

-  Clean water
-  Domestic use
-  Civil use
-  Agricultural use



PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3 m³/h)
- Head up to **51 m**

APPLICATION LIMITS

- Manometric suction lift up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+90 °C**
- Temperature of diesel up to **+55 °C**
- 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
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with diesel, clean water that does not contain abrasive particles and with liquids that are not chemically aggressive towards the materials from which the pump is made. Because of a specific principle of their operating performance these pumps are an excellent solution in every case where a compact self-priming pump is required or when the fluid flow is irregular or contains air.

The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

- Motor bracket: patent n. IT1243605
- CK 80-E/90-E Registered EU Design n. 342159-0008

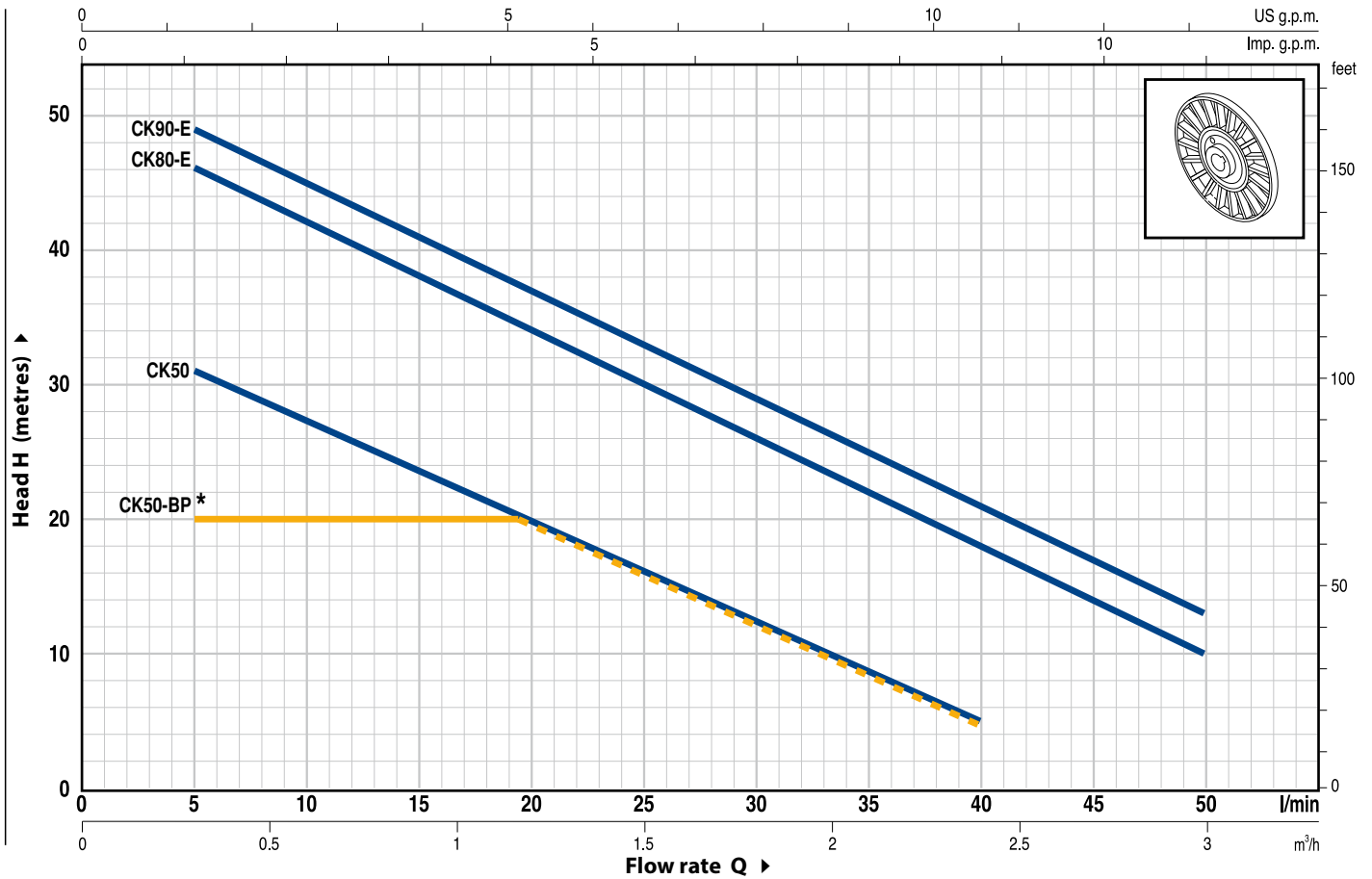
OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency for CK 80-E, CK 90-E
- IP X5 class protection for CK 80-E, CK 90-E

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CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



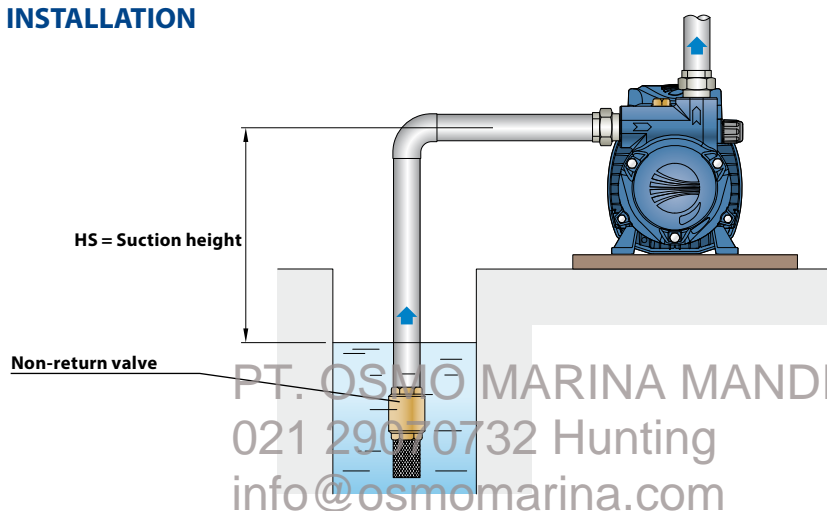
| MODEL | | POWER (P ₂) | | Q | Flow rate | | | | | | | | | | | | |
|--------------|-------------|-------------------------|------|----------|-------------------|----|-----|-----|-----|------|-----|-----|-----|-----|-----|--|--|
| Single-phase | Three-phase | kW | HP | | m ³ /h | 0 | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 | 1.8 | 2.1 | 2.4 | 3.0 | | |
| | | | | l/min | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 50 | | | |
| CKm 50 | CK 50 | 0.37 | 0.50 | H metres | 35 | 31 | 27 | 24 | 20 | 16 | 13 | 9 | 5 | | | | |
| CKm 50-BP | CK 50-BP | 0.25 | 0.33 | | 20 | 20 | 20 | 20 | 20 | 16.5 | 13 | 9 | 5 | | | | |
| CKm 80-E | CK 80-E | 0.55 | 0.75 | | 48 | 46 | 42 | 38 | 34 | 30 | 26 | 22 | 18 | 10 | | | |
| CKm 90-E | CK 90-E | 0.75 | 1 | | 51 | 49 | 45 | 41 | 37 | 33 | 29 | 25 | 21 | 13 | | | |

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

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

(*) CK 50-BP = performance curve with by-pass

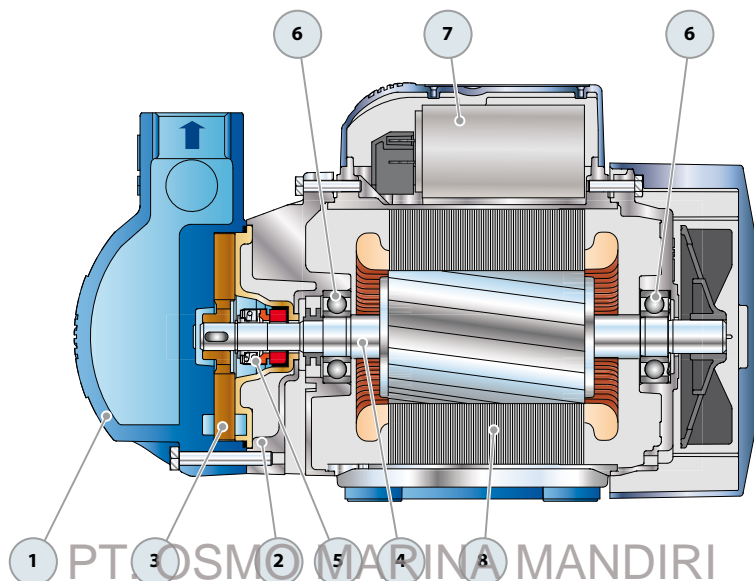
STANDARD INSTALLATION



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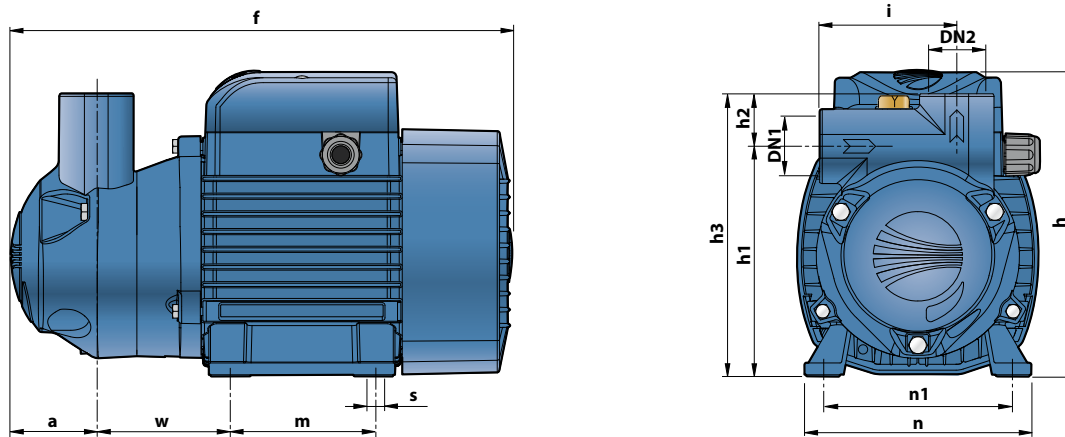
POS. COMPONENT CONSTRUCTION CHARACTERISTICS

| | | | | | |
|--------------------------|--|--|------------------------|--|------------------|
| 1 PUMP BODY | Cast iron complete with threaded ports in compliance with ISO 228/1 | | | | |
| 2 MOTOR BRACKET | Aluminium with brass insert (patented), reduces the risk of impeller seizure | | | | |
| 3 IMPELLER | Brass star type with open radial vanes | | | | |
| 4 MOTOR SHAFT | Stainless steel EN 10088-3 - 1.4104 | | | | |
| 5 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-12V | Ø 12 mm | Ceramic | Graphite | Viton |
| 6 BEARINGS | <i>Pump</i> | <i>Model</i> | | | |
| | CK 50 | 6201 ZZ / 6201 ZZ | | | |
| | CK 50-BP | | | | |
| | CK 80-E CK 90-E | 6203 ZZ / 6203 ZZ | | | |
| 7 CAPACITOR | <i>Pump</i> | <i>Capacitance</i> | | | |
| | <i>Single-phase</i> | <i>(230 V or 240 V)</i> | | <i>(110 V)</i> | |
| | CKm 50 | 12.5 µF - 450 VL | | 25 µF - 250 VL | |
| | CKm 50-BP | | | | |
| | CKm 80-E CKm 90-E | 16 µF - 450 VL 20 µF - 450 VL | | 60 µF - 300 VL 60 µF - 300 VL | |
| 8 ELECTRIC MOTOR | <p>CKm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. CK: three-phase 230/400 V - 50 Hz.</p> <p>➔ The three-phase pumps are fitted with high performance motors in class IE2 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 | | | | |



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DIMENSIONS AND WEIGHT



| MODEL | | PORTS | | DIMENSIONS mm | | | | | | | | | | | | kg | | |
|--------------|-------------|-------|-----|---------------|-----|-----|-----|----|-----|----|----|-----|-----|----|---|----|-------------|------------|
| Single-phase | Three-phase | DN1 | DN2 | a | f | h | h1 | h2 | h3 | i | m | n | n1 | w | s | 1~ | 3~ | |
| CKm 50 | CK 50 | ¾" | ¾" | 41 | 254 | 152 | 128 | 23 | 151 | 75 | 80 | 120 | 100 | 69 | 7 | | 7.5 | 6.9 |
| CKm 50-BP | CK 50-BP | | | 45 | 258 | | | | | | | | | | | | | |
| CKm 80-E | CK 80-E | 1" | 1" | 50 | 296 | 180 | 136 | 31 | 167 | 81 | 90 | 140 | 112 | 77 | | | 10.8 | 9.9 |
| CKm 90-E | CK 90-E | | | | | | | | | | | | | | | | | |

ABSORPTION

| MODEL | VOLTAGE | | |
|--------------|---------|-------|-------|
| | 230 V | 240 V | 110 V |
| Single-phase | 230 V | 240 V | 110 V |
| CKm 50 | 3.0 A | 2.9 A | 6.2 A |
| CKm 50-BP | 3.0 A | 2.9 A | 6.2 A |
| CKm 80-E | 5.0 A | 4.8 A | 9.8 A |
| CKm 90-E | 5.1 A | 4.9 A | 9.4 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 |
| CK 50 | 2.1 A | 1.2 A | 0.7 A | 1.9 A | 1.1 A | 0.6 A |
| CK 50-BP | 2.1 A | 1.2 A | 0.7 A | 1.9 A | 1.1 A | 0.6 A |
| CK 80-E | 3.5 A | 2.0 A | 1.2 A | 3.4 A | 1.9 A | 1.1 A |
| CK 90-E | 3.6 A | 2.1 A | 1.25 A | 3.5 A | 2.0 A | 1.1 A |

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