

Technical Data Summary, SBMAX Frame Sizes 56 mm					
Winding selection for 5000 rpm with 220 Vac 3 phase drive					
Issue 1, 19/7/93					
		Frame 56 Volt.180			Units
Reference data:	SBM	50002	50004	50006	
Nominal torque, cont. duty, zero speed (DT=65oC, in air) 1)	Tn	0,20	0,40	0,60	Nmrms
Nominal torque, cont. duty, zero speed (DT=105oC, flange mount) 2)	T105	0,41	0,80	1,14	Nmrms
Base speed	wn	523	523	523	rad/s
Nominal power,1)	Pn	102	185	266	W
Nominal power,2)	P105	191	368	517	W
Torque at max. speed 1)	Tw	0,19	0,35	0,51	Nmrms
Torque at max. speed 2)	Tw105	0,37	0,70	0,99	Nmrms
	0 Tpk	1,3	2,5	3,6	Nmrms
Physical data:					
Maximum speed	wmax	700	700	700	rad/s
Rotor inertia	Jm	0,011	0,016	0,021	mkgm2
Acceleration at peak torque	apk	117966	158665	172293	rad/s2
Max. shock on motor, any direction	S	200	200	200	m/s2
Max. vibration, radial	Vr	200	200	200	m/s2
Max. vibration, axial	Va	40	40	40	m/s2
Shaft torsional resonance frequency 3)	fm	N.A.	N.A.	N.A.	Hz
Mass	M	0,65	0,98	1,30	kg
Thermal data:					
Motor losses at nominal power	Ln	23	26	32	W
Thermal impedance, motor to air	Rtha	2,82609	2,5	2,03125	oC/W
Thermal impedance, motor to air+flange	Rthf	1,1	0,99	0,9	oC/W
Thermal capacity	Cth	408	615	816	J/oC
Thermal time constant in air	ta	1153	1538	1658	s
No load losses at base speed	L0	3,64443	7,28885	10,9333	W
Treshold of built-in PTC	PTCt	130	130	130	oC
Electrical data:					
Pole number	PN	4	4	4	
Connection		Y	Y	Y	
Back E.M.F. between phases	Ke	0,279	0,304	0,319	Vs
Torque constant	Kt	0,48316	0,52654	0,552	Nm/Arms
Temperature coefficient of E.M.F. and Kt	dKe/dT	-0,09	-0,09	-0,09	%/oC
Winding resistance, 20oC	Rw	66,8	23,0	13,7	Ohm
Winding inductance	Lw	114,963	68,2667	37,5099	mH
Nominal voltage	Vn	182	183	184	Vrms
EMF at 1000 rpm	V1000	29	32	33	Vrms
Nominal current, zero speed	In0	0,46	0,84	1,21	Arms
Nominal current at rated power 1)	In	0,42	0,71	0,98	Arms
Peak current	lpk	2,7	4,8	6,6	Arms
Frequency	fn	166	166	166	Hz
Efficiency at rated power	n	0,815	0,877	0,893	
Min. demagnetization current, 125oC	ldm	2,8	5,2	7,5	Apk