

Technical Data Summary, SBMAX Frame Sizes 56 mm					
Winding selection for 2500 rpm with 220 Vac 3 phase drive					
Issue 1, 19/7/93					
		Frame 56 Volt.180			Units
Reference data:	SBM	25002	25004	25006	
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	0,4	0,8	1,1	Nmrms
Base speed	wn	262	262	262	rad/s
Nominal power,1)	Pn	55	105	157	W
Nominal power,2)	P105	96	184	266	W
Torque at max. speed 1)	Tw	0,21	0,40	0,60	Nmrms
Torque at max. speed 2)	Tw105	0,4	0,7	1,02	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	117415	155404	171081	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	24	27,00	32	W
Thermal impedance, motor to air	Rtha	2,70833	2,40741	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	1105	1481	1658	s
No load losses at base speed	L0	1,68803	2,70084	3,37606	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	0,478	0,523	0,570	Vs
Torque constant	Kt	0,82871	0,90649	0,987	Nm/Arms
Temperature coefficient of E.M.F. and Kt	dKe/dT	-0,09	-0,09	-0,09	%/oC
Winding resistance, 20oC	Rw	198,4	71,2	44,5	Ohm
Winding inductance	Lw	338,199	202,334	120	mH
Nominal voltage	Vn	184	177	182	Vrms
EMF at 1000 rpm	V1000	50	55	60	Vrms
Nominal current, zero speed	In0	0,27	0,49	0,67	Arms
Nominal current at rated power 1)	In	0,26	0,46	0,63	Arms
Peak current	lpk	1,6	2,7	3,6	Arms
Frequency	fn	83	83	83	Hz
Efficiency at rated power	n	0,695	0,795	0,831	
Min. demagnetization current, 125oC	ldm	1,7	3,0	4,2	Apk