



**EBARA**

**CD/CDX  
CENTRIFUGAL ELECTRIC PUMPS**

**50 Hz**



## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304



Single impeller centrifugal electric pumps constructed entirely in AISI 304 stainless steel.

### APPLICATIONS

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

### TECHNICAL DETAILS

- Solid hydraulic structure
- Small dimensions

### PUMP TECHNICAL DATA

- Maximum working pressure: 8 bar
  - Maximum temperature of the liquid:
    - 5°C ÷ +60°C for CD and CDE 70/05-70/07-90/10
    - 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
  - 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 Data Book on the web site [www.ebaraurope.com](http://www.ebaraurope.com)

### MOTOR TECHNICAL DATA

- High efficiency IE2 motors starting from 0,75kW
- 2 poles self-ventilated closed asynchronous motor with internal ventilation
- Class of insulation F
- IP55 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

- Pump casing, impeller, diffuser, seal housing disc, bracket, motor case and fan cover in EN 1.4301 (AISI 304)
- Mechanical sealing in:
  - Ceramic/Carbon/NBR (standard)
  - Ceramic/Carbon/FPM (H version)
  - SiC/SiC/FPM (HS version)
  - Tungsten carbide/Tungsten carbide/FPM (HW version)
  - SiC/Tungsten carbide/FPM (HSW version)
  - Ceramic/Carbon/EPDM (E version)
  - Tungsten carbide/Special Carbon/EPDM (U3CEGG version)
- Shaft in AISI 303 (part in contact with the liquid)

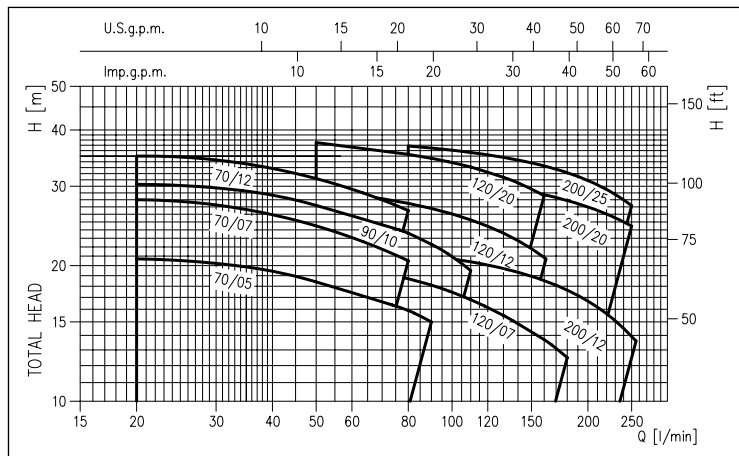
### CONTROL PANELS

- 1EPBH

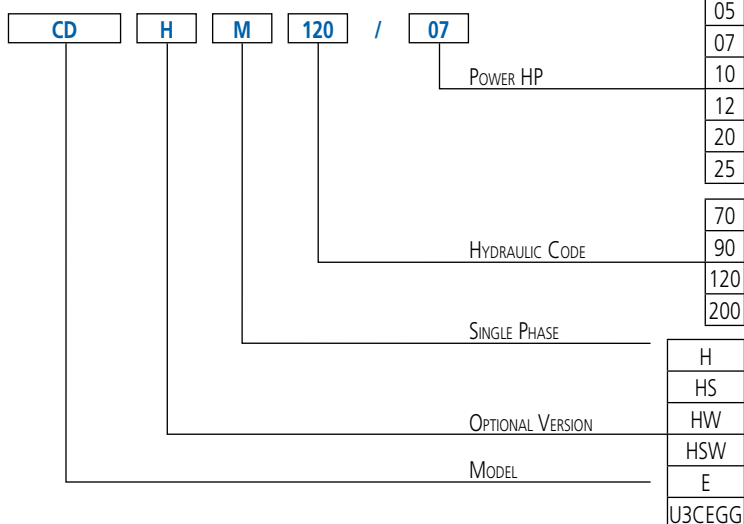
### ACCESSORIES (On request)

- 5 litres 10 bar ¾" EPDM vessel
- 24 litres 8 bar 1" EPDM vessel
- 24 litres 10 bar 1" EPDM vessel
- PVC 5m key float with counter-weight
- PVC 10m key float with counter-weight
- SQUARE-D FSG-2 1.4÷4.6 bar G¼" F pressure switch
- FYG-22 2.8÷7 bar G¼" F pressure switch
- Presscomfort - Pressure regulator

### PERFORMANCE RANGE (according to ISO 9906 Attachment A)

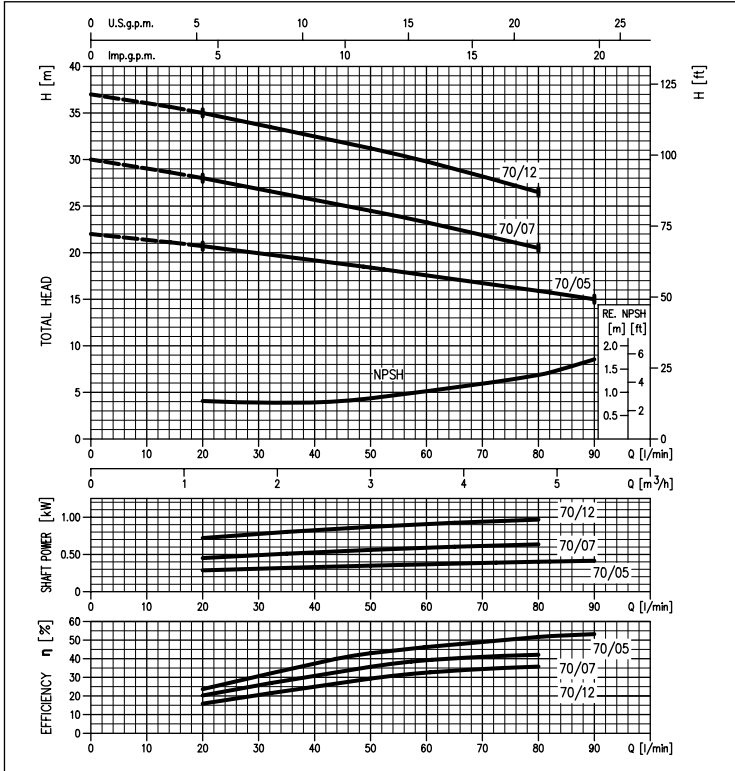


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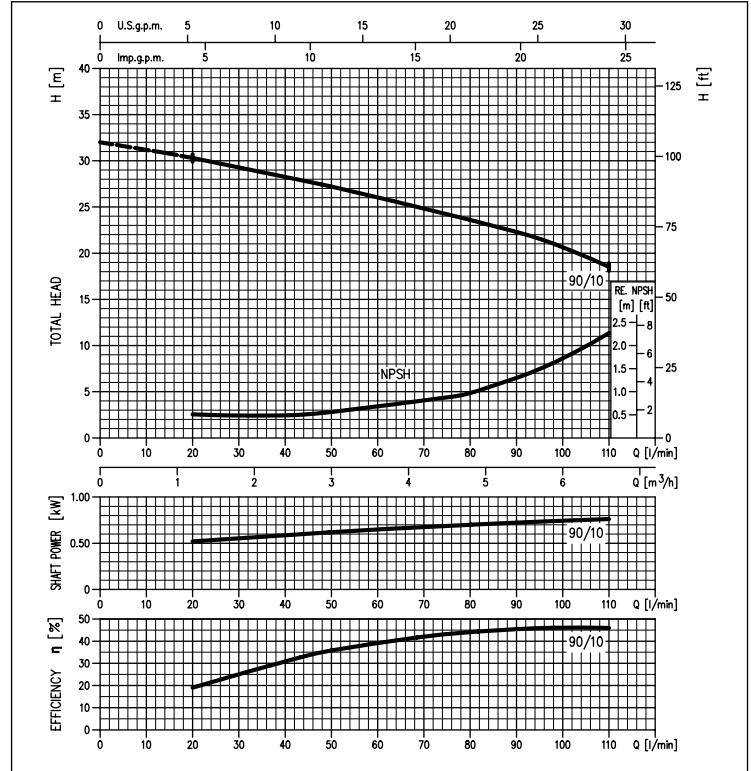


## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS in AISI 304

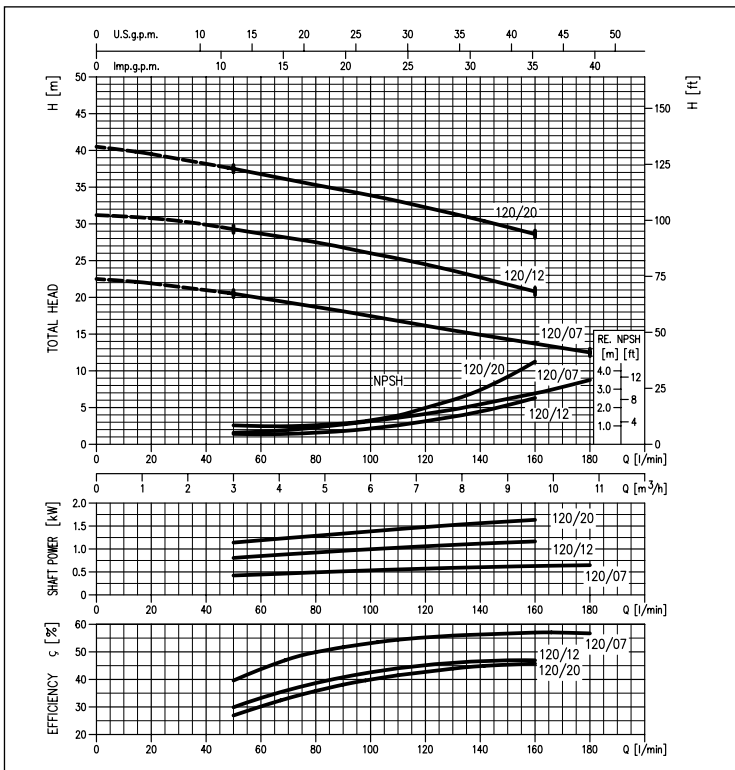
**PERFORMANCE CURVES CD 70 series**  
(according to ISO 9906 Attachment A)



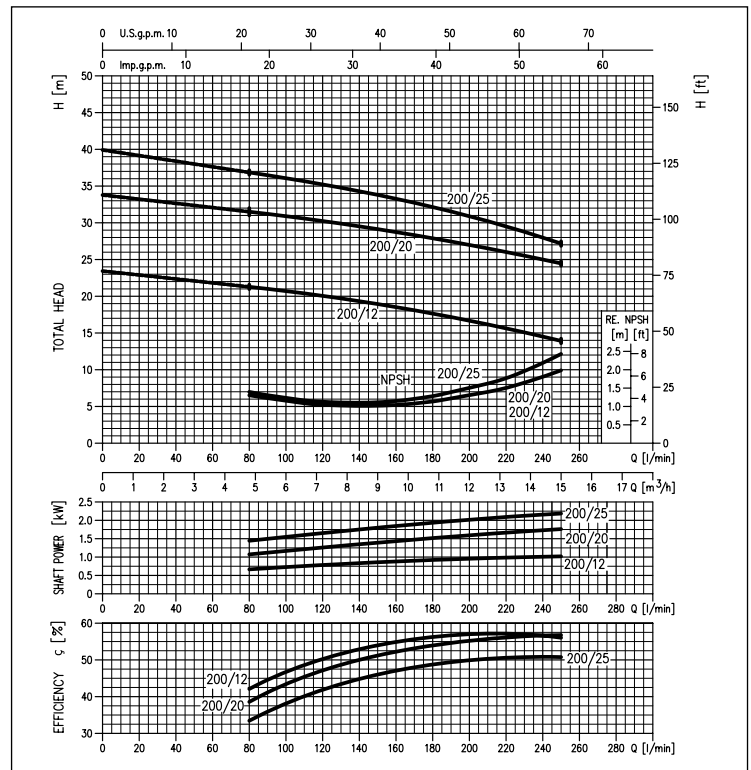
**PERFORMANCE CURVES CD 90 series**  
(according to ISO 9906 Attachment A)



**PERFORMANCE CURVES CD 120 series**  
(according to ISO 9906 Attachment A)



**PERFORMANCE CURVES CD 200 series**  
(according to ISO 9906 Attachment A)



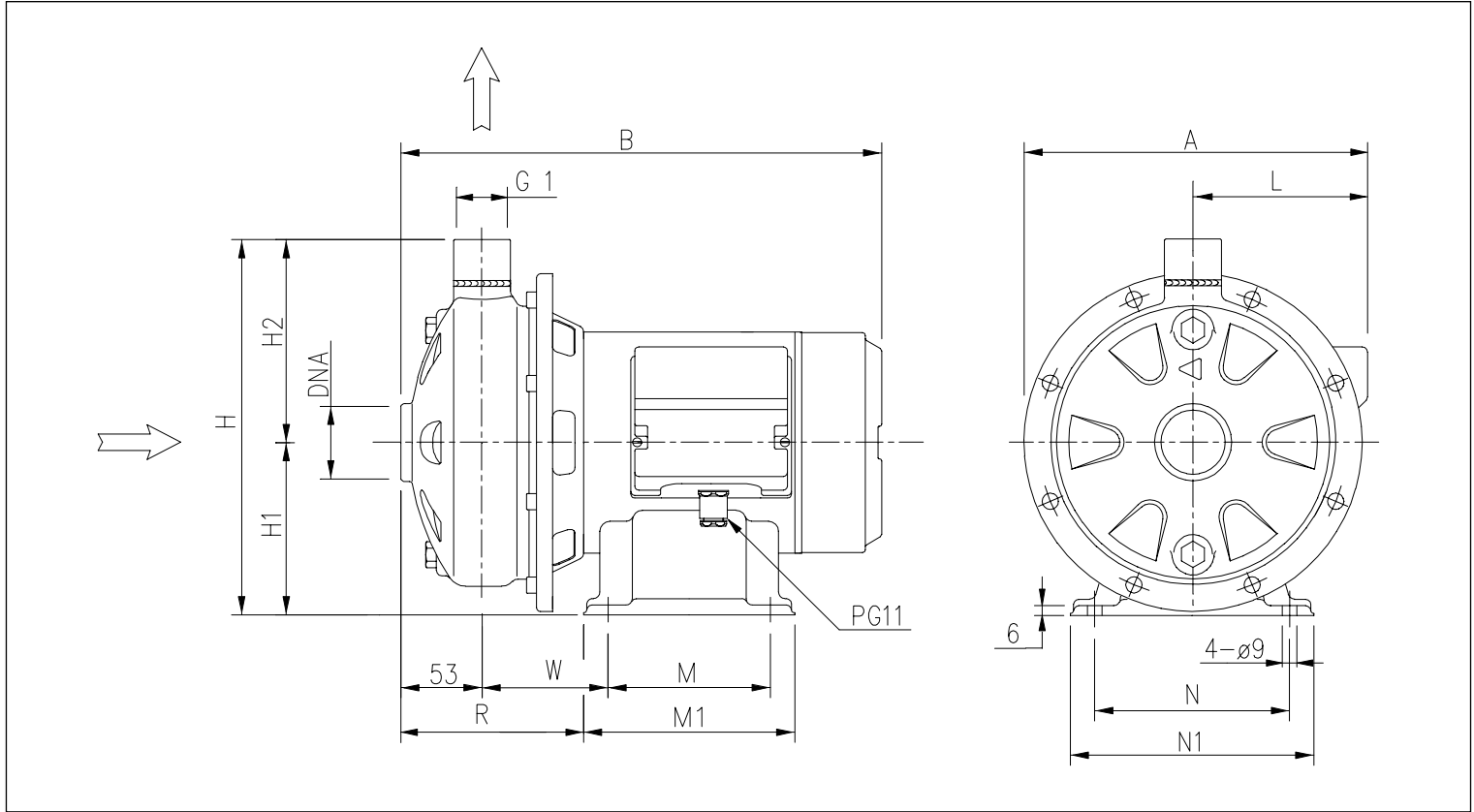
## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

### PERFORMANCE TABLE

Model		P <sub>1</sub>		Q=Flow rate										
Single phase 230V	Three phase 230/400V	[HP]	[kW]	l/min	20	50	80	90	110	130	160	180	210	250
				m <sup>3</sup> /h	1,2	3	4,8	5,4	6,6	7,8	9,6	10,8	12,6	15
				H=Head [m]										
CDM 70/05	CD 70/05	0,5	0,37	20,7	18,4	15,9	15	-	-	-	-	-	-	-
CDM 70/07	CD 70/07	0,8	0,55	28	24,5	20,5	-	-	-	-	-	-	-	-
CDM 70/12	CD 70/12	1,2	0,9	35	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	-	-	-	-
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	20,4	19,7	18,5	17,6	16	14	-
CDM 200/20	CD 200/20	2	1,5	-	-	31,5	31,2	30,6	30	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	30	27,2	-

### DIMENSIONS



### DIMENSIONS TABLE

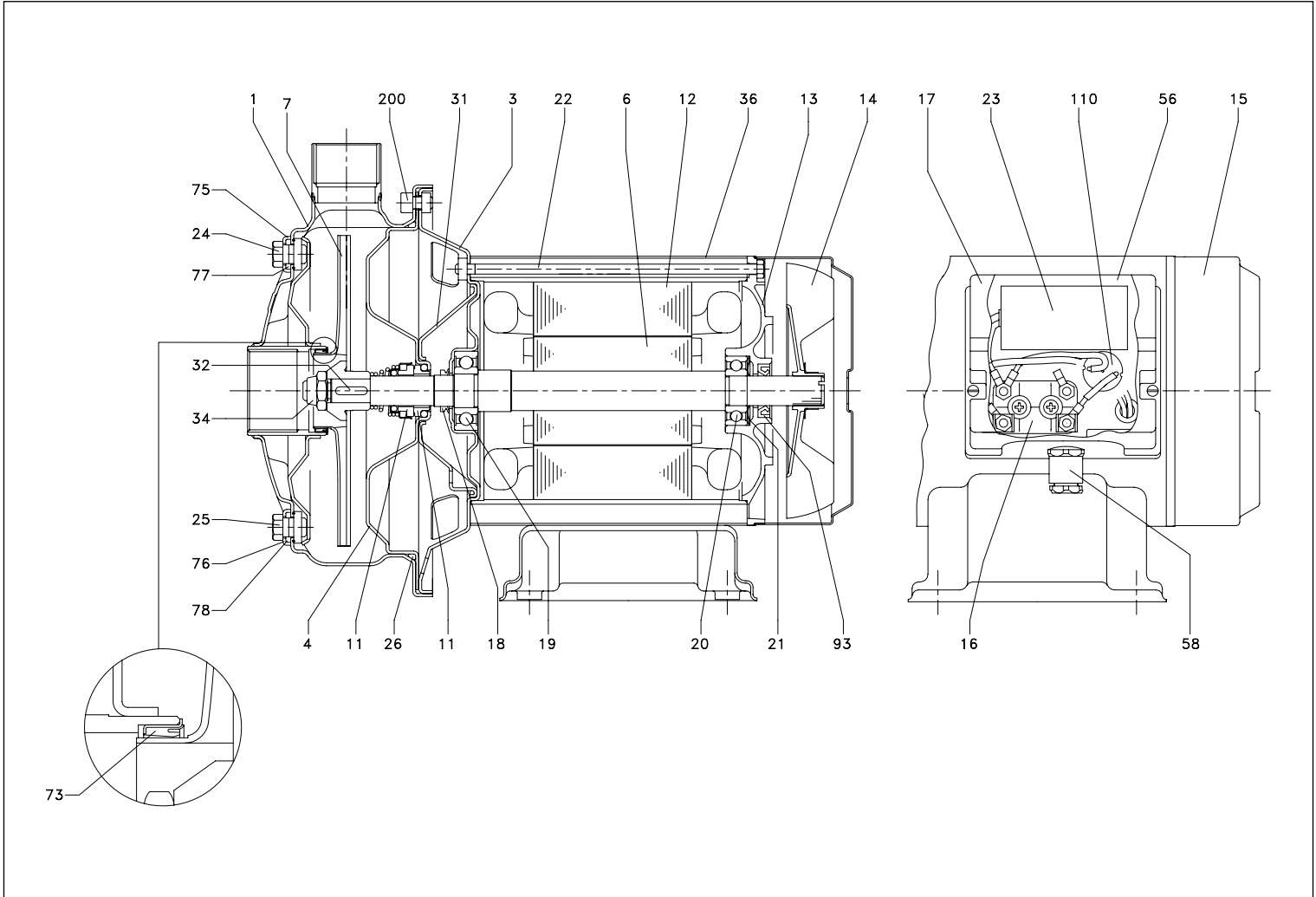
Model	Dimensions [mm]																		Weight [kg]	
	[2]	A [1]	[2]	B [1]	H	H1	H2	[2]	L [1]	[2]	M [1]	[2]	M1 [1]	N	N1	R	W	DNA	[2]	[1]
CD(M) 70/05	209	208	298	298	229,5	106	123,5	105	104	100	100	130	130	120	150	115,5	77,5	G1¼	8,7	8,7
CD(M) 70/07	209	208	298	298	229,5	106	123,5	105	104	100	100	130	130	120	150	115,5	77,5	G1¼	10,0	10,0
CD(M) 70/12	208	208	328	338	229,5	106	123,5	104	104	100	100	130	130	120	150	130,5	92,5	G1¼	13,2	13,7
CD(M) 90/10	209	208	328	328	229,5	106	123,5	105	104	100	100	130	130	120	150	130,5	92,5	G1¼	11,5	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	229,5	106	123,5	104	104	100	100	130	130	120	150	130,5	92,5	G1¼	12,3	12,9
CD(M) 120/20	232	232	356	366	250	118	132	116	116	120	120	150	150	140	170	133	95	G1¼	15,3	17,4
CD(M) 200/12	208	208	328	338	229,5	106	123,5	104	104	100	100	130	130	120	150	130,5	92,5	G1½	12,0	12,6
CD(M) 200/20	213	213	356	366	229,5	106	123,5	109	109	120	120	150	150	140	170	133	95	G1½	15,8	16,6
CD 200/25	-	232	-	366	250	118	132	-	116	-	120	-	150	140	170	138	100	G1½	-	17,4

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

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## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS in AISI 304

### SECTIONAL VIEW CD 70/05 - 70/07 - 90/10



### MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
1	Casing	AISI 304	24	Priming plug	AISI 304
3	Motor bracket	AISI 304	25	Drain plug	AISI 304
4	Casing cover	AISI 304	26	O-ring [2]	NBR
6	Shaft with rotor	AISI 303 (Wet extension)	31	Thrust flange	AISI 304
7	Impeller	AISI 304	32	Key	AISI 316
11	Mechanical seal	Ceramic/Carbon/NBR	34	Impeller nut	Stainless steel A2-70
12	Motor frame with stator	-	36	Motor casing	AISI 304
13	Motor cover	Aluminium	56	Box gasket	NBR
14	Fan	PA	58	Cable entry	-
15	Fan cover	AISI 304	73	Casing ring [3]	NBR
16	Terminal board	-	75	Washer	AISI 304
17	Terminal box cover	PA66 glass fibre reinforced	76	Washer	AISI 304
18	Splash ring	NBR	77	O-ring [2]	NBR
19	Pump side ball bearing	-	78	O-ring [2]	NBR
20	Fan side ball bearing	-	93	Lip seal	NBR
21	Adjusting ring	Steel C70	110	Protector [1]	-
22	Tie rod	Fe 420 Galvanized	200	Screw	Stainless steel A2-70
23	Capacitor [1]	-			

[1] Only for single phase

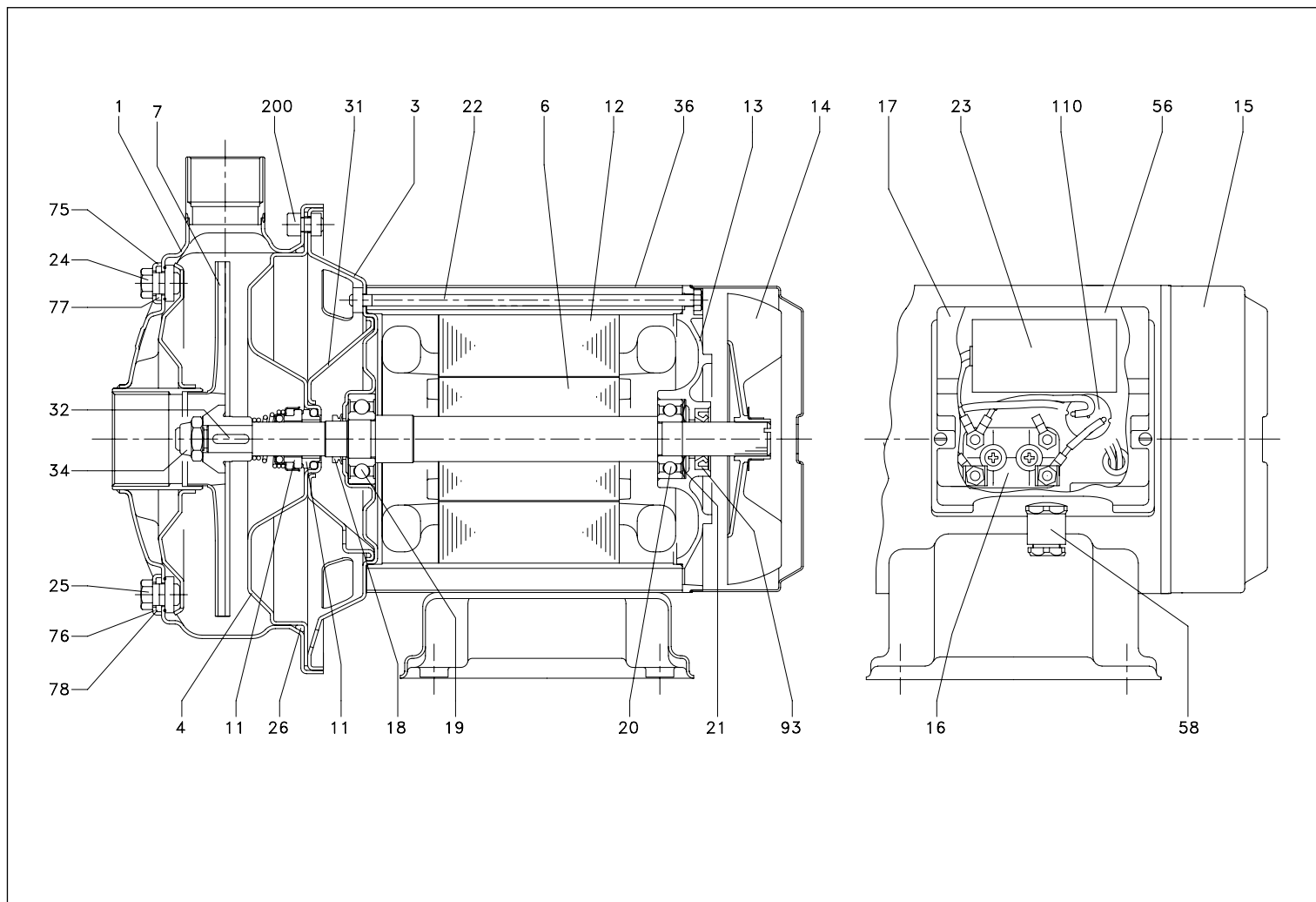
[2] FPM for H-HS-HW-HSW  
EPDM for E

[3] FPM for CDH 70/05, CDHS 70/05, CDHW 70/05, CDHSW 70/05, CDH 70/07, CDHS 70/07, CDHW 70/07, CDHSW 70/07, CDH 90/10, CDHS 90/10, CDHW 90/10, CDHSW 90/10  
NBR for CDE 70/05, 70/07, 90/10

## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

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



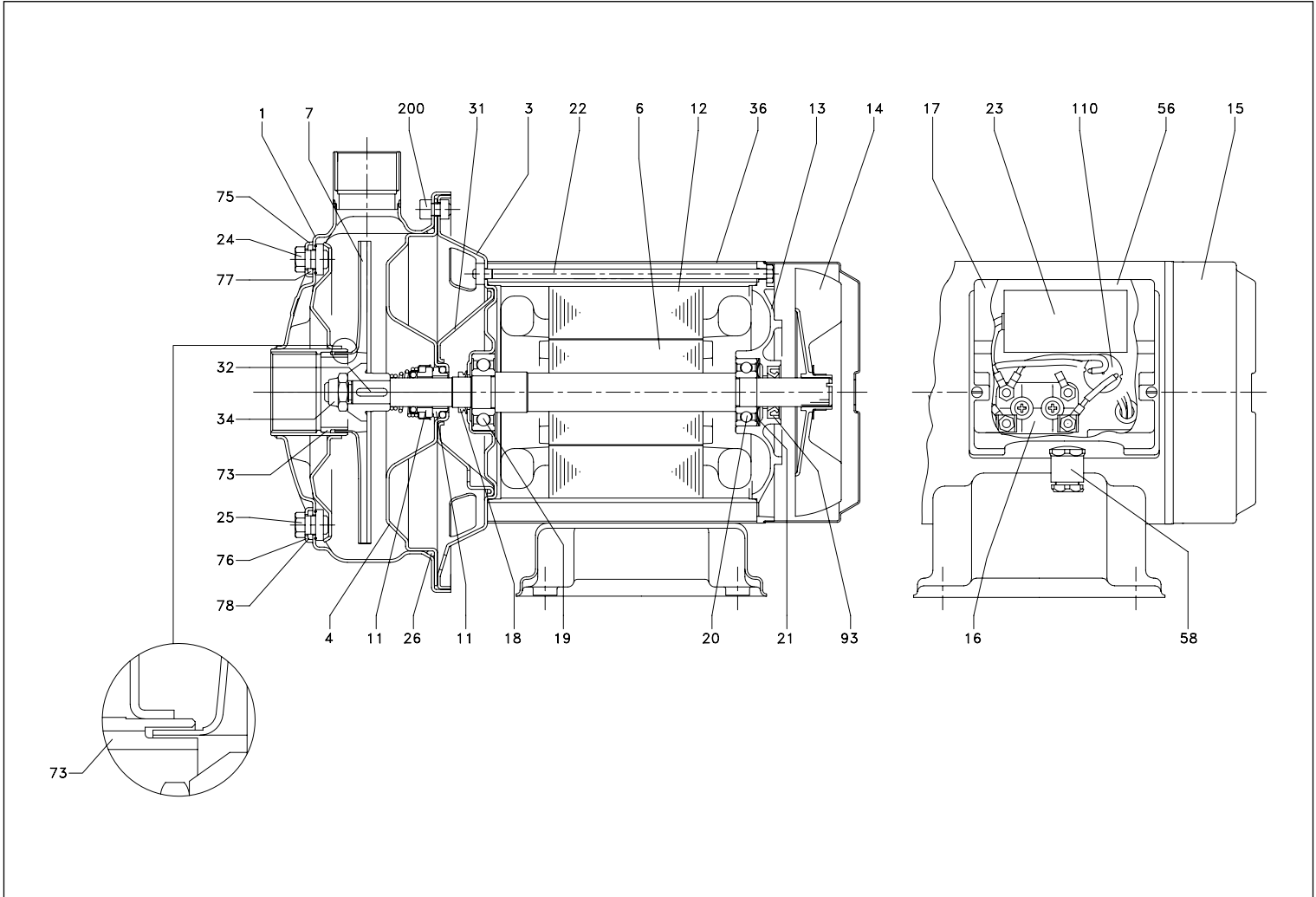
### MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
1	Casing	AISI 304 / AISI 316 [5]	24	Priming plug	AISI 303 / AISI 316 [5]
3	Motor bracket	Aluminium	25	Drain plug	AISI 304
4	Casing cover	AISI 304 / AISI 316 [5]	26	O-ring [3]	NBR
6	Shaft with rotor	AISI 303 / AISI 316 (Wet extension)	31	Thrust flange	AISI 304
7	Impeller	AISI 304 / AISI 316 [5]	32	Key	AISI 316
11	Mechanical seal	Carbon/Ceramic/NBR	34	Impeller nut	Stainless steel A2-70
12	Motor frame with stator	-	36	Motor casing	AISI 304
13	Motor cover	Aluminium	56	Box gasket	NBR
14	Fan	PA	58	Cable entry	-
15	Fan cover	Fe P04 Galvanized	73	Casing ring	-
16	Terminal board	-	75	Washer	AISI 304
17	Terminal box cover	Aluminium	76	Washer	AISI 304
18	Splash ring	NBR	77	O-ring [3]	NBR
19	Pump side ball bearing	-	78	O-ring [3]	NBR
20	Fan side ball bearing	-	93	Lip seal	NBR
21	Adjusting ring	Steel C70	110	Protector [1]	-
22	Tie rod	Fe 420 Galvanized	200	Screw	Stainless steel A2-70
23	Capacitor [1]	-			

[1] Only for single phase  
 [2] FPM for H-HS-HW-HSW  
 EPDM for E

## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS in AISI 304

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



### MATERIALS TABLE

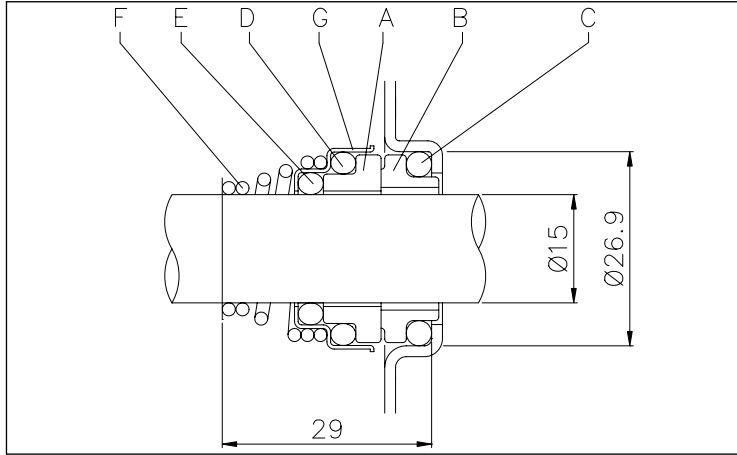
Ref.	Name	Material	Ref.	Name	Material
1	Casing	AISI 304	24	Priming plug	AISI 304
3	Motor bracket	AISI 304	25	Drain plug	AISI 304
4	Casing cover	AISI 304	26	O-ring [2]	NBR
6	Shaft with rotor	AISI 303 (Wet extension)	31	Thrust flange	AISI 304
7	Impeller	AISI 304	32	Key	AISI 316
11	Mechanical seal	Ceramic/Carbon/NBR	34	Impeller nut	Stainless steel A2-70
12	Motor frame with stator	-	36	Motor casing	AISI 304
13	Motor cover	Aluminium	56	Box gasket	NBR
14	Fan	PA	58	Cable entry	-
15	Fan cover	AISI 304	73	Double ring	AISI 304
16	Terminal board	-	75	Washer	AISI 304
17	Terminal box cover	PA66 glass fibre reinforced	76	Washer	AISI 304
18	Splash ring	NBR	77	O-ring [2]	NBR
19	Pump side ball bearing	-	78	O-ring [2]	NBR
20	Fan side ball bearing	-	93	Lip seal	NBR
21	Adjusting ring	Steel C70	110	Protector [1]	-
22	Tie rod	Fe 420 Galvanized	200	Screw	Stainless steel A2-70
23	Capacitor [1]	-			

[1] Only for single phase  
[2] FPM for H-HS-HW-HSW  
EPDM for E

## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

### MECHANICAL SEAL standard



### MATERIALS TABLE

Ref.	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

### SPECIAL MECHANICAL SEALS (on request)

Ref.	Name	Material					
		Version H	Version HS	Version HW	Version HSW	Version E	Version U3CEGG
A	Rotary seal ring	Ceramic	SiC	Tungsten carbide	SiC	Ceramic	Tungsten carbide
B	Stationary seal ring	Carbon graphite	SiC	Tungsten carbide	Tungsten carbide	Carbon graphite	Carbon graphite
C	O Ring	FPM	FPM	FPM	FPM	EPDM	EPDM
D	O Ring	FPM	FPM	FPM	FPM	EPDM	EPDM
E	O Ring	FPM	FPM	FPM	FPM	EPDM	EPDM
F	Self driving spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
G	Frame	AISI 304	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316

### ELECTRIC DATA TABLE

Single phase 230V	Three phase 230/400V	P <sub>1</sub>		Efficiency		Capacitor Single phase µF	Single phase V <sub>c</sub>	Efficiency (%)			P <sub>2</sub>		Full load current [A]		
		[HP]	[kW]	Single phase	Three phase			Three phase η %			Single phase	Three phase	Single phase	Three phase	
								50%	75%	100%	[kW]	[kW]	230V	230V	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
CDM 90/10	CD 90/10	1	0,75	-	IE2	20	450	77,2	80,9	81,3	1,2	1,05	5,6	3,3	1,9
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
CDM 120/20	CD 120/20	2	1,5	-	IE2	40	450	80,3	83,4	83,8	2,1	2,09	9,3	7,0	4,0
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
CDM 200/20	CD 200/20	2	1,5	-	IE2	40	450	80,3	83,4	83,8	2,3	2,22	10,2	7,4	4,3
-	CD 200/25	2,5	1,85	-	IE2	-	-	83,0	84,4	83,8	-	2,87	-	8,7	5,0

### NOISE DATA

Single phase 230V	Three phase 230/400V	P <sub>2</sub>		L <sub>pa</sub> - dB(A)*
		[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 measures at 1m distance around the pump.  
Tolerance ± 2.5 dB.



# CDX (L)

## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and in AISI 316



Single impeller centrifugal electric pumps with hydraulic parts in AISI 304 and AISI 316 stainless steel.

### APPLICATIONS

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

### TECHNICAL DETAILS

- Solid hydraulic structure
- Small dimensions

### PUMP TECHNICAL DATA

- Maximum working pressure: 8 bar
  - Maximum temperature of the liquid:
    - 5°C ÷ +60°C for CDX (L) 70/05-70/07-90/10
    - 5°C ÷ +90°C for the rest of CDX range
    - 5°C ÷ +110°C in the H-HS-HW-HSW-E version
  - G1½ suction connection for CDX (L) 200, G1¼ for the rest of the range
  - G1 discharge connection
  - MEI > 0,4
- For further information please see our Data Book on the web site [www.ebaraurope.com](http://www.ebaraurope.com)

### MOTOR TECHNICAL DATA

- High efficiency IE2 motors starting from 0,75kW
- Self-ventilated 2 pole asynchronous motor
- Class of insulation F
- IP55 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

- AISI 304 version**
- Pump casing, impeller, diffuser and casing cover in AISI 304
  - Shaft in AISI 303 (part in contact with the liquid)
- AISI 316 version**
- Pump casing, impeller, diffuser and casing cover in AISI 316
  - Shaft in AISI 316 (part in contact with the liquid)

- Bracket and motor frame in aluminium
- Mechanical seal in:
  - Ceramic/Carbon/NBR (standard)
  - Ceramic/Carbon/FPM (H version)
  - SiC/SiC/FPM (HS version)
  - Tungsten Carbide/Tungsten Carbide/FPM (HW version)
  - SiC/Tungsten Carbide/FPM (HSW version)
  - Ceramic/Graphite/EPDM (E version)
  - Tungsten Carbide/Special Carbon/EPDM (U3CEGG version)

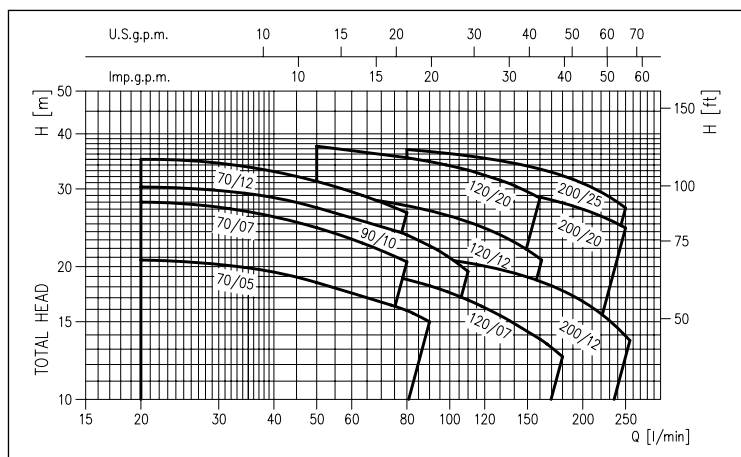
### CONTROL PANELS

- 1EPBH

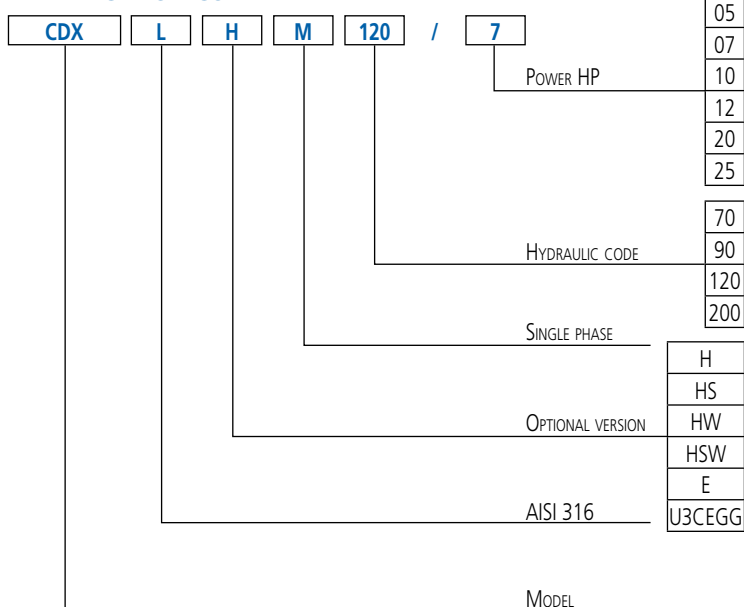
### ACCESSORIES (On request)

- 5 litres 10 bar ¾" EPDM vessel
- 24 litres 8 bar 1" EPDM vessel
- 24 litres 10 bar 1" EPDM vessel
- PVC 5m key float with counter-weight
- PVC 10m key float with counter-weight
- SQUARE-D FSG-2 1.4÷4.6 bar G¼ F pressure switch
- FYG-22 2.8÷7 bar G¼ F pressure switch
- Presscomfort - Pressure regulator

### PERFORMANCE RANGE (according to ISO 9906 Attachment A)



### IDENTIFICATION CODE

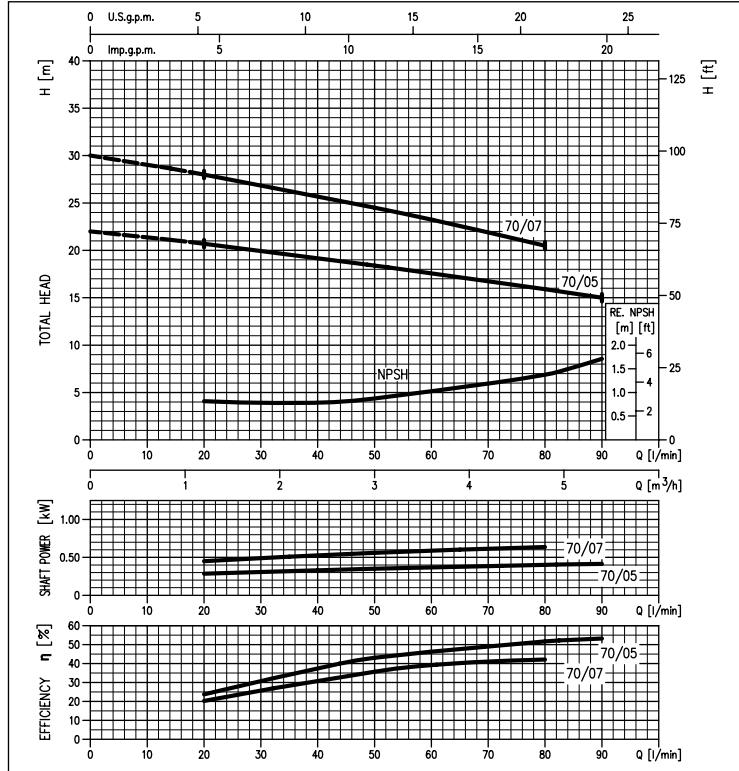


## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and in AISI 316

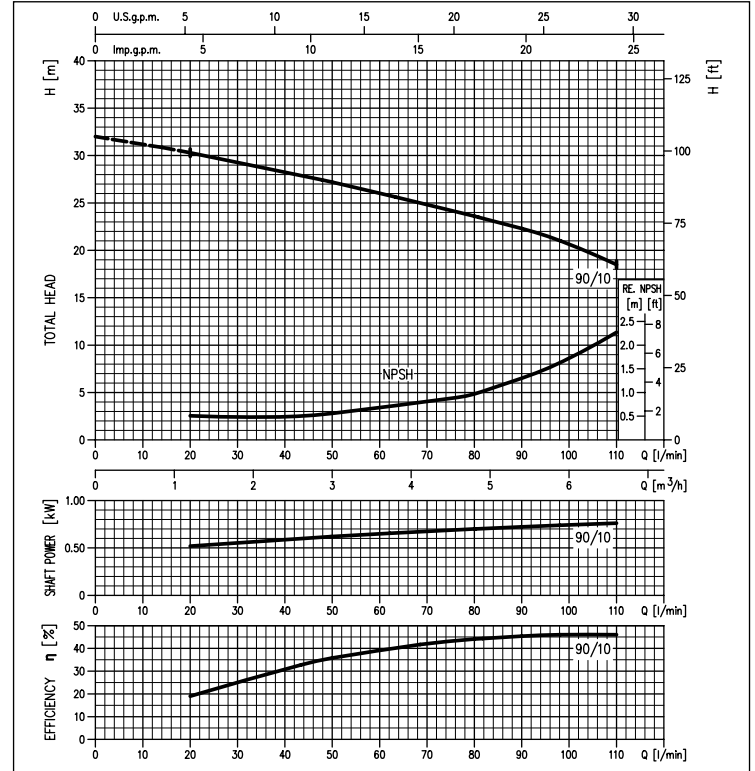
### PERFORMANCE CURVES CDX 70 series

(according to ISO 9906 Attachment A)



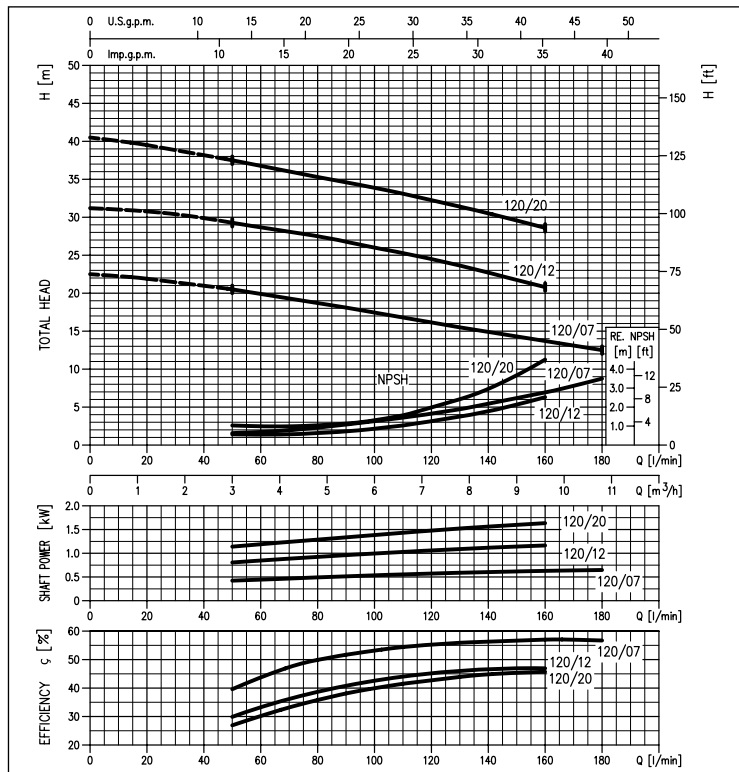
### PERFORMANCE CURVES CDX 90 series

(according to ISO 9906 Attachment A)



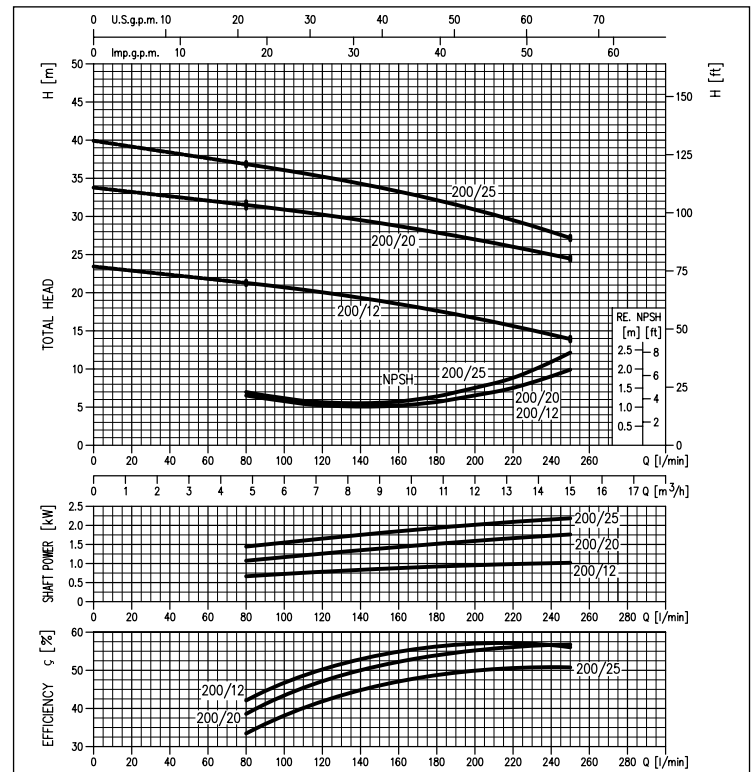
### PERFORMANCE CURVES CDX 120 series

(according to ISO 9906 Attachment A)



### PERFORMANCE CURVES CDX 200 series

(according to ISO 9906 Attachment A)



# CDX (L)

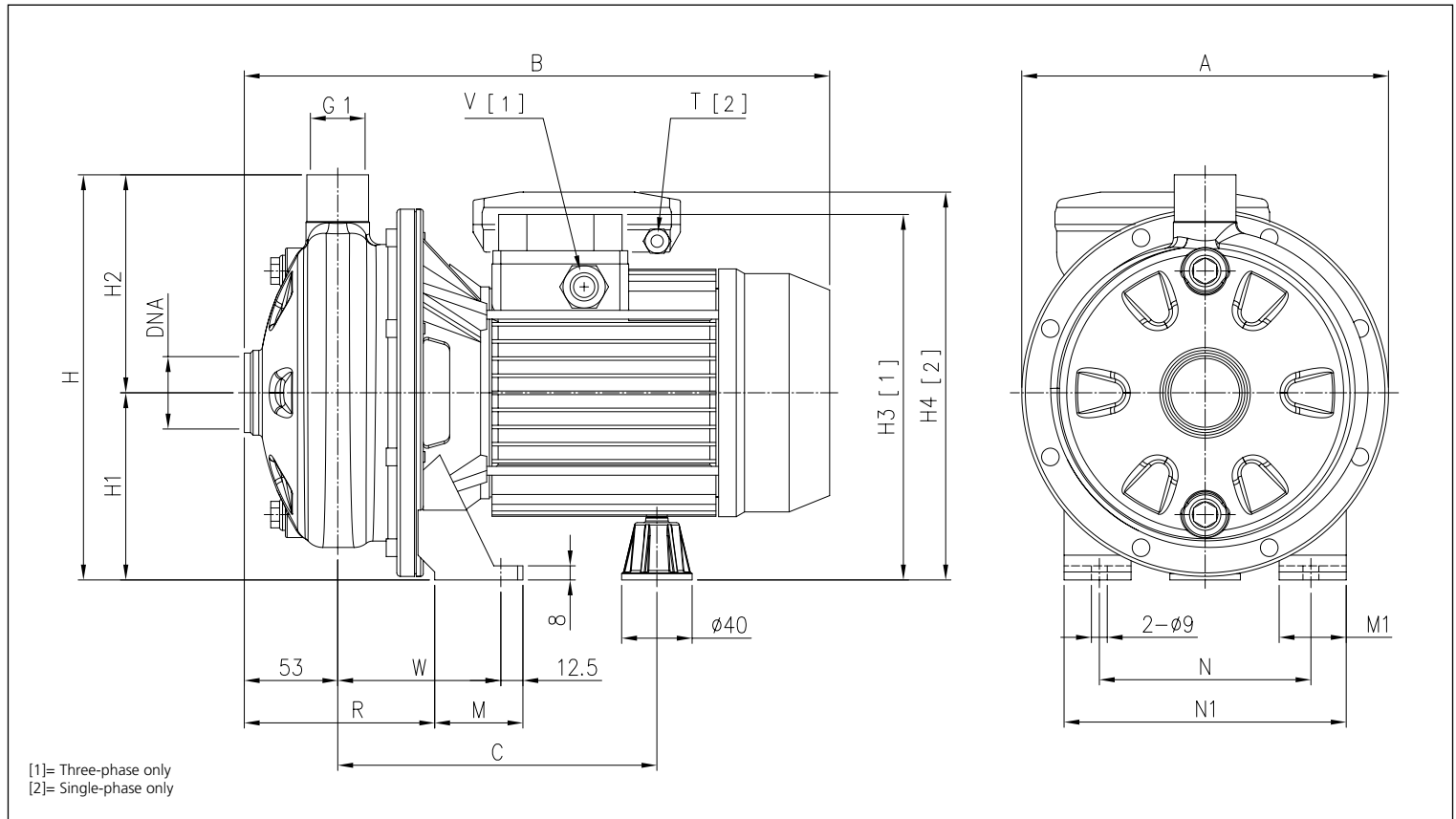
## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and in AISI 316

### PERFORMANCE TABLE

Model		P <sub>i</sub>		Q=Flow rate										
Single phase 230V	Three phase 230/400V	[HP]	[kW]	l/min	20	50	80	90	110	130	160	180	210	250
				m <sup>3</sup> /h	1,2	3	4,8	5,4	6,6	7,8	9,6	10,8	12,6	15,0
				H=Head [m]										
CDXM 70/05	CDX 70/05	0,5	0,37	20,7	18,4	15,9	15	-	-	-	-	-	16	-
CDXM 70/07	CDX 70/07	0,8	0,55	28	24,5	20,5	-	-	-	-	-	-	26,5	-
CDXM 90/10	CDX 90/10	1	0,75	30,3	27,2	23,6	22,3	19,5	-	-	-	-	30	-
CDXM 120/07	CDX 120/07	0,8	0,55	-	20,5	18,7	18,1	16,8	15,5	13,7	12,5	-	-	-
CDXM 120/12	CDX 120/12	1,2	0,9	-	29,3	27,5	26,8	25,2	23,6	21	-	-	-	-
CDXM 120/20	CDX 120/20	2	1,5	-	37,5	35,3	34,6	33,1	31,4	28,6	-	-	-	-
CDXM 200/12	CDX 200/12	1,2	0,9	-	-	21,3	21	20,4	19,7	18,5	17,6	14,6	14	-
CDXM 200/20	CDX 200/20	2	1,5	-	-	31,5	31,2	30,6	30	28,7	27,9	25,1	24,5	-
-	CDX 200/25	2,5	1,8	-	-	36,8	26,5	35,6	34,7	33,3	32	30,5	27,2	-

### DIMENSIONS



### DIMENSIONS TABLE

Model	Dimensions [mm]																Weight [kg]			
	A	B [2]	B [1]	C	H	H1	H2	H3 [1]	H4 [2]	M	M1	N	N1	R	T [2]	V [1]	W	DNA	[2]	[1]
CDX(M) 70/05	208	321	320	181	229,5	106	123,5	207	216	50	38	120	160	108	PG11	PG11	92,5	G1 ¼	8,3	8,3
CDX(M) 70/07	208	321	320	181	229,5	106	123,5	207	216	50	38	120	160	108	PG11	PG11	92,5	G1 ¼	9,8	9,7
CDX(M) 90/10	208	321	320	181	229,5	106	123,5	207	216	50	38	120	160	108	PG11	PG11	92,5	G1 ¼	11,0	11,0
CDX(M) 120/07	208	321	320	181	229,5	106	123,5	207	216	50	38	120	160	108	PG11	PG11	92,5	G1 ¼	9,6	9,5
CDX(M) 120/12	208	321	332	181	229,5	106	123,5	207	235	50	38	120	160	108	PG11	PG11	92,5	G1 ¼	11,8	12,4
CDX(M) 120/20	232	346,5	359	198,5	250	118	132	237	248,5	55	40	140	180	105,5	PG13,5	PG11	95	G1 ¼	16,5	17,2
CDX(M) 200/12	208	321	332	181	229,5	106	123,5	207	235	50	38	120	160	108	PG13,5	PG11	92,5	G1 ½	11,4	12,2
CDX(M) 200/20	208	346,5	359	198,5	229,5	106	123,5	225	236,5	55	40	140	180	105,5	PG13,5	PG11	95	G1 ½	15,3	16,1
CDX 200/25	232	-	359	198,5	250	118	132	237	-	55	40	140	180	105,5	-	PG11	95	G1 ½	-	15,9

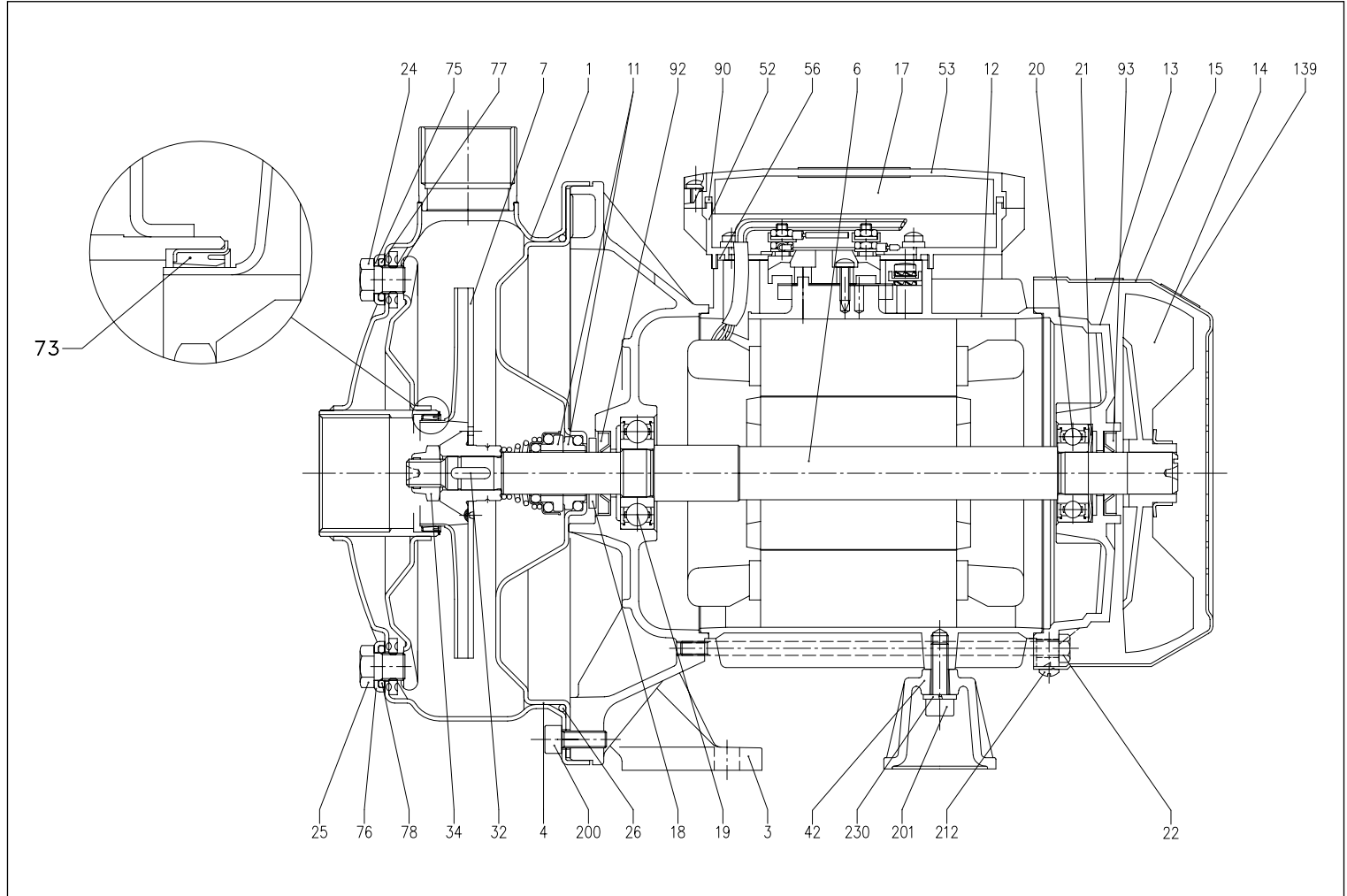
[1]= Three-phase only  
[2]= Single-phase only

# CDX (L)

## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and in AISI 316

### SECTIONAL VIEW CDX(L) 70/05 - 70/07 - 90/10



### MATERIALS TABLE

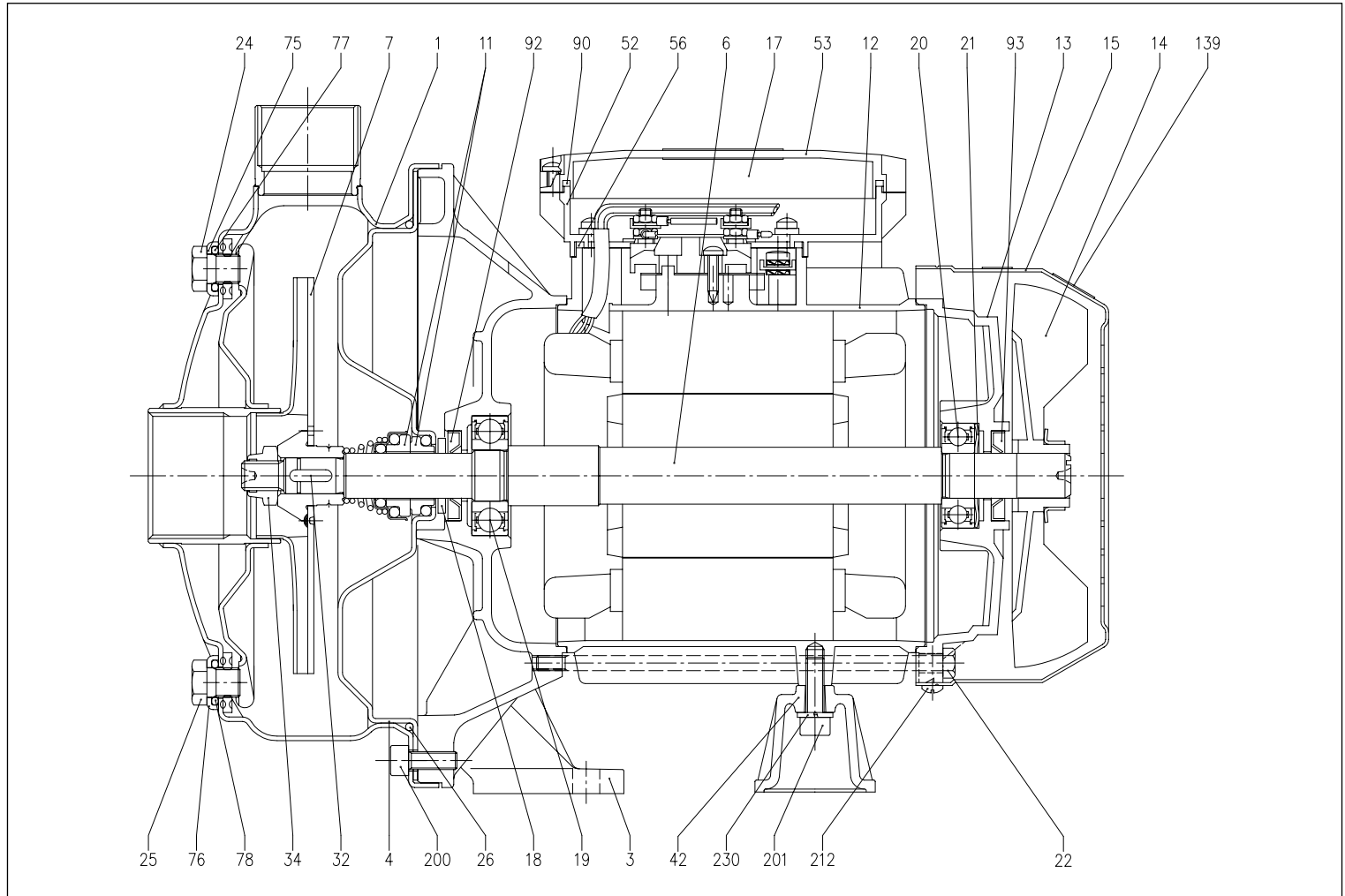
Ref.	Name	Material	Ref.	Name	Material
1	Casing	AISI 304 / AISI 316 [5]	25	Drain plug	AISI 303 / AISI 316 [5]
3	Motor bracket	Aluminium	26	O-ring [3]	NBR
4	Casing cover	AISI 304 / AISI 316 [5]	32	Key	AISI 316
6	Shaft with rotor	AISI 303 / AISI 316 (Wet extension)	34	Impeller nut	AISI 304 / AISI 316 [5]
7	Impeller	AISI 304 / AISI 316 [5]	42	Motor support	Aluminium
11	Mechanical seal [3]	Carbon/Ceramic/NBR	52	Terminal box [1]	ABS
12	Motor frame with stator	-	53	Terminal box cover [1]	ABS
13	Motor cover	Aluminium	56	Box gasket	NBR
14	Fan	PA	73	Casing ring [4]	NBR
15	Fan cover	Fe P04 Galvanized	75	Washer	AISI 304 / AISI 316 [5]
16	Terminal board	-	76	Washer	AISI 304 / AISI 316 [5]
17	Terminal box cover [2]	Aluminium	77	O-ring [3]	NBR
18	Splash ring	NBR	78	O-ring [3]	NBR
19	Pump side ball bearing	-	90	Terminal box cover gasket [1]	NBR
20	Fan side ball bearing	-	92	Lip seal	-
21	Adjusting ring	Steel C70	93	Lip seal	-
22	Tie rod	Fe 420 Galvanized	110	Protector [1]	-
23	Capacitor [1]	-	200	Screw	Stainless steel A2 UNI7323
24	Priming plug	AISI 303 / AISI 316 [5]			

[1] Only for single phase [2] Only for three phase  
 [3] FPM for CDX H-HS-HW-HSW  
 [4] NBR for CDX 70/05, 70/07, 90/10  
 FPM for CDX H-HS-HW-HSW 70/05, 70/07, 90/10  
 [5] Only for "L" version

## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and in AISI 316

### SECTIONAL VIEW CDX(L) 120/07 - 120/20



### MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
1	Casing	AISI 304 / AISI 316 [5]	25	Drain plug	AISI 303 / AISI 316 [5]
3	Motor bracket	Aluminium	26	O-ring [3]	NBR
4	Casing cover	AISI 304 / AISI 316 [5]	32	Key	AISI 316
6	Shaft with rotor	AISI 303 / AISI 316(Wet extension)	34	Impeller nut	AISI 304 / AISI 316 [5]
7	Impeller	AISI 304 / AISI 316 [5]	42	Motor support	Aluminium
11	Mechanical seal [3]	Carbon/Ceramic/NBR	52	Terminal box [1]	ABS
12	Motor frame with stator	-	53	Terminal box cover [1]	ABS
13	Motor cover	Aluminium	56	Box gasket	NBR
14	Fan	PA	73	Casing ring	-
15	Fan cover	Fe P04 Galvanized	75	Washer	AISI 304 / AISI 316 [5]
16	Terminal board	-	76	Washer	AISI 304 / AISI 316 [5]
17	Terminal box cover [2]	Aluminium	77	O-ring [3]	NBR
18	Splash ring	NBR	78	O-ring [3]	NBR
19	Pump side ball bearing	-	90	Terminal box cover gasket [1]	NBR
20	Fan side ball bearing	-	92	Lip seal	-
21	Adjusting ring	Steel C70	93	Lip seal	-
22	Tie rod	Fe 420 Galvanized	110	Protector [1]	-
23	Capacitor [1]	-	200	Screw	Stainless steel A2 UNI7323
24	Priming plug	AISI 303 / AISI 316 [5]			

[1] Only for single phase [2] Only for three phase

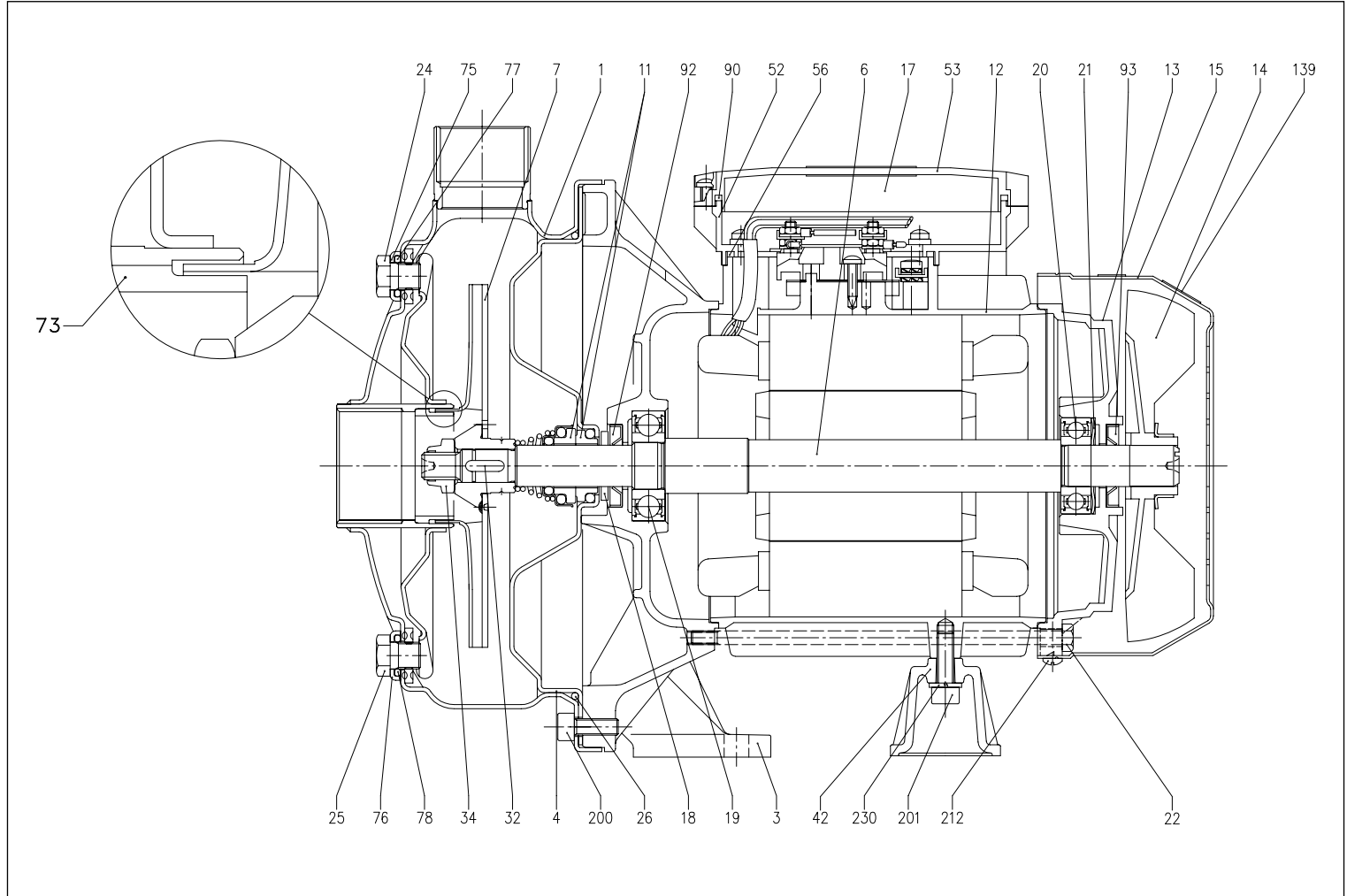
[3] FPM for CDX H-HS-HW-HSW

[5] Only for "L" version

## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and in AISI 316

### SECTIONAL VIEW CDX(L) 120/12 - 200/12 - 200/20 - 200/25



### MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
1	Casing	AISI 304 / AISI 316 [5]	25	Drain plug	AISI 304 / AISI 316 [5]
3	Motor bracket	Aluminium	26	O-ring [3]	NBR
4	Casing cover	AISI 304 / AISI 316 [5]	32	Key	AISI 316
6	Shaft with rotor	AISI 303 / AISI 316 (Wet extension)	34	Impeller nut	AISI 304 / AISI 316 [5]
7	Impeller	AISI 304 / AISI 316 [5]	42	Motor support	Aluminium
11	Mechanical seal [3]	Carbon/Ceramic/NBR	52	Terminal box [1]	ABS
12	Motor frame with stator	-	53	Terminal box cover [1]	ABS
13	Motor cover	Aluminium	56	Box gasket	NBR
14	Fan	PA	73	Double ring	AISI 304 / AISI 316 [5]
15	Fan cover	Fe P04 Galvanized	75	Washer	AISI 304 / AISI 316 [5]
16	Terminal board	-	76	Washer	AISI 304 / AISI 316 [5]
17	Terminal box cover [2]	Aluminium	77	O-ring [3]	NBR
18	Splash ring	NBR	78	O-ring [3]	NBR
19	Pump side ball bearing	-	90	Terminal box cover gasket [1]	NBR
20	Fan side ball bearing	-	92	Lip seal	-
21	Adjusting ring	Steel C70	93	Lip seal	-
22	Tie rod	Fe 420 Galvanized	110	Protector [1]	-
23	Capacitor [1]	-	200	Screw	Stainless steel A2 UNI7323
24	Priming plug	AISI 303 / AISI 316 [5]			

[1] Only for single phase [2] Only for three phase

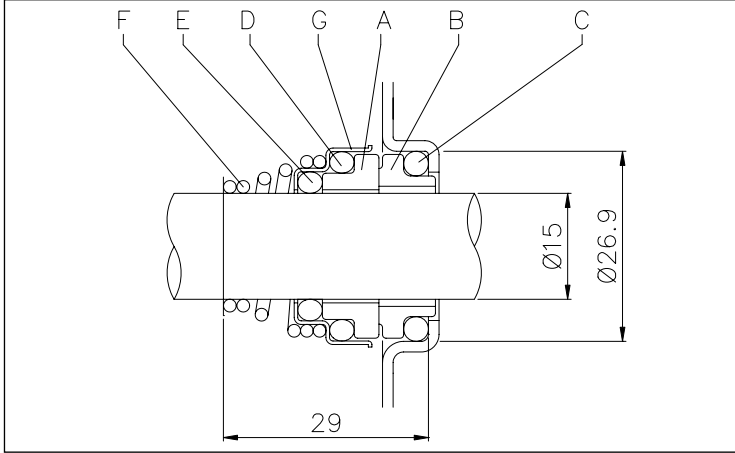
[3] FPM for CDX H-HS-HW-HSW

[5] Only for "L" version

## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and in AISI 316

### MECHANICAL SEAL standard



### MATERIALS TABLE

Ref.	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

### SPECIAL MECHANICAL SEALS (on request)

Ref.	Name	Material					
		Version H	Version HS	Version HW	Version HSW	Version E	Version U3CEGG
A	Rotary seal ring	Ceramic	SiC	Tungsten carbide	SiC	Ceramic	Tungsten carbide
B	Stationary seal ring	Carbon graphite	SiC	Tungsten carbide	Tungsten carbide	Carbon graphite	Carbon graphite
C	O Ring	FPM	FPM	FPM	FPM	EPDM	EPDM
D	O Ring	FPM	FPM	FPM	FPM	EPDM	EPDM
E	O Ring	FPM	FPM	FPM	FPM	EPDM	EPDM
F	Self driving spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
G	Frame	AISI 304	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316

### ELECTRIC DATA TABLE

Model	Single phase 230V	Three phase 230/400V	P <sub>2</sub>		Efficiency		Capacitor		Efficiency (%)			P <sub>1</sub>		Full load current [A]		
			[HP]	[kW]	Single phase	Three phase	Single phase	Three phase	50%	75%	100%	Single phase [kW]	Three phase [kW]	Single phase 230V	Three phase 230V	400V
			μF	V.	η %	η %	η %	[kW]	[kW]	230V	230V	400V				
CDXM 70/05	CDX 70/05	0,5	0,37	-	-	12,5	450	-	-	-	0,75	0,68	3,4	2,4	1,4	
CDXM 70/07	CDX 70/07	0,75	0,55	-	-	16	450	-	-	-	1,1	1,0	5,0	3,5	2,0	
CDXM 90/10	CDX 90/10	1	0,75	-	IE2	20	450	77,2	80,9	81,3	1,2	1,05	5,6	3,3	1,9	
CDXM 120/07	CDX 120/07	0,75	0,55	-	IE2	16	450	-	-	-	1,0	1,0	4,6	3,2	1,85	
CDXM 120/12	CDX 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	
CDXM 120/20	CDX 120/20	2	1,5	-	IE2	40	450	80,3	83,4	83,8	2,1	2,09	9,3	7,0	4,0	
CDXM 200/12	CDX 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	
CDXM 200/20	CDX 200/20	2	1,5	-	IE2	40	450	80,3	83,4	83,8	2,3	2,22	10,2	7,4	4,3	
-	CDX 200/25	2,5	1,8	-	IE2	-	-	83,0	84,4	83,8	-	2,87	-	8,7	5,0	

### NOISE DATA

Model	Single phase 230V	Three phase 230/400V	P <sub>2</sub>		L <sub>max</sub> - dB(A)*
			[HP]	[kW]	
CDXM 70/05	CDX 70/05	0,5	0,37	61	
CDXM 70/07	CDX 70/07	0,75	0,55	62	
CDXM 90/10	CDX 90/10	1	0,75	62	
CDXM 120/07	CDX 120/07	0,75	0,55	62	
CDXM 120/12	CDX 120/12	1,2	0,9	62	
CDXM 120/20	CDX 120/20	2	1,5	64	
CDXM 200/12	CDX 200/12	1,2	0,9	62	
CDXM 200/20	CDX 200/20	2	1,5	64	
-	CDX 200/25	2,5	1,8	65	

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

## SPECIFICHE PRESTAZIONI

Le specifiche riportate si riferiscono alle curve illustrate nei nostri cataloghi e Data Book (vedi [www.ebaraeurope.com](http://www.ebaraeurope.com)).  
Tutte le curve di prestazione sono calcolate secondo ISO 9906 Allegato A.

Tolleranze secondo ISO 9906 Annex A.

Le curve si riferiscono a una velocità effettiva dei motori asincroni a 50 Hz.

Le misure sono state effettuate con temperatura dell'acqua di 20°C e con viscosità cinematica di  $\nu = 1 \text{ mm}^2/\text{s}$  (1 cSt).

Al fine di evitare il rischio di surriscaldamento, le pompe non dovrebbero essere usate a una portata al di sotto del 10% della portata di massimo rendimento.

Simboli: Q = Portata [ $\text{m}^3/\text{h}$ ]

H = Prevalenza [m]

P<sub>1</sub> = Potenza assorbita dalla linea elettrica

P<sub>2</sub> = Potenza resa all'asse motore (potenza assorbita dalla pompa)



# DNV BUSINESS ASSURANCE

# MANAGEMENT SYSTEM CERTIFICATE

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*Certificato No. / Certificate No. CERT-17819-2006-AQ-VEN-SINCERT*

*Si attesta che / This is to certify that*

**EBARA PUMPS EUROPE S.p.A.**

*Sede e Stabilimento di Brendola: Via Pacinotti, 32 - 36040 Brendola (VI) - Italy*

*Stabilimento di Cles: Via Campo Sportivo, 30 - 38023 Cles (TN) - Italy*

*Filiale di Palermo: Via Don Luigi Sturzo, 181/183 - Z. I. - 90040 Carini (PA) - Italy*

*Filiale di Cagliari: Via del Fangario, 29 - 09122 Cagliari (CA) - Italy*

*è conforme ai requisiti della norma per i sistemi di gestione:*  
*has been found to conform to the management system standard:*

**UNI EN ISO 9001:2008 (ISO 9001:2008)**

*Questa Certificazione è valida per il seguente campo applicativo:*  
*This Certificate is valid for the following product or service ranges:*

**Progettazione, produzione, vendita e commercializzazione di pompe e sistemi di pompaggio**  
**(Settore EA : 18 - 17)**

*Design, manufacture, sales and trade of pumps and pumping systems*  
**(Sector EA : 18 - 17)**

*Data Prima Emissione/Initial Certification Date:*  
**2006-10-13**

*Il Certificato è valido fino al:*  
*This Certificate is valid until:*  
**2015-10-10**

*L'audit è stato eseguito sotto la supervisione di*  
*The audit has been performed under the supervision of*

**Michele Gaiba**  
*Lead Auditor*



ISO 9001 A    ISO 9001 B  
 SCA 9001 D    SCA 9001 G  
 SCR 9004 F    FSA 9001 I  
 Membro di IMA EA per gli schemi di accreditamento ISO, SCA, PDS, PDS, SCA, SCL, FSA e PDS e di IMA ILAC per gli schemi di accreditamento IAF

*Luogo e Data/Place and Date:*  
**Agrate Brianza (MB), 2012-10-02**

*Per l'Organismo di Certificazione:*  
*For the Accredited Unit:*



**Zeno Beltrami**  
*Management Representative*

La validità del presente Certificato è subordinata al rispetto delle condizioni contenute nel Contratto di Certificazione.  
Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.

DET NORIKO VERITAS ITALIA SRL - CENTRO DIRIZIONALE COLLIONI - PALAZZO SIBO - V.LE COLLIONI, 9 - 20864 AGRATE BRIANZA (MB) - ITALY - TEL. 039 48 99 905 - WWW.DNVBA.COM/IT



**CD/CDX**  
**CENTRIFUGAL ELECTRIC PUMPS**

**50 Hz**

