

Technical Data Summary, SBMAX Frame Sizes 56 mm					
Winding selection for 10000 rpm with 220 Vac 3 phase drive					
Issue 1, 19/7/93					
		Frame 56 Volt.220			Units
Reference data:	SBM	100002	100004	100006	
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	0,43	0,80	1,14	Nmrms
Base speed	wn	1050	1050	1050	rad/s
Nominal power,1)	Pn	152	222	194	W
Nominal power,2)	P105	386	687	945	W
Torque at max. speed 1)	Tw	0,15	0,21	0,18	Nmrms
Torque at max. speed 2)	Tw105	0,37	0,65	0,90	Nmrms
	0 Tpk	1,4	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	122948	157476	171998	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	20	27	32	W
Thermal impedance, motor to air	Rtha	3,25	2,45283	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	1326	1509	1658	s
No load losses at base speed	L0	9,5343	19,0686	28,6028	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	0,150	0,168	0,176	Vs
Torque constant	Kt	0,2603	0,2902	0,305	Nm/Arms
Temperature coefficient of E.M.F. and Kt	dKe/dT	-0,09	-0,09	-0,09	%/oC
Winding resistance, 20oC	Rw	17,9	7,1	4,2	Ohm
Winding inductance	Lw	33,362	20,7361	11,4645	mH
Nominal voltage	Vn	174	185	189	Vrms
EMF at 1000 rpm	V1000	16	18	18	Vrms
Nominal current, zero speed	In0	0,84	1,52	2,18	Arms
Nominal current at rated power 1)	In	0,60	0,81	0,71	Arms
Peak current	lpk	5,2	8,7	11,8	Arms
Frequency	fn	334	334	334	Hz
Efficiency at rated power	n	0,884	0,893	0,859	
Min. demagnetization current, 125oC	ldm	5,3	9,5	13,5	Apk