

| ABB Motors and Generators         |                                                    | 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>1/17/2019</b> | Saving ident<br><b>untitled.xls</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 071 310-BSCIN</b>                           |                                   | Calc. ref.                          | 3GZH021007-12 |                                                                                     |
| 3                                 | Type/Frame                                         | <b>M2BAX 71MA 2</b>                                 |                                   |                                     |               |                                                                                     |
| 4                                 | Mounting                                           | <b>IM3001, B5(flange)</b>                           |                                   |                                     |               |                                                                                     |
| 5                                 | Rated output P <sub>N</sub>                        | <b>0.37</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>                                          | VY                                | +10, -10 %                          |               |                                                                                     |
| 9                                 | Rated frequency f <sub>N</sub>                     | <b>50</b>                                           | Hz                                | +5, -5 %                            |               |                                                                                     |
| 10                                | Rated speed n <sub>N</sub>                         | <b>2760</b>                                         | r/min                             |                                     |               |                                                                                     |
| 11                                | Rated current I <sub>N</sub>                       | <b>0.9</b>                                          | A                                 |                                     |               |                                                                                     |
| 12                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 13                                | Starting current I <sub>s</sub> /I <sub>N</sub>    | <b>5</b>                                            |                                   |                                     |               |                                                                                     |
| 14                                | Nominal torque T <sub>N</sub>                      | <b>1.28</b>                                         | Nm                                |                                     |               |                                                                                     |
| 15                                | Locked rotor torque T <sub>s</sub> /T <sub>N</sub> | <b>2</b>                                            |                                   |                                     |               |                                                                                     |
| 16                                | Maximum torque T <sub>max</sub> /T <sub>N</sub>    | <b>2.4</b>                                          |                                   |                                     |               |                                                                                     |
| 17                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 18                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| Load characteristics              |                                                    | Load %                                              | Current A                         | Efficiency %                        | Power factor  |                                                                                     |
| 19                                | PLL determined from residual loss                  | <b>100</b>                                          | <b>0.9</b>                        | <b>72.2 / IE2</b>                   | <b>0.79</b>   |                                                                                     |
| 20                                |                                                    | <b>75</b>                                           | <b>0.74</b>                       | <b>72.9</b>                         | <b>0.72</b>   |                                                                                     |
| 21                                |                                                    | <b>50</b>                                           | <b>0.61</b>                       | <b>70.3</b>                         | <b>0.6</b>    |                                                                                     |
| 22                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 23                                | Thermal withstand time hot                         | <b>5</b>                                            | s                                 |                                     |               |                                                                                     |
| 24                                | Thermal withstand time cold                        | <b>13</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 self ventilated</b>                        |                                   |                                     |               |                                                                                     |
| 30                                | Bearing DE/NDE                                     | <b>6203-2Z/C3 - 6202-2Z/C3</b>                      |                                   |                                     |               |                                                                                     |
| 31                                | Sound pressure level (LP dB(A) 1m)                 | <b>67</b>                                           | dB(A)                             | at no-load                          |               |                                                                                     |
| 32                                | Moment of inertia J = ¼ GD2                        | <b>0.00033</b>                                      | kg-m2                             |                                     |               |                                                                                     |
| 33                                | Position of terminal box                           | <b>Top</b>                                          |                                   |                                     |               |                                                                                     |
| 34                                | Direction of rotation                              | <b>Bi-directional</b>                               |                                   |                                     |               |                                                                                     |
| 35                                | Weight of rotor                                    | <b>1</b>                                            | kg                                |                                     |               |                                                                                     |
| 36                                | Total weight of motor                              | <b>9</b>                                            | kg                                |                                     |               |                                                                                     |
| 37                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 38                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 39                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 40                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 41                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 42                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 43                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 44                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 45                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| Ex-motors                         |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 46                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 47                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 48                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| Option Variant Codes / Definition |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 49                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 50                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 51                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| 52                                |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| Remarks:                          |                                                    |                                                     |                                   |                                     |               |                                                                                     |
| Data based on situation 8/8/2016  |                                                    |                                                     |                                   |                                     |               |                                                                                     |

All performance values are subject to IS/IEC tolerances





