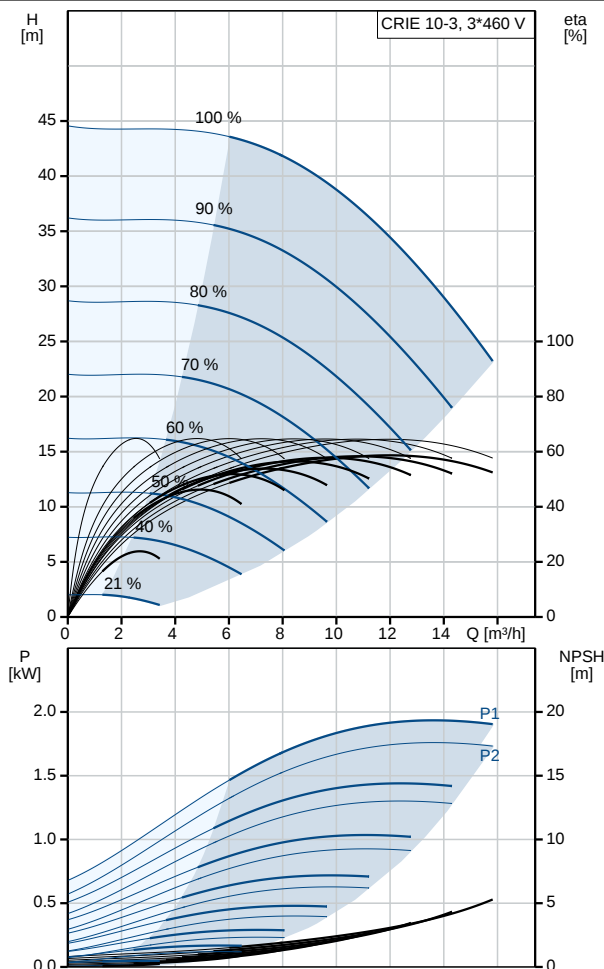


Position	Qty.	Description
	1	CRIE 10-3 A-CA-I-E-HQQE  Product No.: 98390285 Vertical, multistage centrifugal pump with suction and discharge ports on same the level (in-line) enabling installation in a horizontal one-pipe system. Pump materials in contact with the liquid are in stainless steel. A cartridge shaft seal ensures high reliability, safe handling and easy service and access. Power transmission is via a rigid split coupling. Pipework connection is via FlexiClamps. The pump is fitted with a 3-phase, fan-cooled, permanent-magnet, synchronous motor. The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2. 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. A control panel on the motor terminal box enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The Grundfos Eye indicator on the control 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 possible by means of the 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 - LiqTec, 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. Liquid: Pumped liquid: Water Liquid temperature range: -20 .. 120 °C Liquid temperature during operation: 20 °C Density: 998.2 kg/m³ Technical: Speed for pump data: 3501 rpm

Position	Qty.	Description
		Rated flow: 12.1 m³/h Rated head: 34.9 m Pump orientation: Vertical Shaft seal arrangement: Single Code for shaft seal: HQQE Approvals on nameplate: CE, EAC, ACS Curve tolerance: ISO9906:2012 3B Materials: Base: Stainless steel EN 1.4408 AISI 316 Impeller: Stainless steel EN 1.4301 AISI 304 Bearing material: SIC Installation: Maximum ambient temperature: 50 °C Maximum operating pressure: 16 bar Max pressure at stated temp: 16 bar / 120 °C 16 bar / -20 °C Type of connection: FlexiClamp Size of inlet connection: DN 50 2 inch Size of outlet connection: DN 50 2 inch Pressure rating: PN 25 Flange size for motor: FT115 Electrical data: Motor standard: IEC Motor type: 90LD IE Efficiency class: IE5 Rated power - P2: 2.2 kW Power (P2) required by pump: 2.2 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-500 V Rated current: 4,15-3,40 A Cos phi - power factor: 0,93-0,87 Rated speed: 360-4000 rpm Efficiency: 90,1% Motor efficiency at full load: 90.1 % Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Controls: Frequency converter: Built-in Pressure sensor: N Others: Minimum efficiency index, MEI ≥: 0.7 Net weight: 42 kg Gross weight: 46 kg Shipping volume: 0.143 m³

Description	Value
General information:	
Product name:	CRIE 10-3 A-CA-I-E-HQQE
Product No:	98390285
EAN number:	5711494194469
Technical:	
Speed for pump data:	3501 rpm
Rated flow:	12.1 m³/h
Rated head:	34.9 m
Stages:	3
Impellers:	3
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals on nameplate:	CE, EAC, ACS
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
Materials:	
Base:	Stainless steel EN 1.4408 AISI 316
Impeller:	Stainless steel EN 1.4301 AISI 304
Material code:	I
Code for rubber:	E
Bearing material:	SIC
Installation:	
Maximum ambient temperature:	50 °C
Maximum operating pressure:	16 bar
Max pressure at stated temp:	16 bar / 120 °C 16 bar / -20 °C
Type of connection:	FlexiClamp
Connect code:	CA
Size of inlet connection:	DN 50 2 inch
Size of outlet connection:	DN 50 2 inch
Pressure rating:	PN 25
Flange size for motor:	FT115
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-20 .. 120 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor standard:	IEC
Motor type:	90LD
IE Efficiency class:	IE5
Rated power - P2:	2.2 kW
Power (P2) required by pump:	2.2 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-500 V





Company name:

Created by:

Phone:

Date: 20/02/2018

Description	Value
Rated current:	4,15-3,40 A
Cos phi - power factor:	0,93-0,87
Rated speed:	360-4000 rpm
Efficiency:	90,1%
Motor efficiency at full load:	90.1 %
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Motor protec:	YES
Motor No:	98190193

Controls:

Control panel:	Standard
Function Module:	FM300 - Advanced
Frequency converter:	Built-in
Pressure sensor:	N

Others:

Minimum efficiency index, MEI $\geq$:	0.7
Net weight:	42 kg
Gross weight:	46 kg
Shipping volume:	0.143 m ³