



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



INSTALLATION AND USE

Suitable for use with diesel, clean water that does not contain abrasive particles and liquids that are not chemically aggressive towards the materials from which the pump is made.

As a specific result of the pump's operating principle they are suitable for use in all situations where a compact self-priming pump is required or where the fluid supply is limited, irregular or contains air.

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

PATENTS - TRADE MARKS - MODELS

- Motor bracket: patent n° IT1243605
- CK 80/90 Registered Community Design n° 342159-0008

OPTIONALS AVAILABLE ON REQUEST

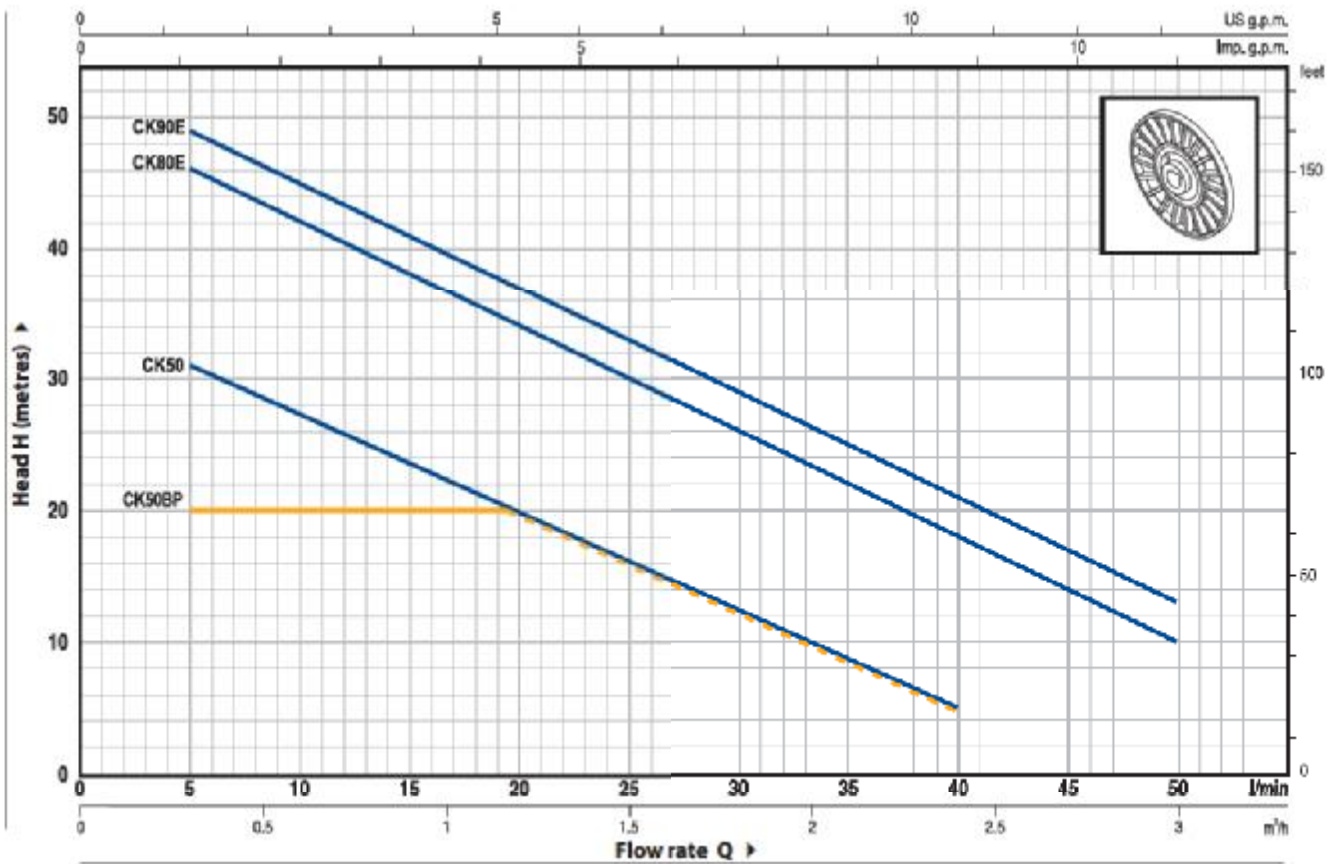
- **CK-INT** pump with switch and power cable complete with Schuko plug
- **CKm 50-BP/NZ** pump with aluminium trigger dispensing nozzle and 4 metre long spiral reinforced hose.
- Special mechanical seal
- Other voltages or 60 Hz frequency
- IP 55 class protection

GUARANTEE

2 years subject to terms and conditions

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 1/min HS= 0 m



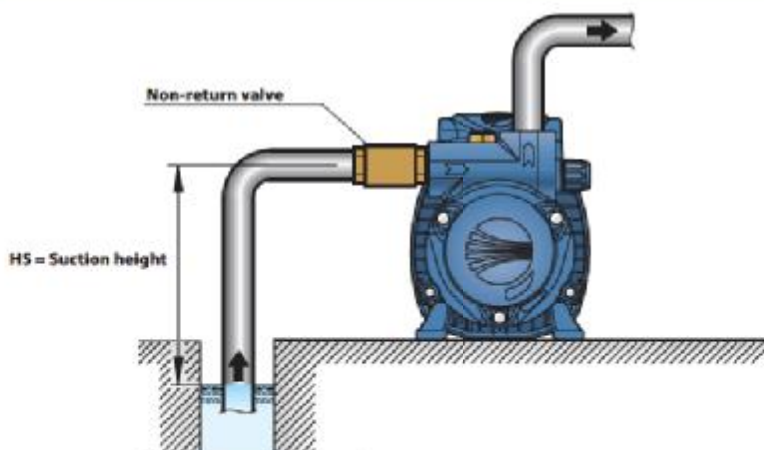
MODEL		POWER		Q	H metres												
Single-phase	Three-phase	kW	HP		m³/h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	3.0		
				l/min	0	5	10	15	20	25	30	35	40	50			
CKm 50	CK 50	0.37	0.50	H metres	35	31	27	24	20	16	13	9	5				
CKm 50-BP	CK 50-BP	0.25	0.33		20	20	20	20	20	16.5	13	9	5				
CKm 80E	CK 80E	0.55	0.75		48	46	42	38	34	30	26	22	18	10			
CKm 90E	CK 90E	0.75	1		51	49	45	41	37	33	29	25	21	13			

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

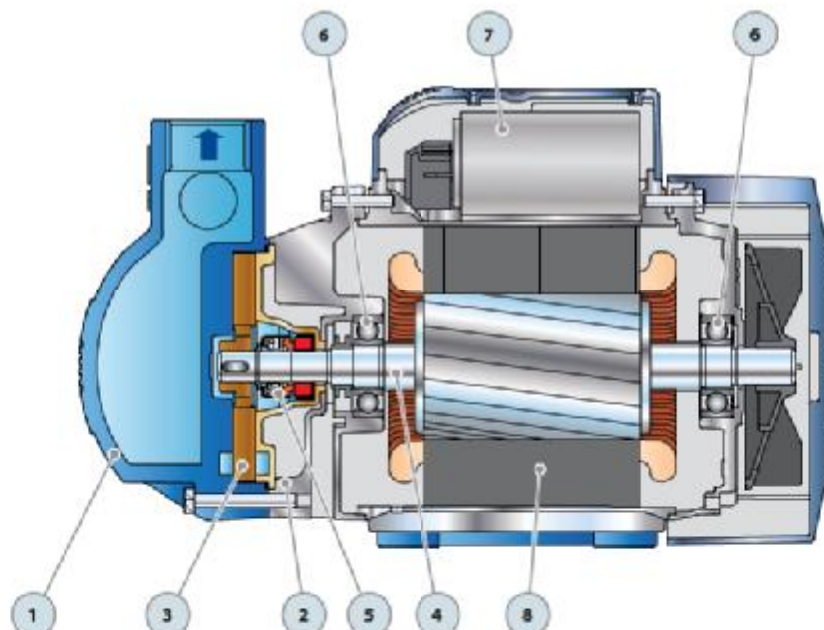
Tolerance of characteristic curves in compliance with EN ISO 9906 App. A.

CK 50-BP = pump with integral by-pass

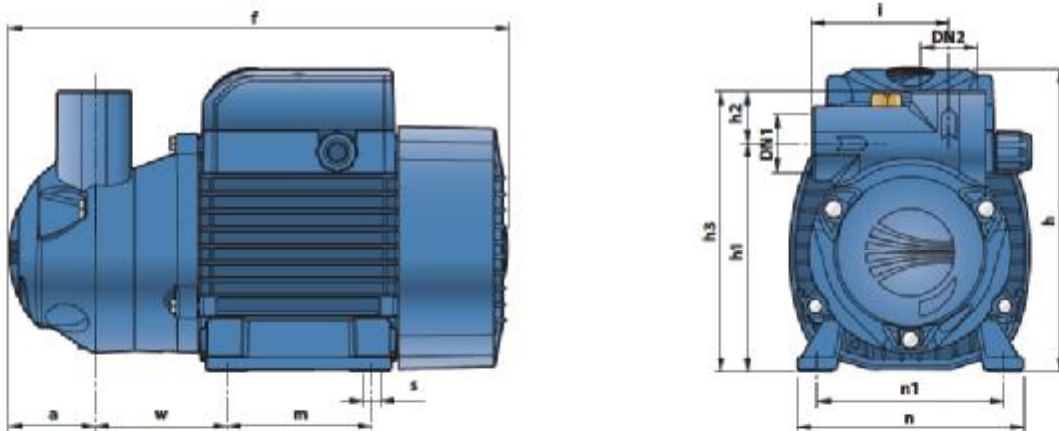
INSTALLATION EXAMPLE



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	6203 ZZ / 6203 ZZ				
	CK 90						
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	30 µF 250 VL			
		CKm 50-BP					
		CKm 80E	16 µF 450 VL	60 µF 300 VL			
	CKm 90E	20 µF 450 VL	60 µF 300 VL				
8	ELECTRIC MOTOR	<p>CKm: single-phase 230 V - 50 Hz with thermal overload protector built-in to the winding. CK: three-phase 230/400 V - 50 Hz.</p> <p>→ Pumps fitted with the three-phase motor option offer IE2 (IEC 60034-30) class high performance</p> <p>– Insulation: F class. – Protection: IP 44.</p>					



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	260	159	128	25	153	75	80	120	100	69	7	7.4	6.8
CKm 50-BP	CK 50-BP			44	263											10.8	9.9
CKm 80E	CK 80E	1"	1"	50	296	180	136	31	167	81	90	140	112	77		10.8	9.9
CKm 90E	CK 90E			10.9	10.0												

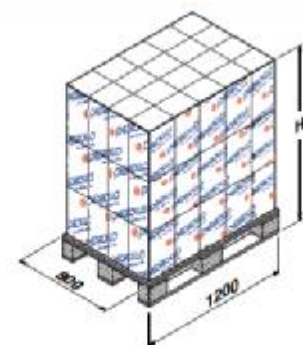
ABSORPTION

MODEL	VOLTAGE (single-phase)		
	230 V	240 V	110 V
Single-phase			
CKm 50	3.0 A	2.9 A	6.2 A
CKm 50-BP	3.0 A	2.9 A	6.2 A
CKm 80E	5.0 A	4.8 A	9.8 A
CKm 90E	4.8 A	4.4 A	9.4 A

MODEL	VOLTAGE (three-phase)					
	230 V	400 V	690 V	240 V	415 V	720 V
Three-phase						
CK 50	2.1 A	1.2 A	0.7 A	2.0 A	1.2 A	0.7 A
CK 50-BP	2.1 A	1.2 A	0.7 A	2.0 A	1.2 A	0.7 A
CK 80E	3.5 A	2.0 A	1.2 A	3.4 A	2.0 A	1.2 A
CK 90E	3.5 A	2.0 A	1.2 A	3.4 A	2.0 A	1.2 A

PALLETIZATION

MODEL		GROUPAGE				CONTAINER			
Single-phase	Three-phase	n° pumps	H (mm)	kg		n° pumps	H (mm)	kg	
				1~	3~			1~	3~
CKm 50	CK 50	120	1280	910	840	180	1850	1350	1240
CKm 50-BP	CK 50-BP	120	1280	910	840	180	1850	1350	1240
CKm 80E	CK 80E	102	1370	1120	1030	136	1780	1490	1370
CKm 90E	CK 90E	102	1370	1130	1040	136	1780	1500	1380



Self-priming liquid ring pumps

⇒ with double anti-seize inserts



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



INSTALLATION AND USE

Suitable for use with clean water or liquids that do not contain abrasive particles and liquids that are not chemically aggressive towards the materials from which the pump is made.

As a specific result of the pump's operating principle they are suitable for use in all situations where a compact self-priming pump is required or where the fluid supply is limited, irregular or contains air.

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

PATENTS - TRADE MARKS - MODELS

- Motor bracket: patent n° IT1243605
- Registered Community Design n° 342159-0008

OPTIONALS AVAILABLE ON REQUEST

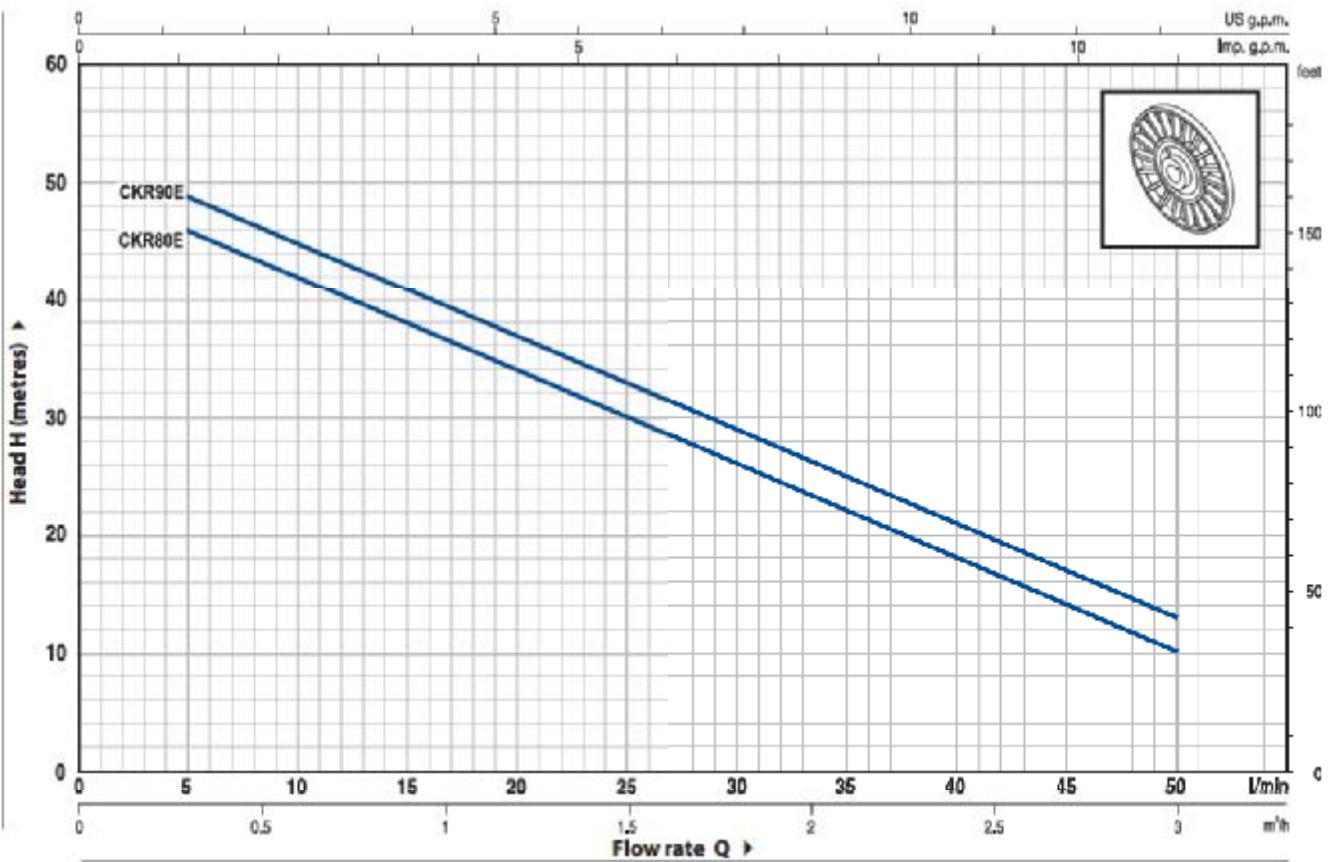
- Special mechanical seal
- Other voltages or 60 Hz frequency
- IP 55 class protection

GUARANTEE

2 years subject to terms and conditions

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 1/min HS= 0 m

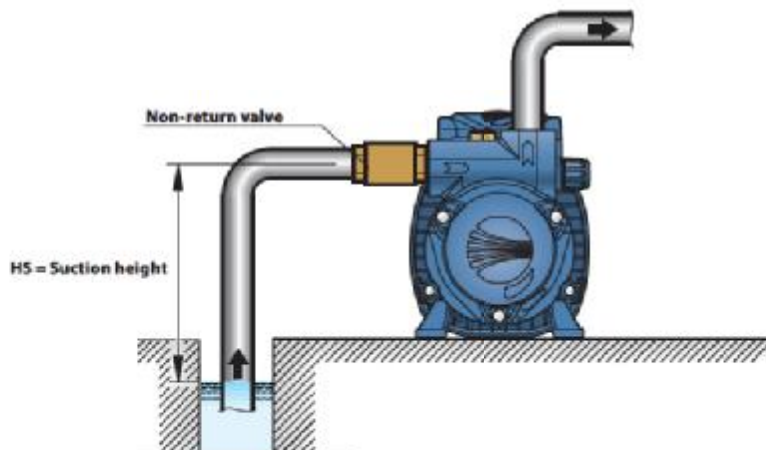


MODEL		POWER		Q													
Single-phase	Three-phase	kW	HP		m³/h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	3.0		
CKRm 80E	CKR 80E	0.55	0.75	l/min	0	5	10	15	20	25	30	35	40	50			
CKRm 90E	CKR 90E	0.75	1	H metres	48	46	42	38	34	30	26	22	18	10			
					51	49	45	41	37	33	29	25	21	13			

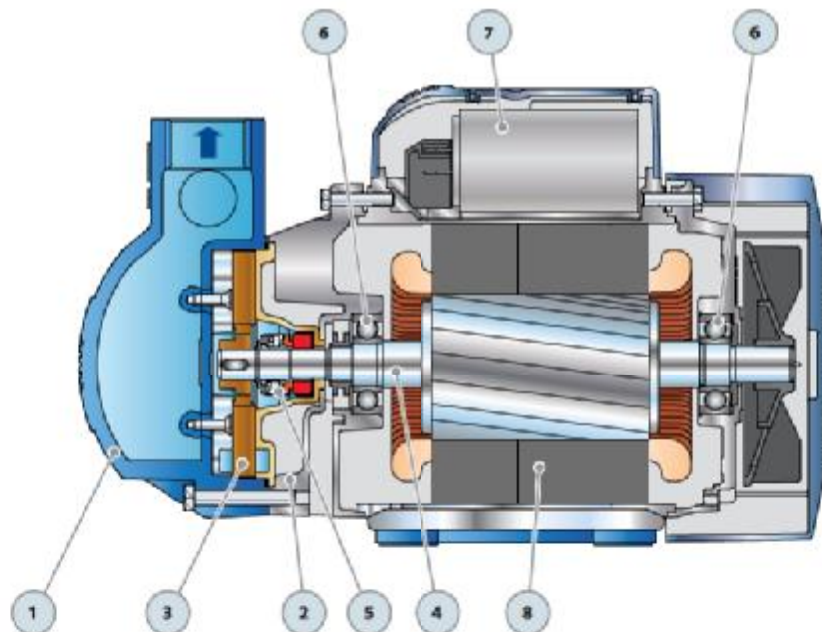
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 App. A.

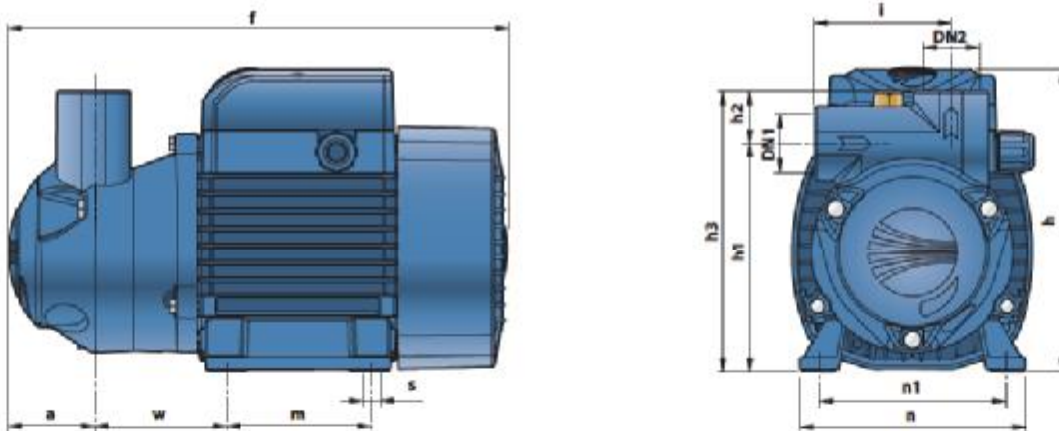
INSTALLATION EXAMPLE



POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS				
1	PUMP BODY	Cast iron, with stainless steel insert to prevent impeller seizure due to the formation of rust . The pump body is 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	Seal	Shaft	Materials		
		Model	Diameter	Stationary ring	Rotational ring	Elastomer
		AR-12V	Ø 12 mm	Ceramic	Graphite	Viton
6	BEARINGS	6203 ZZ / 6203 ZZ				
7	CAPACITOR	Pump	Capacitance			
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>		
		CKRm 80E	16 µF 450 VL	60 µF 300 VL		
		CKRm 90E	20 µF 450 VL	60 µF 300 VL		
8	ELECTRIC MOTOR	<p>CKRm: single-phase 230 V - 50 Hz with thermal overload protector built-in to the winding.</p> <p>CKR: three-phase 230/400 V - 50 Hz.</p> <p>⇒ Pumps fitted with the three-phase motor option offer IE2 (IEC 60034-30) class high performance</p> <p>– Insulation: F class.</p> <p>– Protection: IP 44.</p>				



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~	
CKRm 80E	CKR 80E	1"	1"	50	296	180	136	31	167	81	90	140	112	77	7	10.8	9.9	
CKRm 90E	CKR 90E															10.9	10.0	

ABSORPTION

MODEL	VOLTAGE (single-phase)		
	230 V	240 V	110 V
Single-phase			
CKRm 80E	5.0 A	4.8 A	9.8 A
CKRm 90E	4.8 A	4.4 A	9.4 A

MODEL	VOLTAGE (three-phase)					
	230 V	400 V	690 V	240 V	415 V	720 V
Three-phase						
CKR 80E	3.5 A	2.0 A	1.2 A	3.4 A	2.0 A	1.2 A
CKR 90E	3.5 A	2.0 A	1.2 A	3.4 A	2.0 A	1.2 A

PALLETIZATION

MODEL		GROUPAGE				CONTAINER			
Single-phase	Three-phase	n° pumps	H (mm)	kg		n° pumps	H (mm)	kg	
				1~	3~			1~	3~
CKRm 80E	CKR 80E	102	1370	1120	1030	136	1780	1490	1370
CKRm 90E	CKR 90E	102	1370	1130	1040	136	1780	1500	1380

