# Test Report

Date of issue: 5.12.2014

Serial No.:

Order No.:

Type: M2BAX 280SMB 4 IMB3/IM1001

Product Code: 3GBA282220-ADM

Rating:

| | V | | Hz | kW | r/min | A | cos φ | Duty |
|---|---|---|---|---|---|---|---|---|
| 3~Motor | 690 | Y | 50 | 75 | 1485 | 78 | 0,86 | S1 |
| Insul.cl.F | 400 | D | 50 | 75 | 1485 | 133 | 0,86 | S1 |
| IP55 | 660 | Y | 50 | 75 | 1483 | 80 | 0,87 | S1 |
| | 380 | D | 50 | 75 | 1483 | 138 | 0,87 | S1 |
| | 440 | D | 60 | 75 | 1784 | 120 | 0,86 | S1 |
| Eff class IE3 | 460 | D | 60 | 75 | 1785 | 116 | 0,85 | S1 |

50Hz: IE3-95,0%(100%)-95,1%(75%)-94,6%(50%)

60Hz: IE3-95,4%(100%)

Resistance

Line — Ambient: 23 °C

| | | |
|---|---|---|
| $U_1$ - $V_1$ | 0,03721 | Ω |
| $U_1$ - $W_1$ | 0,03726 | Ω |
| $V_1$ - $W_1$ | 0,03724 | Ω |

Insulation resistance at 55 °C

37000 MΩ 1000 V

Overload

Torque 160% 15s

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 | 44,1 | 1,42 | | 1500 | 0,05 | |
| Locked rotor test | | 71,2 | D | 50 | 133,0 | 5,37 | | 0 | 0,33 | |
| Thermal test (100% load) | 482,6 | 400,1 | D | 50 | 133,3 | 79,0 | 75,0 | 1485 | 0,86 | 95,0 |
| Partial load points: | | | | | | | | | | |
| ~75% load | 363,5 | 400,1 | D | 50 | 103,5 | 59,1 | 56,3 | 1489 | 0,82 | 95,2 |
| ~50% load | 241,8 | 400,1 | D | 50 | 76,6 | 39,6 | 37,5 | 1493 | 0,75 | 94,8 |
| ~25% load | 122,7 | 400,1 | D | 50 | 55,0 | 20,4 | 18,8 | 1497 | 0,54 | 92,1 |

Temperature rise at rated load.

| | [°C] | [K] | Method |
|---|---|---|---|
| Stator winding : | | 49 | 1 |
| Frame : | | 24 | 2 |
| Bearing D-end : | | 32 | 2 |
| Rotor : | | 64 | 3 |
| Ambient Temperature : | 25 | | 2 |

Measurement method
1 Resistance
2 Thermometer
3 Thermocouples

These tests have been carried out on motor no. 3GF13167850, on date 2013-07-25
which is identical in 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 Date of test

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

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