

# 3-6CR 90-130-200

## Multi-stage centrifugal pumps

 Clean water

 Domestic use

 Civil use



### PERFORMANCE RANGE

- Flow rate up to **200 l/min** (12 m<sup>3</sup>/h)
- Head up to **97 m**

### APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+40 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure **10 bar**
- Continuous service **S1**

### CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1  
IEC 60335-1  
CEI 61-150

EN 60034-1  
IEC 60034-1  
CEI 2-3



### CERTIFICATIONS

Company with management system certified DNV  
ISO 9001: QUALITY  
ISO 14001: ENVIRONMENT



### INSTALLATION AND USE

Suitable for use with clean water and with liquids that are not chemically aggressive towards the materials from which the pump is made. As a result of their quietness these pumps are widely used in domestic applications such as the distribution of water in combination with small and medium sized pressure tanks, and for the irrigation of gardens and orchards, etc.

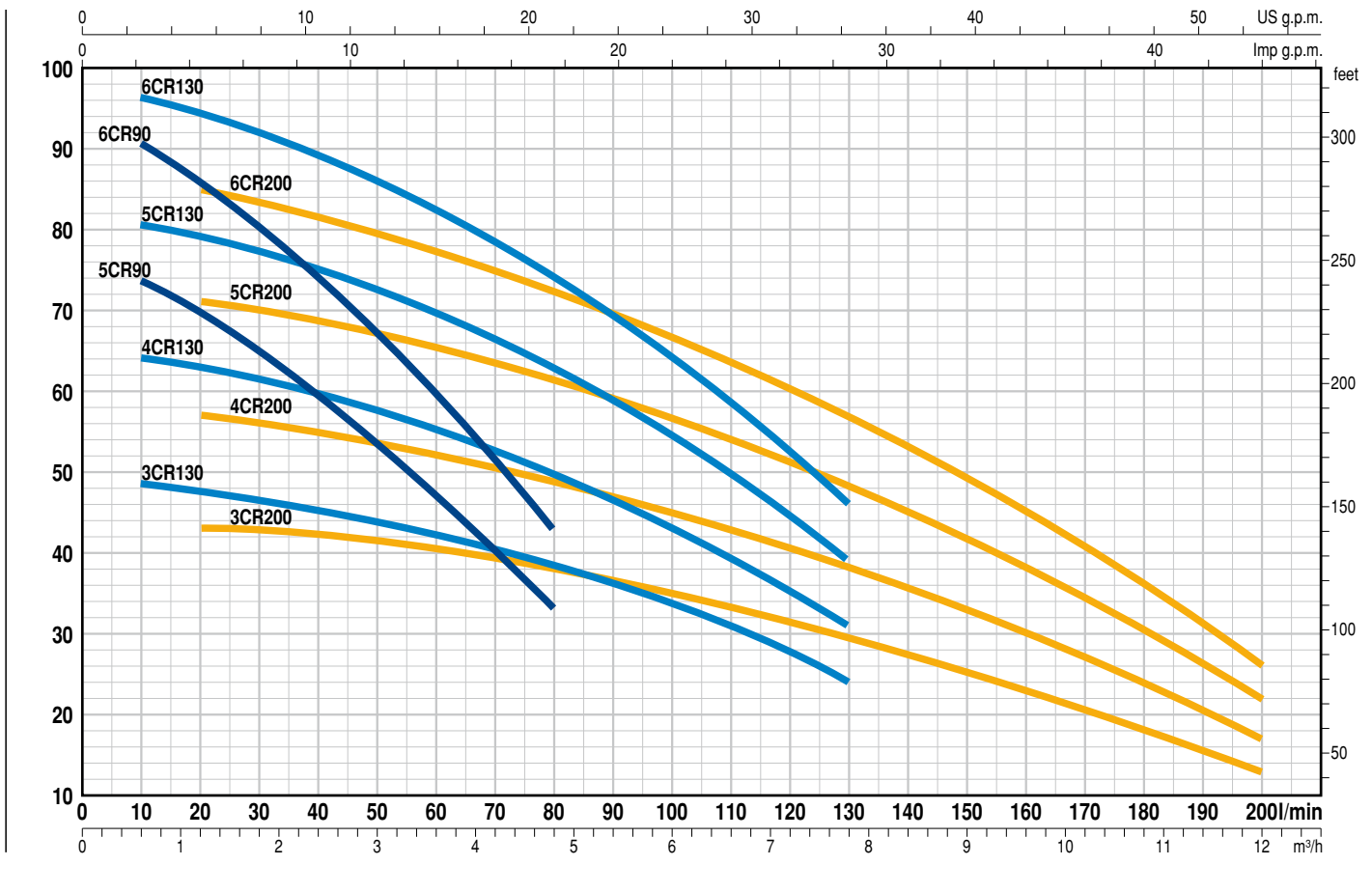
The pump should be installed in an enclosed environment or sheltered from inclement weather.

### PATENTS - TRADE MARKS - MODELS

- Patent n. EP14755156.8

### OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency
- IPX5 class protection



MODEL		POWER (P <sub>2</sub> )		Q	H metres												
Single-phase	Three-phase	kW	HP		m <sup>3</sup> /h	0	0.3	0.6	1.2	2.4	3.6	4.8	6.0	7.8	8.4	9.6	10.8
				l/min	0	5	10	20	40	60	80	100	130	140	160	180	200
5CRm 90	5CR 90	1.1	1.5	IE3	76	76	73.5	70	60.5	47	33						
6CRm 90	6CR 90	1.5	2		93	93	90.5	86	74.5	59.5	43						
3CRm 130	3CR 130	1.1	1.5		49	49	48.5	47.5	45	42.5	38.5	33.5	24				
4CRm 130	4CR 130	1.5	2		65	65	64	63	60	56	50	43	31				
-	5CR 130	1.8	2.5		81	81	80.5	79	75	70	62.5	54	39				
-	6CR 130	2.2	3		97	97	96.5	94.5	90	83	74.5	64	46				
3CRm 200	3CR 200	1.1	1.5		44	43.5	43.5	43	42	40.5	38	35	29	27.5	23	18	13
4CRm 200	4CR 200	1.5	2		58	57.5	57.5	57	55	52.5	49.5	45	38	35.5	30	24	17
-	5CR 200	1.8	2.5		73	72	71.5	71	69	65.5	62	56.5	48	44.5	38	30	22
-	6CR 200	2.2	3		87	86	85.5	85	82	78	73	67	57	53	45	36	26

Q = Flow rate H = Total manometric head HS = Suction height

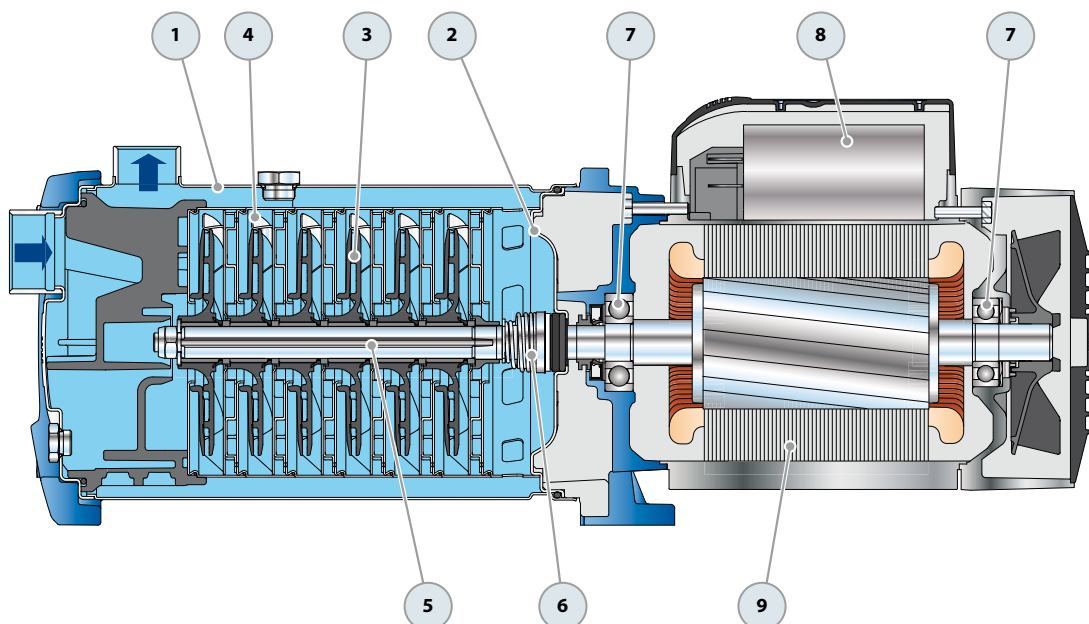
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC 60034-30-1)

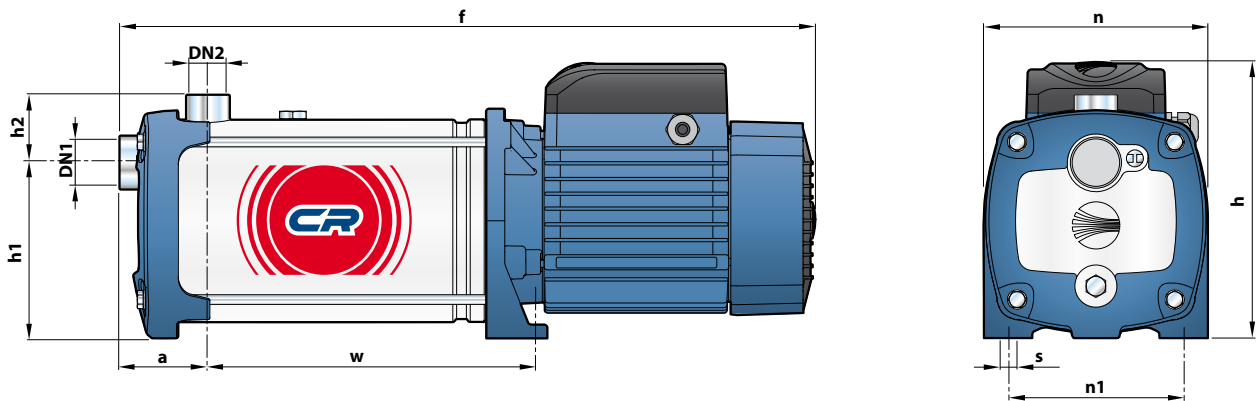
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## POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	<b>PUMP BODY</b>	Stainless steel AISI 304 complete with threaded ports in compliance with ISO 228/1				
2	<b>BODY BACKPLATE</b>	Stainless steel AISI 304				
3	<b>IMPELLERS</b>	Noryl FE1520PW				
4	<b>DIFFUSERS</b>	Stainless steel AISI 304				
5	<b>MOTOR SHAFT</b>	Stainless steel EN 10088-3 - 1.4104				
6	<b>MECHANICAL SEAL</b>	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
		<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		<b>FN-18</b>	<b>Ø 18 mm</b>	Graphite	Ceramic	NBR
7	<b>BEARINGS</b>	<b>6304 2RS - C3 / 6204 ZZ - C3E</b>				
8	<b>CAPACITOR</b>	<i>Pump</i>	<i>Capacitance</i>			
		<i>Single-phase</i>	<i>(220-230 V or 240 V)</i>			
		<b>5CRm90</b>				
		<b>3CRm130</b>	<b>31.5 µF - 450 VL</b>			
		<b>3CRm200</b>				
		<b>6CRm90</b>				
9	<b>ELECTRIC MOTOR</b>	<b>3-6CRm:</b>	single-phase 220-230 V - 50 Hz with thermal overload protector incorporated into the winding.			
		<b>3-6CR:</b>	three-phase 230/400 V - 50 Hz.			
		<b>→ The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)</b>				
		– Insulation: class F – Protection: IP X4				



## DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm									kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	n	n1	w	s	1~	3~
5CRm 90	5CR 90	1 1/4"	1"	73	549	228	145	56	185	145	245	11	19.4	17.6
6CRm 90	6CR 90				575						271		22.7	21.8
3CRm 130	3CR 130				497						193		17.6	15.7
4CRm 130	4CR 130				523						219		19.7	18.7
-	5CR 130				569						245		-	23.7
-	6CR 130				595						271		-	24.5
3CRm 200	3CR 200				497						193		17.6	15.7
4CRm 200	4CR 200				523						219		19.7	18.7
-	5CR 200				569						245		-	23.7
-	6CR 200				295						271		-	24.5

## ABSORPTION

MODEL	VOLTAGE	
Single-phase	220-230 V	240 V
5CRm 90	9.3 A	9.0 A
6CRm 90	11.0 A	10.8 A
3CRm 130	8.5 A	8.3 A
4CRm 130	10.3 A	9.9 A
3CRm 200	8.7 A	8.0 A
4CRm 200	10.5 A	10.1 A

MODEL	VOLTAGE					
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
5CR 90	6.1 A	3.5 A	2.0 A	5.5 A	3.2 A	1.8 A
6CR 90	7.3 A	4.2 A	2.5 A	7.8 A	4.5 A	2.6 A
3CR 130	5.6 A	3.2 A	1.9 A	5.5 A	3.2 A	1.8 A
4CR 130	6.9 A	4.0 A	2.3 A	8.1 A	4.7 A	2.7 A
5CR 130	9.0 A	5.2 A	3.0 A	9.0 A	5.2 A	3.0 A
6CR 130	9.9 A	5.7 A	3.3 A	9.5 A	5.5 A	3.2 A
3CR 200	5.9 A	3.4 A	1.9 A	5.5 A	3.2 A	1.8 A
4CR 200	7.3 A	4.2 A	2.5 A	7.0 A	4.0 A	2.3 A
5CR 200	9.4 A	5.4 A	3.2 A	8.3 A	4.8 A	2.8 A
6CR 200	10.2 A	5.9 A	3.5 A	9.8 A	5.7 A	3.3 A