

## Submittal Data

PROJECT:	UNIT TAG:	QUANTITY:		
	TYPE OF SERVICE:			
REPRESENTATIVE:	SUBMITTED BY:	DATE:		
ENGINEER:	APPROVED BY:	DATE:		
CONTRACTOR:	ORDER NO.:	DATE:		



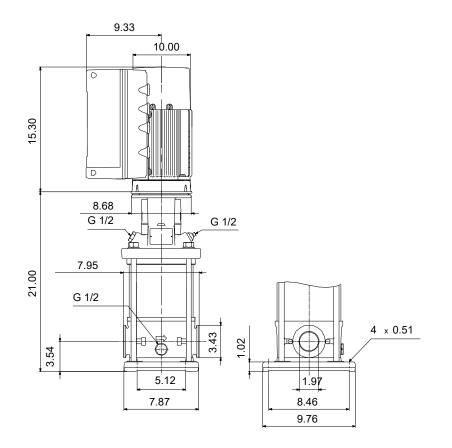
## CRIE 20-4 N-CA-A-E-HQQE

Vertical, multistage centrifugal pump with integrated frequency converter. Pump materials in contact with the liquid are in stainless steel (EN 1.4301)

Note! Product picture may differ from actual product

Conditions of Service				Pump Data							Motor Data				
					Max pressure at stated temp: Liquid temperature range: Maximum ambient temperature: Shaft seal: Product number:				-4 : 122 ° HQQ	232 psi / 250 °F -4 248 °F 122 °F HQQE 99076283			Rated power - P2: Rated voltage: Mains frequency: Enclosure class: Insulation class: Motor protection: Motor type: Eta 1/1:		10 HP 440-480 V 60 Hz IP55 F ELEC 132F 92.5 %
H [ft]														20-4, 3*500	V eta [%]
300 -	100	) %								Lic	quid temp	uid = Wate erature du 2.29 lb/ft³		ition = 68 °	
250 -	90 0														- 100
200 -	80 9														- 80
150 -	70 9		X						N/					<i>.</i>	- 60
100 -	80%						-	_							- 40
50 -	25 % 17 %														- 20
	10 2	0 30	40	50	60	70	80	90	100 2	10 1	120 1	30 14	0 150	Q [US GP	0 M] ─────NPSH
P [HP]											P1 (m	otor+freq.	converter)		[ft]
8 -													P2	2	40
6 -								_							30
4-															20
2															10
0															0



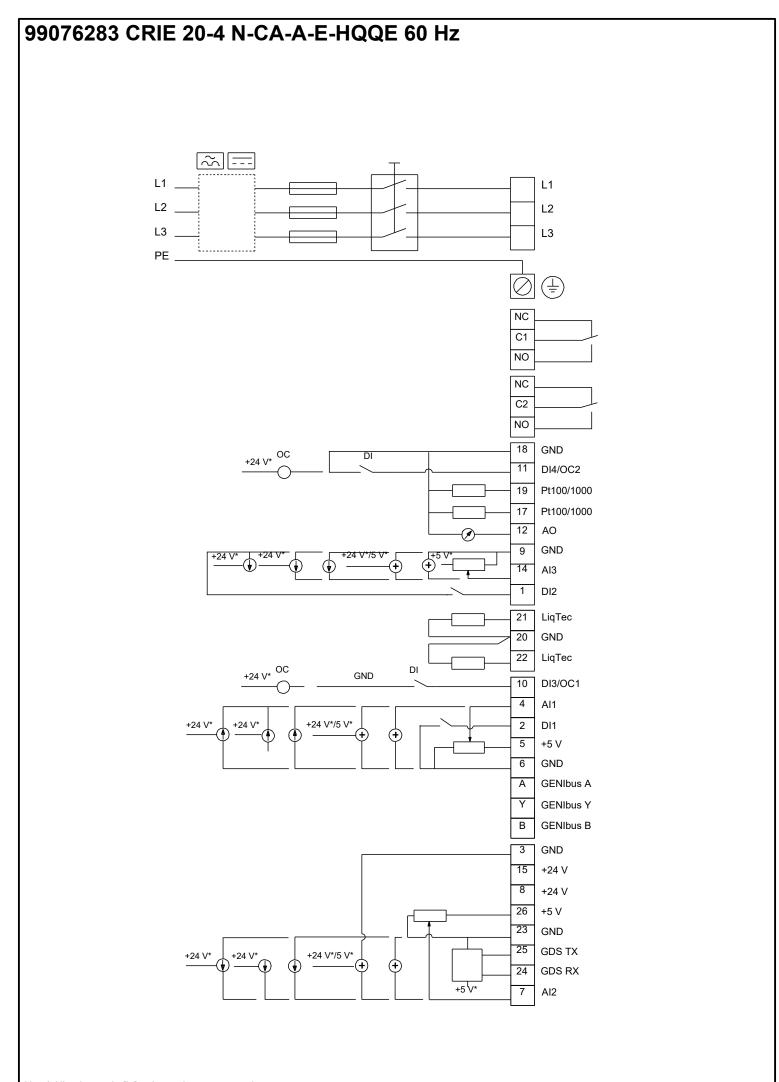


Μ	a	te	ri	al	S	:

Base:	Stainless steel
Base:	EN 1.4408
Base:	AISI 316
Impeller:	Stainless steel
Impeller:	AISI 304
Impeller:	EN 1.4301
Material code:	А
Code for rubber:	E
Impeller: Impeller: Impeller: Material code:	Stainless steel AISI 304 EN 1.4301 A

ty.	Description						
ι <b>у</b> . 1	CRIE 20-4 N-CA-A-E-HQQE						
	Product No.: 99076283	Note! Product picture may differ from actual product					
	are in stainless steel. A cartridge	ump with inlet and outlet ports on same the level (inline). Pump materials in contact with the liquid s shaft seal ensures high reliability, safe handling, and easy access and service. Power pupling. Pipe 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.						
		or terminal box features a four-inch TFT display, push-buttons and the Grundfos Eye indicator.					
	The display gives an intuitive and user-friendly interface to all functions. The push-buttons are used to navigate through the menu structure to access pump and performance data on site and enable setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop".						
	Communication with the pump is also possible by means of Grundfos GO Remote (accessory). The remote control enables furth settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption".						
	<ul> <li>The Grundfos Eye indicator on the operating panel provides visual indication of pump status:</li> <li>"Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights)</li> <li>"Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights)</li> <li>"Alarm": Motor has stopped (flashing red indicator lights).</li> </ul>						
	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:						
	<ul> <li>two dedicated digital input</li> <li>three analog inputs, 0(4)- inputs</li> </ul>	20 mA, 0-5 V, 0-10 V, 0.5 - 3.5 V; the factory-fitted pressure sensor is connected to one of these					
	<ul> <li>5 V voltage supply to pote</li> <li>one analog output, 0-10 V</li> </ul>						
		iputs or open-collector outputs					
	<ul> <li>LiqTec, dry-running prote</li> <li>Grundfos Digital Sensor i</li> </ul>						
	24 V voltage supply for se	ensors					
	<ul> <li>two signal-relay outputs (</li> <li>GENIbus connection</li> <li>interface for Grundfos Cli</li> </ul>						
	Liquid:						
	Pumped liquid:	Water					
	Liquid temperature range: Selected liquid temperature:	-4 248 °F 68 °F					
	Density:	62.29 lb/ft <sup>3</sup>					
	Technical: Pump speed on which pump data are based: 3470 rpm Rated flow: 111 US GPM						
	Rated head:	210.3 ft					
	Actual impeller diameter: Pump orientation:	4.13 in Vertical					
	Shaft seal arrangement:	Single					
	Code for shaft seal:	HQQE					
	Approvals: Approvals for drinking water:	CURUS NSF/ANSI 61					
	Curve tolerance:	ISO9906:2012 3B					

Qty.	Description				
	Materials:				
	Base:	Stainless steel			
		EN 1.4408			
		AISI 316			
	Impeller:	Stainless steel			
		EN 1.4301			
		AISI 304			
	Bearing:	SIC			
	Bearing.	30			
	Installation:				
	t max amb:	122 °F			
	Maximum operating pressure:	232.06 psi			
	Max pressure at stated temp:	232.00 psi 232 psi / 250 °F			
	Max pressure at stated temp.	232 psi / -4 °F			
	Type of connection:	FlexiClamp			
	Type of connection: Size of inlet connection:	DN 50			
	Size of outlet connection:	DN 50			
	Pressure rating for connection:				
	Flange size for motor:	213TC			
	Electrical data:				
1	Motor standard:	NEMA			
1		132F			
1	Motor type: IE Efficiency class:	IS2F			
		10 HP			
	Rated power - P2:				
	Power (P2) required by pump:	10 HP			
	Mains frequency:	60 Hz			
	Rated voltage:	3 x 440-480 V			
	Service factor:	1.15			
	Rated current:	12.4-11.5 A			
	Cos phi - power factor:	0.91-0.90			
	Rated speed:	360-4000 rpm			
	Efficiency:	92.5%			
	Motor efficiency at full load:	92.5 %			
	Enclosure class (IEC 34-5):	IP55			
	Insulation class (IEC 85):	F			
	Motor No:	99256776			
	Controls:	N .			
	Pressure sensor:	Y			
	Others:				
	DOE Pump Energy Index VL:	0.41			
		183 lb			
	Net weight:	201 lb			
	Gross weight:	13.1 ft <sup>3</sup>			
	Shipping volume:	13.1 11			
1					
1					
1					
1					
1					
1					
1					
L					



Note! All units are in [in] unless others are stated.