

Qty.	Description
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1	CR 45-3-2A-F-A-V-HQQV
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Note! Product picture may differ from actual product

Product No.: [96122825](#)

Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). The pump head and base are in cast iron – all other wetted parts are in stainless steel. A cartridge shaft seal ensures high reliability, safe handling, and easy access and service. Power transmission is via a rigid split coupling. Pipe connection is via DIN flanges.

The pump is fitted with a 3-phase, fan-cooled asynchronous motor.

**Controls:**

Frequency converter: NONE

**Liquid:**

Pumped liquid: Water  
 Liquid temperature range: -20 .. 90 °C  
 Selected liquid temperature: 20 °C  
 Density at selected liquid temperature: 998.2 kg/m³

**Technical:**

Pump speed on which pump data are based: 2924 rpm  
 Rated flow: 45 m³/h  
 Rated head: 51.9 m  
 Pump orientation: Vertical  
 Shaft seal arrangement: Single  
 Code for shaft seal: HQQV  
 Approvals on nameplate: CE, EAC  
 Curve tolerance: ISO9906:2012 3B

**Materials:**

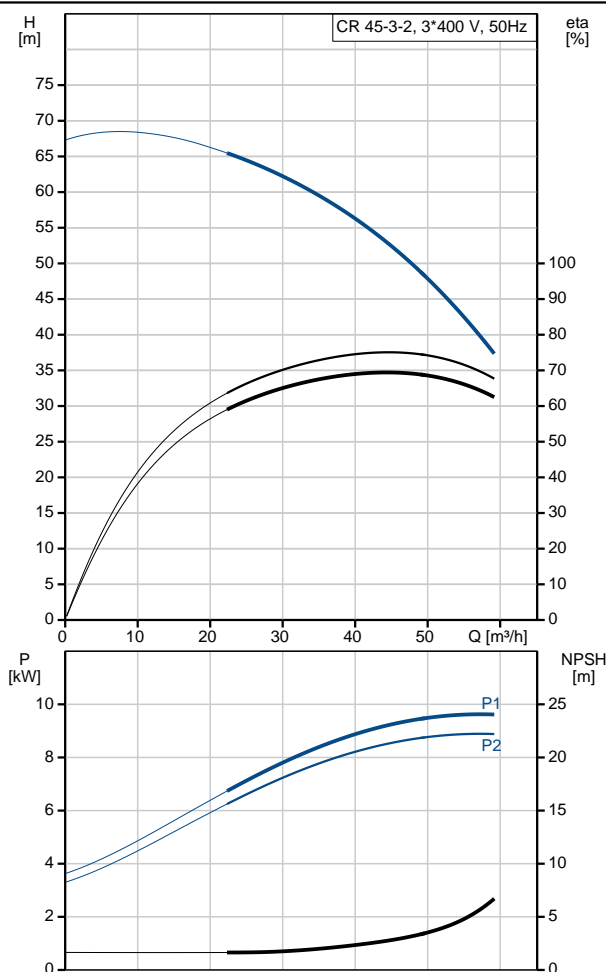
Base: Cast iron  
 EN 1563 EN-GJS-500-7  
 ASTM A536 80-55-06  
 Impeller: Stainless steel  
 EN 1.4301  
 AISI 304  
 Bearing: SIC  
 Support bearing: Graflon

**Installation:**

Maximum ambient temperature: 60 °C  
 Maximum operating pressure: 16 bar

Qty.	Description
	<p>Max pressure at stated temp: 16 bar / 90 °C 16 bar / -20 °C</p> <p>Type of connection: DIN</p> <p>Size of inlet connection: DN 80</p> <p>Size of outlet connection: DN 80</p> <p>Pressure rating for pipe connection: PN 40</p> <p>Flange size for motor: FF300</p> <p><b>Electrical data:</b></p> <p>Motor standard: IEC</p> <p>Motor type: 160MB</p> <p>IE Efficiency class: IE3</p> <p>Rated power - P2: 11 kW</p> <p>Power (P2) required by pump: 11 kW</p> <p>Mains frequency: 50 Hz</p> <p>Rated voltage: 3 x 380-415D/660-690Y V</p> <p>Rated current: 20,8-19,8/12,0-11,8 A</p> <p>Starting current: 660-780 %</p> <p>Cos phi - power factor: 0.88-0.84</p> <p>Rated speed: 2940-2950 rpm</p> <p>Efficiency: IE3 91,2%</p> <p>Motor efficiency at full load: 91.2-91.2 %</p> <p>Motor efficiency at 3/4 load: 91.8 %</p> <p>Motor efficiency at 1/2 load: 91.3 %</p> <p>Number of poles: 2</p> <p>Enclosure class (IEC 34-5): 55 Dust/Jetting</p> <p>Insulation class (IEC 85): F</p> <p>Motor No: 85U17524</p> <p><b>Others:</b></p> <p>Minimum efficiency index, MEI <math>\eta_{\text{min}}</math>: 0.70</p> <p>Net weight: 163 kg</p> <p>Gross weight: 196 kg</p> <p>Shipping volume: 0.495 m<sup>3</sup></p> <p>Country of origin: GB</p> <p>Custom tariff no.: 84137075</p>

Description	Value
<b>General information:</b>	
Product name:	CR 45-3-2A-F-A-V-HQQV
Product No:	96122825
EAN number:	5700396688695
<b>Technical:</b>	
Pump speed on which pump data are based:	2924 rpm
Rated flow:	45 m³/h
Rated head:	51.9 m
Head max:	67.2 m
Stages:	3
Impellers:	3
Number of reduced-diameter impellers:	2
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQV
Approvals on nameplate:	CE, EAC
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	B
<b>Materials:</b>	
Base:	Cast iron EN 1563 EN-GJS-500-7
Impeller:	ASTM A536 80-55-06 Stainless steel EN 1.4301 AISI 304
Material code:	A
Code for rubber:	V
Bearing:	SIC
Support bearing:	Graflon
<b>Installation:</b>	
Maximum ambient temperature:	60 °C
Maximum operating pressure:	16 bar
Max pressure at stated temp:	16 bar / 90 °C 16 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:	FF300
Connect code:	F
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	-20 .. 90 °C
Selected liquid temperature:	20 °C
Density at selected liquid temperature:	998.2 kg/m³
<b>Electrical data:</b>	
Motor standard:	IEC
Motor type:	160MB
IE Efficiency class:	IE3
Rated power - P2:	11 kW
Power (P2) required by pump:	11 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-415D/660-690Y V





Company name:

Created by:

Phone:

Date:

08/05/2019

Description	Value
Rated current:	20,8-19,8/12,0-11,8 A
Starting current:	660-780 %
Cos phi - power factor:	0.88-0.84
Rated speed:	2940-2950 rpm
Efficiency:	IE3 91,2%
Motor efficiency at full load:	91.2-91.2 %
Motor efficiency at 3/4 load:	91.8 %
Motor efficiency at 1/2 load:	91.3 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	85U17524
<b>Controls:</b>	
Frequency converter:	NONE
<b>Others:</b>	
Minimum efficiency index, MEI $\eta_{\%}$ :	0.70
Net weight:	163 kg
Gross weight:	196 kg
Shipping volume:	0.495 m <sup>3</sup>
Country of origin:	GB
Custom tariff no.:	84137075