
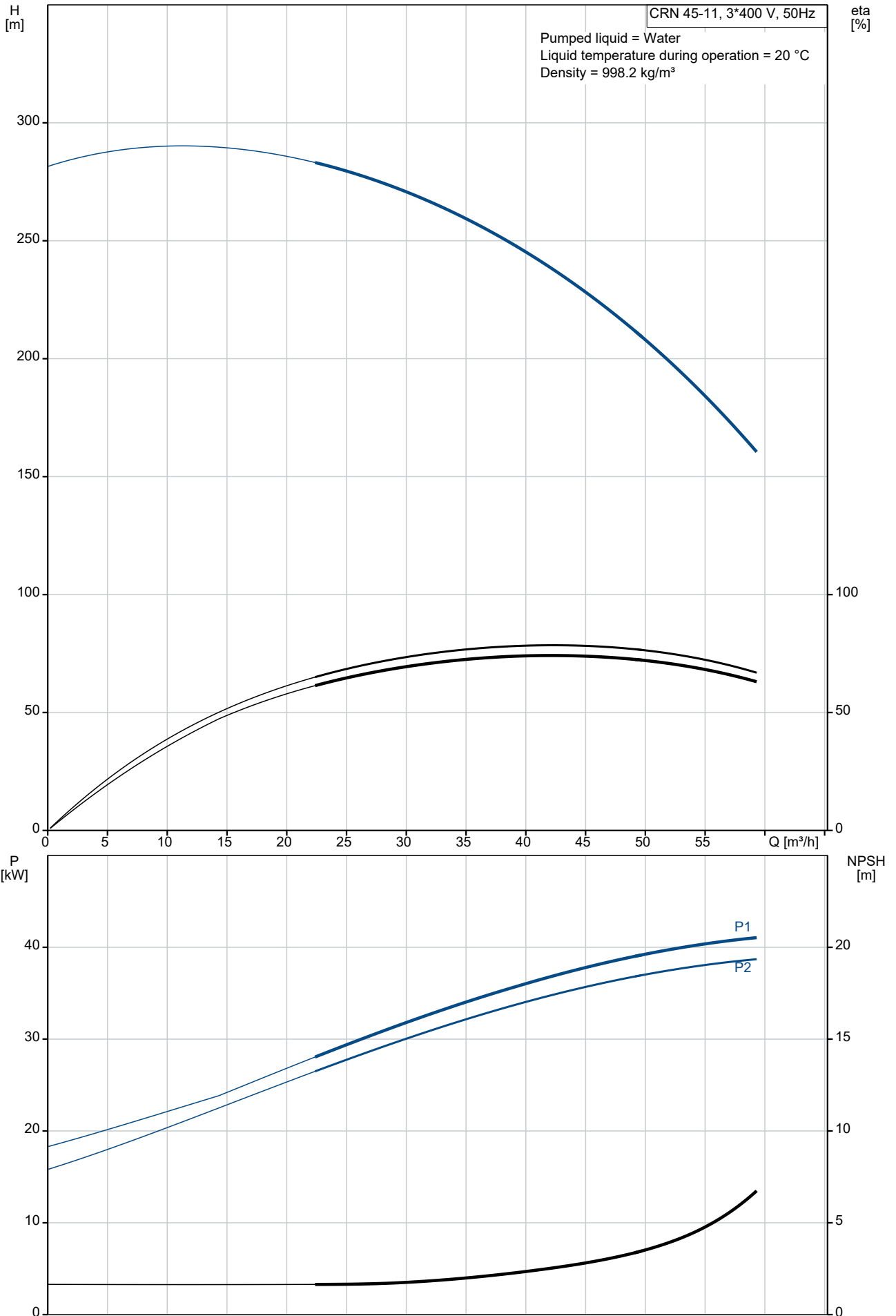


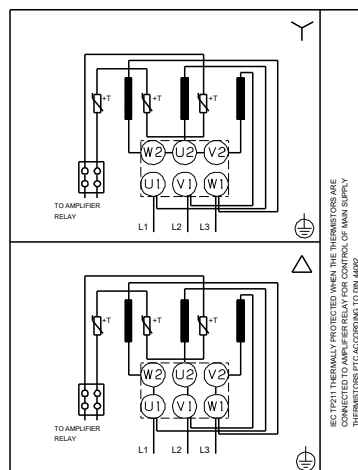
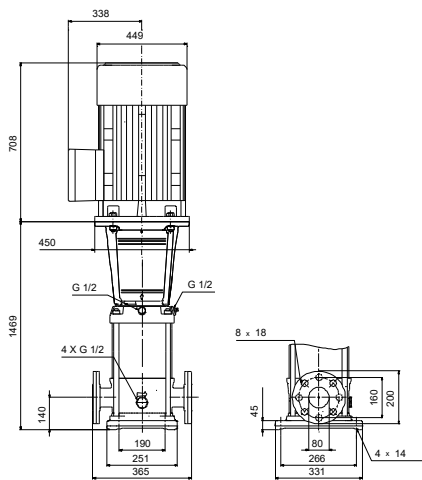
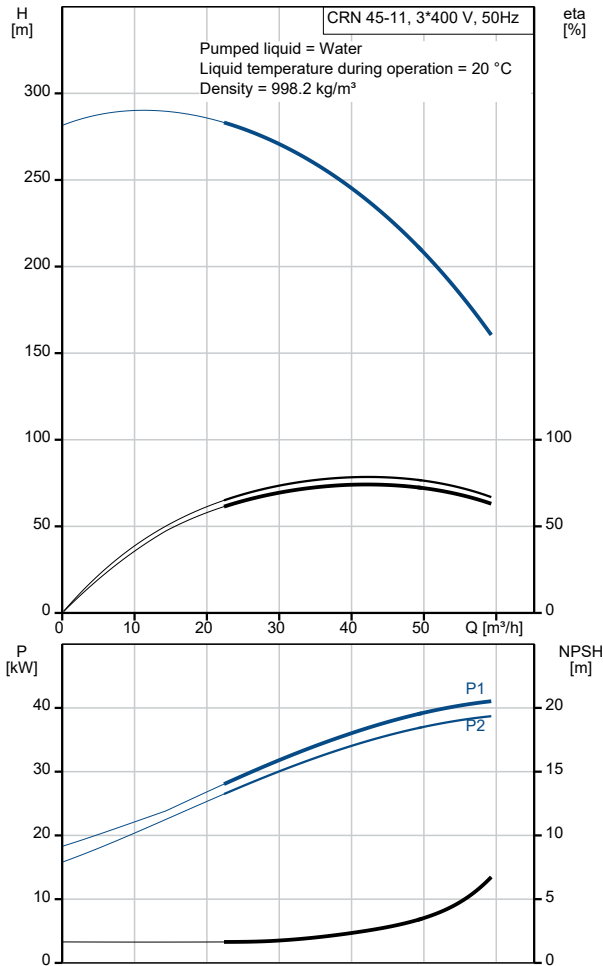
Qty.	Description
1	<b>CRN 45-11 A-F-H-E-HQQE</b>
	
	<p align="center"><b>Note! Product picture may differ from actual product</b></p>
	<p>Product No.: On request</p>
	<p>Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). Pump materials in contact with the liquid are in high-grade stainless steel. A cartridge shaft seal ensures high reliability, safe handling, and easy access and service. Power transmission is via a rigid split coupling. Pipe connection is via DIN flanges.</p>
	<p>The pump is fitted with a 3-phase, fan-cooled asynchronous motor.</p>
	<p>Liquid:  Pumped liquid: Water  Liquid temperature range: -40 .. 120 °C  Selected liquid temperature: 20 °C  Density: 998.2 kg/m<sup>3</sup></p>
	<p>Technical:  Pump speed on which pump data are based: 2960 rpm  Rated flow: 45 m<sup>3</sup>/h  Rated head: 229.5 m  Pump orientation: Vertical  Shaft seal arrangement: Single  Code for shaft seal: HQQE  Approvals: CE,EAC,UKCA,SEPRO  Approvals for drinking water: WRAS,ACS  Curve tolerance: ISO9906:2012 3B</p>
	<p>Materials:  Base: Stainless steel  EN 1.4408  AISI 316  Impeller: Stainless steel  EN 1.4401  AISI 316  Bearing: SIC  Support bearing: Graflon</p>
	<p>Installation:  t max amb: 55 °C  Maximum operating pressure: 30 bar  Max pressure at stated temp: 30 bar / 120 °C  30 bar / -40 °C</p>
	<p>Type of connection: DIN  Size of inlet connection: DN 80  Size of outlet connection: DN 80  Pressure rating for connection: PN 40  Flange size for motor: FF400</p>
	<p>Electrical data:  Motor standard: IEC  Motor type: SIEMENS  IE Efficiency class: IE3  Rated power - P2: 45 kW  Power (P2) required by pump: 45 kW  Mains frequency: 50 Hz</p>

Qty.	Description
1	<p>Rated voltage: 3 x 380-420D/660-725Y V</p> <p>Rated current: 78/45 A</p> <p>Starting current: 690-690 %</p> <p>Cos phi - power factor: 0.89</p> <p>Rated speed: 2960 rpm</p> <p>Efficiency: IE3 94,0%</p> <p>Motor efficiency at full load: 94.0-94.0 %</p> <p>Motor efficiency at 3/4 load: 94.5-94.5 %</p> <p>Motor efficiency at 1/2 load: 94.4-94.4 %</p> <p>Number of poles: 2</p> <p>Enclosure class (IEC 34-5): IP55</p> <p>Insulation class (IEC 85): F</p> <p>Motor No: 81U15336</p> <p>Controls:</p> <p>Frequency converter: NONE</p> <p>Others:</p> <p>Minimum efficiency index, MEI <math>\geq</math> 0.70</p> <p>Net weight: 455 kg</p> <p>Gross weight: 506 kg</p> <p>Shipping volume: 1.13 m<sup>3</sup></p> <p>Country of origin: GB</p> <p>Custom tariff no.: 84137075</p>

# On request CRN 45-11 A-F-H-E-HQQE 50 Hz

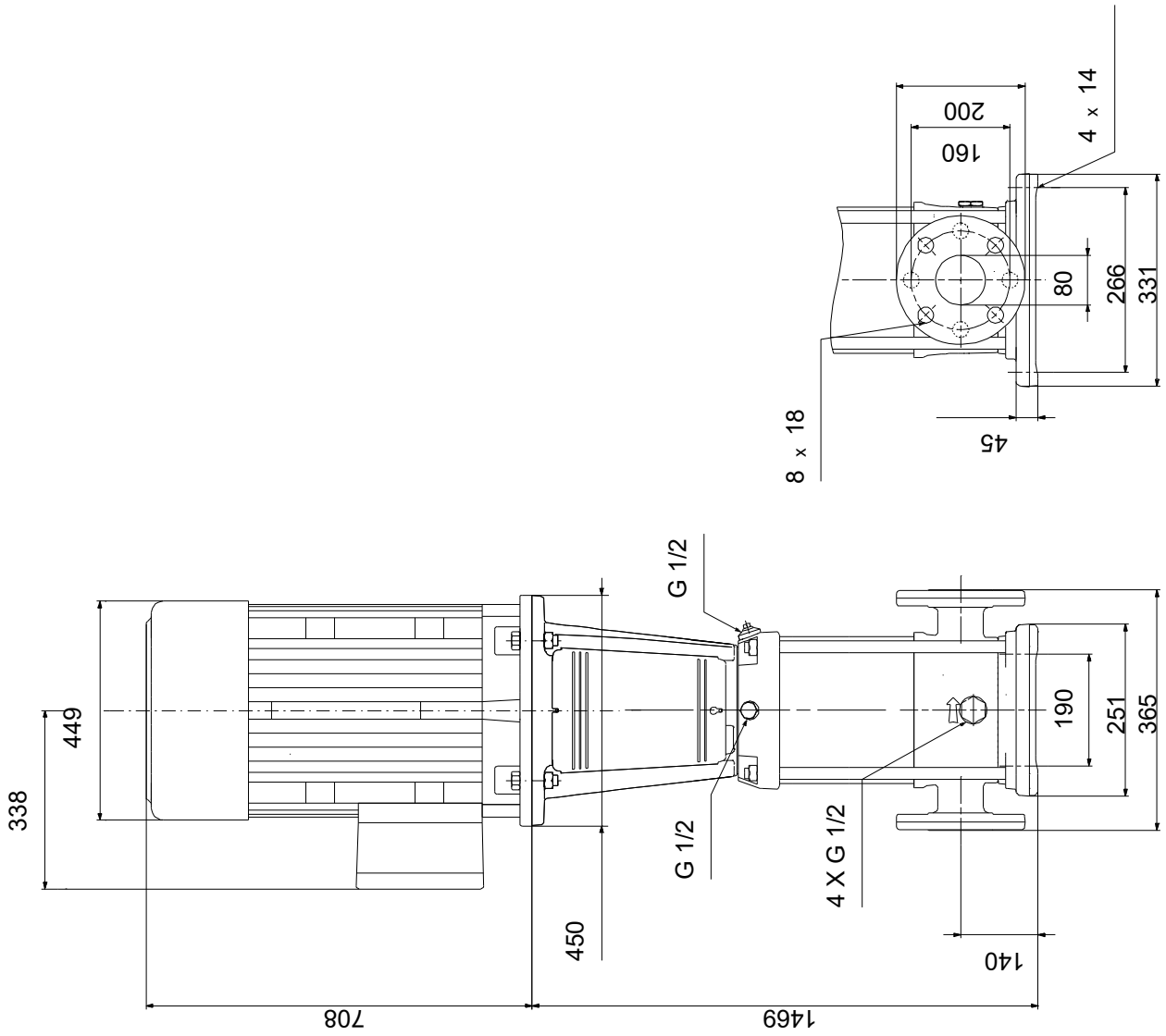


Description	Value
<b>General information:</b>	
Product name:	CRN 45-11 A-F-H-E-HQQE
Product No:	On request
EAN number:	On request
<b>Technical:</b>	
Pump speed on which pump data are based:	2960 rpm
Rated flow:	45 m <sup>3</sup> /h
Rated head:	229.5 m
Maximum head:	280.9 m
Stages:	11
Impellers:	11
Number of reduced-diameter impellers:	0
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals:	CE,EAC,UKCA,SEPRO
Approvals for drinking water:	WRAS,ACS
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	B
<b>Materials:</b>	
Base:	Stainless steel
Base:	EN 1.4408
Base:	AISI 316
Impeller:	Stainless steel
Impeller:	EN 1.4401
Impeller:	AISI 316
Material code:	H
Code for rubber:	E
Bearing:	SIC
Support bearing:	Graflon
<b>Installation:</b>	
t max amb:	55 °C
Maximum operating pressure:	30 bar
Max pressure at stated temp:	30 bar / 120 °C
Max pressure at stated temp:	30 bar / -40 °C
Type of connection:	DIN
Size of inlet connection:	DN 80
Size of outlet connection:	DN 80
Pressure rating for connection:	PN 40
Flange size for motor:	FF400
Connect code:	F
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	-40 .. 120 °C
Selected liquid temperature:	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:	45 kW
Power (P2) required by pump:	45 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	78/45 A
Starting current:	690-690 %
Cos phi - power factor:	0.89
Rated speed:	2960 rpm
Efficiency:	IE3 94,0%
Motor efficiency at full load:	94.0-94.0 %



Description	Value
Motor efficiency at 3/4 load:	94.5-94.5 %
Motor efficiency at 1/2 load:	94.4-94.4 %
Number of poles:	2
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	PTC
Motor No:	81U15336
<b>Controls:</b>	
Frequency converter:	NONE
<b>Others:</b>	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	455 kg
Gross weight:	506 kg
Shipping volume:	1.13 m <sup>3</sup>
Sales region:	Great Britain
Country of origin:	GB
Custom tariff no.:	84137075

# On request CRN 45-11 A-F-H-E-HQQE 50 Hz



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

**On request CRN 45-11 A-F-H-E-HQQE 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.

