SPECIFICATION 50Hz

Rev. I

PUMP			
Liquid Handled	Type of liquid		Clean water
	Temperature	[℃]	min. +5 max. +40
Maximum working pressure		[MPa]	1.1
Construction	Impeller		Closed centrifugal
	Shaft seal type		Mechanical seal
	Bearing		Sealed ball bearing
Pipe Connection	Suction		G 1”¼ UNI ISO 228
	Discharge		G 1”¼ UNI ISO 228
Material	Casing		Cast iron
	Impeller		PPE+PS Glass fibre reinforced
	Shaft seal		Ceramic/Carbon/NBR
	External pump casing		AISI 304
	Shaft		AISI 416
	Stages		PPE+PS Glass fibre reinforced /PTFE
	Diffuser		PPE+PS Glass fibre reinforced
	Bracket		Cast iron
Applicable standard of test			ISO 9906:2012 - Grade 3B

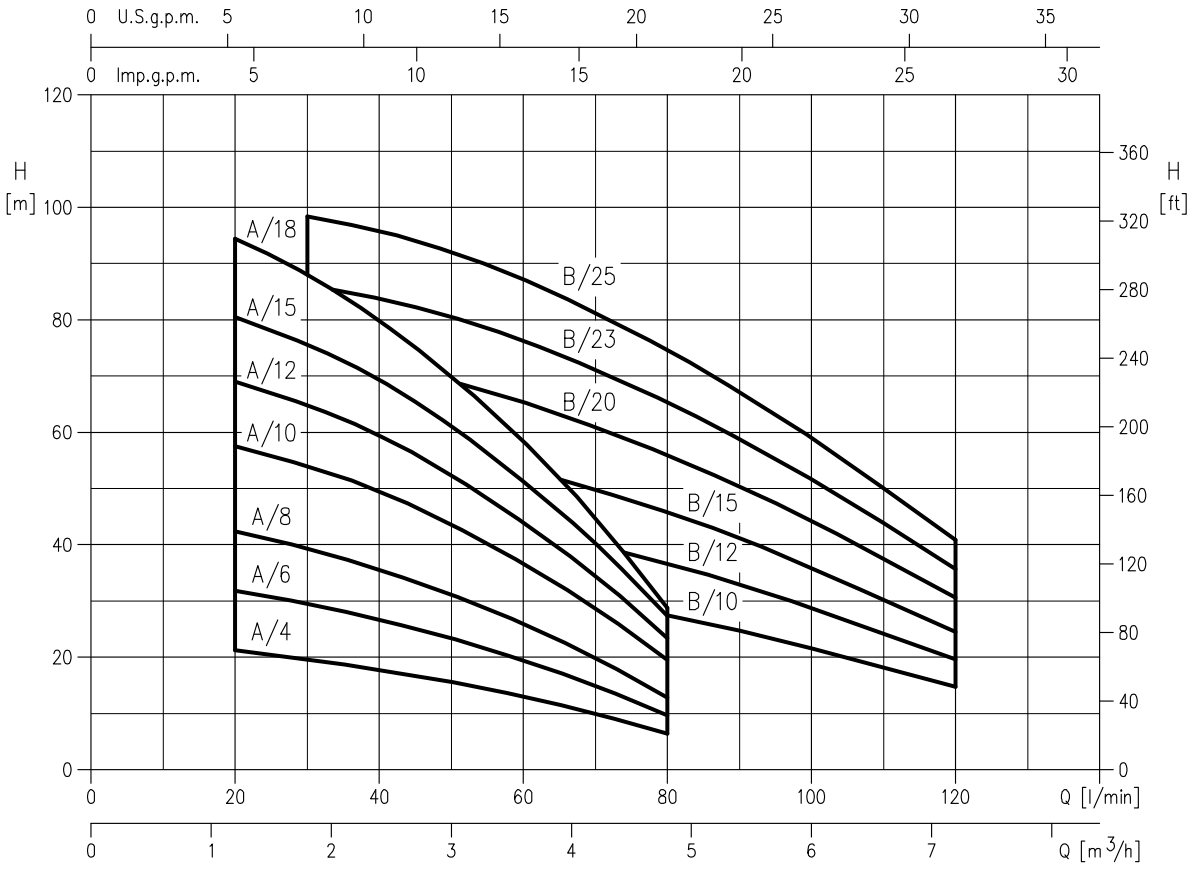
MOTOR			
Type		Electric asynchronous- TEFC	
		Single Phase	Three Phase
Efficiency level (Reg. 640/2009)		-	- from 0.3 kW up to 0.6 kW IE2 from 0.75 kW up to 1.85 kW IE3 from 0.75 kW up to 1.85 kW
No. of Poles		2	
Rotation speed	[min^{-1}]	≈ 2850	
Insulation Class		F	
Protection degree (CEI EN 60034-5)		IP 44	
Power rating	[kW]	0.3 ÷ 1.7	0.3 ÷ 1.85
	[HP]	0.4 ÷ 2.3	0.4 ÷ 2.5
Frequency	[Hz]	50	
Voltage	[V]	230 ±10%	230/400 ±10%
Capacitor		Built in	-
Over load protection		Built in	Provided by the user
Casing material		Aluminium	
Dimensions of cable entry		PG 11 – PG 13.5 - M16x1.5 – M20x1.5 (see pag. 400)	

SELECTION CHART

50Hz

Rev. I

PERFORMANCE RANGE



SELECTION CHART

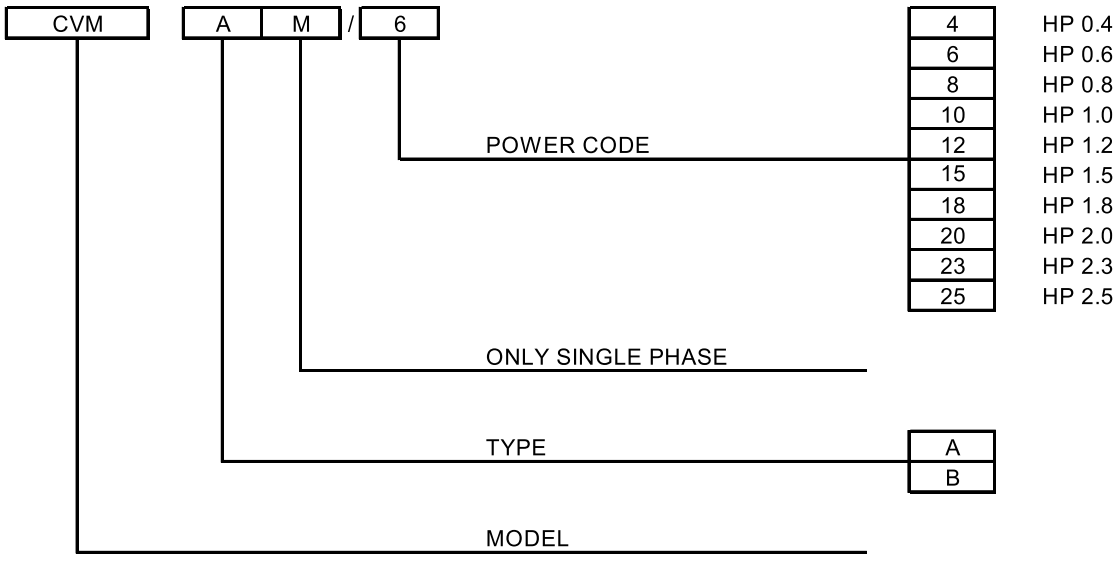
Pump type		Power		Q=Capacity								
				l/min 0	20	30	40	50	60	80	100	120
				m³/h 0	1.2	1.8	2.4	3	3.6	4.8	6	7.2
Single Phase	Three Phase	[kW]	[HP]	H=Total manometric head in meters								
CVM AM/4	CVM A/4	0.3	0.4	23.8	21.2	19.7	17.8	15.6	13.0	6.4	-	-
CVM AM/6	CVM A/6	0.44	0.6	35.7	31.8	29.5	26.7	23.3	19.4	9.6	-	-
CVM AM/8	CVM A/8	0.6	0.8	47.5	42.5	39.4	35.6	31.1	25.9	12.8	-	-
CVM AM/10	CVM A/10	0.75	1	62.5	57.5	54.0	49.5	43.5	36.6	19.5	-	-
CVM AM/12	CVM A/12	0.9	1.2	75.0	69.0	65.0	59.5	52.5	44.0	23.4	-	-
CVM AM/15	CVM A/15	1.1	1.5	87.5	80.5	75.5	69.5	61.0	51.0	27.3	-	-
CVM AM/18	CVM A/18	1.3	1.8	103.0	94.5	88.0	80.0	70.0	58.5	28.8	-	-
CVM BM/10	CVM B/10	0.75	1	38.1	-	36.2	35.1	33.7	32.0	27.5	21.6	14.7
CVM BM/12	CVM B/12	0.9	1.2	51.0	-	48.0	46.8	45.0	42.6	36.6	28.8	19.6
CVM BM/15	CVM B/15	1.1	1.5	63.5	-	60.5	58.5	56.2	53.3	45.8	36.0	24.5
CVM BM/20	CVM B/20	1.5	2	78.5	-	74.0	72.0	69.0	65.5	56.0	44.5	30.6
CVM BM/23	CVM B/23	1.7	2.3	91.5	-	86.0	84.0	80.5	76.5	65.5	51.5	35.7
-	CVM B/25	1.85	2.5	105.0	-	98.5	96.0	92.0	87.0	74.5	59.0	41.0

TYPE KEY AND CURVE SPECIFICATIONS

50Hz

Rev. I

TYPE KEY



PERFORMANCE CURVE

50Hz

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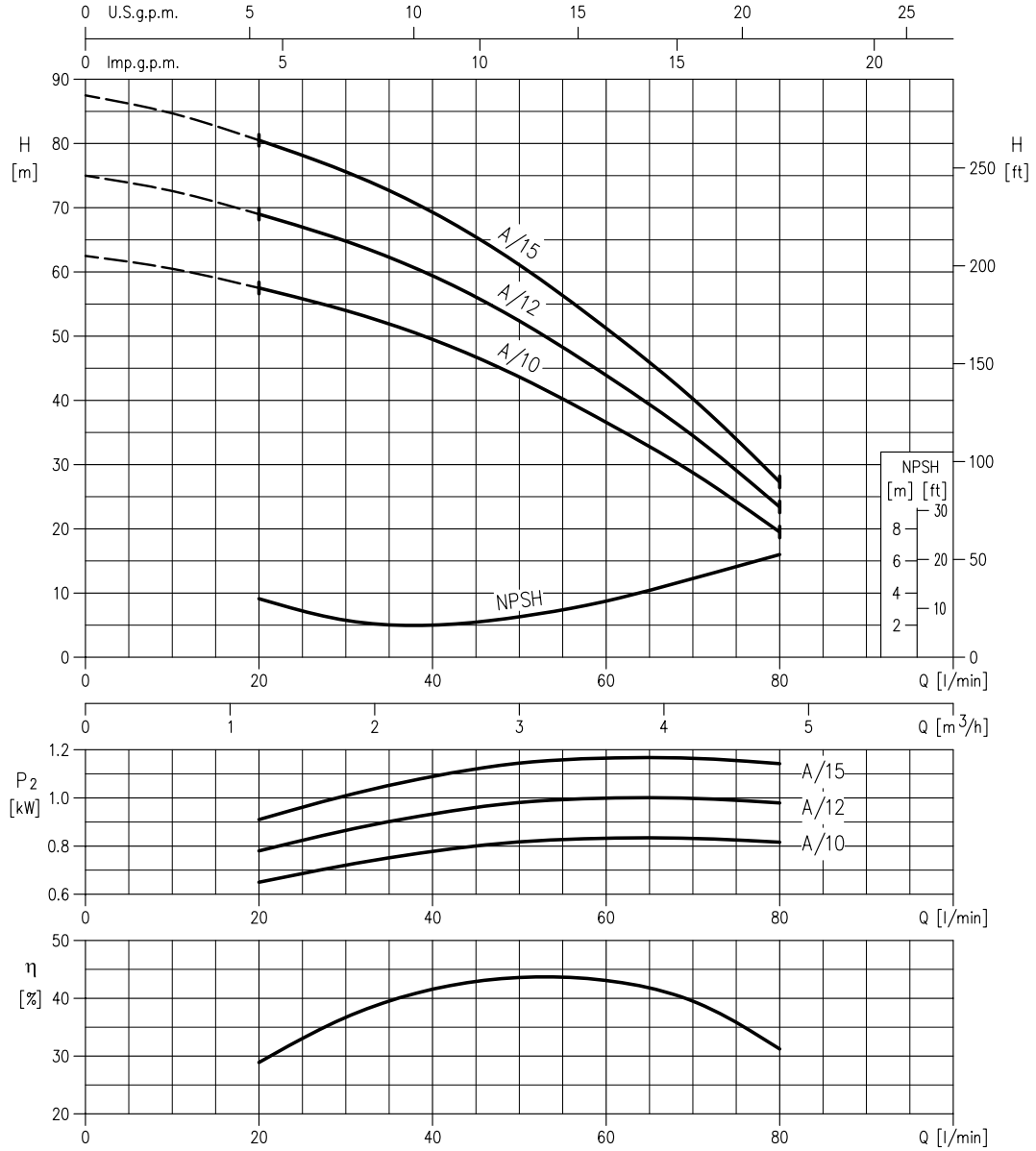
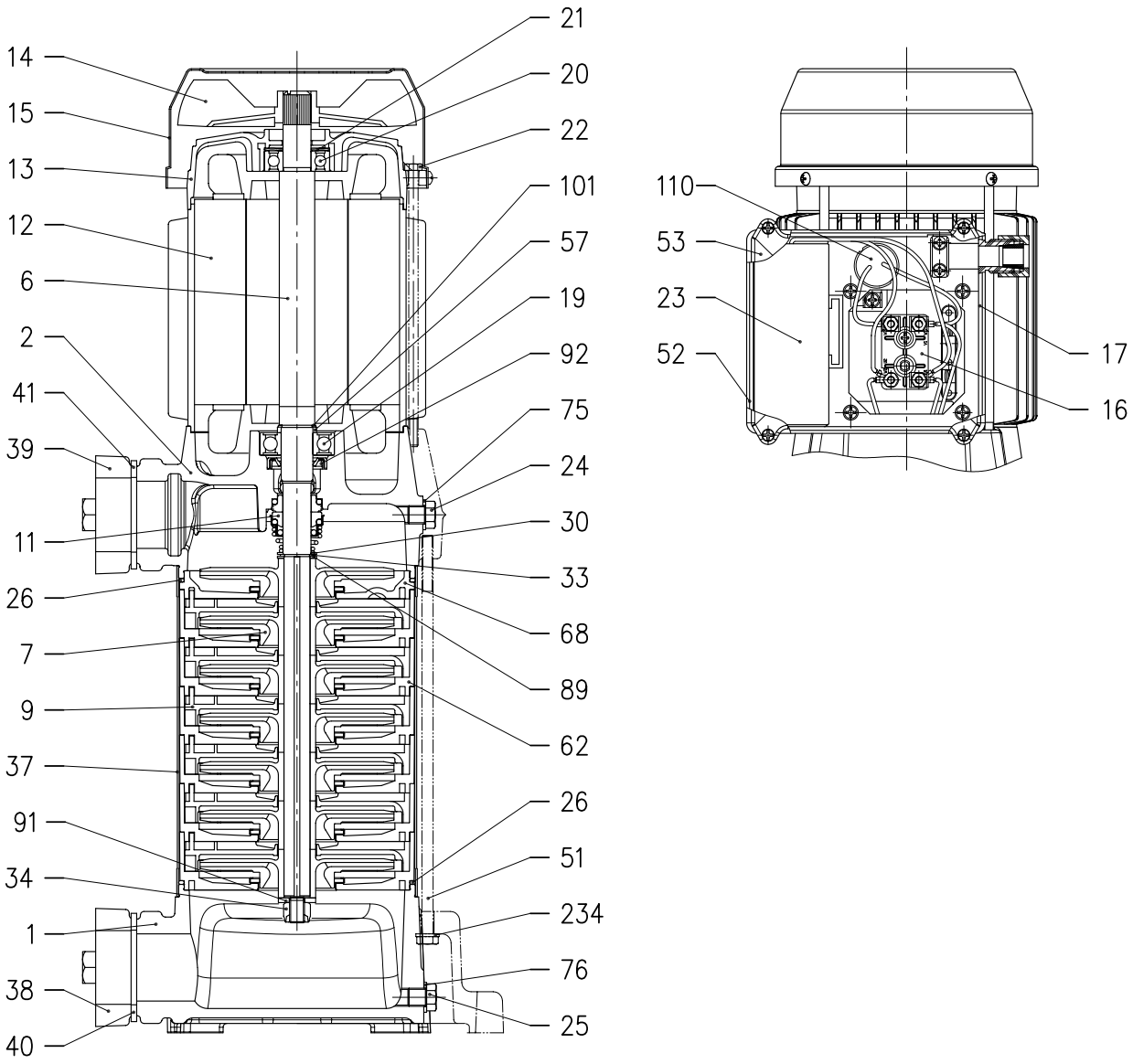
CVM A/10 (0.75 kW) MEI > 0.60 - Impeller diameter = 102 mm
CVM A/12 (0.9 kW) MEI > 0.60 - Impeller diameter = 102 mm
CVM A/15 (1.1 kW) MEI > 0.60 - Impeller diameter = 102 mm



Rotation speed ≈ 2800 min^{-1}
Test standard: ISO 9906:2012 - Grade 3B

SECTIONAL VIEW DRAWING



SECTIONAL VIEW TABLE

N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	Q.TY
1	Suction casing	Cast iron EN-GJL-200-EN 1561	-	-	1
2	Delivery casing	Cast iron EN-GJL-200-EN 1561	-	-	1
6	Shaft with rotor	EN 1.4005 (AISI 416)	-	-	1
7	Impeller	PPE+PS Glass fibre reinforced	-	-	[1]
9	Diffuser	PPE+PS Glass fibre reinforced	-	-	[1]
11	Mechanical seal [2]	Carbon / Ceramic / NBR	-	-	1
12	Motor frame with stator	-	-	-	1
13	Motor cover	Aluminium	-	-	1
14	Fan	PA	-	-	1
15	Fan cover	Galvanized Fe P04	-	-	1
16	Terminal board	-	-	-	1
17	Terminal box cover [3]	Aluminium	-	-	1
19	Pump side ball bearing	-	[4]	-	1
20	Fan side ball bearing	-	[4]	-	1
21	Adjusting ring	Steel C70	-	-	1
22	Motor tie rod	Galvanized Fe 42	M5xL	EBARA DRAWING	4
23	Capacitor [5]	-	-	-	1
24	Priming plug	OT 58 UNI 5705	G 1/8"	UNI ISO 228	1
25	Drain plug	OT 58 UNI 5705	G 1/8"	UNI ISO 228	1
26	O-ring	NBR	120x3	-	2
30	Washer	EN 1.4301 (AISI 304)	12x22x1 - [UP to 0,6kW] 15x22x1 - [0,75 kW and above]	EBARA DRAWING	1
33	Seeger ring	EN 1.4021 (AISI 420) EN 1.4301 (AISI 304)	12 14	UNI 7435 JIS B2804-1978	1
34	Impeller nut	EN 1.4301 (AISI 304)	M8x1 - [UP to 0,6kW] M10x1,25 - [0,75 kW and above]	UNI 7474	1
37	External pump casing	EN 1.4301 (AISI 304)	-	-	1
38	Counter flange	Cast iron EN-GJL-200-EN 1561	1"¼	EBARA DRAWING	1
39	Counter flange	Cast iron EN-GJL-200-EN 1561	1"¼	EBARA DRAWING	1
40	Counter flange gasket	NBR	-	EBARA DRAWING	1
41	Counter flange gasket	NBR	-	EBARA DRAWING	1
51	Tie rod	Galvanized Fe P04	M6	EBARA DRAWING	4
52	Capacitor box [5]	ABS class V-0	-	-	1
53	Capacitor box cover [5]	ABS class V-0	-	-	1
57	Pump side ball bearing spacer [6]	Steel C40	22x27x3	EBARA DRAWING	1
62	Stage housing	PPE+PS Glass fibre reinforced/PTFE	-	-	[1]
68	Stage	PPE+PS Glass fibre reinforced/PTFE	-	-	1
75	Washer	Aluminium	10x16x1,5	EBARA DRAWING	1
76	Washer	Aluminium	10x16x1,5	EBARA DRAWING	1
89	Washer	EN 1.4301 (AISI 304)	12x21x1 - [UP to 0,6kW] 14,1x22x1 - [0,75 kW and above]	EBARA DRAWING	1
91	Washer	EN 1.4301 (AISI 304)	8,4x17x1,6 - [UP to 0,6kW] 10,2x20x2,5 - [0,75 kW and above]	UNI EN ISO 7089 EBARA DRAWING	1
92	Lip seal	NBR	12x24x4 17x32x6	EBARA DRAWING	1
101	Seeger ring [6]	EN 1.4301 (AISI 304)	20	UNI 7435	1
110	Motor protector [7]	-	-	-	1
234	Washer	Galvanized steel	6,4x12,5x1,6	UNI EN ISO 7089	4

[1] See table at page 302
[2] See pag. 303
[3] Only for three phase
[4] See pag. 302
[5] Only for single phase
[6] Only for motor size 80 (see page 400)
[7] Only for motor size 71 e 80 single phase version (see page 400)

QUANTITY FOR MODEL

Pump		POS. 7	POS. 9	POS. 62
A type	B type			
CVM A/4	-	2	1	1
CVM A/6	CVM B/10	3	2	2
CVM A/8	CVM B/12	4	3	3
CVM A/10	CVM B/15	5	4	4
CVM A/12	CVM B/20	6	5	5
CVM A/15	CVM B/23	7	6	6
CVM A/18	CVM B/25	8	7	7

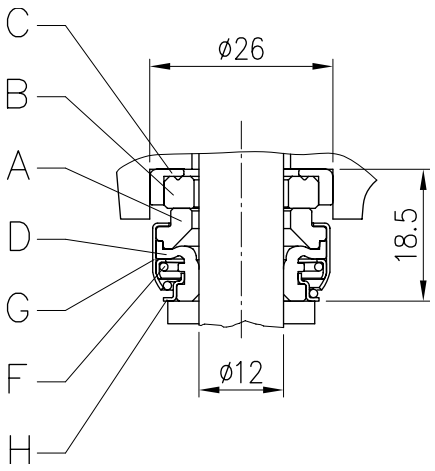
BEARINGS

Type pumps		Ball Bearing			
Single Phase	Three Phase	Pump side	(*) Pump side	Fan side	(*) Fan side
CVM AM/4	CVM A/4	6201 2RSH	-	6201 2RSH	-
CVM AM/6	CVM A/6				
CVM AM/8	CVM A/8				
CVM AM/10	CVM A/10	6203 2RSH C3	6203-ZZ C3	6202 2RSH	6202-ZZ C3
CVM AM/12	CVM A/12				
CVM AM/15	CVM A/15				
CVM AM/18	CVM A/18	6304 2RSH C3	6304-ZZ C3	6203 2RSH	6203-ZZ C3
CVM BM/10	CVM B/10	6203 2RSH C3	6203-ZZ C3	6202 2RSH	6202-ZZ C3
CVM BM/12	CVM B/12				
CVM BM/15	CVM B/15				
CVM BM/20	CVM B/20	6304 2RSH C3	6304-ZZ C3	6203 2RSH	6203-ZZ C3
CVM BM/23	CVM B/23				
-	CVM B/25				

(*) Only for IE3 Motors

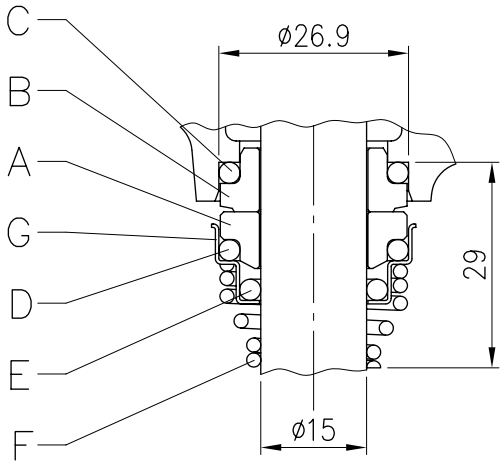
MECHANICAL SEAL

UP TO 0.6 KW



REF	PART NAME	MATERIAL
A	Rotary seal ring	Carbon graphite
B	Stationary seal ring	Ceramic
C	Gasket	NBR
D	Bellows	NBR
F	Self driving spring	AISI 304
G	Frame	AISI 304
H	Retainer ring	AISI 304

0,75 KW AND ABOVE



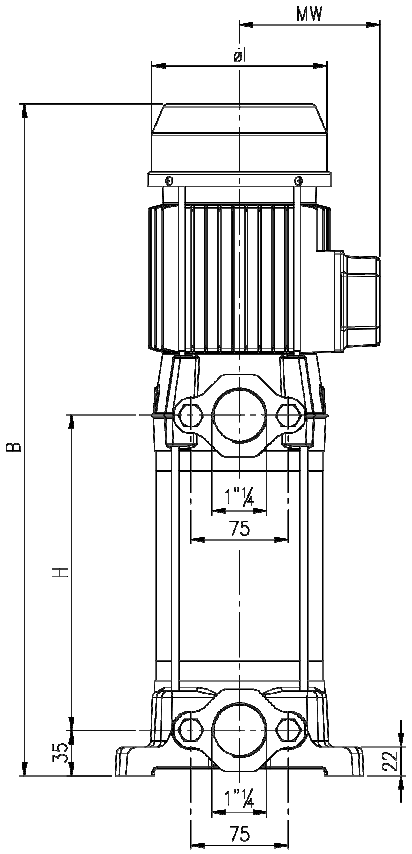
REF	PART NAME	MATERIAL
A	Rotary seal ring	Ceramic
B	Stationary seal ring	Carbon graphite
C	O Ring	NBR
D	O Ring	NBR
E	O Ring	NBR
F	Self driving spring	AISI 316
G	Frame	AISI 304

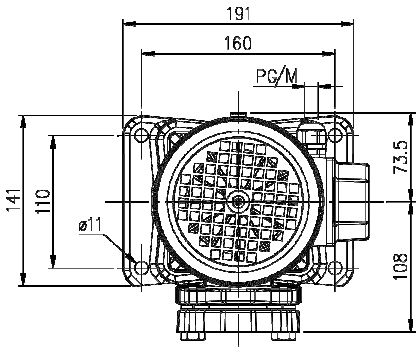
DIMENSION AND WEIGHT

50Hz

Rev. I

PUMP





Pump type	Motor Size	Dimensions [mm]										Weight [kgf]		
		B			H	ØI	MW		M	PG/M				
		[1~]	[3~]	(*) [3~]			[1~]	[3~]	(*)	[1~]	[3~]	[1~]	[3~]	(*) [3~]
CVM A/4	63	336	336	-	112	124	101	91.5	-	11	11	11	11	-
CVM A/6		362	362	-	138				-				11.7	11.6	-
CVM A/8		388	388	-	164				-				12.7	12.6	-
CVM A/10	71	452	452	452	190	141	110.5	101	M16x1.5				16.5	16.6	16.6
CVM A/12		478	490	490	216				M16x1.5				17.5	18.4	18.4
CVM A/15		516	516	516	242				M16x1.5				18.5	18.6	18.6
CVM A/18	80	565	565	565	268	159	136	120.5	M20x1.5	13.5			21.2	21.8	22.7
CVM B/10	71	400	400	400	138	141	110.5	101	M16x1.5	11			15.9	15.9	15.9
CVM B/12		426	438	438	164				M16x1.5				16.8	17.5	17.5
CVM B/15		464	464	464	190				M16x1.5				18	17.9	17.9
CVM B/20	80	513	526	526	216	159	134.5	120.5	M20x1.5	13.5			21.3	22.8	23.7
CVM B/23		552	552	552	242				M20x1.5				22.6	23.4	24.3
CVM B/25		-	578	578	268		-		M20x1.5	-			-	23.7	24.6

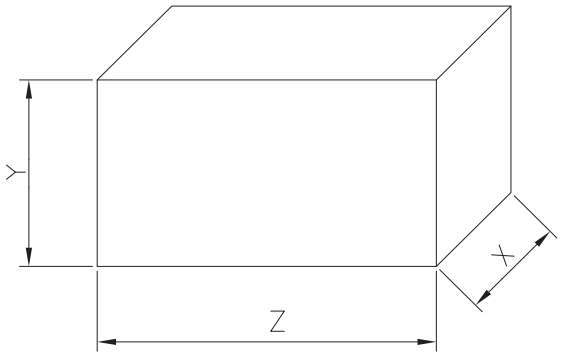
[1~] Single phase
[3~] Three phase
(*) Only for IE3 Motors

DIMENSION AND WEIGHT

50Hz

Rev. I

PACKING



Type pumps	Packing [mm]				Weight [kgf]		
	X	Y	Z	(*)	[1~]	[3~]	(*) [3~]
CVM A/4	212	208	427	-	11.9	11.9	-
CVM A/6					12.6	12.5	-
CVM A/8					13.6	13.5	-
CVM A/10			537	537	17.6	17.7	17.7
CVM A/12					18.6	19.5	19.5
CVM A/15					19.6	19.7	19.7
CVM A/18	252		590	617	22.3	23.6	24.5
CVM B/10	212		427	427	16.8	16.8	16.8
CVM B/12			537	537	17.9	18.6	18.6
CVM B/15					19.1	19.0	19.0
CVM B/20	252		590	617	22.4	23.6	24.5
CVM B/23					23.7	24.5	25.4
CVM B/25					-	24.8	25.7

[1~] Single phase
[3~] Three phase
(*) Only for IE3 Motors

TECHNICAL DATA 50Hz

Rev. I

MOTOR DATA

Pump type		Power		Efficiency		Capacitor		Efficiency (% load)			Input		Full load current			Locked rotor current		
								Three phase			[kW]		[A]			[A]		
						Single Phase		η %										
Single Phase	Three Phase	[kW]	[HP]	Single Phase	Three Phase	[µF]	[V]	50%	75%	100%	Single Phase	Three Phase	Single Phase 230 V	Three Phase 230 V	Three Phase 400 V	Single Phase 230 V	Three Phase 230 V	Three Phase 400 V
CVM AM/4	CVM A/4	0.3	0.4	-	-	10	450	-	-	-	0.54	0.49	2.6	1.9	1.1	8.5	7.0	3.9
CVM AM/6	CVM A/6	0.44	0.6	-	-	12.5	450	-	-	-	0.69	0.69	3.2	2.3	1.3	9.7	10.0	5.6
CVM AM/8	CVM A/8	0.6	0.8	-	-	14	450	-	-	-	0.89	0.83	4.0	2.8	1.6	11.9	10.0	6.0
CVM AM/10	CVM A/10	0.75	1	-	IE2	20	450	77.2	80.9	81.3	1.27	0.92	6.0	2.9	1.7	25.1	22.0	12.9
-	CVM A/10	0.75	1	-	IE3	-	-	80.9	82.3	82.1	-	0.91	-	3.0	1.7	-	19.7	11.4
CVM AM/12	CVM A/12	0.9	1.2	-	IE2	31.5	450	79.0	81.7	81.6	1.45	1.35	6.5	4.3	2.5	24.8	31.0	17.8
-	CVM A/12	0.9	1.2	-	IE3	-	-	81.7	83.1	82.4	-	1.34	-	4.3	2.5	-	28.8	16.6
CVM AM/15	CVM A/15	1.1	1.5	-	IE2	31.5	450	79.0	81.7	81.6	1.60	1.35	7.2	4.3	2.5	29.3	31.0	17.8
-	CVM A/15	1.1	1.5	-	IE3	-	-	81.7	83.1	82.4	-	1.34	-	4.3	2.5	-	28.8	16.6
CVM AM/18	CVM A/18	1.3	1.8	-	IE2	35	450	79.7	82.5	83.0	1.76	1.80	7.8	5.6	3.2	41.0	45.0	25.7
-	CVM A/18	1.3	1.8	-	IE3	-	-	83.5	84.3	84.6	-	1.77	-	5.8	3.3	-	47.4	27.4
CVM BM/10	CVM B/10	0.75	1	-	IE2	20	450	77.2	80.9	81.3	1.14	0.92	5.6	2.9	1.7	23.5	22.0	12.9
-	CVM B/10	0.75	1	-	IE3	-	-	80.9	82.3	82.1	-	0.91	-	3.0	1.7	-	19.7	11.4
CVM BM/12	CVM B/12	0.9	1.2	-	IE2	31.5	450	79.0	81.7	81.6	1.38	1.35	6.2	4.3	2.5	23.6	31.0	17.8
-	CVM B/12	0.9	1.2	-	IE3	-	-	81.7	83.1	82.4	-	1.34	-	4.3	2.5	-	28.8	16.6
CVM BM/15	CVM B/15	1.1	1.5	-	IE2	31.5	450	79.0	81.7	81.6	1.63	1.35	7.4	4.3	2.5	30.1	31.0	17.8
-	CVM B/15	1.1	1.5	-	IE3	-	-	81.7	83.1	82.4	-	1.34	-	4.3	2.5	-	28.8	16.6
CVM BM/20	CVM B/20	1.5	2	-	IE2	40	450	78.6	83.0	84.2	1.91	1.78	8.3	6.3	3.7	43.0	34.3	20.0
-	CVM B/20	1.5	2	-	IE3	-	-	82.7	86.1	87.0	-	1.72	-	6.6	3.8	-	66.6	38.4
CVM BM/23	CVM B/23	1.7	2.3	-	IE2	40	450	80.3	83.4	83.8	2.14	2.09	9.6	6.9	4.0	43.0	34.3	20.0
-	CVM B/23	1.7	2.3	-	IE3	-	-	84.2	86.8	86.9	-	2.01	-	7.1	4.1	-	66.6	38.4
-	CVM B/25	1.85	2.5	-	IE2	-	-	83.0	84.4	83.8	-	2.63	-	8.1	4.7	-	59.0	34.3
-	CVM B/25	1.85	2.5	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7	-	66.6	38.4

NOISE DATA

Pump type		Power		L_{pA} - dB(A) *
Single Phase	Three Phase	[kW]	[HP]	
CVM AM/4	CVM A/4	0.3	0.4	53
CVM AM/6	CVM A/6	0.44	0.6	
CVM AM/8	CVM A/8	0.6	0.8	
CVM AM/10	CVM A/10	0.75	1	62
CVM AM/12	CVM A/12	0.9	1.2	
CVM AM/15	CVM A/15	1.1	1.5	
CVM AM/18	CVM A/18	1.3	1.8	67
CVM BM/10	CVM B/10	0.75	1	62
CVM BM/12	CVM B/12	0.9	1.2	
CVM BM/15	CVM B/15	1.1	1.5	
CVM BM/20	CVM B/20	1.5	2	67
CVM BM/23	CVM B/23	1.7	2.3	
-	CVM B/25	1.85	2.5	

* Mean value of several measures at 1m distance around the pump.
Tollerance ± 2.5 dB.