CDA

DUAL IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in cast iron



Cast iron dual impeller centrifugal electric pumps.

APPLICATIONS

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

TECHNICAL DETAILS

- Available with brass impeller (CDA 0.75 M GO, CDA 1.00 M/T GO)
- They can be inserted into machinery for industrial use

PUMP TECHNICAL DATA

- Maximum working pressure: 6 bar for CDA 0.75 - 1.00, 10 bar for the rest of the range
- Maximum temperature of the liquid: 40°C for CDA 0.75 - 1.00, 90°C for the rest of the range
- Suction connection G1 for CDA 0.75 - 1.00, G1¼ for CDA 1.50 - 2.00 - 3.00, G1½ for CDA 4.00 - 5.50
- Discharge connection: G1 for CDA 0.75 - 1.00 - 1.50 - 2.00 - 3.00, G1¼ for CDA 4.00 - 5.50

MOTOR TECHNICAL DATA

- IE3 high energy-efficiency motors starting from 0.75kW
- Self-ventilated 2 pole asynchronous motor
- Class of insulation F
- IP44 Protection degree
- 230V ± 10% 50Hz single phase voltage, 230/400V ±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

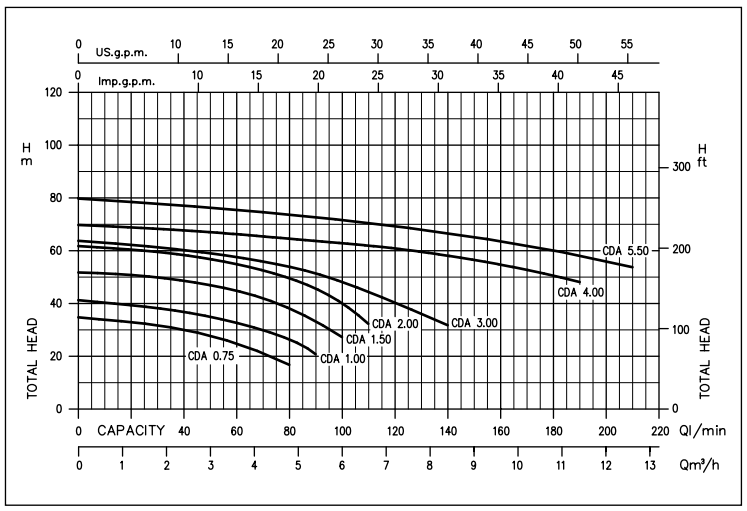
MATERIALS

- Cast iron pump casing
- Mechanical seal in Ceramic/Carbon/NBR
- Impeller in PPE + PS reinforced with glass fibres for CDA 0.75-1.00, in brass for the rest of the range
- Shaft in AISI 303 for CDA 0.75 - 1.00 - 1.50 - 2.00 - 3.00, in AISI 304 for CDA 4.00 - 5.50
- Bracket in aluminium for CDA 0.75-1.00, in cast iron for the rest of the range
- Seal housing disc in AISI 304 for CDA 0.75-1.00, in cast iron built-in the motor bracket for the rest of the range

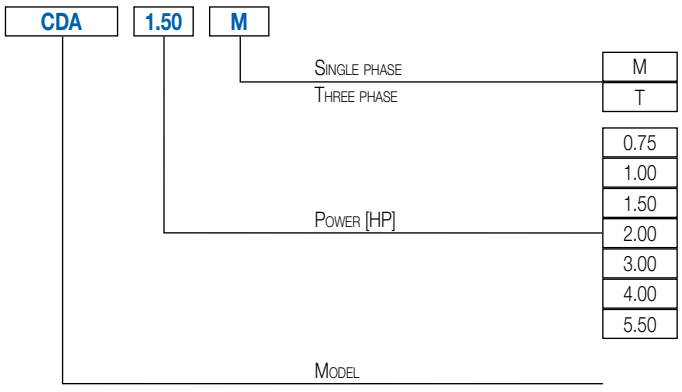
ACCESSORIES (On request)

- Electric panels
- Vessels
- Floats
- Pressure switches
- Presscomfort - Pressure regulator
- E-power - Variable speed control system
- E-*drive* - Variable speed control system

PERFORMANCE CURVES (according to ISO 9906 Attachment A)



IDENTIFICATION CODE



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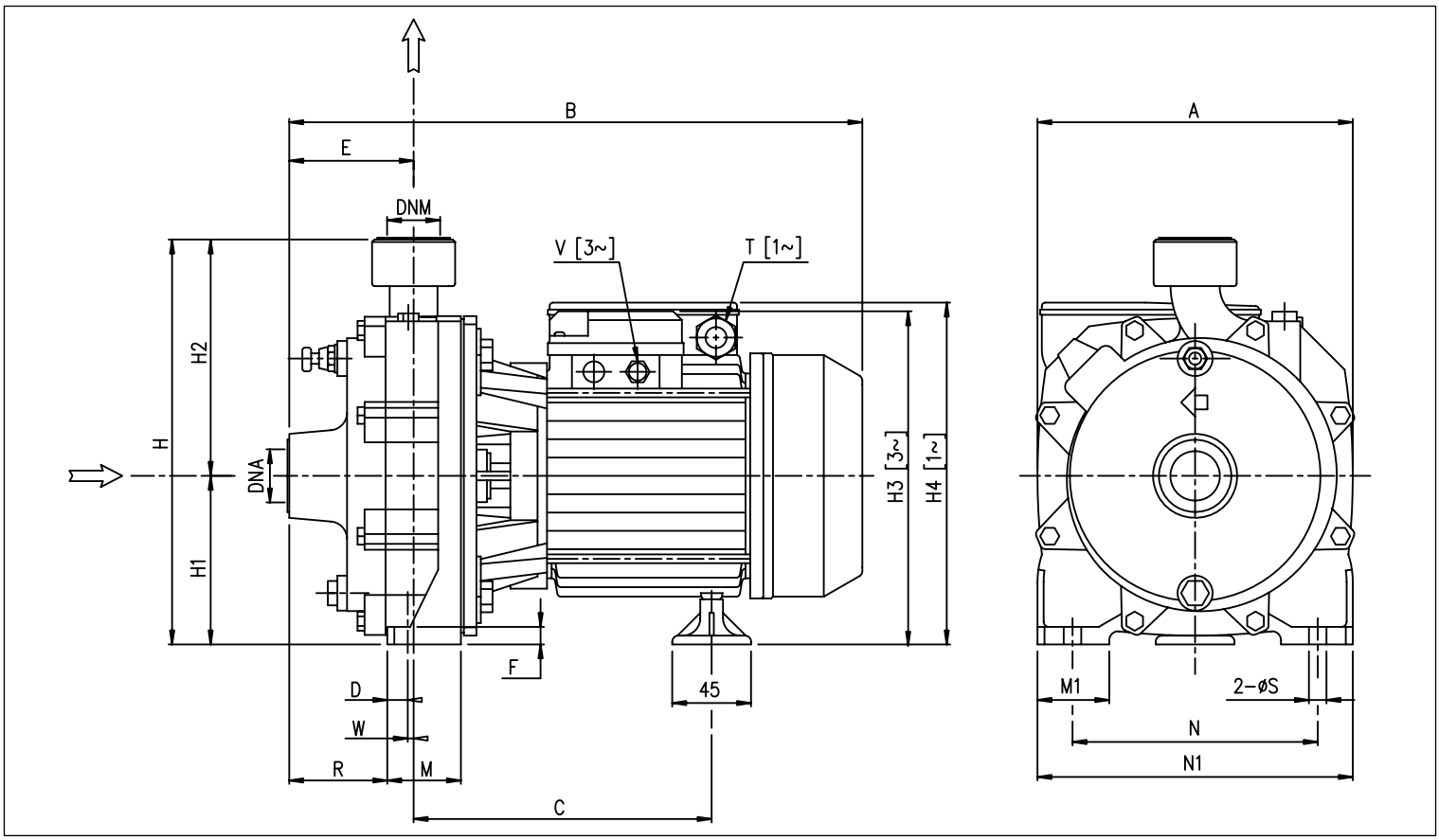
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PERFORMANCE CHART

Model		P_2		Q = Flow Rate										
Single phase 230V	Three phase 230/400V	[HP]	[kW]	l/min 20	40	50	80	90	100	110	140	170	190	210
				m^3/h 1.2	2.4	3	4.8	5.4	6	6.6	8.4	10.2	11.4	12.6
				H=Head [m]										
CDA 0.75 M	CDA 0.75 T	0.75	0.55	33.0	30.2	27.9	17.0	-	-	-	-	-	-	-
CDA 1.00 M	CDA 1.00 T	1	0.75	39.5	37.0	35.2	27.0	21.0	-	-	-	-	-	-
CDA 1.50 M	CDA 1.50 T	1.5	1.1	50.8	48.8	47.1	38.4	33.4	27.5	-	-	-	-	-
CDA 2.00 M	CDA 2.00 T	2	1.5	60.5	58.6	56.9	49.8	46.5	40.3	32.5	-	-	-	-
-	CDA 3.00 T	3	2.2	-	60.5	59.3	54.1	51.6	48.4	44.6	32.0	-	-	-
-	CDA 4.00 T	4	3	-	-	67.0	64.8	63.9	62.5	62.0	58.0	53.5	48.0	-
-	CDA 5.50 T	5.5	4	-	-	76.5	73.9	72.9	71.8	70.5	66.8	62.0	58.3	54.0

DIMENSIONS



DIMENSIONAL TABLE

Modello	Dimensioni [mm]																						Peso [kg]
	A	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	
CDA 0.75M	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	13,8
CDA 0.75T	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 1.00M	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	15,0
CDA 1.00T	183	336,3	179,8	8,3	73	9	227	97	130	197,5	-	42	40	140	180	57,5	-	M16x1.5	6,8	9,5	G1	G1	15,0
CDA 1.50M	209	407,8	218,3	8,3	86	9	265	110	155	-	242	48	40	155	195	65,5	PG13,5	-	12,3	9,5	G1¼	G1	24,2
CDA 1.50T	194	419,8	218,3	8,3	86	9	265	110	155	224	-	48	40	155	195	65,5	-	M20x1.5	12,3	9,5	G1¼	G1	25,8
CDA 2.00M	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	26,0
CDA 2.00T	194	420,5	218,3	8,3	86	9	265	110	155	224	-	48	40	155	195	65,5	-	M20x1.5	12,3	9,5	G1¼	G1	28,0
CDA 3.00T	194	423,3	218,3	8,3	86	9	265	110	155	224	-	48	40	155	195	65,5	-	M20x1.5	12,3	9,5	G1¼	G1	26,7
CDA 4.00T	228	494,5	262,5	12	95,5	12	308,5	133,5	175	259,5	-	57	50	180	230	71,5	-	M20x1.5	12	12	G1½	G1¼	46,8
CDA 5.50T	228	508	225,3	12	95,5	12	308,5	133,5	175	264,5	-	57	50	180	230	71,5	-	M20x1.5	12	12	G1½	G1¼	52,0

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

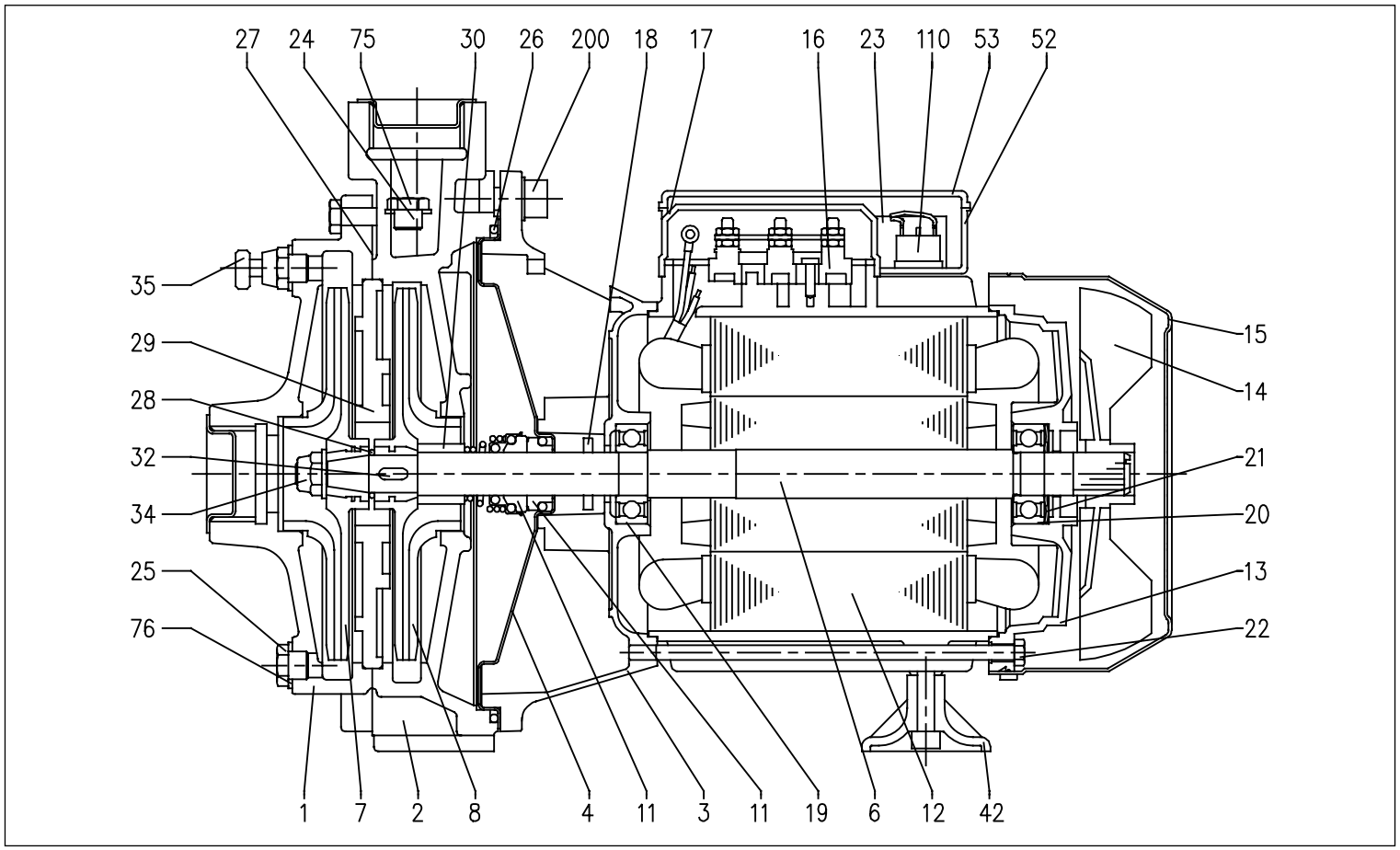
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SECTIONAL VIEW



MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	Cast iron	23	Capacitor [2]	-
2	Pump casing	Cast iron	24	Plug	Brass
3	Motor bracket	[3]	25	Plug	Brass
4	Casing cover	[4]	26	O-Ring	NBR
6	Shaft	[5]	27	Pump body gasket	Cellulose fibres included
7	Impeller	[6]	28	O-Ring	NBR
8	Impeller	[6]	29	Intermediate disc	Cast iron
11	Mechanical seal	Ceramic/Carbon/NBR	30	Seal spacer	Brass
12	Motor frame	-	32	Key	AISI 316
13	Motor cover	Aluminium	34	Impeller nut [7]	AISI 304
14	Fan	PP	35	Bleed valve	Brass
15	Fan cover	Galvanised Fe P04	42	Motor support	PP
16	Terminal Box	-	52	Capacitor-holder box [2]	ABS
17	Terminal Box cover [1]	Aluminium	53	Capacitor-holder box cover [8]	ABS
18	Splash ring	NBR	75	Washer	Aluminium
19	Bearing (pump side)	-	76	Washer	Aluminium
20	Bearing (motor side)	-	110	Motor protector [9]	-
21	Adjustment ring	Steel C70	200	Screw (pump body)	Zn. steel Cl. 8.8 ISO 898-1
22	Tie-rod	Galvanised Fe 42			

[1]= Three-phase only
[2]= Single phase only
[3]= Aluminium for CDA 0.75 - 1.00, cast iron for the rest of the range
[4]= AISI 304 for CDA 0.75 - 1.00, cast iron integrated Motor support for the rest of the range
[5]= AISI 303 (part in contact with the liquid) for CDA 0.75 - 1.00 - 1.50 - 2.00 - 3.00, AISI 304 (part in contact with the liquid) for the rest of the range
[6]= PPE+PS reinforced with fibreglass for CDA 0.75 - 1.00, brass for the rest of the range
[7]= Version with brass impeller only
[8]= With gasket in NBR only for CDA 0.75 - 1.00 single phase models
[9]= Version CDA 1.50 - 2.00 single phase only

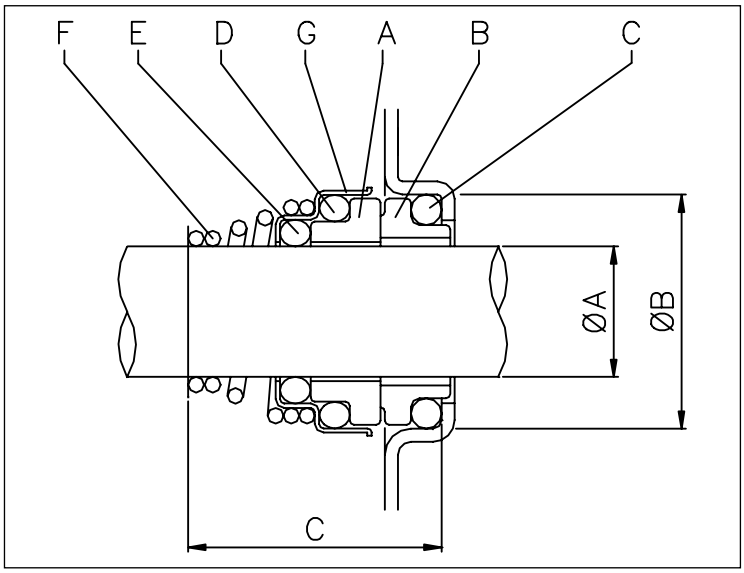
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MECHANICAL SEAL



MATERIALS TABLE

Ref.	Name	Materials
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 0.75 M	CDA 0.75 T	15	26	29
CDA 1.00 M	CDA 1.00 T	15	26	29
CDA 1.50 M	CDA 1.50 T	18	30.9	32
CDA 2.00 M	CDA 2.00 T	18	30.9	32
-	CDA 3.00 T	18	30.9	32
-	CDA 4.00 T	20	30.9	33
-	CDA 5.50 T	20	30.9	33

ELECTRIC DATA TABLE

Model		P_2		Efficiency		Capacitor Single phase		Efficiency (%) Three phase η %			P_1		Absorbed Current [A]		
Single phase 230V	Three phase 230/400V	[HP]	[kW]	Single phase	Three phase	µF	V_c	50%	75%	100%	Single phase [kW]	Three phase [kW]	Single phase 230V	Three phase 230V	Three phase 400V
CDA 0.75 M	CDA 0.75 T	0,75	0,55	-	-	16	450	-	-	-	1,1	1,05	5,0	3,4	2,0
CDA 1.00 M	CDA 1.00 T	1	0,75	-	IE3	20	450	80,9	82,3	82,1	1,38	0,91	6,1	3,0	1,7
CDA 1.50 M	CDA 1.50 T	1,5	1,1	-	IE3	40	450	83,0	85,8	85,6	1,85	1,77	8,6	5,8	3,3
CDA 2.00 M	CDA 2.00 T	2	1,5	-	IE3	40	450	84,2	86,8	86,9	2,35	2,01	10,8	7,1	4,1
-	CDA 3.00 T	3	2,2	-	IE3	-	-	86,2	87,0	86,0	-	2,55	-	8,2	4,7
-	CDA 4.00 T	4	3	-	IE3	-	-	85,9	87,5	87,1	-	3,44	-	11,1	6,4
-	CDA 5.50 T	5,5	4	-	IE3	-	-	85,8	88,3	88,4	-	4,52	-	15,1	8,7

NOISE DATA TABLE

Model		P_2		L_{pA} - dB(A)*
Single phase 230V	Three phase 230/400V	[HP]	[kW]	
CDA 0.75 M	CDA 0.75 T	0.75	0.55	<70
CDA 1.00 M	CDA 1.00 T	1	0.75	
CDA 1.50 M	CDA 1.50 T	1.5	1.1	
CDA 2.00 M	CDA 2.00 T	2	1.5	
-	CDA 3.00 T	3	2.2	
-	CDA 4.00 T	4	3	
-	CDA 5.50 T	5.5	4	

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

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