



EBARA

CMA-B-D-CMR

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

60 Hz



CMA-B-D - CMR

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in cast iron

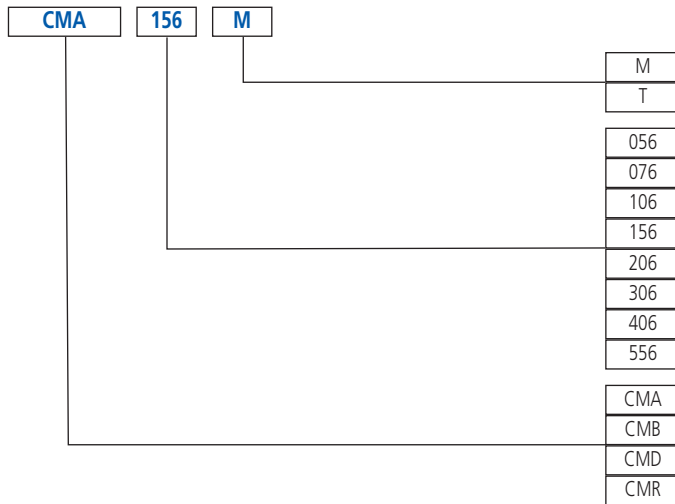


CMA-B-D



CMR

CMA-B-D - CMR



Cast iron single impeller centrifugal electric pumps.

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-
-
-
- CMR : 가
- 가
- :
 - CMA 056 - 076 - 106, CMB 076 - 106 - 156 - 206 - 306, CMD, CMR : **6 bar**
 - : **8 bar**
- :
 - CMA 056 - 076 - 106 : 40°C
 - : 90°C
- 2
- :F
- :IP44
- 220-230V ±6%, 60Hz , 220/380V -6%+10%, 60Hz
- : G1 for CMA 056 - 076 - 106, G1¼ for CMA 156 - 206 - 306, G1½ for CMR, G2 for CMB, G2½ for CMD
- : G1 for CMA, G1¼ for CMB, G1½ for CMR, G2½ for CMD
- Cast iron pump body
- Mechanical seal in Carbon/Ceramic/NBR
- Impeller:
 - in PPE+PS reinforced with fibreglass for CMA 056 - 076 - 106
 - in brass for CMA 156 - 206 - 306, CMB 206 - 306 - 406 - 556, CMR
 - in cast iron for CMB 076 - 106 - 156, CMD
- Shaft:
 - in AISI 303 (part in contact with the liquid) for CMA 076 - 106 - 156 - 206 - 306, CMB 076 - 106 - 156 - 206 - 306, CMD 206 - 306 - CMR
 - in AISI 304 (part in contact with the liquid) for CMB 406 - 556, CMD 406
 - in AISI 416 (integral) for CMA 056
- Bracket:
 - in aluminium for CMA 056 - 076 - 106, CMB 076 - 106, CMR
 - in cast iron for the rest of the range

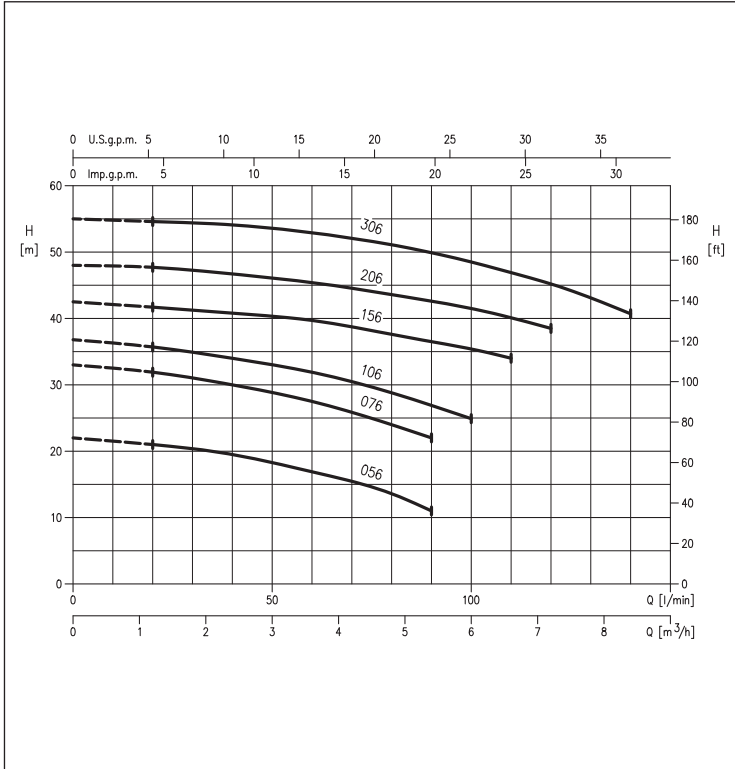


CMA-B-D - CMR

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS in cast iron

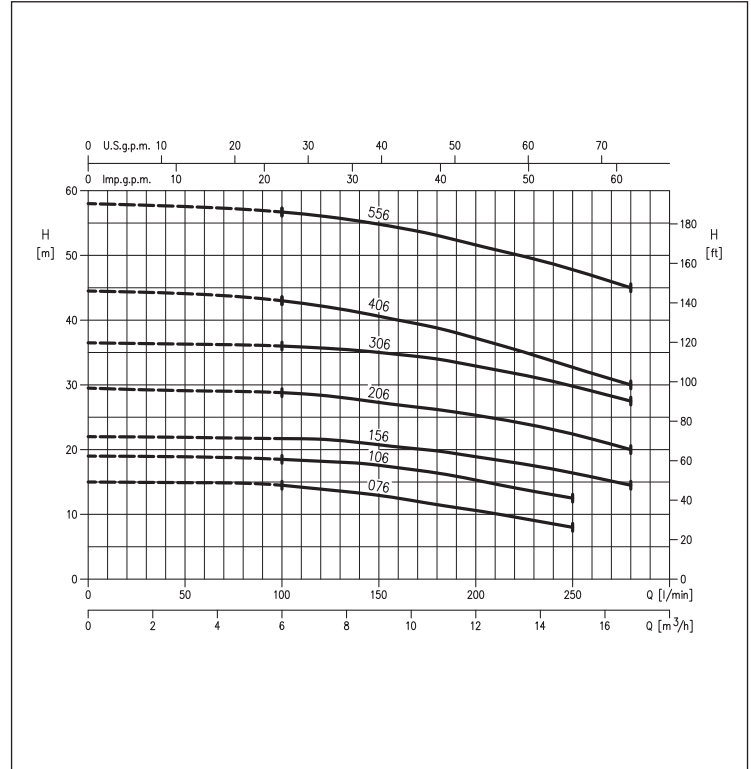
CMA range

(according to ISO 9906 Attachment A)



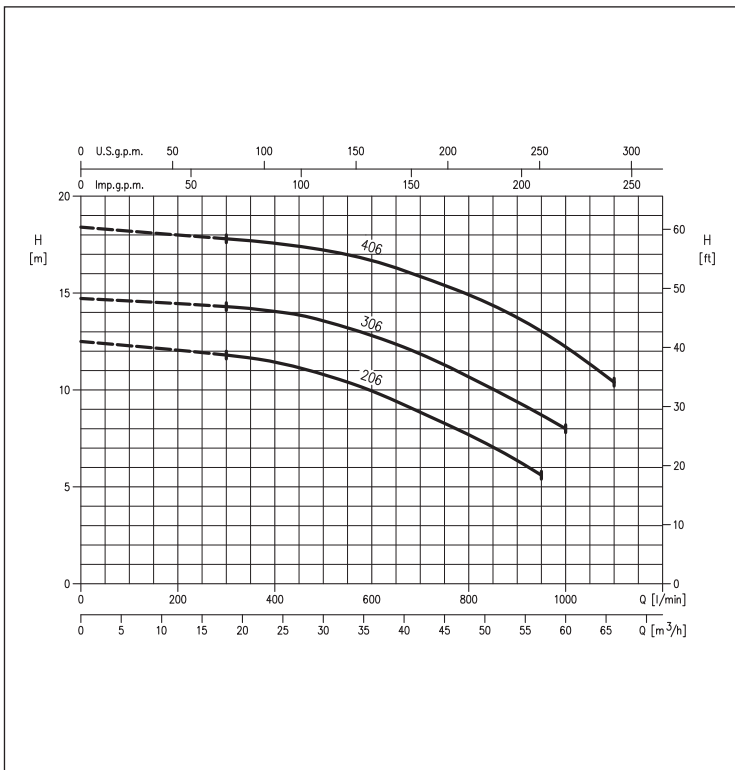
CMB range

(according to ISO 9906 Attachment A)



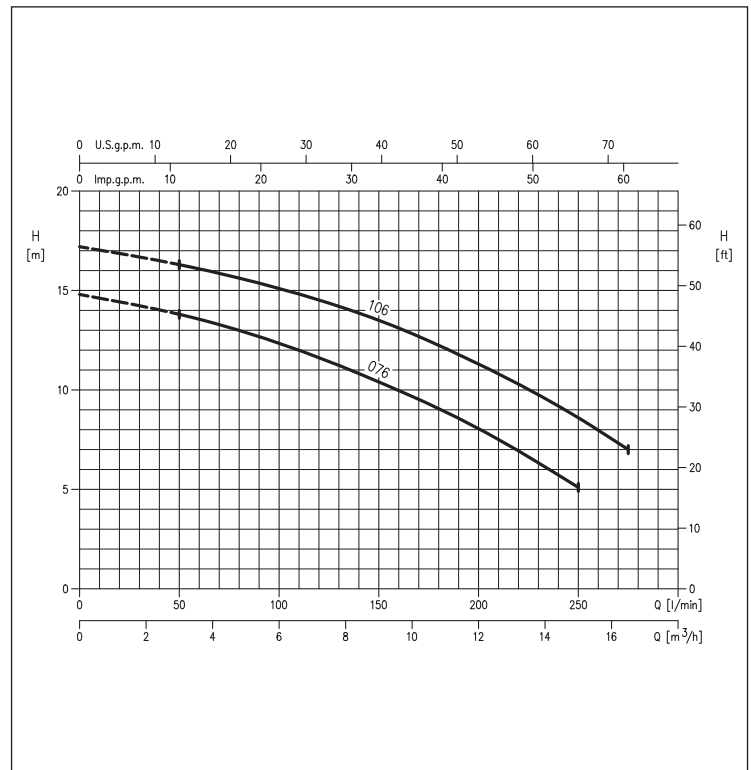
CMD range

(according to ISO 9906 Attachment A)



CMR range

(according to ISO 9906 Attachment A)



CMA-B-D - CMR

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in cast iron

CMA

220-230V	220/380V	P ₂		Q=													
		[HP]	[kW]	l/min	20	30	40	50	60	70	80	90	100	110	120	130	140
				m ³ /h	1,2	1,8	2,4	3	3,6	4	4,8	5,4	6	6,6	7,2	7,8	8,4
CMA 056 M	CMA 056 T	0,5	0,37	21,0	20,5	19,5	18,0	16,9	15,5	13,6	11,0	-	-	-	-	-	-
CMA 076 M	CMA 076 T	0,75	0,55	31,9	31,0	30,0	28,5	27,5	26,0	24,0	22,0	-	-	-	-	-	-
CMA 106 M	CMA 106 T	1	0,75	35,7	35,0	34,0	33,0	32,0	30,5	29,0	27,0	24,9	-	-	-	-	-
CMA 156 M	CMA 156 T	1,5	1,1	41,5	41,0	40,5	40,0	39,5	38,5	37,5	36,5	35,5	34,0	-	-	-	-
CMA 206 M	CMA 206 T	2	1,5	47,5	47,0	46,5	46,0	45,5	44,5	43,5	42,5	41,5	40,0	38,5	-	-	-
-	CMA 306 T	3	2,2	54,5	54,3	54,0	53,5	53,0	52,0	51,0	50,0	48,5	47,0	45,0	43,0	40,5	-

CMB

220-230V	220/380V	P ₂		Q=									
		[HP]	[kW]	l/min	100	120	140	160	180	200	220	250	280
				m ³ /h	6	7,2	8,4	9,6	10,8	12	13,2	15	16,8
CMB 076 M	CMB 076 T	0,75	0,55	14,5	13,9	13,3	12,5	11,5	10,6	9,6	8,0	-	-
CMB 106 M	CMB 106 T	1	0,75	18,5	18,2	17,9	17,2	16,4	15,3	14,1	12,5	-	-
CMB 156 M	CMB 156 T	1,5	1,1	21,7	21,6	21,1	20,4	19,8	18,9	18,0	16,4	14,5	-
CMB 206 M	CMB 206 T	2	1,5	28,8	28,4	27,7	26,9	26,2	25,3	24,3	22,4	20,0	-
-	CMB 306 T	3	2,2	36,0	35,7	35,3	34,7	34,0	32,9	31,8	29,8	27,5	-
-	CMB 406 T	4	3	43,0	42,0	41,0	40,0	38,8	37,2	35,5	32,7	30,0	-
-	CMB 556 T	5,5	4	56,5	56,0	55,0	54,0	53,0	51,5	50,0	48,0	45,0	-

CMD

220-230V	220/380V	P ₂		Q=												
		[HP]	[kW]	l/min	300	350	400	450	500	600	700	800	900	950	1000	1100
				m ³ /h	18	21	24	27	30	36	42	48	54	57	60	66
CMD 206 M	CMD 206 T	2	1,5	11,8	11,6	11,4	11,1	10,8	9,9	8,8	7,7	6,3	5,6	-	-	-
-	CMD 306 T	3	2,2	14,3	14,2	14,0	13,9	13,6	12,8	11,8	10,7	9,4	8,7	8,0	-	-
-	CMD 406 T	4	3	17,8	17,7	17,6	17,4	17,2	16,7	15,9	14,9	13,7	13,0	12,2	10,4	-

CMR

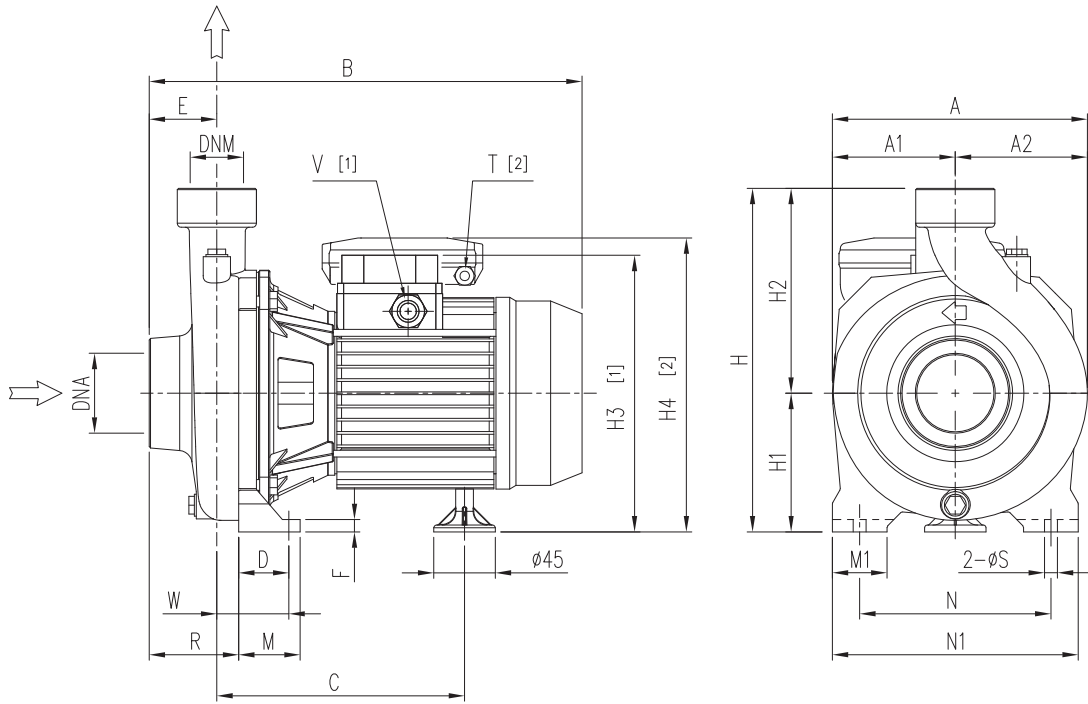
220-230V	220/380V	P ₂		Q=						
		[HP]	[kW]	l/min	50	100	150	200	250	275
				m ³ /h	1,2	6	9	12	15	16,5
CMR 076 M	CMR 076 T	0,75	0,55	13,8	12,3	10,5	8,0	5,1	-	-
CMR 106 M	CMR 106 T	1	0,75	16,3	15,1	13,5	11,3	8,6	7,0	-

CMA-B-D - CMR

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in cast iron

CMA-B-D - CMR



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

	[mm]																							[kg]	
	A	A1	A2	B	C	D	E	F	H	H1	H2	H3 [1]	H4 [2]	M	M1	N	N1	R	T [2]	V [1]	W	S	DNA	DNM	[kg]
CMA 056 M	158,5	76,5	82	264	156	30	44	8	202	82	120	-	174,5	40	40	110	150	44	PG11	-	30	9,5	G1	G1	7,3
CMA 056 T	158,5	76,5	82	262	159	30	44	8	202	82	120	172,5	-	40	40	110	150	44	-	PG11	30	9,5	G1	G1	7,2
CMA 076 M	187	91	96	302	171	37	45	9	232	97	135	-	199	45	40	140	180	45	PG11	-	37	9,5	G1	G1	10,3
CMA 076 T	187	91	96	301	172	37	45	9	232	97	135	197,5	-	45	40	140	180	45	-	PG11	37	9,5	G1	G1	10,2
CMA 106 M	187	91	96	301	172	37	45	9	232	97	135	-	198	45	40	140	180	45	PG11	-	37	9,5	G1	G1	11,5
CMA 106 T	187	91	96	302	171	37	45	9	232	97	135	198	-	45	40	140	180	45	-	PG11	37	9,5	G1	G1	11,5
CMA 156 M	196	97	99	348	209	42	45,5	9	252	100	152	-	232	50	40	155	194	45,5	PG13,5	-	42	9,5	G1¼	G1	19,5
CMA 156 T	196	97	99	346	207	42	45,5	9	252	100	152	219	-	50	40	155	194	45,5	-	PG11	42	9,5	G1¼	G1	18,0
CMA 206 M	223	110,5	112,5	361	209	42	45,5	9	285	115	170	-	247	50	40	180	220	45,5	PG13,5	-	42	9,5	G1¼	G1	22,8
CMA 206 T	223	110,5	112,5	346	207	42	45,5	9	285	115	170	234	-	50	40	180	220	45,5	-	PG11	42	9,5	G1¼	G1	21,5
CMA 306 T	223	110,5	112,5	359	207	42	45,5	9	285	115	170	234	-	50	40	180	220	45,5	-	PG11	42	9,5	G1¼	G1	23,4
CMB 076 M	188	90	98	316	183	37	49,5	9	251,5	101,5	150	-	127,5	45	40	140	180	65,5	PG11	-	53	9,5	G2	G1¼	11,5
CMB 076 T	188	90	98	317	182	37	49,5	9	251,5	101,5	150	203,5	-	45	40	140	180	65,5	-	PG11	53	9,5	G2	G1¼	11,6
CMB 106 M	188	90	98	316	183	37	49,5	9	251,5	101,5	150	-	127,5	45	40	140	180	65,5	PG11	-	53	9,5	G2	G1¼	13,7
CMB 106 T	188	90	98	317	182	37	49,5	9	251,5	101,5	150	202,5	-	45	40	140	180	65,5	-	PG11	53	9,5	G2	G1¼	13,5
CMB 156 M	188	90	98	350	207	37	49,5	9	251,5	101,5	150	-	233,5	45	40	140	180	65,5	PG13,5	-	53	9,5	G2	G1¼	19,0
CMB 156 T	188	90	98	348	205	37	49,5	9	251,5	101,5	150	220,5	-	45	40	140	180	65,5	-	PG11	53	9,5	G2	G1¼	17,6
CMB 206 M	212,5	102	110,5	374	210	37	57,5	9	271,5	111,5	160	-	243,5	45	40	160	200	76,5	PG13,5	-	56	9,5	G2	G1¼	21,0
CMB 206 T	212,5	102	110,5	372	208	37	57,5	9	271,5	111,5	160	230,5	-	45	40	160	200	76,5	-	PG11	56	9,5	G2	G1¼	20,1
CMB 306 T	212,5	102	110,5	372	208	37	57,5	9	271,5	111,5	160	230,5	-	45	40	160	200	76,5	-	PG11	56	9,5	G2	G1¼	21,3
CMB 406 T	248,5	121	127,5	427	246	48	60	12	323,5	133,5	190	274,5	-	60	50	190	240	77,5	-	PG16	66	12	G2	G1¼	39,0
CMB 556 T	248,5	121	127,5	467	246	48	60	12	323,5	133,5	190	274,5	-	60	50	190	240	77,5	-	PG16	66	12	G2	G1¼	41,0
CMD 206 M	211	97	114	398	223	37	68	12	271,5	111,5	160	-	243,5	45	40	160	200	100,5	PG13,5	-	70	9,5	G2½	G2½	23,0
CMD 206 T	211	97	114	396	221	37	68	12	271,5	111,5	160	230,5	-	45	40	160	200	100,5	-	PG11	70	9,5	G2½	G2½	21,4
CMD 306 T	211	97	114	396	221	37	68	12	271,5	111,5	160	230,5	-	45	40	160	200	100,5	-	PG11	70	9,5	G2½	G2½	23,0
CMD 406 T	211	97	114	444	255	37	68	12	271,5	111,5	160	252,5	-	45	40	160	200	100,5	-	PG16	70	9,5	G2½	G2½	30,0
CMR 076 M	180	90	90	311	182	37	45	9	229	97	132	-	198	45	40	140	180	60,5	PG11	-	53	9,5	G1½	G1½	10,7
CMR 076 T	180	90	90	312	181	37	45	9	229	97	132	199	-	45	40	140	180	60,5	-	PG11	53	9,5	G1½	G1½	10,7
CMR 106 M	180	90	90	311	182	37	45	9	229	97	132	-	198	45	40	140	180	60,5	PG11	-	53	9,5	G1½	G1½	11,9
CMR 106 T	180	90	90	312	181	37	45	9	229	97	132	198	-	45	40	140	180	60,5	-	PG11	53	9,5	G1½	G1½	11,9

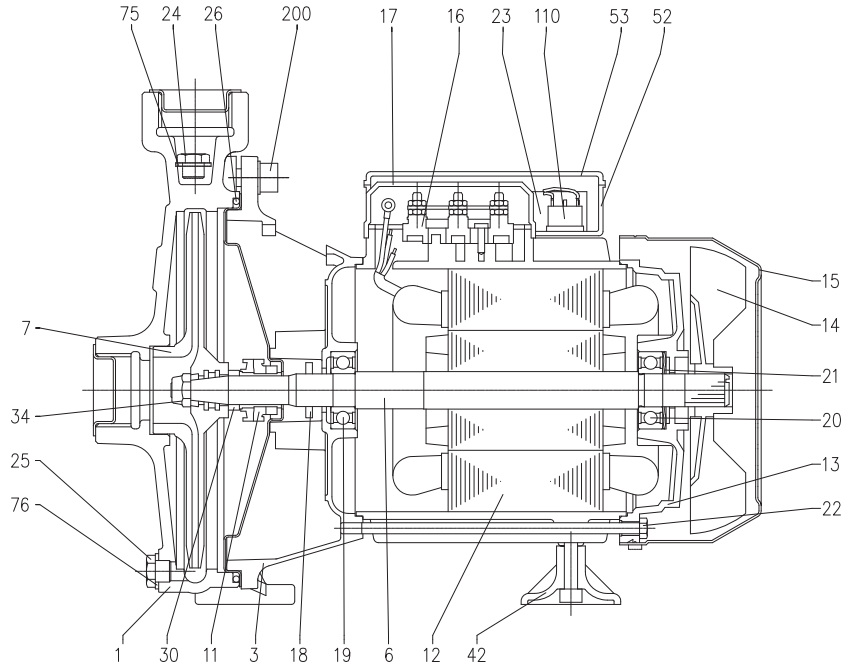
[1]= Three phase only
[2]= Single phase only

CMA-B-D - CMR

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in cast iron

for CMA-B-D up to 1.00 HP



Ref.			Ref.		
1	Pump body	Cast iron	21	Adjusting ring	Steel C70
3	Motor support	Aluminium	22	Tie-rod	Galvanised Fe 42
4	Casing cover	AISI 304	23	Capacitor [2]	-
6	Shaft	see page 3	24	Priming plug	Brass
7	Impeller	see page 3	25	Drain plug	Brass
11	Mechanical seal	Carbon/Ceramic/NBR	26	O-Ring	NBR
12	Motor frame with stator	-	30	Mechanical seal spacer [3]	Brass
13	Motor cover	Aluminium	34	Impeller nut [4]	AISI 304
14	Fan	PA6	42	Foot	PP
15	Fan cover	Galvanised Fe P04	52	Capacitor box [2]	ABS
16	Terminal box	-	53	Capacitor box cover [2] [5]	ABS
17	Terminal box cover [1]	Aluminium	75	Washer	Aluminium
18	Splash ring	NBR	76	Washer	Aluminium
19	Bearing (pump side)	-	110	Protector [2]	-
20	Bearing (motor side)	-	200	Screw (pump body)	Zn Steel Cl. 8.8 ISO 898-1

[1]= For three phase only

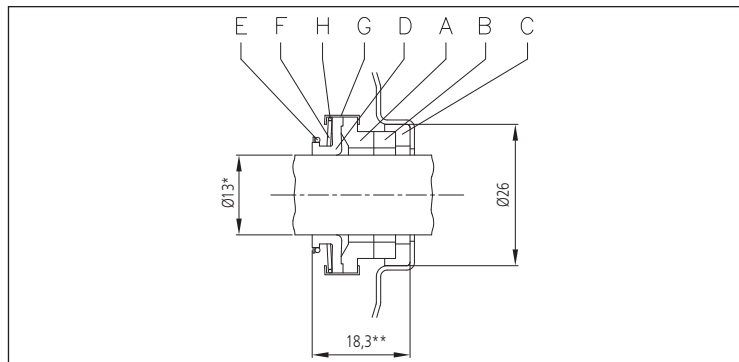
[2]= For single phase only

[3]= For CMA 056, CMB 076-106 only

[4]= Except for CMA 056

[5]= With gasket in NBR for single phase CMA 056-076-106, CMB 076-106 versions only

for CMA-B-D up to 1.00 HP



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

*= Ø12 for CMA 056

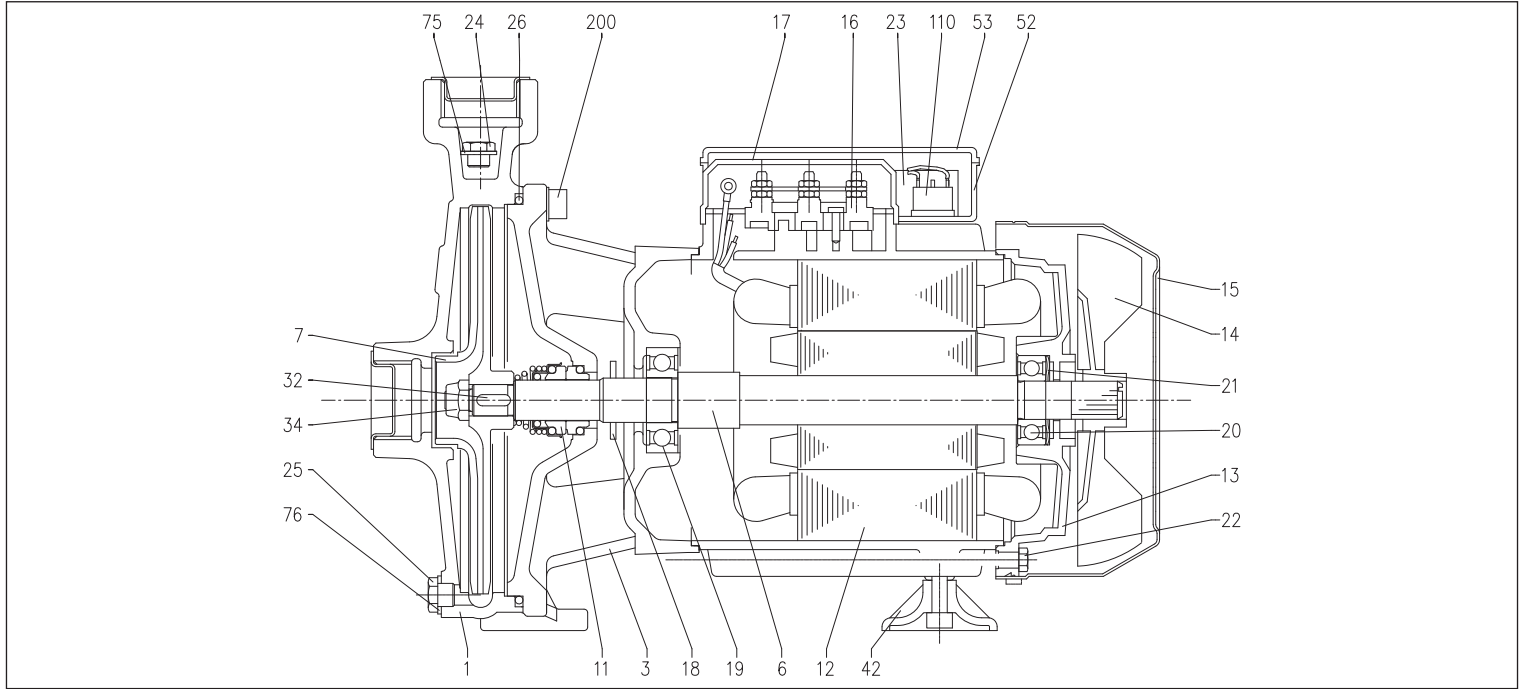
**= 18,5 for CMA 056

CMA-B-D - CMR

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in cast iron

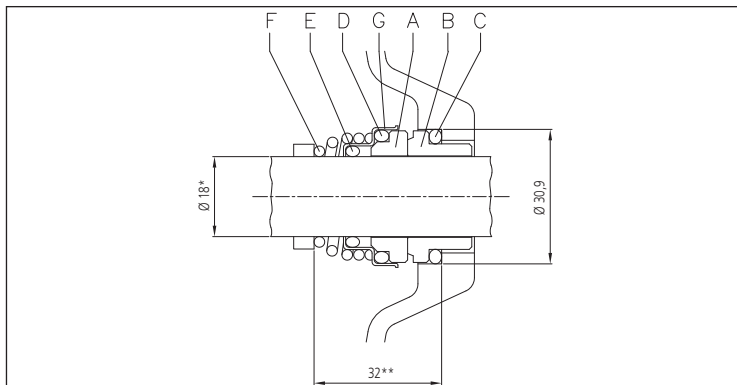
for CMA-B-D from 1.50 HP and above



Ref.			Ref.		
1	Pump body	Cast iron	22	Tie-rod	Galvanised Fe 42
3	Motor bracket	Cast iron	23	Capacitor [2]	-
6	Shaft with rotor	see page 3	24	Priming plug	Brass
7	Impeller	see page 3	25	Drain plug	Brass
11	Mechanical seal	Carbon/Ceramic/NBR	26	O-Ring	NBR
12	Motor frame with stator	-	32	Key	AISI 316
13	Motor cover	Aluminium	34	Impeller nut	AISI 304
14	Fan	PA6	42	Foot	PP
15	Fan cover	Galvanised Fe P04	52	Capacitor box [2]	ABS
16	Terminal board	-	53	Capacitor box cover [2]	ABS
17	Terminal box board [1]	Aluminium	75	Washer	Aluminium
18	Splash ring	NBR	76	Washer	Aluminium
19	Bearing (pump side)	-	101	Seeger ring	AISI 420
20	Bearing (motor side)	-	110	Motorprotector [2]	-
21	Adjusting ring	Steel C70	200	Screw (pump body)	Zn Steel Cl. 8.8 ISO 898-1

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

for CMA-B-D from 1.50 HP and above



Ref.		
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

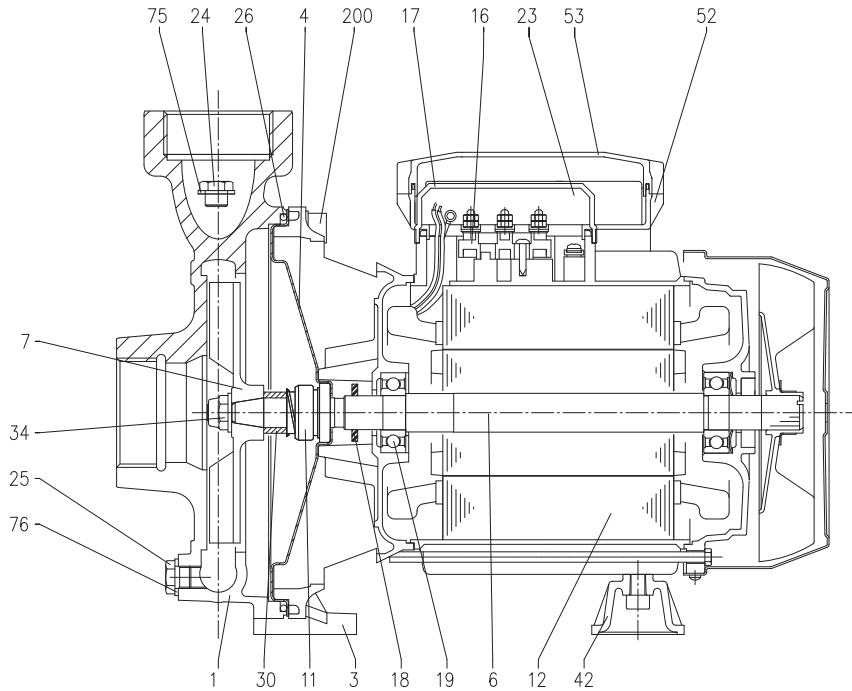
*= Ø20 for CMB 406 - 556 **= 33 for CMB 406 - 556

CMA-B-D - CMR

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in cast iron

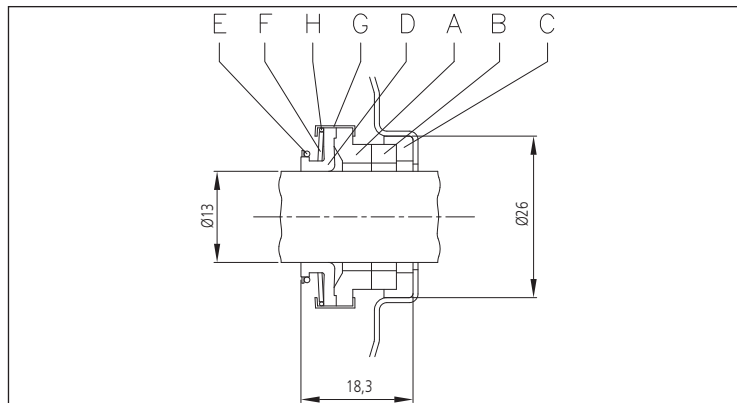
for CMR



Ref.			Ref.		
1	Pump body	Cast iron	21	Adjusting ring	Steel C70
3	Motor bracket	Aluminium	22	Tie-rod	Galvanised Fe 42
4	Casing cover	AISI 304	23	Capacitor [2]	-
6	Shaft with rotor	AISI 303 (part in contact with the liquid)	24	Priming plug	Brass
7	Impeller	Brass	25	Drain plug	Brass
11	Mechanical seal	Carbon/Ceramic/NBR	26	O-Ring	NBR
12	Motor frame with stator	-	30	Mechanical seal spacer	Brass
13	Motor cover [1]	Aluminium	34	Impeller nut	AISI 304
14	Fan	PP	42	Foot	PP
15	Fan cover	Galvanised Fe P04	52	Capacitor box [2]	ABS
16	Terminal box	-	53	Capacitor box cover [2]	ABS+NBR
17	Terminal box cover [1]	Aluminium	75	Washer	Aluminium
18	Splash ring	NBR	76	Washer	Aluminium
19	Bearing (pump side)	-	200	Screw (pump body)	Zn Steel Cl. 8.8 ISO 898-1
20	Bearing (motor side)	-			

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

for CMR



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

CMA-B-D - CMR

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in cast iron

220-230V	220/380V	P ₂		Capacitor		P ₁		Absorbed Current [A]		
		[HP]	[kW]	μF	V _c	[kW]	[kW]	220-230V	220V	380V
CMA 056 M	CMA 056 T	0,5	0,37	10	450	0,7		3,5		
CMA 076 M	CMA 076 T	0,75	0,55	16	450	1,2		5,6		
CMA 106 M	CMA 106 T	1	0,75	20	450	1,3	1,0	6,3	2,9	1,7
CMA 156 M	CMA 156 T	1,5	1,1	35	450	1,9	2,0	9,2	5,7	3,3
CMA 206 M	CMA 206 T	2	1,5	35	450	2,33	2,9	10,9	8,1	4,7
-	CMA 306 T	3	2,2	-	-	-	2,9	-	8,1	4,7
CMB 076 M	CMB 076 T	0,75	0,55	14	450	0,93	0,84	4,5	2,6	1,5
CMB 106 M	CMB 106 T	1	0,75	20	450	1,3	1,0	6,4	2,9	1,7
CMB 156 M	CMB 156 T	1,5	1,1	35	450	1,6	2,0	7,8	5,7	3,3
CMB 206 M	CMB 206 T	2	1,5	35	450	2,0	2,9	9,8	8,1	4,7
-	CMB 306 T	3	2,2	-	-	-	2,9	-	8,1	4,7
-	CMB 406 T	4	3	-	-	-	3,8	-	11,1	6,4
-	CMB 556 T	5,5	4	-	-	-	5,1	-	14,7	8,5
CMD 206 M	CMD 206 T	2	1,5	31,5	450	2,3	2,9	10,5	8,1	4,7
-	CMD 306 T	3	2,2	-	-	-	2,9	-	8,1	4,7
-	CMD 406 T	4	3	-	-	-	3,8	-	11,1	6,4
CMR 076 M	CMR 076 T	0,75	0,55	12,5	450	0,84	0,73	3,9	2,3	1,3
CMR 106 M	CMR 106 T	1	0,75	20	450	1,07	1,0	5,0	2,9	1,7



EBARA

