

-  Clean water
-  Civil use
-  Agricultural use
-  Industrial use



### PERFORMANCE RANGE

- Flow rate up to **900 l/min** (54 m<sup>3</sup>/h)
- Head up to **106 m**

### APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Max. working pressure **11 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 reliability and the fact that they are easy to use, these pumps are widely used in civil, agricultural and industrial applications such as for supplying water, in air conditioning and cooling systems, for irrigation, etc. The pump should be installed in an enclosed environment or sheltered from inclement weather.

### PATENTS - TRADE MARKS - MODELS

- Registered EU Design n. 002098434 for CP 160, CP 210, CP 750-N
- Registered Italian model n. 72753 for CP 680, CP 700

### OPTIONS AVAILABLE ON REQUEST

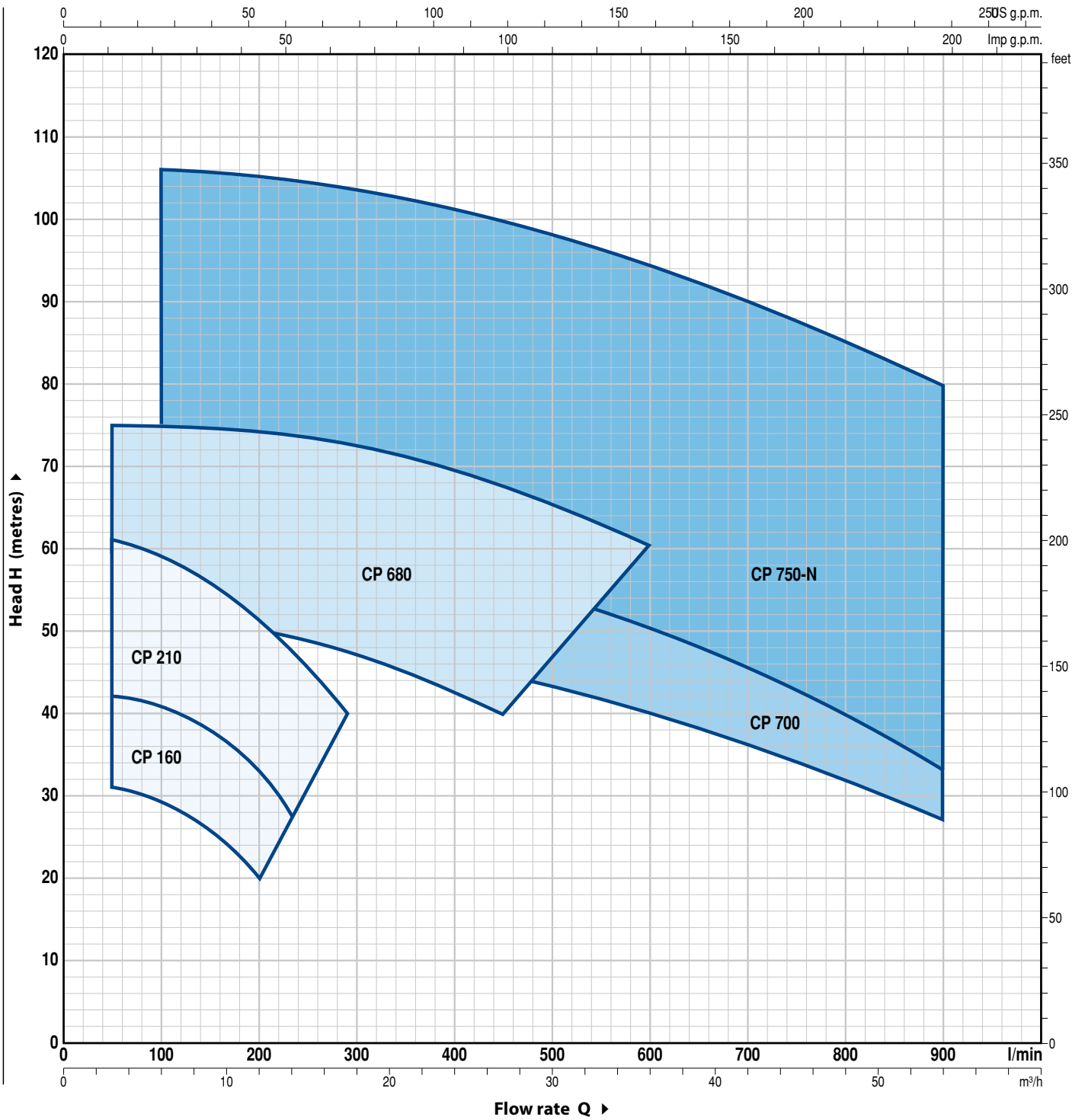
- Special mechanical seal
- EN 10088-3 - 1.4401 (AISI 316) stainless steel pump shaft for CP 680, CP 700, 750
- Other voltages
- IP X5 class protection for CP 160

### GUARANTEE

2 years subject to terms and conditions

**PERFORMANCE RANGE**

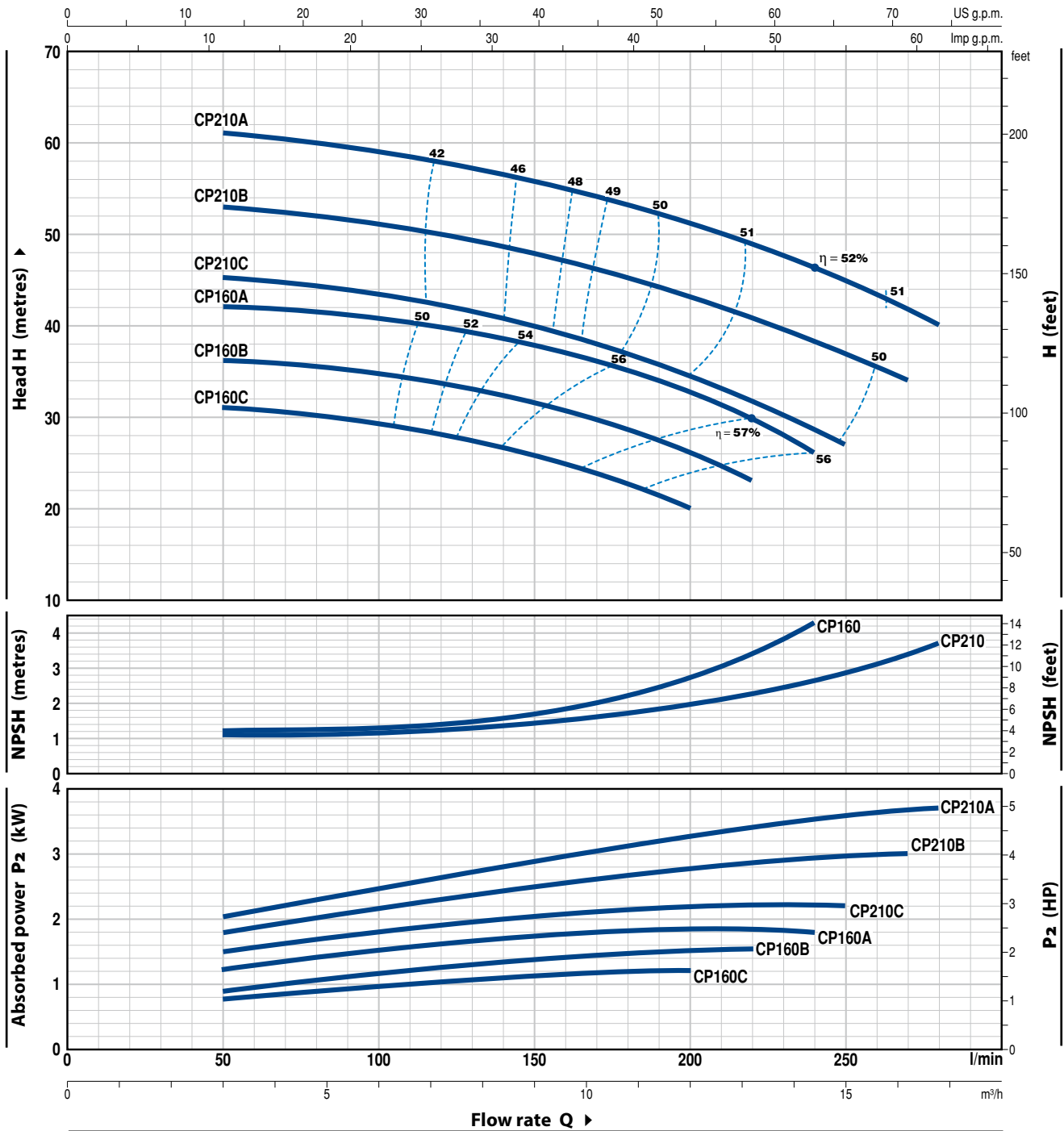
**60 Hz n = 3450 min<sup>-1</sup> HS = 0 m**



# CP 160-210

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

60 Hz n = 3450 min<sup>-1</sup> HS = 0 m



MODEL		POWER (P <sub>2</sub> )			Q	Flow rate Q															
Single-phase	Three-phase	kW	HP	▲		0	3	4.5	6	7.5	9	10.5	12	13.2	14.4	15	16.2	16.8			
					0	50	75	100	125	150	175	200	220	240	250	270	280				
CPm 160C	CP 160C	1.1	1.5	IE2	H metres	32	31	30.5	29.5	28	26	23	20								
CPm 160B	CP 160B	1.5	2			37	36	35.5	34.5	33.5	31.5	29	26.5	23							
-	CP 160A	2.2	3			43	42	41.5	40.5	39.5	38	35.5	33	30	26						
CPm 210C	CP 210C	2.2	3	IE3		46	45.5	44.5	43.5	42	40	37.5	34.5	32	28.5	27					
-	CP 210B	3	4			54	53	52	51	49.5	48	45.5	43	40	38.5	37	34				
-	CP 210A	4	5.5			61	61	60	59	57.5	56	53.5	51	49	46.5	45	42	40			

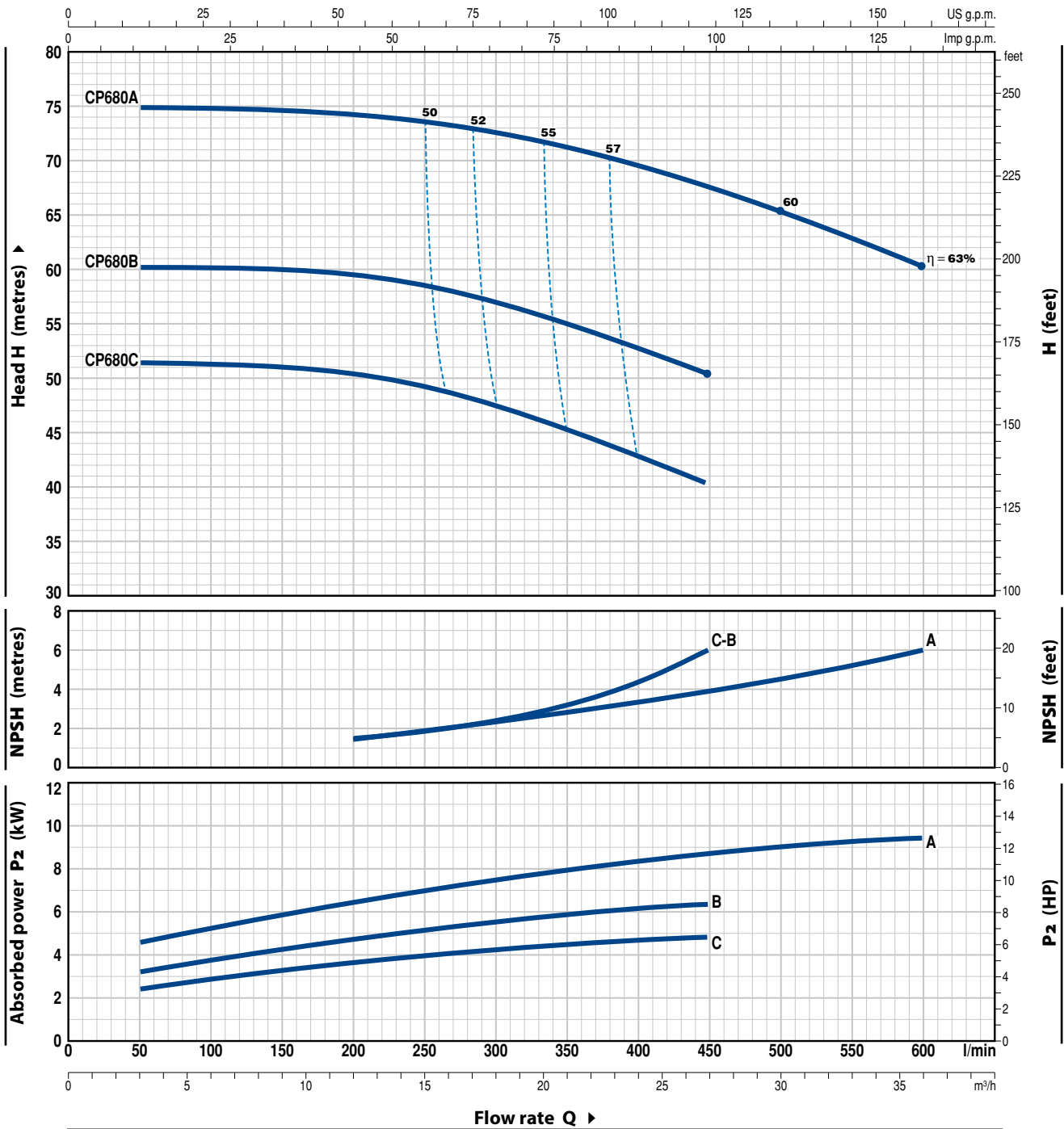
Q = Flow rate H = Total manometric head HS = Suction height

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

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

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

60 Hz n = 3450 min<sup>-1</sup> HS = 0 m



MODEL		POWER (P <sub>2</sub> )		▲	Q	m <sup>3</sup> /h													
Single-phase	Three-phase	kW	HP			0	3	6	9	12	15	18	21	24	27	30	33	36	
CPm 680C	CP 680C	4	5.5	IE3	H metres	0	50	100	150	200	250	300	350	400	450	500	550	600	
-	CP 680B	5.5	7.5			52	51.5	51	50.8	50.3	49	47.5	45	43	40				
-	CP 680A	7.5	10			61	60.5	60	59.5	59	58.5	57	55	52.5	50				
						75	75	74.5	74.3	74	73.5	72.5	71	68.5	67.3	65	62.8	60	

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

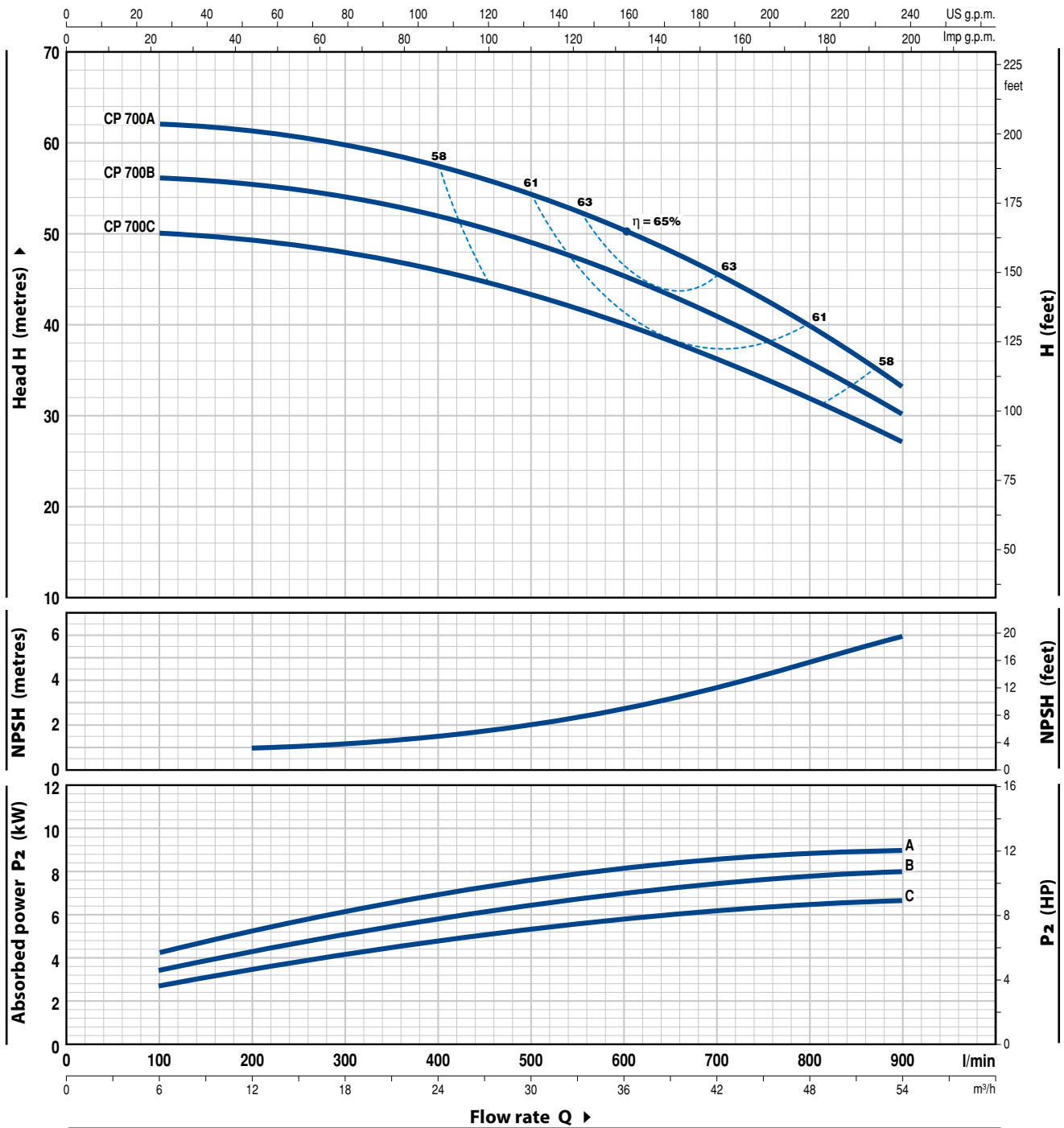
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

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

# CP 700

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

60 Hz n = 3450 min<sup>-1</sup> HS = 0 m



MODEL	POWER (P <sub>2</sub> )		▲	Q	Flow rate Q												
	kW	HP			0	6	12	18	24	30	36	42	48	54			
Three-phase					0	100	200	300	400	500	600	700	800	900			
CP 700C	5.5	7.5	IE3	H metres	51	50	49.5	48	46	43.5	40	36.5	32	27			
CP 700B	7.5	10			56	56	55.5	54	52	49	45.5	41	36	30			
CP 700A	9	12.5			62	62	61.5	60	57.5	54.5	50.5	45.5	39.5	33			

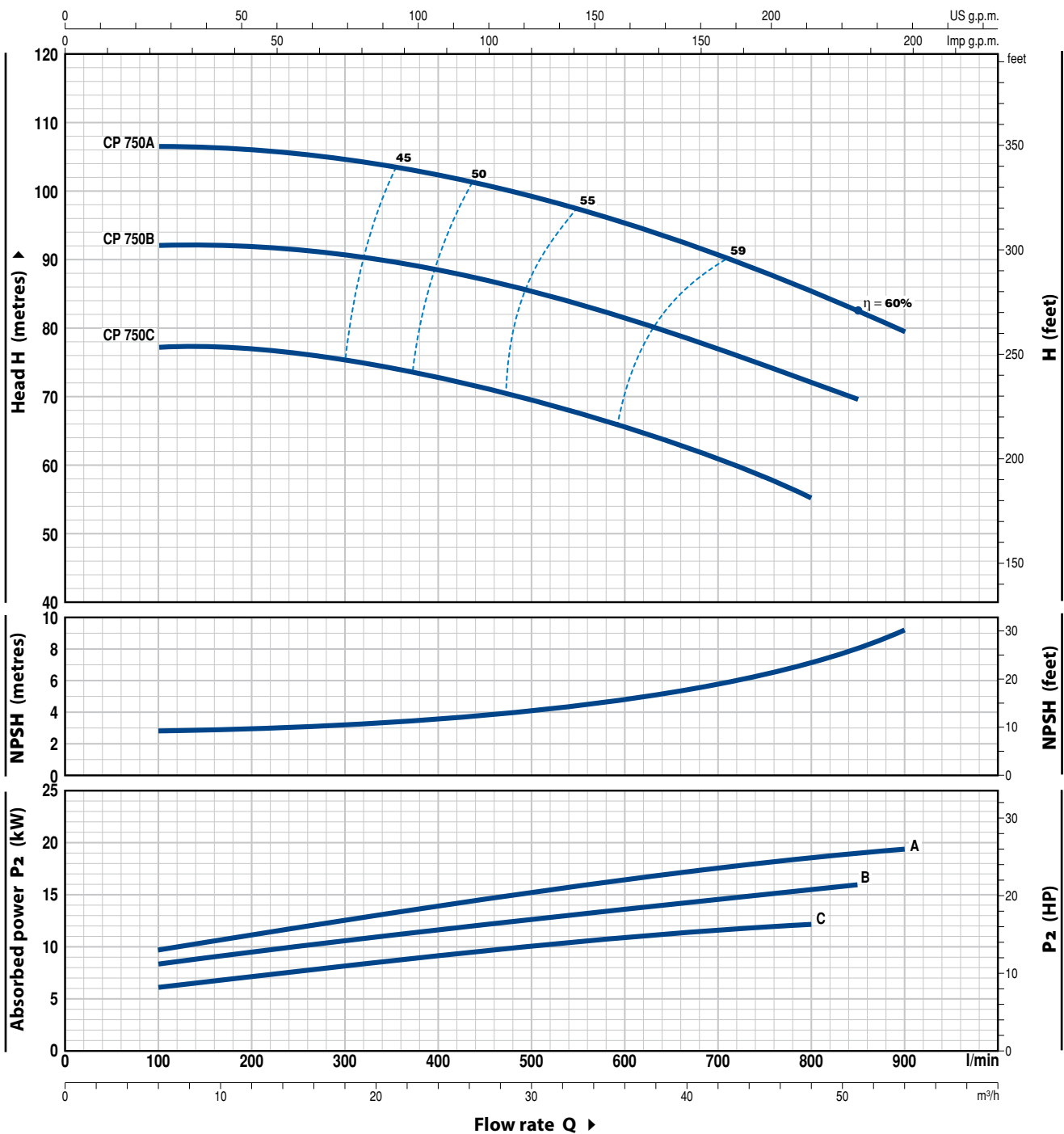
Q = Flow rate H = Total manometric head HS = Suction height

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

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

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

60 Hz n = 3450 min<sup>-1</sup> HS = 0 m



MODEL	POWER (P <sub>2</sub> )		▲	Q	Flow rate												
	kW	HP			0	6	12	18	24	30	36	42	48	51	54		
Three-phase				l/min	0	100	200	300	400	500	600	700	800	850	900		
CP 750C-N	11	15	IE3	H metres	77.3	77.3	77.2	75.5	72.5	69.3	65.5	61.2	55.1				
CP 750B-N	15	20		92	92	92	90.8	88.5	85.2	81.2	77	72.3	69.5				
CP 750A-N	18.5	25		106.6	106.6	106	105	102.5	99.5	95.5	91	85.5	83	79.6			

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

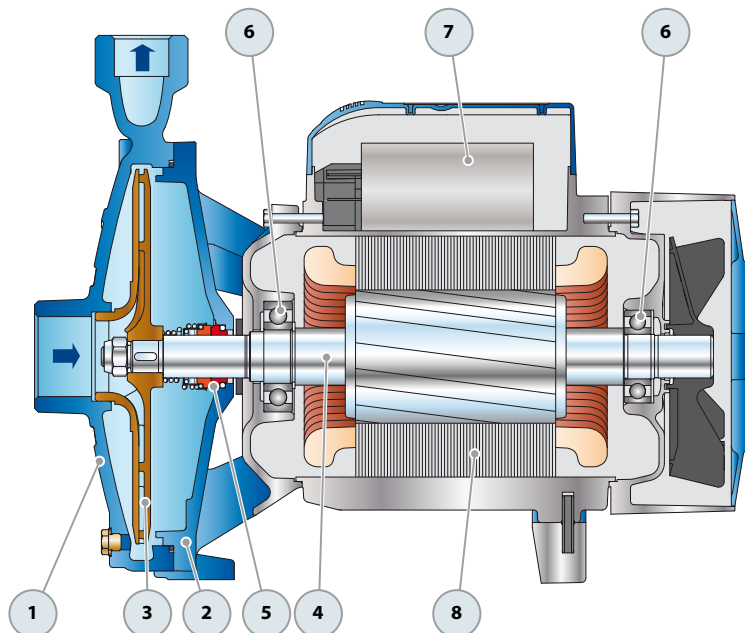
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

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

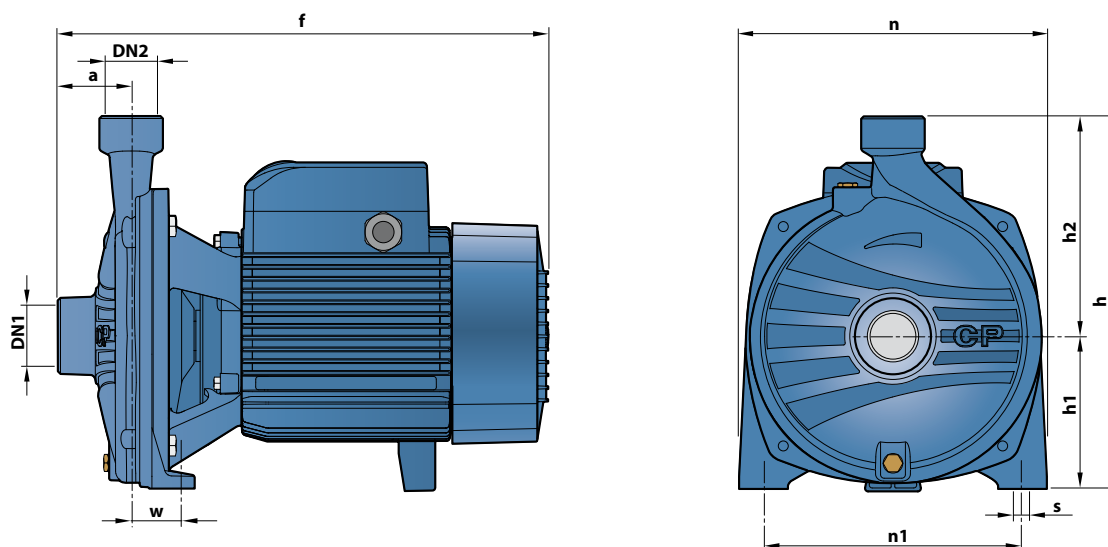
# CP 160-210

## POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	<b>PUMP BODY</b>	Cast iron complete with threaded ports in compliance with ISO 228/1					
2	<b>BODY BACKPLATE</b>	Cast iron					
3	<b>IMPELLER</b>	Brass					
4	<b>MOTOR SHAFT</b>	Stainless steel EN 10088-3 - 1.4104					
5	<b>MECHANICAL SEAL</b>	<i>Pump</i>	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
		<i>Model</i>	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		CP 160	FN-18	Ø 18 mm	Graphite	Ceramic	NBR
CP 210	FN-24	Ø 24 mm	Graphite	Ceramic	NBR		
6	<b>BEARINGS</b>	<i>Pump</i>	<i>Model</i>				
		CP 160	6204 ZZ / 6204 ZZ				
		CP 210	6206 ZZ - C3 / 6205 ZZ				
7	<b>CAPACITOR</b>	<i>Pump</i>	<i>Capacitance</i>				
		<i>Single-phase</i>	(220 V)	(110 V or 127 V)			
		CPm 160C	31.5 µF - 450 VL	60 µF - 250 VL			
		CPm 160B	45 µF - 450 VL	80 µF - 250 VL			
		CPm 210C	70 µF - 450 VL	-			
8	<b>ELECTRIC MOTOR</b>	<b>CPm:</b> single-phase 220 V - 60 Hz with thermal overload protector incorporated into the winding (up to 1.5 kW).					
		<b>CP:</b> three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz.					
		⇒ <b>The three-phase pumps are fitted with high performance motors up to P2=1.1kW in class IE2 and from P2=1.5kW 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~
CPm 160C	CP 160C	1½"	1"	54	373	260	110	150	207	165	44.5	11	19.7	17.7
CPm 160B	CP 160B												21.0	21.0
-	CP 160A												-	21.0
CPm 210C	CP 210C			60	402	305	125	180	252	210	39.5	11	26.0	27.5
-	CP 210B												-	30.0
-	CP 210A												-	32.0

## ABSORPTION

MODEL	VOLTAGE		
	220 V	110 V	127 V
Single-phase	220 V	110 V	127 V
CPm 160C	9.0 A	18.0 A	16.5 A
CPm 160B	10.5 A	21.0 A	19.3 A
CPm 210C	15.0 A	-	-

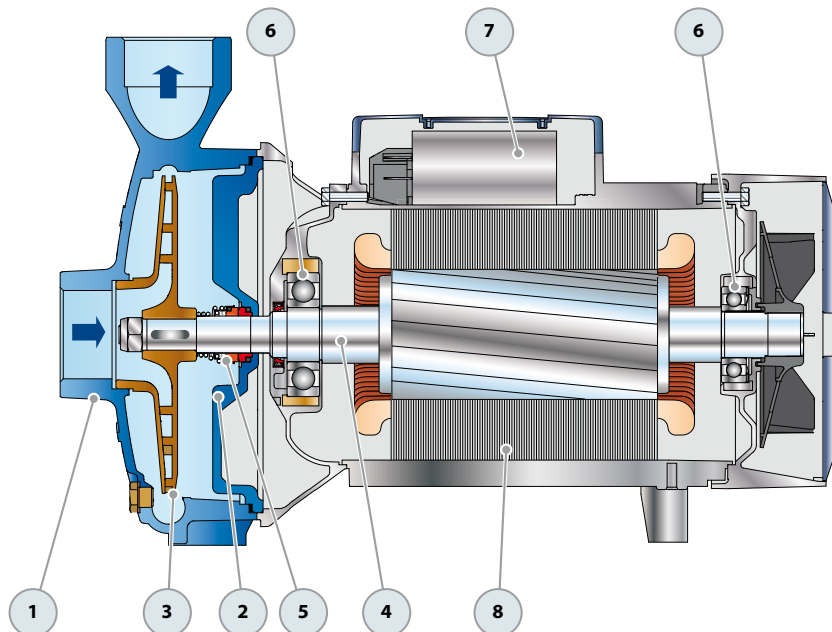
MODEL	VOLTAGE			
	220 V	380 V	220 V	440 V
Three-phase	220 V	380 V	220 V	440 V
CP 160C	6.1 A	3.5 A	5.5 A	3.0 A
CP 160B	6.9 A	4.0 A	6.9 A	3.7 A
CP 160A	9.5 A	5.5 A	9.2 A	4.9 A
CP 210C	9.0 A	5.1 A	8.6 A	4.8 A
CP 210B	13.0 A	7.5 A	11.5 A	6.0 A
CP 210A	18.2 A	10.5 A	16.0 A	9.0 A



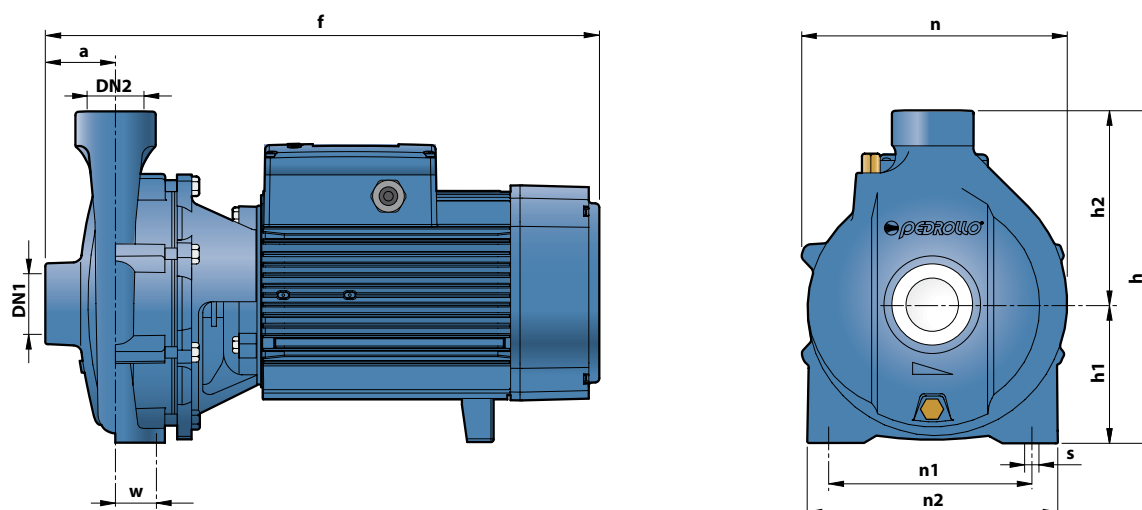
# CP 680-700-750

## POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	<b>PUMP BODY</b>	Cast iron complete with NPT ANSI B 1.20.1 threaded ports					
2	<b>BODY BACKPLATE</b>	Cast iron					
3	<b>IMPELLER</b>	Brass for CP 680, CP 700 Cast iron for CP 750-N					
4	<b>MOTOR SHAFT</b>	Stainless steel EN 10088-3 - 1.4104					
5	<b>MECHANICAL SEAL</b>	<i>Pump</i>	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
		<i>Model</i>	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		CP 680	FN-24	Ø 24 mm	Graphite	Ceramic	NBR
		CP 700					
CP 750-N	FN-32 NU	Ø 32 mm	Graphite	Ceramic	NBR		
6	<b>BEARINGS</b>	<i>Pump</i>	<i>Model</i>				
		CP 680	6307 ZZ - C3 / 6206 ZZ - C3				
		CP 700					
		CP 750-N					
7	<b>CAPACITOR</b>	<i>Pump</i>	<i>Capacitance</i>				
		<i>Single-phase</i>	<i>(220 V)</i>				
		CPm 680C	90 µF - 450 VL				
8	<b>ELECTRIC MOTOR</b>	<p>CPm: single-phase 220 V - 60 Hz.            CP: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz.</p> <p>⇒ <b>The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)</b></p> <ul style="list-style-type: none"> <li>- Insulation: class F</li> <li>- Protection: IP X5</li> </ul>					



## DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm										kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	n	n1	n2	w	s	1~	3~
<b>CPm 680C</b>	<b>CP 680C</b>	2"	2"	70	505/460	328	136	192	273	190	250	40	14	<b>47.0</b>	<b>42.0</b>
-	<b>CP 680B</b>				-									<b>47.0</b>	
-	<b>CP 680A</b>				-									<b>51.0</b>	
-	<b>CP 700C</b>				-									<b>47.0</b>	
-	<b>CP 700B</b>			-	<b>51.0</b>										
-	<b>CP 700A</b>			-	<b>51.5</b>										
-	<b>CP 750C-N</b>			65	571	392	160	232	322	230	294	45	14	-	<b>103.0</b>
-	<b>CP 750B-N</b>				666									-	<b>120.0</b>
-	<b>CP 750A-N</b>				-									<b>135.6</b>	

## ABSORPTION

MODEL	VOLTAGE
Single-phase	220 V
<b>CPm 680C</b>	<b>28.0 A</b>

MODEL	VOLTAGE			
	220 V	380 V	220 V	440 V
<b>Three-phase</b>				
<b>CP 680C</b>	<b>20.5 A</b>	<b>12.0 A</b>	<b>18.3 A</b>	<b>10.6 A</b>
<b>CP 680B</b>	<b>25.1 A</b>	<b>14.5 A</b>	<b>21.8 A</b>	<b>12.6 A</b>
<b>CP 680A</b>	<b>34.6 A</b>	<b>20.0 A</b>	<b>32.0 A</b>	<b>18.5 A</b>
<b>CP 700C</b>	<b>27.7 A</b>	<b>16.0 A</b>	<b>23.5 A</b>	<b>13.6 A</b>
<b>CP 700B</b>	<b>33.8 A</b>	<b>19.5 A</b>	<b>28.2 A</b>	<b>16.7 A</b>
<b>CP 700A</b>	<b>34.7 A</b>	<b>20.0 A</b>	<b>29.8 A</b>	<b>17.5 A</b>
<b>CP 750C-N</b>	<b>41.2 A</b>	<b>23.8 A</b>	<b>41.2 A</b>	<b>23.8 A</b>
<b>CP 750B-N</b>	<b>52.8 A</b>	<b>30.5 A</b>	<b>52.0 A</b>	<b>27.0 A</b>
<b>CP 750A-N</b>	<b>62.6 A</b>	<b>36.2 A</b>	<b>65.0 A</b>	<b>34.0 A</b>