



N° :

Date : 23 févr. 2018

### Induction motor

4P LSES 80LG 0,75kW IFT/IE3 B35 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

|                                  |       |  |                          |
|----------------------------------|-------|--|--------------------------|
| Protection type                  | -     | Application                              | General applications     |
| Generation code                  | IFT   | Main voltage (V)                         | 400                      |
| Efficiency class                 | IE3   | Connection                               | DY                       |
| Number of network phases         | 3     | Motor winding (V)                        | 230D/380Y/400Y/415Y-460Y |
| Number of speed                  |       | Rated Frequency (Hz)                     | 50-60                    |
| Polarity                         | 4P    | Operation position                       | IM2001(IMB35)            |
| Motor serie                      | LSES  | Index of protection                      | IP55                     |
| Frame size (mm)                  | 80    | Index of cooling                         | IC411                    |
| Lenght code                      | LG    | Insulation class                         | F                        |
| HS rated power (kW)              | 0.750 | Finish                                   | -                        |
| LS rated power (kW)              | -     | Moment of inertia J (kg.m <sup>2</sup> ) | 0.0033500                |
| Rated speed (min-1)              | 1450  | Motor weight (kg)                        | 13.6                     |
| Maximum mechanical speed (min-1) | 11700 |  |                          |

### Common definitions

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

### Motor mechanical interface

|                        |                        |                              |                  |
|------------------------|------------------------|------------------------------|------------------|
| Mounting flange        | FF165                  | Shaft material type          | Steel shaft      |
| Drive end shaft type   | IEC STANDARD shaft end | Nuance of shaft material     | -                |
| Diameter DE shaft (mm) | 19j6                   | Second shaft extension       | -                |
| Length DE shaft (mm)   | 40                     | Diameter NDE shaft (mm)      | -                |
| DE bearing mounting    | Locked                 | 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/s²) | 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                   | 0.750               | 4,95               | 1440.00             | 1.65              | 0.82                            |                                 |                                 | 82.60  |  |  |
| 400              | 50                   | 0.750               | 4,95               | 1450                | 1.65              | 0.8                             | 0.72                            | 0.59                            | 83.20  | 83.93  | 82.61  |
| 415              | 50                   | 0.750               | 4,95               | 1452.00             | 1.60              | 0.78                            |                                 |                                 | 83.29  |  |  |
| 460              | 60                   | -                   | -                  | 1758.00             | 1.45              | 0.76                            |                                 |                                 | 85.10  |  |  |

### Motor characteristics (on mains supply) 400 V 50 Hz

|   |       |                                 |       |
|---|-------|---------------------------------|-------|
| Starting torque (N.m)                   | 10.89 | Id / In                         | 6.2   |
| Average starting torque (N.m)           |       | Id                              | 10.23 |
| Maximum torque (N.m)                    | 14,6  | 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)) | 48    |

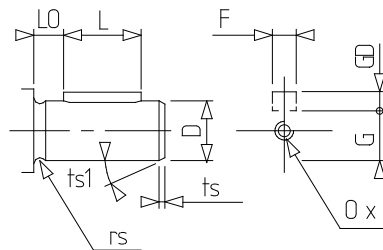
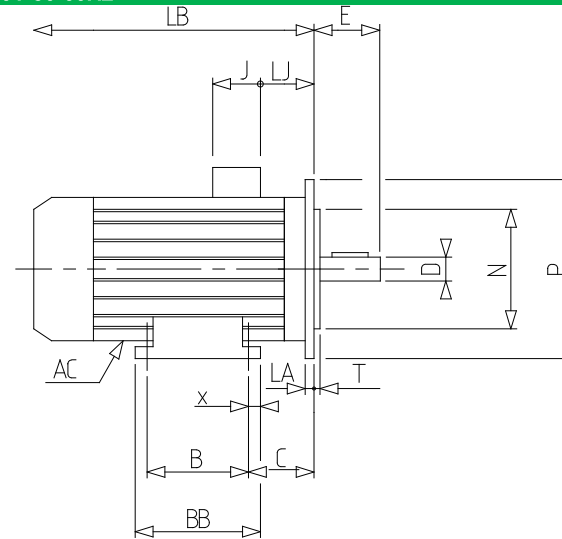
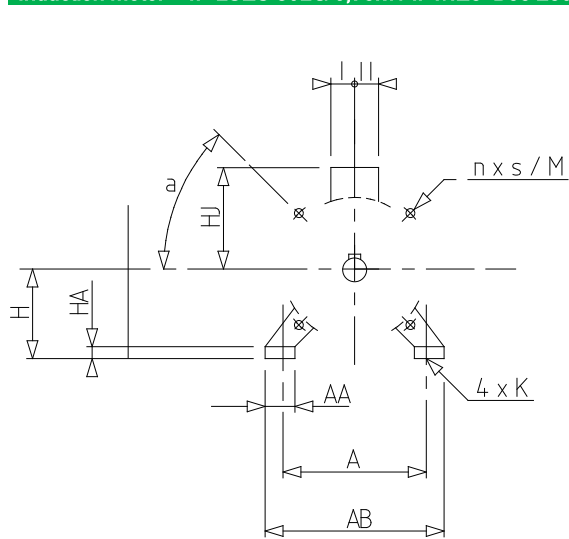
### Motor characteristics (supplied via drives)

| Main voltage (V) | Nominal frequency (Hz) | Pn (kW) | Nn (min-1) | In (A) | Cos Phi | Mn @ f/10 (N.m) | Mn @ f/5 (N.m) | Mn @ f/3 (N.m) | Mn @ f/2 (N.m) | Mn (N.m) | Mn @ fx1.7 (N.m) | Mn @ fx2 (N.m) |
|------------------|------------------------|---------|------------|--------|---------|-----------------|----------------|----------------|----------------|----------|------------------|----------------|
| 400 Y            | 50                     | 0.75    | 1450       | 1.7    | 0.8     | 0.00            | 4.46           | 4.95           | 4.95           | 4.950    | 2.84             | 0.00           |
| 400 D            | 87                     | 1.31    | 2511       | 2.96   | 0.8     | 0.00            | 4.46           | 4.95           | 4.95           | 4.950    | 0.00             | 0.00           |

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|    |        |     |     |
|----|--------|-----|-----|
| A  | 125    | rs  | 0.5 |
| a  | 45     | S   | 12  |
| AA | 31     | T   | 3.5 |
| AB | 157    | ts  | 2   |
| AC | 189.00 | ts1 | 20  |
| B  | 100    | x   | 14  |
| BB | 125    |     |     |
| C  | 70.0   |     |     |
| D  | 19j6   |     |     |
| E  | 40     |     |     |
| F  | 6      |     |     |
| G  | 15.5   |     |     |
| GD | 6      |     |     |
| H  | 80     |     |     |
| HA | 10     |     |     |
| HJ | 135.0  |     |     |
| I  | 43     |     |     |
| II | 43     |     |     |
| J  | 86     |     |     |
| K  | 9      |     |     |
| L  | 30     |     |     |
| LA | 10     |     |     |
| LB | 267.0  |     |     |
| LJ | 46.0   |     |     |
| LO | 6      |     |     |
| M  | 165    |     |     |
| N  | 130    |     |     |
| n  | 4      |     |     |
| O  | M6     |     |     |
| P  | 200    |     |     |
| p  | 16     |     |     |



## Data sheet

**LEROY-SOMER**<sup>™</sup>

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