



EBARA

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SPECIFICATIONS

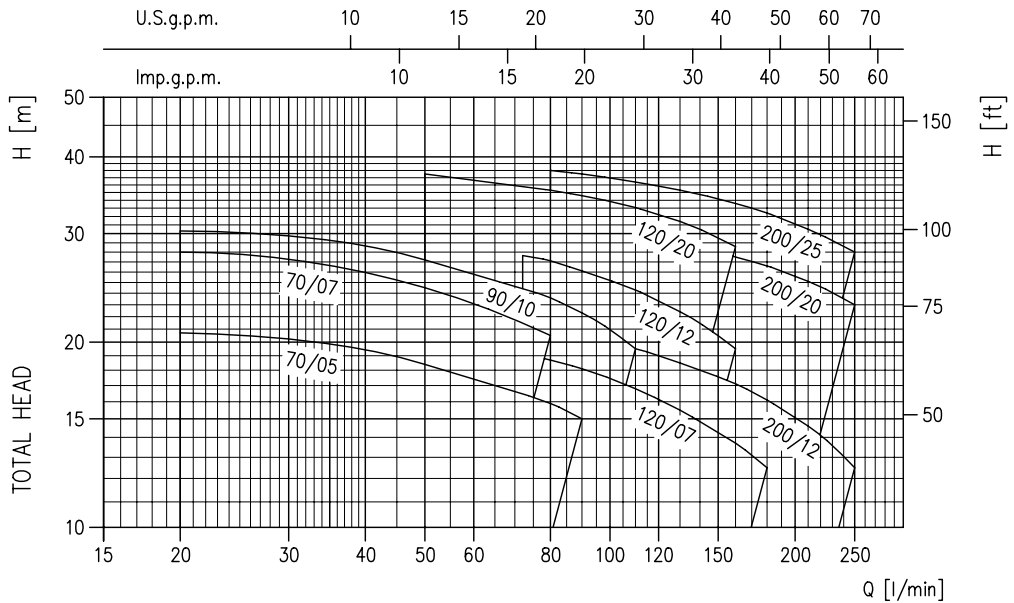
50 Hz

| PUMP | | |
|--------------------------------|----------------------|--|
| Liquid Handled | Type of liquid | Clean water |
| | Max temperature [°C] | 60 (CDX 70/05-70/07-90/10) 90 110 (CDXH and CDXHS) |
| | 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 (for CDXHS) |
| | Shaft | AISI 303 (Wet extension) |
| | 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 | [kW] | 0.37 ÷ 1.5 |
| | [HP] | 0.5 ÷ 2 |
| 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) | |

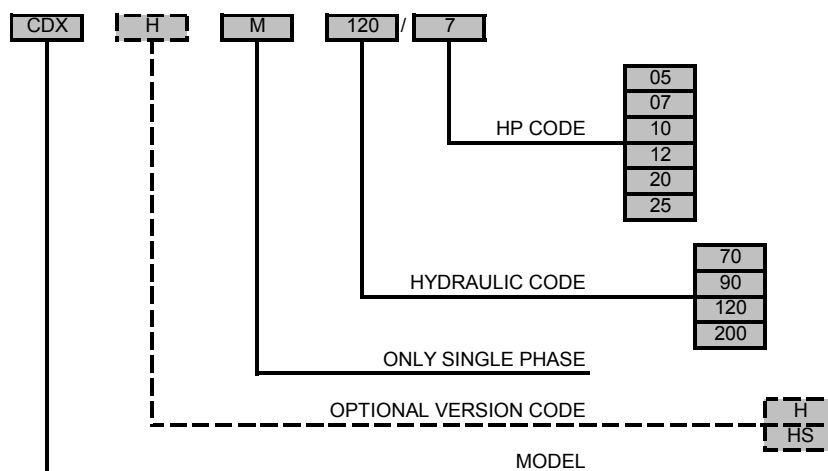
SELECTION CHART

50 Hz



| Type pumps | | Power | | Q=Capacity | | | | | | | | | | |
|-----------------------------------|-------------|-------|------|------------|------|------|------|------|------|------|------|------|------|-----|
| Single Phase | Three Phase | [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 | |

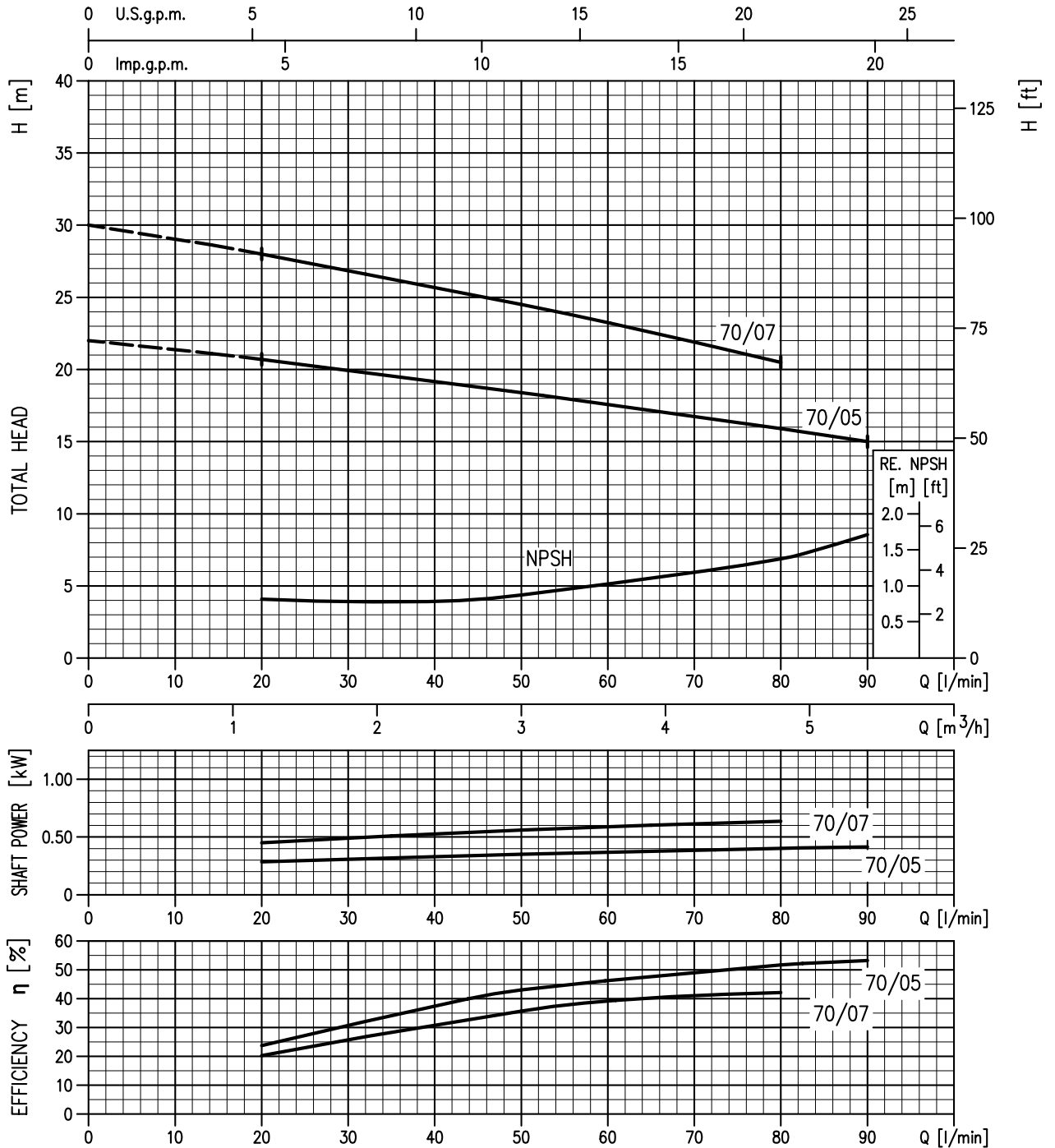
TYPE KEY:



CDX 70 PERFORMANCHE CURVES

50 Hz

CDX 70/05 (0.37 kW) Impeller diameter = 132
 CDX 70/07 (0.55 kW) Impeller diameter = 157

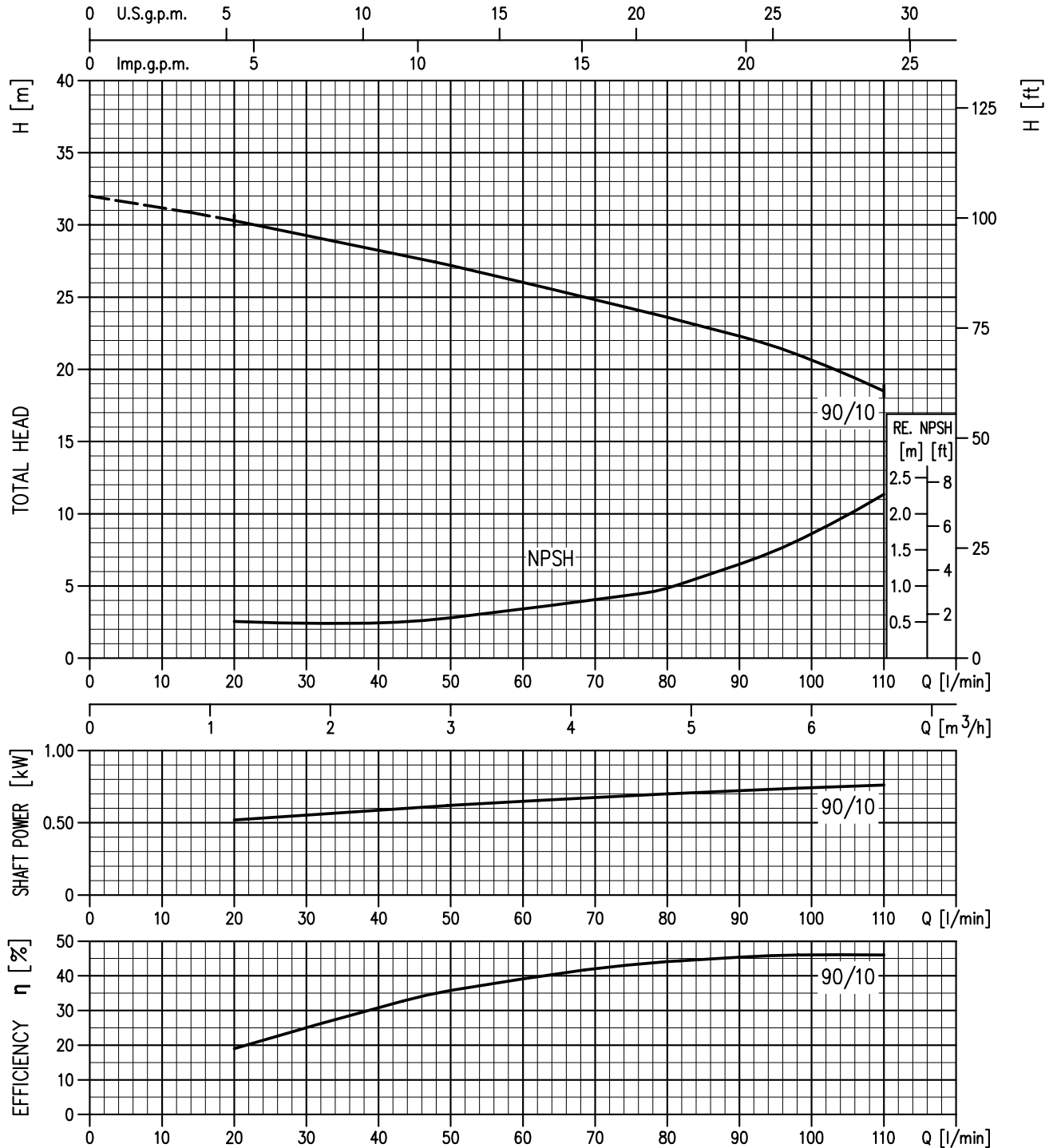


Rotation speed: $\approx 2800 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 – Annex A

CDX 90 PERFORMANCHE CURVES

50 Hz

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

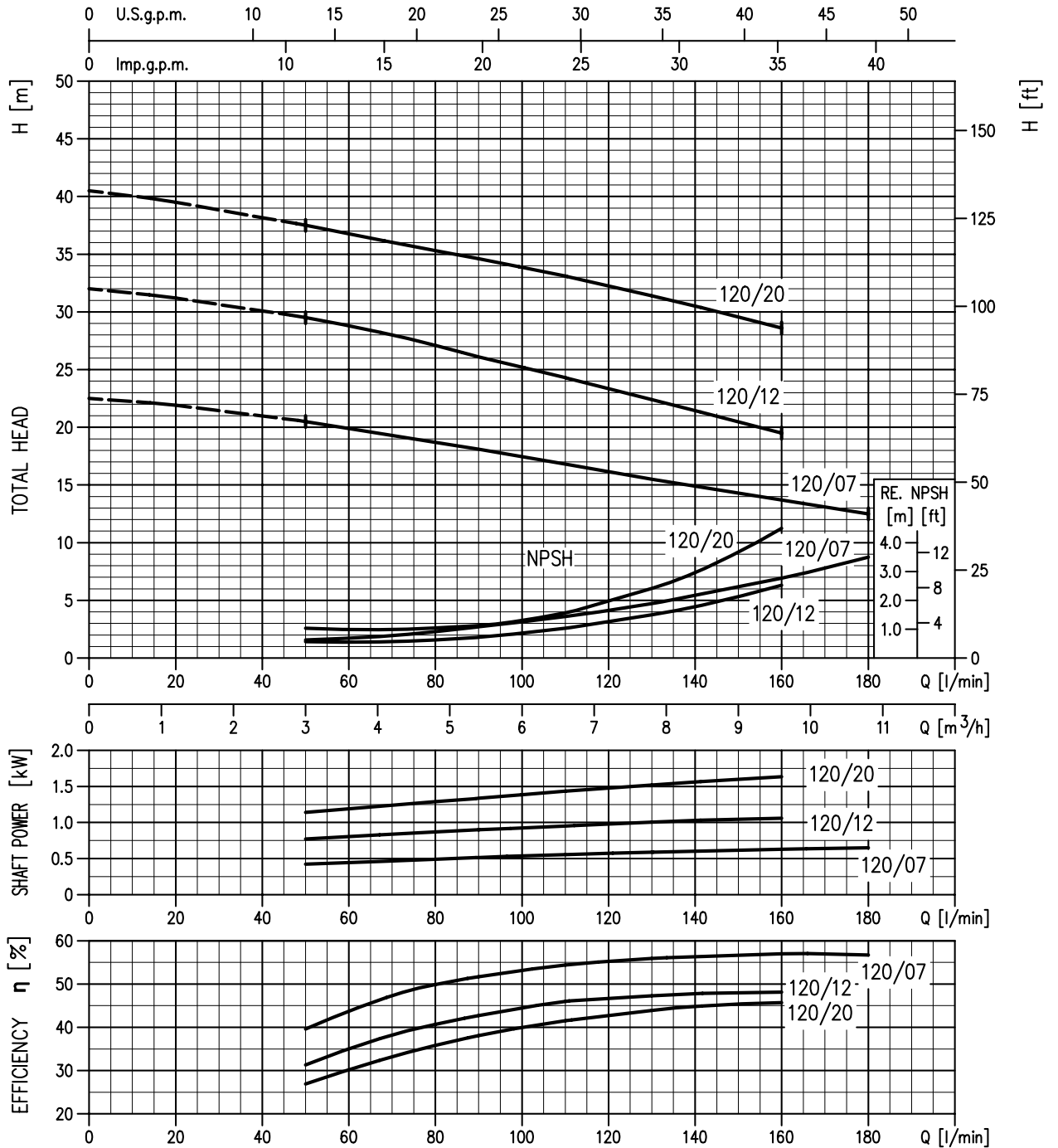


Rotation speed: $\approx 2800 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 – Annex A

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

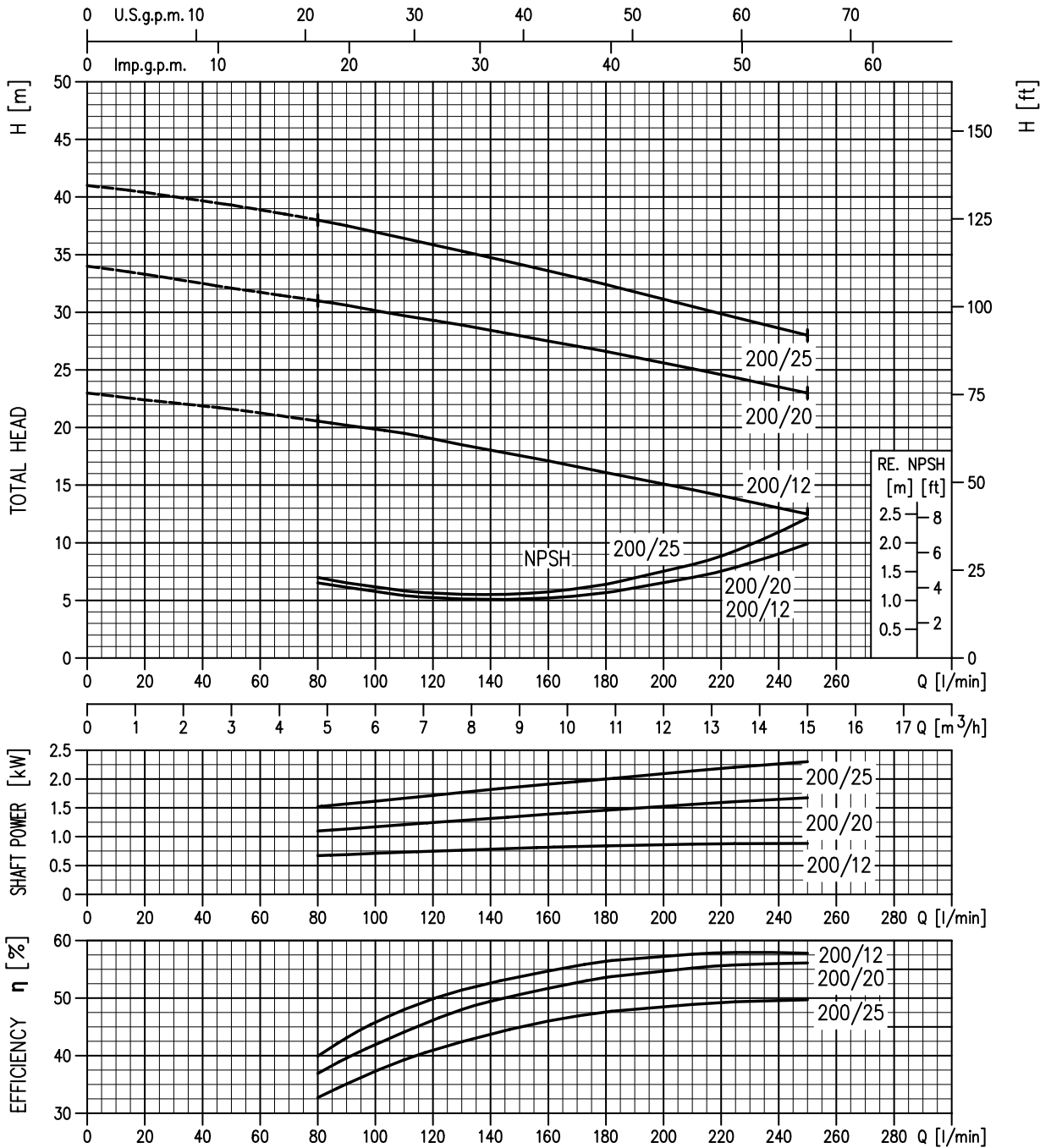


Rotation speed: $\approx 2800 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 – Annex A

CDX 200 PERFORMANCHE CURVES

50 Hz

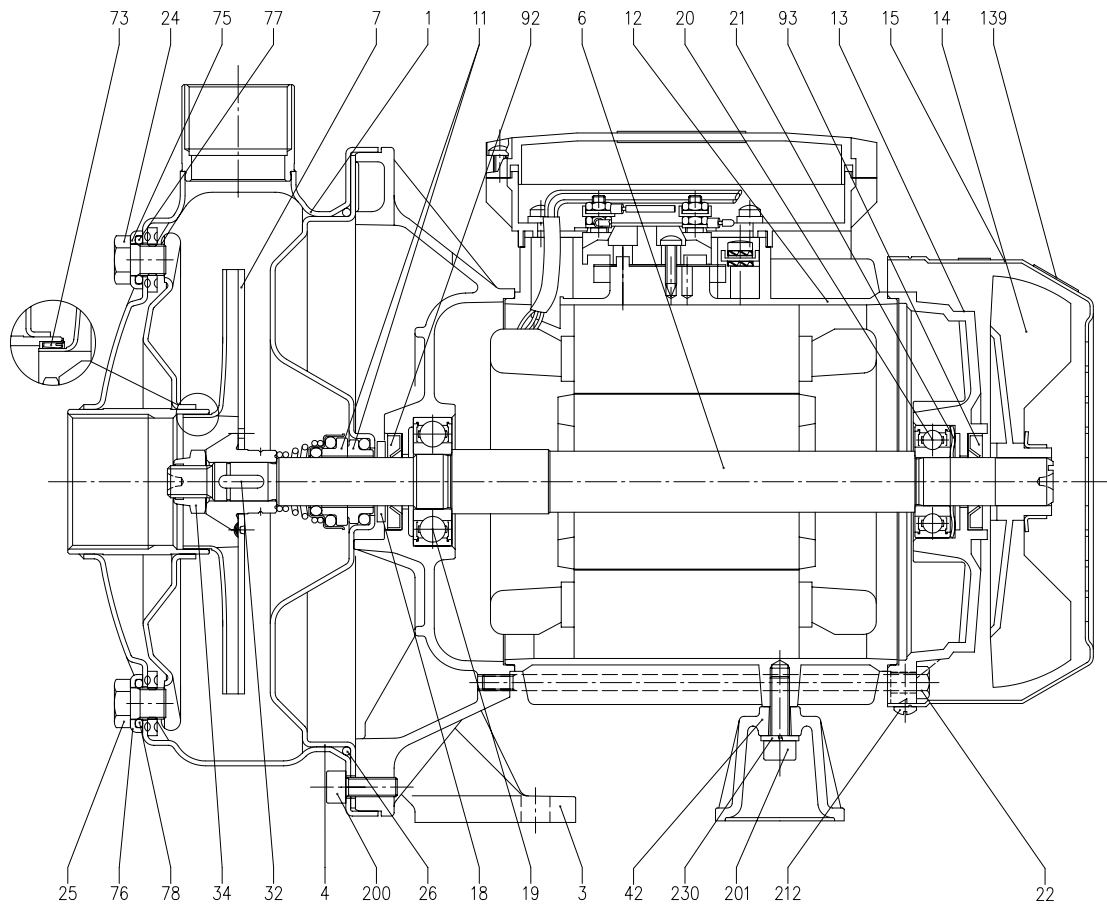
CDX 200/12 (0.9 kW) Impeller diameter = 132
 CDX 200/20 (1.5 kW) Impeller diameter = 157
 CDX 200/25 (1.8 kW) Impeller diameter = 176



Rotation speed: $\approx 2800 \text{ min}^{-1}$
 Test fluid: clean water at 20°C
 Applicable standard of test: ISO 9906 – Annex A

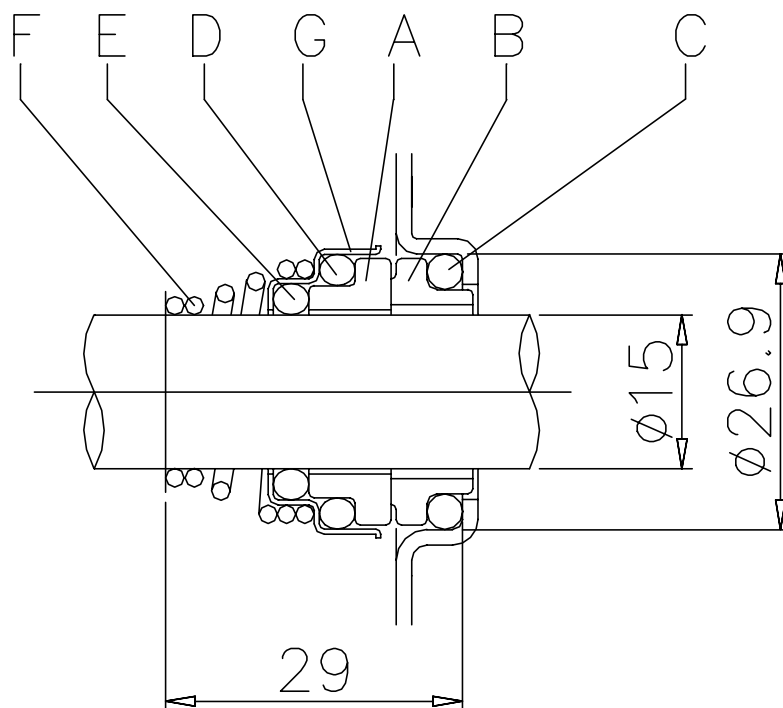
SECTIONAL VIEW

50 Hz



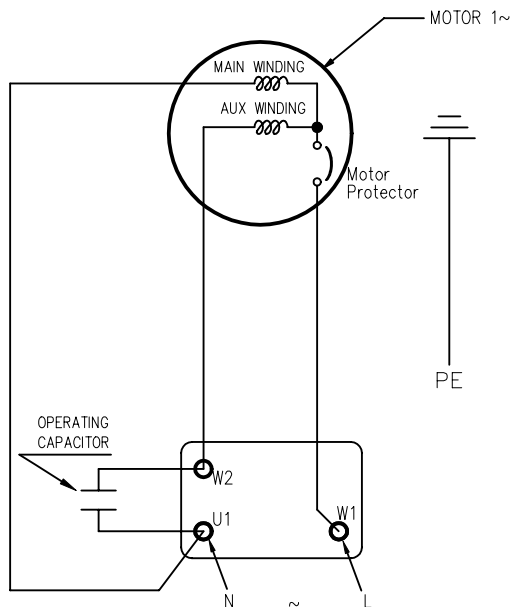
| N° | PART NAME | MATERIAL | Q.TY | N° | PART NAME | MATERIAL | Q.TY |
|----|-------------------------|--|------|-----|------------------------|----------------------------|------|
| 1 | Casing | AISI 304 | 1 | 25 | Drain plug | AISI 303 | 1 |
| 3 | Motor bracket | Aluminium | 1 | 26 | O-ring [3] | 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] | 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 [4] | 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 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

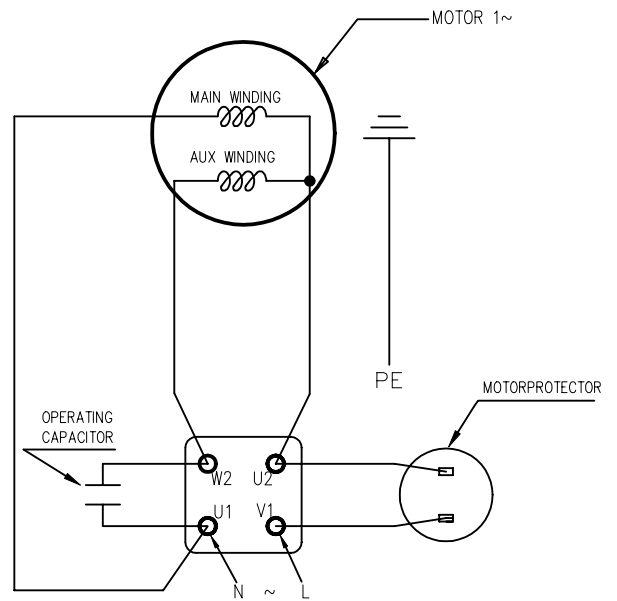


| REF | PART NAME | MATERIAL | | |
|-----|----------------------|---------------------------|--------------------|---------------------|
| | | Standard version (CDX) | Optional (CDXH) | Optional (CDXHS) |
| A | Rotary seal ring | Ceramic | Ceramic | Silicon carbide |
| B | Stationary seal ring | Carbon graphite | Carbon graphite | Silicon carbide |
| 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 |

FOR MOTORS WITH LOCKED ROTOR CURRENT
UP TO 25 [A]
INTERNAL MOTORPROTECTOR

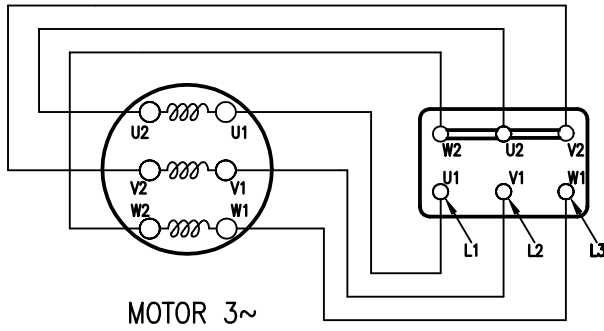


FOR MOTORS WITH LOCKED ROTOR CURRENT
OVER 25 [A]
EXTERNAL MOTORPROTECTOR

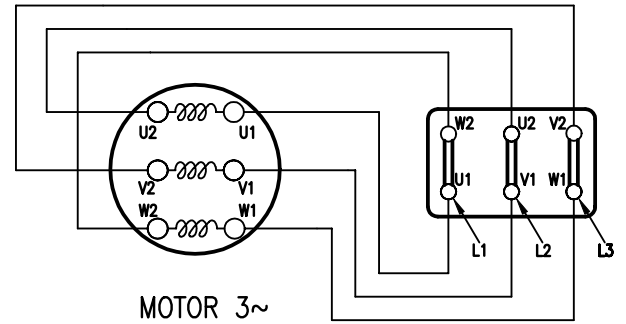


| PUMP | MOTORPROTECTOR | |
|-------------|----------------|----------|
| | INTERNAL | EXTERNAL |
| CDXM 70/05 | X | |
| CDXM 70/07 | X | |
| CDXM 90/10 | X | |
| CDXM 120/07 | X | |
| CDXM 120/12 | X | |
| CDXM 120/20 | | X |
| CDXM 200/12 | X | |
| CDXM 200/20 | | X |

STAR CONNECTION (400 V)

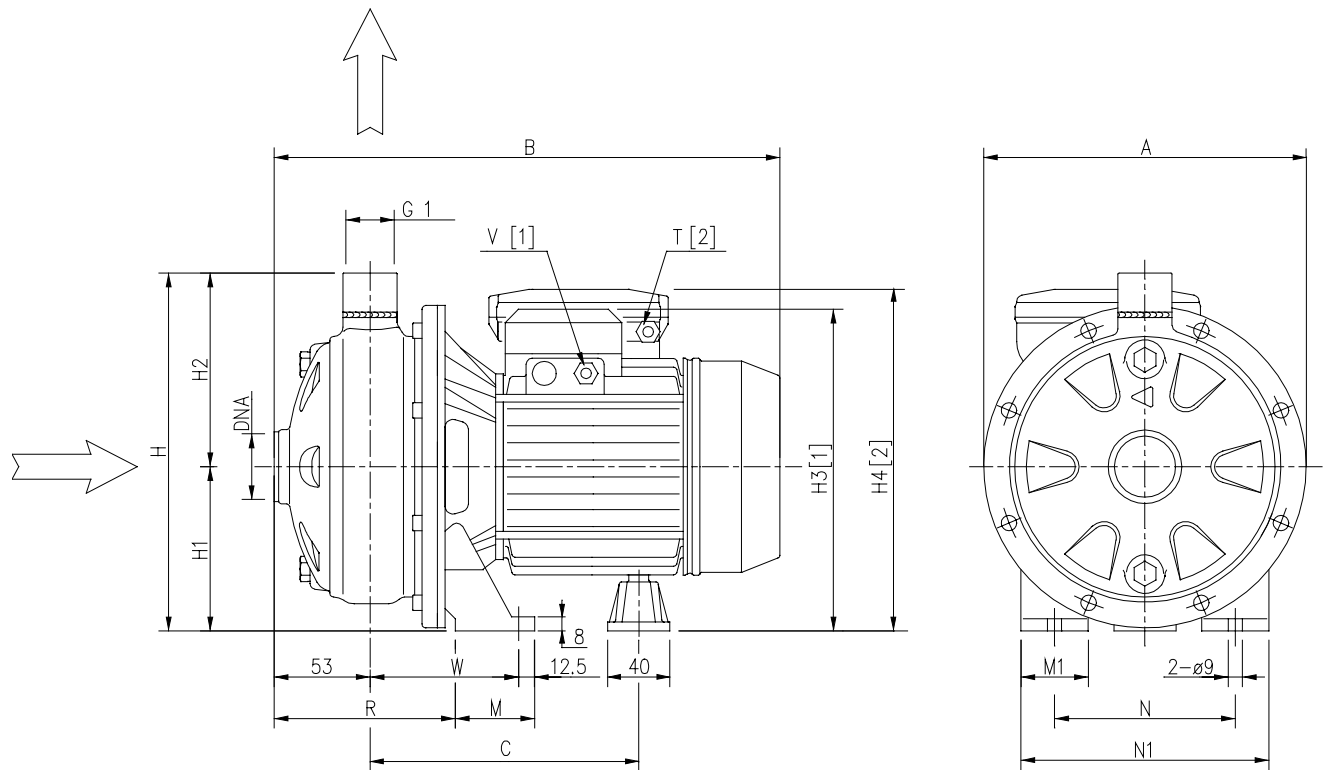


DELTA CONNECTION (230 V)

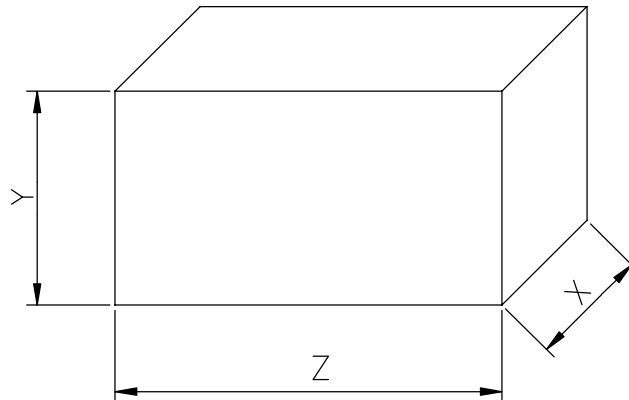


DIMENSIONS

50 Hz



| Pump type CDXM-CDX | Dimensions [mm] | | | | | | | | | | | | | | | | |
|-----------------------|-----------------|-----|-----|-----|-------|-----|-------|-----|-----|----|----|-----|-----|-------|--------|------|--------|
| | A | B | | C | H | H1 | H2 | H3 | H4 | M | M1 | N | N1 | R | T | W | DNA |
| 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 |