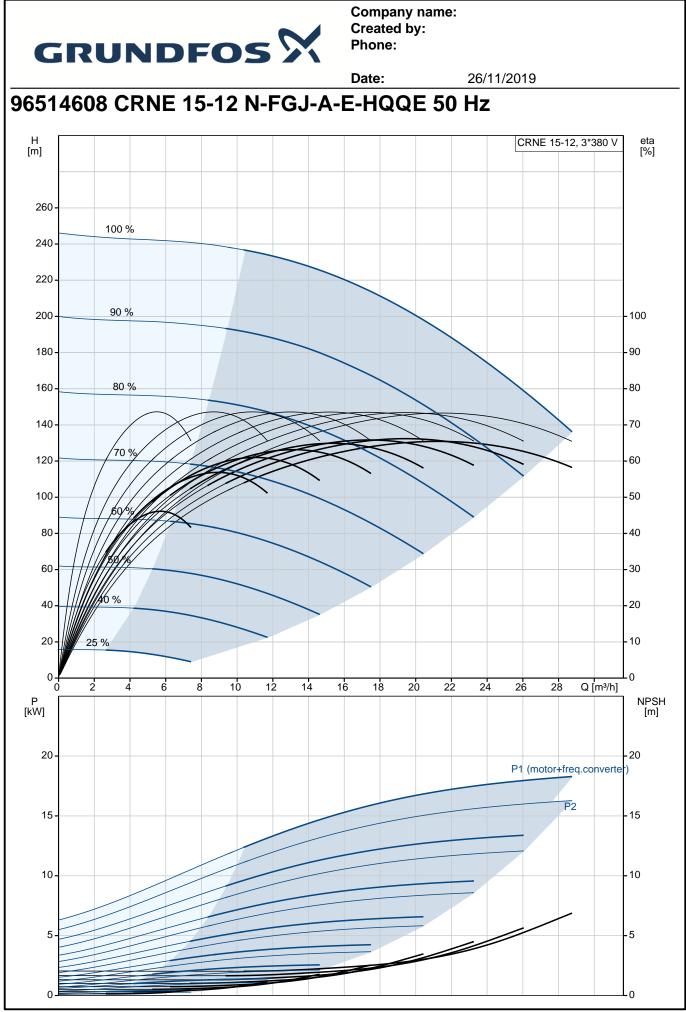
			Created by:	Company name: Created by:			
	GRUNDF	UC U	Phone:				
	GRUNDF						
			Date:	26/11/2019			
<i>'</i> .		-					
	CRNE 15-12 N-FGJ-A-E-HQQ	E					
	TT.						
	Product No.: 96514608						
	Vertical. multistage centrifugal	pump with inlet	and outlet ports on san	ne the level (inline). Pump materials in			
	contact with the liquid are in high	ph-grade stainle	ss steel. A cartridge sh	aft seal ensures high reliability, safe			
	combined DIN-ANSI-JIS flange	I Service. Power	transmission is via a ri	gid split coupling. Pipe connection is via			
	The pump is fitted with a 3-pha						
	The motor includes a frequenc	y converter and	PI controller in the mot	or terminal box. This enables continuousl			
		· •	•	of the performance to a given requirement			
	An operating 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 operating panel has indicator lights for "Operation" and "Fault".						
	Communication with the pump	is possible by m	eans of Grundfos GO	Remote (accessory). The remote control			
	input" and total "Power consun	nption".	of a number of parame	ters such as "Actual value", "Speed", "Po			
	The terminal box holds terminals for these connections:						
	pump start/stop input (potential-free contact)						
	<ul> <li>remote setpoint setting via analog signal, 0-10 V, 0(4)-20 mA</li> <li>10 V voltage supply for setpoint potentiometer, Imax = 5 mA</li> </ul>						
				ed pressure sensor is connected to one o			
	these inputs		•				
	24 V voltage supply for	sensor, Imax = 4	40 mA				
	<ul><li>one analog output</li><li>three digital inputs</li></ul>						
	<ul> <li>two Pt100 inputs</li> </ul>						
			i changeover contact, r	eporting "Fault", "Operation" or "Ready"			
	RS-485 GENIbus conne		h.l.a				
	<ul> <li>interface for Grundfos C</li> </ul>	IN TIEIDDUS MOC	iule.				
	Controls:						
	Frequency converter:	Built-in					
	Pressure sensor:	Yes					
	Liquid:						
	Pumped liquid:	Water					
	Liquid temperature range: Selected liquid temperature:	-20 120 ℃ 20 ℃					
	Density at selected liquid temp		kg/m³				
	<b>Technical:</b> Pump speed on which pump da	ata are hased:	3540 rpm				
	Rated flow:	$20.5 \text{ m}^3/\text{h}$					
	Rated head:	197.9 m					
	Pump orientation:	Vertical					
	Shaft seal arrangement:	Single					
	Code for shaft cool						
	Code for shaft seal: Approvals on nameplate:	HQQE CE, EAC,ACS	5				



Company name: Created by: Phone:

			Date:	26/11/2019		
<i>ı</i> .	Description					
	Materials:					
	Base:	Stainless steel				
		EN 1.4408				
		AISI 316				
	Impeller:	Stainless steel				
		EN 1.4401				
		AISI 316				
	Bearing:	SIC				
	In stall stars					
	Installation:	40.00				
	Maximum ambient temperature:					
	Maximum operating pressure:	25 bar				
	Max pressure at stated temp:	25 bar / 120 °C				
		25 bar / -20 °C				
	Type of connection:	DIN / ANSI / JIS				
	Size of inlet connection:	DN 50				
	Size of outlet connection:	DN 50				
	Pressure rating for pipe connect					
	Flange rating inlet:	300 lb				
	Flange size for motor:	FF300				
	Electrical data:					
	Motor standard:	IEC				
	Motor type:	160LB				
	IE Efficiency class:	IE3				
	Rated power - P2:	18.5 kW				
	Power (P2) required by pump:	18.5 kW				
	Mains frequency:	50 Hz				
	Rated voltage:	3 x 380-480 V				
	Rated current:	37.0-31.0 A				
	Cos phi - power factor:	0.91-0.88				
	Rated speed:	480-3540 rpm				
	Efficiency:	IE3 92,4%				
	Motor efficiency at full load:	92.4 %				
	Number of poles:	2				
	Enclosure class (IEC 34-5):	IP55				
	Insulation class (IEC 85):	F				
	Motor No:	85901026				
		83901020				
	Others:					
	Minimum efficiency index, MEI					
	Net weight:	223 kg				
	Gross weight:	274 kg				
	Shipping volume:	0.82 m³				
	Country of origin:	GB				
	Custom tariff no.:	84137075				



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## Company name: Created by: Phone:

		Date:	20/	/11/2019		<u> </u>
Description	Value	H [m]			CRNE 15-12, 3*380 V	e [%
General information:						
Product name:	CRNE 15-12 N-FGJ-A-E-HQQE		100 %			
Product No:	96514608	240 -				
		220 -				
EAN number:	5700396709574 5700396709574	200 -	90 %			100
Technical:	5700390709574	180 -				90
Pump speed on which pump data are			80 %			80
based:	3540 rpm	160 -				70
Rated flow:	20.5 m³/h		70%		Let '	
Rated head:	197.9 m	120 -				- 60
Head max:	244 m	100 - / /	60			- 50
Stages:	12	80 - //			Y	40
Impellers:	12	60 -	1//0			30
Number of reduced-diameter impellers:	0		0 %			20
Low NPSH:	No	20 - 25	%			10
Pump orientation:	Vertical	0				$\int_{0}$
Shaft seal arrangement:	Single	o	5 10	15	20 25 Q [m³/h]	
Code for shaft seal:	HQQE	P [kW]				
Approvals on nameplate:	CE, EAC,ACS	20-				
Curve tolerance:	ISO9906:2012 3B	20-			P1 (motor+freq.co	nvérte
Pump version:	Ν	15 -			P2	- 15
Model:	Α	13				
Materials:		10 -				- 10
Base:	Stainless steel					10
	EN 1.4408	5-				- 5
	AISI 316					Ũ
Impeller:	Stainless steel	0				
	EN 1.4401	۳۴				
	AISI 316		308			
Material code:	Α		314			
Code for rubber:	E					
Bearing:	SIC	8				
Installation:						
Maximum ambient temperature:	40 °C					
Maximum operating pressure:	25 bar		G 1/2 G 1/2	2		
Max pressure at stated temp:	25 bar / 120 °C			<u>8 x 18 x 21.8</u>		
	25 bar / -20 °C	992	1 X G 1/2	T.		
Type of connection:	DIN / ANSI / JIS					
Size of inlet connection:	DN 50	6		8		
Size of outlet connection:	DN 50		130	'     4	65 120.5	
Pressure rating for pipe connection:	PN 25		300		120.3 115 148	
Flange rating inlet:	300 lb			<b></b>		
Flange size for motor:	FF300					
Connect code:	FGJ	ا دعام ا معام ا				
Liquid:			Group 3			
Pumped liquid:	Water					
Liquid temperature range:	-20 120 °C					
Selected liquid temperature:	20 °C					
Density at selected liquid temperature:						
Electrical data:			20: P100 B 12: P100 B			
Motor standard:	IEC		10: P1100 A 17: P1100 A 16: GND (farms) 15: 24V 14: Samor input2			
Motor type:	160LB		13: GND 12: Analog subput 11: Digital input 4 10: Digital input 3			
IE Efficiency class:	IE3	<b>L</b> ••••	1: Digital input 2: GND (frame) 8: +24V 7: Sensor input			
Rated power - P2:	18.5 kW		B:RS-4058 0 Y: Screen A:RS-405A 0			
Power (P2) required by pump:	18.5 kW					
Mains frequency:	50 Hz		6: GND (frame) 5: +10V 4: Setpoint input 3: GND (frame)			

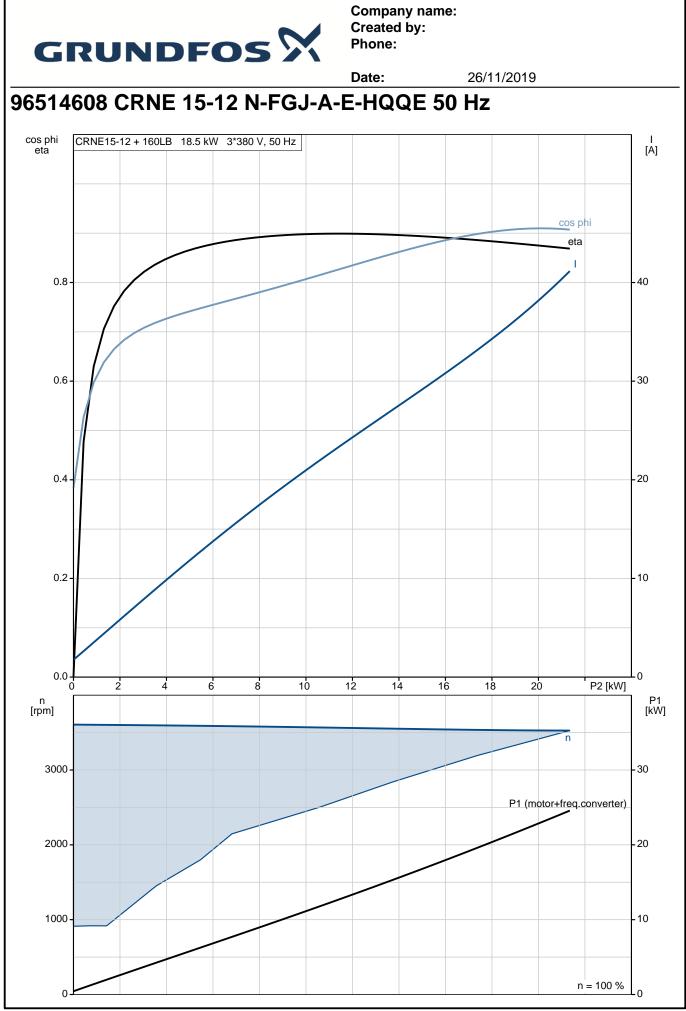
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NPSH [m]



Company name: Created by: Phone:

Date: 26/11/2019 Description Value 37.0-31.0 A Rated current: Cos phi - power factor: 0.91-0.88 Rated speed: 480-3540 rpm Efficiency: IE3 92,4% Motor efficiency at full load: 92.4 % Number of poles: 2 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor protec: YES Motor No: 85901026 Controls: Function Module: ADVANCED I/O Frequency converter: Built-in Yes Pressure sensor: Others: Minimum efficiency index, MEI : 0.70 Net weight: 223 kg Gross weight: 274 kg Shipping volume: 0.82 m<sup>3</sup> Country of origin: GB Custom tariff no .: 84137075



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