

-  Clean water
-  Domestic use
-  Civil use



PERFORMANCE RANGE

- Flow rate up to **160 l/min** (9.6 m³/h)
- Head up to **56 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure:
 - **6 bar** for CP 100-130-132-150-158
 - **10 bar** for CP 170-190-200
- 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



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.

Because they are reliable and easy to use these pumps are widely used in domestic and civil applications such as the distribution of water in combination with small and medium sized pressure tanks, for transferring liquids and for the irrigation of gardens and orchards.

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

PATENTS - TRADE MARKS - MODELS

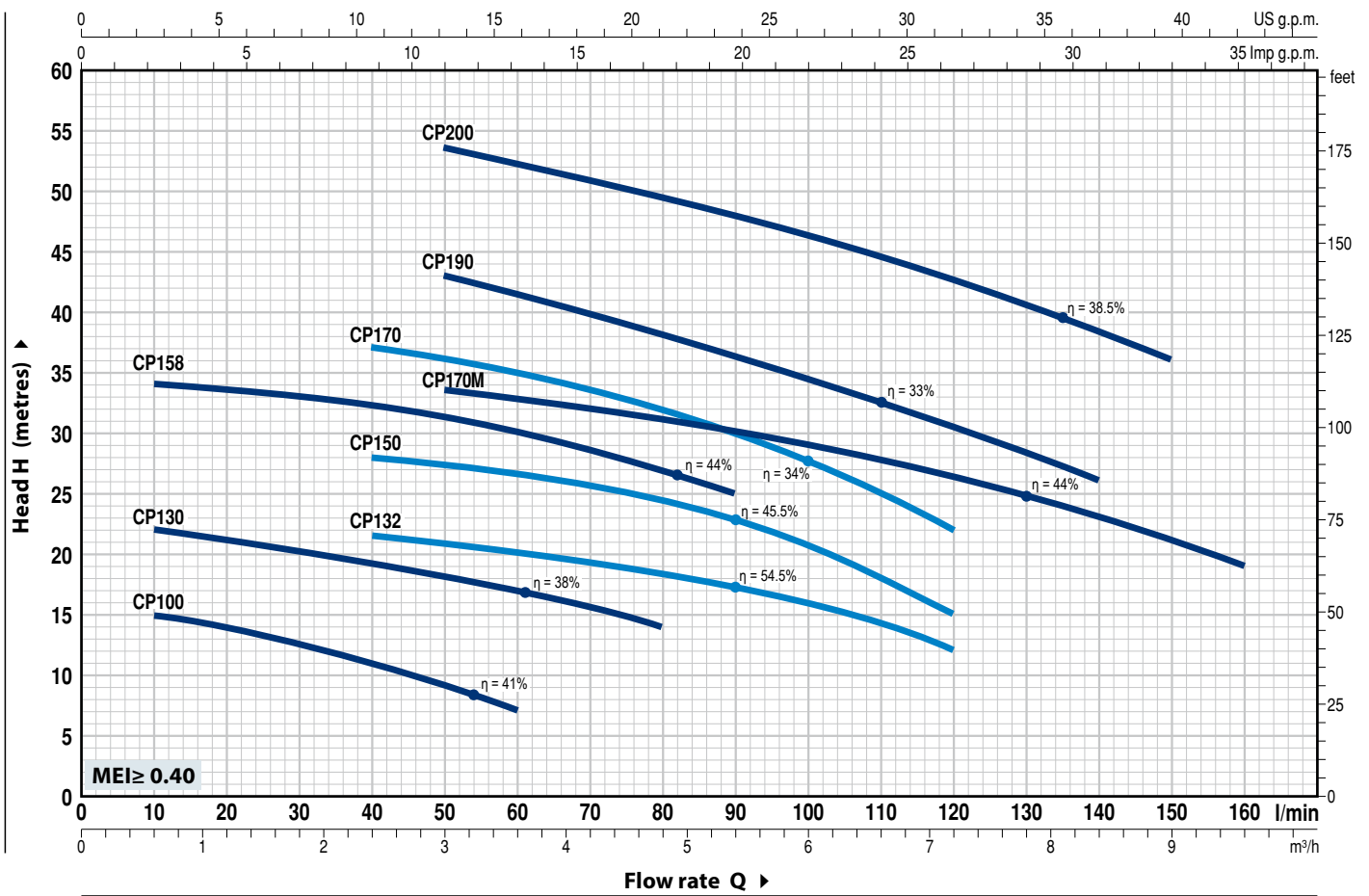
- Registered Trade Mark n. 0001516350 CPm158
- Registered EU Design n. 002098434

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency
- IP X5 class protection for CP 170, CP 170M

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min⁻¹ HS= 0 m



MODEL		POWER (P ₂)			Q	Flow rate (l/min)																		
Single-phase	Three-phase	kW	HP	▲		0	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2	7.8	8.4	9.0	9.6		
CPm 100	CP 100	0.25	0.33	IE2	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160			
CPm 130	CP 130	0.37	0.50	IE3	16	15	14	12.5	11	9	7													
CPm 132	CP 132	0.55	0.75		23	22	21	20	19	18	17	15.5	14											
CPm 150	CP 150	0.75	1		23	-	22.5	22	21.5	21	20.5	19.5	18.5	17.5	16	14	12							
CPm 158	CP 158	0.75	1		29.5	-	29	28.5	28	27.5	26.5	26	24.5	23	21	18	15							
CPm 170	CP 170	1.1	1.5		36	34	33.5	33	32.5	31.5	30	28.5	27	25										
CPm 170M	CP 170M	1.1	1.5		41	-	-	38	37	36	35	33.5	32	30	27.5	25	22							
CPm 190	CP 190	1.5	2		36	-	-	35	34.5	33.5	33	32	31	30	29	28	26.5	25	23	21	19			
CPm 200	CP 200	2.2	3		48	-	-	46	44.5	43	41.5	40	38	36	34.5	32.5	30.5	28	26					
						56	-	-	55	54.5	53.5	52	51	49.5	48	46	44.5	42.5	40.5	38.5	36			

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)

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with an Epoxy Electro Coating treatment, with threaded ports in compliance with ISO 228/1
2	BODY BACKPLATE	Stainless steel AISI 304 (cast iron for CP 170-170M-190-200)
3	IMPELLER	Stainless steel AISI 304
4	MOTOR SHAFT	Stainless steel AISI 431

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 100-130-132	AR-12	Ø 12 mm	Ceramic	Graphite	NBR
		CP 150-158	AR-14	Ø 14 mm	Ceramic	Graphite	NBR
		CP 170-170M-190-200	FN-18	Ø 18 mm	Graphite	Ceramic	NBR

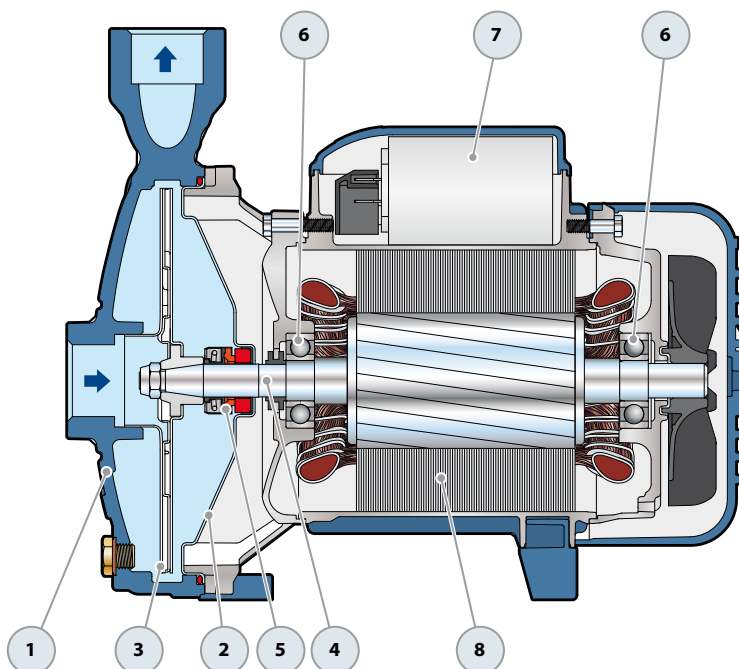
6	BEARINGS	<i>Pump</i>	<i>Model</i>
		CP 100-130-132	6201 ZZ / 6201 ZZ
CP 150-158	6203 ZZ / 6203 ZZ		
CP 170-170M	6204 ZZ / 6204 ZZ		
CP 190-200	6304 ZZ / 6204 ZZ		

7	CAPACITOR	EN 60252-1/A1		
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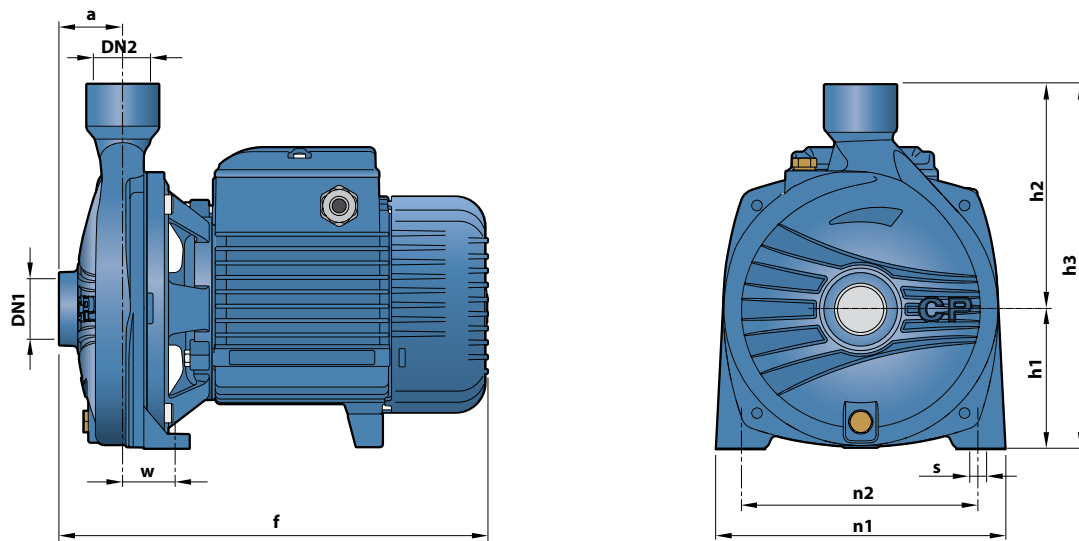
8 **ELECTRIC MOTOR** CPm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.
 CP: three-phase 230/400 V - 50 Hz.

➔ **The three-phase pumps are fitted with high performance motors up to P₂=0.25 kW in class IE2 and from P₂=0.37 kW 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	h3	h1	h2	n1	n2	w	s	1~	3~
CPm 100	CP 100	1"	1"	42	257	205	82	123	165	135	38	11	6.8	6.9
CPm 130	CP 130												7.7	7.7
CPm 132	CP 132												8.4	8.4
CPm 150	CP 150												12.0	12.0
CPm 158	CP 158												12.1	12.0
CPm 170 - 170M	CP 170 - 170M	1 1/4"	1"	51	367	260	110	150	206	165	44.5	11	17.8	17.2
CPm 190	CP 190												21.5	21.5
CPm 200	CP 200												24.2	24.2
				47.5	364	290	115	175	242	206	36.5			
					384									

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
CPm 100	1.9 A	1.55 A	3.8 A
CPm 130	3.2 A	2.9 A	6.4 A
CPm 132	3.9 A	3.7 A	7.8 A
CPm 150	5.7 A	5.4 A	11.4 A
CPm 158	6.0 A	5.8 A	12.0 A
CPm 170 - 170M	7.8 A	7.2 A	15.6 A
CPm 190	11.0 A	10.0 A	22.0 A
CPm 200	12.8 A	11.7 A	-

MODEL	VOLTAGE			
Three-phase	230 V	400 V	240 V	415 V
CP 100	1.7 A	0.95 A	1.6 A	0.9 A
CP 130	2.0 A	1.15 A	1.8 A	1.05 A
CP 132	2.3 A	1.3 A	2.3 A	1.3 A
CP 150	4.15 A	2.4 A	4.0 A	2.3 A
CP 158	4.35 A	2.5 A	4.25 A	2.45 A
CP 170 - 170M	5.2 A	3.0 A	5.1 A	2.9 A
CP 190	7.5 A	4.3 A	6.9 A	4.0 A
CP 200	9.3 A	5.4 A	9.0 A	5.2 A

CAPACITORS

MODEL	CAPACITANCE	
Single-phase	230 V or 240 V	110 V
CPm 100	10 µF - 450 VL	25 µF - 250 VL
CPm 130	10 µF - 450 VL	25 µF - 250 VL
CPm 132	14 µF - 450 VL	25 µF - 250 VL
CPm 150	20 µF - 450 VL	60 µF - 300 VL
CPm 158	20 µF - 450 VL	60 µF - 250 VL
CPm 170 - 170M	25 µF - 450 VL	60 µF - 250 VL
CPm 190	45 µF - 450 VL	80 µF - 250 VL
CPm 200	50 µF - 450 VL	-

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
CPm 100	CP 100	96	144
CPm 130	CP 130	96	144
CPm 132	CP 132	96	144
CPm 150	CP 150	70	112
CPm 158	CP 158	70	112
CPm 170	CP 170	50	70
CPm 170M	CP 170M	50	70
CPm 190	CP 190	36	54
CPm 200	CP 200	36	54

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



PERFORMANCE RANGE

- Flow rate up to **900 l/min** (54 m³/h)
- Head up to **76 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 EN 60034-1
IEC 60335-1 IEC 60034-1
CEI 61-150 CEI 2-3



EU REGULATION N. 547/2012

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

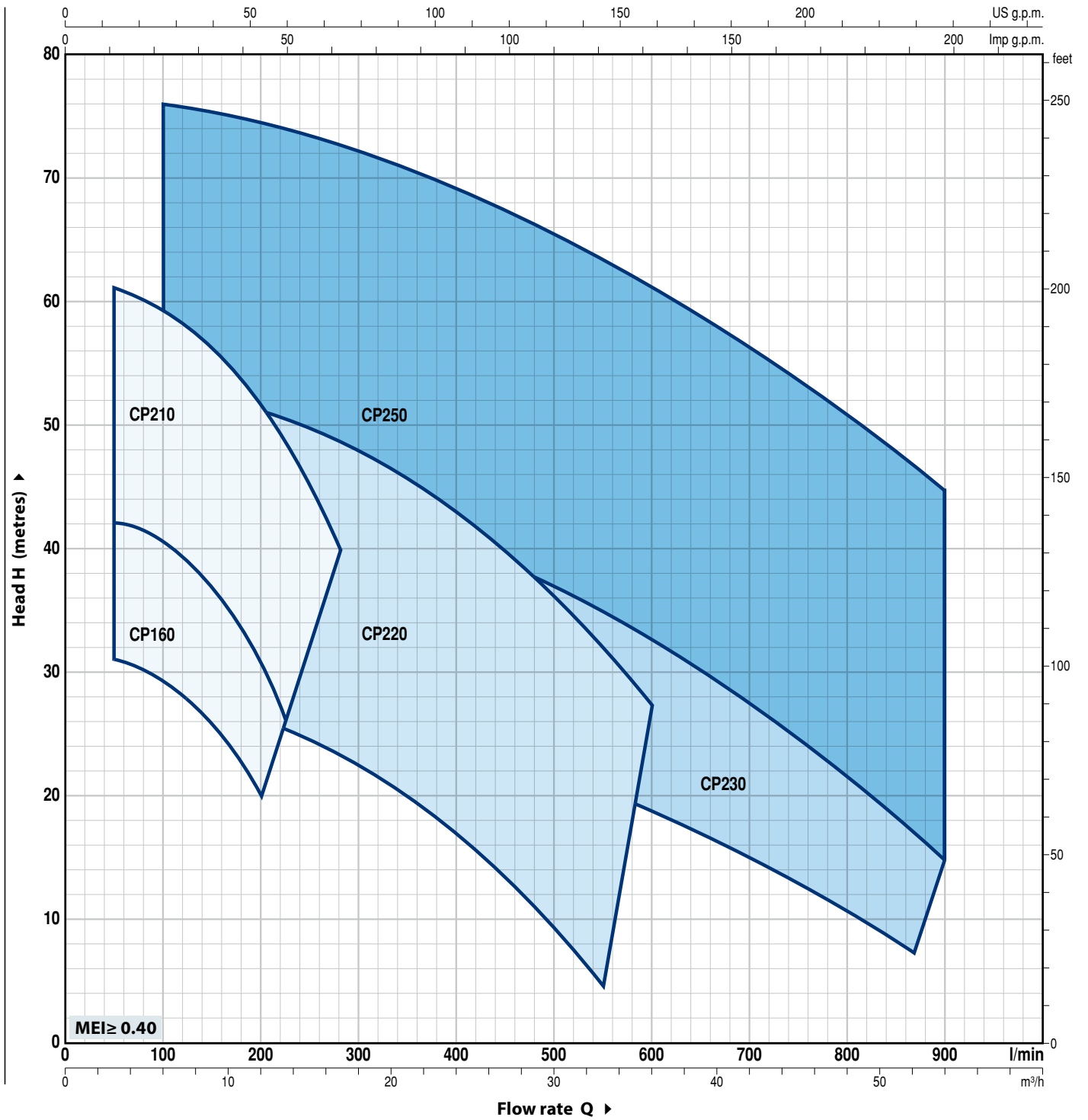
- Registered EU Design n. 002098434 for CP 160, CP210, CP250
- Registered Italian model n. 72753 for CP 220, CP 230

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

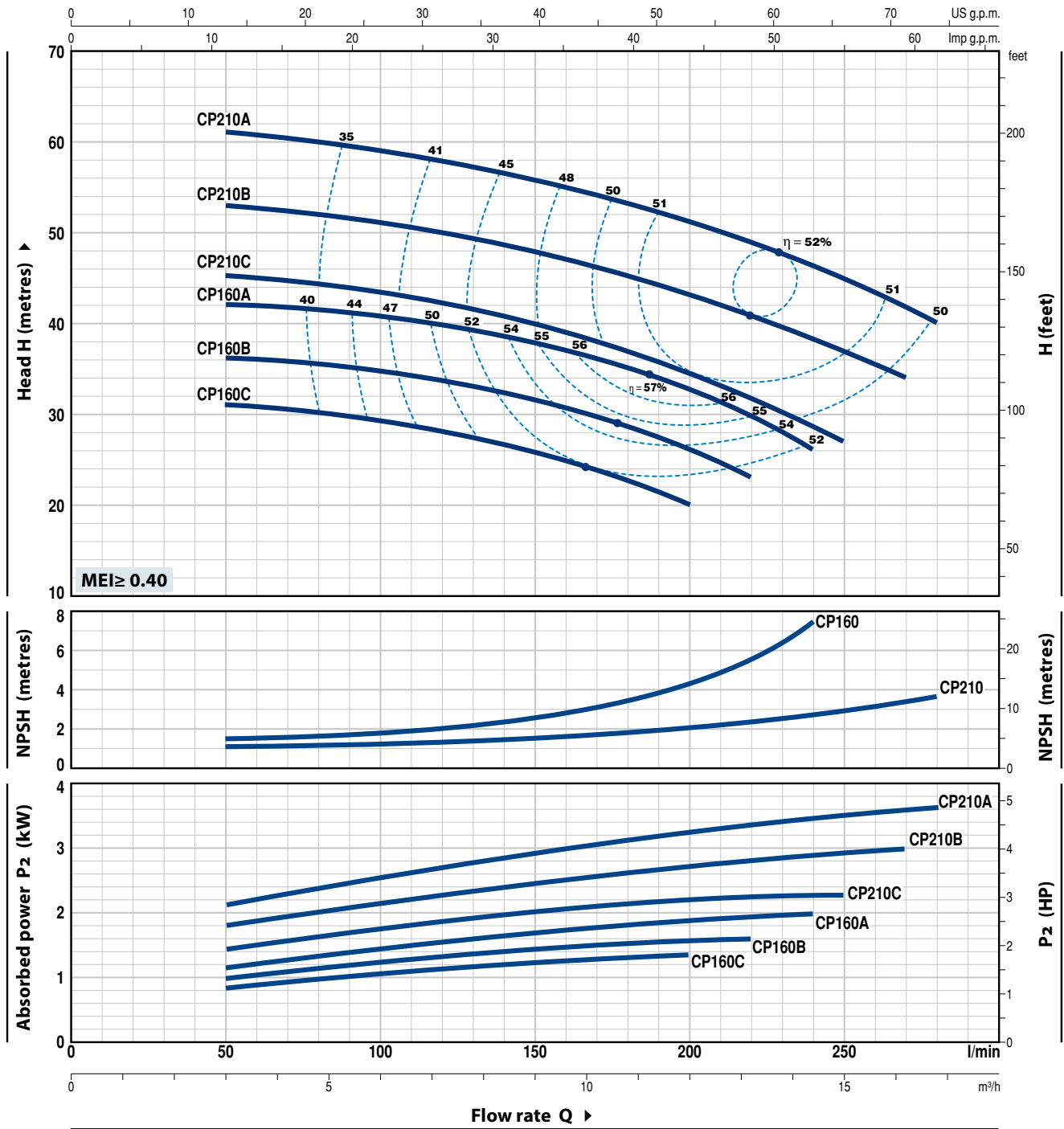
50 Hz n= 2900 min⁻¹ HS= 0 m



CP 160-210

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 min⁻¹ HS = 0 m



MODEL		POWER (P ₂)		▲	Q	Flow rate (l/min)															
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			
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			

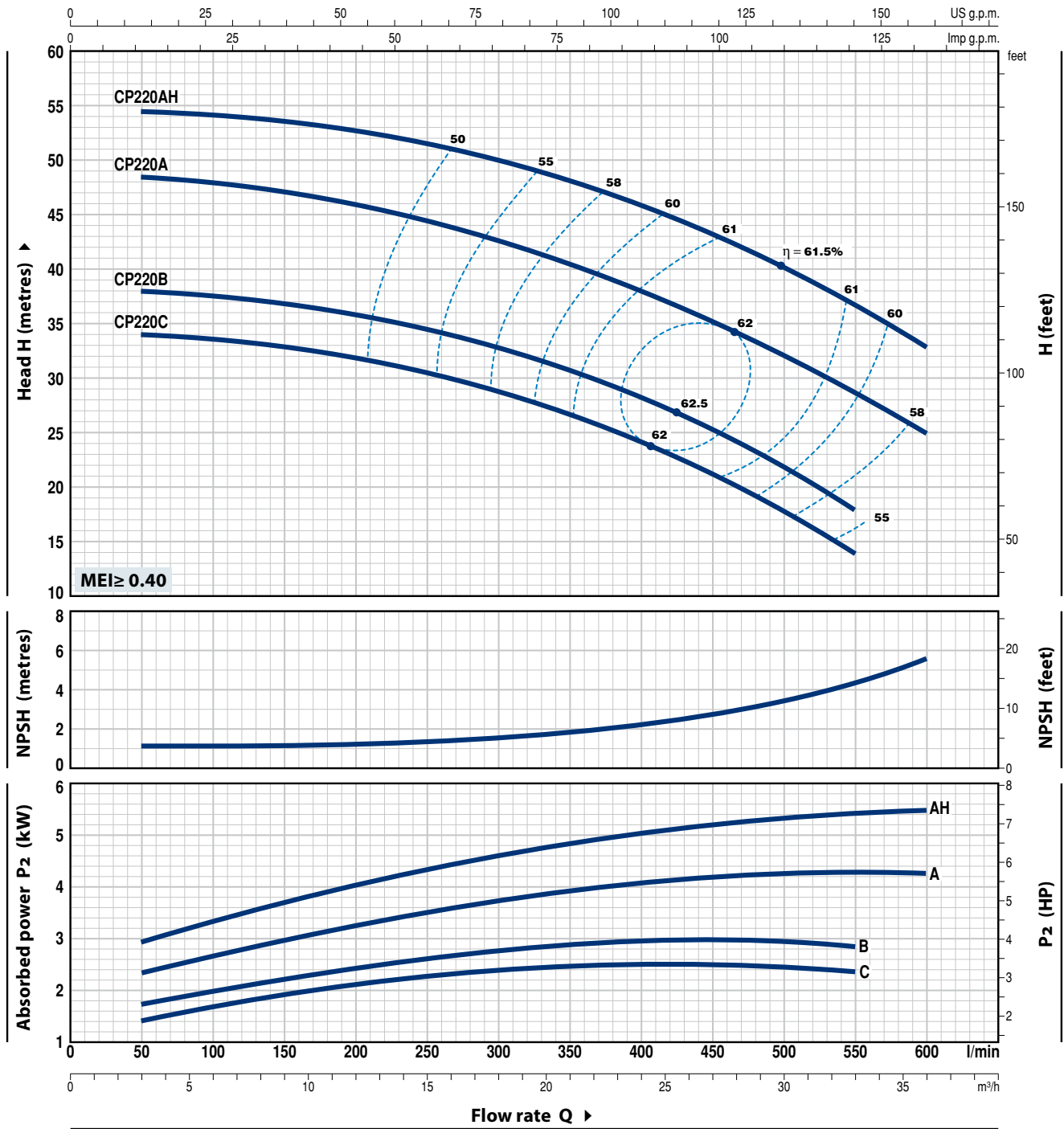
Q = Flow rate H = Total manometric head HS = Suction height

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

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

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 min⁻¹ HS = 0 m



MODEL		POWER (P ₂)		Q m ³ /h l/min	0	3	6	12	18	24	30	33	36
Single-phase	Three-phase	kW	HP		0	50	100	200	300	400	500	550	600
CPm 220C	CP 220C	2.2	3	IE3 H metres	34	34	33.5	32	29	24.3	17.9	14	
-	CP 220B	3	4		38	38	37.5	36	33	28.5	22	18	
-	CP 220A	4	5.5		49	48.5	48	46	42.5	38	32	29	25
-	CP 220AH	5.5	7.5		54.5	54.5	54	52.5	50	46	40.5	37	33

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

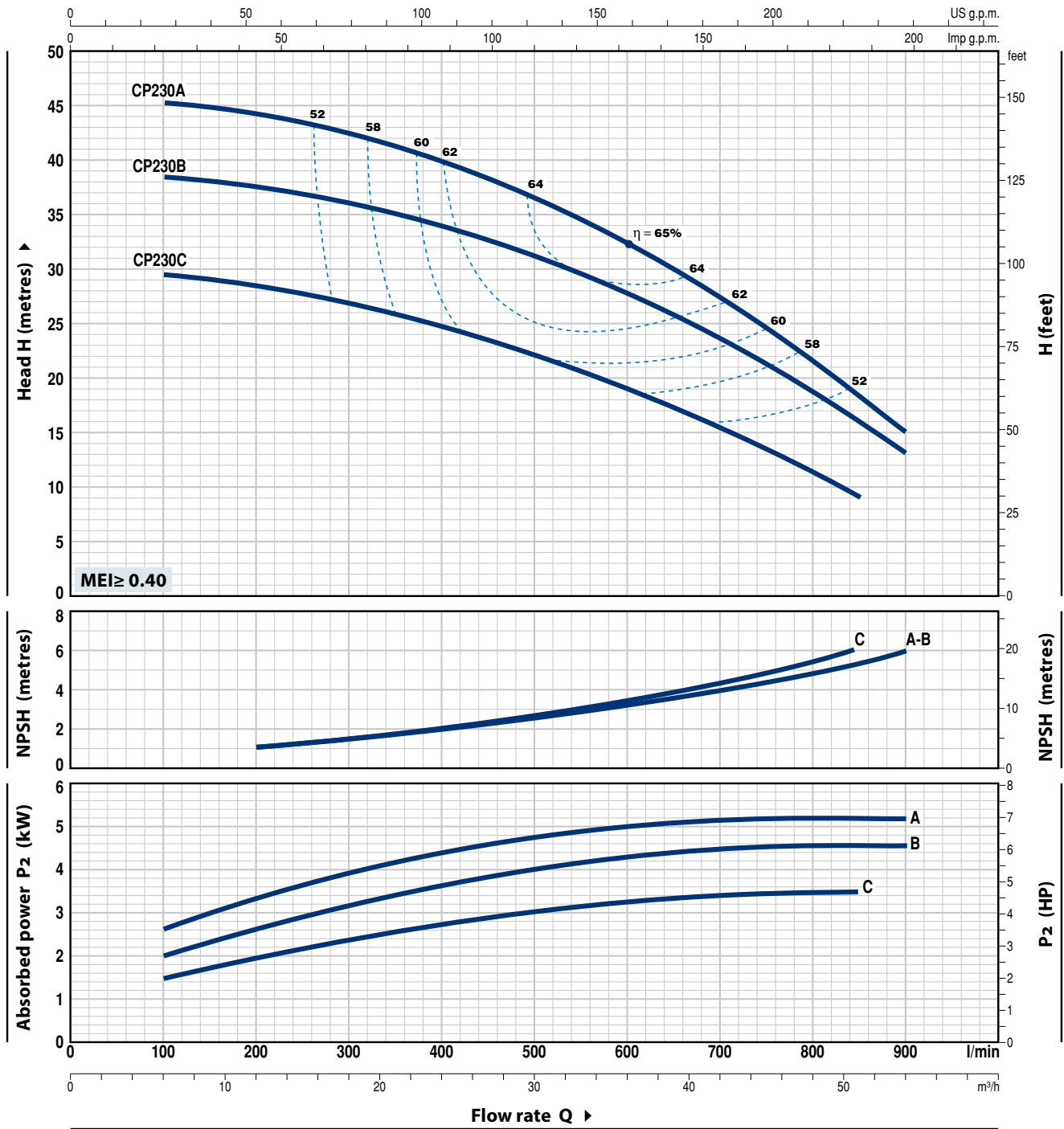
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

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

CP 230

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min⁻¹ HS= 0 m



MODEL	POWER (P ₂)		▲	Q	Flow rate Q												
	kW	HP			m ³ /h	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 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			

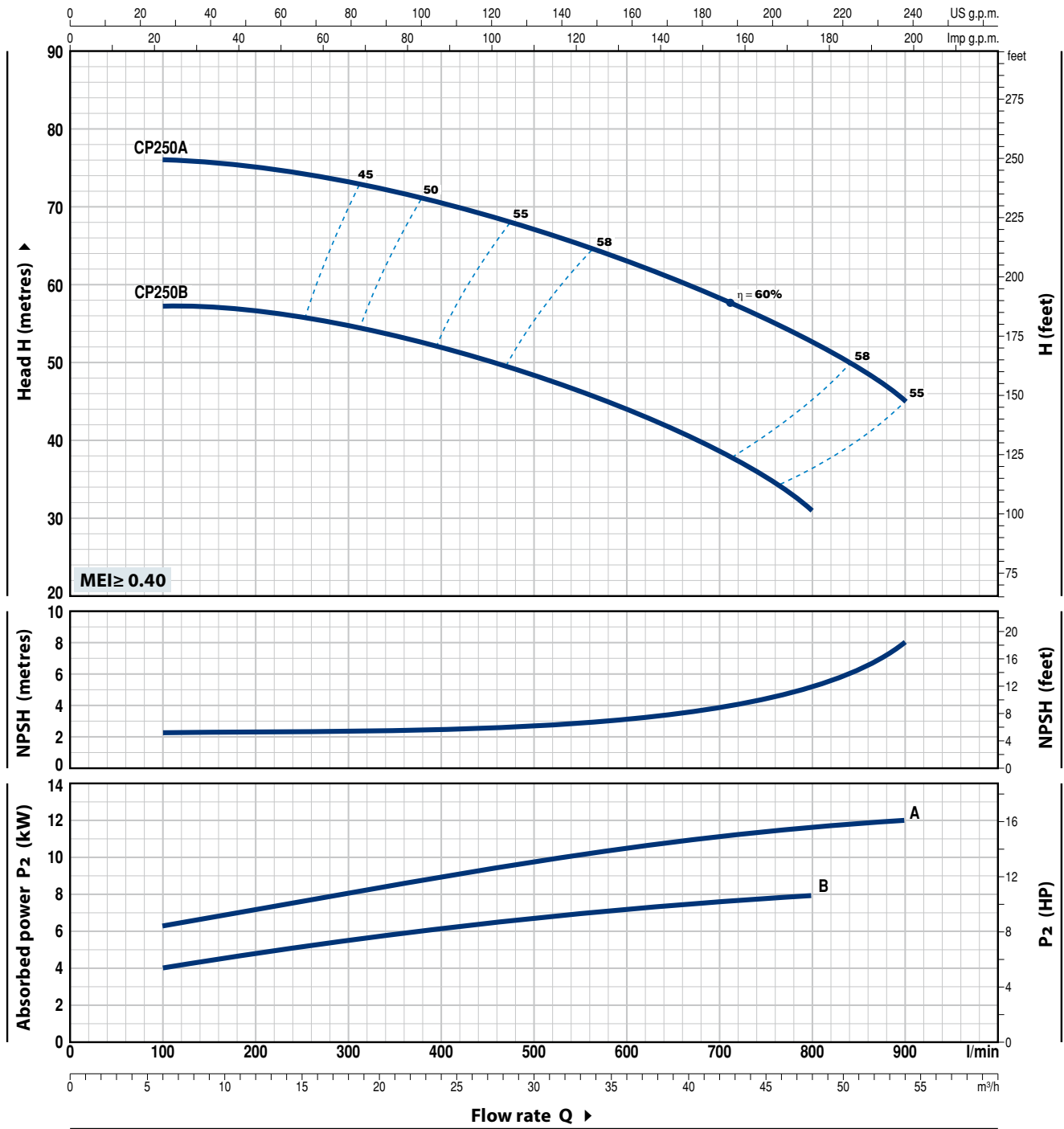
Q = Flow rate H = Total manometric head HS = Suction height

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

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

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 min⁻¹ 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	7.5	10	IE3	H metres	57	57	56.5	54.5	52	48.5	44	38	31	
CP 250A	11	15				76	76	75	73.5	71	67.5	63	58	52

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

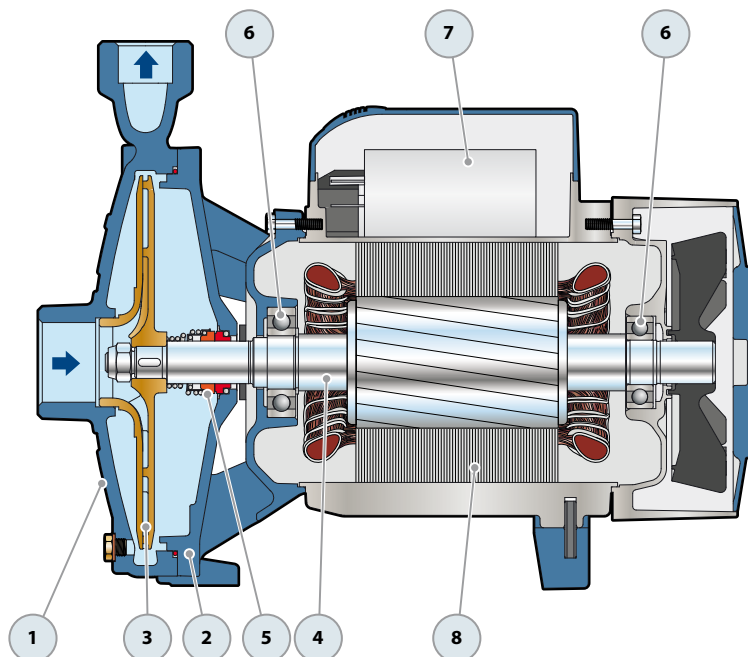
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

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

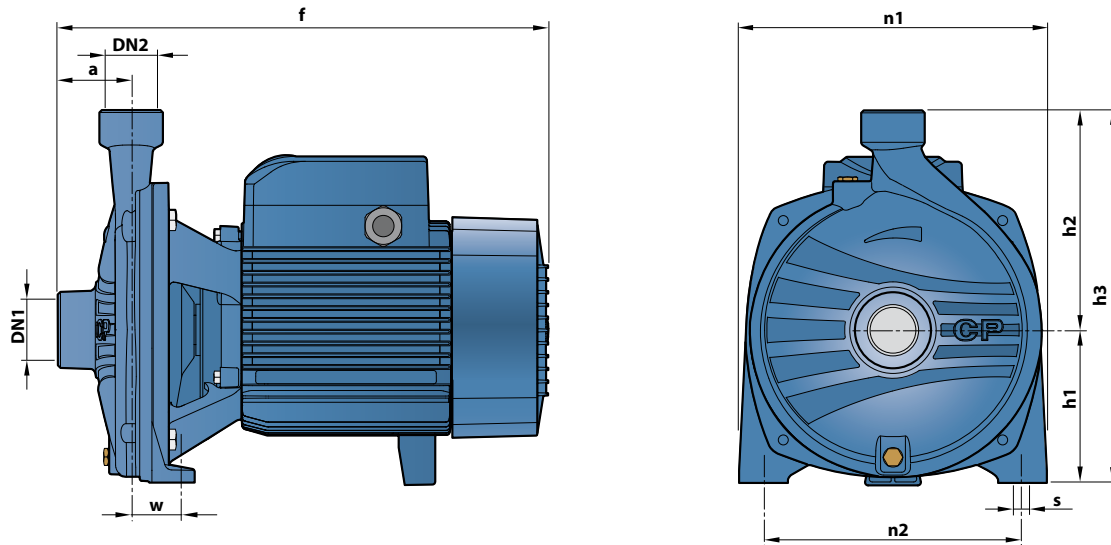
CP 160-210

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	<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 in class IE3 (IEC 60034-30-1)</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	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												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

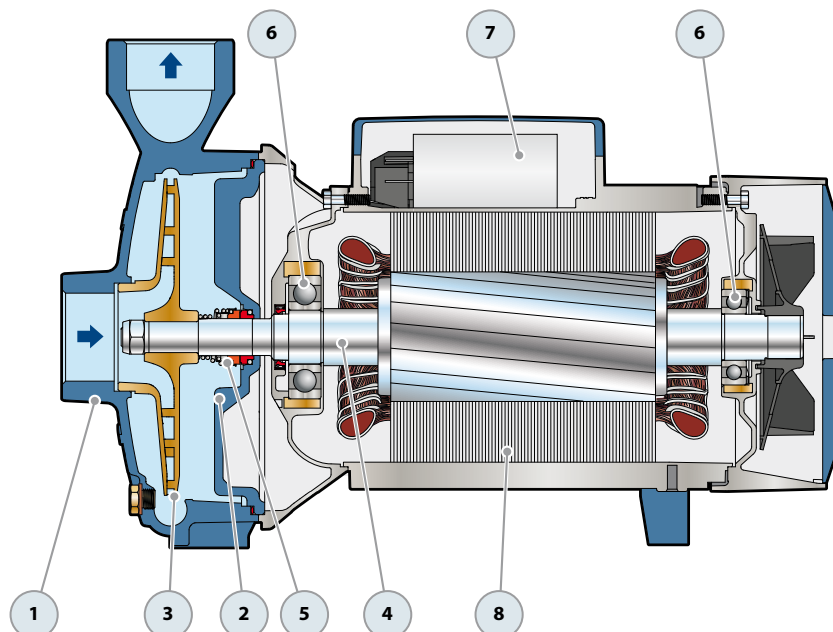
ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
CPm 160C	8.5 A	8.2 A	17.0 A
CPm 160B	10.3 A	10.0 A	20.6 A
CPm 210C	14.5 A	12.7 A	29.0 A

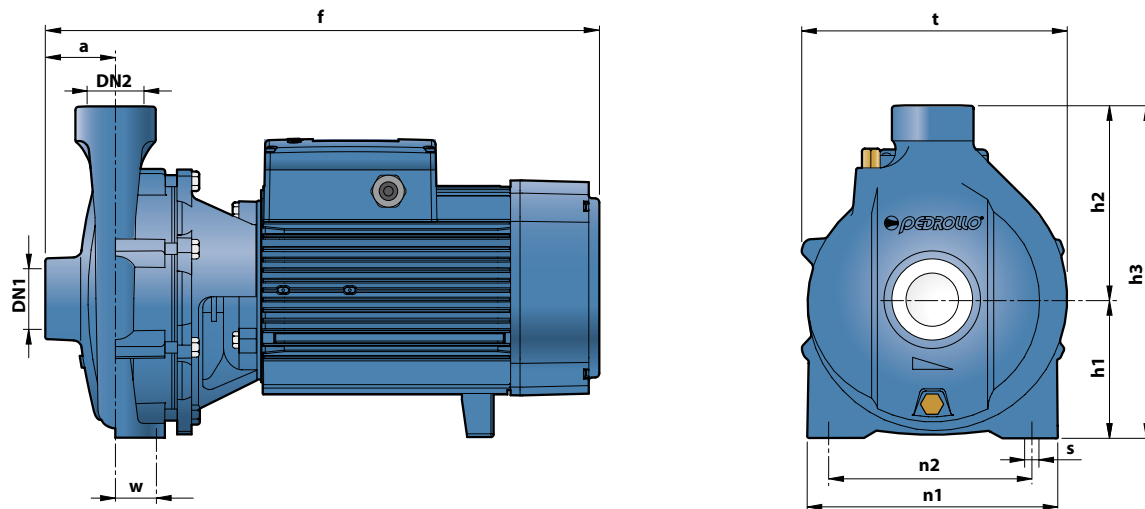
MODEL	VOLTAGE					
	230 V	400 V	690 V	240 V	415 V	720 V
CP 160C	5.7 A	3.3 A	1.9 A	5.5 A	3.2 A	1.8 A
CP 160B	6.9 A	4.0 A	2.3 A	6.7 A	3.8 A	2.2 A
CP 160A	8.9 A	5.1 A	2.9 A	8.3 A	4.8 A	2.8 A
CP 210C	9.2 A	5.3 A	3.1 A	8.8 A	5.1 A	2.9 A
CP 210B	11.2 A	6.5 A	3.8 A	10.8 A	6.2 A	3.6 A
CP 210A	14.8 A	8.5 A	4.9 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 AISI 431					
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 220C-B CP 230C	FN-20	Ø 20 mm	Graphite	Ceramic	NBR
		CP 220A-AH CP 230B-A CP 250B	FN-24	Ø 24 mm	Graphite	Ceramic	NBR
		CP 250A	FN-32 NU	Ø 32 mm	Graphite	Ceramic	NBR
6	BEARINGS	<i>Pump</i>	<i>Model</i>				
		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 CP 250A	6310 ZZ - C3 / 6308 ZZ - C3				
7	CAPACITOR	<i>Pump</i>	<i>Capacitance</i>				
		<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 60034-30-1) – 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 220C	CP 220C	2"	2"	70	440/429	132	183	315	243	230	170	40	14	34.1	32.8	
-	CP 220B				441											-
-	CP 220A				459	136	192	328	273	250	190			-	41.0	
-	CP 220AH				505									-	47.8	
-	CP 230C				440	132	183	315	243	230	170			-	31.9	
-	CP 230B				460	136	192	328	273	250	190			-	41.0	
-	CP 230A				505									-	46.0	
-	CP 250B				506	160	232	392	317	294	230			45	-	74.0
-	CP 250A				570										-	103.0

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	4.2 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	25.9 A	15.0 A	8.7 A	25.0 A	14.5 A	8.4 A
CP 250A	39.0 A	22.5 A	13.0 A	38.9 A	22.5 A	13.0 A