

# HOYER

MOTORS

## Data sheet

**Item no. / Configuration** 01 / 3104090-1.50-020101-S-A00740

**Description** HMA3 90L-4 230/400V 50Hz 1.5kW

| General data                   |   |
|--------------------------------|---|
| Standard series                | IEC 60034                                     |
| Type                           | HMA3 90L-4                                    |
| Design                         | 230 VD / 400 VY 50 Hz + 280 VD / 480 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  | M4                         |
| Electrical insulation  | Standard (1350 V @ 0.8 µs) |
| Tropical insulation    | No                         |
| SPM                    | N/A                        |
| External grounding     | No                         |
| Drain hole             | Yes                        |
| Rain cap               | No                         |

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

| Mechanical data                        |                     |
|--|---------------------|
| Frame / Shaft height                   | IEC 90              |
| Type of construction                   | B5                  |
| Cooling method                         | IC411               |
| Protection class                       | IP55                |
| Temp. insulation class                 | F                   |
| Frame material                         | Aluminum            |
| Keyway                                 | Closed              |
| Balancing                              | Half key            |
| IEC vibration class                    | A                   |
| Weight (kg)                            | 22                  |
| Bearing (DE)                           | 6205 2Z / C3 / DGBB |
| Bearing (NDE)                          | 6205 2Z / C3 / DGBB |
| Fixed bearing                          | DE                  |
| Moment of inertia (kg×m <sup>2</sup> ) | 0.005               |
| Painting (color)                       | RAL 9005            |
| Corrosion protection                   | C3L                 |
| Main terminal box pos.                 | DE top              |
| Main cable entries                     | Blind cap 2xM20x1.5 |
| Main cable direction                   | Right from DE       |
| Main cable material                    | Plastic             |
| Aux. cable entries                     | N/A 0xN/A           |
| Aux. cable direction                   | N/A                 |
| Aux. cable material                    | N/A                 |

| Winding operation variants |                    |                    |  |
|----------------------------|--------------------|--------------------|--|
| Rated power (kW)           | 1.5                | 1.5                |  |
| Frequency (Hz)             | 50                 | 60                 |  |
| Connection                 | D/Y                | D/Y                |  |
| Voltage (V)                | 230 / 400          | 280 / 480          |  |
| Full load current (A)      | 5.9 / 3.4          | 4.95 / 2.89        |  |
| No load current (A)        | 2.2                | 2.2                |  |
| Speed (rpm)                | 1453               | 1744               |  |
| Power factor 100/75/50 (%) | 0.74 / 0.66 / 0.59 | 0.74 / 0.65 / 0.51 |  |
| Efficiency 100/75/50 (%)   | 86.5 / 85 / 82.5   | 86.5 / 84.2 / 81.7 |  |
| Efficiency class           | IE3                | IE3                |  |
| Full load torque (Nm)      | 9.9                | 8.21               |  |
| Tst/Tn                     | 2.83               | 3.40               |  |
| Tmax/Tn                    | 3                  | 3.6                |  |
| Ist/In                     | 8.21               | 9.82               |  |
| Temp. rise class           | B                  | B                  |  |
| Duty                       | S1                 | S1                 |  |
| Sound pressure level (dBA) | 54                 | 59                 |  |
| 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.