

Technical Data Summary, SBMAX Frame Sizes 205 mm						
Winding selection for 1150 rpm with 220 Vac 3 phase drive						
Issue 2, 3/2/92						
		Frame 205				Units
Reference data:	SBM	1127	1150	1170	1190	
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	120	120	120	120	rad/s
Nominal power,1)	Pn	3385	5998	8237	10453	W
Nominal power,2)	P105	4101	7365	10222	13085	W
Torque at max. speed 1)	Tw	28,2	50,0	68,6	87,1	Nmrms
Torque at max. speed 2)	Tw105	34,2	61,4	85,2	109	Nmrms
	0 Tpk	122,6	222	310	398	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	0,21667	0,19403	0,17105	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	L0	10,1352	20,2703	30,4055	40,5	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	1,33571	1,41429	1,41429	1,25714	Vs
Torque constant	Kt	2,31353	2,44961	2,44961	2,17744	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	0,93295	0,37269	0,21506	0,11755	Ohm
Winding inductance	Lw	8,87144	4,95934	3,30623	2,25437	mH
Nominal voltage	Vn	181	185	182	162	Vrms
EMF at 1000 rpm	V1000	140	148	148	132	Vrms
Nominal current, zero speed	In0	13,0	22,1	30,7	44,3	Arms
Nominal current at rated power 1)	In	12,7	21,3	29,3	41,8	Arms
Peak current	Ipk	53	91	126	183	Arms
Frequency	fn	76	76	76	76	Hz
Efficiency at rated power	n	0,929	0,952	0,961	0,965	
Min. demagnetization current, 125oC	Idm	63	119	179	268	Apk