

CP

Centrifugal pumps

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



PERFORMANCE RANGE

- Flow rate up to **900 l/min** (54 m³/h)
- Head up to **107 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 **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

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. Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

PATENTS - TRADE MARKS - MODELS

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

OPTIONS AVAILABLE ON REQUEST

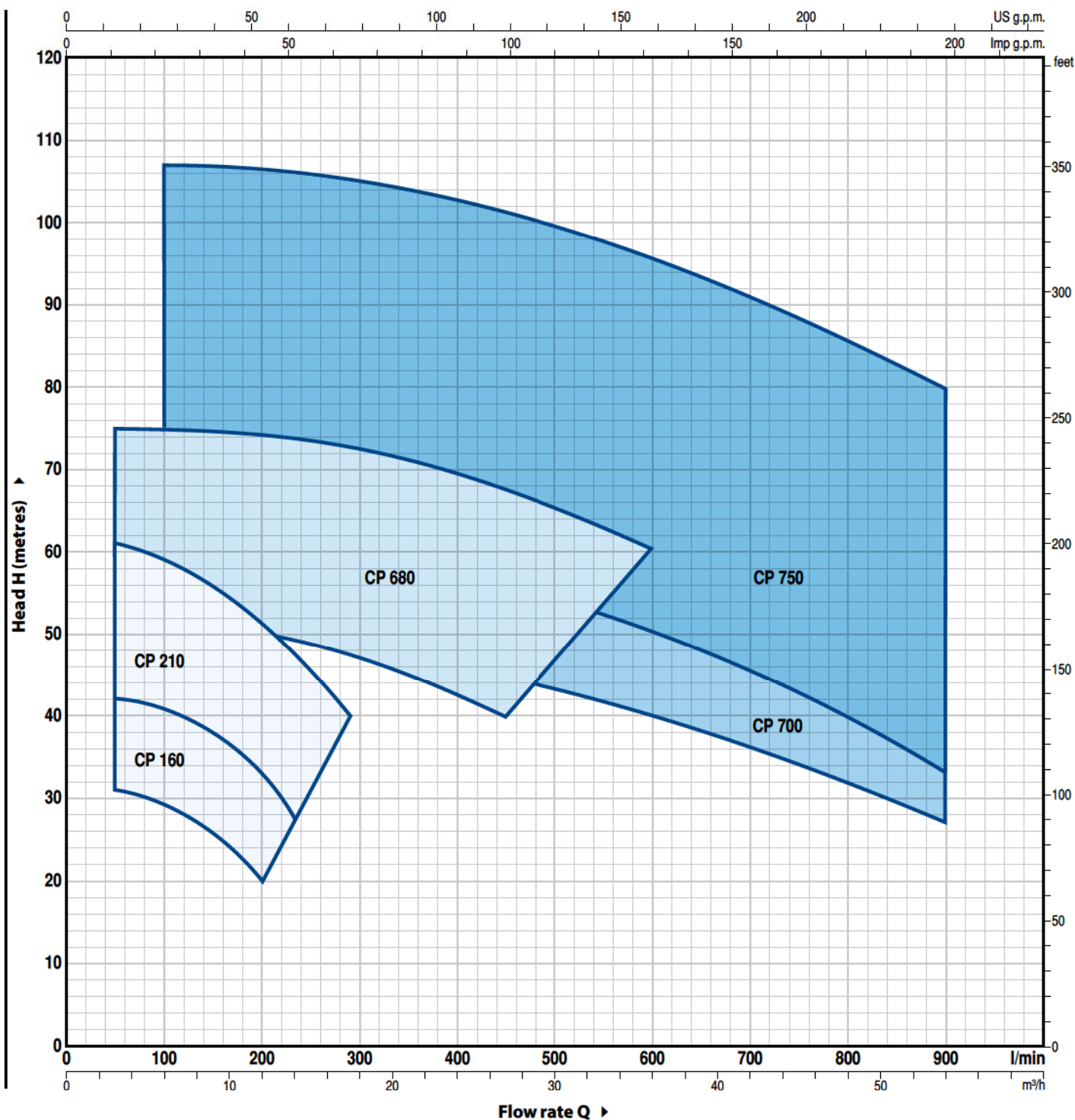
- Special mechanical seal
- EN 10088-3 - 1.4401 (AISI 316) stainless steel pump shaft for CP 680, CP 700, CP 750
- Other voltages
- IP X5 class protection for CP 160

GUARANTEE

2 years subject to terms and conditions

PERFORMANCE RANGE

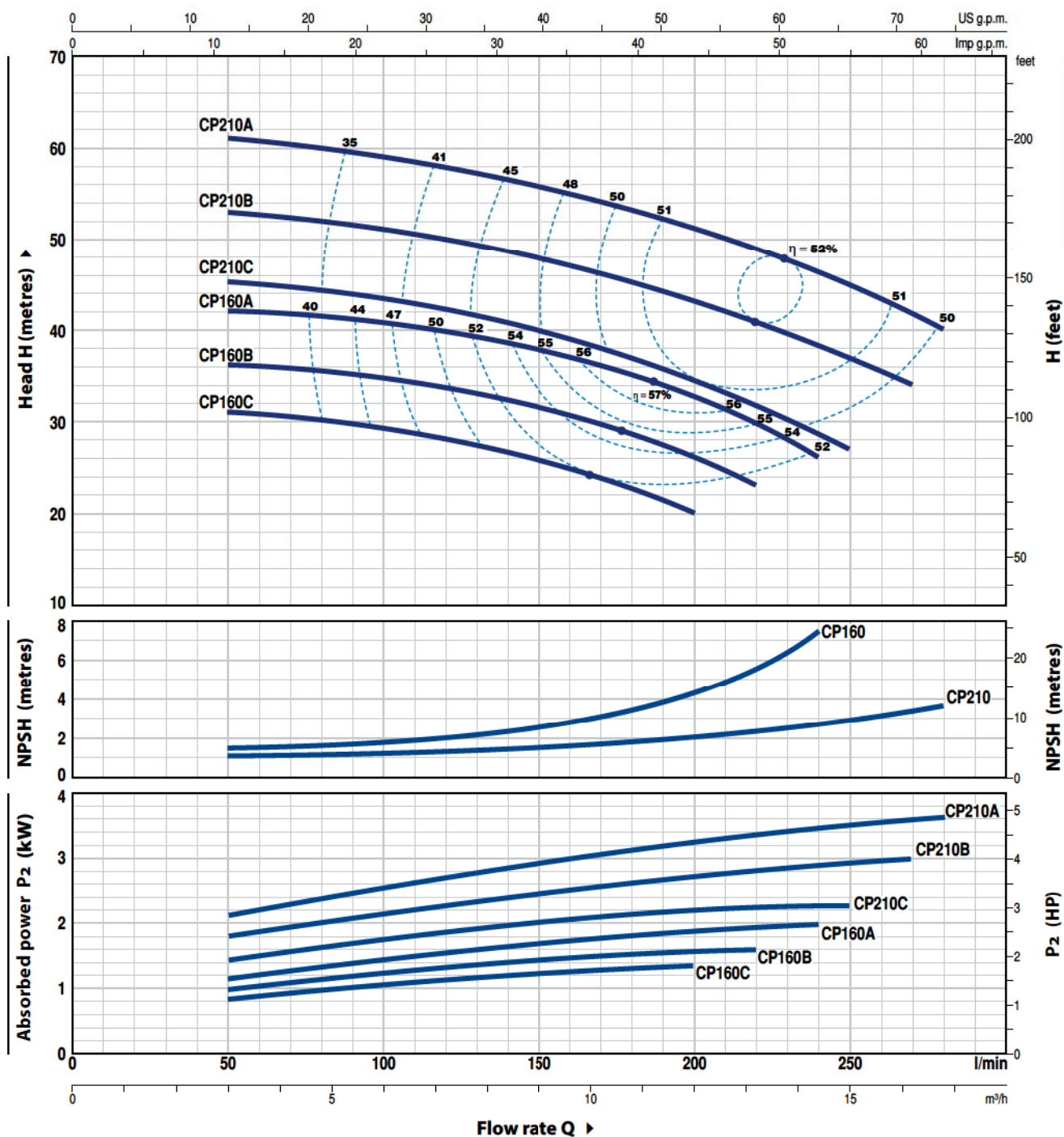
60 Hz n= 3450 min⁻¹ HS= 0 m



CP 160-210

CHARACTERISTIC CURVES AND PERFORMANCE DATA

60 Hz n = 3450 min⁻¹ HS = 0 m



MODEL		POWER (P ₂)		▲	Q														
Single-phase	Three-phase	kW	HP			m³/h	0	3	4.5	6	7.5	9	10.5	12	13.2	14.4	15	16.2	16.8
						l/min	0	50	75	100	125	150	175	200	220	240	250	270	280
CPm 160C	CP 160C	1.1	1.5	IE3	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				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.

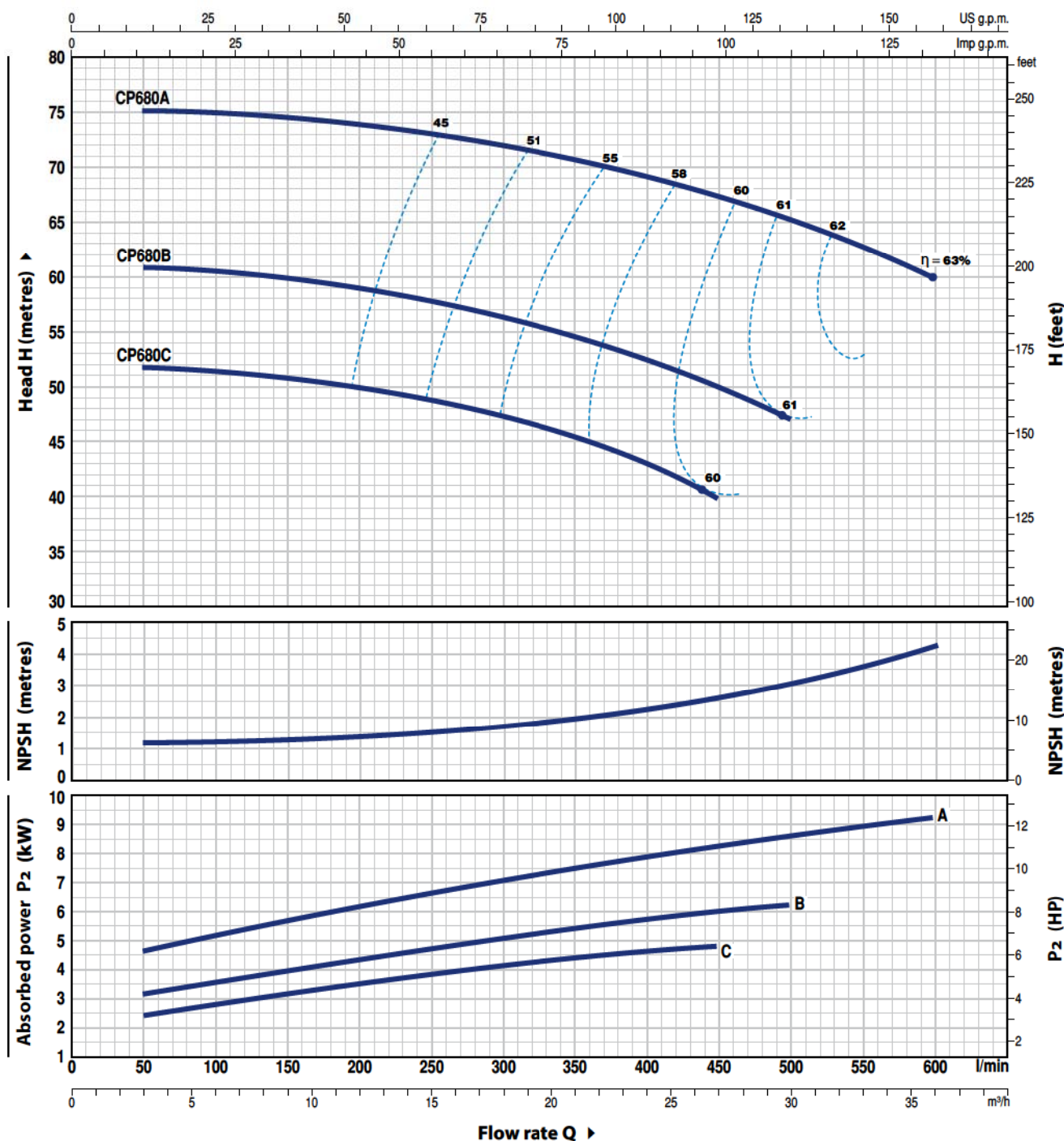
▲ Three-phase motor efficiency class (IEC 60034-30-1)

CP 680



CHARACTERISTIC CURVES AND PERFORMANCE DATA

60 Hz n = 3450 min⁻¹ HS = 0 m



MODEL		POWER (P ₂)		▲	Q														
Single-phase	Three-phase	kW	HP			m³/h	0	3	6	9	12	15	18	21	24	27	30	33	36
CPm 680C	CP 680C	4	5.5	IE3	H metres	l/min	0	50	100	150	200	250	300	350	400	450	500	550	600
-	CP 680B	5.5	7.5				52	51.5	51	50.5	50	49	47.5	45.5	43	40			
-	CP 680A	7.5	10				61	60.5	60	59.5	59	58	56.5	54.5	52.5	50	47		
							75	75	75	74.5	74	73	72	71	68.5	67.5	65	63	60

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

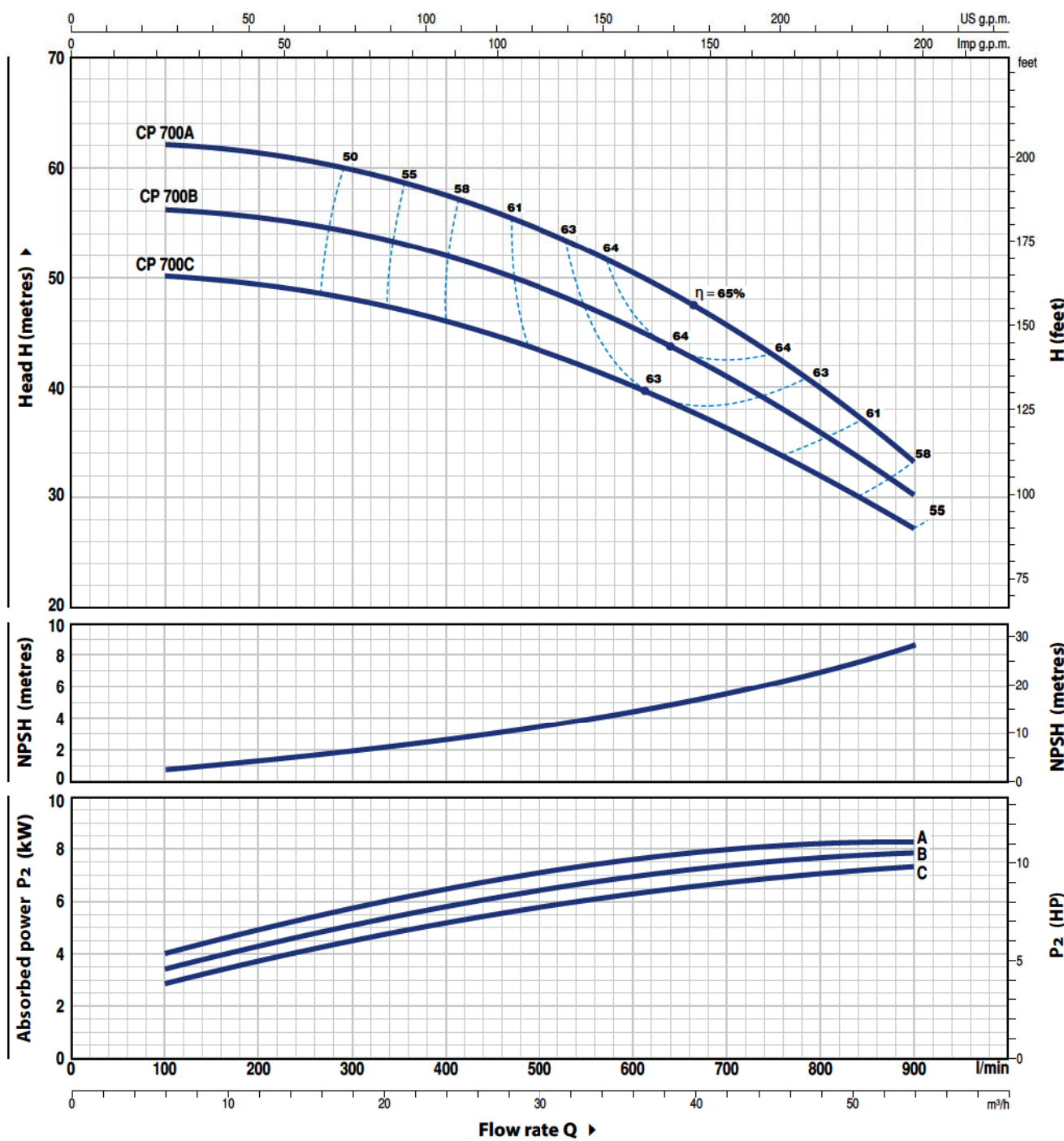
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

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

CP 700

CHARACTERISTIC CURVES AND PERFORMANCE DATA

60 Hz n = 3450 min⁻¹ HS = 0 m



MODEL	POWER (P ₂)			Q	0	6	12	18	24	30	36	42	48	54
	kW	HP	▲		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.

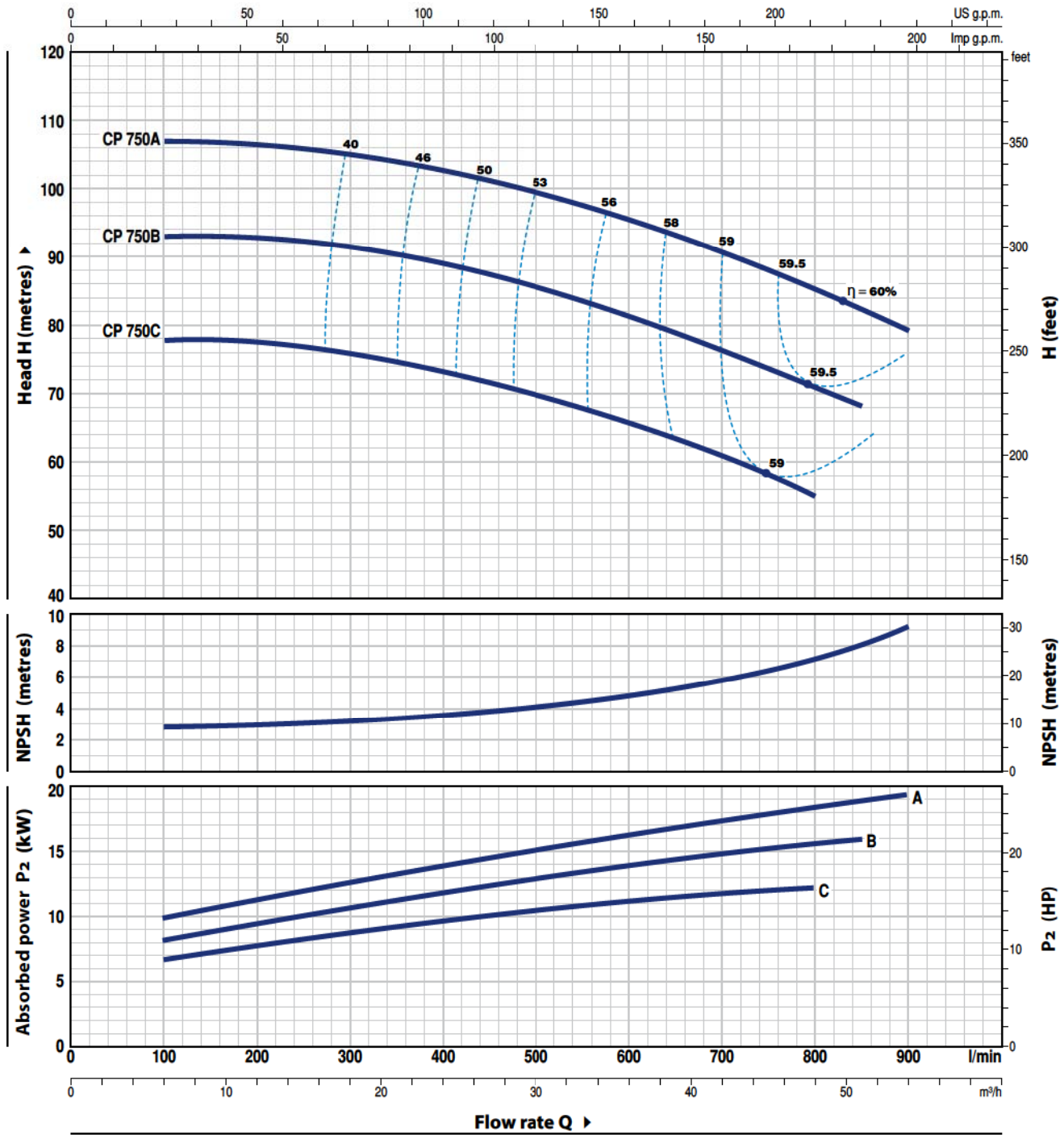
▲ Three-phase motor efficiency class (IEC 60034-30-1)

CP 750



CHARACTERISTIC CURVES AND PERFORMANCE DATA

60 Hz n= 3450 min⁻¹ HS= 0 m



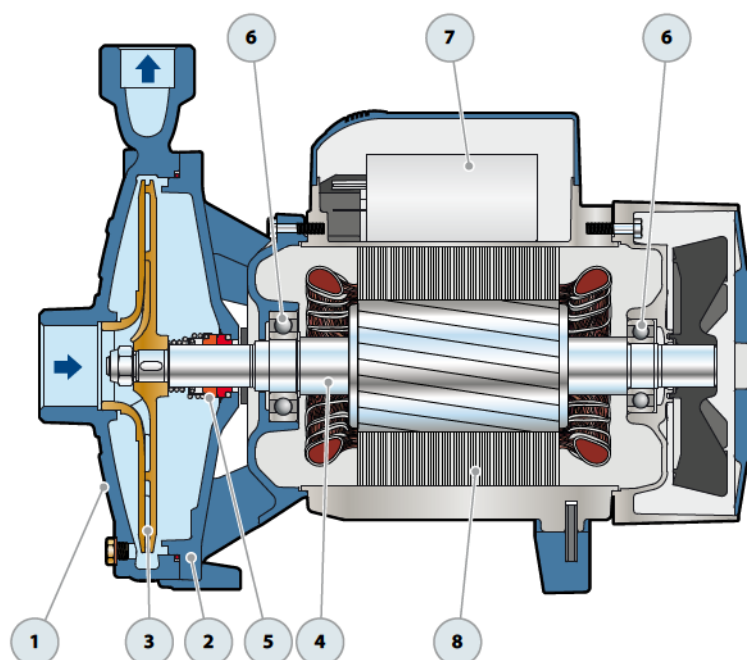
MODEL	POWER (P ₂)			Q	0	6	12	18	24	30	36	42	48	51	54
	kW	HP	▲		0	100	200	300	400	500	600	700	800	850	900
CP 750C	11	15	IE3	H metres	78	78	77	75	72.5	69	65	60.5	55		
CP 750B	15	20			93	93	92	90.5	88	85	81	76.5	71	68	
CP 750A	18.5	25			107	107	106	105	102	99	95	90.5	85	82	79

Q = Flow rate H = Total manometric head HS = Suction height
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.
▲ Three-phase motor efficiency class (IEC 60034-30-1)

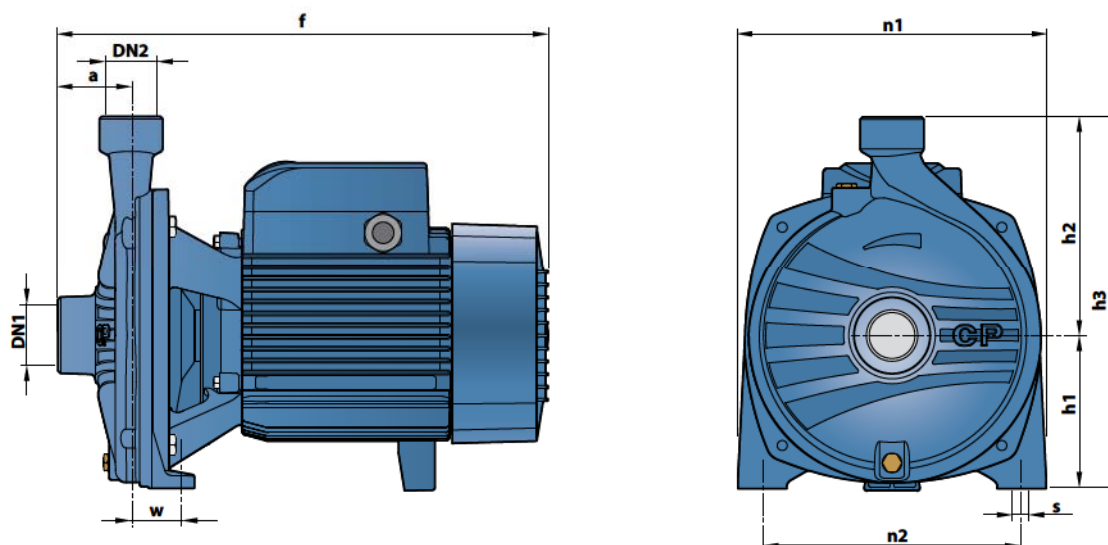
CP 160-210

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron complete with threaded ports in compliance with ISO 228/1					
2	BODY BACKPLATE	Cast iron					
3	IMPELLER	Stainless steel for CP160 Brass for CP 210					
4	MOTOR SHAFT	Stainless steel AISI 431					
5	MECHANICAL SEAL	Pump <i>Model</i>	Seal <i>Model</i>	Shaft <i>Diameter</i>	Materials <i>Stationary ring Rotational ring Elastomer</i>		
		CP 160	FN-18	Ø 18 mm	Graphite	Ceramic	NBR
		CP 210	FN-24	Ø 24 mm	Graphite	Ceramic	NBR
6	BEARINGS	Pump	Model				
		CP 160	6204 ZZ / 6204 ZZ				
		CP 210	6206 ZZ - C3 / 6205 ZZ				
7	CAPACITOR	Pump <i>Single-phase</i>	Capacitance <i>(220 V)</i>		<i>(110 V or 127 V)</i>		
		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	ELECTRIC MOTOR	CPm: single-phase 220 V - 60 Hz with thermal overload protector incorporated into the winding (up to 1.5 kW). CP: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz. ⇒ The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1) – Insulation: class F – Protection: IP X4					



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm									kg	
Single-phase	Three-phase	DN1	DN2	a	f	h1	h2	h3	n1	n2	w	s	1~	3~
CPm 160C	CP 160C	1½"	1"	54	370	110	150	260	206	165	44.5	11	19.3	18.8
CPm 160B	CP 160B				391								20.0	20.5
—	CP 160A												—	23.5
CPm 210C	CP 210C			60	402	125	180	305	252	210	39.5	11	29.0	29.2
—	CP 210B												—	31.0
—	CP 210A												—	31.2

ABSORPTION

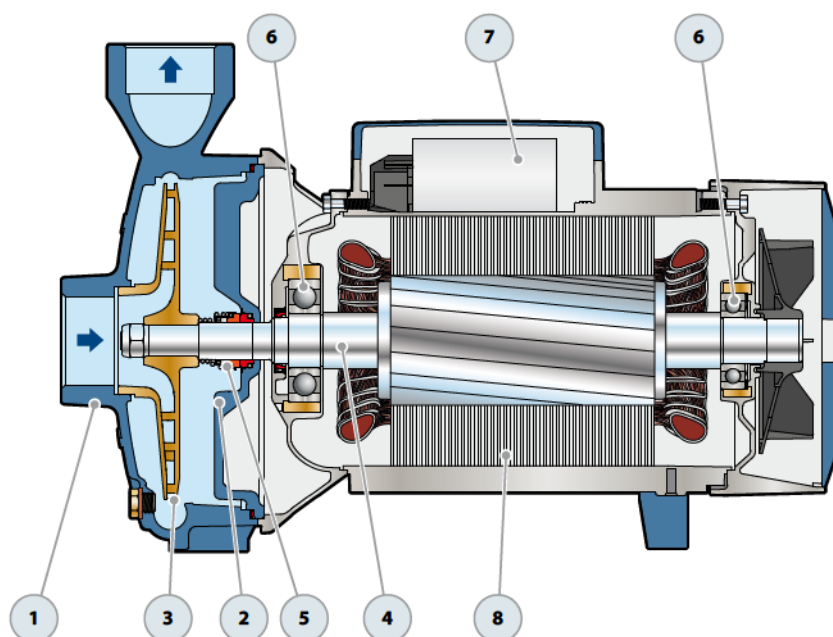
MODEL	VOLTAGE		
	220 V	110 V	127 V
CPm 160C	9.0 A	18.0 A	15.6 A
CPm 160B	11.0 A	22.0 A	19.1 A
CPm 210C	15.0 A	30.0 A	26.0 A

MODEL	VOLTAGE			
	220 V	380 V	220 V	440 V
CP 160C	6.7 A	3.9 A	7.2 A	3.6 A
CP 160B	7.4 A	4.3 A	6.4 A	3.7 A
CP 160A	8.8 A	5.1 A	8.3 A	4.6 A
CP 210C	10.7 A	6.2 A	8.6 A	4.8 A
CP 210B	13.0 A	7.5 A	11.5 A	6.0 A
CP 210A	16.5 A	9.5 A	16.0 A	8.5 A

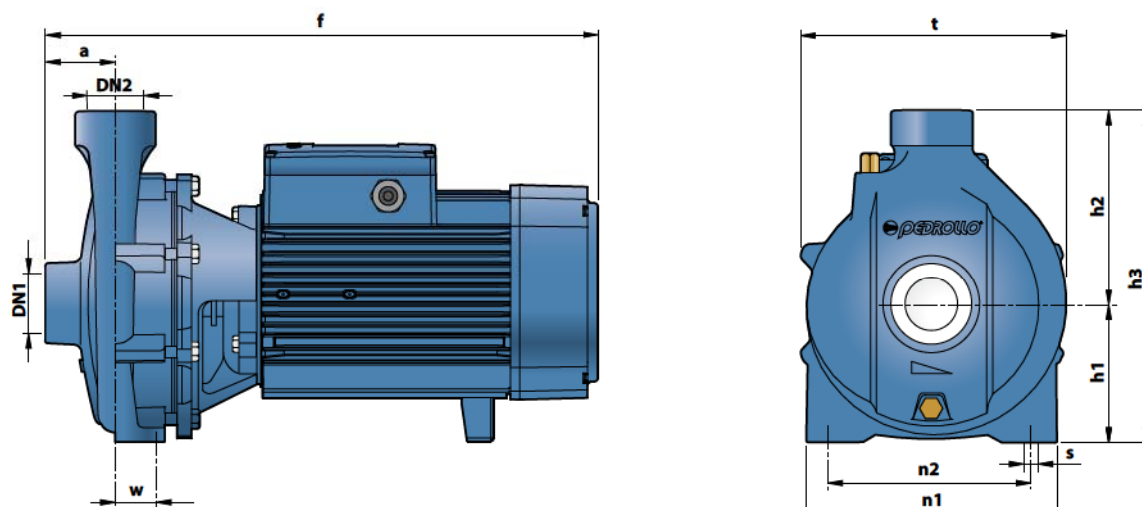
CP 680-700-750

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron complete with NPT ANSI B 1.20.1 threaded ports					
2	BODY BACKPLATE	Cast iron					
3	IMPELLER	Brass for CP 680, CP 700 Cast iron for CP 750					
4	MOTOR SHAFT	Stainless steel AISI 431					
5	MECHANICAL SEAL	Pump <i>Model</i>	Seal <i>Model</i>	Shaft <i>Diameter</i>	Materials <i>Stationary ring Rotational ring Elastomer</i>		
		CP 680, CP 700	FN-24	Ø 24 mm	Graphite	Ceramic	NBR
		CP 750	FN-32 NU	Ø 32 mm	Graphite	Ceramic	NBR
6	BEARINGS	Pump <i>Model</i>	Model				
		CP 680, CP 700	6307 ZZ - C3 / 6206 ZZ - C3				
		CP 750	6310 ZZ - C3 / 6308 ZZ - C3				
7	CAPACITOR	Pump <i>Single-phase</i>	Capacitance <i>(220 V)</i>				
		CPm 680C	90 µF - 450 VL				
8	ELECTRIC MOTOR	CPm: single-phase 220 V - 60 Hz. CP: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz. ⇒ The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1) – Insulation: class F – Protection: IP X5					



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm										kg	
Single-phase	Three-phase	DN1	DN2	a	f	h1	h2	h3	t	n1	n2	w	s	1~	3~
CPm 680C	CP 680C	2" NPT	2" NPT	70	505/460	136	192	328	273	250	190	40	14	47.0	42.0
-	CP 680B													-	47.0
-	CP 680A													-	53.0
-	CP 700C				505									-	47.0
-	CP 700B													-	53.0
-	CP 700A													-	53.5
-	CP 750C			65	570	160	232	392	317	294	230	45	14	-	93.5
-	CP 750B				666									-	112.0
-	CP 750A													-	120.0

ABSORPTION

MODEL	VOLTAGE		
Single-phase	220 V	110 V	127 V
CPm 680C	28.0 A	56.0 A	48.5 A

MODEL	VOLTAGE			
Three-phase	220 V	380 V	220 V	440 V
CP 680C	20.5 A	12.0 A	18.3 A	10.6 A
CP 680B	25.1 A	14.5 A	21.8 A	12.6 A
CP 680A	34.6 A	20.0 A	32.0 A	18.5 A
CP 700C	27.7 A	16.0 A	23.5 A	13.6 A
CP 700B	33.8 A	19.5 A	28.2 A	16.7 A
CP 700A	34.7 A	20.0 A	29.8 A	17.5 A
CP 750C	41.2 A	23.8 A	44.0 A	23.0 A
CP 750B	58.0 A	34.0 A	52.0 A	27.0 A
CP 750A	62.6 A	36.2 A	65.0 A	34.0 A