

|   |                   |                         |                                       |                     |                               |                  |   |                        |
|---|-------------------|-------------------------|---------------------------------------|---------------------|-------------------------------|------------------|---|------------------------|
| Producer: <b>Siemens Standard Motors Ltd.</b>   |                   |                         |                                       |                     |                               |                  |   |                        |
| Address :<br>No. 110, West Street<br>Qingshan Town Yizheng City<br>Jiangsu Province 211417, P.R.China |                   |                         |                                       |                     |                               |                  |   |                        |
| <b>TYPE TEST CERTIFICATE OF INDUCTION MOTOR</b>   |                   |                         |                                       |                     |                               |                  |   |                        |
| TEST No...Probe Nr. :   |                   |                         |                                       |                     |                               |                  |   |                        |
| TYPE... : <b>1LG0090-2AA</b>  |                   | SERIAL-No: <b>1812</b>  |                                       | spec.: 3            |                               |                  |   |                        |
| 1.5 kW  | 380 V             | Y                       | 3.43 A                                | 2840 /min           | 50 Hz                         |                  |   |                        |
| S1  | IP55              | Isol. F                 | 40 °C                                 | IM B3               | 22 kg                         |                  |   |                        |
| WINDING RESISTANCE - cold   |                   |                         |                                       |                     | $R_{f20} = 1.951152 \ \Omega$ |                  |   |                        |
| TERMINALS:  |                   | U-V                     | U-W                                   | V-W                 | $R_{isol} > 0.5 \ G\Omega$    |                  |   |                        |
| $\vartheta = 8 \ ^\circ C$  | $R (\ \Omega ) :$ | 3.71300                 | 3.71600                               | 3.72700             |                               |                  |   |                        |
| $M_N = 5.0 \ Nm$  | LOAD TEST         |                         |                                       |                     |                               |                  | 1. MEASURING  |                        |
|   | 1.                | 2.                      | 3.                                    | 4.                  | 5.                            | 6.               |   |                        |
| $P_{in} \ (W)$  | 2048              | 1841                    |                                       |                     |                               |                  | 2. CORRECTED for P <sub>n</sub>                           |                        |
| $P \ (W)$   | 1665              | 1500                    | 1500                                  |                     |                               | 1500             |   |                        |
| $U \ (V)$   | 380               |                         |                                       |                     |                               | 380              |   |                        |
| $I \ (A)$   | 3.6               | 3.3                     | 3.3                                   |                     |                               | 3.43             |   |                        |
| $f \ (Hz)$  | 50                | 50                      | 50                                    |                     |                               | 50               |   |                        |
| SPEED (1/min)   | 2826              | 2843                    | 2843                                  |                     |                               | 2840             | 3. CORRECTED FOR T <sub>REF</sub><br>according EN 60034-2 |                        |
| Torque (Nm)   | 5.6               |                         |                                       |                     |                               |                  |   |                        |
| $\eta \ (\%)$   | 81.30             | 81.47                   | 81.2                                  |                     |                               | 77.2             |   |                        |
| $\cos \varphi \ (-)$  | 0.855             | 0.853                   |                                       |                     |                               | 0.84             |   |                        |
| $M_{ST} / M_N \ \diamond \ M_A / M_N \ (-)$   | 2.5               | 2.5                     |                                       |                     |                               | 2.2              |   |                        |
| $I_{ST} / I_N \ \diamond \ I_A / I_N \ (-)$   | 6.7               | 6.7                     |                                       |                     |                               | 7.0              | 4. CORRECTED FOR T <sub>REF</sub><br>according CEMEP      |                        |
| $M_{MAX} / M_N \ \diamond \ M_K / M_N \ (-)$  | 2.97              | 2.97                    |                                       |                     |                               | 2.3              |   |                        |
| SLIP ... (%)  | 5.80              | 5.23                    |                                       |                     |                               | 5.33             |   |                        |
| WINDING - $\Delta \vartheta \ (K)$  | 71.4<br>(30 s)    | 61.1<br>(30 s)          | EN 60034-2<br>T <sub>ref</sub> = 95°C |                     |                               | 80               |   |                        |
| $\vartheta_a \ (^\circ C)$  | 9                 | 9                       |                                       |                     |                               |                  |   |                        |
| FRAME - $\Delta \vartheta \ (K)$  | 34                | 29.1                    |                                       |                     |                               |                  | 5. MEASURING at 75% P <sub>n</sub>                        |                        |
| TIME ... (min)  | 240               |                         |                                       |                     |                               |                  |   |                        |
| BEARING_D - $\Delta \vartheta \ (K)$  | 33                | 28.3                    |                                       |                     |                               |                  |   |                        |
| RESISTANCE - warm<br>( $\Omega$ )   | 4.82600           | 4.66902                 | ... U-V<br>... U-W<br>... V-W         |                     |                               |                  | 6. GUARANTED  |                        |
|   | 4.82600           | 4.66902                 | $R_{isol} = 0.2 \ G\Omega$            |                     |                               |                  |   |                        |
|   | 4.82600           | 4.66902                 |                                       |                     |                               |                  |   |                        |
| NO-LOAD TEST  |                   |                         |                                       | LOCKED ROTOR TEST   |                               |                  |   |                        |
| VOLTAGE   | CURRENT           | POWER INPUT             | POWER FACTOR                          | VOLTAGE             | CURRENT                       | TORQUE           | POWER INPUT   | POWER FACTOR           |
| $U_o \ (V)$   | $I_o \ (A)$       | $P_o \ (W)$             | $\cos \varphi_o \ (-)$                | $U_A \ (V)$         | $I_A \ (A)$                   | $M_A \ (N.m.)$   | $P_A \ (W)$   | $\cos \varphi_A \ (-)$ |
| 380   | 1.71636           | 192                     | 0.170                                 | 380                 | 22.9                          | 12.8             | 10972   | 0.727                  |
| COIL TEST   |                   | HIGH-SPEED TEST         |                                       | HIGH POTENCIAL TEST |                               |                  |   |                        |
| 130% $U_N$ - 3 min.   |                   | 120% $n_{MAX}$ - 2 min. |                                       | 2500 V - 1 min.     |                               |                  |   |                        |
| TESTS CONFORM to the ... <b>EN 60034</b>  |                   |                         |                                       |                     |                               |                  |   |                        |
| NOTE  |                   |                         |                                       |                     |                               |                  | order:  |                        |
| A&D SD MF QM  |                   | DATE...<br>13/3/2009    |                                       | PAGE...<br>1 / 6    |                               | SIGNATURE<br>LAZ |   |                        |