

| IEC LV Motors                                            |                                                    | Technical Data Sheet                                |                                   |                                      |  |
|----------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------|-----------------------------------|--------------------------------------|-------------------------------------------------------------------------------------|
|                                                          |                                                    | Project                                             |                                   | Location                             |                                                                                     |
| Department/Author                                        |                                                    | Customer name                                       |                                   | Customer ref                         | Item name<br><b>1.00001</b>                                                         |
| Our ref.                                                 |                                                    | Rev/Changed by<br><b>A</b>                          | Date of issue<br><b>3/16/2022</b> | Saving ident<br><b>untitled.xlsm</b> | Pages<br><b>1(3)</b>                                                                |
| No.                                                      | Definition                                         | Data                                                | Unit                              | Remarks                              |                                                                                     |
| 1                                                        | Product                                            | <b>TEFC, 3-phase, squirrel cage induction motor</b> |                                   |                                      |                                                                                     |
| 2                                                        | Product code                                       | <b>3GBA 312 230-ADCIN</b>                           |                                   |                                      |                                                                                     |
| 3                                                        | Type/Frame                                         | <b>M2BAX 315SMC 4</b>                               |                                   |                                      |                                                                                     |
| 4                                                        | Mounting                                           | <b>IM1001, B3(foot)</b>                             |                                   |                                      |                                                                                     |
| 5                                                        | Rated output P <sub>N</sub>                        | <b>160</b>                                          | kW                                |                                      |                                                                                     |
| 6                                                        | Service factor                                     | <b>1</b>                                            |                                   |                                      |                                                                                     |
| 7                                                        | Type of duty                                       | <b>S1 100%</b>                                      |                                   |                                      |                                                                                     |
| 8                                                        | Rated voltage U <sub>N</sub>                       | <b>415</b>                                          | VD                                | +10, -10 %                           |                                                                                     |
| 9                                                        | Rated frequency f <sub>N</sub>                     | <b>50</b>                                           | Hz                                | +5, -5 %                             |                                                                                     |
| 10                                                       | Rated speed n <sub>N</sub>                         | <b>1487</b>                                         | r/min                             |                                      |                                                                                     |
| 11                                                       | Rated current I <sub>N</sub>                       | <b>278</b>                                          | A                                 |                                      |                                                                                     |
| 12                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
| 13                                                       | Starting current I <sub>s</sub> /I <sub>N</sub>    | <b>7</b>                                            |                                   |                                      |                                                                                     |
| 14                                                       | Nominal torque T <sub>N</sub>                      | <b>1027</b>                                         | Nm                                |                                      |                                                                                     |
| 15                                                       | Locked rotor torque T <sub>s</sub> /T <sub>N</sub> | <b>2.3</b>                                          |                                   |                                      |                                                                                     |
| 16                                                       | Maximum torque T <sub>max</sub> /T <sub>N</sub>    | <b>2.8</b>                                          |                                   |                                      |                                                                                     |
| 17                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
| 18                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
|                                                          | Load characteristics                               | Load %                                              | Current A                         | Efficiency %                         | Power factor                                                                        |
| 19                                                       | PLL determined from residual loss                  | <b>100</b>                                          | <b>278</b>                        | <b>94.9 / IE2</b>                    | <b>0.84</b>                                                                         |
| 20                                                       |                                                    | <b>75</b>                                           | <b>228</b>                        | <b>94.9</b>                          | <b>0.77</b>                                                                         |
| 21                                                       |                                                    | <b>50</b>                                           | <b>174</b>                        | <b>93.9</b>                          | <b>0.68</b>                                                                         |
| 22                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
| 23                                                       | Thermal withstand time hot                         | <b>20</b>                                           | s                                 |                                      |                                                                                     |
| 24                                                       | Thermal withstand time cold                        | <b>30</b>                                           | s                                 |                                      |                                                                                     |
| 25                                                       | Insulation class / Temperature class               | <b>F / B</b>                                        |                                   |                                      |                                                                                     |
| 26                                                       | Ambient temperature                                | <b>50</b>                                           | °C                                |                                      |                                                                                     |
| 27                                                       | Altitude                                           | <b>1000</b>                                         | m.a.s.l.                          |                                      |                                                                                     |
| 28                                                       | Degree of protection                               | <b>IP55</b>                                         |                                   |                                      |                                                                                     |
| 29                                                       | Cooling system                                     | <b>IC411</b>                                        |                                   |                                      |                                                                                     |
| 30                                                       | Bearing DE/NDE                                     | <b>6319/C3 - 6316/C3</b>                            |                                   |                                      |                                                                                     |
| 31                                                       | Sound pressure level (LP dB(A) 1m)                 | <b>85</b>                                           | dB(A)                             | at no-load                           |                                                                                     |
| 32                                                       | Moment of inertia J = ¼ GD2                        | <b>2.9</b>                                          | kg-m2                             |                                      |                                                                                     |
| 33                                                       | Position of terminal box                           | <b>Top</b>                                          |                                   |                                      |                                                                                     |
| 34                                                       | Direction of rotation                              | <b>Bi-directional</b>                               |                                   |                                      |                                                                                     |
| 35                                                       | Weight of rotor                                    | <b>236</b>                                          | kg                                |                                      |                                                                                     |
| 36                                                       | Total weight of motor                              | <b>958</b>                                          | kg                                |                                      |                                                                                     |
| 37                                                       | Paint shade                                        | <b>Munsell Blue</b>                                 |                                   |                                      |                                                                                     |
| 38                                                       | Cable size                                         |                                                     |                                   |                                      |                                                                                     |
| 39                                                       | Vibration                                          | <b>As Per IS 12075</b>                              |                                   |                                      |                                                                                     |
| 40                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
| 41                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
| 42                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
| 43                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
| 44                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
| 45                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
| Ex-motors                                                |                                                    |                                                     |                                   |                                      |                                                                                     |
| 46                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
| 47                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
| 48                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
| Option Variant Codes / Definition                        |                                                    |                                                     |                                   |                                      |                                                                                     |
| 49                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
| 50                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
| 51                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
| 52                                                       |                                                    |                                                     |                                   |                                      |                                                                                     |
| Remarks:                                                 |                                                    |                                                     |                                   |                                      |                                                                                     |
| Applicable standards: IS 12615:2018, IEC 60034-30-1:2014 |                                                    |                                                     |                                   |                                      |                                                                                     |
| All performance values are subject to IS/IEC tolerances  |                                                    |                                                     |                                   |                                      |                                                                                     |









