

2-5CR

Multi-Stage Centrifugal Pumps



2-5CR

Impellers: **Stainless Steel AISI 304**



2-5CR X

Impellers: **Noryl**

 Clean Water

 Residential

 Commercial



PERFORMANCE RANGE

- Flow Rate up to **34 GPM** (130 l/min) (7.8 m³/h)
- Head up to **219 feet** (67 m)

APPLICATION LIMITS

- Maximum Suction Lift up to **22 feet** (7 m)
- Liquid Temperature:
 - between **14°F** (-10°C) and **140°F** (+60°C) per 2-5CR
 - between **14°F** (-10°C) and **104°F** (+40°C) per 2-5CR X
- Ambient Temperature up to **104°F** (+40 °C)
- Maximum Working Pressure **101 psi** (7 bar)
- Continuous Duty Rating **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

FEATURES AND BENEFITS

- Clean water that does not contain abrasive particles
- Liquids that are not chemically aggressive
- Quiet

APPLICATIONS AND MARKETS

- Domestic
- Residential
- Irrigation
- Water Distribution
- Water Well Service
- Pressure Boosting Systems
- OEM Equipment
- Small/Medium Pressure Tanks

OPTIONS AVAILABLE ON REQUEST

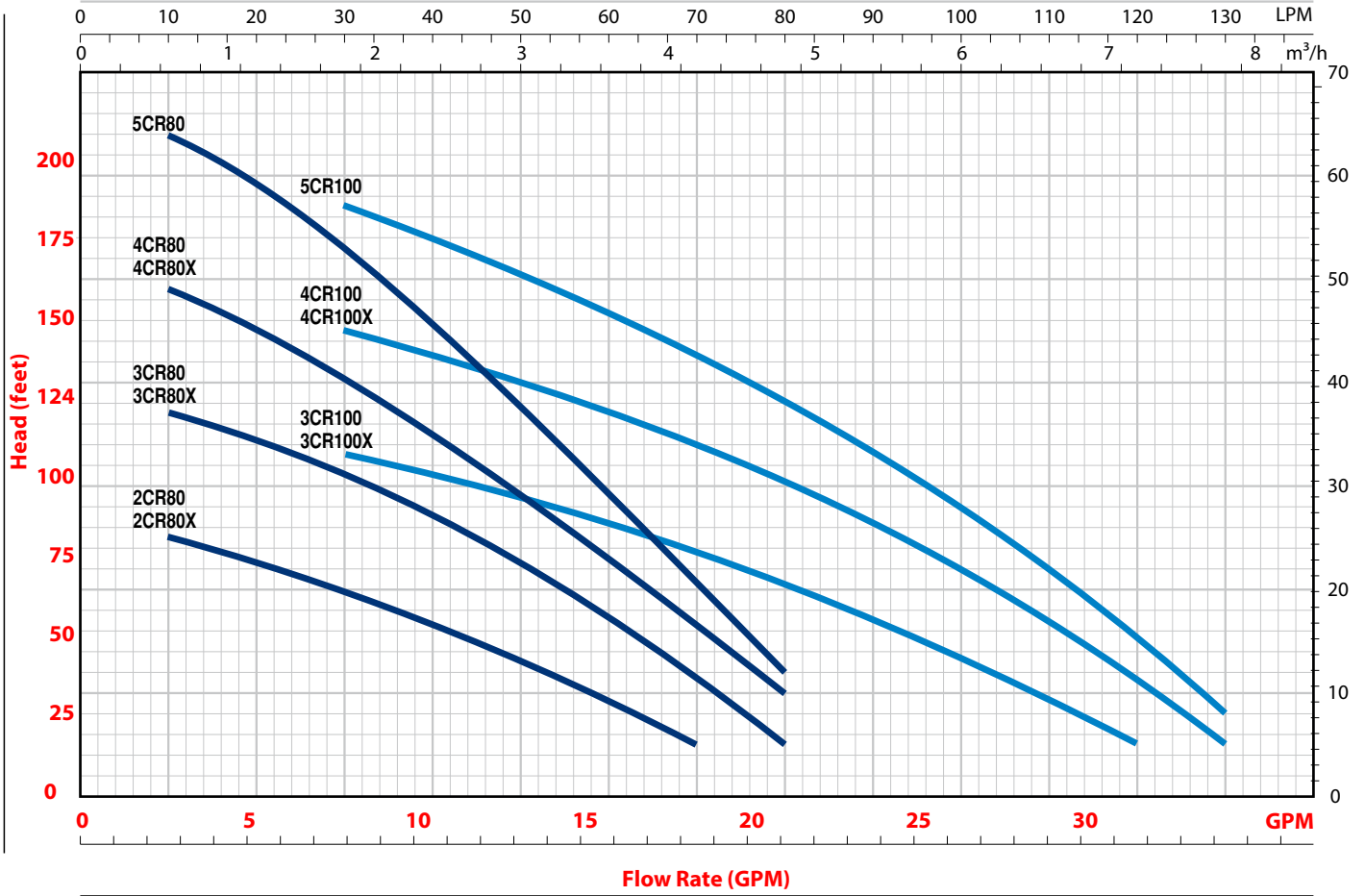
- Pump Body with GAS ANSI B 1.20.1 Threaded Ports
- Special Mechanical Seals
- Other Voltages Available

GUARANTEE

2 YEARS subject to terms and conditions

PERFORMANCE CURVES AND DATA

60 Hz RPM = 3450



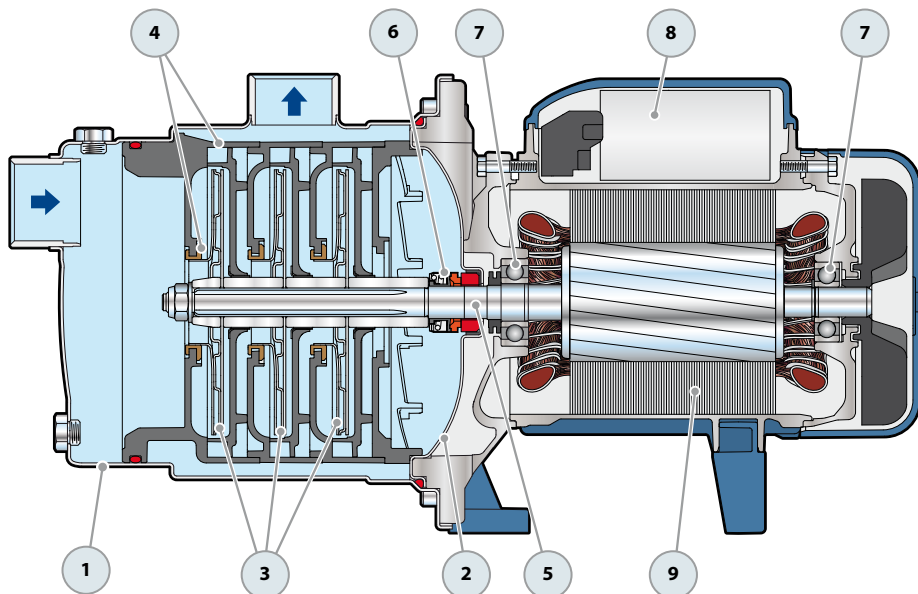
MODEL NUMBER		MOTOR SIZE			LPM	0	5	10	15	20	25	30	40	50	60	70	80	90	100	110	120	130			
Single-phase	Three-phase	kW	HP	EFF	GPM	0	1.3	2.6	3.9	5.3	6.6	7.9	10.6	13.2	15.8	18.5	21.1	23.8	26.4	29.1	31.7	34.3			
2CRm 80	2CR 80	0.37	0.50	IE2	HEAD (feet)	88	85	82	78	73	68	65	54	42	29	16									
2CRm 80X	2CR 80X					131	124	121	118	113	108	101	88	73	55	36	16								
3CRm 80	3CR 80	0.45	0.60			170	164	160	154	145	137	131	111	93	73	52	32								
3CRm 80X	3CR 80X					219	216	209	203	193	183	173	149	123	96	67	39								
4CRm 80	4CR 80	0.55	0.75			124	121	118	114	113	109	108	101	91	85	75	65	55	44	32	16				
4CRm 80X	4CR 80X					164	164	160	157	154	150	147	137	129	121	111	100	86	72	55	36	16			
5CRm 80	5CR 80	0.75	1.00			206	203	201	198	195	190	187	175	165	152	139	124	108	91	72	49	26			
3CRm 100	3CR 100					1.10	1.50	IE3																	
3CRm 100X	3CR 100X																								
4CRm 100	4CR 100																								
4CRm 100X	4CR 100X																								
5CRm 100	5CR 100																								

EFF = Three-phase motor efficiency class (IEC 60034-30-1)

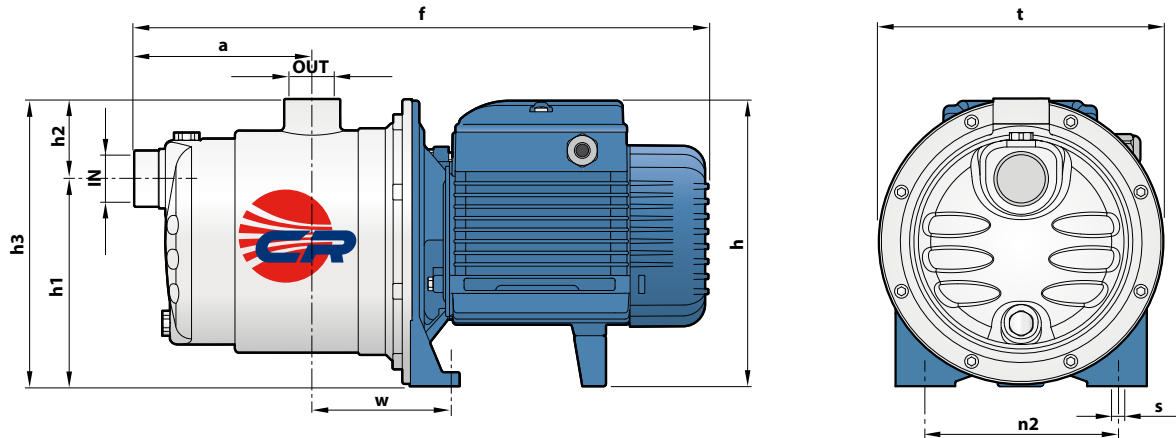
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

NO. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Stainless steel AISI 304 complete with threaded ports in compliance with ISO 228/1				
2	BODY BACKPLATE	Stainless steel AISI 304				
3	IMPELLERS	Stainless steel AISI 304				
4	DIFFUSERS	Noryl complete with anti-wear ring				
5	MOTOR SHAFT	Stainless steel AISI 431				
6	MECHANICAL SEAL	<i>Seal Model</i>	<i>Shaft Diameter</i>	<i>Stationary ring</i>	<i>Materials Rotational ring</i>	<i>Elastomer</i>
		AR-13	Ø 0.5 in	Ceramic	Graphite	NBR
7	BEARINGS	<i>Pump</i>	<i>Model</i>			
		2CR 80	6202 ZZ - C3 / 6201 ZZ			
		3CR 80				
		4CR 80				
		3CR 100	6203 ZZ / 6203 ZZ			
4CR 100						
5CR 80						
5CR 100						
8	CAPACITOR	<i>Pump Single-phase</i>	<i>Capacitance (230 V)</i>	<i>(110 V or 127 V)</i>		
		2CRm 80	10 µF - 450 VL	25 µF - 250 VL		
		3CRm 80	12.5 µF - 450 VL	25 µF - 250 VL		
		4CRm 80	14 µF - 450 VL	25 µF - 250 VL		
		3CRm 100				
		4CRm 100	20 µF - 450 VL	60 µF - 300 VL		
		5CRm 80	20 µF - 450 VL	60 µF - 300 VL		
		5CRm 100	25 µF - 450 VL	60 µF - 300 VL		
9	ELECTRIC MOTOR	<p>2-5CRm: single-phase 220 V - 60 Hz with thermal overload protector incorporated into the winding. 2-5CR: three-phase 220/380 V - 60 Hz or 230/460 V - 60 Hz.</p> <p>→ The three-phase pumps are fitted with high performance motors up to P₂=0.55 kW in class IE2 and from P₂=0.75 kW in class IE3 (IEC 60034-30-1)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS (inches)										Lbs		
Single-phase	Three-phase	IN	OUT	a	f	h	h1	h2	h3	t	n2	w	s	1-PH	3-PH	
2CRm 80	2CR 80	1"	1"	4.4	14.4	7.2	5.2	2.0	7.2	7.1	4.7	3.4	0.3	14.7	14.7	
3CRm 80	3CR 80													16.9	16.9	
4CRm 80	4CR 80			15.4	18.1											
5CRm 80	5CR 80			5.4	16.1	7.9 *								0.4	26.9	25.4
3CRm 100	3CR 100			4.4	14.4	7.2								0.3	18.5	16.9
4CRm 100	4CR 100			5.4	16.1	7.9 *								0.4	24.9	24.7
5CRm 100	5CR 100			5.4	16.1	7.9 *								0.4	26.9	25.4

(*) h = 8.7 in (221 mm) for single-phase versions at 115 V

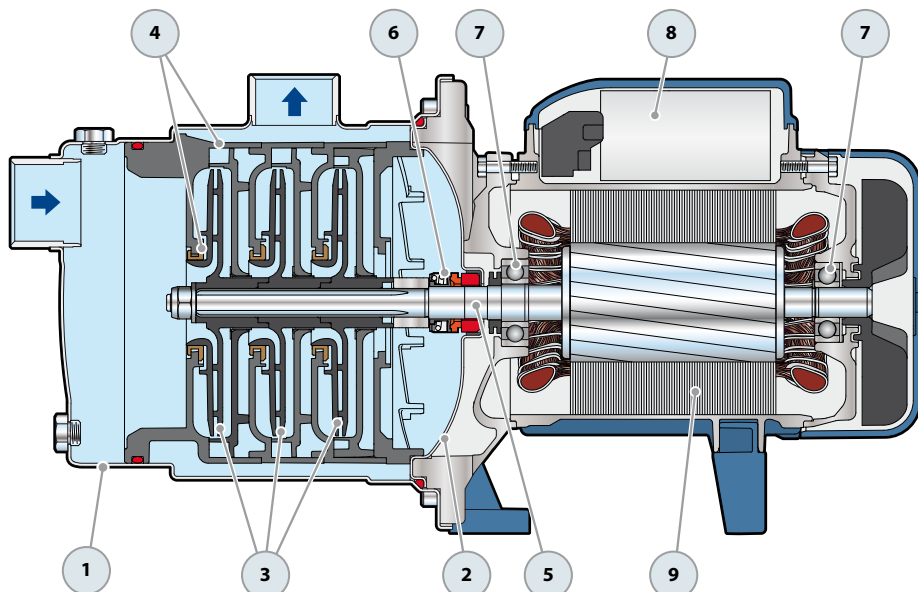
ABSORPTION

MODEL	VOLTAGE		
	230 V	115 V	127 V
Single-phase	230 V	115 V	127 V
2CRm 80	2.5 A	5.0 A	4.3 A
3CRm 80	3.4 A	6.9 A	5.9 A
4CRm 80	4.5 A	9.0 A	7.8 A
5CRm 80	6.0 A	12.0 A	10.4 A
3CRm 100	5.0 A	10.0 A	9.5 A
4CRm 100	6.2 A	12.0 A	10.7 A
5CRm 100	6.6 A	13.2 A	11.4 A

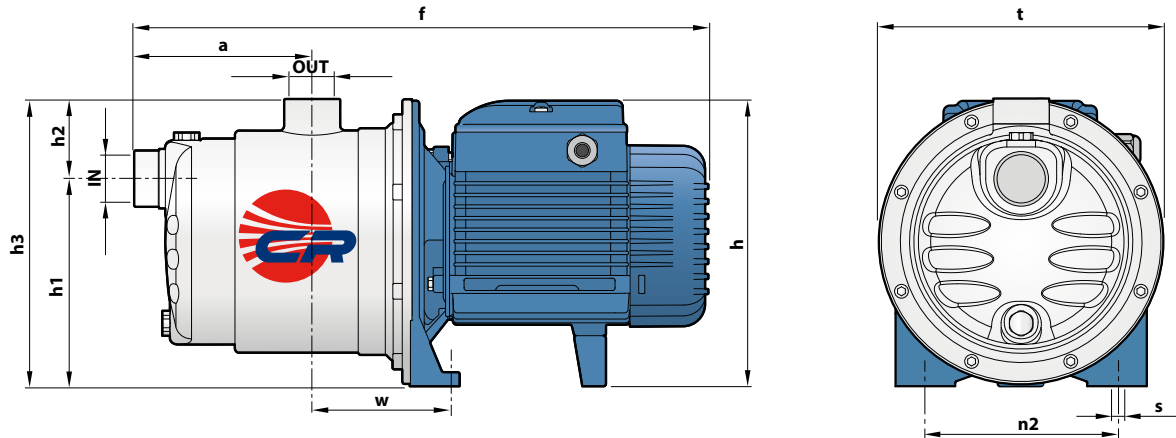
MODEL	VOLTAGE			
	230 V	380 V	230 V	460 V
Three-phase	230 V	380 V	230 V	460 V
2CR 80	1.7 A	1.0 A	1.7 A	1.0 A
3CR 80	2.3 A	1.3 A	2.4 A	1.3 A
4CR 80	3.0 A	1.7 A	2.3 A	1.3 A
5CR 80	5.0 A	2.9 A	4.1 A	2.3 A
3CR 100	3.0 A	1.7 A	2.9 A	1.7 A
4CR 100	4.5 A	2.6 A	4.1 A	2.3 A
5CR 100	4.8 A	2.8 A	4.5 A	2.6 A

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Stainless steel AISI 304 complete with threaded ports in compliance with ISO 228/1					
2	BODY BACKPLATE	Stainless steel AISI 304					
3	IMPELLERS	Noryl					
4	DIFFUSERS	Noryl complete with anti-wear ring					
5	MOTOR SHAFT	Stainless steel AISI 431					
6	MECHANICAL SEAL	<i>Seal Model</i>	<i>Shaft Diameter</i>	<i>Stationary ring</i>	<i>Materials Rotational ring</i>	<i>Elastomer</i>	
		AR-13	Ø 0.5 in	Ceramic	Graphite	NBR	
7	BEARINGS	<i>Pump Model</i>	<i>Model</i>				
		2CR 80X	6202 ZZ - C3 / 6201 ZZ				
		3CR 80X					
		4CR 80X					
3CR 100X	6203 ZZ / 6203 ZZ						
4CR 100X							
8	CAPACITOR	<i>Pump Single-phase</i>	<i>Capacitance</i>		<i>(115 V or 127 V)</i>		
			<i>(230 V)</i>				
		2CRm 80X	10 µF - 450 VL	25 µF - 250 VL			
		3CRm 80X	12.5 µF - 450 VL	25 µF - 250 VL			
		4CRm 80X	14 µF - 450 VL	25 µF - 250 VL			
		3CRm 100X					
4CRm 100X	20 µF - 450 VL	60 µF - 300 VL					
9	ELECTRIC MOTOR	<p>2-5CRm X: single-phase 230 V - 60 Hz with thermal overload protector incorporated into the winding. 2-5CR X: three-phase 220/380 V - 60 Hz or 230/460 V - 60 Hz.</p> <p>→ The three-phase pumps are fitted with high performance motors up to P₂=0.55 kW in class IE2 and from P₂=0.75 kW in class IE3 (IEC 60034-30-1)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 					



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS (inches)										Lbs	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	t	n2	w	s	1-PH	3-PH
2CRm 80X	2CR 80X	1"	1"	4.4	14.4	7.2	5.2	2.0	7.2	7.1	4.7	3.4	0.3	14.1	14.1
3CRm 80X	3CR 80X			5.4	15.4									0.3	15.8
4CRm 80X	4CR 80X			4.4	14.4	7.2								0.3	17.4
3CRm 100X	3CR 100X			5.4	16.1	7.9*							0.4	23.4	23.2
4CRm 100X	4CR 100X														

(*) h = 8.7 in (221 mm) for single-phase versions at 115 V

ABSORPTION

MODEL	VOLTAGE		
	230 V	115 V	127 V
Single-phase			
2CRm 80X	2.5 A	5.0 A	4.3 A
3CRm 80X	3.4 A	6.9 A	5.9 A
4CRm 80X	4.5 A	9.0 A	7.8 A
3CRm 100X	5.0 A	10.0 A	9.5 A
4CRm 100X	6.2 A	12.0 A	10.7 A

MODEL	VOLTAGE			
	230 V	380 V	230 V	460 V
Three-phase				
2CR 80X	1.7 A	1.0 A	1.7 A	1.0 A
3CR 80X	2.3 A	1.3 A	2.4 A	1.3 A
4CR 80X	3.0 A	1.7 A	2.3 A	1.3 A
3CR 100X	3.0 A	1.7 A	2.9 A	1.7 A
4CR 100X	4.5 A	2.6 A	4.1 A	2.3 A