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| Technical Data Summary, SBMAX Frame Sizes 145 mm | | | | | | | |
| Winding selection for 4500 rpm with 400 Vac 3 phase drive | | | | | | | |
| Winding selection for 2500 rpm with 220 Vac 3 phase drive | | | | | | | |
| Winding selection for 2200 rpm with 180 Vac 3 phase drive | | | | | | | |
| Issue 3, 16/12/95 Lamiera nuova | | | | | | | |
| | | Frame 145 | | | | | Units |
| Reference data: | SBM | 4504 | 4508 | 4515 | 4522 | 4528 | |
| Nominal torque, cont. duty, zero speed (DT=65oC, in air) 1) | Tn | 4,5 | 8,7 | 15,0 | 22,0 | 28,0 | Nmrms |
| Nominal torque, cont. duty, zero speed (DT=105oC, flange mount) 2) | T105 | 8,8 | 15,5 | 27,0 | 36,3 | 44,1 | Nmrms |
| Base speed | wn | 471 | 471 | 471 | 471 | 471 | rad/s |
| Nominal power,1) | Pn | 1826 | 3383 | 4934 | 5689 | 6058 | W |
| Nominal power,2) | P105 | 3542 | 6153 | 10333 | 13088 | 15260 | W |
| Torque at max. speed 1) | Tw | 3,9 | 7,2 | 10,5 | 12,1 | 12,9 | Nmrms |
| Torque at max. speed 2) | Tw105 | 7,5 | 13,1 | 21,9 | 27,8 | 32,4 | Nmrms |
| Peak torque,zero speed S.I.R.10% 2) | Tpk | 27,7 | 49,1 | 85,3 | 114,7 | 139,5 | 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 | 35755 | 46735 | 53294 | 53357 | 51672 | 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 | 10,0 | 10,0 | 14,0 | 18,0 | 22,0 | kg |
| Thermal data: | | | | | | | |
| Motor losses at nominal power | Ln | 80 | 96 | 105 | 133 | 151 | W |
| Thermal impedance, motor to air | Rtha | 0,8125 | 0,677083 | 0,619048 | 0,488722 | 0,430464 | 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 | 8791 | 11302 | 13814 | J/oC |
| Thermal time constant in air | ta | 5102 | 4251 | 5442 | 5524 | 5946 | s |
| No load losses at base speed | L0 | 21,9 | 32,7 | 55,9 | 94,1 | 119,9 | 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 | 0,585 | 0,658125 | 0,65754 | 0,6552 | 0,66 | Vs |
| Torque constant | Kt | 1,0132497 | 1,139906 | 1,138893 | 1,13484 | 1,13484 | 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 | 2,1644778 | 0,873521 | 0,316722 | 0,185727 | 0,130062 | Ohm |
| Winding inductance | Lw | 23,41 | 8,64 | 2,77 | 1,50 | 0,994 | mH |
| Nominal voltage | Vn | 335 | 334 | 317 | 312 | 311 | Vrms |
| EMF at 1000 rpm | V1000 | 61 | 69 | 69 | 69 | 69 | Vrms |
| Nominal current, zero speed | In0 | 4,7 | 8,2 | 14,2 | 20,8 | 26,5 | Arms |
| Nominal current at rated power 1) | In | 4,0 | 6,6 | 9,7 | 11,3 | 12,0 | Arms |
| Peak current | lpk | 27 | 43 | 75 | 101 | 123 | Arms |
| Frequency | fn | 300 | 300 | 300 | 300 | 300 | Hz |
| Efficiency at rated power | n | 0,958 | 0,972 | 0,979 | 0,977 | 0,976 | |
| Min. demagnetization current, 125oC | ldm | 33 | 58 | 117 | 176 | 235 | Apk |