G	R	UNDFOS 🕅	Company name: Created by: Phone:					
			Date:	20/02/2018				
Position	Qty.	Description						
	1	CRIE 3-8 AN-CA-I-E-HQQE						
		Product No.: 98389786						
	Vertical, multistage centrifugal pump with suction and discharge ports on same the level enabling installation in a horizontal one-pipe system. Pump materials in contact with the stainless steel.							
		easy service and access. Power via FlexiClamps.						
	The pump is fitted with a 1-phase, fan-cooled, permanent-magnet, synchronous 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. 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 indi- control panel provides visual indication of pump status:							
		<ul> <li>"Power on": Motor is running (rotatin indicator lights)</li> <li>"Warning": Motor is still running (rotation)</li> </ul>		nts) or not running (permanently green				
		yellow indicator lights) - "Alarm": Motor has stopped (flashing						
		Communication with the pump is possible to remote control enables further settings as w "Actual value", "Speed", "Power input" and	vell as reading out of	a number of parameters such as				
		The terminal box has a number of inputs ar applications where many inputs and output	nd outputs enabling th s are required:	he 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 <sup>v</sup>	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 r</li> </ul>						
		<ul> <li>two configurable digital inputs or ope</li> <li>two Pt100/Pt1000 inputs</li> </ul>	en-collector outputs					
		<ul> <li>LiqTec, dry-running protection sense</li> <li>Grundfos Digital Sensor input and o</li> </ul>						
		- 24 V voltage supply for sensors	•					
		<ul> <li>two signal relay outputs (potential-free)</li> <li>GENIbus connection</li> <li>interface for Grundfos CIM fieldbus</li> </ul>	,					
		Liquid: Pumped liquid: Water Liquid temperature range: -20 120 Liquid temperature during operation: 20 °C Density: 008 2 kg/	2					
		Density: 998.2 kg/r	11~					
		Technical:						



Company name: Created by: Phone:

osition	Qty.	Description Speed for pump data: Rated flow: Rated head: Pump orientation: Shaft seal arrangement: Code for shaft seal: Approvals on nameplate: Curve tolerance: Materials: Page:	3350 rpm 3.5 m <sup>3</sup> /h 52.4 m Vertical Single HQQE CE, EAC,ACS ISO9906:2012 3B	
		Rated flow: Rated head: Pump orientation: Shaft seal arrangement: Code for shaft seal: Approvals on nameplate: Curve tolerance: Materials:	3.5 m <sup>3</sup> /h 52.4 m Vertical Single HQQE CE, EAC,ACS	
		Rated head: Pump orientation: Shaft seal arrangement: Code for shaft seal: Approvals on nameplate: Curve tolerance: Materials:	52.4 m Vertical Single HQQE CE, EAC,ACS	
		Pump orientation: Shaft seal arrangement: Code for shaft seal: Approvals on nameplate: Curve tolerance: Materials:	Vertical Single HQQE CE, EAC,ACS	
		Shaft seal arrangement: Code for shaft seal: Approvals on nameplate: Curve tolerance: Materials:	Single HQQE CE, EAC,ACS	
		Code for shaft seal: Approvals on nameplate: Curve tolerance: Materials:	HQQE CE, EAC,ACS	
		Approvals on nameplate: Curve tolerance: Materials:	CE, EAC,ACS	
		Curve tolerance: Materials:		
		Materials:		
		Paga:	<b>.</b>	
		Base:	Stainless steel	
			EN 1.4408	
		lean allan	AISI 316	
		Impeller:	Stainless steel	
			EN 1.4301 AISI 304	
		Bearing material:	SIC	
			0.0	
		Installation:		
		Maximum ambient temperature:		
		Maximum operating pressure:	25 bar	
		Max pressure at stated temp:	25 bar / 120 °C	
		<b>T</b>	25 bar / -20 °C	
		Type of connection: Size of inlet connection:	FlexiClamp	
		Size of infet connection:	DN 32 1 1/4 inch	
		Size of outlet connection:	DN 32	
		Size of outlet connection.	1 1/4 inch	
		Pressure rating:	PN 25	
		Flange size for motor:	FT100	
		Electrical data:		
		Motor standard:	IEC	
		Motor type:	80B	
		IE Efficiency class:	IE5	
		Rated power - P2:	1.1 kW	
		Power (P2) required by pump:	1.1 kW	
		Mains frequency:	50 Hz	
		Rated voltage:	1 x 200-240 V	
		Rated current:	6,70-5,60 A	
		Cos phi - power factor:	0,99	
		Rated speed:	360-4000 rpm	
		Efficiency:	86,9%	
		Motor efficiency at full load:	86.9 %	
		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:	23.6 kg	
		Gross weight:	26.5 kg	
		Shipping volume:	0.143 m <sup>3</sup>	
		11 5	-	



## Company name: Created by: Phone:

			1 1	1	1 1			
Description	Value	H [m]				CRI	E 3-8, 1*	230 V
General information:		80						
Product name:	CRIE 3-8 AN-CA-I-E-HQQE							
Product No:	98389786	75	100 %					
EAN number:	5711494184156	70 65						
Technical:		60						
Speed for pump data:	3350 rpm	55						
Rated flow:	3.5 m <sup>3</sup> /h	50						
Rated head:	52.4 m	45	80 %		$\searrow$			
Stages:	8							
Impellers:	8	40	70 %			$\mathbf{i}$		
Low NPSH:	N	35		_				
Pump orientation:	Vertical	30	60 %					
Shaft seal arrangement:	Single	25		X		A	$\mathcal{M}$	
Code for shaft seal:	HQQE	20	- 50 %			1		
Approvals on nameplate:	CE, EAC,ACS	15			/ /	\.		
Curve tolerance:	ISO9906:2012 3B	10						
Pump version:	AN							
Model:	AN	5	¥%					
Model.	/ X	0	0 0.5 1.0	1.5 2.0 :	2.5 3.0	3.5 4.0	4.5 Q	[m³/h]
Materials:		P [W]						-
Base:	Stainless steel	[**]						
	EN 1.4408						1	21
	AISI 316	1000						
Impeller:	Stainless steel	800						2
	EN 1.4301							
	AISI 304	600						
Material code:		400						,
Code for rubber:	E							
Bearing material:	SIC	200						
		0						
Installation:								
Maximum ambient temperature:	50 °C							
Maximum operating pressure:	25 bar							
Max pressure at stated temp:	25 bar / 120 °C							
	25 bar / -20 °C							
Type of connection:	FlexiClamp							
Connect code:	CA							
Size of inlet connection:	DN 32							
	1 1/4 inch							
Size of outlet connection:	DN 32							
	1 1/4 inch							
Pressure rating:	PN 25							
Flange size for motor:	FT100							
Liquid								
Liquid: Pumped liquid:	Water							
Liquid temperature range:								
Liquid temperature during operation:	-20 120 °C 20 °C							
Density:	998.2 kg/m³							
Electrical data:								
Motor standard:	IEC							
Motor type:	80B							
IE Efficiency class:	IE5							
Rated power - P2:	1.1 kW							
Power (P2) required by pump:	1.1 kW							
Mains frequency:	50 Hz							
mano noquonoy.	00112							



Company name: Created by: Phone:

		Date:	20/02/2018	
		Dale.	20/02/2018	
Description	Value			
Rated current:	6,70-5,60 A			
Cos phi - power factor:	0,99			
Rated speed:	360-4000 rpm			
Efficiency:	86,9%			
Motor efficiency at full load:	86.9 %			
Enclosure class (IEC 34-5):	IP55			
Insulation class (IEC 85):	F			
Motor protec:	YES			
Motor No:	98248267			
Controls:				
Control panel:	Standard			
Function Module:	FM300 - Advanced			
Frequency converter:	Built-in			
Pressure sensor:	Y			
Others:				
Minimum efficiency index, MEI :	0.7			
Net weight:	23.6 kg			
Gross weight:	26.5 kg			
Shipping volume:	0.143 m³			