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SPECIFICATIONS

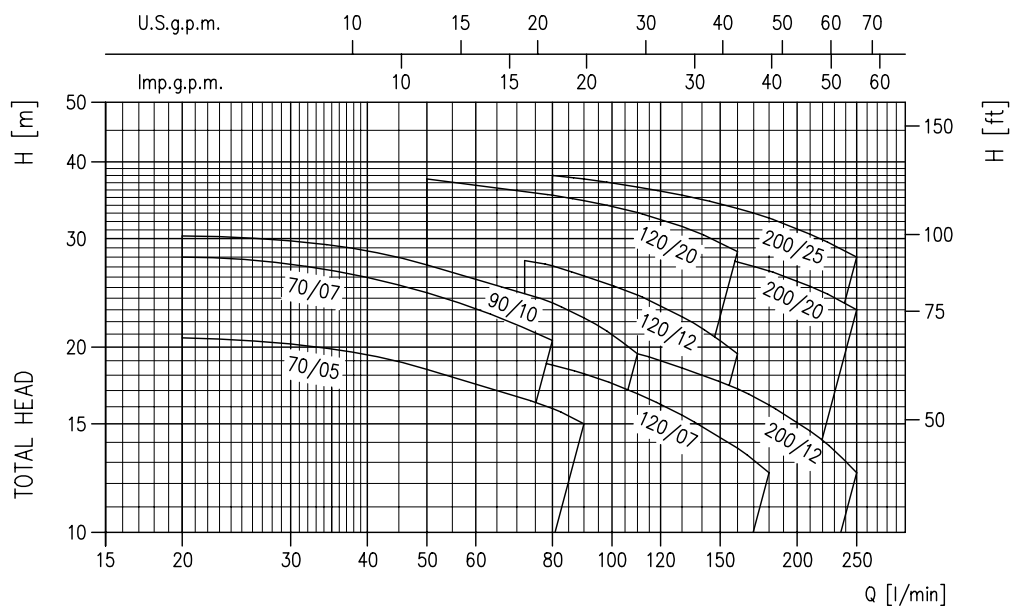
50 Hz

PUMP		
Liquid Handled	Type of liquid	Clean water
	Max temperature [°C]	60 (CDX 70/05-70/07-90/10) 90 110 (CDXH)
	Min temperature [°C]	-10
Maximum working pressure [MPa]		0.8
Construction	Impeller	Closed centrifugal type
	Shaft seal type	Mechanical seal
	Bearing	Sealed ball bearing
Pipe Connection	Suction	G 1¼ (G 1½ CDX200)
	Discharge	G 1
Material	Casing	AISI 304
	Impeller	AISI 304
	Casing cover	AISI 304
	Shaft seal	Ceramic/Carbon/NBR (for CDX) Ceramic/Carbon/FPM (for CDXH) SiC/SiC/FPM (Option)
	Shaft	AISI 303 (Part in contact with liquid)
	Bracket	Aluminium
Applicable standard of test		ISO 9906 – Annex A

MOTOR		
Type	Electric - TEFC	
	Single Phase	Three Phase
No. of Poles	2	
Rotation speed [min ⁻¹]	≈ 2800	
Insulation Class	F	
Protection degree	IP 55	
Power rating	0.37 ÷ 1.5	0.37 ÷ 1.8
	0.5 ÷ 2	0.5 ÷ 2.5
Frequency [Hz]	50	
Voltage [V]	230 ±10%	230/400 ±10%
Capacitor	Built in	-
Over load protection	Built in	Provided by the user
Casing material	Aluminium	
Base material/motor support	Aluminium	
Dimensions of cable entry	PG11 - PG13.5 (see dimensions page 400)	

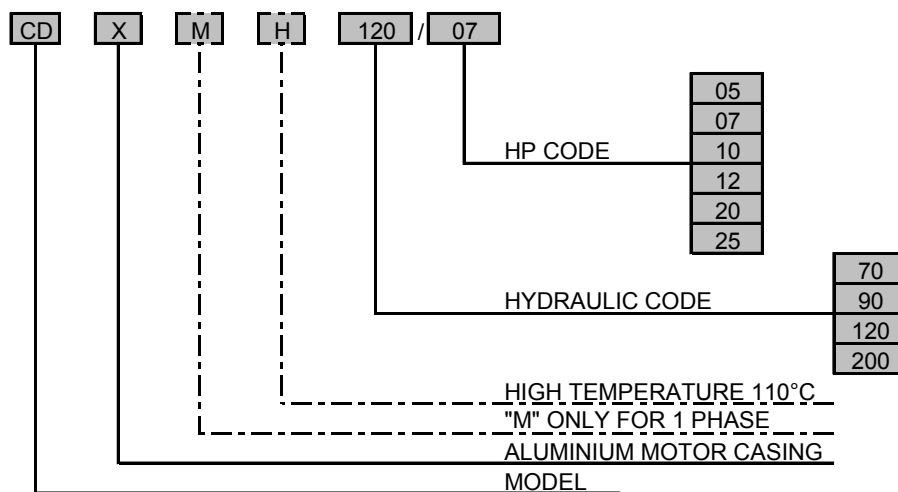
SELECTION CHART

50 Hz



Type pumps		Power		Q=Capacity										
Single Phase 230 V 50 Hz	Three Phase 230/400 V 50 Hz	[kW]	[HP]	l/min 20	50	80	90	110	130	160	180	210	250	
				m³/h 1.2	3	4.8	5.4	6.6	7.8	9.6	10.8	12.6	15	
H=Total manometric head in meters														
CDXM 70/05	CDX 70/05	0.37	0.5	20.7	18.4	15.9	15	-	-	-	-	-	-	-
CDXM 70/07	CDX 70/07	0.55	0.8	28	24.5	20.5	-	-	-	-	-	-	-	-
CDXM 90/10	CDX 90/10	0.75	1	30.3	27.2	23.6	22.3	19.5	-	-	-	-	-	-
CDXM 120/07	CDX 120/07	0.55	0.8	-	20.5	18.7	18.1	16.8	15.5	13.7	12.5	-	-	-
CDXM 120/12	CDX 120/12	0.9	1.2	-	29.5	27.1	26.1	24.3	22.4	19.5	-	-	-	-
CDXM 120/20	CDX 120/20	1.5	2	-	37.5	35.3	34.6	33.1	31.4	28.6	-	-	-	-
CDXM 200/12	CDX 200/12	0.9	1.2	-	-	20.6	20.2	19.5	18.5	17.1	16.1	14.6	12.5	
CDXM 200/20	CDX 200/20	1.5	2	-	-	31	30.6	29.7	28.9	27.5	26.6	25.1	23	
-	CDX 200/25	1.8	2.5	-	-	38	37.5	36.4	35.3	33.6	32.4	30.5	28	

EXAMPLE:

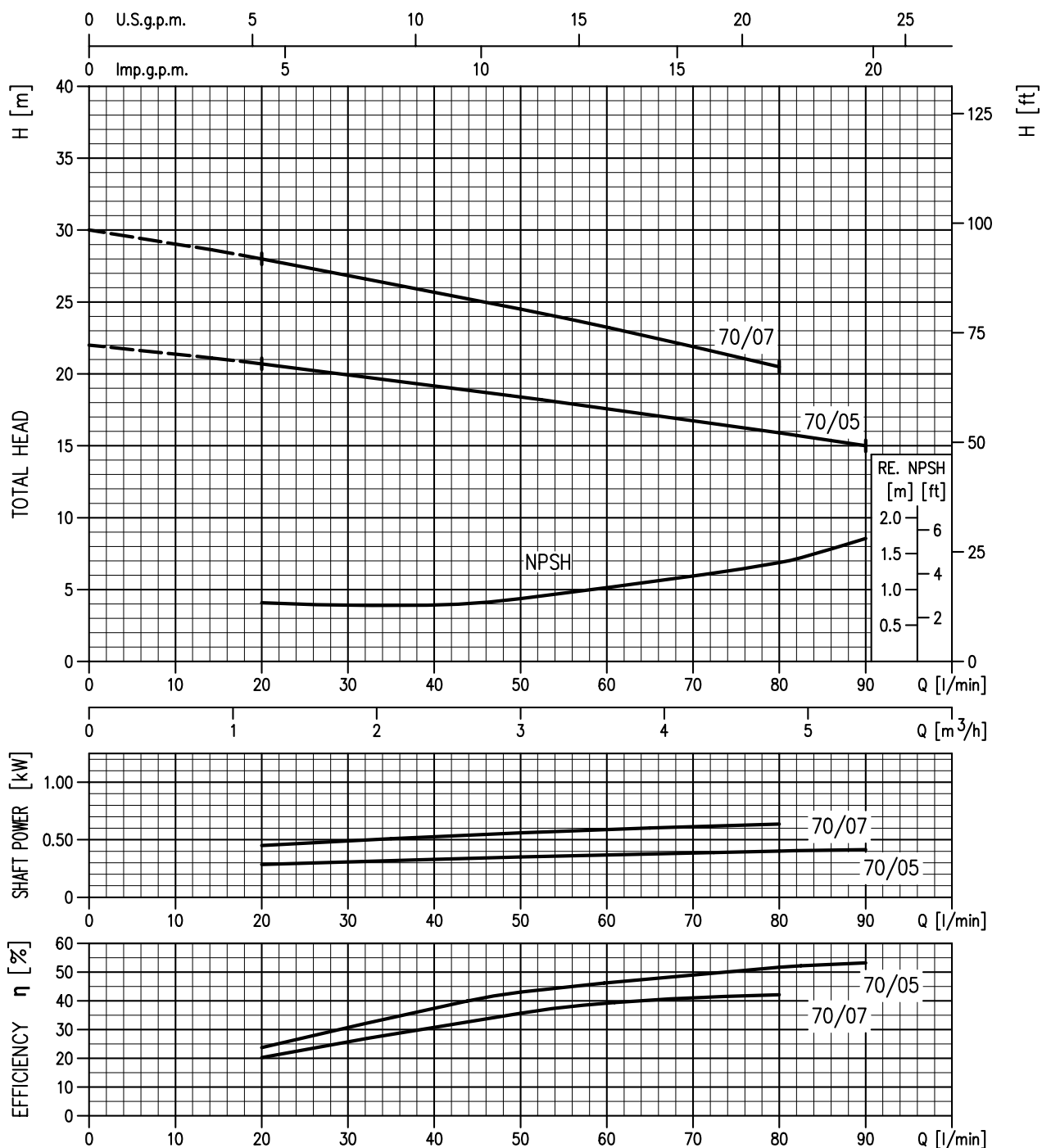


CDX 70 PERFORMANCHE CURVES

50 Hz

CDX 70/05 (0.37 kW) Impeller diameter = 132

CDX 70/07 (0.55 kW) Impeller diameter = 157

Rotation speed: $\approx 2800 \text{ min}^{-1}$

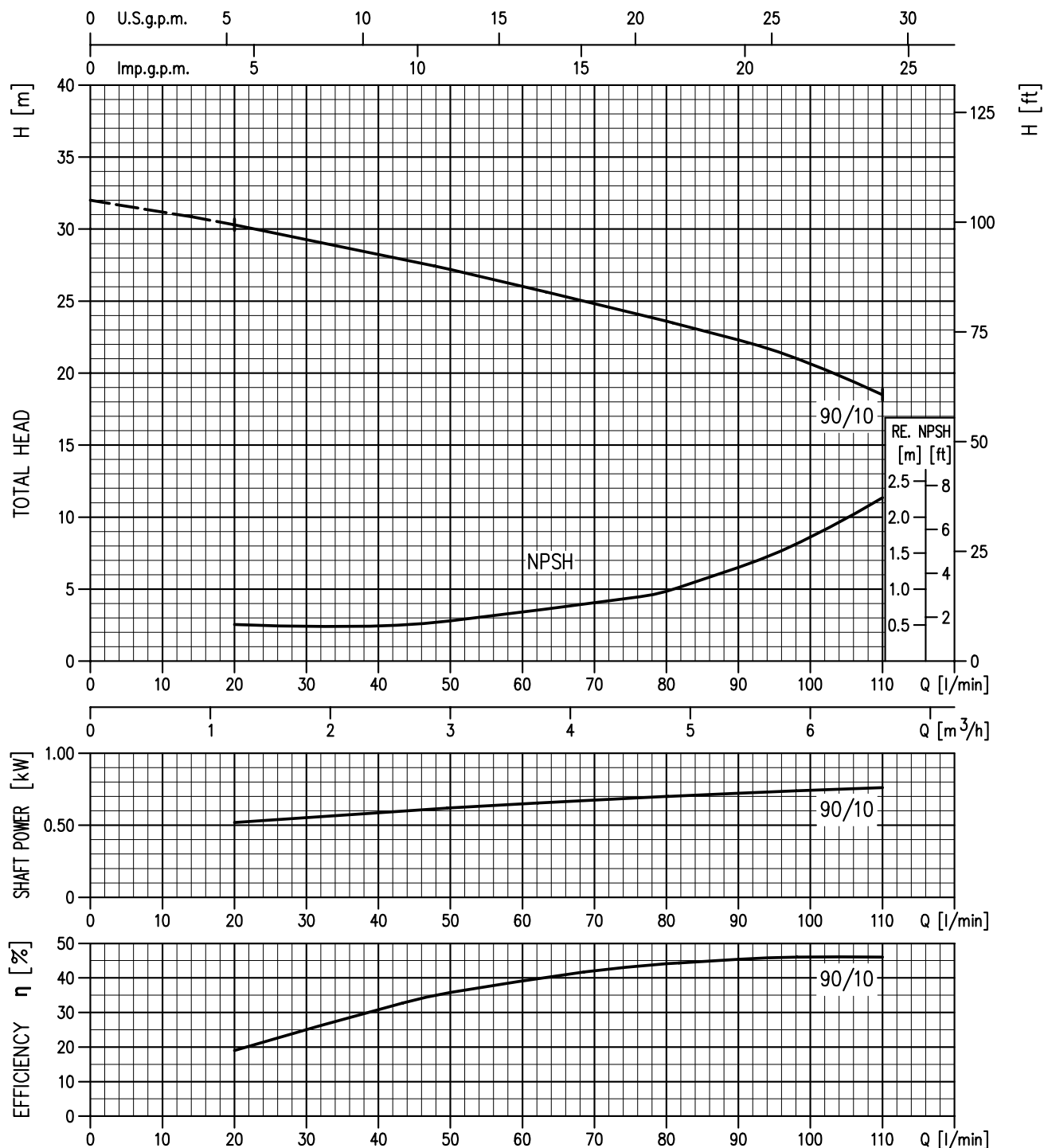
Test fluid: clean water at 20°C

Applicable standard of test: ISO 9906 – Annex A

CDX 90 PERFORMANCE CURVES

50 Hz

CDX 90/10 (0.75 kW) Impeller diameter = 157

Rotation speed: $\approx 2800 \text{ min}^{-1}$ Test fluid: clean water at 20°C

Applicable standard of test: ISO 9906 – Annex A

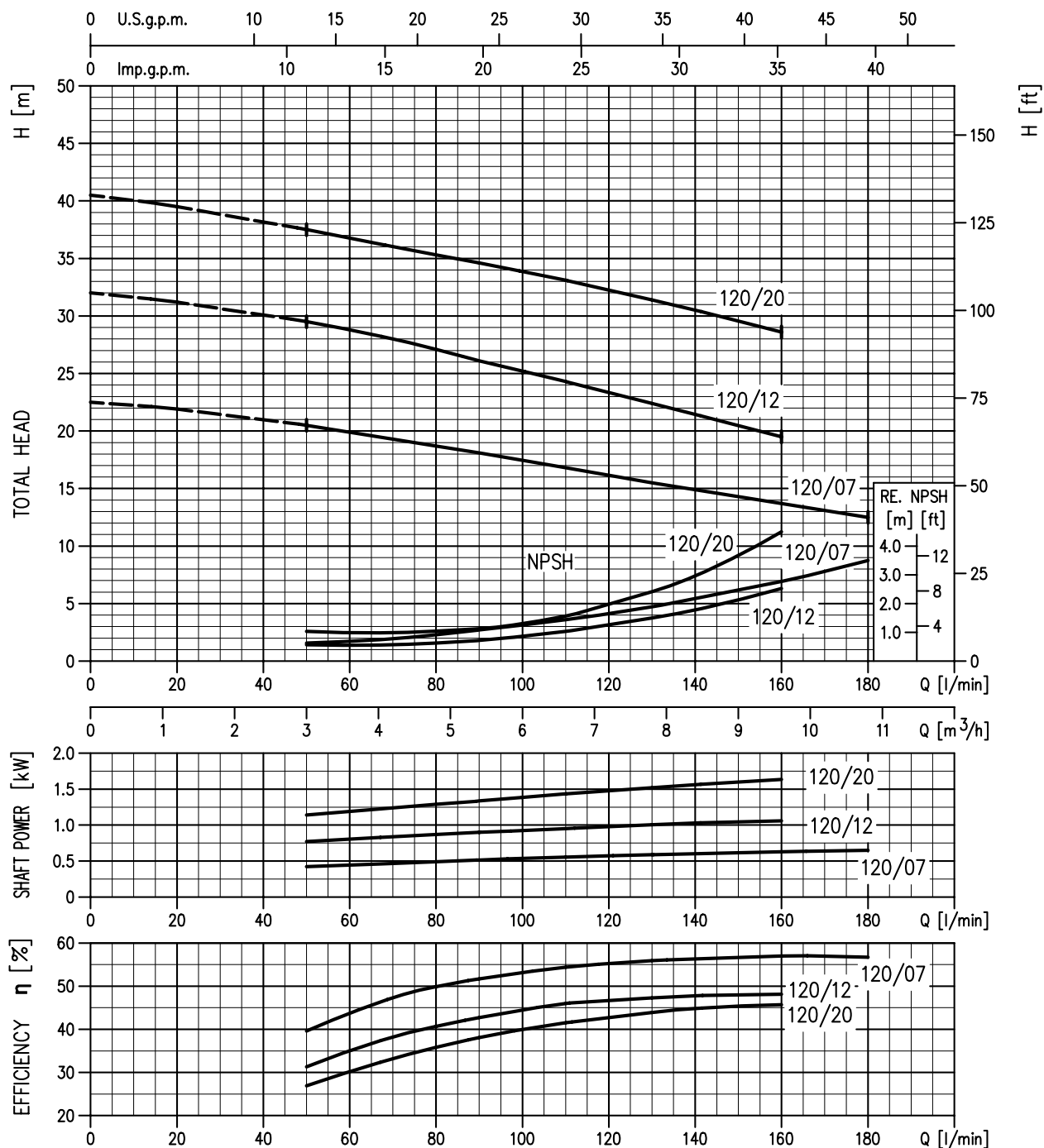
CDX 120 PERFORMANCE CURVES

50 Hz

CDX 120/07 (0.55 kW) Impeller diameter = 132

CDX 120/12 (0.90 kW) Impeller diameter = 157

CDX 120/20 (1.50 kW) Impeller diameter = 176

Rotation speed: $\approx 2800 \text{ min}^{-1}$ Test fluid: clean water at 20°C

Applicable standard of test: ISO 9906 – Annex A

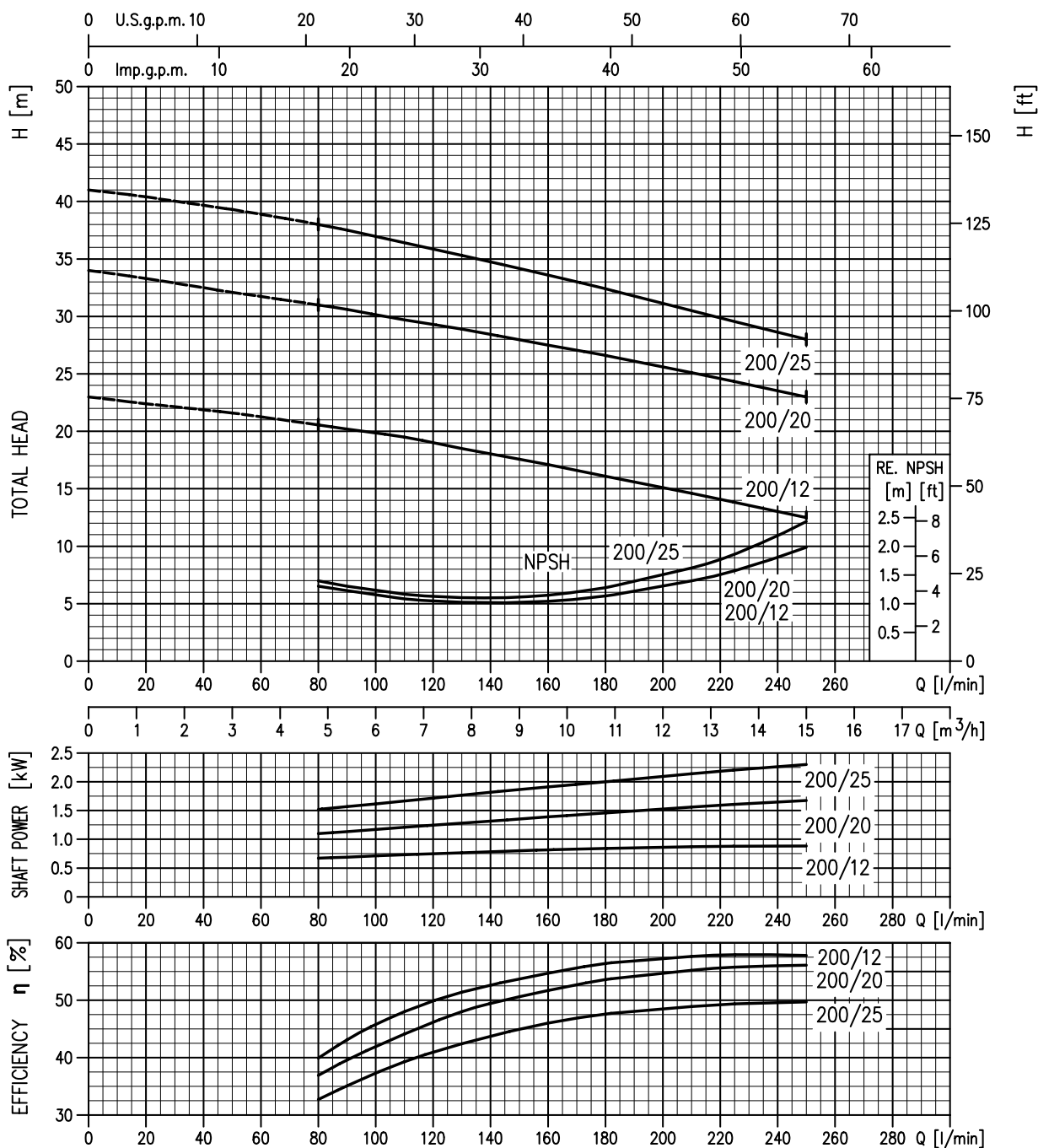
CDX 200 PERFORMANCE CURVES

50 Hz

CDX 200/12 (0.9 kW) Impeller diameter = 132

CDX 200/20 (1.5 kW) Impeller diameter = 157

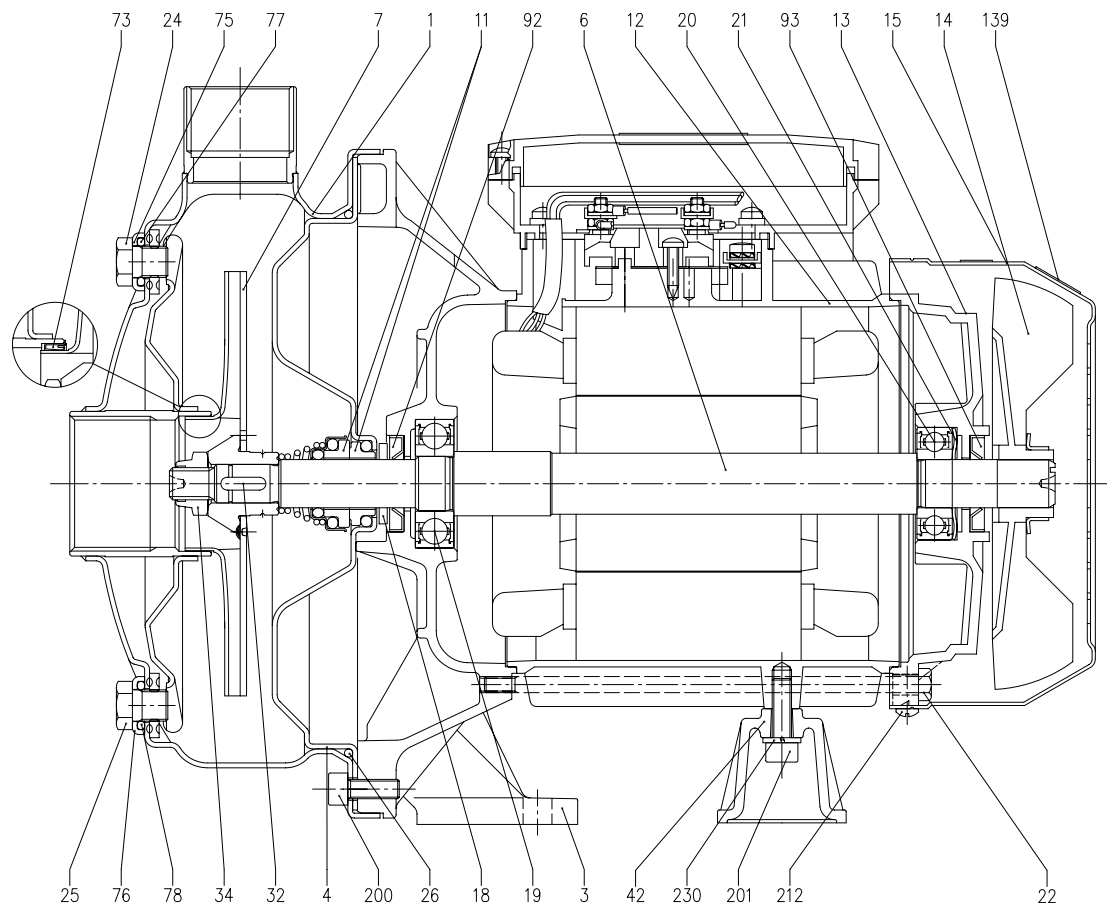
CDX 200/25 (1.8 kW) Impeller diameter = 176

Rotation speed: $\approx 2800 \text{ min}^{-1}$ Test fluid: clean water at 20°C

Applicable standard of test: ISO 9906 – Annex A

SECTIONAL VIEW

50 Hz



N°	PART NAME	MATERIAL	Q.TY	N°	PART NAME	MATERIAL	Q.TY
1	Casing	AISI 304	1	25	Drain plug	AISI 303	1
3	Motor bracket	Aluminium	1	26	O-ring [3]	NBR	1
4	Casing cover	AISI 304	1	32	Key	AISI 304	1
6	Shaft with rotor	AISI 303 (Part in contact with liquid)	1	34	Impeller nut	AISI 304	1
7	Impeller	AISI 304	1	42	Motor support	Aluminium	1
11	Mechanical seal [3] - [4]	Carbon/Ceramic/NBR	1	52	Terminal box [1]	Polypropilene	1
12	Motor frame with stator	-	1	53	Terminal box cover [1]	Polypropilene	1
13	Motor cover	Aluminium	1	56	Box gasket	NBR	1
14	Fan	Polypropilene	1	73	Casing ring [5]	AISI 304	1
15	Fan cover	Fe P04 Zinked	1	75	Washer	AISI 304	1
16	Terminal board	-	1	76	Washer	AISI 304	1
17	Terminal box cover [2]	Aluminium	1	77	O-ring [3]	NBR	1
18	Splash ring	NBR	1	78	O-ring [3]	NBR	1
19	Pump side ball bearing	-	1	90	Cover gasket [1]	NBR	1
20	Fan side ball bearing	-	1	92	Lip seal	-	1
21	Adjusting ring	Steel C70	1	93	Lip seal	-	1
22	Tie rod	Fe 42 Zinked	4	110	Protector [1]	-	1
23	Capacitor [1]	-	1	200	Screw	Stainless steel A2 UNI7323	8
24	Priming plug	AISI 303	1				

[1] Only for single phase

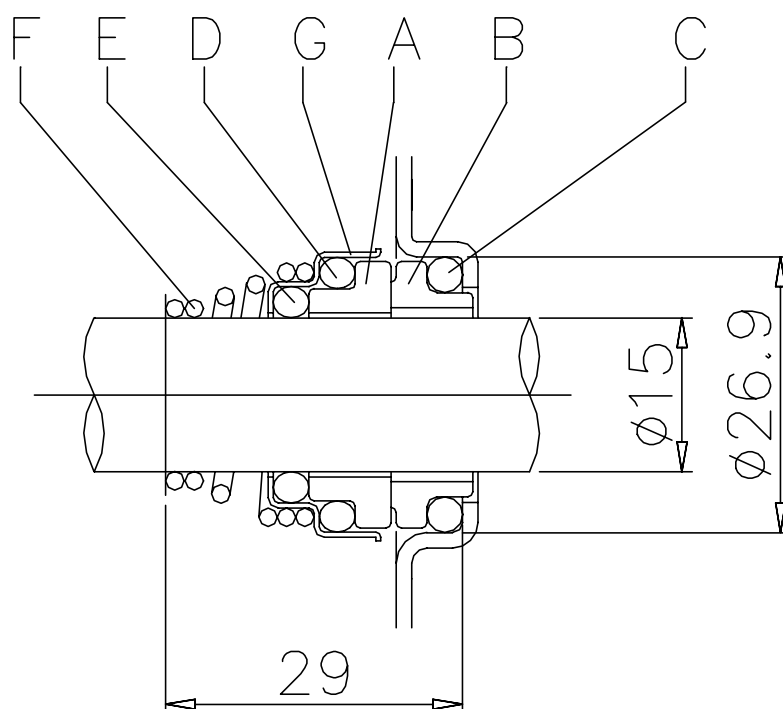
[2] Only for three phase

[3] FPM for CDXH

[4] Special version: see page 301

[5] NBR for CDX 70/05, 70/07, 90/10

FPM for CDXH 70/05, 70/07, 90/10



REF	PART NAME	CDX standard version	MATERIAL	
			CDXH hot water pump 110 °C max	OPTIONAL
A	Rotary seal ring	Ceramic	Ceramic	SiC
B	Stationary seal ring	Carbon graphite	Carbon graphite	SiC
C	O Ring	NBR	FPM	FPM
D	O Ring	NBR	FPM	FPM
E	O Ring	NBR	FPM	FPM
F	Self driving spring	AISI 316	AISI 316	AISI 316
G	Frame	AISI 304	AISI 304	AISI 316

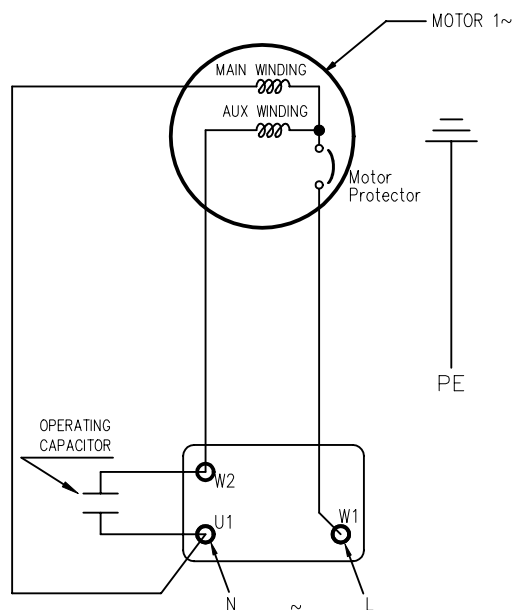
SINGLE PHASE DIAGRAM AND ELECTRIC CONNECTIONS

50 Hz

FOR MOTORS WITH LOCKED ROTOR CURRENT

UP TO 25 [A]

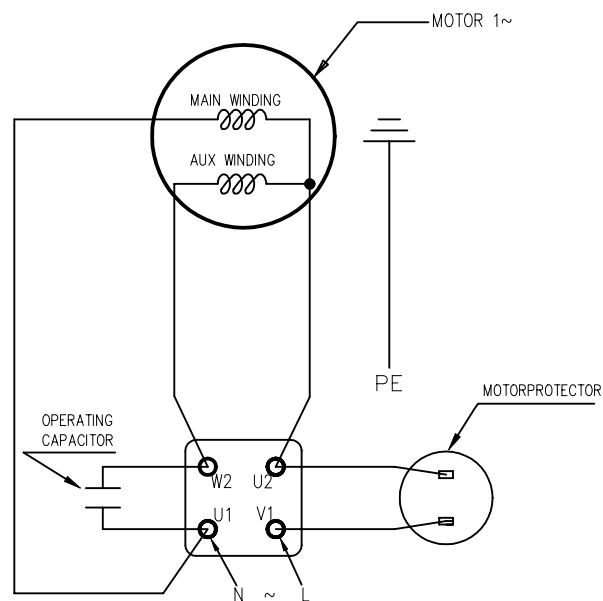
INTERNAL MOTORPROTECTOR



FOR MOTORS WITH LOCKED ROTOR CURRENT

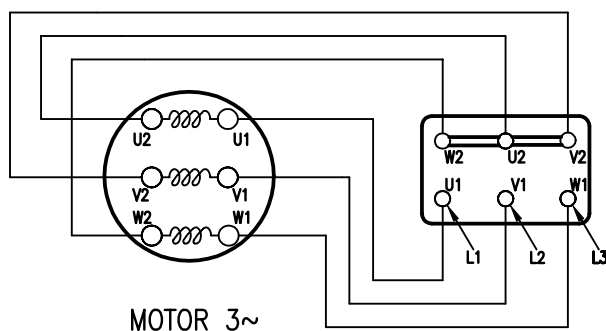
OVER 25 [A]

EXTERNAL MOTORPROTECTOR

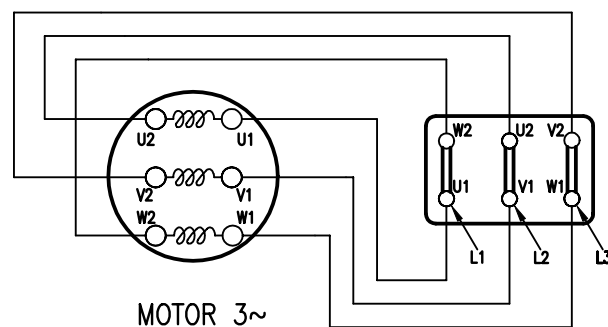


PUMP	MOTORPROTECTOR	
	INTERNAL	EXTERNAL
CDXM 70/05	X	
CDXM 70/07	X	
CDXM 90/10	X	
CDXM 120/07	X	
CDXM 120/12	X	
CDXM 120/20		X
CDXM 200/12	X	
CDXM 200/20		X

STAR CONNECTION (400 V)

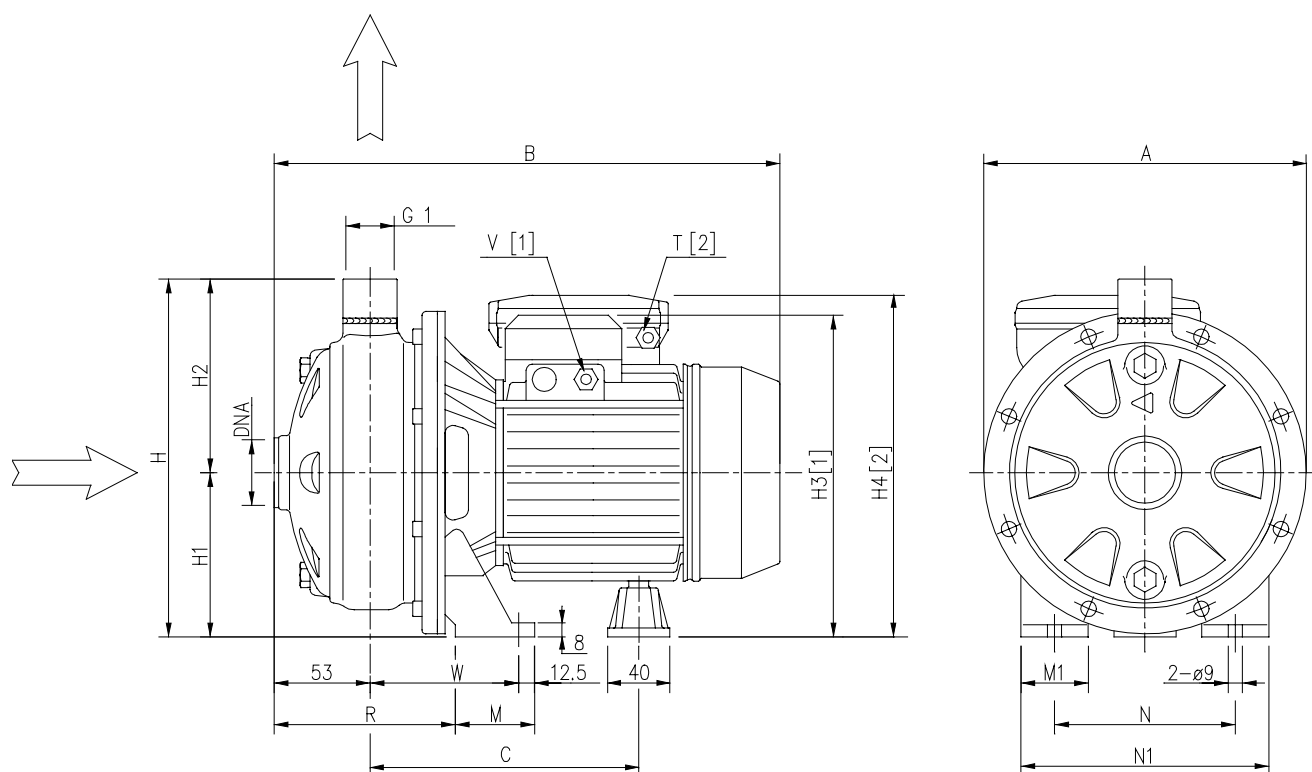


DELTA CONNECTION (230 V)

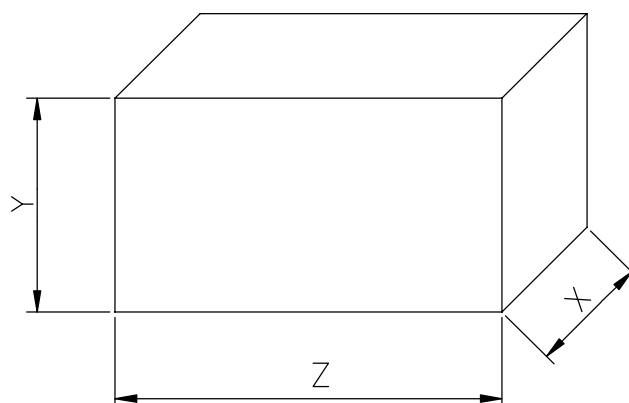


DIMENSIONS

50 Hz



Pump type CDXM-CDX	Dimensions [mm]																
	A	B		C	H	H1	H2	H3	H4	M	M1	N	N1	R	T	W	DNA
		[1]	[2]														
70/05	208	318	318	178	229.5	106	123.5	209	215	50	38	120	160	108	PG11	92.5	G1 1/4
70/07	208	318	318	178	229.5	106	123.5	209	215	50	38	120	160	108	PG11	92.5	G1 1/4
90/10	208	318	318	178	229.5	106	123.5	209	215	50	38	120	160	108	PG11	92.5	G1 1/4
120/07	208	318	318	178	229.5	106	123.5	209	215	50	38	120	160	108	PG11	92.5	G1 1/4
120/12	208	318	318	178	229.5	106	123.5	209	215	50	38	120	160	108	PG13.5	92.5	G1 1/4
120/20	232	345	345	199	250	118	132	235	253	55	40	140	180	105.5	PG13.5	95	G1 1/4
200/12	208	318	318	178	229.5	106	123.5	209	215	50	38	120	160	108	PG13.5	92.5	G1 1/2
200/20	208	345	345	199	229.5	106	123.5	223	240	55	40	140	180	105.5	PG13.5	95	G1 1/2
200/25	232	345	-	199	250	118	132	235	-	55	40	140	180	105.5	-	95	G1 1/2



Type pumps		PACKING [mm]			WEIGHT [kg]	
Single Phase	Three Phase	X	Y	Z	Single Phase	Three Phase
CDXM 70/05	CDX 70/05	227	280	335	9.1	9.1
CDXM 70/07	CDX 70/07	227	280	335	10.4	10.4
CDXM 90/10	CDX 90/10	227	280	335	11.9	11.9
CDXM 120/07	CDX 120/07	227	280	335	10.4	10.4
CDXM 120/12	CDX 120/12	227	280	335	12.5	12.5
CDXM 120/20	CDX 120/20	245	315	360	17.2	16.2
CDXM 200/12	CDX 200/12	218	280	332	16.3	11.4
CDXM 200/20	CDX 200/20	250	315	375	15.3	14.2
-	CDX 200/25	245	305	380	-	17

TECHNICAL DATA

50 Hz

Type pumps		Power		Locked rotor current			Capacitor		Power input [kW]		Full load current [A]		
Single Phase 230 V 50 Hz	Three Phase 230/400 V 50 Hz	[kW]	[HP]	Single Phase 230 V 50 Hz	Three Phase 230 V 50 Hz	400 V 50 Hz	Single Phase [μF]	Vc [V]	Single Phase	Three Phase	Single Phase	Three Phase 230 V	400 V
CDXM 70/05	CDX 70/05	0.37	0.5	10.1	10.7	6.15	12.5	450	0.7	0.7	3.1	2.4	1.4
CDXM 70/07	CDX 70/07	0.55	0.75	16.1	16.8	9.7	16	450	1	1	4.6	3.5	2
CDXM 90/10	CDX 90/10	0.75	1	22.7	24.1	13.9	20	450	1.2	1.1	5.6	4	2.3
CDXM 120/07	CDX 120/07	0.55	0.75	16.1	16.8	9.7	16	450	1	1	4.6	3.2	1.9
CDXM 120/12	CDX 120/12	0.9	1.2	25	28.2	16.3	31.5	450	1.6	1.6	6.9	5.2	3
CDXM 120/20	CDX 120/20	1.5	2	43	41.6	24	40	450	2.1	2.1	9.3	7	4
CDXM 200/12	CDX 200/12	0.9	1.2	25	28.2	16.3	31.5	450	1.4	1.3	6.3	4.7	2.7
CDXM 200/20	CDX 200/20	1.5	2	43	41.6	24	40	450	2.3	2.1	10.7	7	4
-	CDX 200/25	1.8	2.5	-	46.8	27	-	-	-	2.8	-	8.2	4.8

Type pumps		Ball Bearing	
Single Phase 230 V 50 Hz	Three Phase 230/400 V 50 Hz	Pump side	Fan side
CDXM 70/05	CDX 70/05	6203 ZZ	6202 ZZ
CDXM 70/07	CDX 70/07	6203 ZZ	6202 ZZ
CDXM 90/10	CDX 90/10	6203 ZZ	6202 ZZ
CDXM 120/07	CDX 120/07	6203 ZZ	6202 ZZ
CDXM 120/12	CDX 120/12	6203 ZZ	6202 ZZ
CDXM 120/20	CDX 120/20	6204 ZZ	6203 ZZ
CDXM 200/12	CDX 200/12	6203 ZZ	6202 ZZ
CDXM 200/20	CDX 200/20	6204 ZZ	6203 ZZ
-	CDX 200/25	6204 ZZ	6203 ZZ