

Technical Data Summary, SBMAX Frame Sizes 56 mm					
Winding selection for 5000 rpm with 380 Vac 3 phase drive					
Issue 1, 19/7/93					
		Frame 56 Volt.380			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	0,4	0,8	1,1	Nmrms
Base speed	wn	524	524	524	rad/s
Nominal power,1)	Pn	97	177	264	W
Nominal power,2)	P105	188	358	514	W
Torque at max. speed 1)	Tw	0,19	0,34	0,50	Nmrms
Torque at max. speed 2)	Tw105	0,4	0,7	0,98	Nmrms
Peak torque,zero speed S.I.R.10% 2)	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	5,48442	8,77507	10,9688	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	311	314	330	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	0,24	0,40	0,54	Arms
Peak current	lpk	1,6	2,7	3,6	Arms
Frequency	fn	167	167	167	Hz
Efficiency at rated power	n	0,802	0,868	0,892	
Min. demagnetization current, 125oC	ldm	1,7	3,0	4,2	Apk