

EBARA

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SPECIFICATION

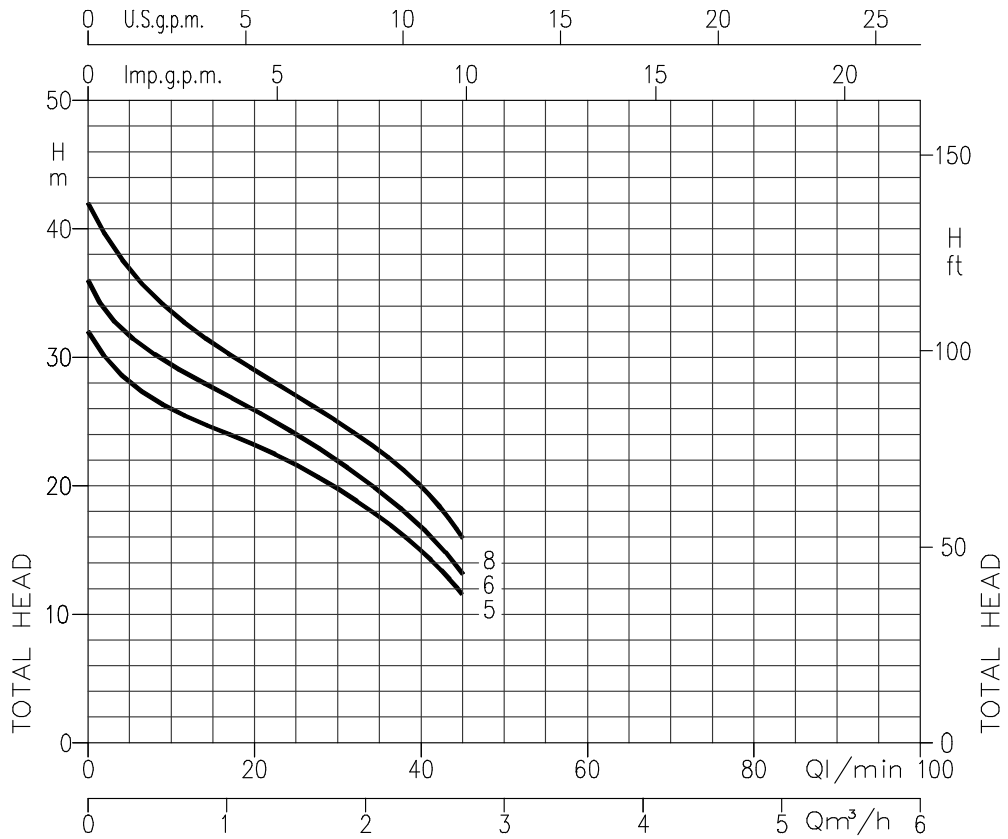
50Hz

Rev. G

| PUMP | | |
|-----------------------------|-------------------------------|-------------------------------|
| Liquid Handled | Type of liquid | Clean water |
| | Temperature [°C] | min. +5 max. +45 |
| Maximum working pressure | [MPa] | 0.6 |
| Maximum suction depth | [m] | 8 |
| Construction | Impeller | Closed centrifugal type |
| | Shaft seal type | Mechanical seal |
| | Bearing | Sealed ball bearing |
| Pipe Connection | Suction [inch] | G 1" UNI ISO 228 |
| | Discharge [inch] | G 1" UNI ISO 228 |
| Material | Casing | AISI 304 |
| | Impeller | PPE+PS glass fibre reinforced |
| | Casing cover | AISI 304 |
| | Shaft seal | Ceramic/Carbon/NBR |
| | Shaft | AISI 303 (Wet extension) |
| | Stages | - |
| | Ejector | PPE+PS glass fibre reinforced |
| | Bracket | Aluminium |
| Diffuser | PPE+PS glass fibre reinforced | |
| Applicable standard of test | | ISO 9906:2012 – Grade 3B |

| MOTOR | | |
|-------------------------------------|---------------------------------|----------------------|
| Type | Electric - TEFC | |
| | Single Phase | Three Phase |
| No. of Poles | 2 | |
| Rotation speed [min ⁻¹] | ≈ 2800 | |
| Insulation Class | F | |
| Protection degree (CEI EN 60034-5) | IP 54 IP 55 (on request) | |
| Power rating [kW] | 0.37 ÷ 0.6 | |
| [HP] | 0.5 ÷ 0.8 | |
| 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 | |
| Motor support | Aluminium | |
| Dimensions of cable entry | PG 11 (see dimensions page 400) | |

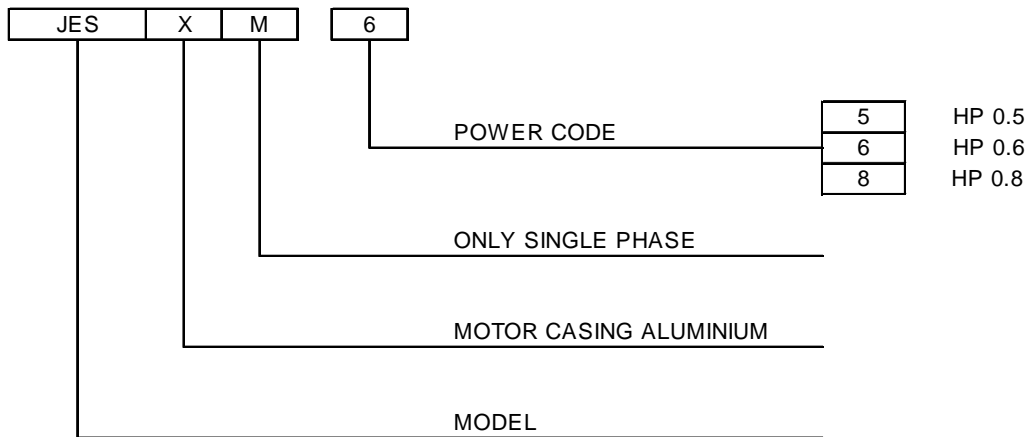
PERFORMANCE RANGE



SELECTION CHART

| Pump Type | | Power | | Q=Capacity | | | | |
|--------------|-------------|-------|------|-----------------------------------|------|-----|-----|------|
| Single Phase | Three Phase | [kW] | [HP] | l/min | 5 | 20 | 40 | 45 |
| | | | | m³/h | 0.3 | 1.2 | 2.4 | 2.7 |
| | | | | H=Total manometric head in meters | | | | |
| JESXM5 | JESX 5 | 0.37 | 0.5 | 32 | 28 | 23 | 15 | 11.5 |
| JESXM 6 | JESX 6 | 0.44 | 0.6 | 36 | 31.5 | 26 | 17 | 13.5 |
| JESXM 8 | JESX 8 | 0.6 | 0.8 | 42 | 37 | 29 | 20 | 16 |

TYPE KEY



PERFORMANCE CURVE SPECIFICATIONS

The specifications below qualify the curves shown on the following pages.

Tolerances according to ISO 9906:2012 – Grade 3B

The curves refer to effective speed of asynchronous motors at 50 Hz, 2 poles.

Measurements were carried out with clean water at 20°C of temperature and with a kinematic viscosity of $\nu = 1 \text{ mm}^2/\text{s}$ (1 cSt)

The NPSH curve is an average curve obtained in the same conditions of performance curves.

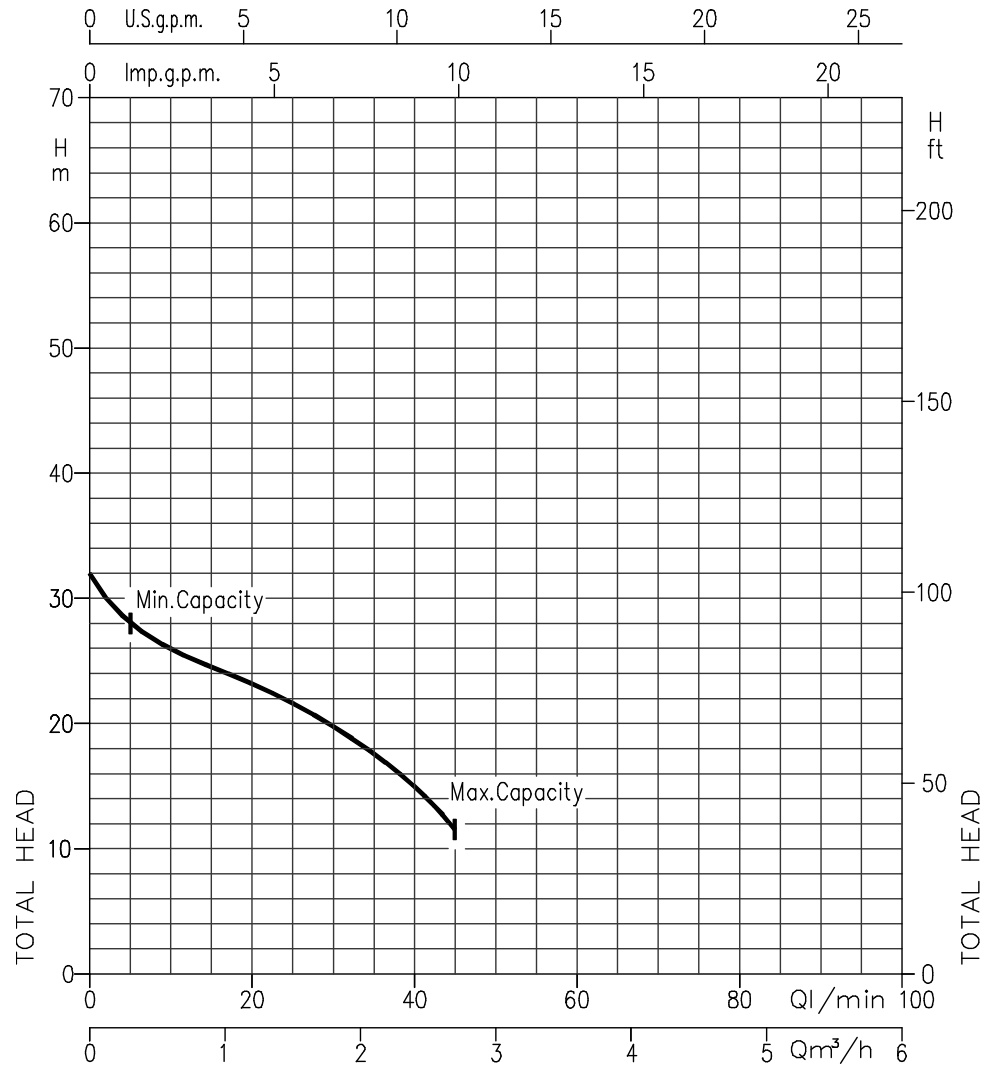
The continuous curves indicate the recommended working range. The dotted curve is only a guide.

In order to avoid the risk of over-heating, the pumps should not be used at a flow rate below 10% of best efficiency point.

Symbols explanation:

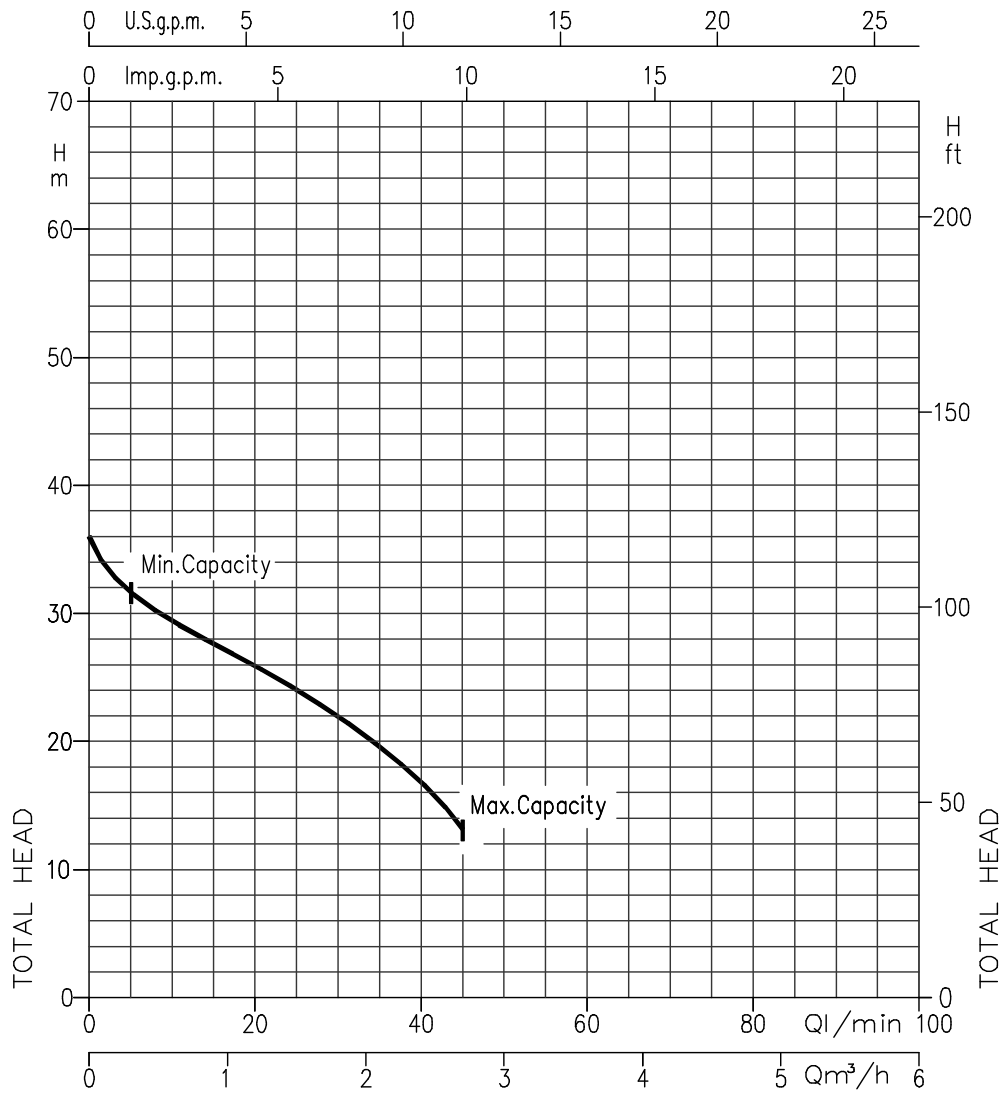
- Q = volume flow rate
- H = total head

JESX 5 (0.37 kW) - Impeller diameter = 104 mm



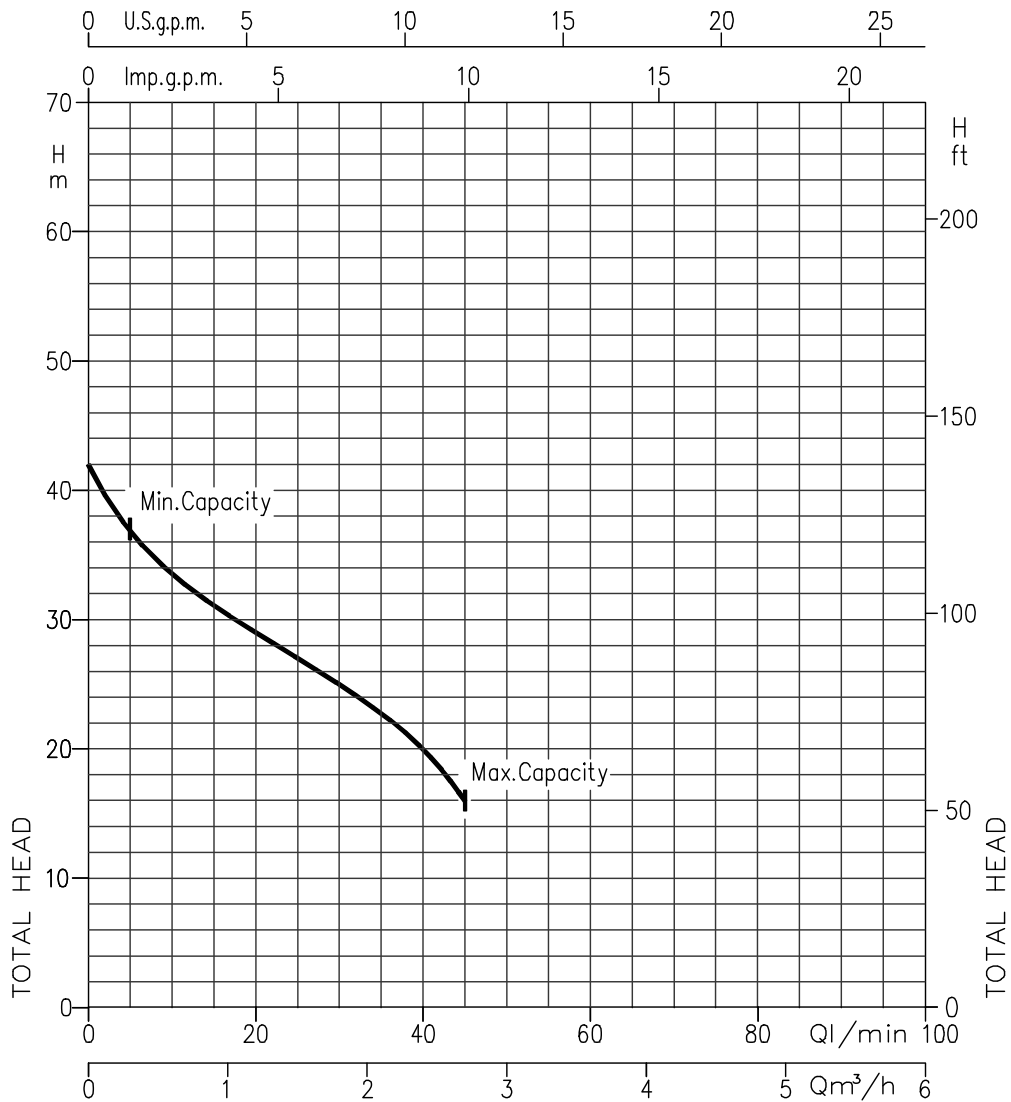
Rotation speed $\approx 2800 \text{ min}^{-1}$
Test standard: ISO 9906:2012 – Grade 3B

JESX 6 (0.44 kW) - Impeller diameter = 104 mm



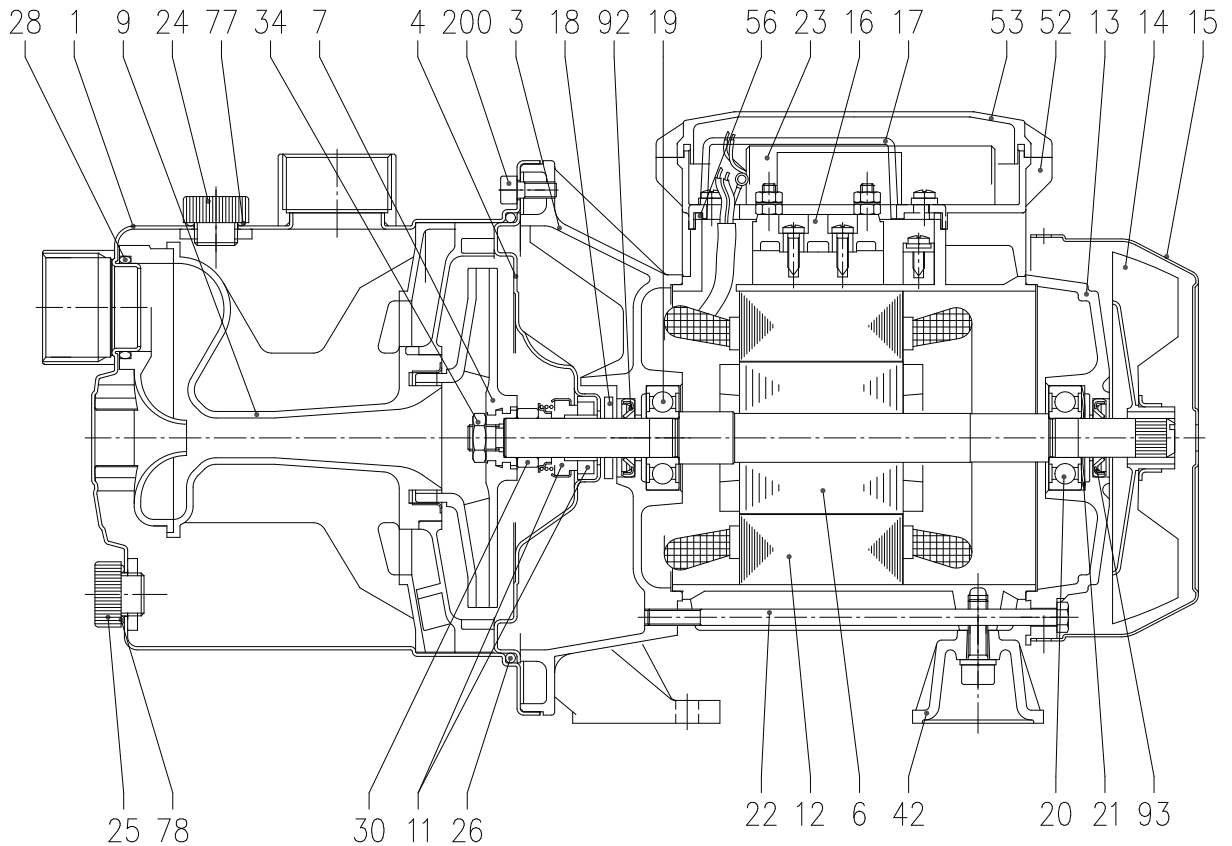
Rotation speed $\approx 2800 \text{ min}^{-1}$
Test standard: ISO 9906:2012 – Grade 3B

JESX 8 (0.6 kW) - Impeller diameter = 110 mm



Rotation speed $\approx 2800 \text{ min}^{-1}$
 Test standard: ISO 9906:2012 – Grade 3B

SECTIONAL VIEW



| N° | PART NAME | MATERIAL | Q.TY |
|----|-------------------------|-------------------------------|------|
| 1 | Casing | AISI 304 | 1 |
| 3 | Motor bracket | Aluminium | 1 |
| 4 | Casing cover | AISI 304 | 1 |
| 6 | Shaft with rotor | AISI 303 (Wet extension) | 1 |
| 7 | Impeller | PPE+PS glass fibre reinforced | 1 |
| 9 | Diffuser Venturi tube | PPE+PS glass fibre reinforced | 1 |
| 11 | Mechanical seal [4] | Carbon/Ceramic/NBR | 1 |
| 12 | Motor frame with stator | - | 1 |
| 13 | Motor cover | Aluminium | 1 |
| 14 | Fan | PA | 1 |
| 15 | Fan cover | Fe P04 Zincate | 1 |
| 16 | Terminal board | - | 1 |
| 17 | Terminal box cover [2] | Aluminium | 1 |
| 18 | Splash ring | NBR | 1 |
| 19 | Pump side ball bearing | - | 1 |
| 20 | Fan side ball bearing | - | 1 |
| 21 | Adjusting ring | Steel C70 | 1 |

| N° | PART NAME | MATERIAL | Q.TY |
|-----|-------------------------------------|----------------------------|------|
| 22 | Tie rod | Fe 42 Zincate | 4 |
| 23 | Capacitor [1] | - | 1 |
| 24 | Priming plug | PA | 1 |
| 25 | Drain plug | PA | 1 |
| 26 | O-ring | NBR | 1 |
| 28 | O-ring | NBR | 1 |
| 30 | Mechanical seal spacer | Brass | 1 |
| 34 | Impeller nut [2] | AISI 304 | 1 |
| 42 | Motor support | Aluminium | 1 |
| 52 | Capacitor box [1] | ABS | 1 |
| 53 | Capacitor box cover with gasket [1] | ABS+NBR | 1 |
| 56 | Box gasket | NBR | 1 |
| 77 | O-ring | NBR | 1 |
| 78 | O-ring | NBR | 1 |
| 92 | Lip seal [3] | - | 1 |
| 93 | Lip seal [3] | - | 1 |
| 200 | Screw | Stainless steel A2 UNI7323 | 6 |

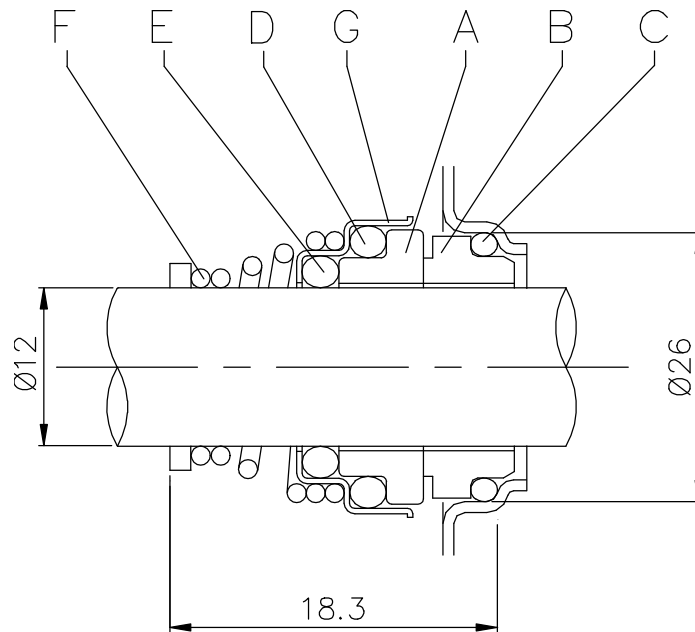
[1] Only for single phase

[2] Only for three phase

[3] Only for IP55

[4] See Mechanical Seal dimensions and materials at page 301

MECHANICAL SEAL

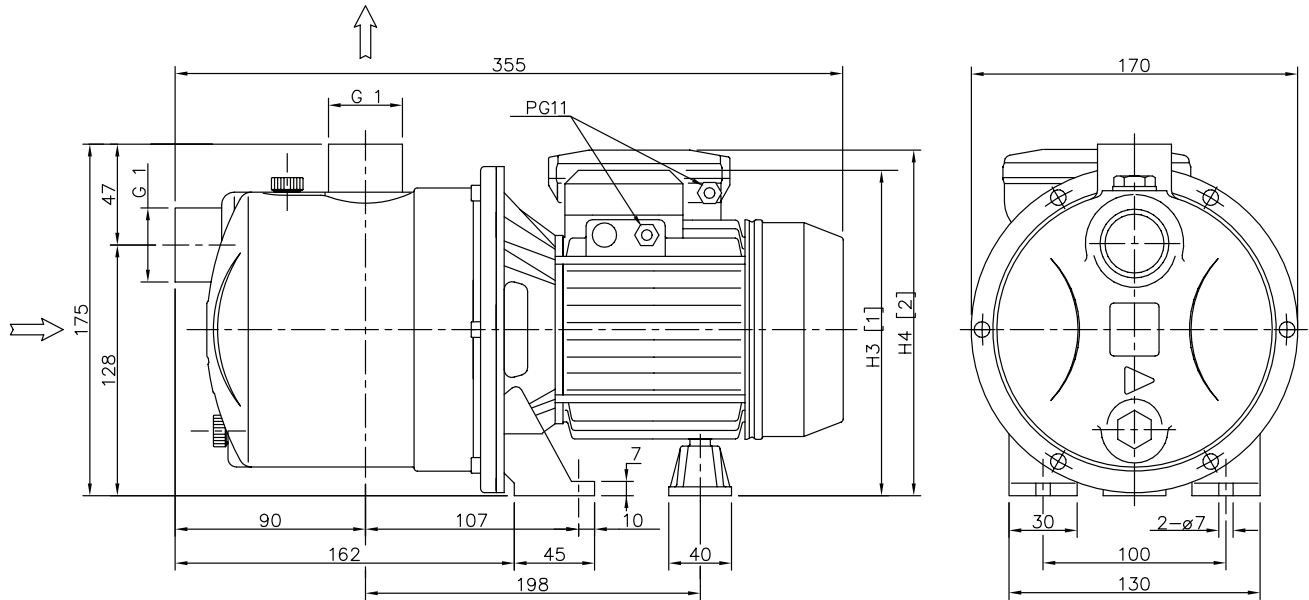


| REF | PART NAME | MATERIAL |
|-----|----------------------|-----------------|
| A | Rotary seal ring | Ceramic |
| B | Stationary seal ring | Carbon graphite |
| C | O Ring | NBR |
| D | O Ring | NBR |
| E | O Ring | NBR |
| F | Self driving spring | AISI 316 |
| G | Frame | AISI 304 |

BEARNGS

| Pump type | | Ball Bearing | |
|--------------|-------------|--------------|-----------|
| Single Phase | Three Phase | Pump side | Fan side |
| JESXM 5 | JESX 5 | 6201 2RSH | 6201 2RSH |
| JESXM 6 | JESX 6 | 6201 2RSH | 6201 2RSH |
| JESXM 8 | JESX 8 | 6201 2RSH | 6201 2RSH |

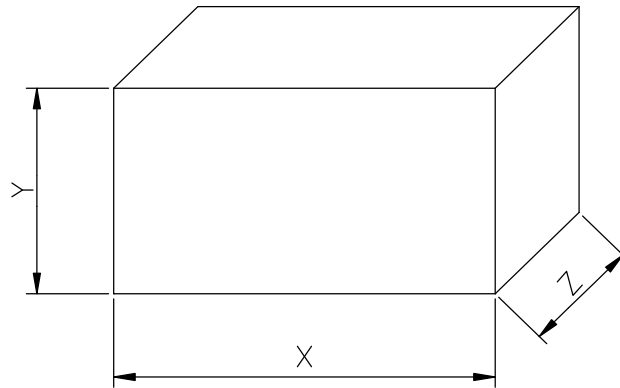
PUMP



| Pump type | Dimensions [mm] | |
|-----------|-----------------|-----|
| | H3 | H4 |
| JESX | | |
| 5 | 175 | 200 |
| 6 | 175 | 200 |
| 8 | 175 | 200 |

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

PACKING



| Pump type | | Packing [mm] | | | Weight [kgf] | |
|--------------|-------------|--------------|-----|-----|--------------|------|
| Single Phase | Three Phase | X | Y | Z | [1~] | [3~] |
| JESXM 5 | JESX 5 | 182 | 220 | 372 | 5.1 | 5.1 |
| JESXM 6 | JESX 6 | 182 | 220 | 372 | 5.5 | 5.5 |
| JESXM 8 | JESX 8 | 182 | 220 | 372 | 6.1 | 6.1 |

[1~] Single phase

[3~] Three phase

MOTOR DATA

| Pump type | | Power | | Capacitor | | Input [kW] | | Full load current [A] | | | Locked rotor current [A] | | |
|--------------|-------------|-------|------|-------------------|---------|--------------|-------------|-----------------------|-------------------|-------|--------------------------|-------------------|-------|
| Single Phase | Three Phase | [kW] | [HP] | Single Phase [μF] | 450 [V] | Single Phase | Three Phase | Single Phase 230 V | Three Phase 230 V | 400 V | Single Phase 230 V | Three Phase 230 V | 400 V |
| JESXM 5 | JESX 5 | 0.37 | 0.5 | 10 | 450 | 0.44 | 0.43 | 2.1 | 1.5 | 0.85 | 6.3 | 6.4 | 3.7 |
| JESXM 6 | JESX 6 | 0.45 | 0.6 | 10 | 450 | 0.54 | 0.49 | 2.4 | 1.9 | 1.1 | 8.5 | 8.6 | 5.0 |
| JESXM 8 | JESX 8 | 0.6 | 0.8 | 12.5 | 450 | 0.63 | 0.58 | 3.0 | 2.25 | 1.3 | 10.6 | 10.7 | 6.2 |

NOISE DATA

| Pump type | | Power | | L _{pA} - dB(A) * |
|--------------|-------------|-------|------|---------------------------|
| Single Phase | Three Phase | [kW] | [HP] | |
| JESXM 5 | JESX 5 | 0,37 | 0,5 | <70 |
| JESXM 6 | JESX 6 | 0,45 | 0,6 | |
| JESXM 8 | JESX 8 | 0,6 | 0,8 | |

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

If you use this pump on suction condition , it tends to breath the air from outside because the pressure in pump becomes vacuum condition when it stopped. So water in the pump sometimes fall down to breath the air from pipe connection. If it is used to operate continuously under this condition, this is the cause of breakdown to overheat inside the pump.



So please install foot valve or check valve at suction pipe in order to prevent the pump from such a condition. And moreover will you please support the suction pipe and the delivery one to prevent the pump from leaning the weight of pipe.

