

Technical Data Summary, SBMAX Frame Sizes 145 mm							
Winding selection for 3000 rpm with 380 Vac 3 phase drive							
Winding selection for 1600 rpm with 220 Vac 3 phase drive							
Winding selection for 1300 rpm with 180 Vac 3 phase drive							
Issue 3, 16/12/95 Lamiera nuova							
			Frame 145				Units
Reference data:	SBM	3004	3008	3015	3022	3028	
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	8,9	15,6	26,5	36,1	44,0	Nmrms
Base speed	wn	314	314	314	314	314	rad/s
Nominal power,1)	Pn	1348	2465	3932	5578	6676	W
Nominal power,2)	P105	2435	4195	7017	9343	11120	W
Torque at max. speed 1)	Tw	4,3	7,8	12,5	17,8	21,3	Nmrms
Torque at max. speed 2)	Tw105	7,8	13,4	22,3	29,8	35,4	Nmrms
Peak torque,zero speed S.I.R.10% 2)	Tpk	28,0	49,2	84,0	114,0	139,0	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	36182	46889	52473	53027	51485	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 DT65° C	Ln	80	97	108	135	152	W
Thermal impedance, motor to air	Rtha	0,8125	0,670103	0,601852	0,481481	0,427632	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	4208	5291	5442	5907	s
No load losses at base speed	L0	11,0	22,0	36,0	51,0	68,0	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	0,819	0,9828	1,0296	1,0413	1,0296	Vs
Torque constant	Kt	1,4185496	1,70226	1,78332	1,803585	1,78332	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	4,1428639	1,935186	0,801049	0,474982	0,323501	Ohm
Winding inductance	Lw	45,88	19,27	6,80	3,78	2,455	mH
Nominal voltage	Vn	326	339	335	335	330	Vrms
EMF at 1000 rpm	V1000	86	103	108	109	108	Vrms
Nominal current, zero speed	In0	3,4	5,5	9,0	13,1	16,9	Arms
Nominal current at rated power 1)	In	3,2	4,8	7,4	10,4	12,5	Arms
Peak current	Ipk	20	29	47	63	78	Arms
Frequency	fn	200	200	200	200	200	Hz
Efficiency at rated power	n	0,944	0,962	0,973	0,976	0,978	
Min. demagnetization current, 125oC	Idm	24	39	75	111	150	Apk