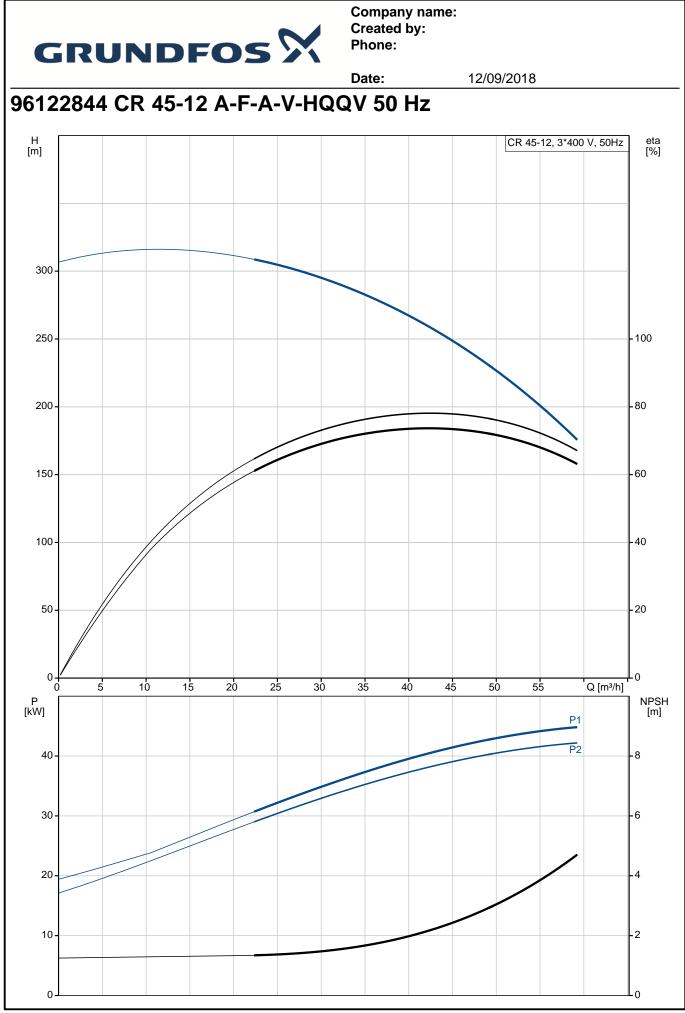
G		UNDFOS		Company Created by Phone:			
				Date:	12/09/201	8	
Position	Qty.	Description			,		
	1	CR 45-12 A-F-A-V-HQQV					
		Product No.: 96122844					
	Vertical, multistage centrifugal pump with suction and discharge ports on same the levenabling installation in a horizontal one-pipe system. The pump head and base are in other wetted parts are in stainless steel. A cartridge shaft seal ensures high reliability, and easy service and access. Power transmission is via a rigid split coupling. Pipewor via DIN flanges.				e are in cast iron – all eliability, safe handling		
		The pump is fitted with a 3-phase, fan-cooled asynchronous motor.					
		Liquid: Pumped liquid: Liquid temperature range: Liquid temperature during operat Density:	Water -20 90 °( tion: 20 °C 998.2 kg/n	;			
		<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 250 m Vertical Single HQQV CE, EAC ISO9906:2	2012 3B			
		<b>Materials:</b> Base:	ASTM A53	N-GJS-500- 86 80-55-06	7		
		Impeller:	Stainless s EN 1.4301 AISI 304				
		Bearing: Support bearing:	SIC Graflon				
		Installation: Maximum ambient temperature: Maximum operating pressure: Max pressure at stated temp: Type of connection: Size of inlet connection: Size of outlet connection: Pressure rating for pipe connecti	33 bar 33 bar / 90 33 bar / -2 DIN DN 80 DN 80	20 °C			
		Flange size for motor: Electrical data: Motor standard:	FF400				



Company name: Created by: Phone:

sition Qty. Description   Image: State				Date:	12/09/2018
IE Efficiency class:IE3Rated power - P2:45 kWPower (P2) required by pump:45 kWMains frequency:50 HzRated voltage:3 x 380-420D/660-725Y VRated current:81,0-74,0/47,0-43,0 AStarting current:690-690 %Cos phi - power factor:0.89Rated speed:2960 rpmEfficiency:IE3 94,0%Motor efficiency at full load:94.0-94.0 %Motor efficiency at 3/4 load:94.5-94.5 %Motor efficiency at 1/2 load:94.4-94.4 %Number of poles:2Enclosure class (IEC 34-5):55 Dust/JettingInsulation class (IEC 85):FControls:Frequency converter:NONEOthers:Minimum efficiency index, MEI : 0.7Net weight:460 kgGross weight:562 kgShipping volume:1.24 m³Country of origin:GB	osition	Qty.	Description		
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Rated power - P2:   45 kW     Power (P2) required by pump:   45 kW     Mains frequency:   50 Hz     Rated voltage:   3 x 380-420D/660-725Y V     Rated current:   81,0-74,0/47,0-43,0 A     Starting current:   690-690 %     Cos phi - power factor:   0.89     Rated speed:   2960 rpm     Efficiency:   IE3 94,0%     Motor efficiency at full load:   94.0-94.0 %     Motor efficiency at 3/4 load:   94.5-94.5 %     Motor efficiency at 1/2 load:   94.4-94.4 %     Number of poles:   2     Enclosure class (IEC 34-5):   55 Dust/Jetting     Insulation class (IEC 85):   F     Controls:   Frequency converter:     Frequency converter:   NONE     Others:   Minimum efficiency index, MEI : 0.7     Net weight:   460 kg     Gross weight:   562 kg     Shipping volume:   1.24 m³     Country of origin:   GB					
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Rated voltage: $3 \times 380-420D/660-725Y V$ Rated current: $81,0-74,0/47,0-43,0 A$ Starting current: $690-690 \%$ Cos phi - power factor: $0.89$ Rated speed: $2960 rpm$ Efficiency:IE3 94,0%Motor efficiency at full load: $94.0-94.0 \%$ Motor efficiency at $3/4 \log d$ : $94.5-94.5 \%$ Motor efficiency at $1/2 \log d$ : $94.4-94.4 \%$ Number of poles: $2$ Enclosure class (IEC 34-5): $55 Dust/Jetting$ Insulation class (IEC 85):FControls:Frequency converter:NONEOthers: $460 kg$ Gross weight: $562 kg$ Shipping volume: $1.24 m^3$ Country of origin: $GB$					
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Starting current:   690-690 %     Cos phi - power factor:   0.89     Rated speed:   2960 rpm     Efficiency:   IE3 94,0%     Motor efficiency at full load:   94.0-94.0 %     Motor efficiency at 3/4 load:   94.5-94.5 %     Motor efficiency at 1/2 load:   94.4-94.4 %     Number of poles:   2     Enclosure class (IEC 34-5):   55 Dust/Jetting     Insulation class (IEC 85):   F     Controls:   Frequency converter:     Frequency converter:   NONE     Others:   Minimum efficiency index, MEI : 0.7     Net weight:   460 kg     Gross weight:   562 kg     Shipping volume:   1.24 m³     Country of origin:   GB					
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Efficiency:   IE3 94,0%     Motor efficiency at full load:   94.0-94.0 %     Motor efficiency at 3/4 load:   94.5-94.5 %     Motor efficiency at 1/2 load:   94.4-94.4 %     Number of poles:   2     Enclosure class (IEC 34-5):   55 Dust/Jetting     Insulation class (IEC 85):   F     Controls:   Frequency converter:     None   None     Others:   0.7     Net weight:   460 kg     Gross weight:   562 kg     Shipping volume:   1.24 m³     Country of origin:   GB					
Motor efficiency at full load:   94.0-94.0 %     Motor efficiency at 3/4 load:   94.5-94.5 %     Motor efficiency at 1/2 load:   94.4-94.4 %     Number of poles:   2     Enclosure class (IEC 34-5):   55 Dust/Jetting     Insulation class (IEC 85):   F     Controls:   Frequency converter:     Nonimum efficiency index, MEI   : 0.7     Net weight:   460 kg     Gross weight:   562 kg     Shipping volume:   1.24 m³     Country of origin:   GB					
Motor efficiency at 3/4 load:   94.5-94.5 %     Motor efficiency at 1/2 load:   94.4-94.4 %     Number of poles:   2     Enclosure class (IEC 34-5):   55 Dust/Jetting     Insulation class (IEC 85):   F     Controls:     Frequency converter:   NONE     Others:     Minimum efficiency index, MEI   : 0.7     Net weight:   460 kg     Gross weight:   562 kg     Shipping volume:   1.24 m³     Country of origin:   GB					
Motor efficiency at 1/2 load:   94.4-94.4 %     Number of poles:   2     Enclosure class (IEC 34-5):   55 Dust/Jetting     Insulation class (IEC 85):   F     Controls:   Frequency converter:     Frequency converter:   NONE     Others:   Minimum efficiency index, MEI     Minimum efficiency index, MEI   0.7     Net weight:   460 kg     Gross weight:   562 kg     Shipping volume:   1.24 m³     Country of origin:   GB					
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Insulation class (IEC 85): F Controls: Frequency converter: NONE Others: Minimum efficiency index, MEI : 0.7 Net weight: 460 kg Gross weight: 562 kg Shipping volume: 1.24 m <sup>3</sup> Country of origin: GB					
Controls:     Frequency converter:   NONE     Others:     Minimum efficiency index, MEI   0.7     Net weight:   460 kg     Gross weight:   562 kg     Shipping volume:   1.24 m³     Country of origin:   GB					
Frequency converter:   NONE     Others:				1	
Others:     Minimum efficiency index, MEI : 0.7     Net weight:   460 kg     Gross weight:   562 kg     Shipping volume:   1.24 m³     Country of origin:   GB			Controls:		
Minimum efficiency index, MEI0.7Net weight:460 kgGross weight:562 kgShipping volume:1.24 m³Country of origin:GB			Frequency converter:	NONE	
Net weight:460 kgGross weight:562 kgShipping volume:1.24 m³Country of origin:GB					
Gross weight:562 kgShipping volume:1.24 m³Country of origin:GB					
Shipping volume:1.24 m³Country of origin:GB					
Country of origin: GB					
Custom tanif no.: 84137075					
			Custom tariff no.:	84137075	





## Company name: Created by: Phone:



				0/2018	
Description	Value	H [m]		CR 45-12, 3*400 V, 50Hz	ĺ
General information:		-			
Product name:	CR 45-12 A-F-A-V-HQQV				
Product No:	96122844	_			
EAN number:	5700396688886	300 -			
Technical:					
Rated flow:	45 m³/h	_			
Rated head:	250 m	250 -			100
Stages:	12	-			
-	12	-			
Impellers: Low NPSH:	N	200 -			- 80
		_			
Pump orientation:	Vertical	150 -			60
Shaft seal arrangement:	Single				
Code for shaft seal:	HQQV	_			
Approvals on nameplate:	CE, EAC	100 -			- 40
Curve tolerance:	ISO9906:2012 3B				
Pump version:	A	-			
Model:	В	50-			- 20
Materials:		-			
Base:	Cast iron	- <sub>0</sub>			L
2400.	EN 1563 EN-GJS-500-7	0 1	10 20 3	0 40 50 Q [m³/h]	_0
	ASTM A536 80-55-06	– P [kW]		P1	NF
Impeller:	Stainless steel	_			_
impeller.		40 -		P2	-8
	EN 1.4301	_			
	AISI 304	30 -			-6
Material code:	A	_			
Code for rubber:	V	20			4
Bearing:	SIC	20			<b>.</b>
Support bearing:	Graflon	10			
Installation:		10 -			-2
Maximum ambient temperature:	55 °C				
Maximum operating pressure:	33 bar	0			L <sub>0</sub>
Max pressure at stated temp:	33 bar / 90 °C				
······	33 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:	FF400				
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:	-				
Motor standard:	IEC				
Motor type:	SIEMENS				
IE Efficiency class:	IE3				
Rated power - P2:	45 kW				
Power (P2) required by pump:	45 kW				
Mains frequency:	50 Hz				
Rated voltage:	3 x 380-420D/660-725Y V				
Rated current:	81,0-74,0/47,0-43,0 A				
Starting current:	690-690 %				
Cos phi - power factor:	0.89				
Rated speed:	2960 rpm				
Efficiency:	IE3 94,0%				
Motor efficiency at full load:	94.0-94.0 %				



Company name: Created by: Phone:

		Date:	1
Description	Value		
Motor efficiency at 3/4 load:	94.5-94.5 %		
Motor efficiency at 1/2 load:	94.4-94.4 %		
Number of poles:	2		
Enclosure class (IEC 34-5):	55 Dust/Jetting		
Insulation class (IEC 85):	F		
Motor protec:	PTC		
Motor No:	81U15336		
Controls:			
Frequency converter:	NONE		
Others:			
Minimum efficiency index, MEI :	0.7		
Net weight:	460 kg		
Gross weight:	562 kg		
Shipping volume:	1.24 m³		
Country of origin:	GB		
Custom tariff no.:	84137075		

