



| Test Report   |             |   |       | Date of issue: 20.11.2015        |         |                |          |                    |       |
|---|-------------|---|-------|----------------------------------|---------|----------------|----------|--------------------|-------|
|   |             |   |       | Type: M3JM 355SMB 4              |         |                |          |                    |       |
|   |             |   |       | Product Code: 3GJM352220-_DG     |         |                |          |                    |       |
|   |             |   |       | Protection type: Ex d I Mb       |         |                |          |                    |       |
|   |             |   |       | Cert. No.: LCIE 10 ATEX 3089 X / |         |                |          |                    |       |
|   |             |   |       | IECEX LCI 04.0008X               |         |                |          |                    |       |
| Rating:   |             |   |       |                                  |         |                |          |                    |       |
|   |             | V   | Hz    | kW                               | r/min   | A              | cos φ    | Duty               |       |
| 3~Motor   |             | 690   | Y 50  | 315                              | 1488    | 318            | 0,86     | S1                 |       |
| Insul.cl.F  |             | 400   | D 50  | 315                              | 1488    | 550            | 0,86     | S1                 |       |
| IP66  |             | 415   | D 50  | 315                              | 1489    | 536            | 0,85     | S1                 |       |
| Eff class IE2   |             | 50Hz: IE2 - 95,9%(100%) - 96,2%(75%) - 95,8%(50%) |       |                                  |         |                |          |                    |       |
| Resistance  |             |   |       | Insulation resistance at 56 °C   |         |                | Overload |                    |       |
| Line  |             | Ambient: 22 °C                                    |       | 12000 MΩ                         |         | 1000 V         |          | Torque 160 % 15s   |       |
| U <sub>1</sub> - V <sub>1</sub>   |             | 0,00448 Ω   |       |                                  |         |                |          |                    |       |
| U <sub>1</sub> - W <sub>1</sub>   |             | 0,00448 Ω   |       |                                  |         |                |          |                    |       |
| V <sub>1</sub> - W <sub>1</sub>   |             | 0,00449 Ω   |       |                                  |         |                |          |                    |       |
|   |             |   |       | High-voltage test winding        |         | 2400 V         |          | 60 s               |       |
| Test  | Torque [Nm] | Line U[V]   | f[Hz] | Input I[A]                       | P1 [kW] | Output P2 [kW] | n[r/min] | cos φ              | η [%] |
| No load test  |             | 400,0 D   | 50    | 162,8                            | 4,51    |                | 1500     | 0,04               |       |
| Locked rotor test   |             | 72,1 D  | 50    | 550,2                            | 19,6    |                | 0        | 0,28               |       |
| Thermal test (100% load)  | 2022        | 400,2 D   | 50    | 551,5                            | 327,8   | 315,0          | 1488     | 0,86               | 96,1  |
| Partial load points:  |             |   |       |                                  |         |                |          |                    |       |
| ~75% load   | 1520        | 400,2 D   | 50    | 424,7                            | 245,4   | 236,3          | 1491     | 0,83               | 96,3  |
| ~50% load   | 1021        | 400,1 D   | 50    | 309,0                            | 164,0   | 157,5          | 1495     | 0,77               | 96,0  |
| ~25% load   | 499,0       | 400,2 D   | 50    | 212,2                            | 83,8    | 78,8           | 1497     | 0,57               | 94,0  |
| Temperature rise at rated load.   |             |   |       | °C                               | K       | Method         |          | Measurement method |       |
| Stator winding :  |             |   |       | 71                               | 1       | 1              |          | Resistance         |       |
| Frame :   |             |   |       | 26                               | 2       | 2              |          | Thermocouples      |       |
| Bearing D-end :   |             |   |       | 50                               | 2       | 3              |          | Thermometer        |       |
| Rotor:  |             |   |       | 114                              | 3       |                |          |                    |       |
| Ambient Temperature :   |             |   |       | 25                               | 2       |                |          |                    |       |
| <p>These tests have been carried out on motor no. 3GF11054637, on date 2011-03-03, which is identical in electrical design with the above.</p> <p>Manufactured and tested in accordance with rules of IEC 60034-1 and IEC 60034-2-1.<br/>PLL determined from residual loss.</p> <p>On behalf of customer</p> <p>On behalf of manufacturer</p> <p>Tested by ABB Oy, Motors and Generators, Vaasa, Finland</p> <p>Telephone +358 10 2211<br/>Telefax +358 10 22 47372</p> |             |   |       |                                  |         |                |          |                    |       |

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