

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

PUMP TECHNICAL DATA

- Maximum working pressure: 8 bar
- Maximum temperature of the liquid:
 - from -5°C to +60°C for CDX 70
 - from -5°C to +90°C for the rest of the range
 - from -5°C to +110°C for H-HS-HW-HSW version
- G1½ suction connection for CDX 200, G1¼ for the rest of the range
- G1 discharge connection

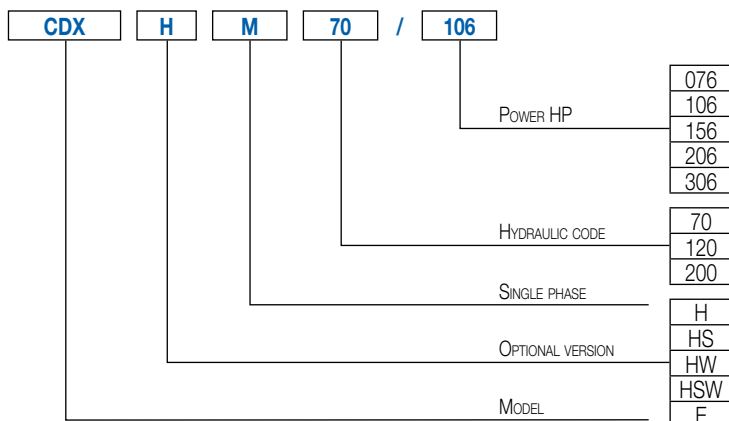
MOTOR TECHNICAL DATA

- IE3 high energy-efficiency motors starting from 0.75 kW up to 2.2 kW (only for 460V)
- Self-ventilated 2 poles asynchronous motor
- Class of insulation F
- IP55 Protection rating
- 110-115V ±6%, 60Hz single phase voltage
- 220-230V ±6%, 60Hz single phase voltage
- 220/380-460 -6% +10%, (0.55 kW) 60Hz three phase voltage
- 220/380-460 ±10%, (IE3* only 460V from 0.75 kW up to 2.2 kW) 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

MATERIALS

- Casing, impeller, diffuser and casing cover in AISI 304
- Shaft in AISI 303
- Motor bracket and motor cover 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 - seal with reduced slide face)
 - SiC/Tungsten carbide/FPM (HSW version)
 - Ceramic/Graphite/EPDM (E version)

IDENTIFICATION CODE



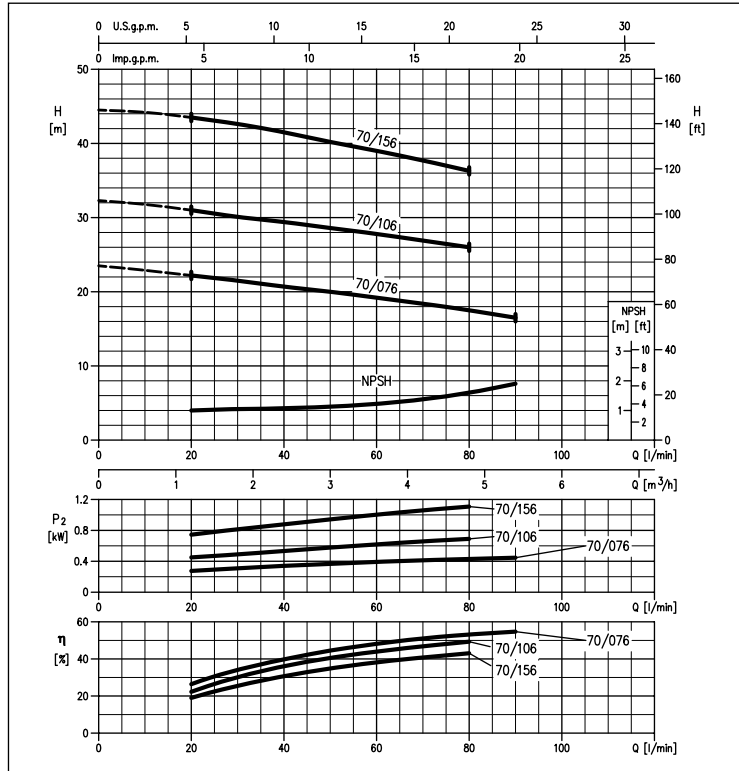


CDX

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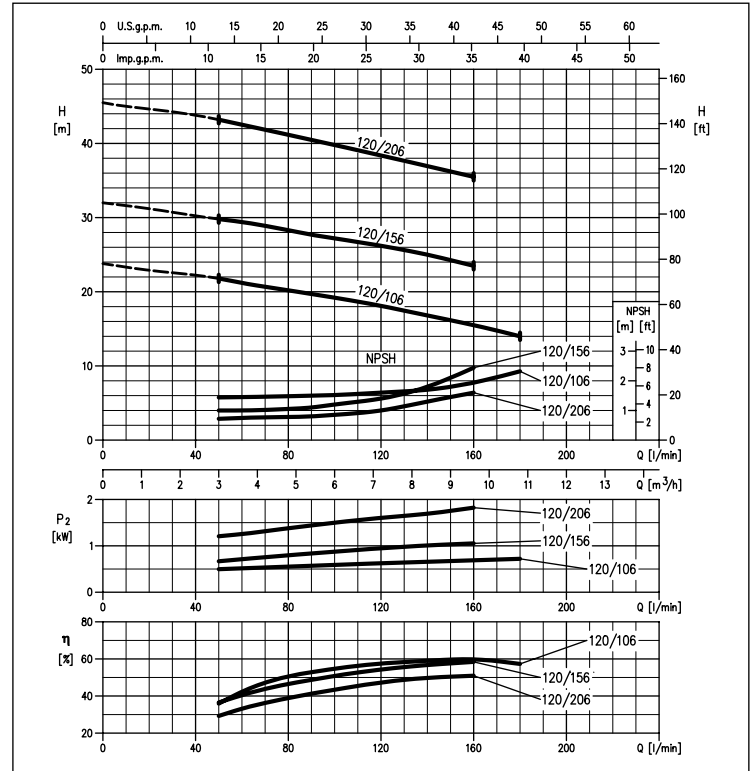
CDX 70 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



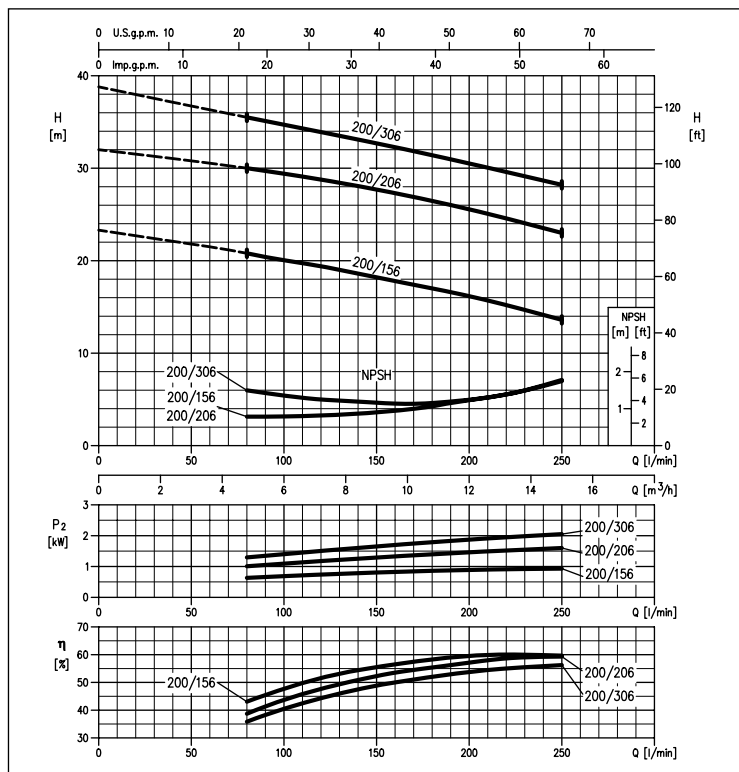
CDX 120 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



CDX 200 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



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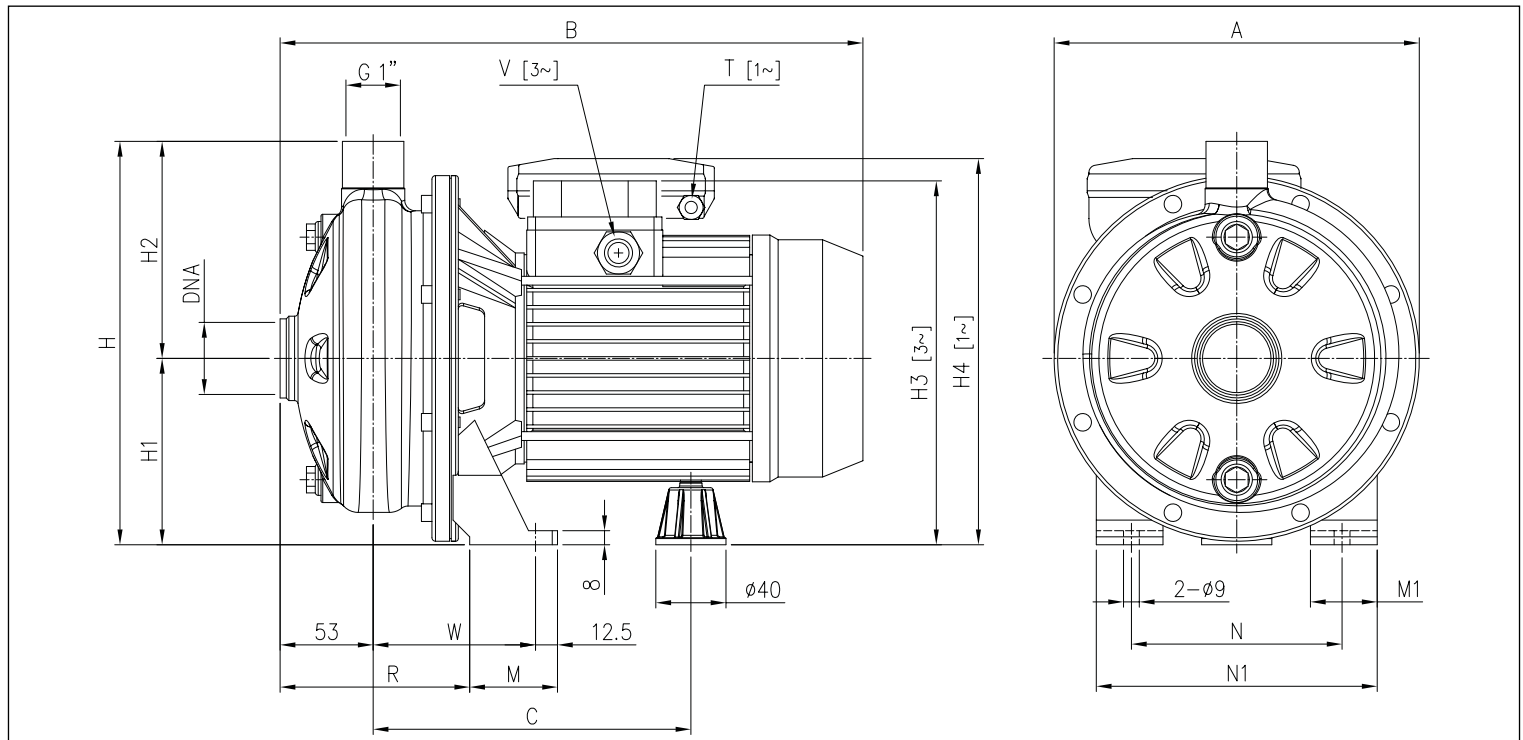
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CDX PERFORMANCE TABLE

Model		P ₂		Q = Flow Rate											
Single phase 110-115/220-230V	Three phase 220/380-460V	[HP]	[kW]	l/min	20	50	80	90	120	140	160	180	220	250	
				m ³ /h	1,2	3	4,8	5,4	7,2	8,4	9,6	10,8	13,2	15	
				H=Head [m]											
CDXM 70/076	CDX 70/076	0,75	0,55	22,2	20	17,5	16,5	-	-	-	-	-	-	-	
CDXM 70/106	CDX 70/106	1	0,75	31,0	28,6	26,0	-	-	-	-	-	-	-	-	
CDXM 70/156	CDX 70/156	1,5	1,1	43,5	40,2	36,3	-	-	-	-	-	-	-	-	
CDXM 120/106	CDX 120/106	1	0,75	-	21,8	20,2	19,7	18,1	16,8	15,5	14,0	-	-	-	
CDXM 120/156	CDX 120/156	1,5	1,1	-	29,8	28,3	27,7	26,2	25,0	23,5	-	-	-	-	
CDXM 120/206	CDX 120/206	2	1,5	-	43,2	41,0	40,4	38,2	36,8	35,5	-	-	-	-	
CDXM 200/156	CDX 200/156	1,5	1,1	-	-	20,8	20,4	19,4	18,6	17,8	17,0	15,2	13,5	-	
CDXM 200/206	CDX 200/206	2	1,5	-	-	30,0	29,5	28,6	27,9	27,2	26,3	24,6	23,0	-	
-	CDX 200/306	3	2,2	-	-	35,5	35,1	34,0	33,3	32,5	31,6	29,8	28,3	-	

CDX DIMENSIONS



DIMENSIONS TABLE

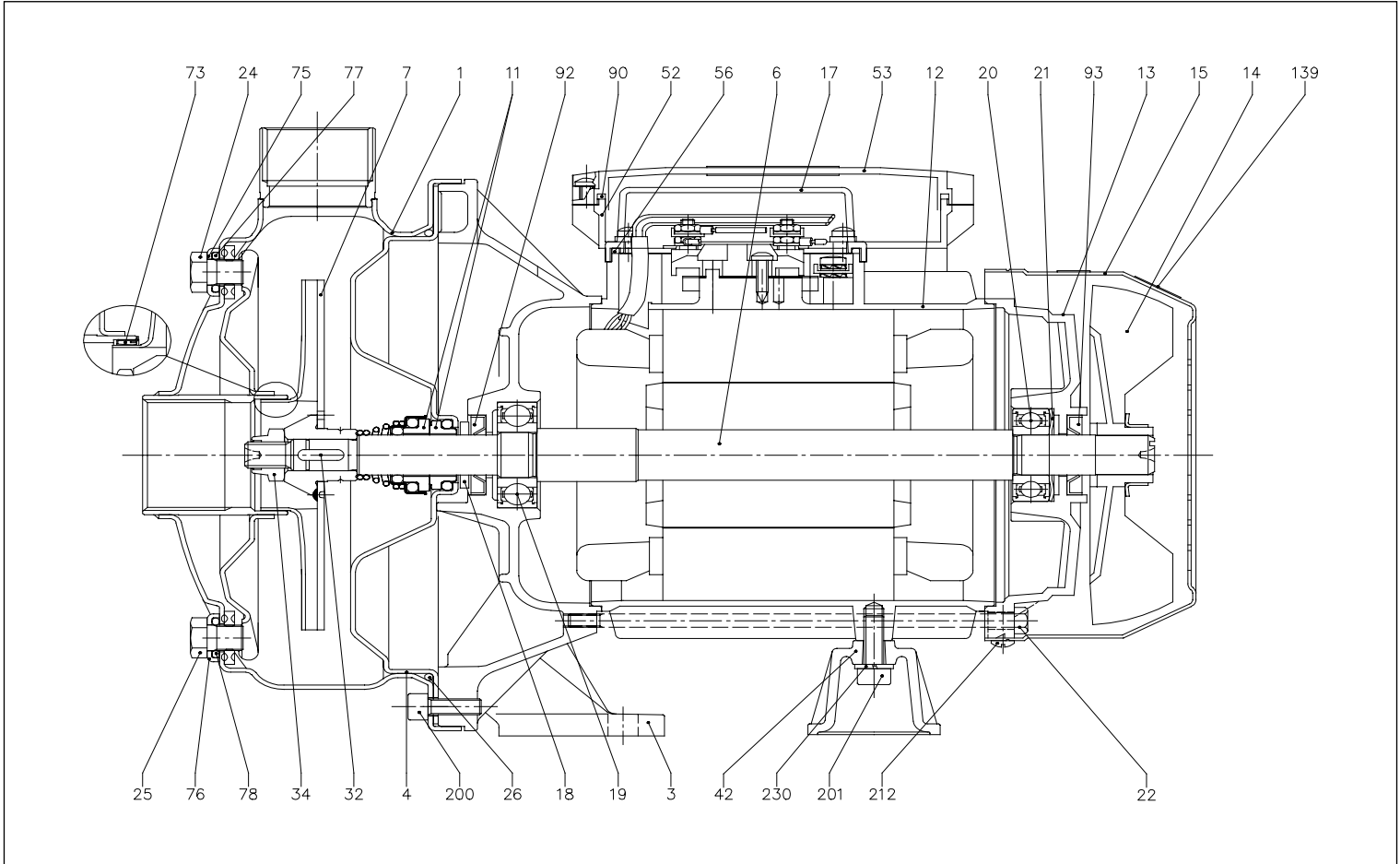
Model CDXM/CDX	Dimensions [mm]																			Weight				
	A	[2]	B	[1]	*	C	H	H1	H2	H3	H4	M	M1	N	N1	R	T	[1]	V	*	W	DNA	[2]	[1]
70/076	208	321	320	320	-	181	229,5	106	123,5	207	216	50	38	120	160	108	PG 11	PG 11	-	92,5	G1¼	8,5	8,0	-
70/106	208	321	320	320	320	181	229,5	106	123,5	207	216	50	38	120	160	108	PG 11	PG 11	M16x1,5	92,5	G1¼	9,5	10,0	10,0
70/156	208	321	332	332	181	229,5	106	123,5	207	216	50	38	120	160	108	PG 11	PG 11	M16x1,5	92,5	G1¼	11,7	13,0	13,0	
120/106	208	321	320	320	181	229,5	106	123,5	207	216	50	38	120	160	108	PG 11	PG 11	M16x1,5	92,5	G1¼	9,5	10,0	10,0	
120/156	208	321	332	332	181	229,5	106	123,5	207	216	50	38	120	160	108	PG 11	PG 11	M16x1,5	92,5	G1¼	11,7	12,0	12,0	
120/206	208	347	359	372	198,5	229,5	106	123,5	225	249	55	40	140	180	105,5	PG 13,5	PG 11	M20x1,5	95	G1½	15,3	15,0	15,0	
200/156	208	321	320	320	181	229,5	106	123,5	207	216	50	38	120	160	108	PG 11	PG 11	M16x1,5	92,5	G1½	11,0	11,0	11,0	
200/206	208	347	359	372	198,5	229,5	106	123,5	225	237	55	40	140	180	105,5	PG 13,5	PG 11	M20x1,5	95	G1½	15,0	16,0	17,0	
200/306	232	-	359	372	198,5	250	118	132	237	-	55	40	140	180	105,5	-	PG 11	M20x1,5	95	G1½	-	17,0	18,0	

[1]= Three phase only
 [2]= Single phase only
 * Models with IE3 motor only

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SECTIONAL VIEW



MATERIALS TABLE

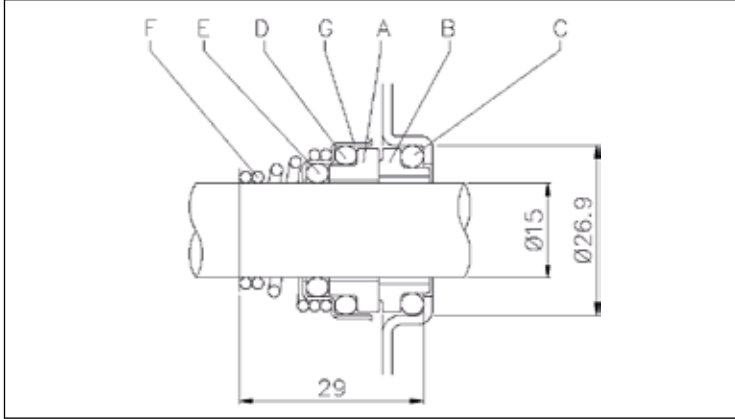
Ref.	Name	Material	Ref.	Name	Material
1	Fan	AISI 304 / AISI 316 [7]	25	O-ring [3]	AISI 303 / AISI 316 [7]
3	Casing	AISI 304 / AISI 316 [7]	26	Terminal box [1]	NBR
4	Motor bracket	AISI 304 / AISI 316 [7]	32	O-ring [3]	AISI 316
6	Casing cover	-	34	O-ring [3]	AISI 304 / AISI 316 [7]
7	Shaft with rotor	PA	42	Drain plug	NBR
11	Impeller	-	52	Key	AISI 304 / AISI 316 [7]
12	Mechanical seal [3]	NBR	53	Impeller nut	AISI 304
13	Motor frame with stator	-	56	Motor support	AISI 304
14	Motor cover	-	73	Terminal box cover [5]	NBR
15	Fan cover	-	75	Box gasket	NBR
16	Terminal board	AISI 303 / AISI 316 [7]	76	Casing ring [4]	NBR
17	Terminal box cover [2]	Aluminium	77	Washer	-
18	Splash ring	AISI 303 / AISI 316 [8] (Wet extension)	78	Washer	-
19	Pump side ball bearing	Carbon/Ceramic/NBR	90	Terminal box cover gasket [6]	-
20	Fan side ball bearing	Aluminium	92	Lip seal	Aluminium
21	Adjusting ring	Fe P04 Zincate	93	Lip seal	ABS class V0
22	Tie rod	Aluminium	110	Protector [1]	ABS class V0
23	Capacitor [1]	Steel C70	200	Screw	Stainless steel A2 UNI7323
24	Priming plug	Fe 420 Zincate			

[1] Only for single phase
 [2] Only for three phase
 [3] FPM for CDX H-HS-HW-HSW, EPDM for CDX E
 [4] NBR for CDX 70/076-70/106-70/156, FPM for CDX H-HS-HW-HSW of the CDX 70/076-70/106-70/156
 [5] Whit gasket in NBR only for version single phase CDXM 70/076, 70/106, 70/156, 120/106, 120/156, 200/156
 [6] Only for version single phase CDXM 120/206, 200/206
 [7] Only for "L" version

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SECTIONAL VIEW



MATERIALS TABLE

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

ELECTRIC DATA TABLE

Model		P ₂		Efficiency		Capacitor				Efficiency (%)			Efficiency (%)			P		Absorbed Current [A]			
Single phase 230V	Three phase 230/400V	[HP]	[kW]	Single phase	Three phase	110-115 V μF	220-230 V V.	μF	V.	Three phase 380V η %	Three phase 460V η %	Single phase [kW]	Three phase [kW]	Single Phase 220-230 V	Three Phase 220 V	380 V	460 V				
										50%	75%	100%	50%	75%	100%						
CDXM 70/076	CDX 70/076	0,75	0,55	-	-	45	250	12,5	450	-	-	-	-	-	-	0,70	0,74	7,5	3,4	1,2	1,2
CDXM 70/106	CDX 70/106	1,0	0,75	-	-	60	250	14	450	-	-	-	-	-	-	1,05	0,97	9,4	5,1	1,7	1,6
CDXM 70/156	CDX 70/156	1,5	1,1	-	-	-	-	25	450	80,7	82,3	81,5	77,9	81,7	82,7	1,56	1,50	-	7,5	2,2	2,2
-	CDX 70/156	1,5	1,1	-	IE3*	-	-	-	-	84,8	84,5	82,7	82,0	84,4	84,5	-	1,30	-	-	2,3	2,2
CDXM 120/106	CDX 120/106	1,0	0,75	-	-	60	250	14	450	-	-	-	-	-	-	1,06	0,99	10,4	5,2	1,7	1,7
CDXM 120/156	CDX 120/156	1,5	1,1	-	-	-	-	25	450	80,7	82,3	81,5	77,9	81,7	82,7	1,50	1,50	-	7,2	2,2	2,2
-	CDX 120/156	1,5	1,1	-	IE3*	-	-	-	-	84,8	84,5	82,7	82,0	84,4	84,5	-	1,30	-	-	2,3	2,2
CDXM 120/206	CDX 120/206	2,0	1,5	-	-	-	-	35	450	82,4	83,0	82,2	79,5	82,9	83,8	2,34	2,90	-	11,3	4,7	4,3
-	CDX 120/206	2,0	1,5	-	IE3*	-	-	-	-	88,9	88,8	87,2	86,3	88,5	88,4	-	2,48	-	-	4,3	4,1
CDXM 200/156	CDX 200/156	1,5	1,1	-	-	-	-	20	450	77,2	79,5	79,3	76,6	80,9	82,3	1,35	1,00	-	6,6	1,7	1,6
-	CDX 200/156	1,5	1,1	-	IE3*	-	-	-	-	80,7	81,9	81,3	78,4	81,6	83,1	-	0,90	-	-	1,6	1,5
CDXM 200/206	CDX 200/206	2,0	1,5	-	-	-	-	35	450	82,4	83,0	82,2	79,5	82,9	83,8	2,06	2,90	-	10,0	4,7	4,3
-	CDX 200/206	2,0	1,5	-	IE3*	-	-	-	-	88,9	88,8	87,2	86,3	88,5	88,4	-	2,48	-	-	4,3	4,1
-	CDX 200/306	3,0	2,2	-	-	-	-	-	-	82,4	83,0	82,2	79,5	82,9	83,8	-	2,90	-	-	4,7	4,3
-	CDX 200/306	3,0	2,2	-	IE3*	-	-	-	-	88,9	88,8	87,2	86,3	88,5	88,4	-	2,48	-	-	4,3	4,1

* Only for 460V

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