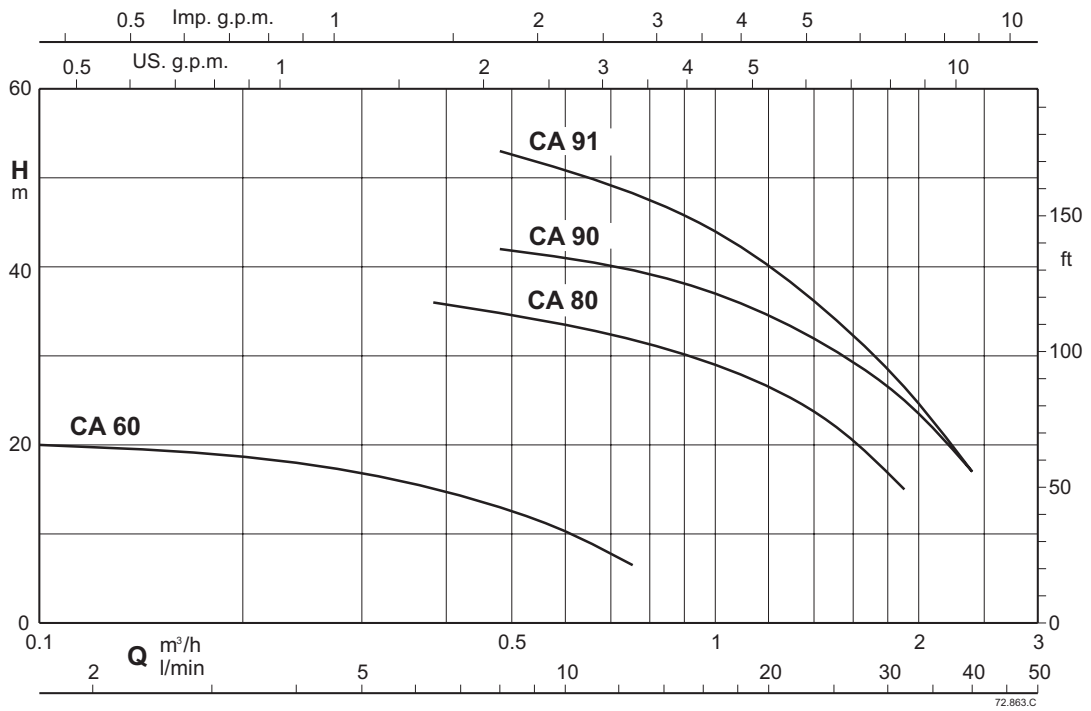


Coverage chart n ≈ 2900 rpm



# Self-priming liquid ring pumps

### Construction

Liquid ring self-priming one-piece electric pumps with star-shaped impeller with anti-locking shim ring for CA 80, 90, 91.

**CA:** version with pump casing and lantern bracket in cast iron.

**BCA:** version with pump casing and lantern bracket in bronze.

The pumps are supplied fully painted.

### Applications

For clean liquids without abrasives, without suspended solids, non-explosive, non-aggressive for the pump materials.

If the liquid to be pumped has entrained air or gas or the flow in the suction pipe is not stable.

For drawing water out of a well.

For increasing network pressure (follow local specifications).

### Operating conditions

Liquid temperature from -10 °C to +90 °C.

Ambient temperature up to 40° C.

Negative suction pressure up to 9 m.

Maximum permissible pressure in the pump casing: 6 bar.

Continuous duty.

### Motor

2-pole induction motor, 50 Hz ( $n \approx 2900$  rpm).

**CA:** three-phase 230/400 V  $\pm$  10%.

**CAM:** single-phase 230 V  $\pm$  10%, with thermal protector.

Capacitor inside the terminal box.

Insulation class F.

Protection IP54

**IE2 efficiency class for single-phase motors.**

**IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).**

Constructed in accordance with EN 60034-1; EN 60034-30-1.

EN 60335-1, EN 60335-2-41.

### Special features on request

Other voltages.

Frequency 60 Hz (as per 60 Hz data sheet).

IP protection: IP55

Special mechanical seal

Higher or lower liquid or ambient temperatures.

Construction with bearing bracket.

### Designation

Example: BCAM 90/A

B = Bronze version (without Cast Iron version indication)

CA = Series

M = Singlephase version (no indication: threephase)

90 = Nominal impeller diameter

/A = It refers to a revision

### Materials

Components	CA	BCA
Pump casing	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Lantern bracket	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Impeller	Brass CW617N EN 12167	Brass CW617N EN 12167
Shaft	Steel 1.4104 EN 10088 (AISI 430F)	Steel 1.4401 EN 10088 (AISI 316)
Mechanical seal	Carbon - Ceramic - NBR	Carbon - Ceramic - NBR

**Coverage chart n ≈ 2900 rpm**
**Three-phase**

					Q = Flow													
					m <sup>3</sup> /h	0	0,12	0,24	0,38	0,48	0,6	0,75	1	1,2	1,5	1,89	2,4	
Model		230V	400V	P2		l/min	2	4	6,33	8	10	12,5	16,6	20	25	31,5	40	
		A		kW	HP	H (m) = Total head												
BCA	CA 60E	1,7	1	0,15	0,2	21,2	20	18	15,5	13	10,5	6,5	-	-	-	-	-	
-	CA 80E	2,8	1,6	0,45	0,6	38	-	-	36	35	33,5	31,5	29	26	22	15	-	
-	BCA 80/A	2,3	1,3	0,45	0,6	38	-	-	36	35	33,5	31,5	29	26	22	15	-	
BCA	CA 90/A	3	1,7	0,55	0,75	47	-	-	-	42	41	40	37	34	30	25	17	
BCA	CA 91/B	3,7	2,2	0,75	1	60	-	-	-	53	51	48	44	39	34	26,5	17	

**Single-phase**

						Q = Flow												
						m <sup>3</sup> /h	0	0,12	0,24	0,38	0,48	0,6	0,75	1	1,2	1,5	1,89	2,4
Model		230V	P2		P1	l/min	2	4	6,33	8	10	12,5	16,6	20	25	31,5	40	
		A	kW	HP	kW	H (m) = Total head												
BCAM	CAM 60E	1,6	0,15	0,2	0,29	21,2	20	18	15,5	13	10,5	6,5	-	-	-	-	-	
-	CAM 80E	3,5	0,45	0,6	0,67	38	-	-	36	35	33,5	31,5	29	26	22	15	-	
-	BCAM 80/A	3,6	0,45	0,6	0,67	38	-	-	36	35	33,5	31,5	29	26	22	15	-	
BCAM	CAM 90/A	4,5	0,55	0,75	0,78	47	-	-	-	42	41	40	37	34	30	25	17	
BCAM	CAM 91/A	5,7	0,75	1	1,01	60	-	-	-	53	51	48	44	39	34	26,5	17	

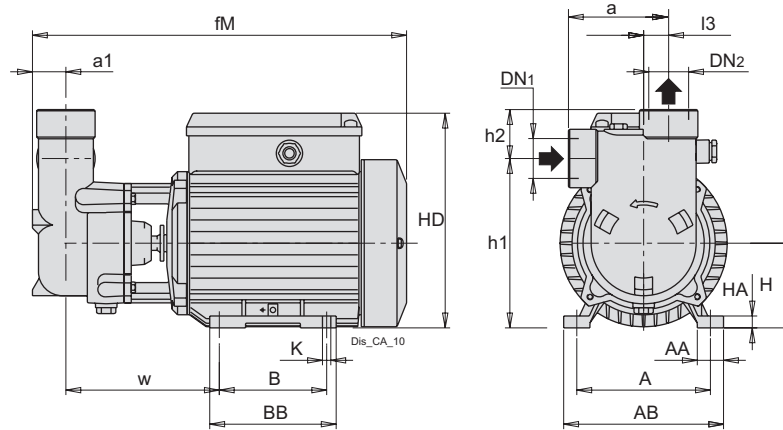
**P1:** Maximum power input.

**P2:** Rated motor power output.

**H:** Total head in m

Head and power values valid for liquids with density  $\rho = 1,0 \text{ kg/dm}^3$  and kinematic viscosity  $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$ . Total head in m

## Dimensions and weights



TYPE	ISO 228		mm															kg	
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	I5	w	Weight
CA 60E	G 1/2	G 1/2	59	100	18	22	122	80	96	256	63	103	25	8	158	7	14	103	5.8
CA 80E	G 3/4	G 3/4	72	100	23	22	122	80	96	272	63	126	27	8	158	7	17	109	7.5
CA 90/A	G 1	G 1	84	112	28	22	134	90	106	318	71	142	41	10	182	7	21	128	10
CA 91/B	G 1	G 1	84	112	28	22	134	90	106	318	71	142	41	10	182	7	21	128	12

TYPE	ISO 228		mm															kg	
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	I5	w	Weight
CAM 60E	G 1/2	G 1/2	59	100	18	22	122	80	96	256	63	103	25	8	158	7	14	103	5.9
CAM 80E	G 3/4	G 3/4	72	100	23	22	122	80	96	272	63	126	27	8	158	7	17	109	7.6
CAM 90/A	G 1	G 1	84	112	28	22	134	90	106	318	71	142	41	10	182	7	21	128	10.9
CAM 91/A	G 1	G 1	84	112	28	22	134	90	106	318	71	142	41	10	182	7	21	128	11.9

TYPE	ISO 228		mm															kg	
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	I5	w	Weight
BCA 60E	G 1/2	G 1/2	59	100	18	22	122	80	96	256	63	103	25	8	158	7	14	103	6.2
BCA 80/A	G 3/4	G 3/4	72	112	23	22	134	90	106	307	71	134	27	10	182	7	17	122	9
BCA 90/A	G 1	G 1	84	112	28	22	134	90	106	318	71	142	41	10	182	7	21	128	10.9
BCA 91/B	G 1	G 1	84	112	28	22	134	90	106	318	71	142	41	10	182	7	21	128	12.9

TYPE	ISO 228		mm															kg	
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	I5	w	Weight
BCAM 60E	G 1/2	G 1/2	59	100	18	22	122	80	96	256	63	103	25	8	158	7	14	103	6.3
BCAM 80/A	G 3/4	G 3/4	72	112	23	22	134	90	106	307	71	134	27	10	182	7	17	122	9.7
BCAM 90/A	G 1	G 1	84	112	28	22	134	90	106	318	71	142	41	10	182	7	21	128	11.8
BCAM 91/A	G 1	G 1	84	112	28	22	134	90	106	318	71	142	41	10	182	7	21	128	13

Characteristic curves  $n \approx 2900$  rpm

