

2-5CP

Multi-stage centrifugal pumps

 Clean water

 Domestic use



2-4CP

Impeller: **Noryl**



2-5CP -I

Impeller: **stainless steel** AISI 304



PERFORMANCE RANGE

- Flow rate up to **130 l/min** (7.8 m³/h)
- Head up to **67 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature:
 - between **-10 °C** and **+40 °C** for 2-5CP
 - between **-10 °C** and **+60 °C** for 2-5CP-I
- Ambient temperature up to **+40 °C**
- Max. working pressure **6 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 quietness, these pumps are widely used in domestic applications such as the distribution of water in combination with small and medium sized pressure tanks, and for the irrigation of gardens and orchards, etc. Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

PATENTS - TRADE MARKS - MODELS

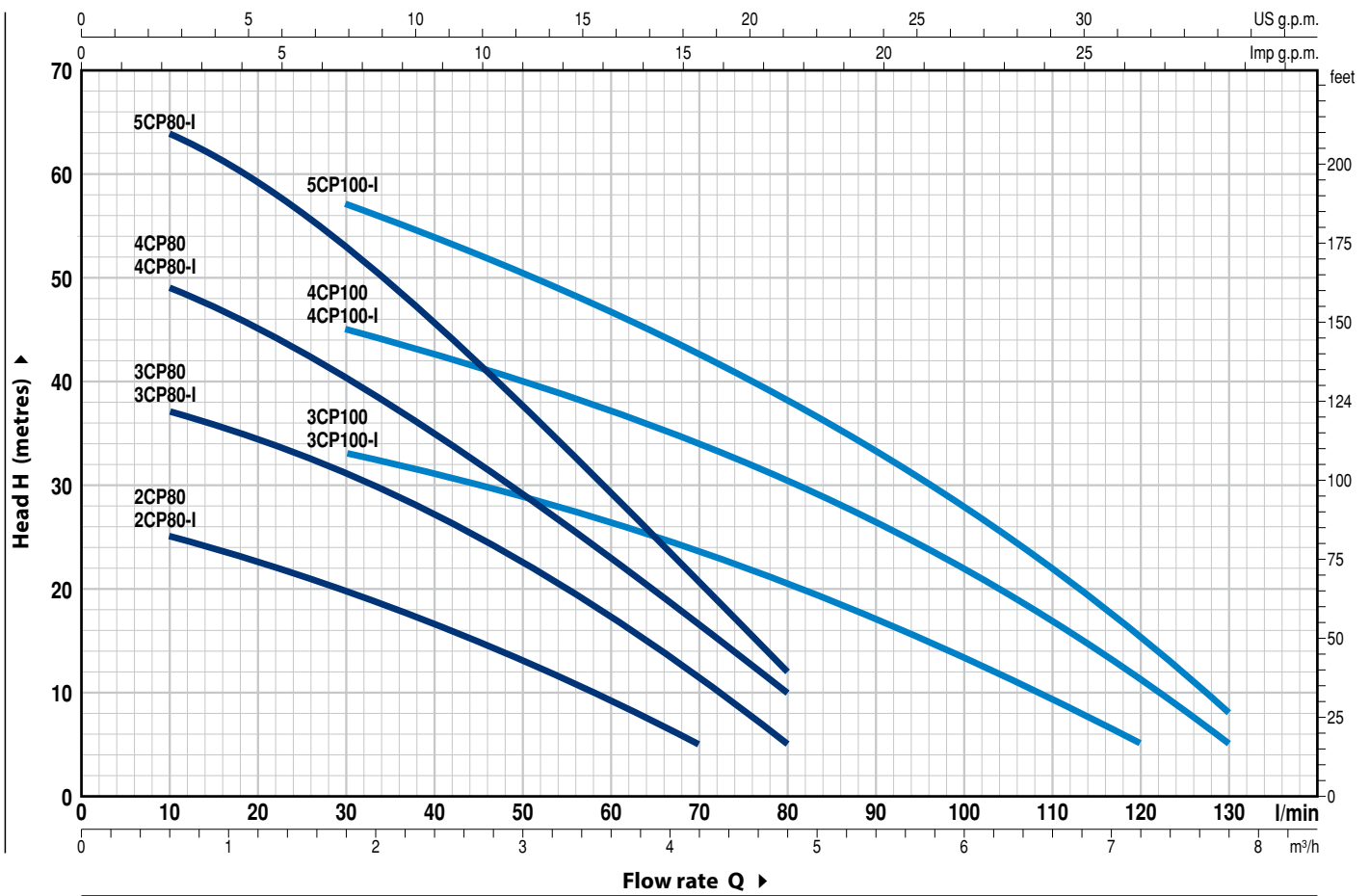
- Registered EU Design n. 002073635-0001

OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 min⁻¹ HS = 0 m



| TIPO | | POTENZA (P ₂) | | | Q | Flow rate | | | | | | | | | | | | | | | | | | | |
|------------|-----------|---------------------------|------|-----|---------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|--|--|--|
| Monofase | Trifase | kW | HP | ▲ | | 0 | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 6.6 | 7.2 | 7.8 | | | |
| | | | | | l/min | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | | | |
| 2CPm 80 | 2CP 80 | 0.37 | 0.50 | IE2 | H metri | 27 | 26 | 25 | 24 | 22.5 | 21 | 20 | 16.5 | 13 | 9 | 5 | | | | | | | | | |
| 2CPm 80-I | 2CP 80-I | | | | | 40 | 38 | 37 | 36 | 34.5 | 33 | 31 | 27 | 22.5 | 17 | 11 | 5 | | | | | | | | |
| 3CPm 80 | 3CP 80 | 0.45 | 0.60 | IE2 | | 52 | 50 | 49 | 47 | 44.5 | 42 | 40 | 34 | 28.5 | 22.5 | 16 | 10 | | | | | | | | |
| 3CPm 80-I | 3CP 80-I | | | | | 67 | 66 | 64 | 62 | 59 | 56 | 53 | 45.5 | 37.5 | 29.5 | 20.5 | 12 | | | | | | | | |
| 4CPm 80 | 4CP 80 | 0.55 | 0.75 | IE2 | | 38 | 37 | 36 | 35 | 34.5 | 33.5 | 33 | 31 | 28 | 26 | 23 | 20 | 17 | 13.5 | 10 | 5 | | | | |
| 4CPm 80-I | 4CP 80-I | | | | | 50 | 50 | 49 | 48 | 47 | 46 | 45 | 42 | 39.5 | 37 | 34 | 30.5 | 26.5 | 22 | 17 | 11 | 5 | | | |
| 5CPm 80-I | 5CP 80-I | 0.75 | 1 | IE3 | | 63 | 62 | 61.5 | 60.5 | 59.5 | 58 | 57 | 53.5 | 50.5 | 46.5 | 42.5 | 38 | 33 | 28 | 22 | 15 | 8 | | | |
| 3CPm 100 | 3CP 100 | 0.55 | 0.75 | IE2 | | 50 | 50 | 49 | 48 | 47 | 46 | 45 | 42 | 39.5 | 37 | 34 | 30.5 | 26.5 | 22 | 17 | 11 | 5 | | | |
| 3CPm 100-I | 3CP 100-I | | | | | 63 | 62 | 61.5 | 60.5 | 59.5 | 58 | 57 | 53.5 | 50.5 | 46.5 | 42.5 | 38 | 33 | 28 | 22 | 15 | 8 | | | |
| 4CPm 100 | 4CP 100 | 0.75 | 1 | IE3 | | 63 | 62 | 61.5 | 60.5 | 59.5 | 58 | 57 | 53.5 | 50.5 | 46.5 | 42.5 | 38 | 33 | 28 | 22 | 15 | 8 | | | |
| 4CPm 100-I | 4CP 100-I | | | | 63 | 62 | 61.5 | 60.5 | 59.5 | 58 | 57 | 53.5 | 50.5 | 46.5 | 42.5 | 38 | 33 | 28 | 22 | 15 | 8 | | | | |
| 5CPm 100-I | 5CP 100-I | 1.1 | 1.5 | | | | | | | | | | | | | | | | | | | | | | |

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

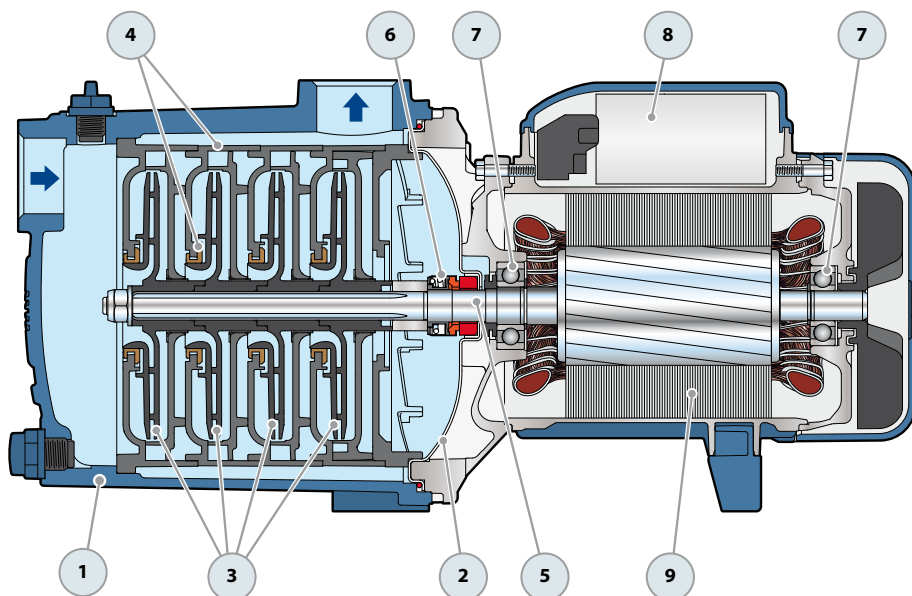
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

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

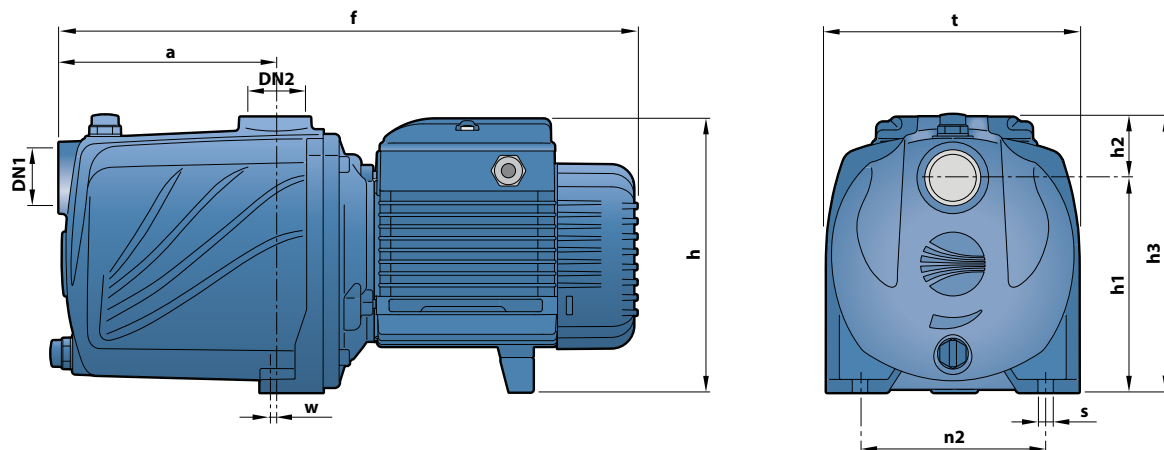
2-5CP

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 | | | | |
| 3 | IMPELLERS | Noryl | | | | |
| 4 | DIFFUSERS | Noryl complete with anti-wear ring | | | | |
| 5 | MOTOR SHAFT | Stainless steel AISI 431 | | | | |
| 6 | MECHANICAL SEAL | <i>Seal</i> | <i>Shaft</i> | <i>Materials</i> | | |
| | | <i>Model</i> | <i>Diameter</i> | <i>Stationary ring</i> | <i>Rotational ring</i> | <i>Elastomer</i> |
| | | AR-13 | Ø 13 mm | Ceramic | Graphite | NBR |
| 7 | BEARINGS | <i>Pump</i> | <i>Model</i> | | | |
| | | 2CP 80 3CP 80 4CP 80 3CP 100 4CP 100 | 6202 ZZ - C3 / 6201 ZZ | | | |
| | | | 6203 ZZ / 6203 ZZ | | | |
| 8 | CAPACITOR | <i>Pump</i> | <i>Capacitance</i> | | | |
| | | <i>Single-phase</i> | <i>(230 V or 240 V)</i> | <i>(110 V)</i> | | |
| | | 2CPm 80 | 10 µF - 450 VL | 25 µF - 250 VL | | |
| | | 3CPm 80 | 12.5 µF - 450 VL | 25 µF - 250 VL | | |
| | | 4CPm 80 | 14 µF - 450 VL | 25 µF - 250 VL | | |
| | | 3CPm 100 4CPm 100 | 20 µF - 450 VL | 60 µF - 300 VL | | |
| 9 | ELECTRIC MOTOR | <p>2-5CPm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. 2-5CP: three-phase 230/400 V - 50 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 mm | | | | | | | | | | kg | |
|--------------|-------------|-------|-----|---------------|-----|-------|-----|----|-----|-----|-----|---|----|------|------|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h | h1 | h2 | h3 | t | n2 | w | s | 1~ | 3~ |
| 2CPm 80 | 2CP 80 | 1" | 1" | 110 | 338 | 172 | 134 | 38 | 172 | 158 | 118 | 1 | 10 | 9.4 | 9.4 |
| 3CPm 80 | 3CP 80 | | | | | | | | | | | | | 10.3 | 10.3 |
| 4CPm 80 | 4CP 80 | | | 135 | 363 | 11.6 | | | | | | | | 11.1 | |
| 3CPm 100 | 3CP 100 | | | 110 | 338 | 172 | | | | | | | | 11.0 | 10.5 |
| 4CPm 100 | 4CP 100 | | | 135 | 382 | 192 * | | | | | | | | 14.2 | 14.2 |

(*) h=210 mm for single-phase versions at 110 V

ABSORPTION

| MODEL | VOLTAGE | | |
|--------------|---------|-------|--------|
| | 230 V | 240 V | 110 V |
| Single-phase | 230 V | 240 V | 110 V |
| 2CPm 80 | 2.4 A | 2.3 A | 4.4 A |
| 3CPm 80 | 3.3 A | 3.3 A | 6.4 A |
| 4CPm 80 | 4.0 A | 3.8 A | 7.8 A |
| 3CPm 100 | 3.9 A | 3.7 A | 7.8 A |
| 4CPm 100 | 6.0 A | 6.0 A | 12.0 A |

| MODEL | VOLTAGE | | | | | |
|-------------|---------|-------|-------|-------|-------|-------|
| | 230 V | 400 V | 690 V | 240 V | 415 V | 720 V |
| Three-phase | 230 V | 400 V | 690 V | 240 V | 415 V | 720 V |
| 2CP 80 | 1.7 A | 1.0 A | 0.6 A | 1.7 A | 1.0 A | 0.6 A |
| 3CP 80 | 2.5 A | 1.5 A | 0.9 A | 2.4 A | 1.4 A | 0.8 A |
| 4CP 80 | 3.4 A | 2.0 A | 1.2 A | 3.3 A | 1.9 A | 1.1 A |
| 3CP 100 | 3.4 A | 2.0 A | 1.2 A | 3.3 A | 1.9 A | 1.1 A |
| 4CP 100 | 4.0 A | 2.3 A | 1.3 A | 3.8 A | 2.2 A | 1.3 A |

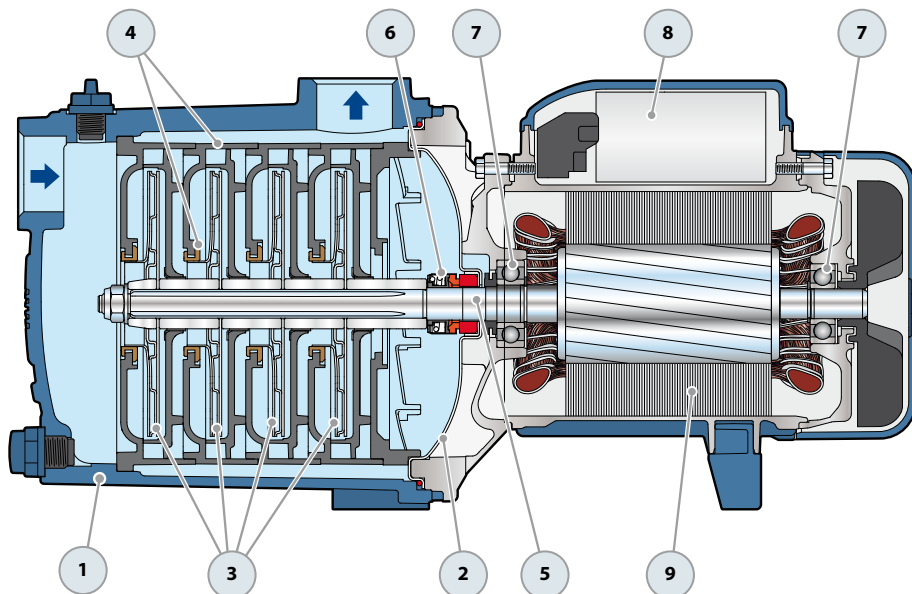
PALLETIZATION

| MODEL | | GROUPAGE | CONTAINER |
|--------------|-------------|----------|-----------|
| Single-phase | Three-phase | n. pumps | n. pumps |
| 2CPm 80 | 2CP 80 | 84 | 120 |
| 3CPm 80 | 3CP 80 | 84 | 120 |
| 4CPm 80 | 4CP 80 | 72 | 108 |
| 3CPm 100 | 3CP 100 | 84 | 120 |
| 4CPm 100 | 4CP 100 | 72 | 108 |

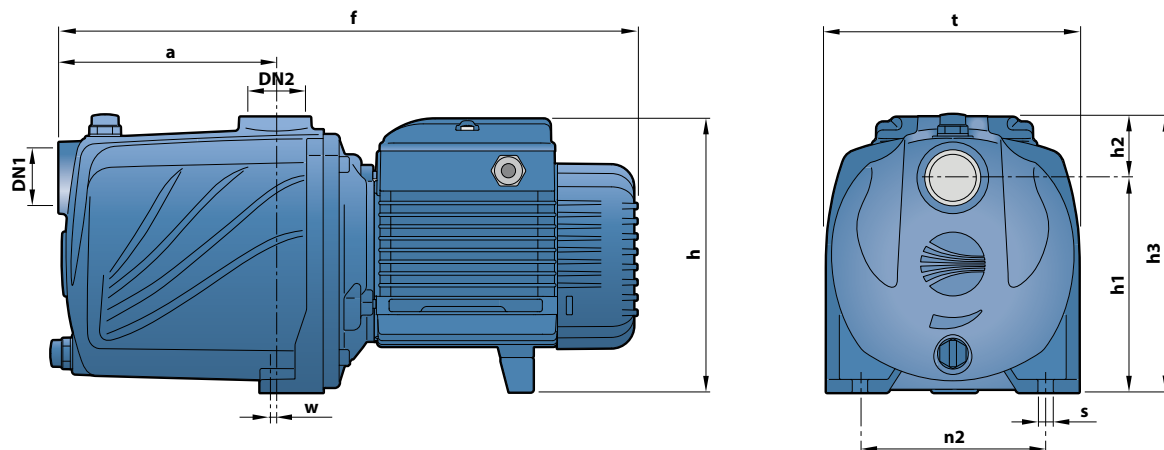
2-5CP -I

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 | | | | |
| 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</i> | <i>Shaft</i> | <i>Materials</i> | | |
| | | <i>Model</i> | <i>Diameter</i> | <i>Stationary ring</i> | <i>Rotational ring</i> | <i>Elastomer</i> |
| | | AR-13 | Ø 13 mm | Ceramic | Graphite | NBR |
| 7 | BEARINGS | <i>Pump</i> | <i>Model</i> | | | |
| | | 2CP 80-I | 6202 ZZ - C3 / 6201 ZZ | | | |
| | | 3CP 80-I | | | | |
| | | 4CP 80-I | | | | |
| | | 3CP 100-I | | | | |
| | | 4CP 100-I | 6203 ZZ / 6203 ZZ | | | |
| 5CP 80-I | | | | | | |
| 5CP 100-I | | | | | | |
| 8 | CAPACITOR | <i>Pump</i> | <i>Capacitance</i> | | | |
| | | <i>Single-phase</i> | <i>(230 V or 240 V)</i> | | <i>(110 V)</i> | |
| | | 2CPm 80-I | 10 µF - 450 VL | 25 µF - 250 VL | | |
| | | 3CPm 80-I | 12.5 µF - 450 VL | 25 µF - 250 VL | | |
| | | 4CPm 80-I | 14 µF - 450 VL | 25 µF - 250 VL | | |
| | | 3CPm 100-I | | | | |
| | | 4CPm 100-I | | | | |
| | | 5CPm 80-I | 20 µF - 450 VL | 60 µF - 300 VL | | |
| | | 5CPm 100-I | 25 µF - 450 VL | 60 µF - 300 VL | | |
| | | 9 | ELECTRIC MOTOR | 2-5CPm -I: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. | | |
| 2-5CP -I: three-phase 230/400 V - 50 Hz. | | | | | | |
| <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 mm | | | | | | | | | | kg | | | | | | | | | | |
|--------------|-------------|-------|-----|---------------|------|-----|-----|----|-----|-----|-----|---|----|------|-------|--|--|--|--|--|--|--|--|--|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h | h1 | h2 | h3 | t | n2 | w | s | 1~ | 3~ | | | | | | | | | |
| 2CPm 80-I | 2CP 80-I | 1" | 1" | 110 | 338 | 172 | 134 | 38 | 172 | 158 | 118 | 1 | 10 | 9.7 | 9.7 | | | | | | | | | |
| 3CPm 80-I | 3CP 80-I | | | | | | | | | | | | | 10.7 | 10.7 | | | | | | | | | |
| 4CPm 80-I | 4CP 80-I | | | 12.2 | 11.7 | | | | | | | | | | | | | | | | | | | |
| 5CPm 80-I | 5CP 80-I | | | 15.1 | 15.1 | | | | | | | | | | | | | | | | | | | |
| 3CPm 100-I | 3CP 100-I | | | 11.5 | 11.0 | | | | | | | | | | | | | | | | | | | |
| 4CPm 100-I | 4CP 100-I | | | 14.9 | 14.9 | | | | | | | | | | | | | | | | | | | |
| 5CPm 100-I | 5CP 100-I | | | 15.8 | 15.8 | | | | | | | | | | | | | | | | | | | |
| | | | | 135 | 363 | | | | | | | | | | | | | | | | | | | |
| | | | | 110 | 338 | | | | | | | | | | | | | | | | | | | |
| | | | | 135 | 382 | | | | | | | | | | 192 * | | | | | | | | | |

(*) h=221 mm for single-phase versions at 110 V

ABSORPTION

| MODEL | VOLTAGE | | |
|--------------|---------|-------|--------|
| Single-phase | 230 V | 240 V | 110 V |
| 2CPm 80-I | 2.4 A | 2.3 A | 4.4 A |
| 3CPm 80-I | 3.3 A | 3.3 A | 6.4 A |
| 4CPm 80-I | 4.0 A | 3.8 A | 7.8 A |
| 5CPm 80-I | 5.5 A | 5.2 A | 11.0 A |
| 3CPm 100-I | 3.9 A | 3.7 A | 7.8 A |
| 4CPm 100-I | 6.0 A | 6.0 A | 12.0 A |
| 5CPm 100-I | 6.6 A | 6.4 A | 13.2 A |

| MODEL | VOLTAGE | | | | | |
|-------------|---------|-------|-------|-------|-------|-------|
| Three-phase | 230 V | 400 V | 690 V | 240 V | 415 V | 720 V |
| 2CP 80-I | 1.7 A | 1.0 A | 0.6 A | 1.7 A | 1.0 A | 0.6 A |
| 3CP 80-I | 2.5 A | 1.5 A | 0.9 A | 2.4 A | 1.4 A | 0.8 A |
| 4CP 80-I | 3.4 A | 2.0 A | 1.2 A | 3.3 A | 1.9 A | 1.1 A |
| 5CP 80-I | 4.3 A | 2.5 A | 1.4 A | 4.1 A | 2.4 A | 1.3 A |
| 3CP 100-I | 3.4 A | 2.0 A | 1.2 A | 3.3 A | 1.9 A | 1.1 A |
| 4CP 100-I | 4.0 A | 2.3 A | 1.3 A | 3.8 A | 2.2 A | 1.3 A |
| 5CP 100-I | 4.3 A | 2.5 A | 1.4 A | 4.2 A | 2.4 A | 1.4 A |

PALLETIZATION

| MODEL | | GROUPAGE | CONTAINER |
|--------------|-------------|----------|-----------|
| Single-phase | Three-phase | n. pumps | n. pumps |
| 2CPm 80-I | 2CP 80-I | 84 | 120 |
| 3CPm 80-I | 3CP 80-I | 84 | 120 |
| 4CPm 80-I | 4CP 80-I | 84 | 120 |
| 5CPm 80-I | 5CP 80-I | 72 | 108 |
| 3CPm 100-I | 3CP 100-I | 84 | 120 |
| 4CPm 100-I | 4CP 100-I | 72 | 108 |
| 5CPm 100-I | 5CP 100-I | 72 | 108 |