# Type Test Report

Date of issue: 1.9.2015

Serial No.:

Customer:

Customer ref.:

Type: M3AA 225SMC 4

Product Code: 3GAA222230-ADG

Rating:

| | V | | Hz | kW | r/min | A | cos φ | Duty |
|---|---|---|---|---|---|---|---|---|
| 3~Motor | 690 | Y | 50 | 55,0 | 1478 | 57,6 | 0,85 | S1 |
| Insul.cl.F | 400 | D | 50 | 55,0 | 1478 | 99,3 | 0,85 | S1 |
| IP55 | 415 | D | 50 | 55,0 | 1480 | 98,0 | 0,83 | S1 |
| | 440 | D | 60 | 55,0 | 1780 | 88,0 | 0,87 | S1 |
| | 460 | D | 60 | 55,0 | 1782 | 86,0 | 0,85 | S1 |

Eff class IE2

50Hz : IE2 - 94,0(100%) - 94,6(75%) - 94,4(50%)

60Hz : IE2 - 94,2(100%)

Resistance

Line — Ambient: 25,8 °C

$U_1$ - $V_1$ 0,06480 Ω

$U_1$ - $W_1$ 0,06477 Ω

$V_1$ - $W_1$ 0,06478 Ω

Insulation resistance at 26 °C

R > 2000 Mohm 1000 V

Overload

Current 150 % 120s

Torque 160 % 15s

Speed 120 % 120s

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 | | 400,8 | D | 50 | 35,7 | 1,14 | | 1500 | 0,05 | |
| Locked rotor test | | 72,5 | D | 50 | 90,2 | 4,20 | | 0 | 0,37 | |
| Thermal test ( 100% load ) | 355,4 | 400 | D | 50 | 100,1 | 58,47 | 55,00 | 1478 | 0,84 | 94,06 |
| Partial load points: | | | | | | | | | | |
| ~75% load | 268,3 | 400 | D | 50 | 78,8 | 44,13 | 41,70 | 1484 | 0,81 | 94,50 |
| ~50% load | 178,5 | 400 | D | 50 | 58,9 | 29,54 | 27,85 | 1490 | 0,72 | 94,29 |
| ~25% load | 89,6 | 400 | D | 50 | 43,4 | 15,29 | 14,03 | 1495 | 0,51 | 91,78 |

| Temperature rise at rated load. | [°C] | [K] | Method |
|---|---|---|---|
| Stator winding : | | 66,4 | 1 |
| Frame : | | 25,9 | 2 |
| Bearing D-end : | | 42,8 | 2 |
| Ambient Temperature : | 26 | | 2 |

Measurement method
1 Resistance
2 Thermometer
3 Thermocouples

These tests have been carried out on motor no. 3GV1010615766001, on date 2011-08-31 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 Date of test

Tested by ABB AB, LV Motors, 721 70 Västerås, Sweden

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