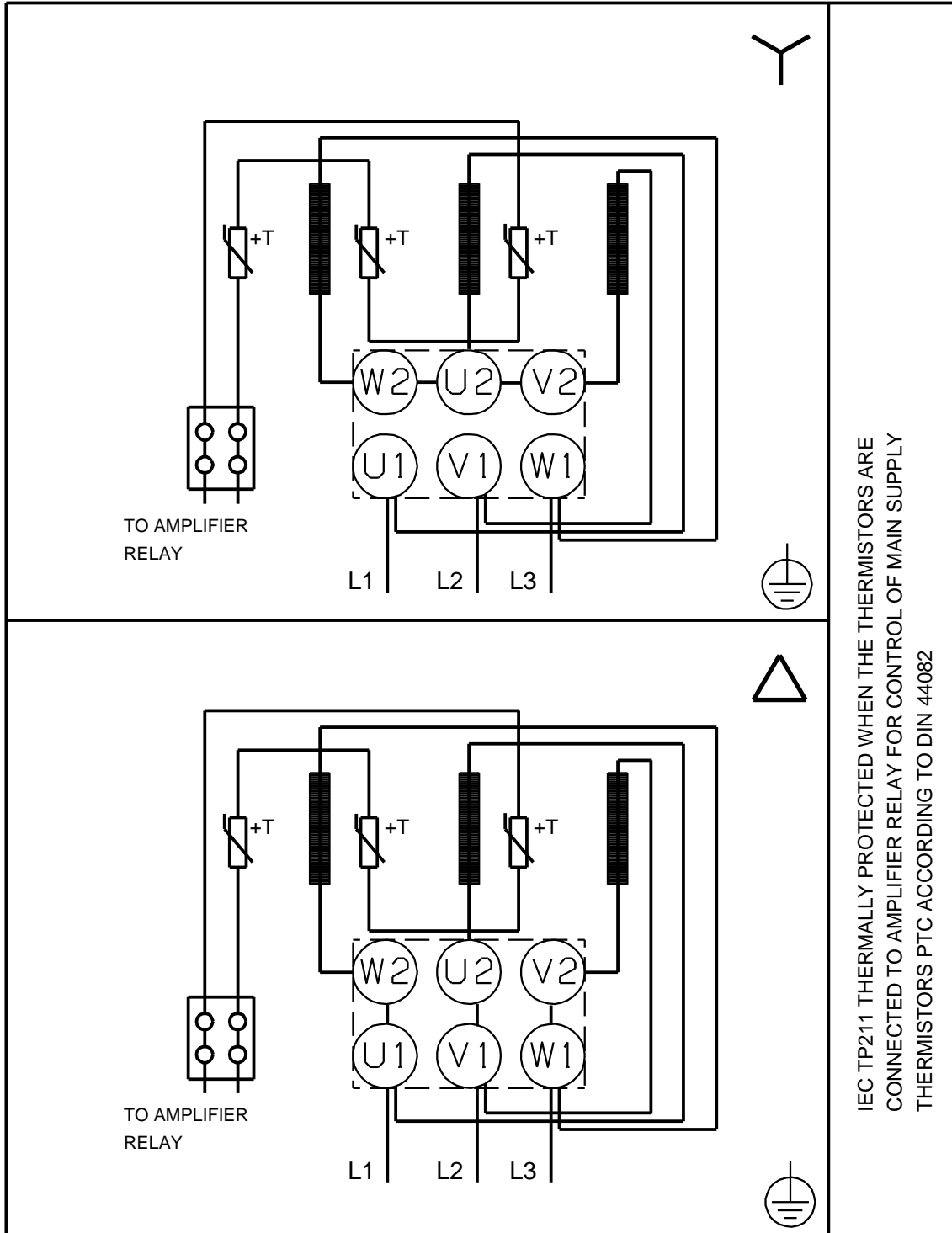
Description	Value
Motor efficiency at 3/4 load:	94.5-94.5 %
Motor efficiency at 1/2 load:	93.9-93.9 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	81U15338
<b>Controls:</b>	
Frequency converter:	Not prepared for VFD
<b>Others:</b>	
Net weight:	637 kg
Gross weight:	798 kg
Shipping volume:	2.03 m <sup>3</sup>
Thrust handling device:	N
Approvals:	CE, EAC, ACS, WRAS

**99143268 CR 155-4-1 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.

## 99143268 CR 155-4-1 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.