# Test Report

Date of issue: 20.11.2015

Type: M3JM 355SMB 2
Product Code: 3GJM351220-_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 | 2980 | 308 | 0,89 | S1 |
| Insul.cl.F | 400 | D | 50 | 315 | 2980 | 531 | 0,89 | S1 |
| IP66 | 415 | D | 50 | 315 | 2982 | 511 | 0,89 | S1 |

Eff class IE2 — 50Hz: IE2 - 95,7%(100%) - 95,6%(75%) - 95,0%(50%)

Resistance
Line — Ambient: 21 °C
$U_1$ - $V_1$ 0,00439 Ω
$U_1$ - $W_1$ 0,00440 Ω
$V_1$ - $W_1$ 0,00438 Ω

Insulation resistance at 46 °C
20000 MΩ 1000 V

High-voltage test winding 2400 V 60 s

Overload
Torque 160 % 15s

| 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 | | 400,1 | D | 50 | 124,7 | 5,73 | | 3000 | 0,07 | |
| Locked rotor test | | 66,1 | D | 50 | 533,0 | 16,3 | | 0 | 0,27 | |
| Thermal test (100% load) | 1009 | 400,4 | D | 50 | 529,4 | 327,5 | 315,0 | 2980 | 0,89 | 96,2 |
| Partial load points: | | | | | | | | | | |
| ~75% load | 755,5 | 400,6 | D | 50 | 404,0 | 245,7 | 236,3 | 2986 | 0,88 | 96,1 |
| ~50% load | 501,0 | 400,8 | D | 50 | 287,1 | 164,9 | 157,5 | 2991 | 0,83 | 95,5 |
| ~25% load | 254,5 | 400,9 | D | 50 | 184,7 | 84,9 | 78,8 | 2996 | 0,66 | 92,8 |

Temperature rise at rated load.

| | [°C] | [K] | Method |
|---|---|---|---|
| Stator winding : | | 67 | 1 |
| Frame : | | 31 | 2 |
| Bearing D-end : | | 50 | 2 |
| Ambient Temperature : | 25 | | 2 |

Measurement method
1 Resistance
2 Thermocouples
3 Thermometer

Starting current ($I_S$ / $I_N$) : 6,98
Locked rotor torque ($T_I$ / $T_N$) : 2,09

These tests have been carried out on motor no. 3GF10045532, on date 2011-02-17, which is identical in electrical design with the above.

Manufactured and tested in accordance with rules of IEC 60034-1 and IEC 60034-2-1.
PLL determined from residual loss.

On behalf of customer

On behalf of manufacturer

Tested by ABB Oy, Motors and Generators, Vaasa, Finland

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