

## THREE-PHASE-ASYNCHRONOUS-MOTOR FCPA 90 L 2 /PHE

IE3AC09L2005N

### General data

|                          |                               |
|--------------------------|-------------------------------|
| Type of motor            | 3~                            |
| Type designation         | FCPA                          |
| Frame size               | 90                            |
| Mounting                 | B35                           |
| Frame execution          | L                             |
| Frame material           | Aluminium                     |
| Insulation class         | F/B                           |
| Terminal box location    | top DE                        |
| Terminal box orientation | cable gland to the right side |
| Weight (kg)              | 17                            |
| Rotation Direction       | right /left                   |
| Vibration level          | A                             |
| Balancing method         | half key                      |
| cooling type             | IC411                         |
| Executed acc. to         | IEC 60034-1                   |
| noise level              | IEC 60034-9                   |

### Influential factors

|                          |               |
|--------------------------|---------------|
| Duty                     | S1            |
| Ambient temperature (°C) | -20 up to +40 |
| Height of location (m)   | 1000          |

### Electrical specification

|                                       |            |
|---------------------------------------|------------|
| Power 1 50Hz (kW)                     | 2.2        |
| Power 1 60Hz (kW)                     | 2.2        |
| Frequency (Hz)                        | 50/60      |
| Voltage 50Hz (V)                      | 230/400    |
| Voltage 60Hz (V)                      | 265/460    |
| Voltage tolerance                     | +/-10%     |
| Connection                            | $\Delta/Y$ |
| Poles                                 | 2          |
| Efficiency 100% 50Hz (%)              | 85,9       |
| Efficiency 75% 50Hz (%)               | 85,9       |
| Efficiency 50% 50Hz (%)               | 84,2       |
| Efficiency 100% 60Hz (%)              | 86,5       |
| Efficiency 75% 60Hz (%)               | 86,5       |
| Efficiency 50% 60Hz (%)               | 84,8       |
| Power factor                          | 0,85       |
| Starting current factor ( $I_a/I_n$ ) | 7,8        |
| Starting torque factor ( $M_a/M_n$ )  | 2,3        |
| Breakdown torque ( $M_k/M_n$ )        | 2,3        |
| Rated current 50Hz (A)                | 7,56/4,35  |
| Rated current 60Hz (A)                | 6,53/3,79  |
| Eff.Cl.50Hz                           | IE3        |
| Eff.Cl.60Hz                           | IE3        |

### Mechanical data

|                                       |               |
|---------------------------------------|---------------|
| Torque (Nm)                           | 7,26/6,05     |
| Rotation speed (1/min)                | 2895/3474     |
| Bearing DE                            | 6205.ZZ.C3    |
| Bearing NDE                           | 6205.ZZ.C3    |
| Mounting of bearing DE                | loose bearing |
| Mounting of bearing NDE               | loose bearing |
| Bearing lifetime (h)                  | 20000         |
| allow. Radial load (X/2)              | 625           |
| allow. Radial load (X0)               | 700           |
| allow. Radial load (Xmax)             | 550           |
| allow. Axial load                     | 500           |
| allow. Axial load (V1)                | 460           |
| Moment of inertia (kgm <sup>2</sup> ) | 0,0018        |

### Motor properties

|                                     |                        |
|-------------------------------------|------------------------|
| Color                               | RAL7030                |
| Paint surface                       | shiny                  |
| Protection class                    | IP55                   |
| Cable gland size (cable connection) | 1xM25x1,5 1xblind plug |
| Cable gland type                    | Standard               |
| Shaft end (mm)                      | 24 x 50                |
| Shaft material                      | C45                    |
| Specification NDE                   | Plastic fan            |
| Flange                              | 200                    |

### Additional operating points

|                                    |            |
|------------------------------------|------------|
| Voltage operating point 2          | 265/460    |
| Power operating point 2 (kW)       | 2.64       |
| Connection operating point 2       | $\Delta/Y$ |
| Frequency operating point 2        | 60         |
| Efficiency class operating point 2 | IE2        |

