

## Submittal Data

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



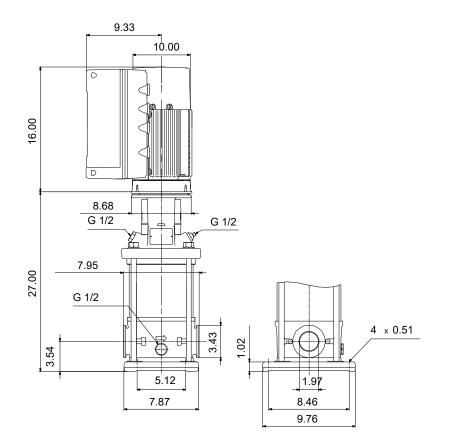
## CRIE 20-6 N-CA-A-E-HQQE

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						
Liquid: Water Temperature: 68 °F Specific Gravity: 1.000			Liq Ma Sh	Max pressure at stated temp: Liquid temperature range: Maximum ambient temperature: Shaft seal: Product number:				-4 2 122 ° HQQ	232 psi / 250 °F -4 248 °F 122 °F HQQE 99076427			Rated power - P2: Rated voltage: Mains frequency: Enclosure class: Insulation class: Motor protection: Motor type: Eta 1/1:		44( 60 IP5 F EL 16(	15 HP 440-480 V 60 Hz IP55 F ELEC 160H 93.2 %	
H [ft] 450 -	100	%							Liquid	l temp	uid = Wat erature d 2.29 lb/ft³	er	20-6, 3*9		eta [%]	
350 - 300 -	90 9															
250 - 200 -	80 %														- 100 - 80	
150 - 100 -	68 % 50 %														- 60 - 40	
50 - 0 -	1 %														- 20 - 0	
0 [HP] 14 12	10	20 30	40	50 60	70	80	90	100 1	10 120		30 14 notor+freq	.converte	60 Q [US ar) P2		NPSH _ [ft] - 70 - 60	
10 - 8 - 6 - 4 - 2 -															- 50 - 40 - 30 - 20 - 10	
0															-0	



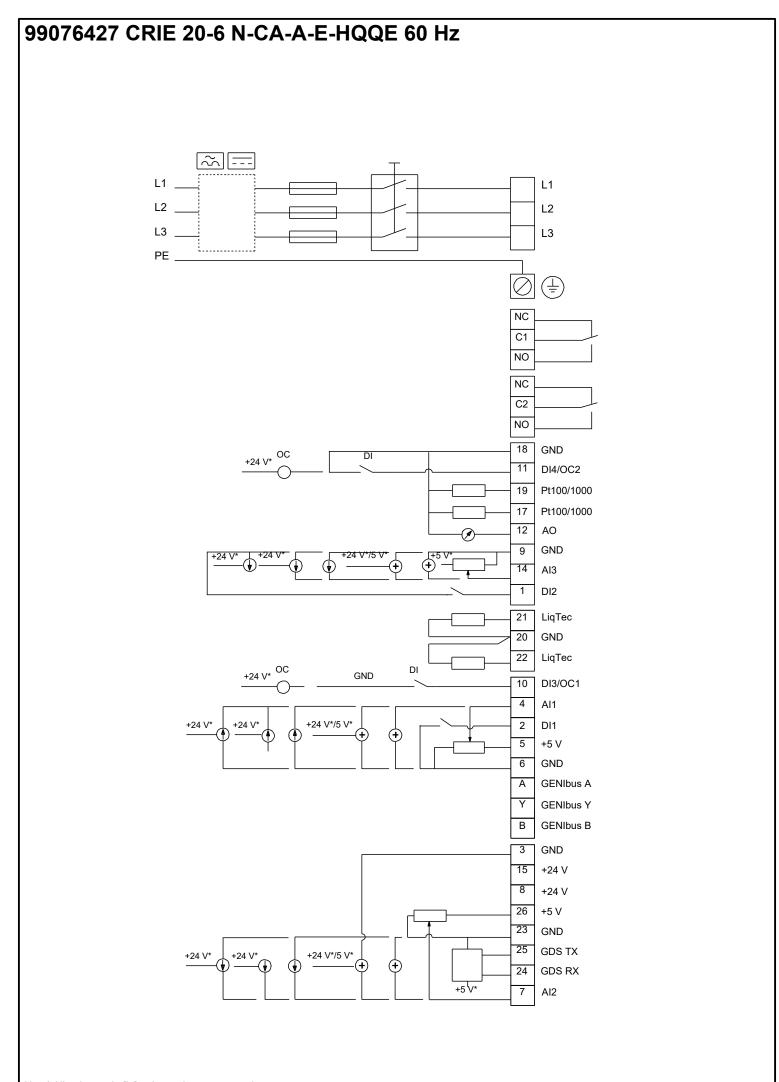


Materials:
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Base:	Stainless steel
Base:	EN 1.4408
Base:	AISI 316
Impeller:	Stainless steel
Impeller:	AISI 304
Impeller:	EN 1.4301
Material code:	А
Code for rubber:	E

Description						
CRIE 20-6 N-CA-A-E-HQQE						
Product No.: 99076427	Note! Product picture may differ from actual product					
are in stainless steel. A cartridge	oump with inlet and outlet ports on same the level (inline). Pump materials in contact with the liquid e shaft seal ensures high reliability, safe handling, and easy access and service. Power oupling. 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 speed, which again er	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. The operating panel on the motor terminal box features a four-inch TFT display, push-buttons and the Grundfos Eye indicator.					
The push-buttons are used to na	nd user-friendly interface to all functions. avigate through the menu structure to access pump and performance data on site and enable rell as setting of pump to "Min." or "Max." operation or to "Stop".					
Communication with the pump is settings as well as reading out c consumption".	s also possible by means of Grundfos GO Remote (accessory). The remote control enables further of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power					
<ul> <li>"Power on": Motor is runi</li> <li>"Warning": Motor is still r</li> <li>"Alarm": Motor has stopp</li> </ul>	the operating panel provides visual indication of pump status: ning (rotating green indicator lights) or not running (permanently green indicator lights) unning (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights) bed (flashing red indicator lights). of inputs and outputs enabling the motor to be used in advanced applications where many inputs					
<ul> <li>two dedicated digital inputs</li> <li>three analog inputs, 0(4)-20 mA, 0-5 V, 0-10 V, 0.5 - 3.5 V; the factory-fitted pressure sensor is connected to one of these</li> </ul>						
<ul> <li>inputs</li> <li>5 V voltage supply to pot</li> </ul>						
one analog output, 0-10	one analog output, 0-10 V, 0(4)-20 mA					
two Pt100/Pt1000 inputs						
<ul> <li>LiqTec, dry-running protection sensor input</li> <li>Grundfos Digital Sensor input and output</li> </ul>						
<ul> <li>24 V voltage supply for s</li> <li>two signal-relay outputs</li> </ul>						
<ul> <li>GENIbus connection</li> <li>interface for Grundfos CI</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 da Rated flow:	ta are based:   3444 rpm 111 US GPM					
Rated head:	318.9 ft					
Actual impeller diameter:	4.13 in					
Pump orientation: Shaft seal arrangement:	Vertical Single					
Code for shaft seal:	HQQE					
Approvals:	CURUS					
Approvals for drinking water: Curve tolerance:	NSF/ANSI 61 ISO9906:2012 3B					

Qty.	Description	
	Materials:	
	Base:	Stainless steel
	Dase.	EN 1.4408
		AISI 316
	Impollory	
	Impeller:	Stainless steel
		EN 1.4301
		AISI 304
	Bearing:	SIC
	Installation:	
	t max amb:	122 °F
	Maximum operating pressure:	232.06 psi
	Max pressure at stated temp:	232 psi / 250 °F
		232 psi / -4 °F
	Type of connection:	FlexiClamp
	Size of inlet connection:	DN 50
	Size of outlet connection:	DN 50
	Pressure rating for connection:	
	Flange size for motor:	254TC
		20110
1	Electrical data:	
1	Motor standard:	NEMA
1		160H
1	Motor type: IE Efficiency class:	
	Rated power - P2:	15 HP
	Power (P2) required by pump:	15 HP
	Mains frequency:	60 Hz
	Rated voltage:	3 x 440-480 V
	Service factor:	1.15
	Rated current:	17.9-16.6 A
	Cos phi - power factor:	0.92-0.91
	Rated speed:	360-4000 rpm
	Efficiency:	93.2%
	Motor efficiency at full load:	93.2 %
	Enclosure class (IEC 34-5):	IP55
	Insulation class (IEC 85):	F
	Motor No:	99256777
	Controls:	
	Pressure sensor:	Υ
	Others:	
	DOE Pump Energy Index VL:	0.41
		218 lb
	Net weight:	
	Gross weight:	238 lb
	Shipping volume:	13.1 ft <sup>3</sup>
1		
1		
1		
1		
1		
1		
1		
1		
1		
1		



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