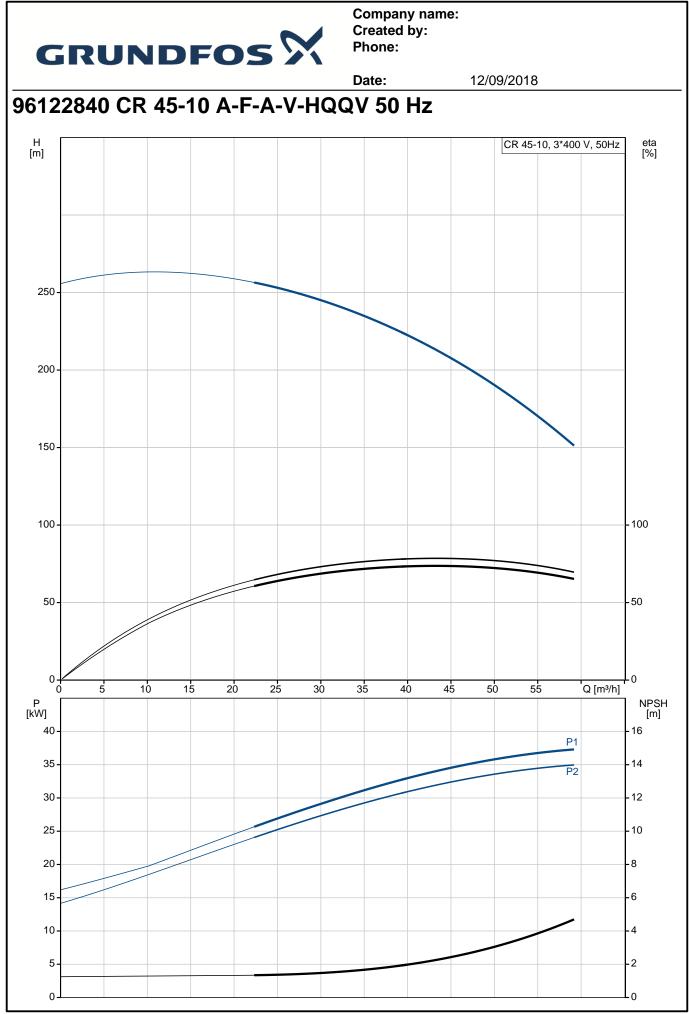
G	R	UNDFOS	$\mathbf{X}$	Company Created by Phone:				
				Date:	1	2/09/2018		
Position	Qty.	Description						
	1	CR 45-10 A-F-A-V-HQQV						
		Product No.: 96122840						
		Vertical, multistage centrifugal pump with suction and discharge ports on same the level (in-line enabling installation in a horizontal one-pipe system. The pump head and base are in cast iron other wetted parts are in stainless steel. A cartridge shaft seal ensures high reliability, safe han and easy service and access. Power transmission is via a rigid split coupling. Pipework connec via DIN flanges.						
		The pump is fitted with a 3-phase	e, fan-coole	d asynchron	ous motor.			
		Liquid: Pumped liquid: Liquid temperature range: Liquid temperature during operat Density:	Water -20 90 °C tion: 20 °C 998.2 kg/m					
		<b>Technical:</b> Rated flow: Rated head: Pump orientation: Shaft seal arrangement: Code for shaft seal: Approvals on nameplate: Curve tolerance:	45 m <sup>3</sup> /h 204.8 m Vertical Single HQQV CE, EAC ISO9906:2	012 3B				
		<b>Materials:</b> Base:		N-GJS-500- <sup>-</sup> 6 80-55-06	7			
		Impeller:	Stainless s EN 1.4301 AISI 304					
		Bearing: Support bearing:	SIC Graflon					
		<b>Installation:</b> Maximum ambient temperature: Maximum operating pressure: Max pressure at stated temp:	30 bar 30 bar / 90					
		Type of connection: Size of inlet connection: Size of outlet connection: Pressure rating for pipe connection						
		Flange size for motor: Electrical data:	FF350					
		Motor standard:	IEC					



Company name: Created by: Phone:

			Date:	12/09/2018
Position	Qty.	Description		
		Motor type:	SIEMENS	
		IE Efficiency class:	IE3	
		Rated power - P2:	37 kW	
		Power (P2) required by pump:		
		Mains frequency:	50 Hz	
		Rated voltage:	3 x 380-420D/660-725Y V	
		Rated current:	68,0-63,0/39,0-36,0 A	
		Starting current:	670-670 %	
		Cos phi - power factor:	0.87	
		Rated speed:	2955 rpm	
		Efficiency:	IE3 93,7%	
		Motor efficiency at full load:	93.7-93.7 % 93.9-93.9 %	
		Motor efficiency at 3/4 load:		
		Motor efficiency at 1/2 load: Number of poles:	93.5-93.5 % 2	
		Enclosure class (IEC 34-5):	55 Dust/Jetting	
		Insulation class (IEC 85):	F	
			F <sup>a</sup>	
		Controls:		
		Frequency converter:	NONE	
		Others:		
		Minimum efficiency index, MEI		
		Net weight:	377 kg	
		Gross weight:	422 kg	
		Shipping volume:	0.808 m <sup>3</sup>	
		Country of origin: Custom tariff no.:	GB 84137075	
		Custom tanii no	64137075	
		1		





## Company name: Created by: Phone:

Description	Value	H [m]		CR 45-10, 3*400 V,	50Hz
General information:					
Product name:	CR 45-10 A-F-A-V-HQQV				
Product No:	96122840				
EAN number:	5700396688848	_			
Price:	9.457,00 GBP	250 -			
Technical:		-			
Rated flow:	45 m³/h	_			
Rated head:	204.8 m	200 -			
Stages:	10				
Impellers:	10				
Low NPSH:	N	150 -		<b>`</b>	
Pump orientation:	Vertical	_			
Shaft seal arrangement:	Single	_			
Code for shaft seal:	HQQV	100 -			- 1
	CE, EAC				
Approvals on nameplate: Curve tolerance:	ISO9906:2012 3B	_			=
Pump version:		50 -			- 5
Vodel:	A	- //			
Model: Materials:	В	_			
	Costiron		0 20 30	40 50 Q	0 [m³/h]
Base:	Cast iron	P [kW]			[,]
	EN 1563 EN-GJS-500-7	[kW]			P1
	ASTM A536 80-55-06	35 -			1
mpeller:	Stainless steel	30 -			P2
	EN 1.4301				
	AISI 304	25 -			
Material code:	A	20 -			- 8
Code for rubber:	V	15-			- 6
Bearing:	SIC	10 -		/	- 4
Support bearing:	Graflon	5-			-2
nstallation:					
Maximum ambient temperature:	55 °C	0-			0
Maximum operating pressure:	30 bar				
Max pressure at stated temp:	30 bar / 90 °C				
	30 bar / -20 °C				
Type of connection:	DIN				
Size of inlet connection:	DN 80				
Size of outlet connection:	DN 80				
Pressure rating for pipe connection:	PN 40				
Flange size for motor:	FF350				
Connect code:	F				
Liquid:					
Pumped liquid:	Water				
Liquid temperature range:	-20 90 °C				
Liquid temperature during operation:	20 °C				
Density:	998.2 kg/m <sup>3</sup>				
Electrical data:	<u> </u>				
Motor standard:	IEC				
Motor type:	SIEMENS				
IE Efficiency class:	IE3				
Rated power - P2:	37 kW				
Power (P2) required by pump:	37 kW				
Mains frequency:	50 Hz				
Rated voltage:	3 x 380-420D/660-725Y V				
Rated current:					
	68,0-63,0/39,0-36,0 A				
Starting current:	670-670 %				
Cos phi - power factor:	0.87				
Rated speed:	2955 rpm				
Efficiency:	IE3 93,7%				

eta [%]

NPSH [m]



Company name: Created by: Phone:

Date: 12/09/2018 Description Value Motor efficiency at full load: 93.7-93.7 % Motor efficiency at 3/4 load: 93.9-93.9 % Motor efficiency at 1/2 load: 93.5-93.5 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F Motor protec: PTC Motor No: 81U15334 Controls: NONE Frequency converter: Others: Minimum efficiency index, MEI : 0.7 Net weight: 377 kg Gross weight: 422 kg 0.808 m<sup>3</sup> Shipping volume: Country of origin: GB Custom tariff no .: 84137075

