

CRN5-29 A-P-G-E-HQQE 3x400D 50HZ

Grundfos pump 96513493



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https://www.lenntech.com/grundfos/CRN05/96513493/CRN-5-29-A-P-G-E-HQQE.html

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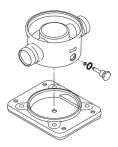
1 CRN 5-29 A-P-A-E-HQQE Image: CRN 5-29 A-P-A-E-HQQE	
 Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). Pump materials in contact with the liquid are in high-grade stainless steel. A cartridge shaft seal ensure reliability, safe handling, and easy access and service. Power transmission is via a rigid split cou Pipe connection is via PJE (Victaulic®) couplings. The pump is fitted with a 3-phase, fan-cooled asynchronous motor. Further product details Steel, cast iron and aluminium components have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical around the products ensures deposition of paint particles as a thin, well-controlled layer on the su An integral part of the process is a pretreatment. The entire process consists of these elements: Alkaline-based cleaning. Zinc phosphating. Cathodic electro-deposition. Curing to a dry film thickness 18-22 my m. 	
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3) Cathodic electro-deposition.4) Curing to a dry film thickness 18-22 my m.	
Pump A standard split coupling connects the pump and motor shaft. It is enclosed in the pump head/mo stool by means of two coupling guards.	tor
The pump head and flange for motor mounting is made in one piece (cast iron). The pump head is a separate component (stainless steel). The pump head has a combined 1/2" priming plug and screw.	over vent
The pump is fitted with a balanced O-ring seal unit with a rigid torque-transmission system. This s type is assembled in a cartridge unit which makes replacement safe and easy. Due to the balance this seal type is suitable for high-pressure applications. The cartridge construction also protects to pump shaft from possible wear from a dynamic O-ring between pump shaft and shaft seal. Primary seal:	ng,
Rotating seal ring material: silicon carbide (SiC)	
 Stationary seat material: silicon carbide (SiC) This material pairing is used where higher corrosion resistance is required. The high hardness of material pairing offers good resistance against abrasive particles. Secondary seal material: EPDM (ethylene-propylene rubber) EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils. 	this



The shaft seal is screwed into the pump head.

The chambers and impellers are made of stainless-steel sheet. The chambers are provided with a PTFE neck ring offering improved sealing and high efficiency. The impellers have smooth surfaces, and the shape of the blades ensure a high efficiency.

The pump has a stainless-steel base mounted on a separate base plate. The base and base plate are kept in position by the tension of the staybolts which hold the pump together. The outlet side of the base has a combined drain plug and bypass valve. The pump is secured to the foundation by four bolts through the base plate. The base is prepared for connection by means of PJE (Victualic®) couplings.



Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. The motor is flange-mounted with tapped-hole flange (FT).

Motor-mounting designation in accordance with IEC 60034-7: IM B 14 (Code I) / IM 3601 (Code II). Electrical tolerances comply with IEC 60034.

The motor efficiency is classified as IE3 in accordance with IEC 60034-30-1.

5.8 m³/h

150.4 m

Vertical

Single

HQQE

CE, EAC, ACS

ISO9906:2012 3B

The motor has thermistors (PTC sensors) in the windings in accordance with DIN 44081/DIN 44082. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

Thermal switches must be connected to an external control circuit in a way which ensures that the automatic reset cannot cause accidents. The motors must be connected to a motor-protective circuit breaker according to local regulations.

The motor can be connected to a variable speed drive for adjustment of pump performance to any duty point. Grundfos CUE offers a range of variable speed drives. Please find more information in Grundfos Product Center.

Technical data

Controls:

Frequency converter: NONE

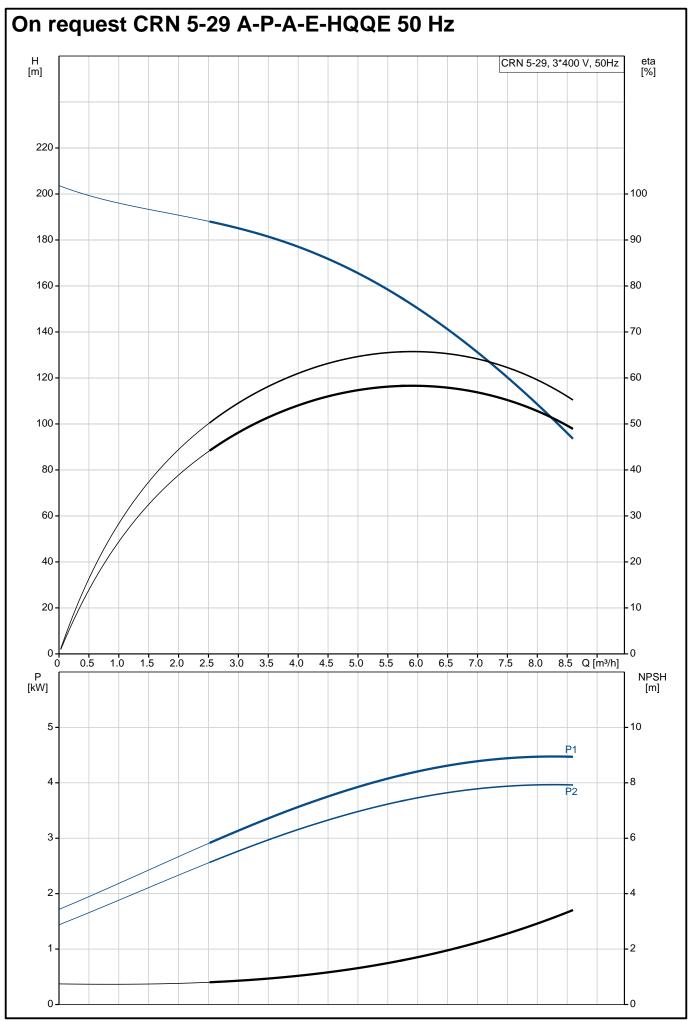
Liquid:

Pumped liquid:WaterLiquid temperature range:-20 .. 120 °CLiquid temperature during operation:20 °CDensity:998.2 kg/m³

Technical:

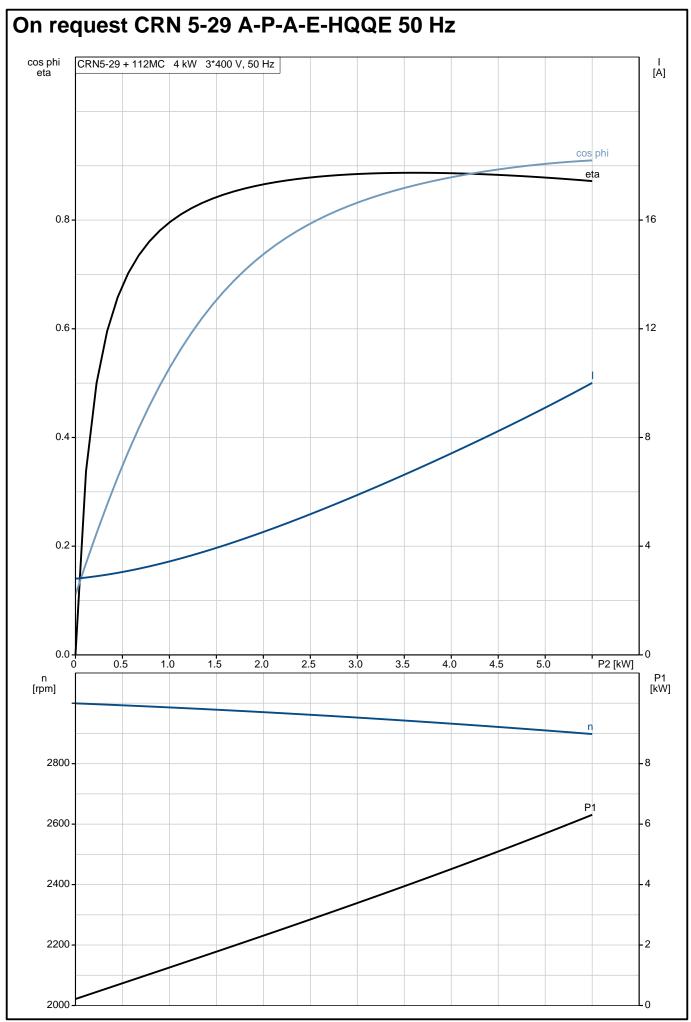
Rated flow: Rated head: Pump orientation: Shaft seal arrangement: Code for shaft seal: Approvals on nameplate: Curve tolerance:

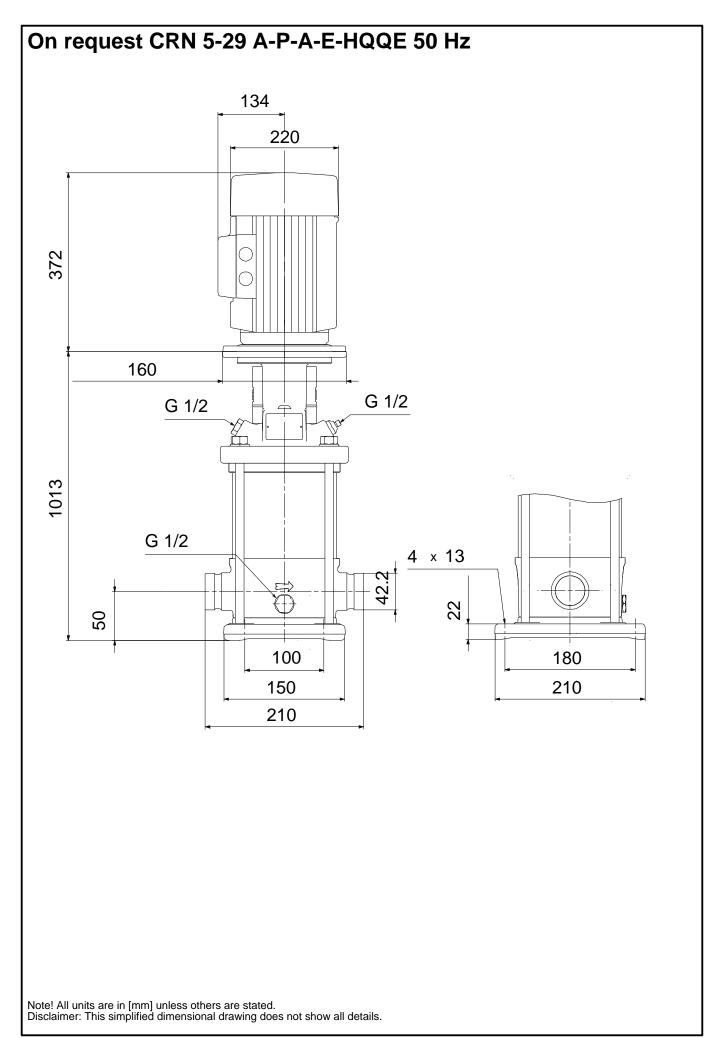
Materials: Base: Stainless steel EN 1.4400 AISI 316 Impeller: Stainless steel EN 1.4401 AISI 316 Bearing: SIC Installation: Maximum ambient temperature: 60 °C Maximum operating pressure: 25 bar / 120 °C Max pressure at stated temperature: 25 bar / 120 °C Type of connection: PUE Size of inlet connection: DN 32 11/4 inch Size of outlet connection: Plange size for moto: FT30 Electrical data: Motor standard: Motor standard: IEC Motor standard: IEC Rated power P2: 4 kW Power (P2) required by pump: 4 kW Power (P2) required by pump: 4 kW Power (P2) required by pump: 4 kW Rated power rep: 3 A 300-415D V Rated speed: 2920-2940 rpm Efficiency: IE 38, 1% Motor efficiency at 1/2 load: 88.6 % Motor efficiency at 1/2 load: 88.6 % Motor efficiency at 1/2 load: 82.2 % Number of po	Position	Qty.	Description	
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Net weight:63.9 kgGross weight:84.5 kgShipping volume:0.257 m³			Others:	
Gross weight: 84.5 kg Shipping volume: 0.257 m ³			Minimum efficiency index, MEI	: 0.57
Shipping volume: 0.257 m ³				63.9 kg
Danish VVS No.: 385912029				
			Danish VVS No.:	385912029

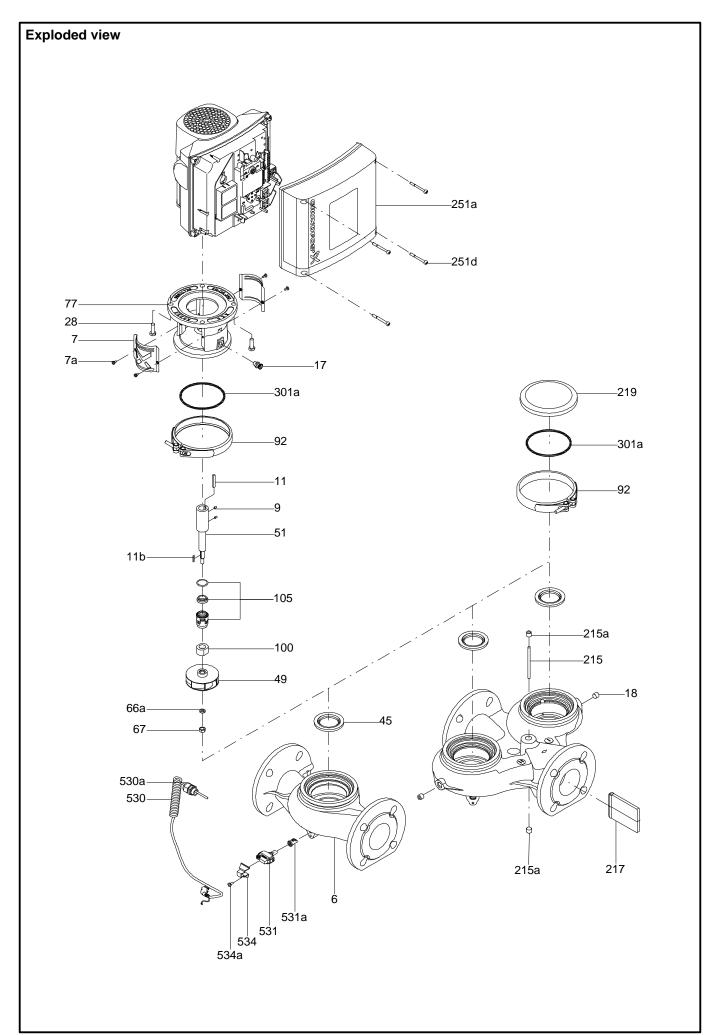


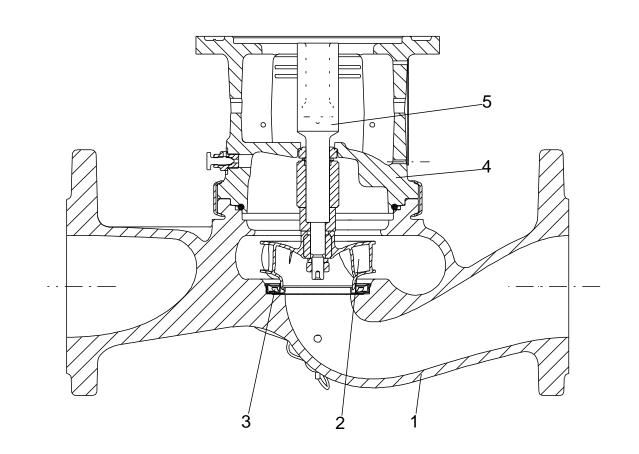
Description	Mahaa	H CRN 5-29, 3*400 V, 50Hz eta
Description	Value	[m] [%]
General information:		
Product name:	CRN 5-29 A-P-A-E-HQQE	220 -
Product No:	On request	
EAN number:	On request	200 - 100
Technical:		180 - 90
Rated flow:	5.8 m³/h	
Rated head:	150.4 m	160 - 80
Stages:	29	
Impellers:	29	140 - 70
impellers.	29	120 60
Number of reduced-diameter impellers	s: 0	
Low NPSH:	N	
Pump orientation:	Vertical	80 - 40
Shaft seal arrangement:	Single	
Code for shaft seal:	HQQE	60 - // 30
Approvals on nameplate:	CE, EAC,ACS	
		40 - //
Curve tolerance:	ISO9906:2012 3B	20 - 10
Pump version:	A	20 - 10
Model:	A	
Materials:		0 1 2 3 4 5 6 7 Q[m³/h]
Base:	Stainless steel	P [kW] [m]
	EN 1.4408	
		5
	AISI 316	
Impeller:	Stainless steel	4- P2 8
	EN 1.4401	
	AISI 316	3-6
Material code:	A	
Code for rubber:	E	2-4
Bearing:	SIC	1-2
Installation:		
Maximum ambient temperature:	60 °C	0
Maximum operating pressure:	25 bar	• •
Max pressure at stated temp:	25 bar / 120 °C	134 1 220
	25 bar / -20 °C	
Type of connection:	PJE	
	-	
Size of inlet connection:	DN 32	
	1 1/4 inch	
Size of outlet connection:	DN 32	
	1 1/4 inch	
Pressure rating for pipe connection:	PN 50	G 1/2 G 1/2
Flange size for motor:	FT130	
Connect code:	Р	
Liquid:		<u>G 1/2</u> 4 × 13
Pumped liquid:	Water	
Liquid temperature range:	-20 120 °C	
Liquid temperature during operation:	20 °C	
Density:	998.2 kg/m ³	
Electrical data:	500.2 kg/m	210
	150	
Motor standard:	IEC	· []
Motor type:	112MC	Y
IE Efficiency class:	IE3	
Rated power - P2:	4 kW	
Power (P2) required by pump:	4 kW	
Mains frequency:	50 Hz	
Rated voltage:	3 x 380-415D V	
Rated current:	7.9 A	
Starting current:	1000-1110 %	
Cos phi - power factor:	0.87-0.87	
Rated speed:	2920-2940 rpm	
Efficiency:	IE3 88,1%	
Motor efficiency at full load:	88.1 %	
Motor efficiency at 3/4 load:	88.6 %	
Motor efficiency at 1/2 load:	85.2 %	
Number of poles:	2	

Description	Value
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	85U15413
Controls:	
Frequency converter:	NONE
Others:	
Minimum efficiency index, MEI :	0.57
Net weight:	63.9 kg
Gross weight:	84.5 kg
Shipping volume:	0.257 m³
Danish VVS No.:	385912029

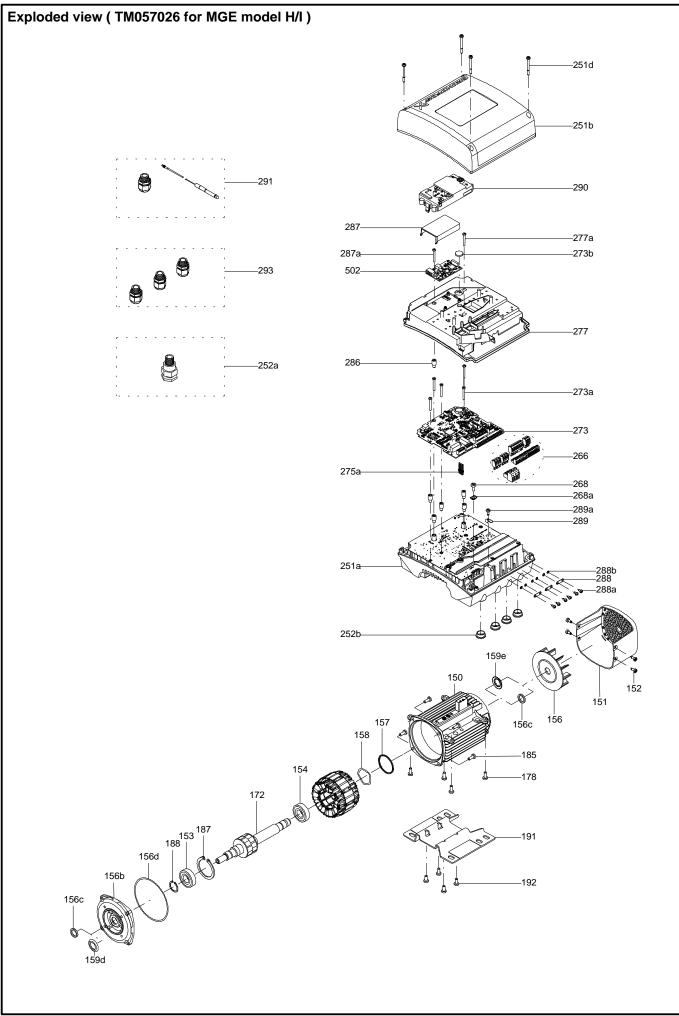








TM058200



Parts list CRN 5-29, Product No. On request Valid from 1.1.2011 (1152)

Pos	Description Motor	Données de classification	 Qua 1		Unit pcs
	Base cpl.		1		pcs
6	Base			1	pus
6 25				1 2	
	Plug			∠ 1	
56	Base plate			I	
05	Sealing parts		1		pcs
25	Drain plug w/bypass valve			1	
38	O-ring	Diameter: 16,3		1	
		Material type: EPDM			
		Thickness: 2,4		_	
37	O-ring			2	
100	O-ring	Diameter: 16,3	2	2	
		Material type: EPDM			
		Thickness: 2,4			
2	Pump head cpl.		1		pcs
2	Pump head			1	
7	Coupling guard		2	2	
7.a	Combi Slot Torx screw		4	4	
18	Air vent screw			1	
	Plug			1	
	Spindle			1	
23a	Plug			1	
28	Hex head screw	Length (mm): 25	4	4	
		Thread: M8			
60	Formed wire spring			1	
77	Pump cover			1	
8	Coupling cpl.		1		pcs
9	Hex socket head cap screw	Designation: DIN 912		4	P
-		Length (mm): 25			
		Thread: M8			
10	Shaft pin	Diameter: 5		1	
10	Chart phi	Length (mm): 26		•	
10a	Coupling half	Longar (min). 20		2	
26	Staybolt	Length (mm): 880	4	<u> </u>	nce
20	Staybolt	Thread: M12	4		pcs
36	Nut	Thread: M12	4		0.00
		Thread. MTZ			pcs
55	Outer sleeve	Designation: DIN 425 42	1		pcs
66a	Washer	Designation: DIN 125 A2	4		pcs
		Internal diameter: 13			
		Outer diameter: 24			
00		Thickness: 2,5			
80	Chamber stack		1		pcs
4	Chamber cpl.		2	22	
	Chamber			1	
45	Neck ring			1	
65	Neck ring retainer			1	
4a	Chamber w. bearing cpl.		(6	
	Chamber			1	
45	Neck ring			1	
65	Neck ring retainer			1	
5a	Chamber cpl.			1	
	Chamber			1	
45	Neck ring			1	
65	Neck ring retainer			1	
36	Lock nut	Thread: M8		1	
47a	Bearing ring, rotating			6	
49	Impeller cpl.			29	
-5 50a	Guide vane			1	
50u				•	

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
	Plate				1	
50b	Top plate				1	
51	Shaft, spline, cpl.				1	
51	Shaft				1	
62	Stop ring				1	
64a	Spacing pipe		Length (mm): 13.00		6	
64c	Clamp, splined		Internal diameter: 8,5		1	
			Outer diameter: 15			
66	Wedge lock washer				1	
69	Spacing pipe		Length (mm): 26.0		22	
69	Spacing pipe		Length (mm): 2.00		1	
105	Shaft seal		Material type: HQQE		1	pcs
	O-ring				1	
	O-ring				1	
	Seal driver, upper				1	
	Seal driver, lower				1	
	Spacer ring				1	
	Pipe				1	
	Plug				1	
	Plug				1	
	Compression spring				1	
	Socket set screw				1	
102	O-ring		Diameter: 22,00		1	
			Material type: EPDM			
			Thickness: 2,75			
103	Seal ring, stationary				1	
105	Seal ring, rotating				1	
107	O-ring				1	
113	Driver				1	

Disclaimer: The information about the Grundfos pump in this document may be outdated. Data may be subject to alterations without further notice. Please contact us to verify the data above is still accurate/up-to-date.

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