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|--|--------|-----------|----------|----------|----------|----------|---------|
| Technical Data Summary, SBMAX Frame Sizes 145 mm | | | | | | | |
| Winding selection for 2000 rpm with 380 Vac 3 phase drive | | | | | | | |
| Winding selection for 1100 rpm with 220 Vac 3 phase drive | | | | | | | |
| Winding selection for 900 rpm with 180 Vac 3 phase drive | | | | | | | |
| Issue 3, 16/12/95 Lamiera nuova | | | | | | | |
| | | Frame 145 | | | | | Units |
| Reference data: | SBM | 2004 | 2008 | 2015 | 2022 | 2028 | |
| Nominal torque, cont. duty, zero speed (DT=65oC, in air) 1) | Tn | 4,4996023 | 8,6702 | 15,01586 | 21,95548 | 27,99365 | Nmrms |
| Nominal torque, cont. duty, zero speed (DT=105oC, flange mount) 2) | T105 | 8,8406526 | 15,79948 | 26,96929 | 37,07121 | 45,17456 | Nmrms |
| Base speed | wn | 209 | 209 | 209 | 209 | 209 | rad/s |
| Nominal power,1) | Pn | 931,24312 | 1745,275 | 2966,207 | 4208,424 | 5169,432 | W |
| Nominal power,2) | P105 | 1630,4075 | 2887,197 | 4898,552 | 6650,859 | 7875,102 | W |
| Torque at max. speed 1) | Tw | 4,4557087 | 8,350599 | 14,19238 | 20,136 | 25,21674 | Nmrms |
| Torque at max. speed 2) | Tw105 | 7,8009927 | 13,81434 | 23,43805 | 31,82229 | 38,41513 | Nmrms |
| Peak torque,zero speed S.I.R.10% 2) | Tpk | 27,956598 | 49,96234 | 85,28437 | 117,2295 | 142,8545 | Nmrms |
| Physical data: | | | | | | | |
| Maximum speed | wmax | 700 | 700 | 700 | 700 | 700 | rad/s |
| Rotor inertia | Jm | 0,775 | 1,05 | 1,6 | 2,15 | 2,7 | mkgm2 |
| Acceleration at peak torque | apk | 36073,03 | 47583,19 | 53302,73 | 54525,33 | 52909,08 | rad/s2 |
| Max. shock on motor, any direction | S | 200 | 200 | 200 | 200 | 200 | m/s2 |
| Max. vibration, radial | Vr | 200 | 200 | 200 | 200 | 200 | m/s2 |
| Max. vibration, axial | Va | 40 | 40 | 40 | 40 | 40 | m/s2 |
| Shaft torsional resonance frequency 3) | fm | N.A. | N.A. | N.A. | N.A. | 500 | Hz |
| Mass | M | 10 | 10 | 14 | 18 | 22 | kg |
| Thermal data: | | | | | | | |
| Motor losses at nominal power | Ln | 80 | 93 | 105 | 127 | 144 | W |
| Thermal impedance, motor to air | Rtha | 0,8125 | 0,698925 | 0,619048 | 0,511811 | 0,451389 | oC/W |
| Thermal impedance, motor to air+flange | Rthf | 0,34 | 0,34 | 0,31 | 0,29 | 0,28 | oC/W |
| Thermal capacity | Cth | 6279 | 6279 | 8790,6 | 11302,2 | 13813,8 | J/oC |
| Thermal time constant in air | ta | 5101,6875 | 4388,548 | 5441,8 | 5784,591 | 6235,396 | s |
| No load losses at base speed | L0 | 5,506314 | 11,01263 | 16,01837 | 25,52927 | 32,93897 | W |
| Treshold of built-in PTC | PTCt | 130 | 130 | 130 | 130 | 130 | oC |
| Electrical data: | | | | | | | |
| Pole number | PN | 8 | 8 | 8 | 8 | 8 | |
| Connection | | Y | Y | Y | Y | Y | |
| Back E.M.F. between phases | Ke | 1,17 | 1,4391 | 1,4976 | 1,5327 | 1,5327 | Vs |
| Torque constant | Kt | 2,0264994 | 2,492594 | 2,593919 | 2,654714 | 2,654714 | Nm/Arms |
| Temperature coefficient of E.M.F. and Kt | dKe/dT | -0,09 | -0,09 | -0,09 | -0,09 | -0,09 | %/oC |
| Winding resistance, 20oC | Rw | 8,5058292 | 4,029117 | 1,642418 | 0,973274 | 0,67883 | Ohm |
| Winding inductance | Lw | 93,636923 | 41,31846 | 14,38263 | 8,183304 | 5,440037 | mH |
| Nominal voltage | Vn | 319,774 | 337,4541 | 329,682 | 332,5428 | 324,0191 | Vrms |
| EMF at 1000 rpm | V1000 | 122,499 | 150,6738 | 156,7987 | 160,4737 | 160,4737 | Vrms |
| Nominal current, zero speed | In0 | 2,344723 | 3,740198 | 6,224592 | 8,892876 | 11,33858 | Arms |
| Nominal current at rated power 1) | In | 2,3038778 | 3,511774 | 5,730156 | 7,948968 | 9,957686 | Arms |
| Peak current | lpk | 13,795512 | 20,04431 | 32,87857 | 44,15898 | 53,81163 | Arms |
| Frequency | fn | 133,05353 | 133,0535 | 133,0535 | 133,0535 | 130,5071 | Hz |
| Efficiency at rated power | n | 0,9208894 | 0,949409 | 0,965811 | 0,970706 | 0,972899 | |
| Min. demagnetization current, 125oC | ldm | 16,45 | 26,74797 | 51,40625 | 75,34351 | 100,458 | Apk |