

 Clean water

 Civil use

 Agricultural use

 Industrial use



PERFORMANCE RANGE

- Flow rate up to **900 l/min** (54 m³/h)
- Head up to **79 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



EU REGULATION N. 547/2012

CERTIFICATIONS

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



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

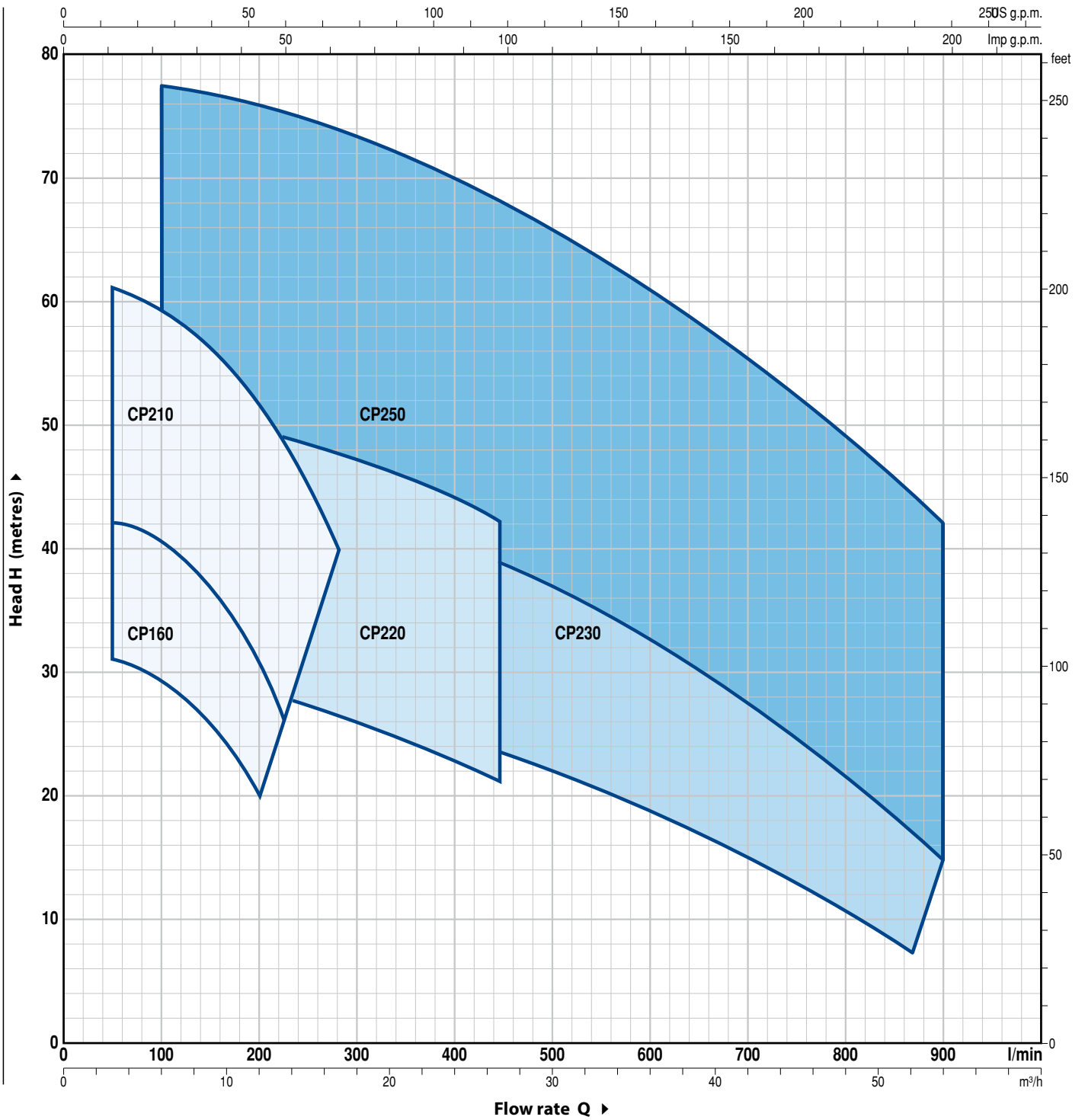
- Registered EU Design n. 002098434 for CP 160, CP210
- Registered Italian model n. 72753 for CP 220, CP 230, CP250

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- EN 10088-3 - 1.4401 (AISI 316) stainless steel pump shaft for CP 220, CP 230, CP250
- Other voltages or 60 Hz frequency
- IP X5 class protection for CP 160

PERFORMANCE RANGE

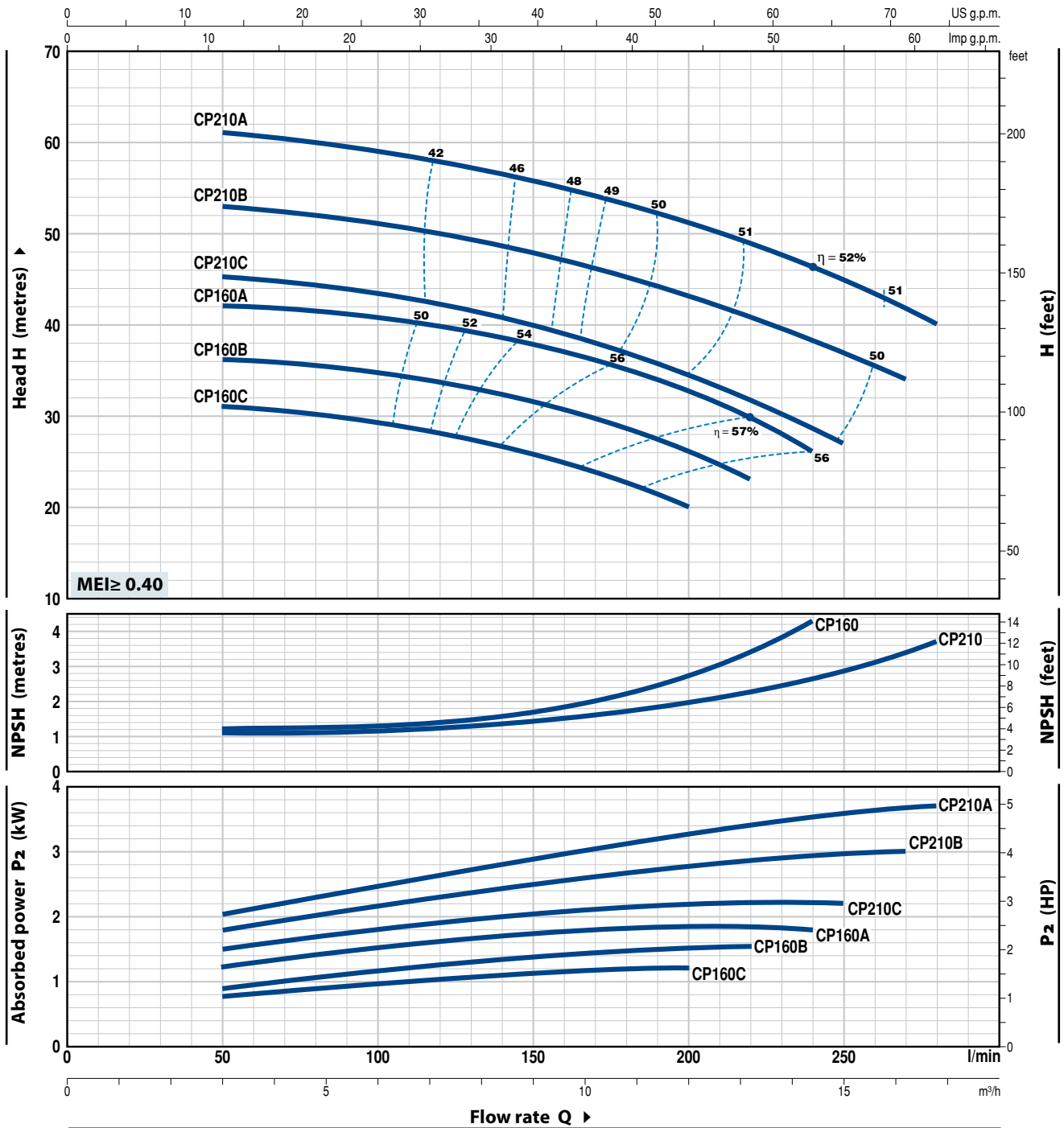
50 Hz n= 2900 rpm HS= 0 m



CP 160-210

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)			Q	H metres															
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	32	31	30.5	29.5	28	26	23	20									
CPm 160B	CP 160B	1.5	2	IE3	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					

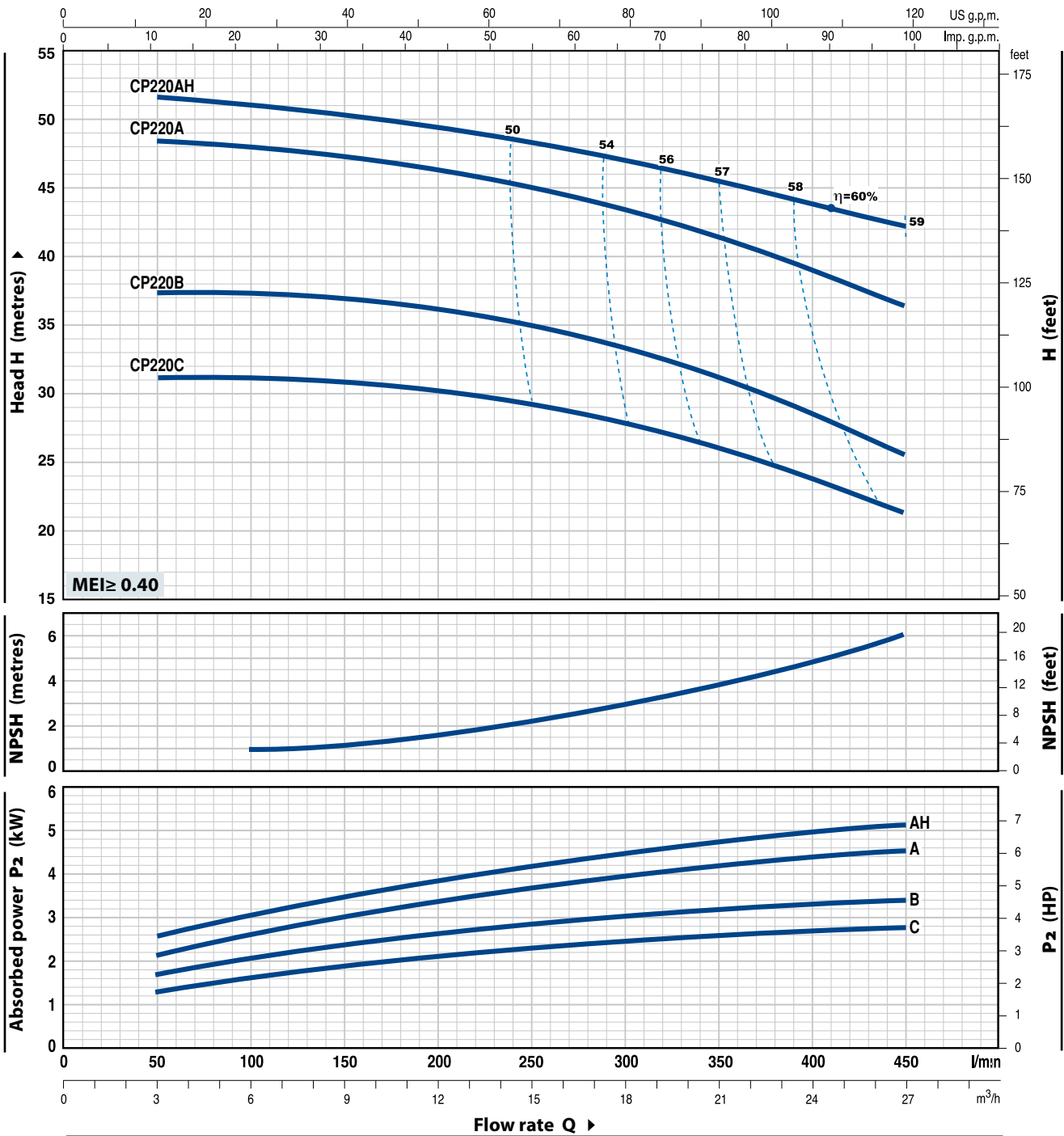
Q = Flow rate H = Total manometric head HS = Suction height

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

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

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)		▲	Q	Flow rate Q						
Single-phase	Three-phase	kW	HP			m ³ /h	0	3	6	12	18	24
	CP 220C	2.2	3	IE3	H metres	0	50	100	200	300	400	450
-	CP 220B	3	4			32	31.5	31	30	28	24	21
-	CP 220A	4	5.5			38	37.5	37	36	33.5	29	25
-	CP 220AH	5.5	7.5			49	48.5	48	46	43.5	39.5	36
						52	51.5	51	49	47	44	42

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

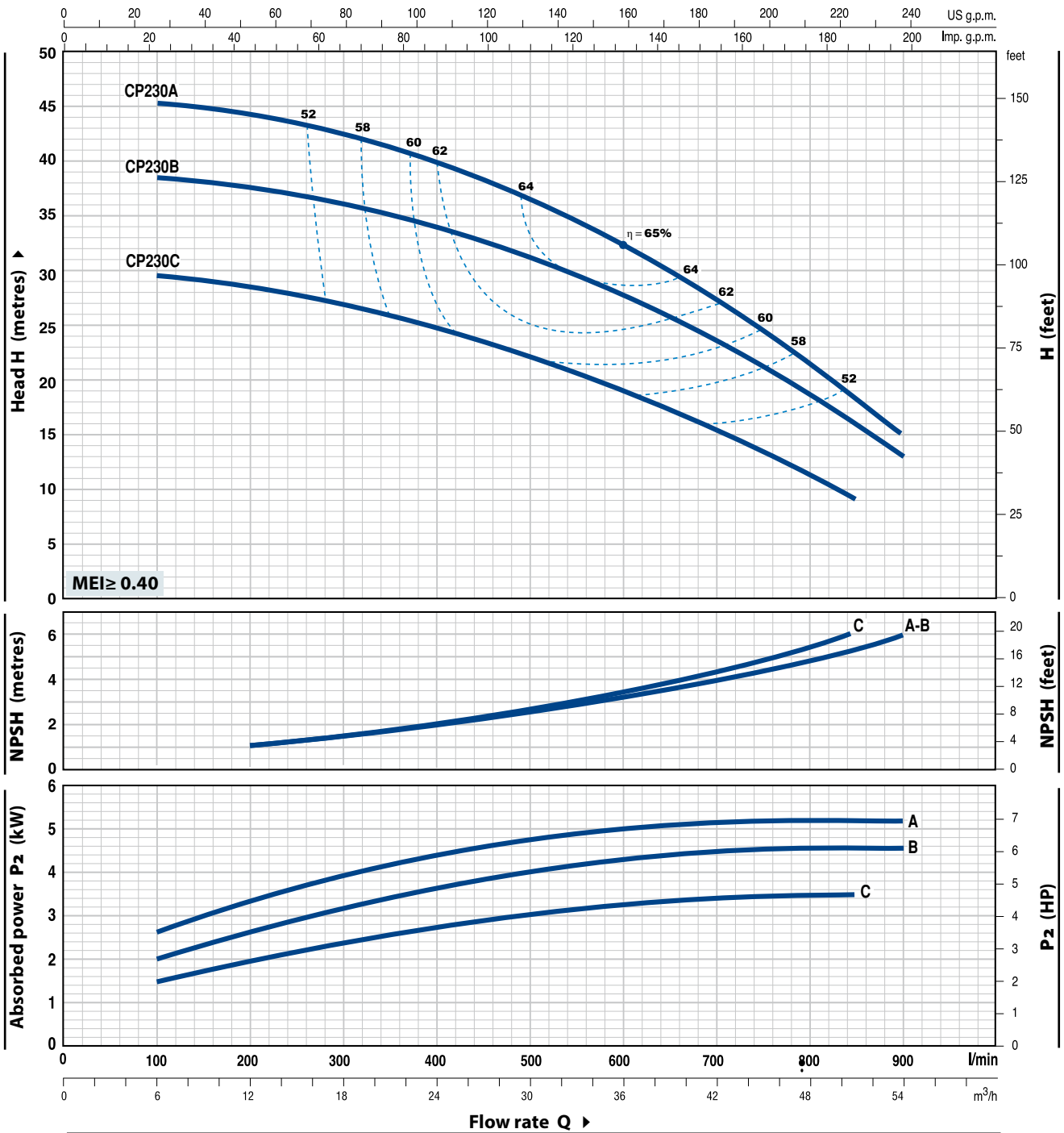
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

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

CP 230

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		▲	Q	Flow rate Q												
	kW	HP			0	6	12	18	24	30	36	42	48	51	54		
Three-phase					0	100	200	300	400	500	600	700	800	850	900		
CP 230C	3	4	IE3	H metres	30	29.5	28.5	27	25	22	19.5	15.5	11.5	9			
CP 230B	4	5.5		39	38.5	38	36	34	31	28	24	18.5	15	13			
CP 230A	5.5	7.5		46	45.5	44.5	42	40	37	32.5	27.5	21.5	18	15			

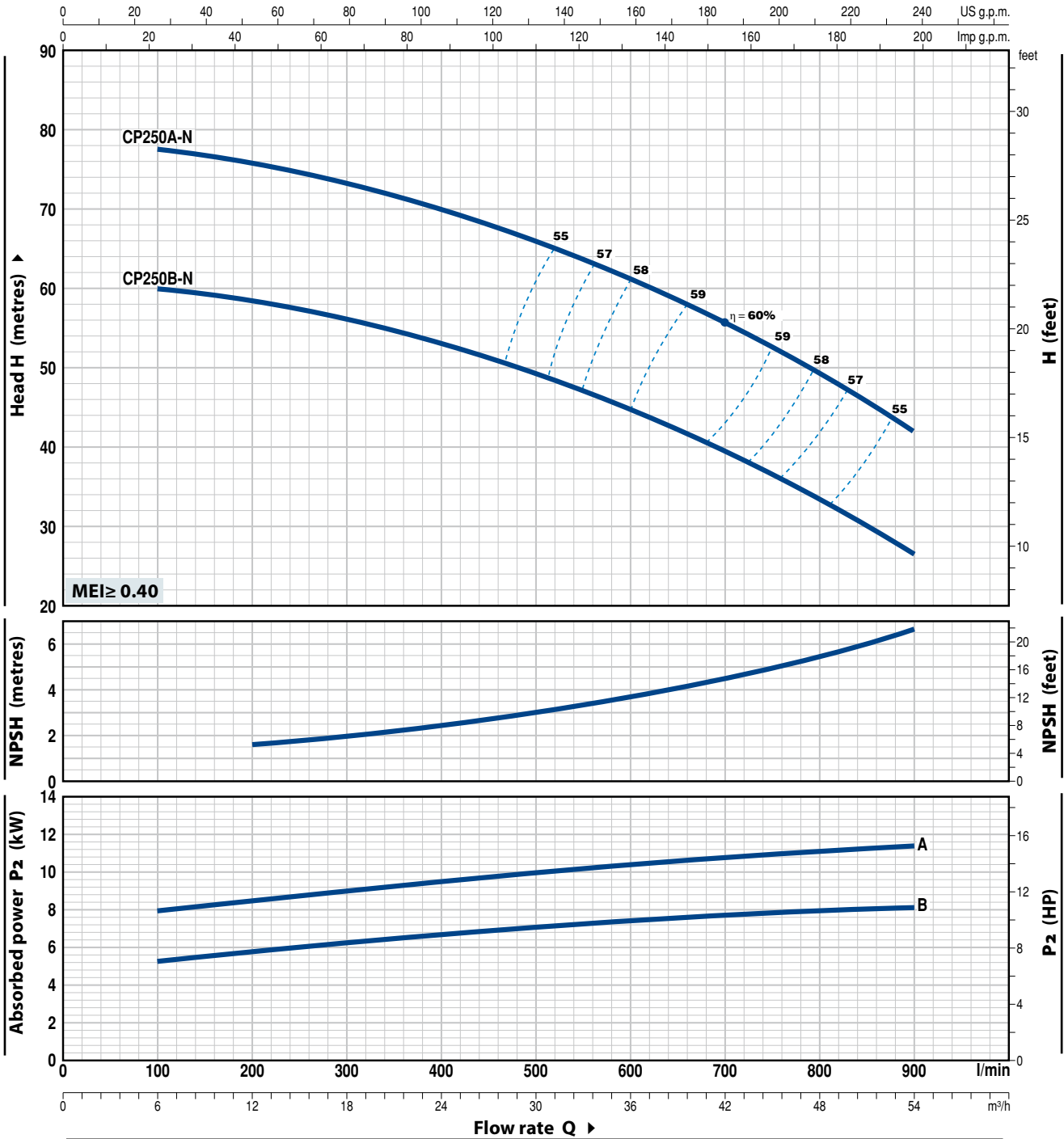
Q = Flow rate H = Total manometric head HS = Suction height

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

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		▲	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 250B-N	7.5	10	IE3	H metres	61	60	58	56	53	49	45	39.5	33.5	26.5	
CP 250A-N	11	15				79	77.5	75.5	73	70	66	61.5	56	50	42

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

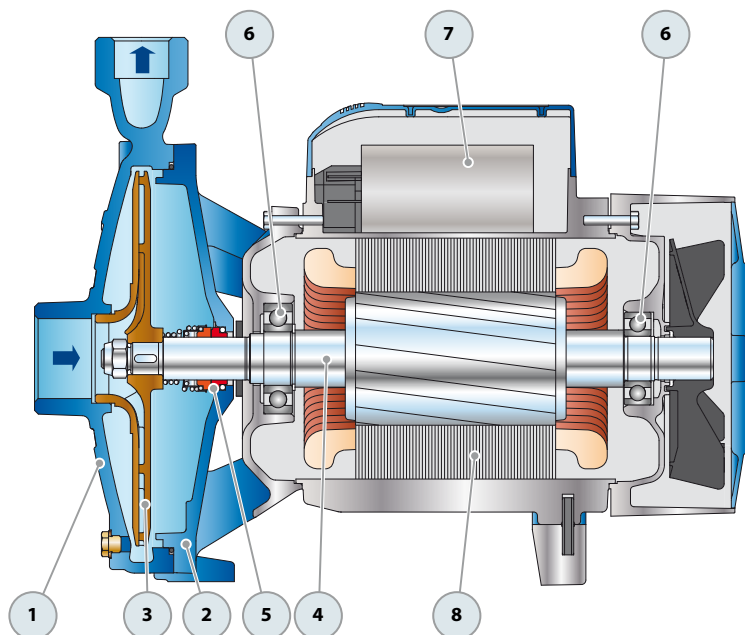
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

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

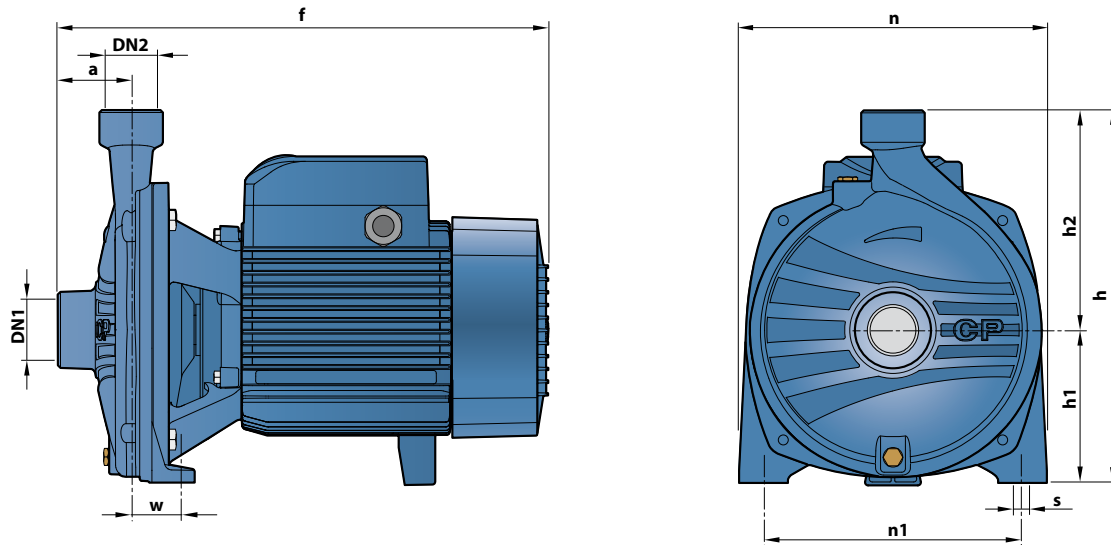
CP 160-210

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron complete with threaded ports in compliance with ISO 228/1					
2	BODY BACKPLATE	Cast iron					
3	IMPELLER	Brass					
4	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104					
5	MECHANICAL SEAL	<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	BEARINGS	<i>Pump</i>	<i>Model</i>				
		CP 160	6204 ZZ / 6204 ZZ				
		CP 210	6206 ZZ - C3 / 6205 ZZ				
7	CAPACITOR	<i>Pump</i>	<i>Capacitance</i>				
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 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	<p>CPm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding (up to 1.5 kW).</p> <p>CP: three-phase 230/400 V - 50 Hz.</p> <p>⇒ 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)</p> <p>- Insulation: class F</p> <p>- Protection: IP X4</p>					



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		
	230 V	240 V	110 V
CPm 160C	8.6 A	7.8 A	17.2 A
CPm 160B	10.3 A	9.8 A	20.6 A
CPm 210C	13.0 A	12.7 A	-

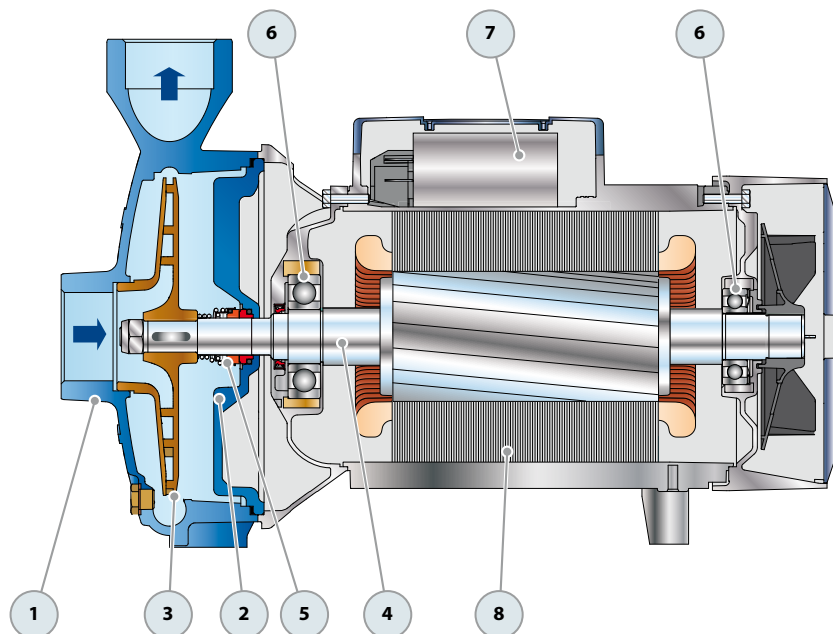
MODEL	VOLTAGE					
	230 V	400 V	690 V	240 V	415 V	720 V
CP 160C	5.7 A	3.3 A	1.9 A	5.2 A	3.0 A	1.7 A
CP 160B	7.3 A	4.2 A	2.4 A	6.7 A	3.9 A	2.3 A
CP 160A	8.9 A	5.1 A	3.0 A	8.3 A	4.8 A	2.8 A
CP 210C	9.2 A	5.3 A	3.1 A	8.8 A	5.1 A	2.9 A
CP 210B	11.2 A	6.5 A	3.8 A	10.8 A	6.2 A	3.6 A
CP 210A	14.8 A	8.5 A	4.9 A	14.2 A	8.2 A	4.7 A

CP 220-230-250

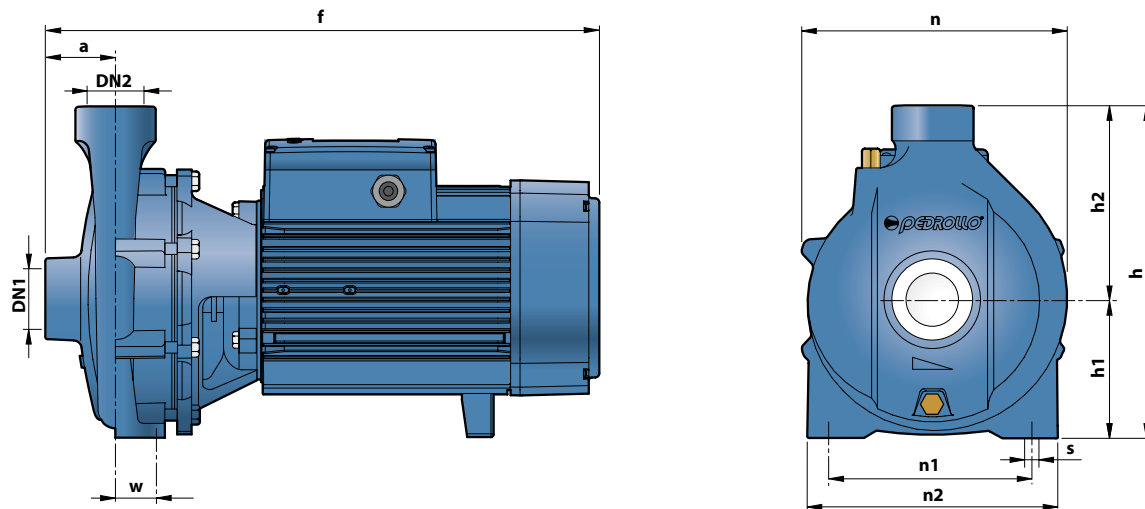
POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron complete with threaded ports in compliance with ISO 228/1					
2 BODY BACKPLATE	Cast iron					
3 IMPELLER	Brass for CP 220, CP 230 Cast iron for CP 250					
4 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104					
5 MECHANICAL SEAL	Pump	Seal	Shaft	Materials		
	<i>Model</i>	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
	CP 220C-B CP 230C	FN-20	Ø 20 mm	Graphite	Ceramic	NBR
	CP 220A-AH CP 230B-A CP 250B-N	FN-24	Ø 24 mm	Graphite	Ceramic	NBR
	CP 250A-N	FN-32 NU	Ø 32 mm	Graphite	Ceramic	NBR
6 BEARINGS	Pump	Model				
	CP 220C	6206 ZZ - C3 / 6204 ZZ				
	CPm 220C					
	CP 220B	6206 ZZ - C3 / 6205 ZZ				
	CP 230C					
	CP 220A-AH CP 230B-A	6307 ZZ - C3 / 6206 ZZ - C3				
	CP 250B-N CP 250A-N	6310 ZZ - C3 / 6308 ZZ - C3				
7 CAPACITOR	Pump	Capacitance				
	<i>Single-phase</i>	<i>(230 V or 240 V)</i>				
	CPm 220C	70 µF - 450 VL				
8 ELECTRIC MOTOR	CPm: single-phase 230 V - 50 Hz.					
	CP: three-phase 230/400 V - 50 Hz up to 4 kW. 400/690 V - 50 Hz from 5.5 to 11 kW.					

➔ **The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30)**
 – Insulation: class F
 – Protection: IP X5



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~	
CPm 220C	CP 220C	2"	2"	70	441/409	315	132	183	255	170	230	40	14	31.9	28.5	
-	CP 220B				441											
-	CP 220A				460	328	136	192	273	190	250					
-	CP 220AH				505											
-	CP 230C				441	315	132	183	255	170	230					
-	CP 230B				460											
-	CP 230A				505	328	136	192	273	190	250					
-	CP 250B-N				507											
-	CP 250A-N				571	392	160	232	322	230	294			45	-	74.0
-																

ABSORPTION

MODEL	VOLTAGE	
Single-phase	230 V	240 V
CPm 220C	15.8 A	15.0 A

MODEL	VOLTAGE					
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
CP 220C	11.4 A	6.6 A	3.8 A	10.7 A	6.2 A	3.6 A
CP 220B	12.6 A	7.3 A	4.2 A	12.0 A	7.0 A	4.0 A
CP 220A	17.0 A	9.8 A	5.7 A	16.5 A	9.5 A	5.5 A
CP 220AH	20.0 A	11.5 A	6.7 A	19.2 A	11.0 A	6.4 A
CP 230C	13.2 A	7.6 A	4.4 A	12.8 A	7.4 A	4.3 A
CP 230B	16.8 A	9.7 A	5.6 A	16.2 A	9.4 A	5.4 A
CP 230A	20.0 A	11.5 A	6.7 A	19.2 A	11.0 A	6.4 A
CP 250B-N	28.6 A	16.5 A	9.5 A	27.5 A	16.0 A	9.3 A
CP 250A-N	40.8 A	23.6 A	13.7 A	40.7 A	23.5 A	13.6 A