

# HOYER

MOTORS

## Data sheet

**Item no. / Configuration** 01 / 3102160-18.5-040201-S-A00687  
**Description** HMC3 160L-2 400/690 V 50 Hz 18,5 kW

| General data                   |   |
|--------------------------------|---|
| Standard series                | IEC 60034                                     |
| Type                           | HMC3 160L-2                                   |
| Design                         | 400 VD / 690 VY 50 Hz + 480 VD / 830 VY 60 Hz |
| Direction of rotation          | CW  |
| Installation max. altitude (m) | 1.000   |
| Poles                          | 2   |

| Motor protection       |                            |
|------------------------|----------------------------|
| Winding temp. detector | No                         |
| Temp. detector type    | None                       |
| Bearing detector       | No                         |
| Winding PTC main       | PTC 3 x 155°C              |
| Winding PTC spare      | None                       |
| Space heater           | None                       |
| Terminal board thread  | M6                         |
| Electrical insulation  | Standard (1350 V @ 0.8 µs) |
| Tropical insulation    | No                         |
| SPM                    | N/A                        |
| External grounding     | Yes                        |
| Drain hole             | Yes                        |
| Rain cap               | No                         |

| Classification            |      |
|---------------------------|------|
| Class society             |      |
| Shaft requirement acc. to | None |
| Ex. code                  | No   |

| Mechanical data                        |                     |
|--|---------------------|
| Frame / Shaft height                   | IEC 160             |
| Type of construction                   | B35                 |
| Cooling method                         | IC411               |
| Protection class                       | IP55                |
| Temp. insulation class                 | F                   |
| Frame material                         | Cast iron           |
| Keyway                                 | Closed              |
| Balancing                              | Half key            |
| IEC vibration class                    | A                   |
| Weight (kg)                            | 150                 |
| Bearing (DE)                           | 6309 2Z / C3 / DGBB |
| Bearing (NDE)                          | 6309 2Z / C3 / DGBB |
| Fixed bearing                          | DE                  |
| Moment of inertia (kg×m <sup>2</sup> ) | 0.082               |
| Painting (color)                       | RAL 9005            |
| Corrosion protection                   | C3L                 |
| Main terminal box pos.                 | DE top              |
| Main cable entries                     | Blind cap 2xM40x1.5 |
| Main cable direction                   | Right from DE       |
| Main cable material                    | Plastic             |
| Aux. cable entries                     | Blind cap 2xM20x1.5 |
| Aux. cable direction                   | NDE                 |
| Aux. cable material                    | Plastic             |

| Winding operation variants |                    |                    |  |
|----------------------------|--------------------|--------------------|--|
| Rated power (kW)           | 18.5               | 18.5               |  |
| Frequency (Hz)             | 50                 | 60                 |  |
| Connection                 | D/Y                | D/Y                |  |
| Voltage (V)                | 400 / 690          | 480 / 830          |  |
| Full load current (A)      | 31.9 / 18.4        | 27 / 15.6          |  |
| No load current (A)        | 9.47               | 9.47               |  |
| Speed (rpm)                | 2957               | 3548               |  |
| Power factor 100/75/50 (%) | 0.91 / 0.88 / 0.81 | 0.91 / 0.88 / 0.81 |  |
| Efficiency 100/75/50 (%)   | 92.5 / 92.5 / 91.4 | 91.7 / 90.5 / 89.5 |  |
| Efficiency class           | IE3                | IE3                |  |
| Full load torque (Nm)      | 59.8               | 49.8               |  |
| Tst/Tn                     | 3.22               | 3.87               |  |
| Tmax/Tn                    | 4.32               | 5.19               |  |
| Ist/In                     | 10.69              | 12.6               |  |
| Temp. rise class           | B                  | B                  |  |
| Duty                       | S1                 | S1                 |  |
| Sound pressure level (dBA) | 70.9               | 76                 |  |
| Min. ambient temp. (°C)    | -20°C              | -20°C              |  |
| Max. ambient temp. (°C)    | 40°C               | 40°C               |  |

Data are not binding. Hoyer reserves the right to implement changes without notice. The extent of data are not equivalent to nameplate on the motors.