

Technical Data Summary, SBMAX Frame Sizes 145 mm						
Winding selection for 2500 rpm with 220 Vac 3 phase drive						
Issue 3, 16/12/95 Lamiera nuova						
		Frame 145				Units
Reference data:	SBM	2508	2515	2522	2528	
Nominal torque, cont. duty, zero speed (DT=65oC, in air) 1)	Tn	8,7	15,0	22,0	28,0	Nmrms
Nominal torque, cont. duty, zero speed (DT=105oC, flange mount) 2)	T105	15,7	27,3	37,4	45,6	Nmrms
Base speed	wn	262	262	262	262	rad/s
Nominal power,1)	Pn	2130	3525	4941	6056	W
Nominal power,2)	P105	3567	6134	8270	9899	W
Torque at max. speed 1)	Tw	8,1	13,5	18,9	23,1	Nmrms
Torque at max. speed 2)	Tw105	13,6	23,4	31,6	37,8	Nmrms
Peak torque,zero speed S.I.R.10% 2)	Tpk	49,7	86,2	118,4	144,1	Nmrms
Physical data:						
Maximum speed	wmax	700	700	700	700	rad/s
Rotor inertia	Jm	1,05	1,6	2,15	2,7	mkgm2
Acceleration at peak torque	apk	47310	53878	55074	53382	rad/s2
Max. shock on motor, any direction	S	200	200	200	200	m/s2
Max. vibration, radial	Vr	200	200	200	200	m/s2
Max. vibration, axial	Va	40	40	40	40	m/s2
Shaft torsional resonance frequency 3)	fm	N.A.	N.A.	N.A.	500	Hz
Mass	M	10,0	14,0	18,0	22,0	kg
Thermal data:						
Motor losses at nominal power	Ln	95	102	125	142	W
Thermal impedance, motor to air	Rtha	0,684211	0,637255	0,52	0,457746	oC/W
Thermal impedance, motor to air+flange	Rthf	0,34	0,31	0,29	0,28	oC/W
Thermal capacity	Cth	6279	8791	11302	13814	J/oC
Thermal time constant in air	ta	4296	5602	5877	6323	s
No load losses at base speed	L0	16,2	23,5	37,5	50,0	W
Treshold of built-in PTC	PTCt	130	130	130	130	oC
Electrical data:						
Pole number	PN	8	8	8	8	
Connection		Y	Y	Y	Y	
Back E.M.F. between phases	Ke	0,51246	0,5499	0,5499	0,585	Vs
Torque constant	Kt	0,887607	0,952455	0,952455	1,01325	Nm/Arms
Temperature coefficient of E.M.F. and Kt	dKe/dT	-0,09	-0,09	-0,09	-0,09	%/oC
Winding resistance, 20oC	Rw	0,516836	0,21674	0,122797	0,097146	Ohm
Winding inductance	Lw	5,24	1,94	1,053	0,793	mH
Nominal voltage	Vn	149	150	148	157	Vrms
EMF at 1000 rpm	V1000	54	58	58	61	Vrms
Nominal current, zero speed	In0	10,6	16,9	24,8	29,8	Arms
Nominal current at rated power 1)	In	9,6	14,8	20,8	24,0	Arms
Peak current	Ipk	56	91	124	142	Arms
Frequency	fn	167	167	167	167	Hz
Efficiency at rated power	n	0,957	0,972	0,975	0,977	
Min. demagnetization current, 125oC	Idm	80	150	225	282	Apk