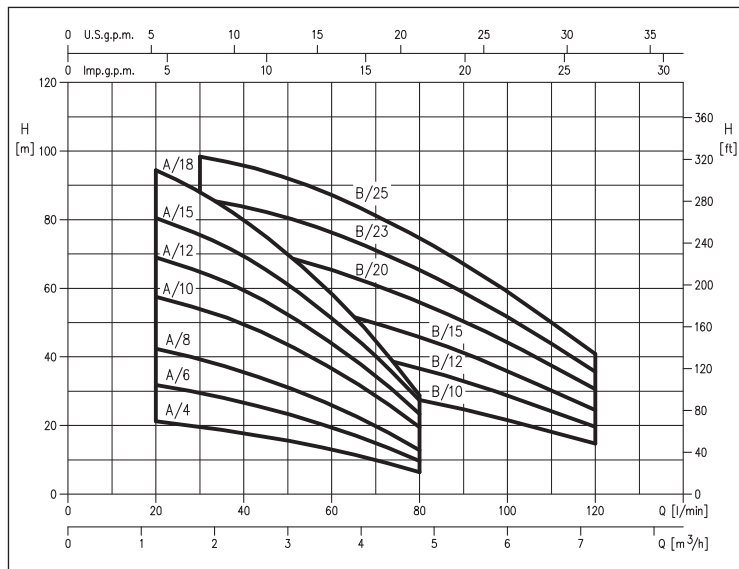
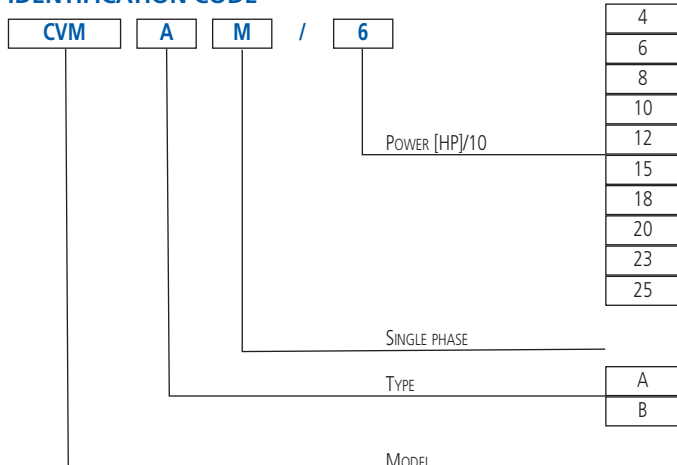


**CVM**

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VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in cast iron

**PERFORMANCE CURVES** (according to ISO 9906 Attachment A)**IDENTIFICATION CODE****APPLICATIONS**

- Pressure boosting plants
- General pressure increases
- Irrigation
- Washing plants
- Moving clean water

TECHNICAL DETAILS

- Reliable
- Silent
- Easy maintenance
- Electric pumps supplied with counter-flanges

TECHNICAL DATA

- Maximum working pressure: 11 bar
- Maximum temperature of the liquid: 40°C
- Self-ventilated 2 pole asynchronous motor
- Class of insulation F
- IP44 Protection rating
- 230V $\pm 10\%$, 50Hz single phase voltage, 230/400V $\pm 10\%$, 50Hz three phase voltage
- Permanent capacitor inserted and thermo-amperometric protection with automatic rearm incorporated for the single phase motor
- Protection under user's responsibility for the three phase version
- G1½ suction and discharge connection

MATERIALS

- Cast iron pump body and motor support
- External casing in AISI 304
- Impeller and nozzle in PPE+PS reinforced with fibreglass
- Stages in PPE+PS reinforced with fibreglass/PTFE
- Shaft in AISI 416
- Mechanical seal in Carbon/Ceramic/NBR

CONTROL PANELS

- 1EPBH (see page 68)

ACCESSORIES (on request)

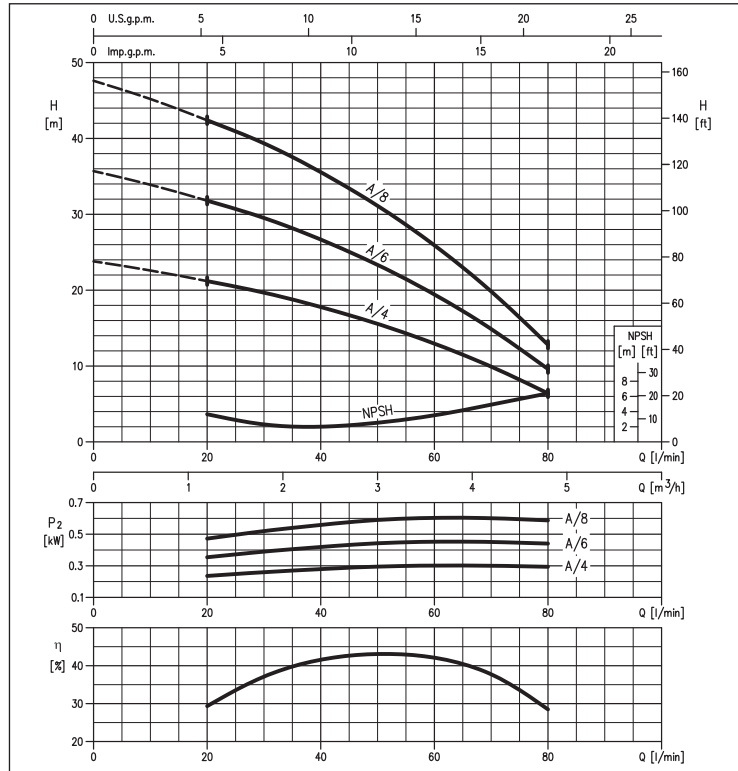
- 5 litre 10 bar ¾ EPDM vessel
- 24 litre 8 bar 1" EPDM vessel
- 24 litre 10 bar 1" EPDM vessel
- 24 litre 16 bar 1" EPDM vessel
- PVC 5m key float with counter-weight
- PVC 10m key float with counter-weight
- SQUARE-D FSG-2 1.4÷4.6 bar G¼ F pressure switch
- FYG-22 2.8÷7 bar G¼ F pressure switch
- FYG-32 5.6÷10.5 bar G¼ F pressure switch
- Presscomfort - Pressure regulator (see page 70)
- Press•o•Matic - Variable speed control system (230V $\pm 10\%$ single phase power supply three phase 220V output – maximum motor power 2.2 kW - 3 HP - see page 71)

VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in cast iron

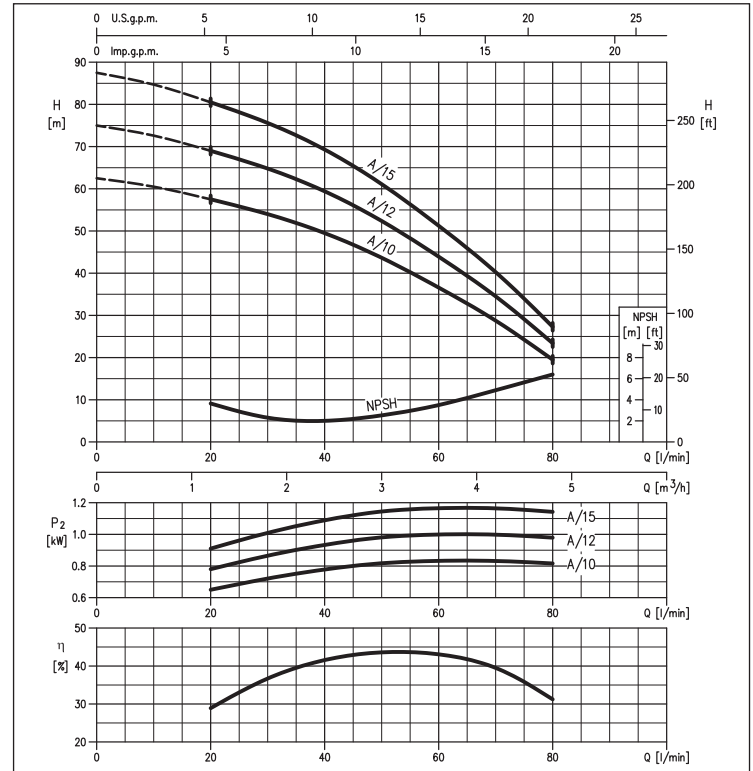
CVM A range PERFORMANCE CURVES (from 0.3 to 0.6 kW)

(according to ISO 9906 Attachment A)



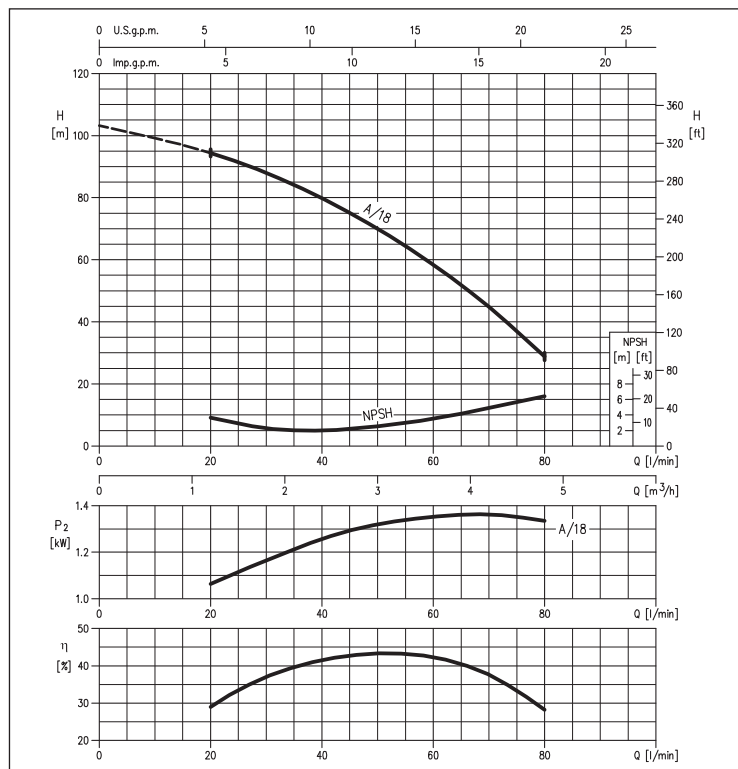
CVM A range PERFORMANCE CURVES (from 0.75 to 1.1 kW)

(according to ISO 9906 Attachment A)



CVM A range PERFORMANCE CURVES (1,3 kW)

(according to ISO 9906 Attachment A)

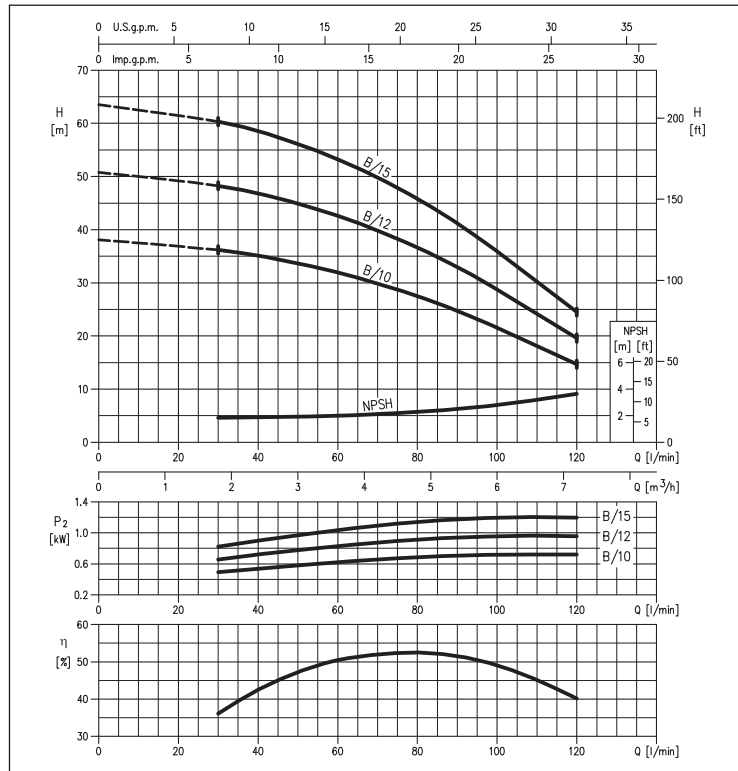


VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in cast iron

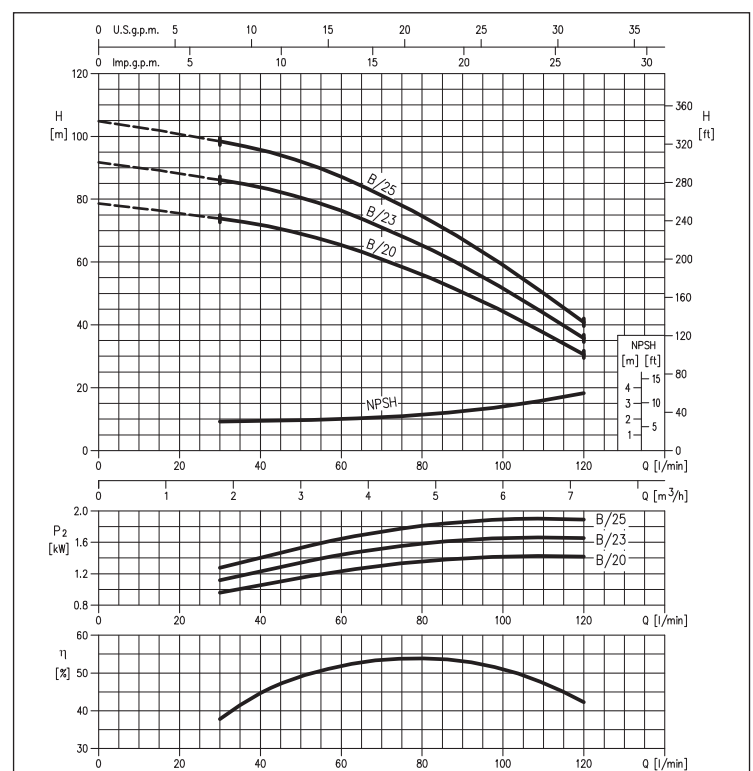
CVM B range PERFORMANCE CURVES (from 0.75 to 1.1 kW)

(according to ISO 9906 Attachment A)



CVM B range PERFORMANCE CURVES (from 1.5 to 1.85 kW)

(according to ISO 9906 Attachment A)



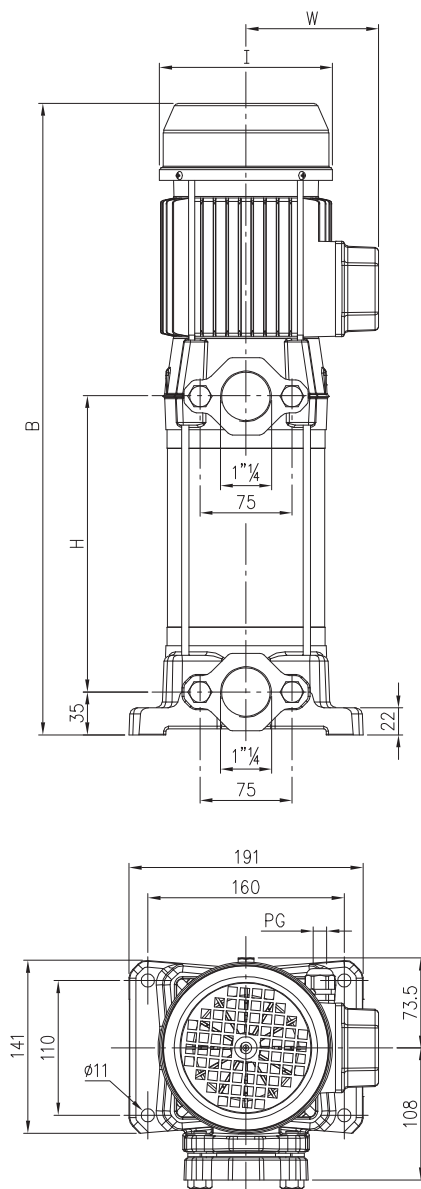
PERFORMANCE TABLE

Model		P ₂		Q=Flow rate								
230V single phase	230/400V three-phase	[HP]	[kW]	l/min m³/h	20 1,2	30 1,8	40 2,4	50 3	60 3,6	80 4,8	100 6	120 7,2
				H=Head [m]								
CVM AM/4	CVM A/4	0,4	0,3		21,2	19,7	17,8	15,6	13,0	6,4	-	-
CVM AM/6	CVM A/6	0,6	0,44		31,8	29,5	26,7	23,3	19,4	9,6	-	-
CVM AM/8	CVM A/8	0,8	0,6		42,5	39,4	35,6	31,1	25,9	12,8	-	-
CVM AM/10	CVM A/10	1	0,75		57,5	54,0	49,5	43,5	36,6	19,5	-	-
CVM AM/12	CVM A/12	1,2	0,9		69,0	65,0	59,5	52,5	44,0	23,4	-	-
CVM AM/15	CVM A/15	1,5	1,1		80,5	75,5	69,5	61,0	51,0	27,3	-	-
CVM AM/18	CVM A/18	1,8	1,3		94,5	88,0	80,0	70,0	58,5	28,8	-	-
CVM BM/10	CVM B/10	1	0,75	-	-	36,2	35,1	33,7	32,0	27,5	21,6	14,7
CVM BM/12	CVM B/12	1,2	0,9	-	-	48,0	46,8	45,0	42,6	36,6	28,8	19,6
CVM BM/15	CVM B/15	1,5	1,1	-	-	60,5	58,5	56,2	53,3	45,8	36,0	24,5
CVM BM/20	CVM B/20	2	1,5	-	-	74,0	72,0	69,0	65,5	56,0	44,5	30,6
CVM BM/23	CVM B/23	2,3	1,7	-	-	86,0	84,0	80,5	76,5	65,5	51,5	35,7
-	CVM B/25	2,5	1,85	-	-	98,5	96,0	92,0	87,0	74,5	59,0	41,0

VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in cast iron

DIMENSIONS



[1]= Three-phase only
[2]= Single phase only

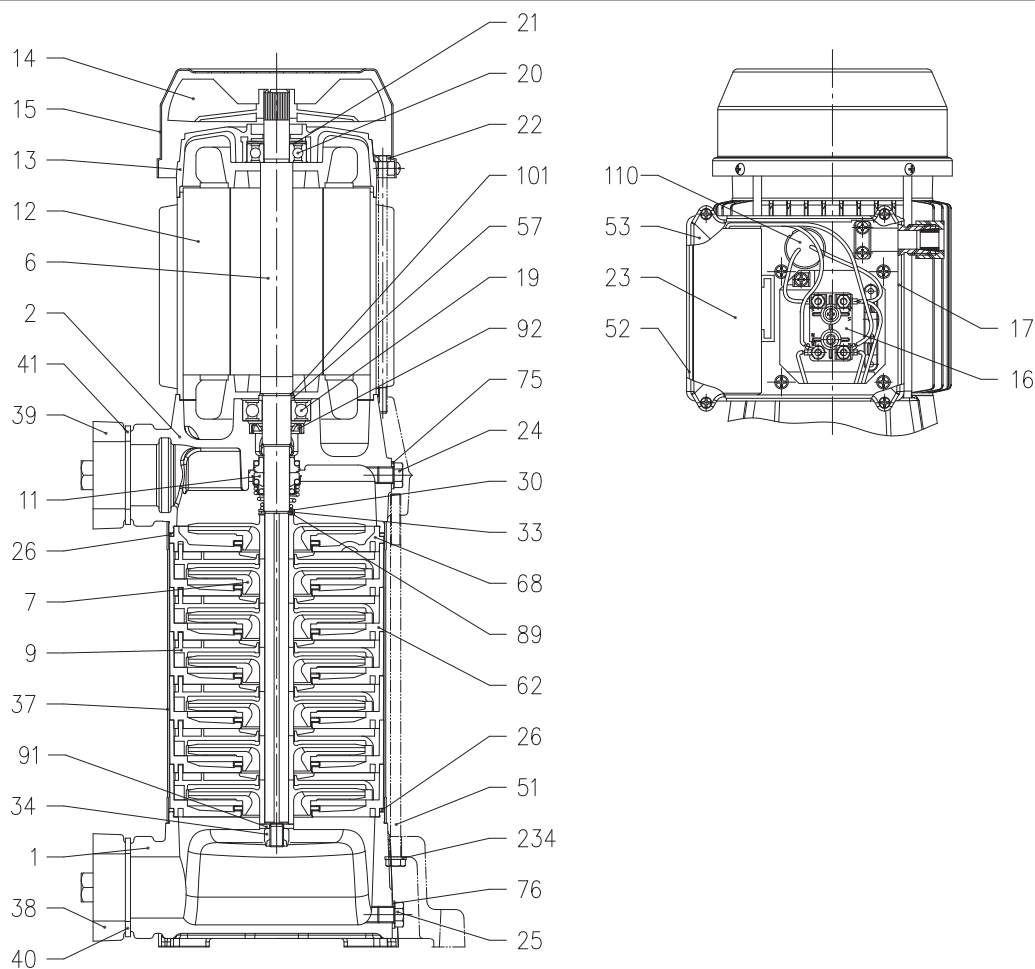
DIMENSIONS TABLE

Model		Motor Mec	B	H	I	W	PG	Weight [kg]	
230V single phase	230/400V three-phase							[2]	[1]
CVM AM/4	CVM A/4	63	336	112	124	101	91,5	11	11,0
CVM AM/6	CVM A/6	63	362	138	124	101	91,5	11	11,6
CVM AM/8	CVM A/8	63	388	164	124	101	91,5	11	12,6
CVM AM/10	CVM A/10	71	452	190	141	110,5	101	11	16,6
CVM AM/12	CVM A/12	71	478	216	141	110,5	101	11	17,6
CVM AM/15	CVM A/15	71	516	242	141	110,5	101	11	18,6
CVM AM/18	CVM A/18	80	565	268	159	136	120,5	13,5	21,2
CVM BM/10	CVM B/10	71	400	138	141	110,5	101	11	15,9
CVM BM/12	CVM B/12	71	426	164	141	110,5	101	11	16,7
CVM BM/15	CVM B/15	71	464	190	141	110,5	101	11	18,0
CVM BM/20	CVM B/20	80	513	216	159	134,5	120,5	13,5	21,3
CVM BM/23	CVM B/23	80	552	242	159	134,5	120,5	13,5	22,4
-	CVM B/25	80	578	268	159	-	120,5	-	23,7

VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in cast iron

SECTIONAL VIEW



MATERIALS TABLE

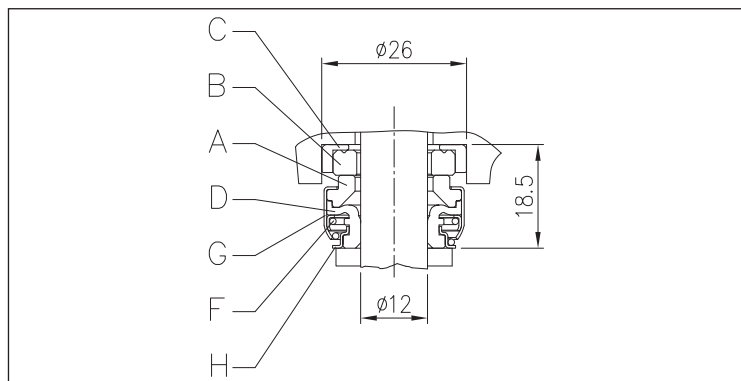
Ref.	Name	Material	Ref.	Name	Material
1	Pump body	Cast iron EN-GJL-200-EN 1561	33	Seeger ring	EN 1.4021 (AISI 420) (Dim. 12)
2	Pump body support	Cast iron EN-GJL-200-EN 1561			EN 1.4301 (AISI 304) (Dim. 14)
6	Shaft	EN 1.4005 (AISI 416)	34	Impeller nut	EN 1.4301 (AISI 304)
7	Impeller	PPE+PS reinforced with fibreglass	37	Casing	EN 1.4301 (AISI 304)
9	Nozzle	PPE+PS reinforced with fibreglass	38	Counter-flange	Cast iron EN-GJL-200-EN 1561
11	Mechanical seal	Carbon/ Ceramic/ NBR	39	Counter-flange	Cast iron EN-GJL-200-EN 1561
12	Motor case	-	40	Counter-flange gasket	NBR
13	Motor cover	Aluminium	41	Counter-flange gasket	NBR
14	Fan	PA	51	Pump tie-rod	Galvanised Fe P04
15	Fan cover	Galvanised Fe P04	52	Capacitor-holder box [2]	PP
16	Terminal box	-	53	Capacitor-holder box cover [2]	PP
17	Terminal box cover [1]	Aluminium	57	Spacer [3]	Steel C40
19	Bearing (pump side)	-	62	Stage box	PPE+PS reinforced with fibreglass/PTFE
20	Bearing (motor side)	-	68	Stage	PPE+PS reinforced with fibreglass/PTFE
21	Adjusting ring	Steel C70	75	Washer	Aluminium
22	Motor tie-rod	Galvanised Fe 42	76	Washer	Aluminium
23	Capacitor [2]	-	89	Washer	EN 1.4301 (AISI 304)
24	Filler cap	OT 58 UNI 5705	91	Washer	EN 1.4301 (AISI 304)
25	Drain plug	OT 58 UNI 5705	92	Sealing ring	NBR
26	O-Ring	NBR	101	Seeger ring	EN 1.4301 (AISI 304)
30	Washer	EN 1.4301 (AISI 304)	110	Motorprotector [4]	-
			234	Washer	Galvanised steel

[1]= For three phase only [2]= For single phase only [3]= For motor size 80 only
[4]= For motor size 71 and 80 only single phase

VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in cast iron

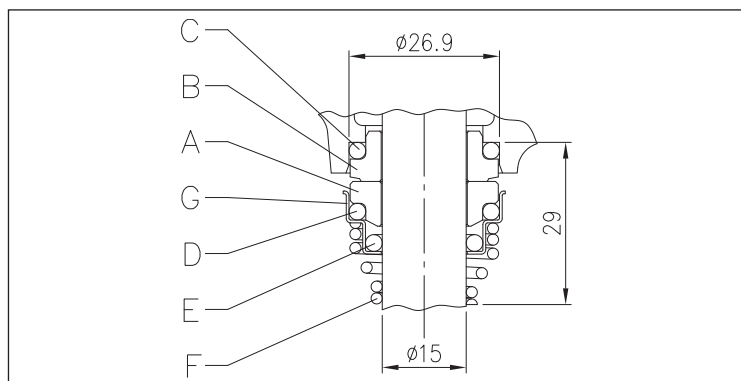
MECHANICAL SEAL for CVM up to 0.6 kW



MATERIALS TABLE

Ref.	Name	Material
A	Rotating part	Carbon
B	Fixed part	Ceramic
C	Gasket	NBR
D	Diaphragm	NBR
F	Spring	AISI 304
G	Structure/frame	AISI 304
H	Retainer ring	AISI 304

MECHANICAL SEAL for CVM up to 0.75 kW and over



MATERIALS TABLE

Ref.	Name	Material
A	Rotating part	Ceramic
B	Fixed part	Carbon
C	O-Ring	NBR
D	O-Ring	NBR
E	O-Ring	NBR
F	Spring	AISI 316
G	Structure/frame	AISI 304

ELECTRIC DATA TABLE

230V single phase	Model 230/400V three-phase	P ₂		Single phase Capacitor		P ₁		Absorbed Current [A]		
		[HP]	[kW]	μF	V _c	Single phase [kW]	Three phase [kW]	Single phase 230V	Three phase 230V	400V
CVM AM/4	CVM A/4	0,4	0,3	10	450	0,54	0,49	2,6	1,9	1,1
CVM AM/6	CVM A/6	0,6	0,44	12,5	450	0,69	0,69	3,2	2,3	1,3
CVM AM/8	CVM A/8	0,8	0,6	14	450	0,89	0,83	4,0	2,8	1,6
CVM AM/10	CVM A/10	1	0,75	20	450	1,27	1,15	6,0	4,0	2,3
CVM AM/12	CVM A/12	1,2	0,9	31,5	450	1,45	1,37	6,5	4,8	2,8
CVM AM/15	CVM A/15	1,5	1,1	31,5	450	1,60	1,58	7,2	5,7	3,3
CVM AM/18	CVM A/18	1,8	1,3	31,5	450	1,76	1,68	7,8	5,4	3,1
CVM BM/10	CVM B/10	1	0,75	20	450	1,14	1,06	5,6	4,1	2,4
CVM BM/12	CVM B/12	1,2	0,9	31,5	450	1,38	1,32	6,2	4,7	2,7
CVM BM/15	CVM B/15	1,5	1,1	31,5	450	1,63	1,63	7,4	5,5	3,2
CVM BM/20	CVM B/20	2	1,5	35	450	1,91	1,80	8,3	5,7	3,3
CVM BM/23	CVM B/23	2,3	1,7	40	450	2,14	2,07	9,6	7,4	4,3
-	CVM B/25	2,5	1,85	-	-	-	2,33	-	7,4	4,3