G	RI	UNDFOS 🕅	Company name Created by: Phone:	:					
			Date:	20/02/2018					
Position	Qty.	Description							
	1	CRIE 10-1 AN-CA-I-E-HQQE							
		Product No.: 98390290							
		Vertical, multistage centrifugal pump with s enabling installation in a horizontal one-pipe stainless steel.	e ports on same the level (in-line) terials in contact with the liquid are in						
		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 1-phase, fan-coole efficiency is classified as IE5 in accordance	net, synchronous motor. The motor -2.						
	The motor includes a frequency converter and PI controller in the motor terminal box. Th continuously variable control of the motor speed, which again enables adaptation of the a given requirement. A control panel on the motor terminal box enables setting of requir well as setting of pump to "Min." or "Max." operation or to "Stop". The Grundfos Eye indicontrol panel provides visual indication of pump status:								
		indicator lights)	er on": Motor is running (rotating green indicator lights) or not running (permanently g tor lights) ing": Motor is still running (rotating yellow indicator lights) or has stopped (permanen						
		yellow indicator lights)							
		Communication with the pump is possible by means of the Grundfos GO Remote (accessoremote control enables further settings as well as reading out of a number of parameters se "Actual value", "Speed", "Power input" and total "Power consumption".							
		The terminal box has a number of inputs ar applications where many inputs and output	nd outputs enabling t s are required:	the motor to be used in advanced					
		<ul> <li>two dedicated digital inputs</li> <li>three analog inputs, 0(4)-20 mA, 0-5 connected to one of these inputs</li> </ul>	5 V, 0-10 V, 0.5 - 3.5	V; the factory-fitted pressure sensor is					
		<ul> <li>5 V voltage supply to potentiometer</li> <li>one analog output, 0-10 V, 0(4)-20 n</li> </ul>							
		- two configurable digital inputs or ope							
		<ul> <li>two Pt100/Pt1000 inputs</li> <li>LiqTec, dry-running protection sense</li> </ul>							
		<ul> <li>Grundfos Digital Sensor input and or</li> <li>24 V voltage supply for sensors</li> </ul>	utput						
		- two signal relay outputs (potential-free	ee contacts)						
		<ul> <li>GENIbus connection</li> <li>interface for Grundfos CIM fieldbus r</li> </ul>	module.						
		Liquid: Pumped liquid: Water Liquid temperature range: -20 120 Liquid temperature during operation: 20 °C Density: 998.2 kg/r							
		Technical:							



Company name: Created by: Phone:

			Date:	20/02/2018
Position	Qty.	-		
		Speed for pump data:	3400 rpm	
		Rated flow:	12.1 m³/h	
		Rated head:	10 m Vertical	
		Pump orientation: 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	
		Impollor	AISI 316 Staiplass staal	
		Impeller:	Stainless steel EN 1.4301	
			AISI 304	
		Bearing material:	SIC	
		Installation:		
		Maximum ambient temperature:		
		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	
		Size of filler connection.	2 inch	
		Size of outlet connection:	DN 50	
			2 inch	
		Pressure rating:	PN 25	
		Flange size for motor:	FT100	
		Electrical data:		
		Motor standard:	IEC	
		Motor type:	80A	
		IE Efficiency class:	IE5	
		Rated power - P2:	0.75 kW	
		Power (P2) required by pump:		
		Mains frequency:	50 Hz	
		Rated voltage:	1 x 200-240 V	
		Rated current:	4,70-3,90 A	
		Cos phi - power factor:	0,99	
		Rated speed:	360-4000 rpm	
		Efficiency:	85,2%	
		Motor efficiency at full load:	85.2 %	
		Enclosure class (IEC 34-5): Insulation class (IEC 85):	IP55 F	
			I	
		Controls:		
		Frequency converter:	Built-in	
		Pressure sensor:	Y	
		Others:		
		Minimum efficiency index, MEI	· 07	
		Net weight:	33 kg	
		Gross weight:	33 kg 37 kg	
		Shipping volume:	0.143 m <sup>3</sup>	



## Company name: Created by: Phone:

		—			
Description	Value	H [m]		CRIE 10	0-1, 1*230
General information:					
Product name:	CRIE 10-1 AN-CA-I-E-HQQE		100 %		
Product No:	98390290	14 -	100 %		
EAN number:	5711494194568				
	0111404104000	12 -	90 %		
Technical:					
Speed for pump data:	3400 rpm	10 -			
Rated flow:	12.1 m³/h	10 -	80 %		
Rated head:	10 m				
Stages:	2	8 -	70 %		
Impellers:	1				
Low NPSH:	Ν	6-		A)	
Pump orientation:	Vertical			ATT -	
Shaft seal arrangement:	Single	4 - / /	1/150		
Code for shaft seal:	HQQE				
Approvals on nameplate:	CE, EAC,ACS	2 -	40 %		
Curve tolerance:	ISO9906:2012 3B				
Pump version:	AN		21 %		
Model:	A	0	2 4 6	8 10 12	14 Q [m <sup>3</sup>
		P			
Materials:		[W]			P1
Base:	Stainless steel	600 -			
	EN 1.4408				P2
	AISI 316	500 -			- /2
Impeller:	Stainless steel	400 -			
	EN 1.4301	300 -			
	AISI 304				/
Material code:		200 -			
Code for rubber:	E	100-			
Bearing material:	SIC	0			
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:	FT100				
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:	80A				
IE Efficiency class:	IE5				
Rated power - P2:	0.75 kW				
Power (P2) required by pump:	0.75 kW				
Mains frequency:	50 Hz				
Wans Irennency.					

eta [%]

- 100

- 80

- 60

40

- 20

0

12

- 10 - 8 - 6

-4 -2 Lo

NPSH [m]



Company name: Created by: Phone:

Date: 20/02/2018 Description Value Rated voltage: 1 x 200-240 V Rated current: 4,70-3,90 A Cos phi - power factor: 0,99 360-4000 rpm Rated speed: Efficiency: 85,2% Motor efficiency at full load: 85.2 % Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F YES Motor protec: Motor No: 98248266 Controls: Control panel: Standard Function Module: FM300 - Advanced Frequency converter: Built-in Pressure sensor: Υ Others: Minimum efficiency index, MEI : 0.7 Net weight: 33 kg Gross weight: 37 kg Shipping volume: 0.143 m<sup>3</sup>