



N° :

Date : 16 févr. 2018

Induction motor

2P LSES 90L 1,8kW IFT/IE3 B3 230D/380Y/400Y/415Y-460Y 50-60Hz -

Utilisation : Environment Current ; Ambiance Non corrosive ; Finition - ; Zone Non specific ; General applications ; Ambient temperature -16 +40 °C ; Maximum altitude 1000 m.

Motor characteristics : Aluminium alloy housing ; Cast iron DE endshield ; Aluminium alloy NDE endshield.



Motor definition

| | | Application | General applications |
|----------------------------------|-------|--|--------------------------|
| Protection type | - | Main voltage (V) | 400 |
| Generation code | IFT | Connection | DY |
| Efficiency class | IE3 | Motor winding (V) | 230D/380Y/400Y/415Y-460Y |
| Number of network phases | 3 | Rated Frequency (Hz) | 50-60 |
| Number of speed | | Operation position | IM1001(IMB3) |
| Polarity | 2P | Index of protection | IP55 |
| Motor serie | LSES | Index of cooling | IC411 |
| Frame size (mm) | 90 | Insulation class | F |
| Length code | L | Finish | - |
| HS rated power (kW) | 1.800 | Moment of inertia J (kg.m ²) | 0.0029200 |
| LS rated power (kW) | - | Motor weight (kg) | 20.4 |
| Rated speed (min-1) | 2890 | | |
| Maximum mechanical speed (min-1) | 11700 | | |

Common definitions

| | |
|--------------|---|
| Paint shade | RAL6000 |
| Paint system | C3_la (1 polyurethane coat 20/30 microns) |

Motor mechanical interface

| | | | |
|------------------------|------------------------|------------------------------|------------------|
| Mounting flange | - | Shaft material type | Steel shaft |
| Drive end shaft type | IEC STANDARD shaft end | Nuance of shaft material | - |
| Diameter DE shaft (mm) | 24j6 | Second shaft extension | - |
| Length DE shaft (mm) | 50 | Diameter NDE shaft (mm) | - |
| DE bearing mounting | Located | Second shaft end length (mm) | - |
| DE bearing type | DE ball bearing | NDE bearing type | NDE ball bearing |
| DE bearing | 6205 | NDE bearing | 6204 |
| Code Type de graissage | Vie | | |

Motor electrical interface

| | | | |
|--------------------------------------|---------------------|--------------------------------|---|
| Connection network type | Terminal box | Cable type | - |
| Connection network material | Composite materials | Cable gland material | Cable gland not supplied, holes tapped with polyamide plugs |
| Connection network position | A | Main cable gland type | 1xM20 ; With plugs |
| Connection network orientation | up | Principal cable gland position | Right (1) |
| Connection network relative position | 0 | | |

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Motor options

| | | | |
|-------------------------------|---|------------------------------------|---------------|
| Vibration level | A (25µm ; 1.6mm/s ; 2.5m/s ²) | Cover | Plastic cover |
| Balancing type | Half-key (H) | Drip proof cover option | - |
| Impregnation type | < 95% ; -16+40°C (T) | cooling type | - |
| Winding thermal protection | - | Forced ventilation characteristics | - |
| Space heater | - | Encoder type | - |
| Draining plugs position | 6H | Encoder characteristics | - |
| Nameplate material | Aluminium nameplate | Screw material | Steel screw |
| Endshield thermal protection | - | Adaptation for vibration sensor | - |
| Reinforced winding insulation | - | | |

Motor characteristics (on mains supply)

| Main voltage (V) | Rated Frequency (Hz) | HS rated power (kW) | Rated torque (N.m) | Rated speed (min-1) | Rated current (A) | Power factor at 4/4 of the load | Power factor at 3/4 of the load | Power factor at 2/4 of the load | Efficiency at 4/4 (IEC 60 034-2-1) of the load (%) | Efficiency at 3/4 (IEC 60 034-2-1) of the load (%) | Efficiency at 2/4 (IEC 60 034-2-1) of the load (%) |
|------------------|----------------------|---------------------|--------------------|---------------------|-------------------|---------------------------------|---------------------------------|---------------------------------|--|--|--|
| 380 | 50 | 1.800 | 6 | 2880.00 | 3.95 | 0.87 | | | 85.00 | | |
| 400 | 50 | 1.800 | 6 | 2890 | 3.75 | 0.85 | 0.79 | 0.67 | 85.50 | 86.30 | 86.20 |
| 415 | 50 | 1.800 | 6 | 2900.00 | 3.60 | 0.83 | | | 85.60 | | |
| 460 | 60 | - | - | 3510.00 | 3.30 | 0.83 | | | 86.90 | | |

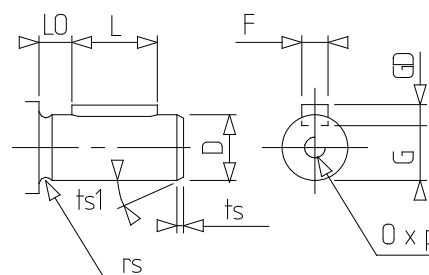
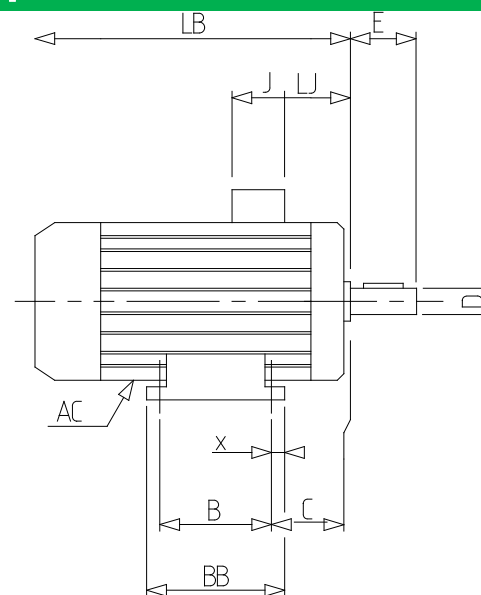
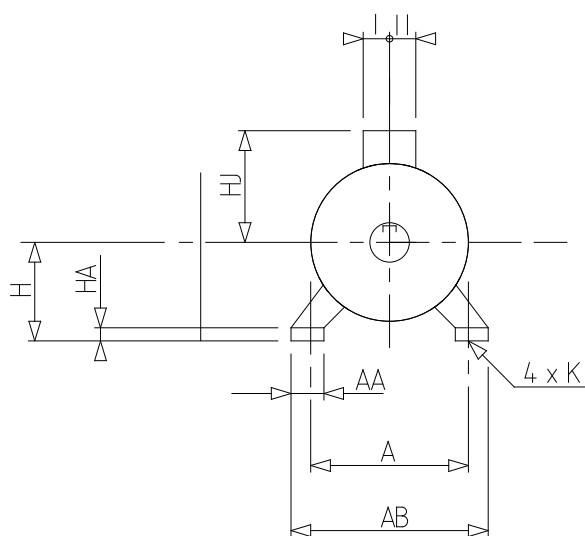
Motor characteristics (on mains supply) 400 V 50 Hz

| | | | |
|---|------|---------------------------------|-------|
| Starting torque (N.m) | 18.5 | Id / In | 7.52 |
| Average starting torque (N.m) | | Id | 28.20 |
| Maximum torque (N.m) | 20,2 | Maximum current (A) | |
| Unload maximum starting frequency (d/h) | - | No-load current (A) | 0.00 |
| Rotor locked time (cold) (s) | | Acoustic pressure level (dB(A)) | 67 |

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| | |
|-----|--------|
| A | 140 |
| AA | 39 |
| AB | 172 |
| AC | 189.00 |
| B | 125 |
| BB | 164 |
| C | 56.0 |
| D | 24j6 |
| E | 50 |
| F | 8 |
| G | 20 |
| GD | 7 |
| H | 90 |
| HA | 11 |
| HJ | 135.0 |
| I | 43 |
| II | 43 |
| J | 86 |
| K | 10 |
| L | 40 |
| LB | 245.0 |
| LJ | 26.0 |
| LO | 6 |
| O | M8 |
| p | 19 |
| rs | 0.5 |
| ts | 2 |
| ts1 | 20 |
| x | 28 |