



| Test Report   |                |           |                                | Date of issue: 1.6.2015                |         |                 |                  |                    |       |
|---|----------------|-----------|--------------------------------|--|---------|-----------------|------------------|--------------------|-------|
|   |                |           |                                | Serial No.:                            |         |                 |                  |                    |       |
|   |                |           |                                | Type: M3GP 160MLB 6                    |         |                 |                  |                    |       |
|   |                |           |                                | Product Code: 3GGP163420-ADL           |         |                 |                  |                    |       |
|   |                |           |                                | Protection type: Ex tc IIIB/C T125C Dc |         |                 |                  |                    |       |
|   |                |           |                                | Cert. No.: LCIE 13 ATEX 1034 X /       |         |                 |                  |                    |       |
|   |                |           |                                | IECEX LCIE 13.0047 X                   |         |                 |                  |                    |       |
| Rating:   |                |           |                                |  |         |                 |                  |                    |       |
|   | V              | Hz        | kW                             | r/min                                  | A       | cos φ           | Duty             |                    |       |
| 3~Motor   | 690            | Y 50      | 11,0                           | 975                                    | 13,1    | 0,78            | S1               |                    |       |
| Insul.cl.F  | 400            | D 50      | 11,0                           | 975                                    | 22,5    | 0,78            | S1               |                    |       |
|   | 415            | D 50      | 11,0                           | 977                                    | 22,0    | 0,77            | S1               |                    |       |
| Eff class IE3   | 440            | D 60      | 11,0                           | 1177                                   | 20,4    | 0,77            | S1               |                    |       |
|   | 460            | D 60      | 11,0                           | 1179                                   | 19,8    | 0,76            | S1               |                    |       |
| 50Hz: IE3-90,3%(100%)-91,1%(75%)-91,1%(50%)   |                |           |                                |  |         |                 |                  |                    |       |
| 60Hz: IE3-91,7%(100%)   |                |           |                                |  |         |                 |                  |                    |       |
| Resistance  |                |           | Insulation resistance at 82 °C |  |         | Overload        |                  |                    |       |
| Line  | Ambient: 26 °C |           | 2000 MΩ                        |  | 1000 V  |                 | Torque 160% 15s  |                    |       |
| U <sub>1</sub> - V <sub>1</sub>   | 0,53230 Ω      |           |                                |  |         |                 | Speed 120% 120s  |                    |       |
| U <sub>1</sub> - W <sub>1</sub>   | 0,53120 Ω      |           |                                |  |         |                 | Current 150% 15s |                    |       |
| V <sub>1</sub> - W <sub>1</sub>   | 0,53250 Ω      |           |                                |  |         |                 |                  |                    |       |
|   |                |           |                                | High-voltage test winding              |         | 1900 V          |                  | 60 s               |       |
| Test  | Torque [Nm]    | Line U[V] | f[Hz]                          | Input I[A]                             | P1 [kW] | Output P2 [kW]  | η[r/min]         | cos φ              | η [%] |
| No load test  |                | 400,5 D   | 50                             | 10,8                                   | 0,35    |                 | 998              | 0,05               |       |
| Locked rotor test   |                | 94,2 D    | 50                             | 22,4                                   | 1,16    |                 | 0                | 0,32               |       |
| Thermal test (100% load)  | 107,4          | 399,8 D   | 50                             | 22,5                                   | 12,2    | 11,0            | 975              | 0,78               | 90,2  |
| Partial load points:  |                |           |                                |  |         |                 |                  |                    |       |
| ~75% load   | 80,7           | 400,8 D   | 50                             | 18,2                                   | 9,1     | 8,3             | 982              | 0,72               | 91,1  |
| ~50% load   | 53,9           | 400,9 D   | 50                             | 14,5                                   | 6,1     | 5,5             | 989              | 0,60               | 91,0  |
| ~25% load   | 26,8           | 401,3 D   | 50                             | 11,7                                   | 3,1     | 2,8             | 994              | 0,39               | 87,5  |
| Temperature rise at rated load.   |                | [°C]      |                                | [K]                                    |         | Method          |                  | Measurement method |       |
| Stator winding :  |                | 52        |                                | 1                                      |         | 1 Resistance    |                  |                    |       |
| Frame :   |                | 27        |                                | 2                                      |         | 2 Thermocouples |                  |                    |       |
| Bearing D-end :   |                | 31        |                                | 2                                      |         | 3 Thermometer   |                  |                    |       |
| Rotor:  |                | 73        |                                | 3                                      |         |                 |                  |                    |       |
| Ambient Temperature :   |                | 25        |                                | 2                                      |         |                 |                  |                    |       |
| These tests have been carried out on motor no. 3G1P141700176, on date 2014-07-23 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                           |         |                 |                  |                    |       |
|   |                |           |                                | Telephone +34 93 728 85 00             |         |                 |                  |                    |       |
| Tested by Asea Brown Boveri, S.A., Fabrica Motores, 08192 Sant Quirze del Valles, Spain                                       |                |           |                                | Telefax +34 93 728 85 33               |         |                 |                  |                    |       |

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