

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304



Single impeller centrifugal electric pumps made entirely of AISI 304 stainless steel.

APPLICATIONS

- Domestic pressure boosting
- Small-scale garden irrigation
- Washing
- Treating water
- Cooling towers
- Pumping clean water in general

TECHNICAL DETAILS

- Sturdy hydraulic frame
- Small dimensions

PUMP TECHNICAL DATA

- Maximum working pressure: 8 bar
- Maximum temperature of the liquid:
 - 5°C ÷ +60°C for CD, CDE, Q1AEGG, VAEGG, U3U3EGG, Q1U3EGG and U3CEGG 70/05-70/07-90/10 models
 - 5°C ÷ +90°C for the rest of the CD range
 - 5°C ÷ +110°C for the H, HS, HW, HSW version
 - 5°C ÷ +120°C for the rest of the CDE range and for the Q1AEGG, VAEGG, U3U3EGG, Q1U3EGG and U3CEGG versions
- G1½ suction connection for CD 200, G1¼ for the rest of the range
- G1 discharge connection
- MEI > 0.4

For further information please see our Technical Data Sheet on the web site www.ebara-europe.com

MOTOR TECHNICAL DATA

- High-efficiency IE2 motors starting from 0.75kW up to 5.5kW
IE3 starting from 0.75kW
- 2-pole self-ventilated enclosed fan-cooled asynchronous motor
- Class of insulation F
- IP55 protection degree
- 230V ± 10% 50 Hz 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

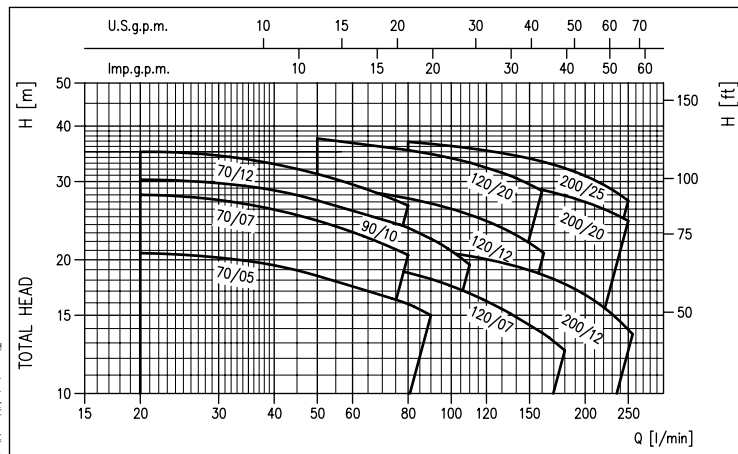
MATERIALS

- Pump casing, impeller, diffuser, seal housing disc, bracket, motor case and fan cover in EN 1.4301 (AISI 304)
- Mechanical seal in:
 - Ceramic/Carbon/NBR (standard)
 - special versions: see p. 8
- Shaft in AISI 303 (part in contact with the liquid)

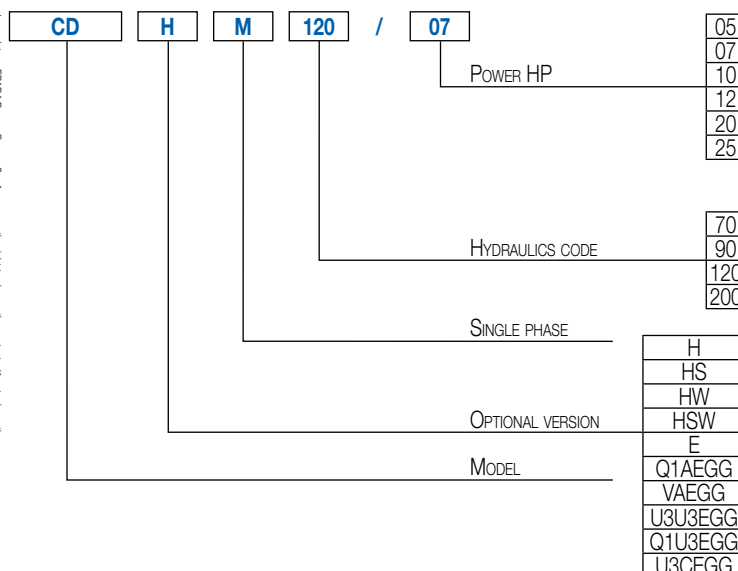
ACCESSORIES (On request)

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

PERFORMANCE RANGE (according to ISO 9906 Attachment A)



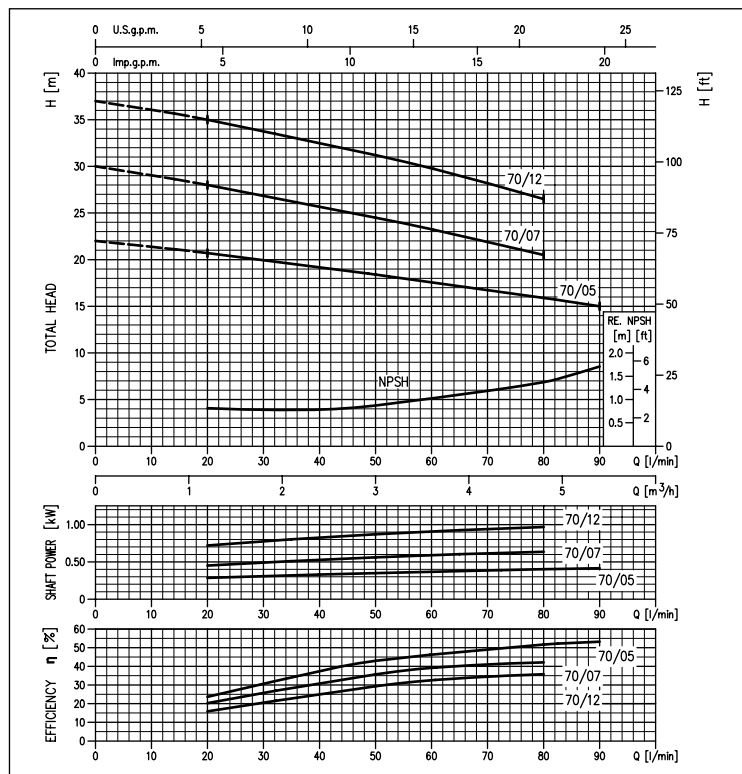
IDENTIFICATION CODE



SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS in AISI 304

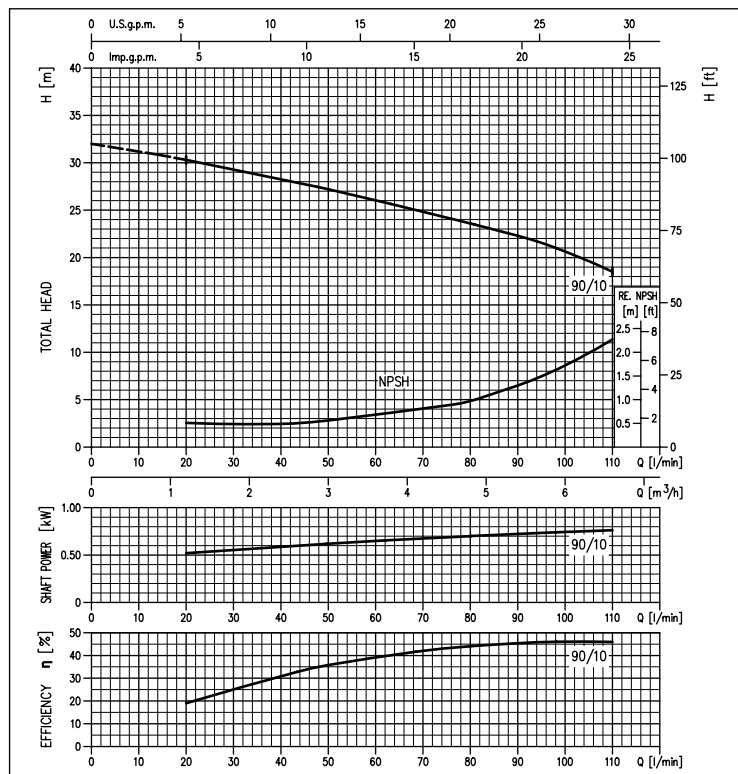
PERFORMANCE CURVES CD 70 series

(according to ISO 9906 Attachment A)



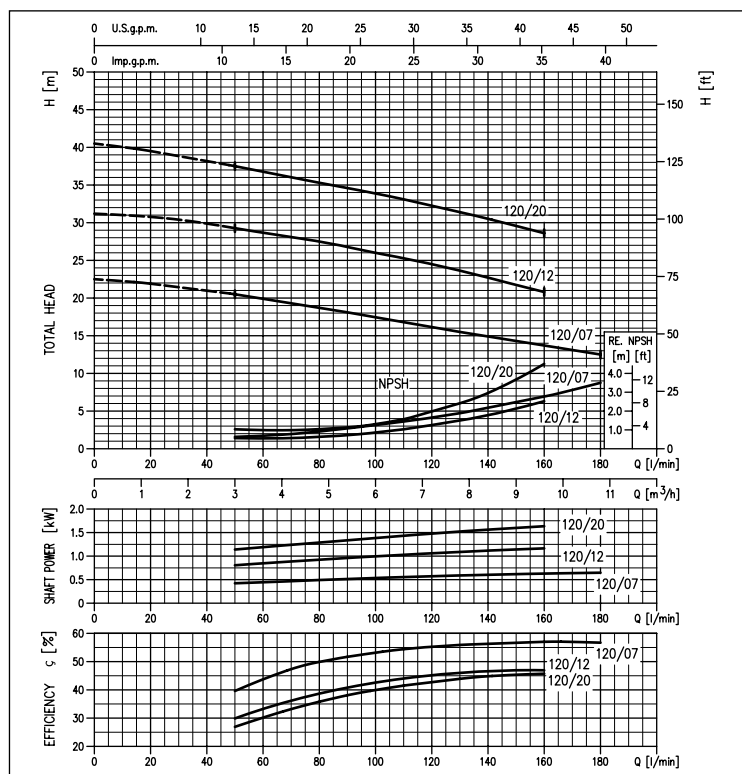
PERFORMANCE CURVES CD 90 series

(according to ISO 9906 Attachment A)



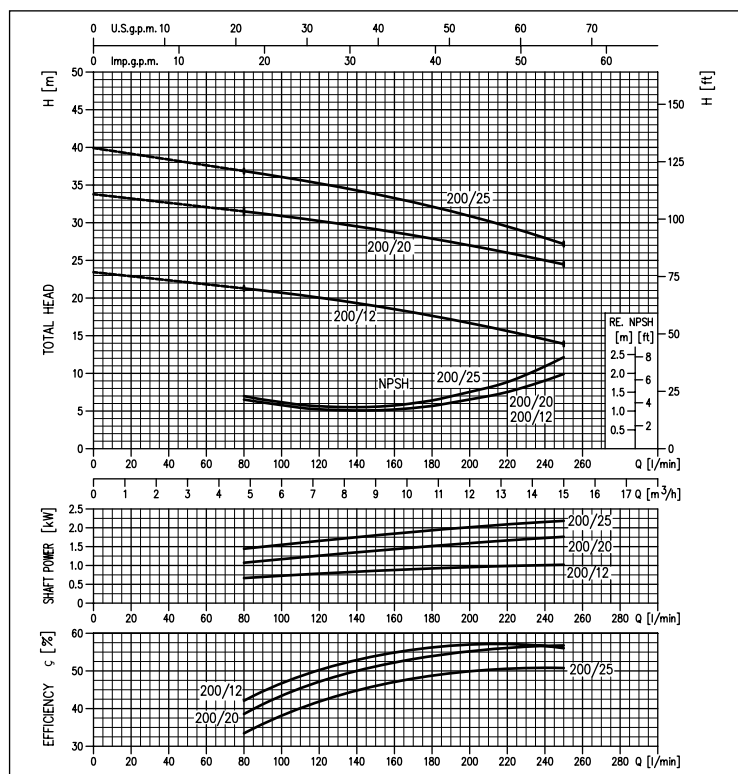
PERFORMANCE CURVES CD 120 series

(according to ISO 9906 Attachment A)



PERFORMANCE CURVES CD 200 series

(according to ISO 9906 Attachment A)



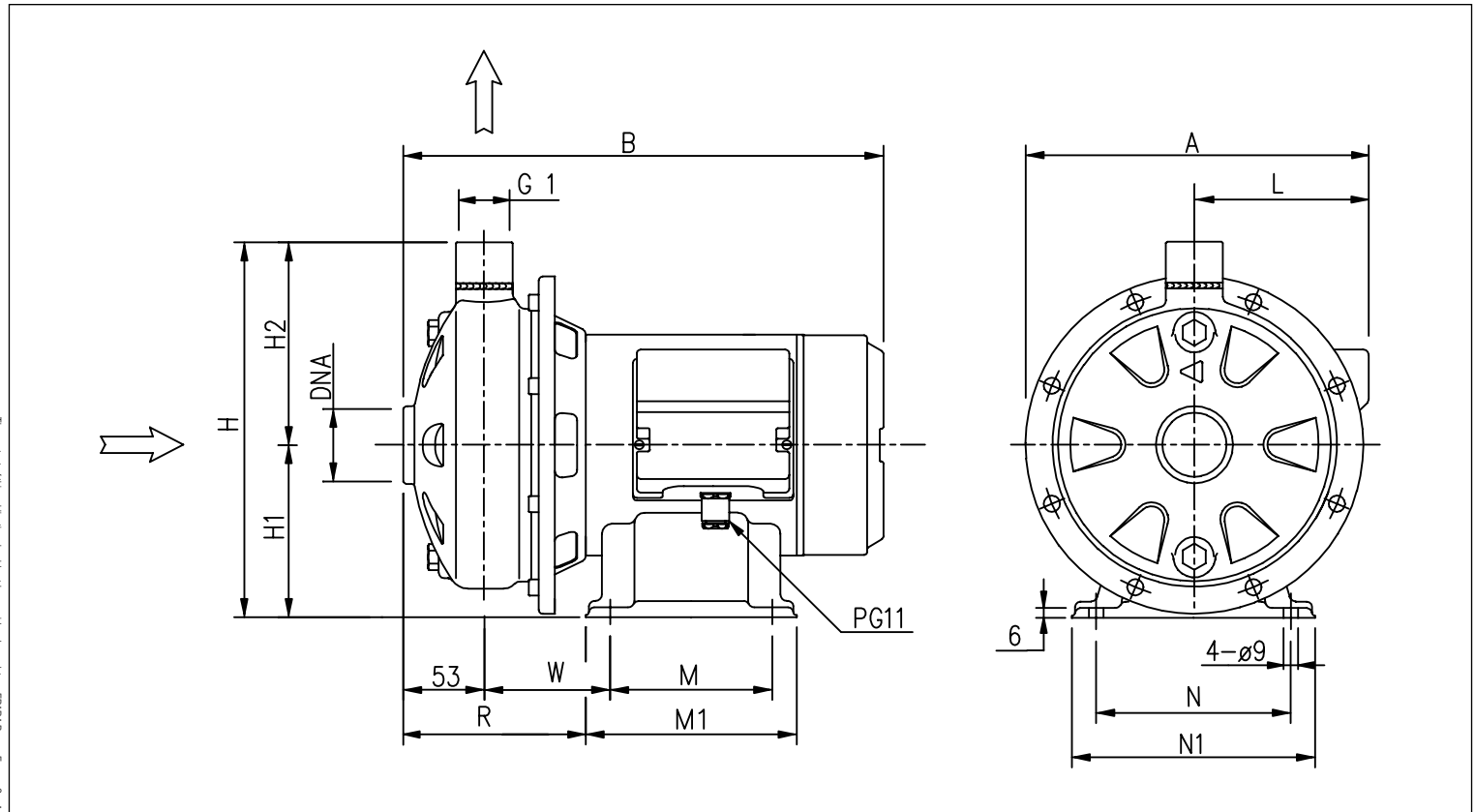
SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

PERFORMANCE CHART

Model		P ₂		Q = Flow Rate										
Single phase 230V	Three phase 230/400V	[HP]	[kW]	l/min m³/h	20 1.2	50 3	80 4.8	90 5.4	110 6.6	130 7.8	160 9.6	180 10.8	210 12.6	250 15
				H=Head [m]										
CDM 70/05	CD 70/05	0.5	0.37	20.7	18.4	15.9	15.0	-	-	-	-	-	-	-
CDM 70/07	CD 70/07	0.8	0.55	28.0	24.5	20.5	-	-	-	-	-	-	-	-
CDM 70/12	CD 70/12	1.2	0.9	35.0	31.2	26.5	-	-	-	-	-	-	-	-
CDM 90/10	CD 90/10	1	0.75	30.3	27.2	23.6	22.3	19.5	-	-	-	-	-	-
CDM 120/07	CD 120/07	0.8	0.55	-	20.5	18.7	18.1	16.8	15.5	13.7	12.5	-	-	-
CDM 120/12	CD 120/12	1.2	0.9	-	29.3	27.5	26.8	25.2	23.6	21.0	-	-	-	-
CDM 120/20	CD 120/20	2	1.5	-	37.5	35.3	34.6	33.1	31.4	28.6	-	-	-	-
CDM 200/12	CD 200/12	1.2	0.9	-	-	21.3	21.0	20.4	19.7	18.5	17.6	16.0	14.0	
CDM 200/20	CD 200/20	2	1.5	-	-	31.5	31.2	30.6	30.0	28.7	27.9	26.5	24.5	
-	CD 200/25	2.5	1.8	-	-	36.8	36.5	35.6	34.7	33.3	32.0	30.0	27.2	

DIMENSIONS



DIMENSIONAL TABLE

Model	Dimensions [mm]																			Weight [kg]			
	A		B		*	H	H1	H2	L		M		M1		N	N1	R	W	DNA	[2]	[1]	*	
	[2]	[1]	[2]	[1]					[2]	[1]	[2]	[1]											
CD(M) 70/05	209	208	298	298	-	229.5	106	123.5	105	104	100	100	130	130	120	150	115.5	77.5	G1¼	8.7	8.7	-	
CD(M) 70/07	209	208	298	298	-	229.5	106	123.5	105	104	100	100	130	130	120	150	115.5	77.5	G1¼	10.0	10.0	-	
CD(M) 70/12	208	208	328	338	338	229.5	106	123.5	104	104	100	100	130	130	120	150	130.5	92.5	G1¼	13.2	13.7	13.7	
CD(M) 90/10	209	208	328	328	328	229.5	106	123.5	105	104	100	100	130	130	120	150	130.5	92.5	G1¼	11.5	11.6	11.6	
CD(M) 120/07	209	208	298	298	-	229.5	106	123.5	105	104	100	100	130	130	120	150	115.5	77.5	G1¼	10.0	10.5	-	
CD(M) 120/12	208	208	328	338	338	229.5	106	123.5	104	104	100	100	130	130	120	150	130.5	92.5	G1¼	12.3	12.9	12.9	
CD(M) 120/20	232	232	356	366	376	250	118	132	116	116	120	120	150	150	140	170	133	95	G1¼	15.3	17.4	18.3	
CD(M) 200/12	208	208	328	338	338	229.5	106	123.5	104	104	100	100	130	130	120	150	130.5	92.5	G1½	12.0	12.6	12.6	
CD(M) 200/20	213	213	356	366	376	229.5	106	123.5	109	109	120	120	150	150	140	170	133	95	G1½	15.8	16.6	17.5	
CD 200/25	-	232	-	366	376	250	118	132	-	116	-	120	-	150	140	170	138	100	G1½	-	17.4	18.3	

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

* Models with IE3 motor only

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

SECTIONAL VIEW

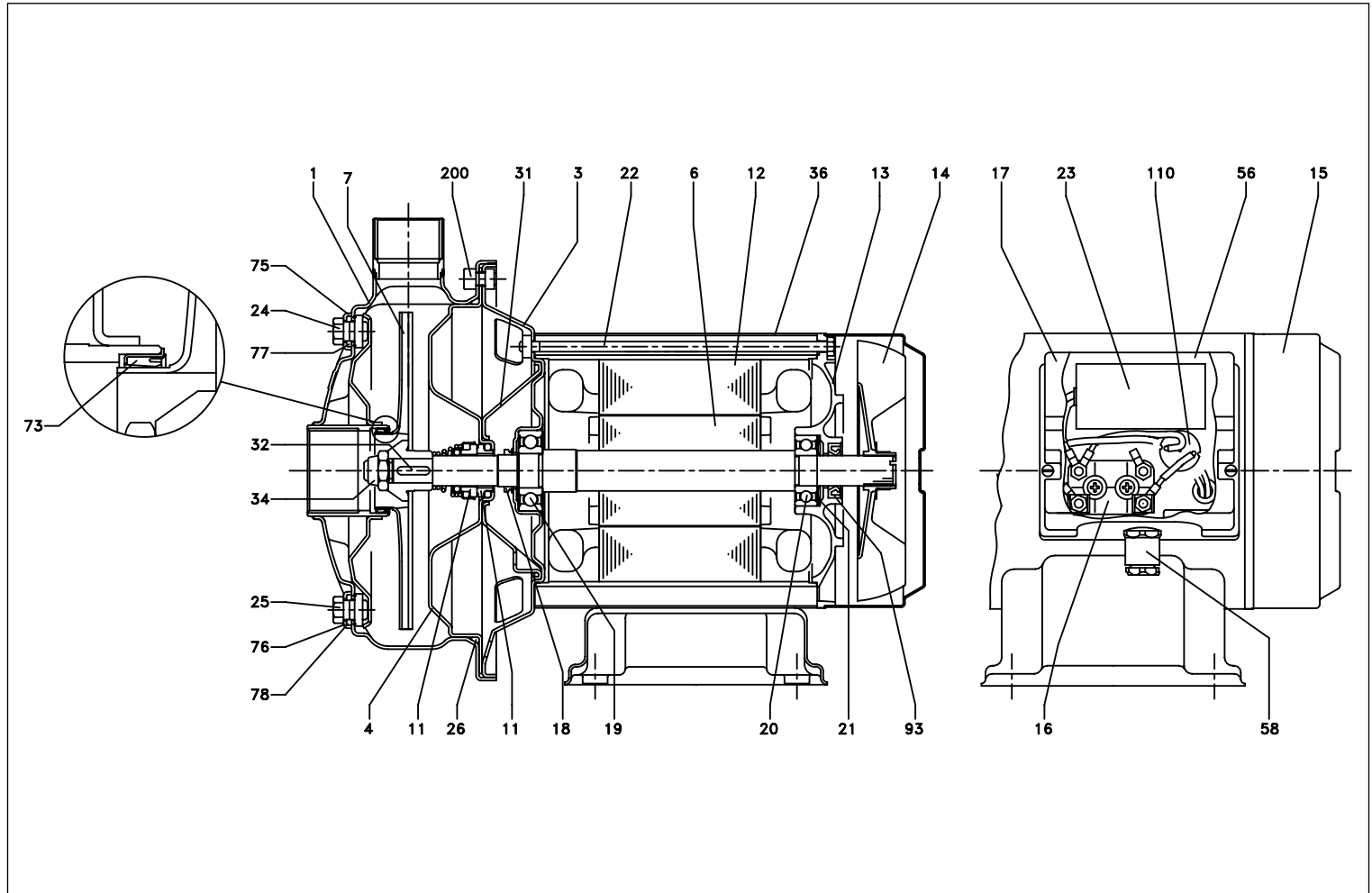


TABLE OF MATERIALS

Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	EN 1.4301 (AISI 304)	24	Plug	EN 1.4301 (AISI 304)
3	Motor bracket	EN 1.4301 (AISI 304)	25	Plug	EN 1.4301 (AISI 304)
4	Casing cover	EN 1.4301 (AISI 304)	26	O-Ring [2]	NBR
6	Shaft	AISI 303 Part in contact with the liquid	31	Seal disc spacer	EN 1.4301 (AISI 304)
7	Impeller	EN 1.4301 (AISI 304)	32	Key	AISI 316
11	Mechanical seal	Ceramic/Carbon/NBR	34	Impeller nut	Stainless Steel A2-70
12	Motor frame	-	36	Motor casing	EN 1.4301 (AISI 304)
13	Motor cover	Aluminium	56	Terminal box cover gasket	NBR
14	Fan	PA	58	Cable input	-
15	Fan cover	EN 1.4301 (AISI 304)	73	Casing ring [3]	NBR
16	Terminal Box	-	75	Washer	EN 1.4301 (AISI 304)
17	Terminal Box cover	PA66 reinforced with fibreglass	76	Washer	EN 1.4301 (AISI 304)
18	Seal ring	NBR	77	O-Ring [2]	NBR
19	Bearing (pump side)	-	78	O-Ring [2]	NBR
20	Bearing (motor side)	-	93	Seal ring	NBR
21	Adjustment ring	Steel C70	110	Motor protector [1]	-
22	Tie-rod	Galvanised Fe 42	200	Screw (pump body)	Stainless Steel A2-70
23	Capacitor [1]	-			

[1]= Single phase only

[2]= FKM for CDH-CDHS-CDHW-CDHSW

EPDM for CDE, CD Q1AEGG, CD VAEGG, CD U3U3EGG, CD Q1U3EGG, CD U3CEGG

[3]= FKM for CDH-CDHS-CDHW-CDHSW

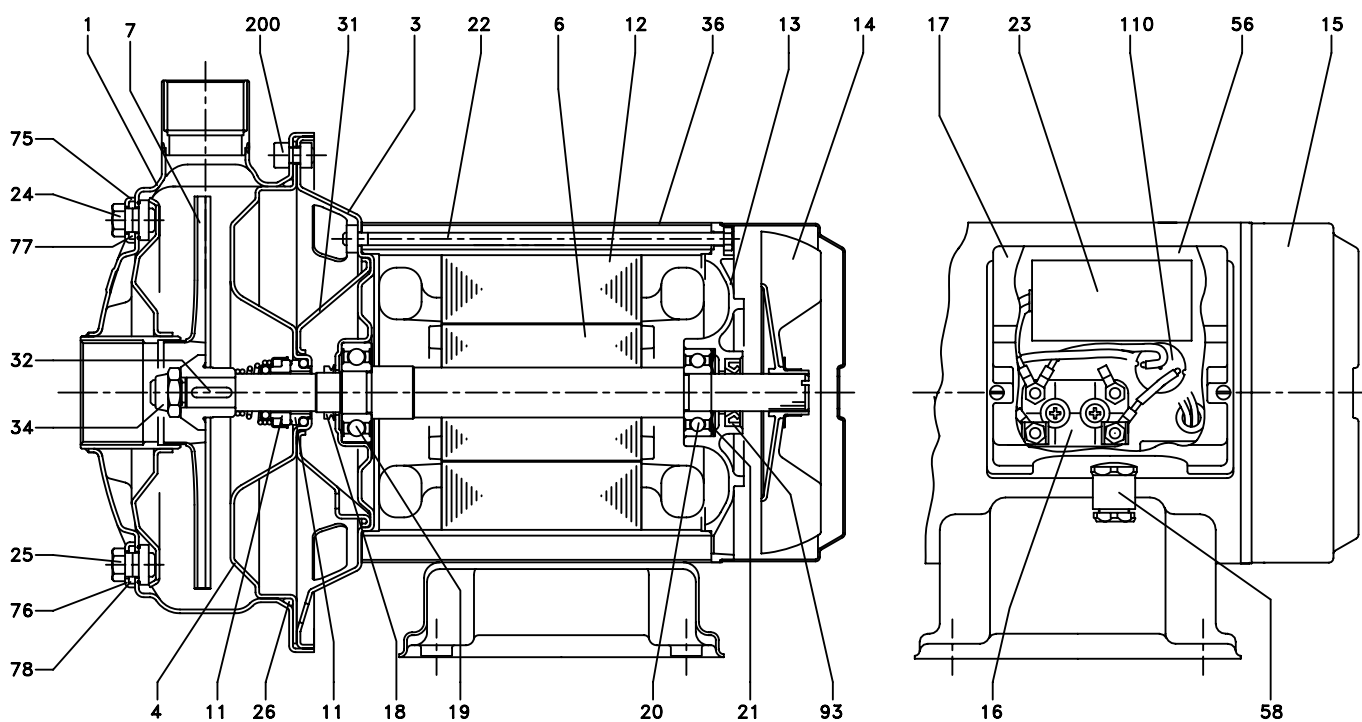
NBR for CDE, CD Q1AEGG, CD VAEGG, CD U3U3EGG, CD Q1U3EGG, CD U3CEGG

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SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

SECTIONAL VIEW CD 70/12 - 120/07 - 120/20



MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	EN 1.4301 (AISI 304)	24	Plug	EN 1.4301 (AISI 304)
3	Motor bracket	EN 1.4301 (AISI 304)	25	Plug	EN 1.4301 (AISI 304)
4	Casing cover	EN 1.4301 (AISI 304)	26	O-Ring [2]	NBR
6	Shaft	AISI 303 Part in contact with the liquid	31	Seal disc spacer	EN 1.4301 (AISI 304)
7	Impeller	EN 1.4301 (AISI 304)	32	Key	AISI 316
11	Mechanical seal	Ceramic/Carbon/NBR	34	Impeller nut	Stainless Steel A2-70
12	Motor frame	-	36	Motor casing	EN 1.4301 (AISI 304)
13	Motor cover	Aluminium	56	Terminal box cover gasket	NBR
14	Fan	PA	58	Cable entry	-
15	Fan cover	EN 1.4301 (AISI 304)	73	Casing ring	-
16	Terminal Box	-	75	Washer	EN 1.4301 (AISI 304)
17	Terminal Box cover	PA66 reinforced with fibreglass	76	Washer	EN 1.4301 (AISI 304)
18	Seal ring	NBR	77	O-Ring [2]	NBR
19	Bearing (pump side)	-	78	O-Ring [2]	NBR
20	Bearing (motor side)	-	93	Seal ring	NBR
21	Adjustment ring	Steel C70	110	Motor protector [1]	-
22	Tie-rod	Galvanised Fe 42	200	Screw (pump body)	Stainless Steel A2-70
23	Capacitor [1]	-			

[1]= Single phase only

[2]= FKM for CDH-CDHS-CDHW-CDHSW

EPDM for CDE, CD Q1AEGG, CD VAEGG, CD U3U3EGG, CD Q1U3EGG, CD U3CEGG

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

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SECTIONAL VIEW CD 120/12 - 200/12 - 200/20 - 200/25

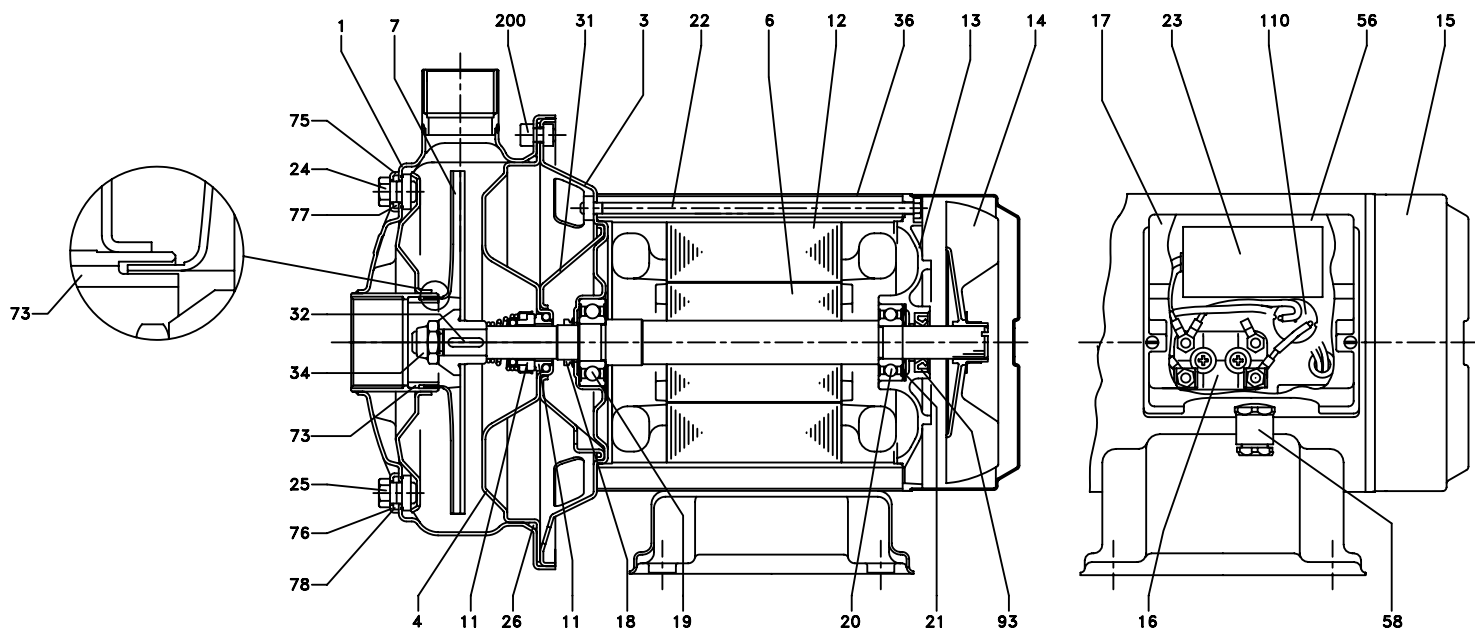


TABLE OF MATERIALS

Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	EN 1.4301 (AISI 304)	24	Plug	EN 1.4301 (AISI 304)
3	Motor bracket	EN 1.4301 (AISI 304)	25	Plug	EN 1.4301 (AISI 304)
4	Casing cover	EN 1.4301 (AISI 304)	26	O-Ring [2]	NBR
6	Shaft	AISI 303 Part in contact with the liquid	31	Seal disc spacer	EN 1.4301 (AISI 304)
7	Impeller	EN 1.4301 (AISI 304)	32	Key	AISI 316
11	Mechanical seal	Ceramic/Carbon/NBR	34	Impeller nut	Stainless Steel A2-70
12	Motor frame	-	36	Motor casing	EN 1.4301 (AISI 304)
13	Motor cover	Aluminium	56	Terminal box cover gasket	NBR
14	Fan	PA	58	Cable entry	-
15	Fan cover	EN 1.4301 (AISI 304)	73	Double casing ring	EN 1.4301 (AISI 304)
16	Terminal Box	-	75	Washer	EN 1.4301 (AISI 304)
17	Terminal Box cover	PA66 reinforced with fibreglass	76	Washer	EN 1.4301 (AISI 304)
18	Seal ring	NBR	77	O-Ring [2]	NBR
19	Bearing (pump side)	-	78	O-Ring [2]	NBR
20	Bearing (motor side)	-	93	Seal ring	NBR
21	Adjustment ring	Steel C70	110	Motor protector [1]	-
22	Tie-rod	Galvanised Fe 42	200	Screw (pump body)	Stainless Steel A2-70
23	Capacitor [1]	-			

[1]= Single phase only

[2]= FKM for CDH-CDHS-CDHW-CDHSW

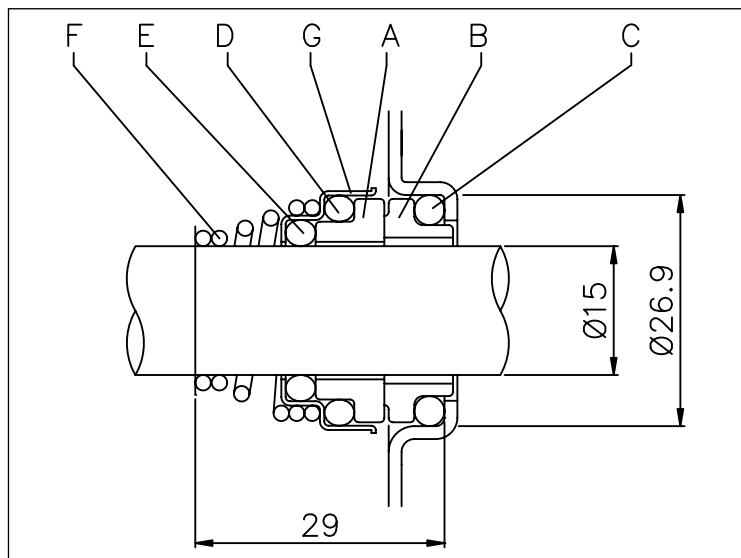
EPDM for CDE, CD Q1AEGG, CD VAEGG, CD U3U3EGG, CD Q1U3EGG, CD U3CEGG

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MECHANICAL SEAL standard



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

SPECIAL MECHANICAL SEALS (on request)

Ref.	Name	H Version	HS Version	Materials HW Version	HSW Version	E Version
A	Rotating part	Ceramic	Silicon Carbide	Tungsten Carbide	Silicon Carbide	Ceramic
B	Fixed part	Carbon	Silicon Carbide	Tungsten Carbide	Tungsten Carbide	Carbon
C	O-Ring	FKM	FKM	FKM	FKM	EPDM
D	O-Ring	FKM	FKM	FKM	FKM	EPDM
E	O-Ring	FKM	FKM	FKM	FKM	EPDM
F	Spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
G	Structure/frame	AISI 304	AISI 316	AISI 316	AISI 316	AISI 316

Ref.	Name	Q1AEGG Version	VAEGG Version	Materials U3U3EGG Version	Q1U3EGG Version	U3CEGG Version
A	Rotating part	Silicon Carbide	Ceramic	Tungsten Carbide	Silicon Carbide	Tungsten Carbide
B	Fixed part	Metallised carbon	Metallised carbon	Tungsten Carbide	Tungsten Carbide	Special Carbon
C	O-Ring	EPDM	EPDM	EPDM	EPDM	EPDM
D	O-Ring	EPDM	EPDM	EPDM	EPDM	EPDM
E	O-Ring	EPDM	EPDM	EPDM	EPDM	EPDM
F	Spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
G	Structure/frame	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

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ELECTRIC DATA TABLE

Model		P ₂		Efficiency		Capacitor		Efficiency (%)			P ₁		Absorbed Current [A]		
Single phase 230V	Three phase 230/400V	[HP]	[kW]	Single phase	Three phase	Single phase μF	V.	50%	75%	100%	Single phase [kW]	Three phase [kW]	Single phase 230V	Three phase 230V	Three phase 400V
CDM 70/05	CD 70/05	0.5	0.37	-	-	12.5	450	-	-	-	0.75	0.68	3.4	2.4	1.4
CDM 70/07	CD 70/07	0.75	0.55	-	-	16	450	-	-	-	1.1	1.0	5.0	3.5	2.0
CDM 70/12	CD 70/12	1.2	0.9	-	IE2	31.5	450	79.0	81.7	81.6	1.5	1.35	6.5	4.3	2.5
-		1.2	0.9	-	IE3	-	-	81.7	83.1	82.4	-	1.34	-	4.3	2.5
CDM 90/10	CD 90/10	1.0	0.75	-	IE2	20	450	77.2	80.9	81.3	1.2	1.05	5.6	3.3	1.9
-		1.0	0.75	-	IE3	-	-	80.9	82.3	82.1	-	0.91	-	3.0	1.7
CDM 120/07	CD 120/07	0.75	0.55	-	-	16	450	-	-	-	1.0	1.0	4.6	3.2	1.85
CDM 120/12	CD 120/12	1.2	0.9	-	IE2	31.5	450	79.0	81.7	81.6	1.6	1.45	6.9	4.5	2.6
-		1.2	0.9	-	IE3	-	-	81.7	83.1	82.4	-	1.34	-	4.3	2.5
CDM 120/20	CD 120/20	2.0	1.5	-	IE2	40	450	80.3	83.4	83.8	2.1	2.09	9.3	7.0	4.0
-		2.0	1.5	-	IE3	-	-	84.2	86.8	86.9	-	2.01	-	7.1	4.1
CDM 200/12	CD 200/12	1.2	0.9	-	IE2	31.5	450	79.0	81.7	81.6	1.4	1.35	6.3	4.3	2.5
-		1.2	0.9	-	IE3	-	-	81.7	83.1	82.4	-	1.34	-	4.3	2.5
CDM 200/20	CD 200/20	2.0	1.5	-	IE2	40	450	80.3	83.4	83.8	2.3	2.22	10.2	7.4	4.3
-		2.0	1.5	-	IE3	-	-	84.2	86.8	86.9	-	2.01	-	7.1	4.1
-	CD 200/25	2.5	1.85	-	IE2	-	-	83.0	84.4	83.8	-	2.87	-	8.7	5.0
-		2.5	1.85	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7

NOISE DATA TABLE

Model		P ₂		L _{pa} - dB(A)*
Single phase 230V	Three phase 230/400V	[HP]	[kW]	
CDM 70/05	CD 70/05	0.5	0.37	<70
CDM 70/07	CD 70/07	0.75	0.55	
CDM 70/12	CD 70/12	1.2	0.9	
CDM 90/10	CD 90/10	1	0.75	
CDM 120/07	CD 120/07	0.75	0.55	
CDM 120/12	CD 120/12	1.2	0.9	
CDM 120/20	CD 120/20	2	1.5	
CDM 200/12	CD 200/12	1.2	0.9	
CDM 200/20	CD 200/20	2	1.5	
-	CD 200/25	2.5	1.85	

* Mean value of several measurements at 1 m distance around the pump.

Tolerance ± 2.5 dB.