

Self-priming liquid ring pumps

-  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



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.

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

PATENTS - TRADE MARKS - MODELS

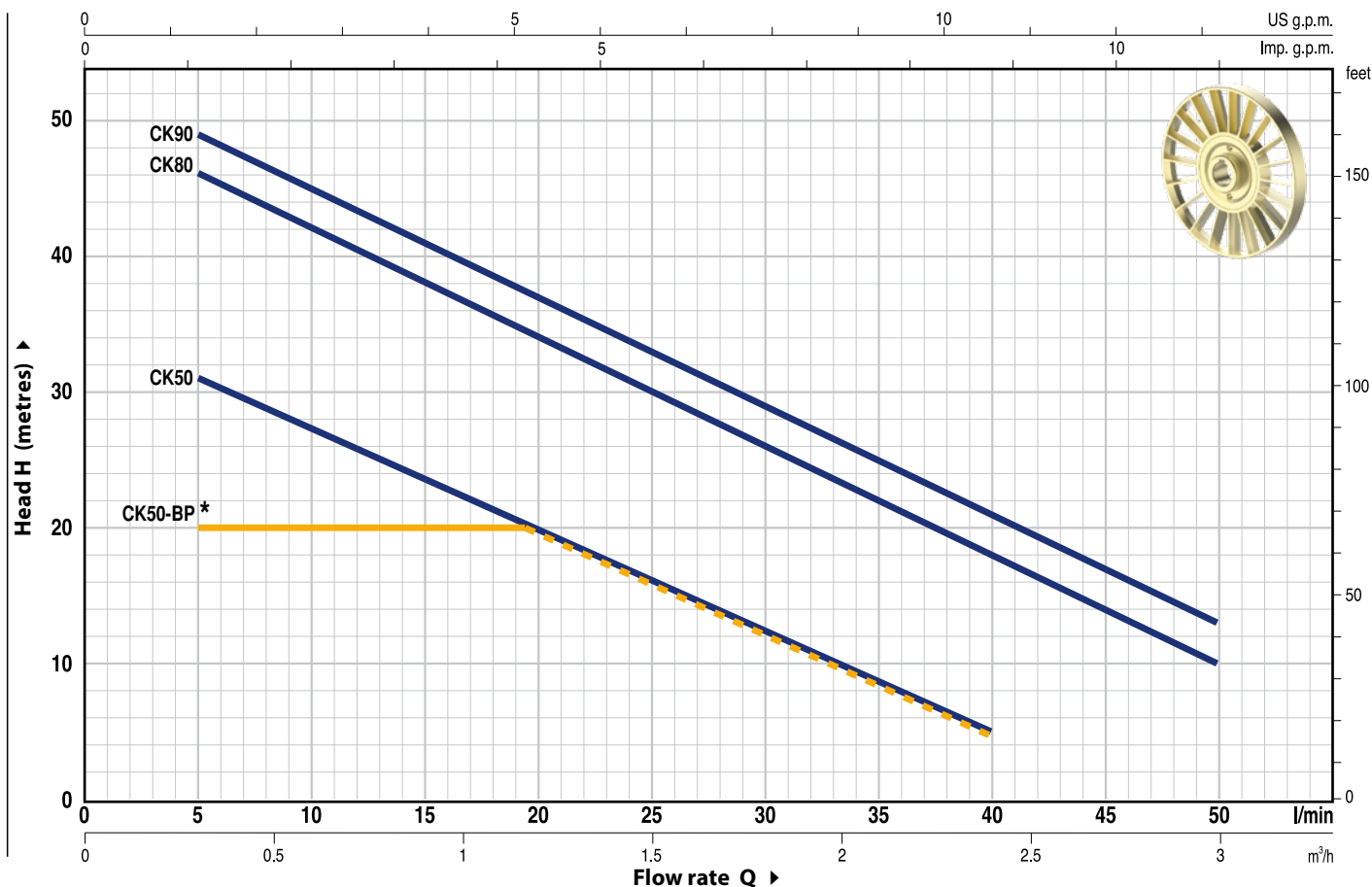
- Motor bracket: patent n. IT1243605
- CK 80/90 Registered EU Design n. 342159-0008

OPTIONS AVAILABLE ON REQUEST

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

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min⁻¹ HS= 0 m



MODEL		POWER (P ₂)			Q	m³/h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	3.0
Single-phase	Three-phase	kW	HP	▲		l/min	0	5	10	15	20	25	30	35	40	50
CKm 50	CK 50	0.37	0.50	IE2	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	13	9	5		
CKm 80	CK 80	0.55	0.75	IE3		48	46	42	38	34	30	26	22	18	10	
CKm 90	CK 90	0.75	1			51	49	45	41	37	33	29	25	21	13	

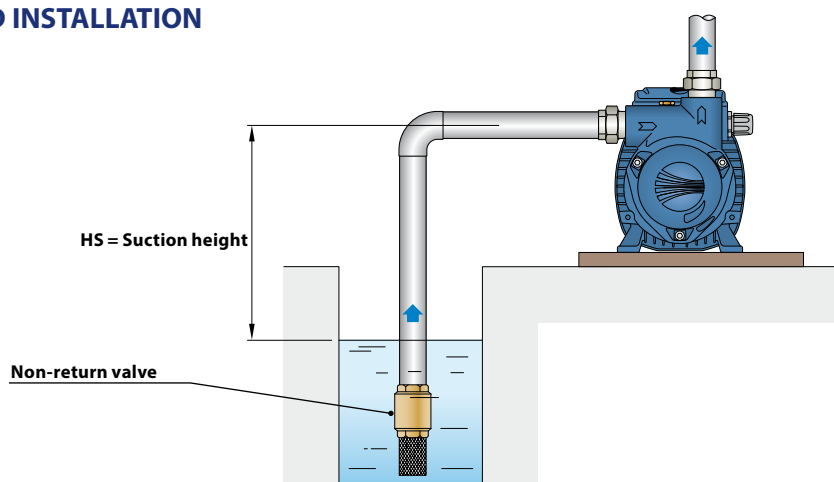
Q = Flow rate H = Total manometric head HS = Suction height

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

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

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

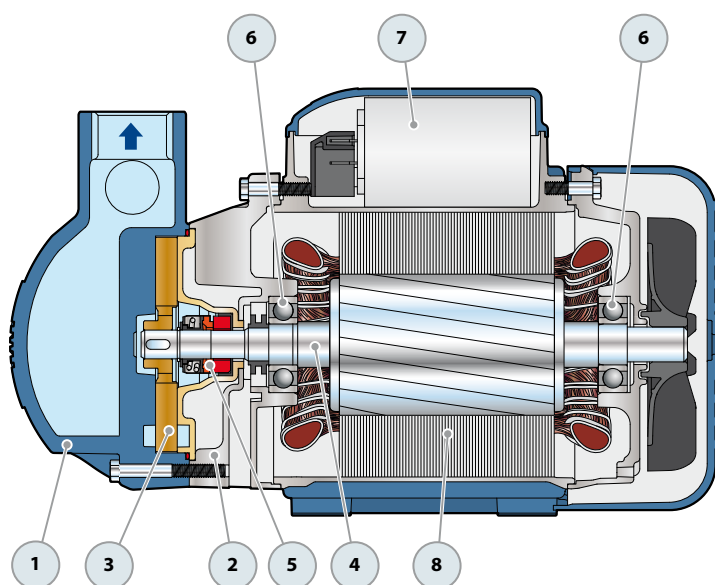
STANDARD INSTALLATION



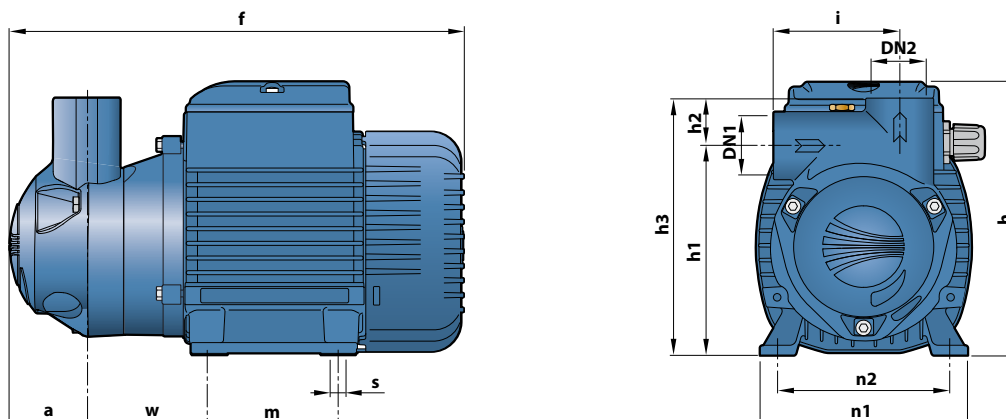
POS. COMPONENT

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 AISI 431			
5	MECHANICAL SEAL	<i>Seal</i> <i>Model</i> AR-12V	<i>Shaft</i> <i>Diameter</i> Ø 12 mm	<i>Stationary ring</i> Ceramic	<i>Materials</i> <i>Rotational ring</i> Graphite <i>Elastomer</i> Viton
6	BEARINGS	<i>Pump</i> CK 50 CK 50-BP CK 80 CK 90	<i>Model</i> 6201 ZZ / 6201 ZZ 6203 ZZ / 6203 ZZ		
7	CAPACITOR	<i>Pump</i> <i>Single-phase</i> CKm 50 CKm 50-BP CKm 80 CKm 90	<i>Capacitance</i> <i>(230 V or 240 V)</i> 12.5 µF - 450 VL 16 µF - 450 VL 20 µF - 450 VL	<i>(110 V)</i> 25 µF - 250 VL 60 µF - 250 VL 60 µF - 250 VL	
8	ELECTRIC MOTOR	CKm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. CK: three-phase 230/400 V - 50 Hz. → The three-phase pumps are fitted with high performance motors up to P₂=0.37 kW in class IE2 and from P₂=0.55 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	h	h1	h2	h3	i	m	n1	n2	w	s	1~	3~
CKm 50	CK 50	¾"	¾"	41	260	152	128	24	152	75	80	120	100	70	7	7.3	7.3
CKm 50-BP	CK 50-BP			43	261											7.2	7.3
CKm 80	CK 80	1"	1"	50	297	181	136	31	167	81	90	134	112	76		10.8	10.8
CKm 90	CK 90															10.8	10.8

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
CKm 50	3.0 A	2.9 A	6.2 A
CKm 50-BP	2.7 A	2.9 A	5.4 A
CKm 80	5.0 A	4.8 A	9.8 A
CKm 90	5.1 A	4.9 A	9.4 A

MODEL	VOLTAGE					
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	2.1 A	1.2 A	0.7 A
CK 50-BP	1.8 A	1.0 A	0.6 A	1.7 A	1.0 A	0.6 A
CK 80	3.5 A	2.0 A	1.2 A	3.3 A	1.9 A	1.1 A
CK 90	3.6 A	2.1 A	1.2 A	3.5 A	2.0 A	1.2 A