

## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304



Single impeller centrifugal electric pumps with hydraulic parts 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

### TECHNICAL DATA

- Maximum working pressure: 8 bar
- Maximum temperature of the liquid:
  - 10°C ÷ +60°C for CDX 70/05-70/07-90/10
  - 10°C ÷ +90°C for the rest of the range
  - 10°C ÷ +110°C in the H-HS version
- Self-ventilated 2 pole asynchronous motor
- Class of insulation F
- IP55 Protection rating
- 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
- G1½ suction connection for CDX 200, G1¼ for the rest of the range
- G1 discharge connection

### MATERIALS

- Pump body, impeller, nozzle and seal housing disc in AISI 304
- Shaft in AISI 303
- Support and motor casing in aluminium
- Mechanical sealing in:
  - Ceramic/Carbon/NBR (standard)
  - Ceramic/Carbon/FPM (H version)
  - SiC/SiC/FPM (HS version)
  - Tungsten carbide/Tungsten carbide/FPM (HW version - seal with reduced slide face)
  - SiC/Tungsten carbide/FPM (HSW version)
  - Ceramic/Graphite/EPDM (E version)

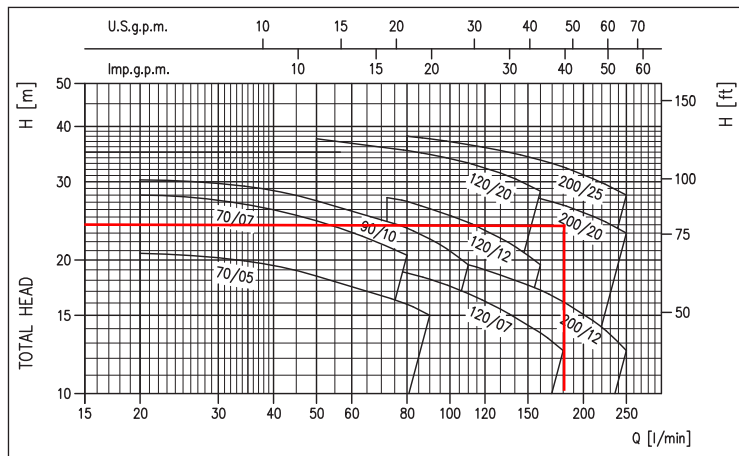
### CONTROL PANELS

- 1EPBH (see page 207)

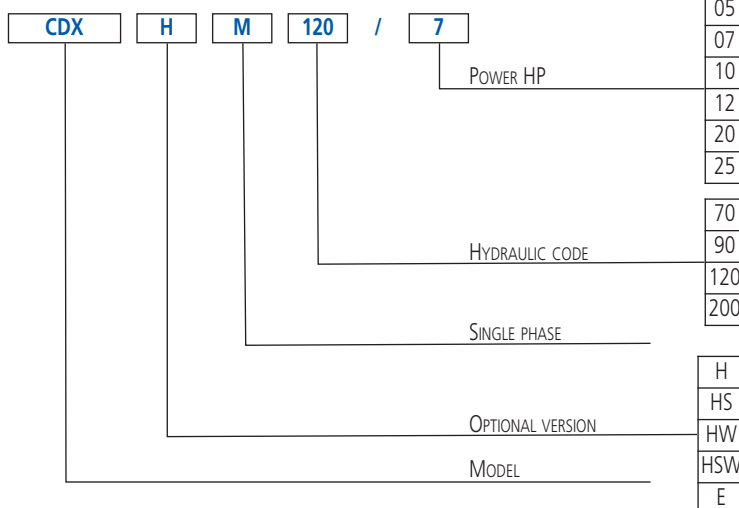
### ACCESSORIES (on request)

- 5 litre 10 bar ¾" EPDM vessel
- 24 litre 8 bar 1" EPDM vessel
- 24 litre 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 (see page 208)
- Press•o•Matic - Variable speed control system (single phase 230V±10% - power supply three phase 220V output - maximum motor power 2.2 kW - 3 HP - see page 209)

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



### IDENTIFICATION CODE

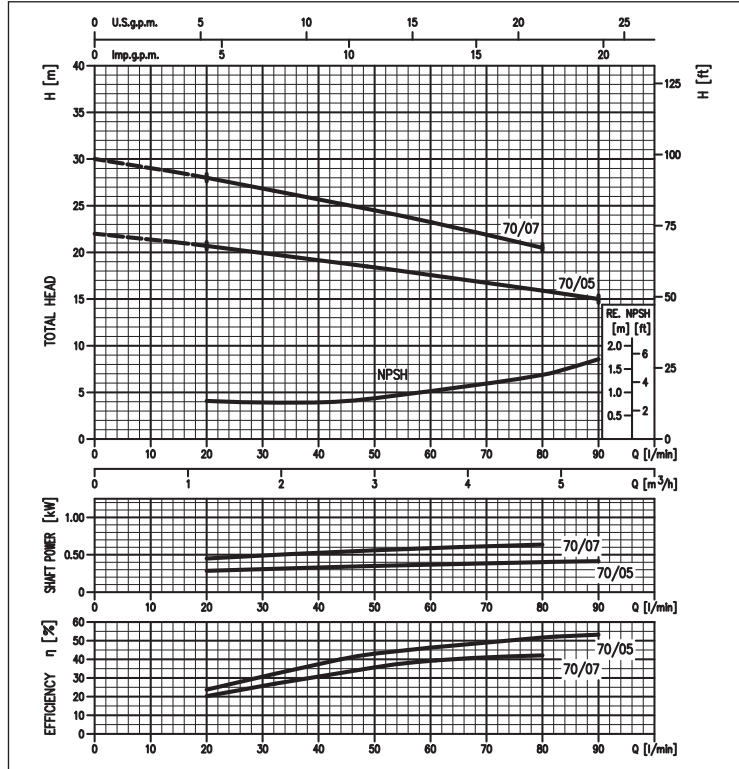


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in AISI 304

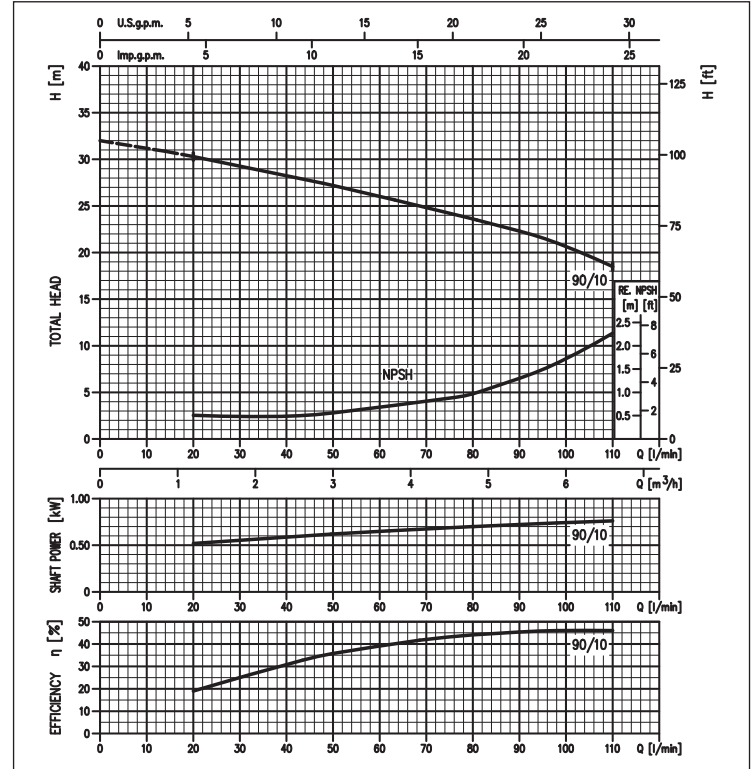
### CDX 70 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



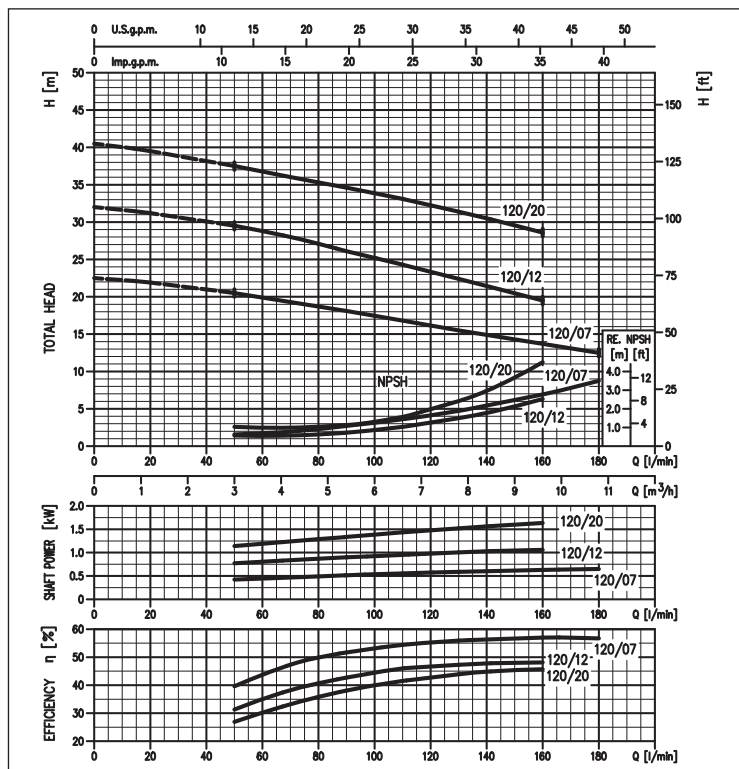
### CDX 90 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



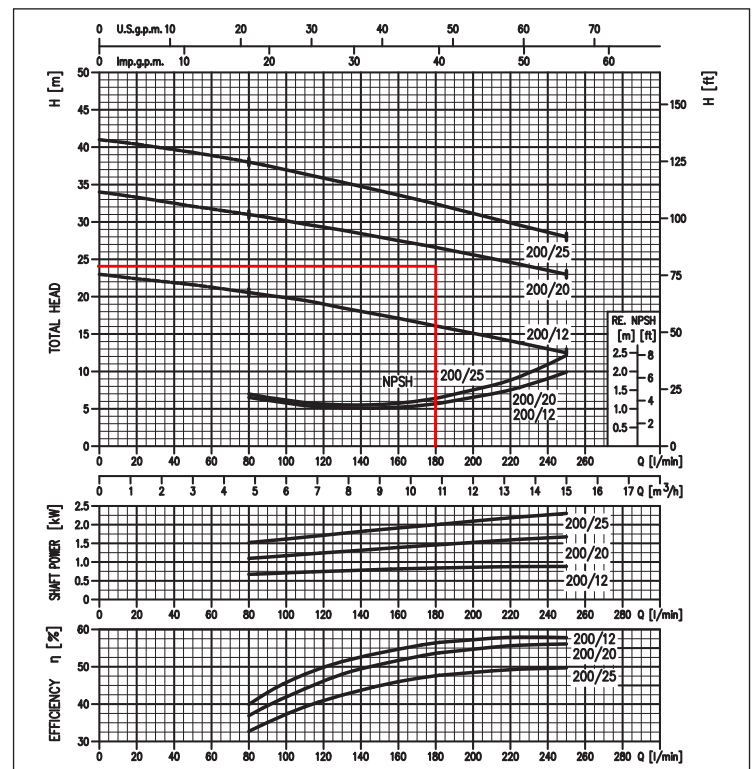
### CDX 120 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



### CDX 200 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



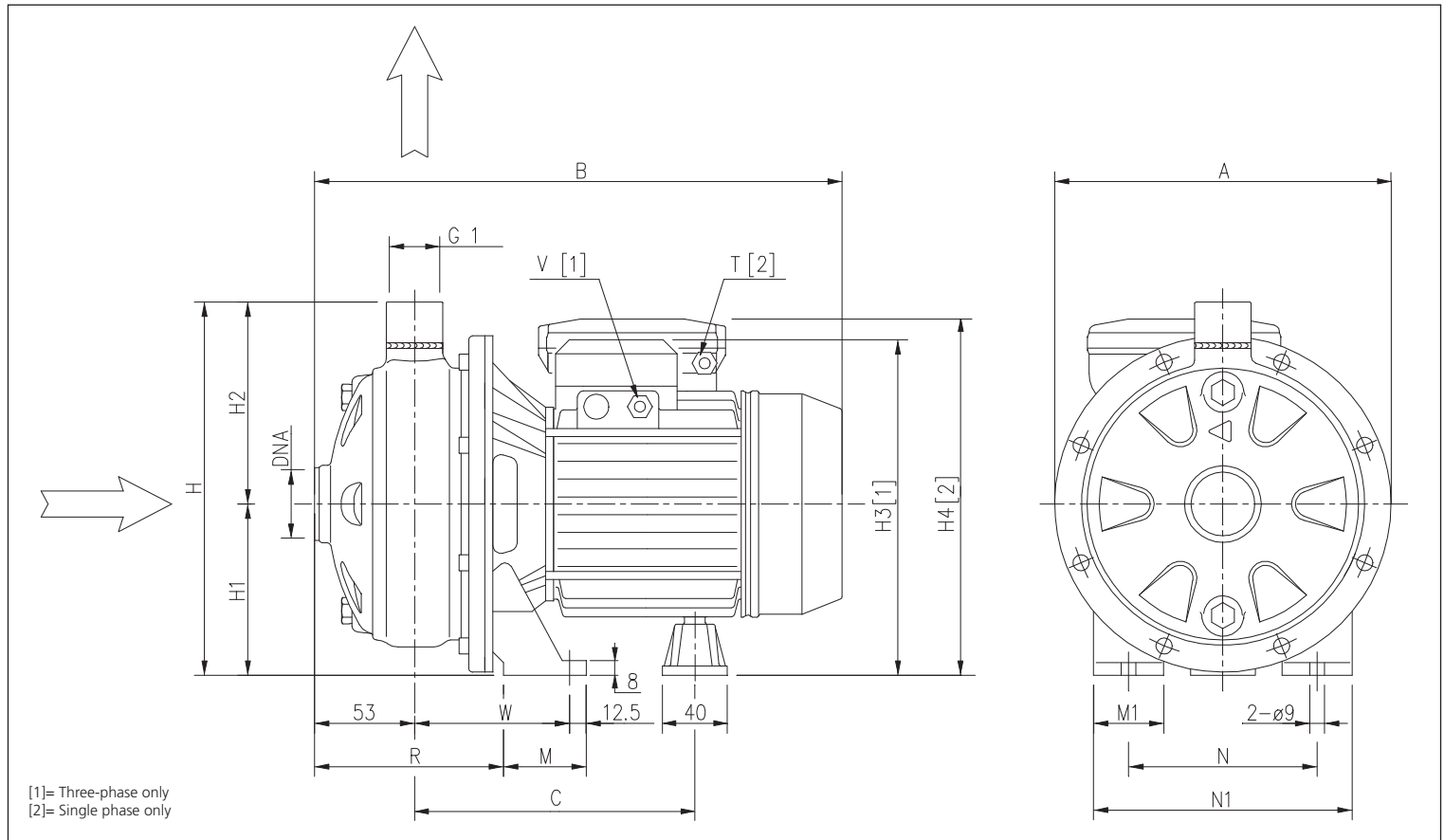
## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

### PERFORMANCE TABLE

Model		P <sub>2</sub>		Q=Flow rate										
230V single phase	230/400V three-phase	[HP]	[kW]	l/min m <sup>3</sup> /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 15,0
				H=Head [m]										
CDXM 70/05	CDX 70/05	0,5	0,37	20,7	18,4	15,9	15,0	-	-	-	-	-	-	-
CDXM 70/07	CDX 70/07	0,8	0,55	28,0	24,5	20,5	-	-	-	-	-	-	-	-
CDXM 90/10	CDX 90/10	1	0,75	30,3	27,2	23,6	22,3	19,5	-	-	-	-	-	-
CDXM 120/07	CDX 120/07	0,8	0,55	-	20,5	18,7	18,1	16,8	15,5	13,7	12,5	-	-	-
<b>CDXM 120/12</b>	<b>CDX 120/12</b>	<b>1,2</b>	<b>0,9</b>	-	<b>29,5</b>	<b>27,1</b>	<b>26,1</b>	<b>24,3</b>	<b>22,4</b>	<b>19,5</b>	-	-	-	-
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	-	-	20,6	20,2	19,5	18,5	17,1	16,1	14,6	12,5	-
<b>CDXM 200/20</b>	<b>CDX 200/20</b>	<b>2</b>	<b>1,5</b>	-	-	<b>31,0</b>	<b>30,6</b>	<b>29,7</b>	<b>28,9</b>	<b>27,5</b>	<b>26,6</b>	<b>25,1</b>	<b>23,0</b>	-
-	CDX 200/25	2,5	1,8	-	-	38,0	37,5	36,4	35,3	33,6	32,4	30,5	28,0	-

### DIMENSIONS



### DIMENSIONS TABLE

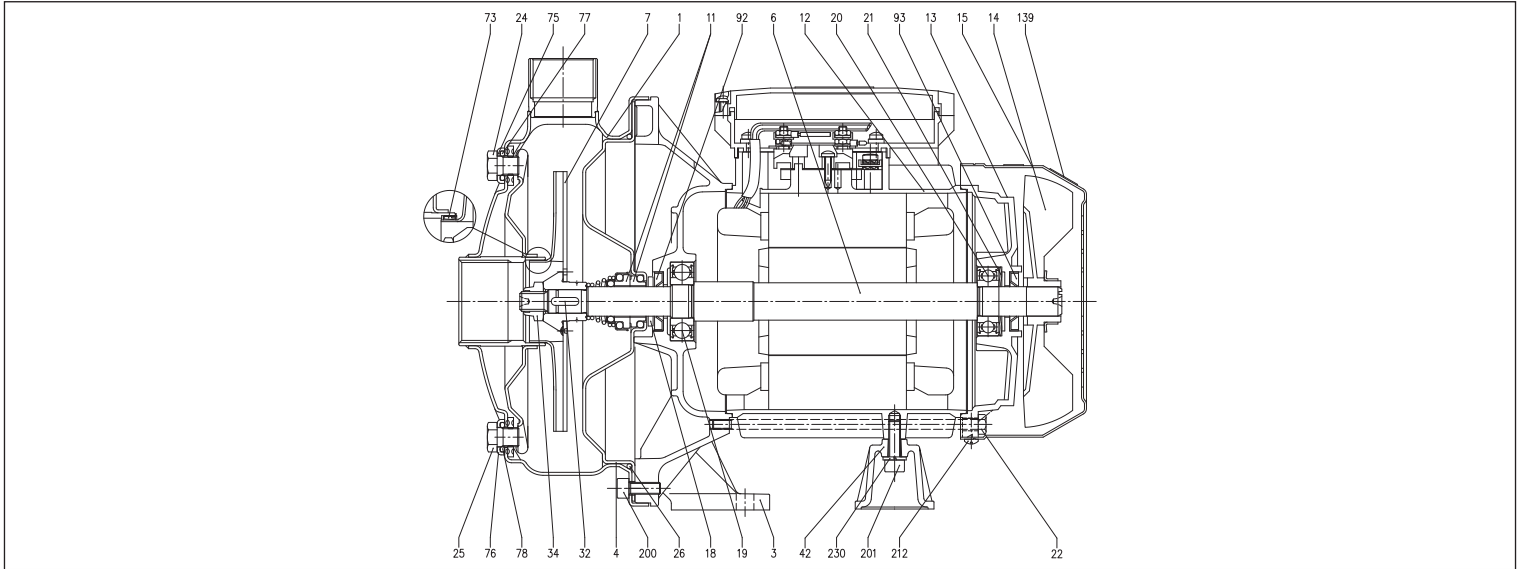
Model	Dimensions [mm]															Weight [kg]			
	A	B	C	H	H1	H2	H3	H4	M	M1	N	N1	R	T	V	W	DNA	[2]	[1]
CDX(M) 70/05	208	321	182	229.5	106	123.5	208	216	50	38	120	160	108	PG11	PG11	93	G1 ¼	9,1	9,1
CDX(M) 70/07	208	321	182	229.5	106	123.5	208	216	50	38	120	160	108	PG11	PG11	93	G1 ¼	10,4	10,4
CDX(M) 90/10	208	321	182	229.5	106	123.5	208	216	50	38	120	160	108	PG11	PG11	93	G1 ¼	11,9	11,9
CDX(M) 120/07	208	321	182	229.5	106	123.5	208	216	50	38	120	160	108	PG11	PG11	93	G1 ¼	10,4	10,4
<b>CDX(M) 120/12</b>	<b>208</b>	<b>321</b>	<b>182</b>	<b>229.5</b>	<b>106</b>	<b>123.5</b>	<b>208</b>	<b>216</b>	<b>50</b>	<b>38</b>	<b>120</b>	<b>160</b>	<b>108</b>	<b>PG11</b>	<b>PG11</b>	<b>93</b>	<b>G1 ¼</b>	<b>12,5</b>	<b>12,5</b>
CDX(M) 120/20	232	347	204	250	118	132	237	249	55	40	140	180	105.5	PG13.5	PG11	95	G1 ¼	17,2	16,2
CDX(M) 200/12	208	321	182	229.5	106	123.5	208	216	50	38	120	160	108	PG13.5	PG11	93	G1 ½	16,3	11,4
<b>CDX(M) 200/20</b>	<b>208</b>	<b>347</b>	<b>204</b>	<b>229.5</b>	<b>106</b>	<b>123.5</b>	<b>225</b>	<b>237</b>	<b>55</b>	<b>40</b>	<b>140</b>	<b>180</b>	<b>105.5</b>	<b>PG13.5</b>	<b>PG11</b>	<b>95</b>	<b>G1 ½</b>	<b>15,3</b>	<b>14,2</b>
CDX 200/25	232	347	204	250	118	132	237	-	55	40	140	180	105.5	-	PG11	95	G1 ½	-	17,0

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

## SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

### SECTIONAL VIEW



### MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
1	Pump body	EN 1.4301 (AISI 304)	25	Drain plug	AISI 303
3	Motor support	Aluminium	26	O-Ring [3]	NBR
4	Seal housing disc	EN 1.4301 (AISI 304)	32	Key	EN 1.4301 (AISI 304)
6	Rotor shaft	AISI 303 Part in contact with the liquid	34	Impeller nut	EN 1.4301 (AISI 304)
7	Impeller	EN 1.4301 (AISI 304)	42	Foot	Aluminium
11	Mechanical seal [3]	Carbon/Ceramic/NBR	52	Terminal box [2]	Polypropylene
12	Motor case	-	53	Terminal box cover [2]	Polypropylene
13	Motor cover	Aluminium	56	Terminal box cover gasket	NBR
14	Fan	Polypropylene	73	Wear ring [4]	EN 1.4301 (AISI 304)
15	Fan cover	Galvanised Fe P04	75	Washer	EN 1.4301 (AISI 304)
16	Terminal box	-	76	Washer	EN 1.4301 (AISI 304)
17	Terminal box cover [1]	Aluminium	77	O-Ring [3]	NBR
18	Spray protector ring	NBR	78	O-Ring [3]	NBR
19	Bearing (pump side)	-	90	Gasket	NBR
20	Bearing (motor side)	-	92	Sealing ring	-
21	Adjusting ring	Steel C70	93	Sealing ring	-
22	Tie-rod	Galvanised Fe 42	110	Motorprotector [2]	-
23	Capacitor [2]	-	200	Screw (pump body)	A2 UNI7323 stainless steel
24	Filler cap	AISI 303			

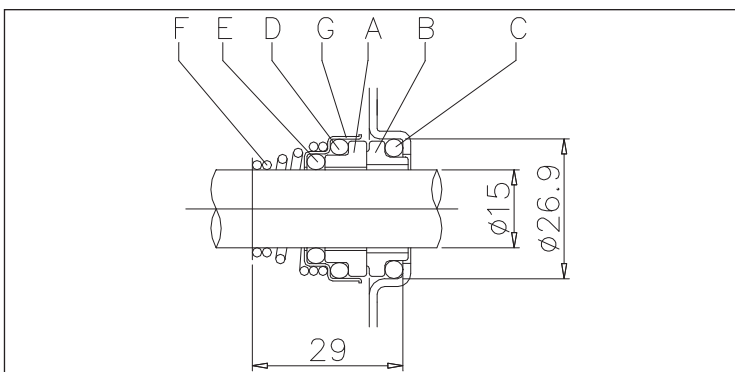
[1]= For three-phase only

[2]= For single phase only

[3]= FPM for CDXH and CDXHS

[4]= NBR for: CDX 70/05, 70/07, 90/10, FPM for CDXH 70/05, 70/07, 90/10 and CDXHS 70/05, 70/07, 90/10

### MECHANICAL SEAL CDX standard



### 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

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### SPECIAL MECHANICAL SEALS (on request)

Name	H version	HS version	Material HW version	HSW version	E version
Fixed Part	Carbon	SiC	Tungsten Carbide	Tungsten Carbide	Carbon
Rotating Part	Ceramic	SiC	Tungsten Carbide	SiC	Ceramic
Elastomers	FPM	FPM	FPM	FPM	EPDM
Spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
Structure/Frame	AISI 304	AISI 316	AISI 304	AISI 304	AISI 316

### ELECTRIC DATA TABLE

Model		P <sub>2</sub>		Single phase Capacitor		P <sub>1</sub>		Absorbed Current [A]		
230V single phase	230/400V three-phase	[HP]	[kW]	µF	V <sub>c</sub>	Single phase [kW]	Three-phase [kW]	Single phase 230V	Three-phase	
								230V	230V	400V
CDXM 70/05	CDX 70/05	0,5	0,37	12,5	450	0,7	0,7	3,1	2,4	1,4
CDXM 70/07	CDX 70/07	0,75	0,55	16	450	1	1	4,6	3,5	2
CDXM 90/10	CDX 90/10	1	0,75	20	450	1,2	1,1	5,6	4	2,3
CDXM 120/07	CDX 120/07	0,75	0,55	16	450	1	1	4,6	3,2	1,9
CDXM 120/12	CDX 120/12	1,2	0,9	31,5	450	1,6	1,6	6,9	5,2	3
CDXM 120/20	CDX 120/20	2	1,5	40	450	2,1	2,1	9,3	7	4
CDXM 200/12	CDX 200/12	1,2	0,9	31,5	450	1,4	1,3	6,3	4,7	2,7
CDXM 200/20	CDX 200/20	2	1,5	40	450	2,3	2,1	10,7	7	4
-	CDX 200/25	2,5	1,8	-	-	-	2,8	-	8,2	4,8