

Water Cooling - For inverter rated Voltage 380Vac to 480Vac

Motor Type	35				70		100	
Rated Speed	nM	[rpm]	1000	2000	1000	2000	1000	2000
Stall Torque 1)	Md0	[Nm]	550		1100		1600	
Current @ Stall Torque 1)	Id0	[A]	97	194	194	388	317	635
Number of Poles	2p		12					

Nominal Rating								
Rated Torque 1)	MdN	[Nm]	500	497	1000	980	1540	1480
Rated Current 1)	IdN	[A]	88	175	176	345	305	588
Rated Power	PdN	[kW]	52	104	105	205	161	310
Voltage Constant (+/- 10%)	Ke20°C	[Vrms/1000rpm]	390	195	390	195	347	173
Torque Constant (+/- 10%)	Kt20°C	[Nm/A]	6,45	3,23	6,45	3,23	5,74	2,86
Winding Resistance (+/- 10%)	Ru-v	[Ω]	0,16	0,042	0,059	0,015	0,032	0,009
Winding Inductance (+/- 10%)	Lu-v	[mH]	2,2	0,55	1,1	0,45	1,04	0,27
Derating Temp. Coeff. Of Back EMF	Dke/Dt	[%/°C]	-0,11					
Nominal Voltage	Vn	[V]	408	402	405	410	374	369
Minimum Flow Rate	Flow	[L/min]	n.a.					
Losses	Loss	[kW]	3,24	3,41	4,79	4,87	6,94	7,85
Efficiency	Eff	[%]	95	95	94	94	95	95
Knee Speed @ 380Vac	nknee1	[rpm]	929	1887	937	1851	1018	2060
Knee Speed @ 480Vac	nknee2	[rpm]	1181	2391	1189	2344	1291	2609
Knee Speed 380Vac and Mmax	nknee3	[rpm]	795	1658	822	1475	807	1621
Knee Speed 480Vac and Mmax	nknee4	[rpm]	1023	2114	1052	1873	1029	2058

Maximum Values								
Max. Torque	Mmax	[Nm]	1300		2500		3500	
Max. Current (peak value)	Imax	[A]	252	504	484	969	762	1529
Max. Saturation Speed @ 380Vac	nmax1	[rpm]	974	1949	974	1949	1095	2197
Max. Saturation Speed @ 480Vac	nmax2	[rpm]	1231	2462	1231	2462	1383	2775
Max. Mechanical Speed	nmax	[rpm]	4000					

Mechanical Data (+/- 10%)								
Inertia	Jm	[kgcm ²]	2820		5340		7010	
Mass	M	[kg]	290		360		431	

Technical Data of the holding brake								
Holding Torque	MBr	[Nm]	n.a.					
Rated Voltage (±10%)	UBr	[Vdc]	n.a.					
Rated Current 1)	I _{Br}	[A]	n.a.					
Mass	MBr	[kg]	n.a.					
Inertia	JBr	[kgcm ²]	n.a.					
Additional motor length	Length	[mm]	n.a.					

Box connection	Type	D	D	D

For Box dimensions see page 8-9

Test Condition

- 1) Test Conditions: Motor tested in horizontal position in free still air, ambient temperature 30°C; Chopper frequency minimum required 4kHz
- 2) Not available in S1 duty and DT100°C