

Technical Data Summary, SBMAX Frame Sizes 205 mm						
Winding selection for 550 rpm with 220 Vac 3 phase drive						
Issue 2, 3/2/92						
		Frame 205				Units
Reference data:	SBM	1027	1050	1070	1090	
Nominal torque, cont. duty, zero speed (DT=65oC, in air) 1)	Tn	28	50	70	90	Nmrms
Nominal torque, cont. duty, zero speed (DT=105oC, flange mount) 2)	T105	38,8	70,2	98,0	125,9	Nmrms
Base speed	wn	58	58	58	58	rad/s
Nominal power,1)	Pn	1657	2977	4126	5271	W
Nominal power,2)	P105	1995	3605	5025	6452	W
Torque at max. speed 1)	Tw	28,6	51,3	71,1	90,9	Nmrms
Torque at max. speed 2)	Tw105	34,4	62,2	86,6	111,2	Nmrms
	0 Tpk	122,6	221,9	309,8	398,2	Nmrms
Physical data:						
Maximum speed	wmax	500	500	500	500	rad/s
Rotor inertia	Jm	5	8	11	14	mkgm2
Acceleration at peak torque	apk	24525	27735	28164	28443	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	40	40	40	40	m/s2
Shaft torsional resonance frequency 3)	fm	N.A.	N.A.	500	300	Hz
Mass	M	32,0	44,0	56,0	68,0	kg
Motor lenght	L	372	444	516	588	mm
Insulation						
Cooling						
Protection 4)						
Thermal data:						
Motor losses at nominal power	Ln	260	300	335	380	W
Thermal impedance, motor to air	Rtha	0,25	0,2167	0,194	0,1711	oC/W
Thermal impedance, motor to air+flange	Rthf	0,21	0,18	0,16	0,14	oC/W
Thermal capacity	Cth	20093	27628	35162	42697	J/oC
Thermal time constant in air	ta	5023	5986	6823	7303	s
No load losses at base speed	LO	3,9641	5,8895	8,8343	11,779	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	2,5143	2,5143	2,5929	2,5143	Vs
Torque constant	Kt	4,3549	4,3549	4,491	4,3549	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	3,3057	1,1779	0,723	0,4702	Ohm
Winding inductance	Lw	36,7	18,828	12,659	9,0175	mH
Nominal voltage	Vn	178	169	169	163	Vrms
EMF at 1000 rpm	V1000	263	263	271	263	Vrms
Nominal current, zero speed	In0	6,9	12,4	16,8	22,1	Arms
Nominal current at rated power 1)	In	6,9	12,3	16,5	21,8	Arms
Peak current	lpk	28	51	69	91	Arms
Frequency	fn	37	37	37	37	Hz
Efficiency at rated power	n	0,864	0,908	0,925	0,933	
Min. demagnetization current, 125oC	ldm	38	75	109	150	Apk