

# 3F3A-90LA-2B34



## MECHANICAL DATA

|                         |                          |
|-------------------------|--------------------------|
| Noise at 50Hz           | 67 dB(A)                 |
| Moment of inertia       | 0.00223 kgm <sup>2</sup> |
| Bearing DE              | 6205ZZ                   |
| Bearing NDE             | 6205ZZ                   |
| Bearing lifetime        | 40000 h                  |
| Direction of rotation   | bidirectional            |
| Frame material          | aluminum                 |
| Colour                  | RAL 7030                 |
| Cooling method          | IC411                    |
| Ambient temperature     | -20 / +40 °C             |
| Altitude above sealevel | 1000 m                   |
| Output                  | 2.2kW                    |
| Speed                   | 2895 rpm                 |
| Ins. Class              | F                        |
| Efficiency              | 85,9% IE3                |
| Voltage                 | 400V                     |
| Connection              | Y                        |
| F.L. Current            | 4.35A                    |
| Power factor            | 0,85                     |
| Duty                    | S1                       |
| Frequency               | 50 Hz                    |
| IP                      | 55                       |
| Weight                  | 18 kg                    |

## SPECIAL DESIGN

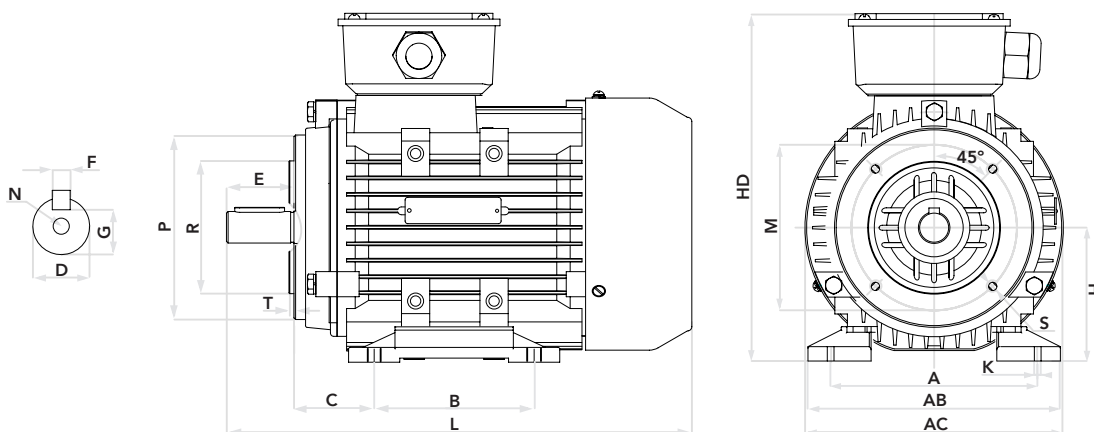
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## ELECTRICAL TEST DATA

|                                                         |           |
|---------------------------------------------------------|-----------|
| Ambient temperature                                     | 21 °C     |
| Resistance of winding                                   | 3,777 Ω   |
| Three phase current unbalanced                          | 1,43 %    |
| No load amps                                            | 1,68 A    |
| No load input                                           | 135,73 W  |
| Core loss (Pfe)                                         | 59,2 W    |
| Windage friction loss (Pfw)                             | 59,63 W   |
| Stator winding loss (Pcu1)                              | 132,5 W   |
| Rotor winding loss (Pcu2)                               | 77,36 W   |
| Stray load loss (Ps)                                    | 43,33 W   |
| Locked rotor current                                    | 39,5 A    |
| Locked rotor current / Full load current                | 9,08      |
| Full load torque                                        | 7,26 Nm   |
| Locked rotor input power at full load                   | 19329,1 W |
| Locked rotor torque                                     | 26,4 Nm   |
| Locked rotor torque / Full load torque                  | 3,64      |
| Full load input                                         | 2572 W    |
| Full load current                                       | 4,259 A   |
| Efficiency at 50% load                                  | 84,12 %   |
| Efficiency at 75% load                                  | 86,37 %   |
| Efficiency at 100% load                                 | 85,53 %   |
| Power factor at full load                               | 0,8717    |
| Full load slip                                          | 3,25 %    |
| Full load speed                                         | 2902 rpm  |
| Stator winding temperature rise                         | 48,06 K   |
| Stator phase resistance at Ambient temperature of 95 °C | 4,869 Ω   |
| Sound pressure level                                    | 65 dB(A)  |
| Vibration                                               | 1,1 mm/s  |
| Insulation resistance                                   | 200 MΩ    |
| Bearing temperature                                     | 46,2 °C   |

Efficiency in compliance with IEC 60034-30 Edition 1.0 - 2008, IE3  
Testing method IEC 60034-2-1 Edition 1.0 - 2007-09

## DIMENSIONS 3F3A-90LA-2B34



| Frame size | Number of poles | A   | B   | C  | D  | E  | F | G  | H  | K  | M   | R  | P   | S  | T   | AB  | AC  | HD  | L   | N  |
|------------|-----------------|-----|-----|----|----|----|---|----|----|----|-----|----|-----|----|-----|-----|-----|-----|-----|----|
| 90LA       | 2               | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10 | 115 | 95 | 140 | M8 | 3.0 | 180 | 195 | 255 | 380 | M8 |

FELSTROM

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