



EBARA

CDA

DUAL IMPELLER CENTRIFUGAL ELECTRIC PUMPS

60 Hz

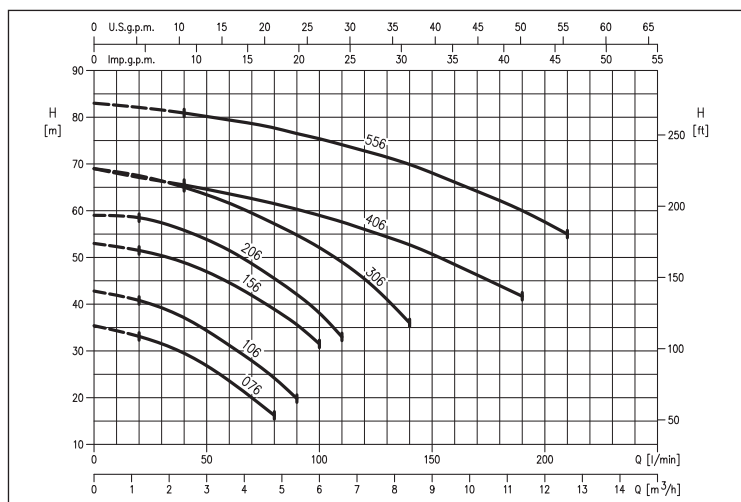


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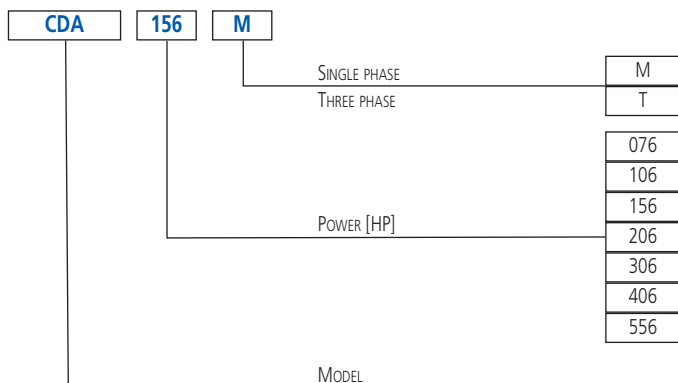
in cast iron



PERFORMANCE CURVES (according to ISO 9906 Attachment A)



IDENTIFICATION CODE



Cast iron dual impeller centrifugal electric pumps.

APPLICATIONS

- Pressure boosting domestic plants
- Small-sale irrigation
- Moving non-aggressive liquids for civil and industrial use
- Washing plants
- Washing vehicles

TECHNICAL DETAILS

- They can be inserted into machinery for industrial use

TECHNICAL DATA

- Maximum working pressure 6 bar for CDA 076 - 106, 10 bar for the rest of the range
- Maximum temperature of the liquid: +40°C for CDA 076 - 106, +90°C for the rest of the range
- Self-ventilated 2 pole asynchronous motor
- Class of insulation F
- IP44 Protection rating
- 220-230V $\pm$ 6%, 60Hz single phase voltage
- 220/380V -6%+10%, 60Hz 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
- G1 suction connection for CDA 076 - 106, G1½ for CDA 156 - 206 - 306, G1½ per CDA 406 - 556
- G1 discharge connection for CDA 076 - 106 - 156 - 206 - 306, G1½ for CDA 406 - 556

MATERIALS

- Pump body in cast iron
- Mechanical seal in Carbon/Ceramic/NBR
- Impeller in PPE+PS reinforced with fibreglass for CDA 076 - 106, in brass for the rest of the range
- Shaft in AISI 303 for CDA 076 - 106 - 156 - 206 - 306, in AISI 304 for CDA 406 - 556
- Support in aluminium for CDA 076 - 106, in cast iron for the rest of the range
- Seal housing disc in AISI 304 for CDA 076 - 106, in cast iron built-in the motor bracket for the rest of the range

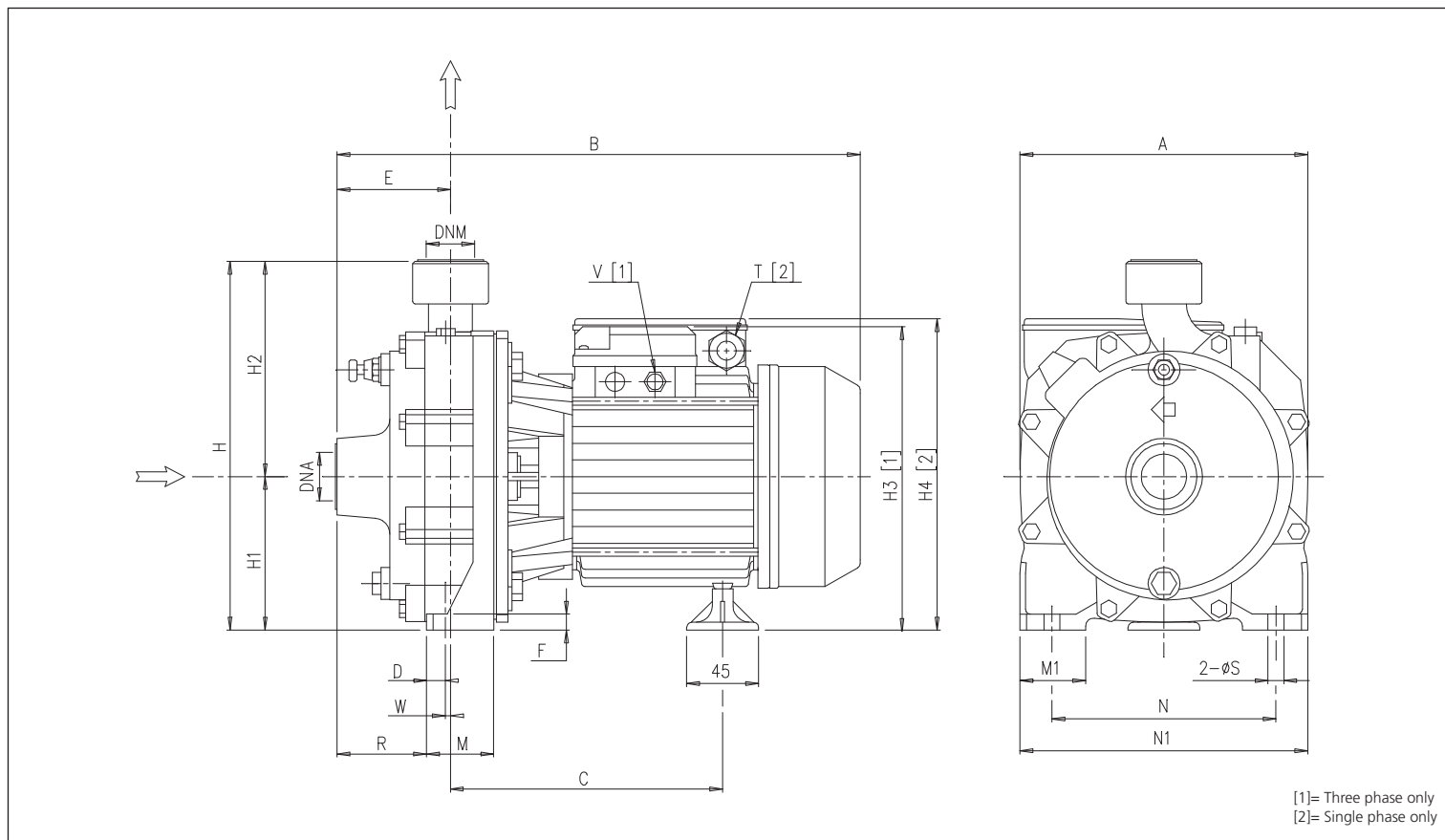
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PERFORMANCE TABLE

Model		P ₂		Q=Flow rate												
Single phase 220-230V	Three phase 220/380V	[HP]	[kW]	l/min	20	40	60	80	90	100	110	120	140	160	190	210
				m³/h	1,2	2,4	3,6	4,8	5,4	6	6,6	7,2	8,4	9,6	11,4	12,6
				H=Head [m]												
CDA 076 M	CDA 076 T	0,75	0,55	33,1	29,5	23,5	16,2	-	-	-	-	-	-	-	-	-
CDA 106 M	CDA 106 T	1	0,75	41,0	37,0	31,0	24,0	19,8	-	-	-	-	-	-	-	-
CDA 156 M	CDA 156 T	1,5	1,1	51,5	49,0	44,5	39,0	35,5	31,5	-	-	-	-	-	-	-
CDA 206 M	CDA 206 T	2	1,5	58,5	56,0	51,5	45,5	42,0	38,0	33,0	-	-	-	-	-	-
-	CDA 306 T	3	2,2	-	65,0	61,5	57,0	55,0	52,0	49,0	45,5	36,0	-	-	-	-
-	CDA 406 T	4	3	-	65,5	63,5	61,5	60,5	59,0	57,5	56,0	52,5	48,5	41,5	-	-
-	CDA 556 T	5,5	4	-	81,0	79,5	77,5	76,5	75,5	74,0	73,0	70,0	66,0	60,0	55,0	-

DIMENSIONS



DIMENSIONS TABLE

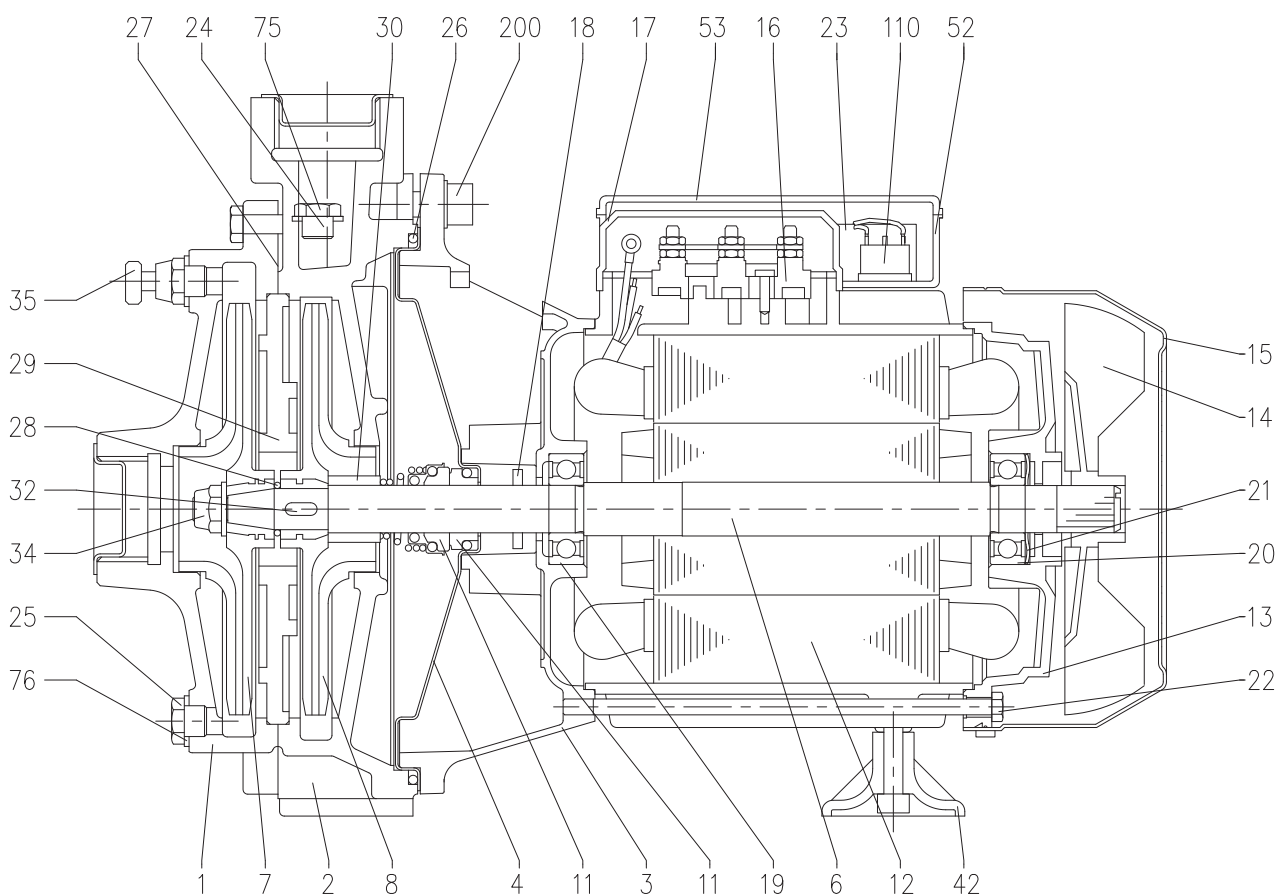
Model	Dimensions [mm]																							Weight
	A	B	C	D	E	F	H	H1	H2	[1] H3	[2] H4	M	M1	N	N1	R	[2] T	[1] V	W	S	DNA	DNM	[kg]	
CDA 076 M	183	336,3	179,8	8,3	73	9	227	97	130	-	198	42	40	140	180	57,5	PG11	-	6,8	9,5	G1	G1	13,3	
CDA 076 T	183	336,3	179,8	8,3	73	9	227	97	130	197,5	-	42	40	140	180	57,5	-	PG11	6,8	9,5	G1	G1	13,8	
CDA 106 M	183	336,3	179,8	8,3	73	9	227	97	130	-	198	42	40	140	180	57,5	PG11	-	6,8	9,5	G1	G1	14,5	
CDA 106 T	183	336,3	179,8	8,3	73	9	227	97	130	197,5	-	42	40	140	180	57,5	-	PG11	6,8	9,5	G1	G1	15,0	
CDA 156 M	209	394,8	218,3	8,3	86	9	265	110	155	-	242	48	40	155	195	65,5	PG13,5	-	12,3	9,5	G1¼	G1	23,6	
CDA 156 T	194	394,8	218,3	8,3	86	9	265	110	155	224	-	48	40	155	195	65,5	-	PG11	12,3	9,5	G1¼	G1	23,0	
CDA 206 M	209	410,8	218,3	8,3	86	9	265	110	155	-	242	48	40	155	195	65,5	PG13,5	-	12,3	9,5	G1¼	G1	25,5	
CDA 206 T	194	408	218,3	8,3	86	9	265	110	155	224	-	48	40	155	195	65,5	-	PG11	12,3	9,5	G1¼	G1	27,4	
CDA 306 T	194	410,8	218,3	8,3	86	9	265	110	155	224	-	48	40	155	195	65,5	-	PG11	12,3	9,5	G1¼	G1	25,8	
CDA 406 T	228	467,3	225,3	12	95,5	12	308,5	133,5	175	264,5	-	57	50	180	230	71,5	-	G1½	12	12	G1½	G1¼	46,8	
CDA 556 T	228	508	225,3	12	95,5	12	308,5	133,5	175	264,5	-	57	50	180	230	71,5	-	G1½	12	12	G1½	G1¼	52,2	

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

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in cast iron

SECTIONAL VIEW



MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
1	Pump body	Cast iron	23	Capacitor [2]	-
2	Pump body	Cast iron	24	Filler cap	Brass
3	Motor support	see page 3	25	Drain plug	Brass
4	Seal housing disc	see page 3	26	O-Ring	NBR
6	Shaft	see page 3	27	Pump body gasket	Compression cellulose fibres
7	Impeller	see page 3	28	O-Ring	NBR
8	Impeller	see page 3	29	Intermediate disc	Cast iron
11	Mechanical seal	Carbon/Ceramic/NBR	30	Seal spacer	Brass
12	Motor case	-	32	Key	AISI 316
13	Motor cover	Aluminium	34	Impeller nut [3]	AISI 304
14	Fan	PP	35	Air breather valve	Brass
15	Fan cover	Galvanised Fe P04	42	Foot	PP
16	Terminal box	-	52	Terminal box [2]	ABS
17	Terminal box cover [1]	Aluminium	53	Terminal box cover [2] [5]	ABS
18	Spray protector ring	NBR	75	Washer	Aluminium
19	Bearing (pump side)	-	76	Washer	Aluminium
20	Bearing (motor side)	-	110	Motorprotector [4]	-
21	Adjusting ring	Steel C70	200	Screw (pump body)	Zn Steel Cl. 8.8 ISO 898-1
22	Tie-rod	Galvanised Fe 42			

[1]= For three phase only [2]= For single phase only

[3]= For the version with brass impeller only

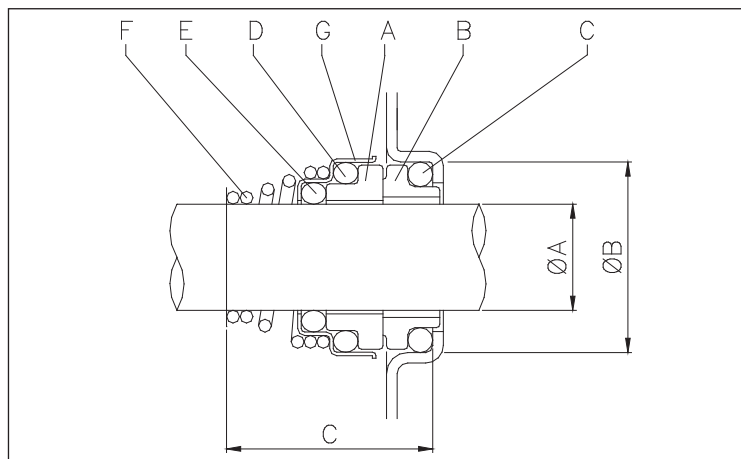
[4]= For single phase CDA 156 - 206 versions only

[5]= With gasket in NBR for CDA 076, CDA 106 single phase versions only

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MECHANICAL SEAL



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

DIMENSIONS

Single phase	Three phase	ØA	ØB	C
CDA 076 M	CDA 076 T	15	26	29
CDA 106 M	CDA 106 T	15	26	29
CDA 156 M	CDA 156 T	18	30,9	32
CDA 206 M	CDA 206 T	18	30,9	32
-	CDA 306 T	18	30,9	32
-	CDA 406 T	20	30,9	33
-	CDA 556 T	20	30,9	33

ELECTRIC DATA TABLE

Model		P ₂		Capacitor		P ₁		Absorbed Current [A]		
Single phase 220-230V	Three phase 220/380V	[HP]	[kW]	µF	V _c	Single phase [kW]	Three phase [kW]	Single phase 220-230V	Three phase 220V	Three phase 380V
CDA 076 M	CDA 076 T	0,75	0,55	14	450	1,1	0,9	5,3	2,8	1,6
CDA 106 M	CDA 106 T	1	0,75	20	450	1,3	1	6,7	2,9	1,7
CDA 156 M	CDA 156 T	1,5	1,1	35	450	1,92	2	9,1	5,7	3,3
CDA 206 M	CDA 206 T	2	1,5	35	450	2,26	2,9	10,5	8,1	4,7
-	CDA 306 T	3	2,2	-	-	-	2,9	-	8,1	4,7
-	CDA 406 T	4	3	-	-	-	3,8	-	11,1	6,4
-	CDA 556 T	5,5	4	-	-	-	5,1	-	14,7	8,5

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