

Technical Data Summary, SBMAX Frame Sizes 145 mm							
Winding selection for 1600 rpm with 220 Vac 3 phase drive							
Issue 3, 16/12/95 Lamiera nuova							
			Frame 145				Units
Reference data:	SBM	1604	1608	1615	1622	1628	
Nominal torque, cont. duty, zero speed (DT=65oC, in air) 1)	Tn	4,5	8,7	15,0	22,0	28,0	Nmrms
Nominal torque, cont. duty, zero speed (DT=105oC, flange mount) 2)	T105	8,9	15,6	27,0	36,5	44,9	Nmrms
Base speed	wn	167	167	167	167	167	rad/s
Nominal power,1)	Pn	757	1437	2442	3518	4403	W
Nominal power,2)	P105	1313	2287	3949	5290	6463	W
Torque at max. speed 1)	Tw	4,5	8,6	14,6	21,1	26,4	Nmrms
Torque at max. speed 2)	Tw105	7,9	13,7	23,6	31,7	38,7	Nmrms
Peak torque,zero speed S.I.R.10% 2)	Tpk	28,1	49,2	85,4	115,3	141,9	Nmrms
Physical data:							
Maximum speed	wmax	700	700	700	700	700	rad/s
Rotor inertia	Jm	0,775	1,05	1,6	2,15	2,7	mkgm2
Acceleration at peak torque	apk	36262	46889	53359	53631	52561	rad/s2
Max. shock on motor, any direction	S	200	200	200	200	200	m/s2
Max. vibration, radial	Vr	200	200	200	200	200	m/s2
Max. vibration, axial	Va	40	40	40	40	40	m/s2
Shaft torsional resonance frequency 3)	fm	N.A.	N.A.	N.A.	N.A.	500	Hz
Mass	M	10,0	10,0	14,0	18,0	22,0	kg
Thermal data:							
Motor losses at nominal power	Ln	80	97	105	132	146	W
Thermal impedance, motor to air	Rtha	0,8125	0,670103	0,619048	0,492424	0,445205	oC/W
Thermal impedance, motor to air+flange	Rthf	0,34	0,34	0,31	0,29	0,28	oC/W
Thermal capacity	Cth	6279	6279	8791	11302	13814	J/oC
Thermal time constant in air	ta	5102	4208	5442	5565	6150	s
No load losses at base speed	L0	3,8	7,5	10,9	17,4	23,2	W
Treshold of built-in PTC	PTCt	130	130	130	130	130	oC
Electrical data:							
Pole number	PN	8	8	8	8	8	
Connection		Y	Y	Y	Y	Y	
Back E.M.F. between phases	Ke	0,819	0,9828	1,0296	1,0413	1,0296	Vs
Torque constant	Kt	1,41855	1,70226	1,78332	1,803585	1,78332	Nm/Arms
Temperature coefficient of E.M.F. and Kt	dKe/dT	-0,09	-0,09	-0,09	-0,09	-0,09	%/oC
Winding resistance, 20oC	Rw	4,124533	1,935186	0,774658	0,464344	0,310393	Ohm
Winding inductance	Lw	45,88	19,27	6,80	3,78	2,455	mH
Nominal voltage	Vn	182	187	183	182	179	Vrms
EMF at 1000 rpm	V1000	86	103	108	109	108	Vrms
Nominal current, zero speed	In0	3,4	5,5	9,1	13,1	16,9	Arms
Nominal current at rated power 1)	In	3,3	5,3	8,6	12,2	15,5	Arms
Peak current	lpk	20	29	48	64	80	Arms
Frequency	fn	106	106	106	106	106	Hz
Efficiency at rated power	n	0,904	0,937	0,959	0,964	0,968	
Min. demagnetization current, 125oC	Idm	25	42	80	119	160	Apk