

| ABB Motors and Generators           |                                                        | Technical Data Sheet                                |                              |  |               |  |
|-------------------------------------|--------------------------------------------------------|-----------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------|---------------|--|
|                                     |                                                        | Project                                             | Location                     |                                                                                     |               |  |
| Department/Author                   | Customer name                                          |                                                     | Customer ref.                |                                                                                     | Item name     |  |
| Our ref.                            | Rev/Changed by<br>A                                    | Date of issue<br>6/15/2019                          | Saving ident<br>untitled.xls |                                                                                     | Pages<br>1(3) |  |
| No.                                 | Definition                                             | Data                                                | Unit                         | Remarks                                                                             |               |  |
| 1                                   | Product                                                | <b>TEFC, 3-phase, squirrel cage induction motor</b> |                              |                                                                                     |               |  |
| 2                                   | Product code                                           | <b>3GBA 312 420-ADMIN</b>                           |                              |                                                                                     |               |  |
| 3                                   | Type/Frame                                             | <b>M2BAX 315MLB 4</b>                               |                              |                                                                                     |               |  |
| 4                                   | Mounting                                               | <b>IM1001, B3(foot)</b>                             |                              |                                                                                     |               |  |
| 5                                   | Rated output $P_N$                                     | <b>200</b>                                          | kW                           |                                                                                     |               |  |
| 6                                   | Service factor                                         | <b>1</b>                                            |                              |                                                                                     |               |  |
| 7                                   | Type of duty                                           | <b>S1 100%</b>                                      |                              |                                                                                     |               |  |
| 8                                   | Rated voltage $U_N$                                    | <b>415</b>                                          | VD                           | +10, -10 %                                                                          |               |  |
| 9                                   | Rated frequency $f_N$                                  | <b>50</b>                                           | Hz                           | +5, -5 %                                                                            |               |  |
| 10                                  | Rated speed $n_N$                                      | <b>1488</b>                                         | r/min                        |                                                                                     |               |  |
| 11                                  | Rated current $I_N$                                    | <b>343</b>                                          | A                            |                                                                                     |               |  |
| 12                                  | Method of Starting                                     | <b>DOL</b>                                          |                              |                                                                                     |               |  |
| 13                                  | Starting current $I_s/I_N$                             | <b>7.7</b>                                          |                              |                                                                                     |               |  |
| 14                                  | Nominal torque $T_N$                                   | <b>1283</b>                                         | Nm                           |                                                                                     |               |  |
| 15                                  | Locked rotor torque $T_s/T_N$                          | <b>2.4</b>                                          |                              |                                                                                     |               |  |
| 16                                  | Maximum torque $T_{max}/T_N$                           | <b>3</b>                                            |                              |                                                                                     |               |  |
| 17                                  |                                                        |                                                     |                              |                                                                                     |               |  |
| 18                                  |                                                        |                                                     |                              |                                                                                     |               |  |
|                                     | Load characteristics                                   | Load %                                              | Current A                    | Efficiency %                                                                        | Power factor  |  |
| 19                                  | PLL determined from residual loss                      | <b>100</b>                                          | <b>343</b>                   | <b>96.0 / IE3</b>                                                                   | <b>0.84</b>   |  |
| 20                                  |                                                        | <b>75</b>                                           | <b>272</b>                   | <b>96</b>                                                                           | <b>0.8</b>    |  |
| 21                                  |                                                        | <b>50</b>                                           | <b>209</b>                   | <b>95</b>                                                                           | <b>0.7</b>    |  |
| 22                                  |                                                        |                                                     |                              |                                                                                     |               |  |
| 23                                  | Thermal withstand time hot                             | <b>19</b>                                           | s                            |                                                                                     |               |  |
| 24                                  | Thermal withstand time cold                            | <b>34</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 $J = \frac{1}{4} GD^2$               | <b>3.9</b>                                          | kg-m2                        |                                                                                     |               |  |
| 33                                  | Position of terminal box                               | <b>Top</b>                                          |                              |                                                                                     |               |  |
| 34                                  | Direction of rotation                                  | <b>Bi-directional</b>                               |                              |                                                                                     |               |  |
| 35                                  | Weight of rotor                                        | <b>297</b>                                          | kg                           |                                                                                     |               |  |
| 36                                  | Total weight of motor                                  | <b>1091</b>                                         | kg                           |                                                                                     |               |  |
| 37                                  |                                                        |                                                     |                              |                                                                                     |               |  |
| 38                                  |                                                        |                                                     |                              |                                                                                     |               |  |
| 39                                  |                                                        |                                                     |                              |                                                                                     |               |  |
| 40                                  |                                                        |                                                     |                              |                                                                                     |               |  |
| 41                                  |                                                        |                                                     |                              |                                                                                     |               |  |
| 42                                  |                                                        |                                                     |                              |                                                                                     |               |  |
| 43                                  |                                                        |                                                     |                              |                                                                                     |               |  |
| 44                                  |                                                        |                                                     |                              |                                                                                     |               |  |
| 45                                  |                                                        |                                                     |                              |                                                                                     |               |  |
| Ex-motors                           |                                                        |                                                     |                              |                                                                                     |               |  |
| 46                                  |                                                        |                                                     |                              |                                                                                     |               |  |
| 47                                  |                                                        |                                                     |                              |                                                                                     |               |  |
| 48                                  |                                                        |                                                     |                              |                                                                                     |               |  |
| Option Variant Codes / Definition   |                                                        |                                                     |                              |                                                                                     |               |  |
| 49                                  | Application check not made in absence of load details. |                                                     |                              |                                                                                     |               |  |
| 50                                  | Efficiency level : IE3 as per IS12615 2018.            |                                                     |                              |                                                                                     |               |  |
| 51                                  |                                                        |                                                     |                              |                                                                                     |               |  |
| 52                                  |                                                        |                                                     |                              |                                                                                     |               |  |
| Remarks:                            |                                                        |                                                     |                              |                                                                                     |               |  |
| Applicable standards: IS 12615 2018 |                                                        |                                                     |                              |                                                                                     |               |  |

All performance values are subject to IS/IEC tolerances





