

Technical Data Summary, SBMAX Frame Sizes 105 mm						
Winding selection for 3000 rpm with 380 Vac 3 phase drive						
Issue 3, 22/10/98						
		Frame 105				Units
Reference data:	SBM	3002	3004	3006	3008	
Nominal torque, cont. duty, zero speed (DT=65oC, in air) 1)	Tn	2,2	4,0	6,0	8,0	Nmrms
Nominal torque, cont. duty, zero speed (DT=105oC, flange mount) 2)	T105	3,6	6,3	8,9	10,4	Nmrms
Base speed	wn	314	314	314	314	rad/s
Nominal power,1)	Pn	646	1097	1662	2137	W
Nominal power,2)	P105	972	1669	2403	2631	W
Torque at max. speed 1)	Tw	2,1	3,5	5,3	6,8	Nmrms
Torque at max. speed 2)	Tw105	3,1	5,3	7,7	8,4	Nmrms
Peak torque,zero speed S.I.R.10% 2)	Tpk	11,3	19,9	28,0	32,9	Nmrms
Physical data:						
Maximum speed	wmax	700	700	700	700	rad/s
Rotor inertia	Jm	0,19	0,335	0,48	0,6205	mkgm2
Acceleration at peak torque	apk	59362	59290	58373	52941	rad/s2
Max. shock on motor, any direction	S	200	200	200	200	m/s2
Max. vibration, radial	Vr	200	200	200	200	m/s2
Max. vibration, axial	Va	50	40	40	40	m/s2
Shaft torsional resonance frequency 3)	fm	N.A.	N.A.	N.A.	N.A.	Hz
Mass	M	4,9	7,0	9,1	11,2	kg
Thermal data:						
Motor losses at nominal power	Ln	65	73	87	118	W
Thermal impedance, motor to air	Rtha	1	0,8904	0,74713	0,5508	oC/W
Thermal impedance, motor to air+flange	Rthf	0,6	0,57	0,55	0,53	oC/W
Thermal capacity	Cth	3077	4395	5714	7032	J/oC
Thermal time constant in air	ta	3077	3914	4269	3874	s
No load losses at base speed	L0	8,8794	17,759	26,6383	35,518	W
Treshold of built-in PTC	PTCt	130	130	130	130	oC
Electrical data:						
Pole number	PN	8	8	8	8	
Connection		Y	Y	Y	Y	
Back E.M.F. between phases	Ke	0,9386	0,9545	1,02727	0,9545	Vs
Torque constant	Kt	1,6258	1,6533	1,77929	1,6533	Nm/Arms
Temperature coefficient of E.M.F. and Kt	dKe/dT	-0,09	-0,09	-0,09	-0,09	%/oC
Winding resistance, 20oC	Rw	19,059	6,6905	3,68952	2,6305	Ohm
Winding inductance	Lw	47,949	24,794	16,5293	12,397	mH
Nominal voltage	Vn	330	322	341	319	Vrms
EMF at 1000 rpm	V1000	98	100	108	100	Vrms
Nominal current, zero speed	In0	1,4	2,6	3,61	5,2	Arms
Nominal current at rated power 1)	In	1,3	2,2	3,1	4,4	Arms
Peak current	lpk	7	12	16	20	Arms
Frequency	fn	200	200	200	200	Hz
Efficiency at rated power	n	0,909	0,938	0,950	0,948	
Min. demagnetization current, 125oC	ldm	19	38	56	75	Apk