

## Data sheet

**Item no. / Configuration** 01 / 4104160-11.0-040201-S-020015  
**Description** HMC4 160M-4 400/690 V 50 Hz 11 kW

| General data                   |                                               |
|--------------------------------|-----------------------------------------------|
| Standard series                | IEC 60034                                     |
| Type                           | HMC4 160M-4                                   |
| Design                         | 400 VD / 690 VY 50 Hz + 480 VD / 830 VY 60 Hz |
| Direction of rotation          | CW                                            |
| Installation max. altitude (m) | 1.000                                         |
| Poles                          | 4                                             |

| 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  | M6x1.0                     |
| 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)                            | 133                 |
| Bearing (DE)                           | 6309 2Z / C3 / DGBB |
| Bearing (NDE)                          | 6309 2Z / C3 / DGBB |
| Fixed bearing                          | DE                  |
| Moment of inertia (kg×m <sup>2</sup> ) | 0.1033              |
| 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)           | 11                   | 11                  |  |  |  |
| Frequency (Hz)             | 50                   | 60                  |  |  |  |
| Connection                 | D/Y                  | D/Y                 |  |  |  |
| Voltage (V)                | 400 / 690            | 480 / 830           |  |  |  |
| Full load current (A)      | 20.5 / 11.9          | 17.1 / 9.92         |  |  |  |
| No load current (A)        | 7.54                 | 6.94                |  |  |  |
| Speed (rpm)                | 1475                 | 1775                |  |  |  |
| Power factor 100/75/50 (%) | 0.83 / 0.79 / 0.69   | 0.83 / 0.75 / 0.64  |  |  |  |
| Efficiency 100/75/50 (%)   | 93.3 / 93.82 / 93.17 | 93.6 / 94.15 / 93.3 |  |  |  |
| Efficiency class           | IE4                  | IE4                 |  |  |  |
| Full load torque (Nm)      | 71.1                 | 59.2                |  |  |  |
| Tst/Tn                     | 2.71                 | 3.23                |  |  |  |
| Tmax/Tn                    | 3.95                 | 4.7                 |  |  |  |
| Ist/In                     | 9.63                 | 10.5                |  |  |  |
| Temp. rise class           | B                    | B                   |  |  |  |
| Duty                       | S1                   | S1                  |  |  |  |
| Sound pressure level (dBA) | 57                   | 62                  |  |  |  |
| 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.