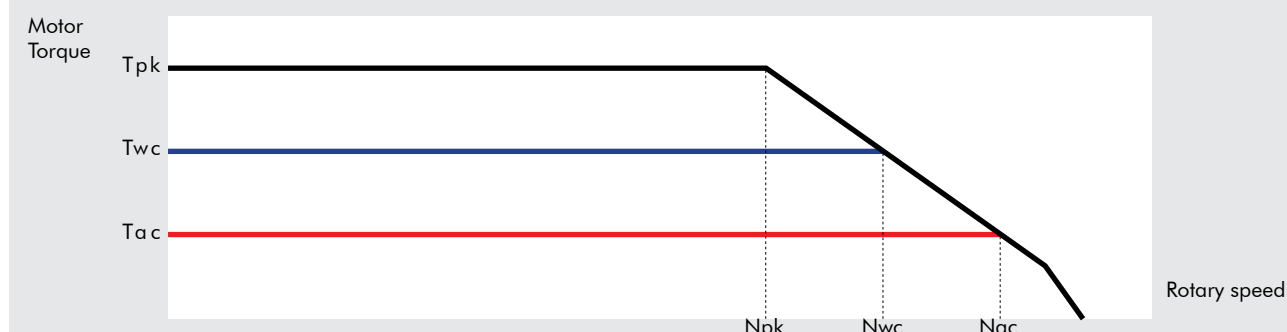
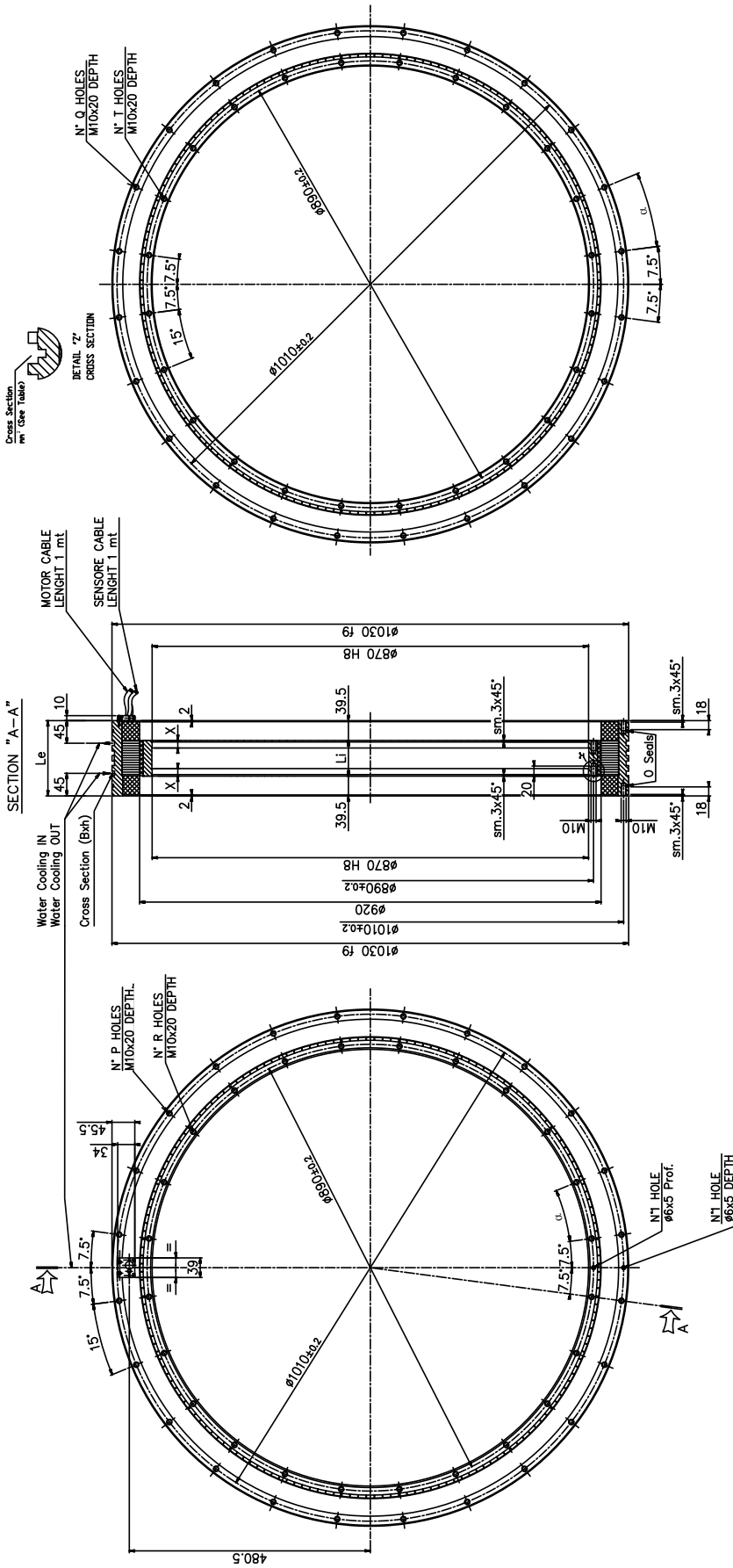


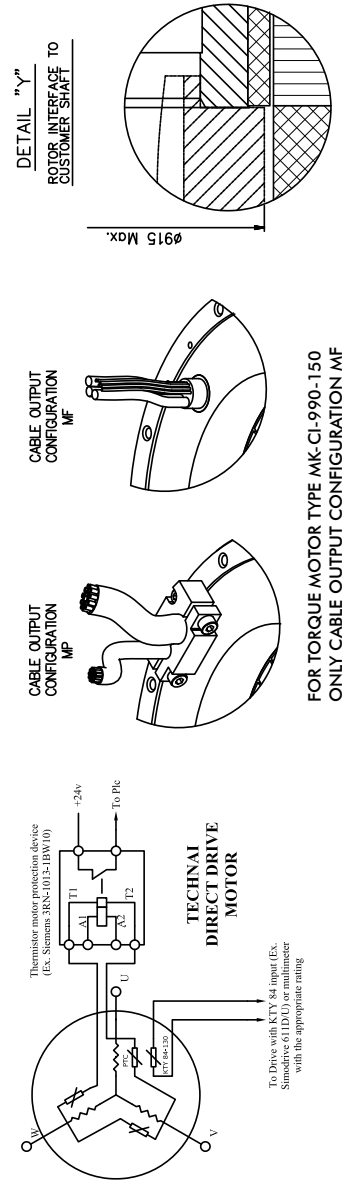
## Motor Specifications TECHNAI MK-CI 990 WA

Motor Specifications	Symbol	Unit	MK-CI 990-030 WA	MK-CI 990-050 WA	MK-CI 990-070 WA	MK-CI 990-100 WA	MK-CI 990-150 WA
Number of pole	P		176	176	176	176	176
Peak Torque	T <sub>pk</sub>	Nm	4023	6700	9390	13400	20000
Continuos Torque (Water Cooling Dt100)	T <sub>wc</sub>	Nm	2124	3622	5095	7490	11200
Continuos Torque (Air Cooling Dt100)	T <sub>ac</sub>	Nm	1068	1724	2372	3290	4884
Stall Torque (Water Cooling)	T <sub>swc</sub>	Nm	1622	2764	3890	5718	8521
Stall Torque (Air Cooling)	T <sub>sac</sub>	Nm	815	1316	1777	2514	3728
Ripple Torque (Cogging Torque)	T <sub>r</sub>	Nm	13	21	30	43	63
Power Loss at T <sub>wc</sub>	P <sub>wc</sub>	KW	5,6	7,7	9,1	13	17
Power Loss at T <sub>ac</sub>	P <sub>ac</sub>	KW	1,4	1,6	1,9	2,3	3,1
Termal Resistance Water Cooling	R <sub>thWc</sub>	K/W	0,018	0,013	0,010	0,007	0,005
Termal Resistance Air Cooling	R <sub>thAc</sub>	K/W	0,078	0,064	0,053	0,043	0,032
Torque Constant	K <sub>t</sub>	Nm/A	50,0	83,4	116,8	109,0	163,0
Back EMF Constant	K <sub>e</sub>	V/1000 Rpm	3025	5041	7058	6576	9863
Maximum Speed at I <sub>pk</sub> at 600 Vdc	N <sub>pk</sub>	RPM	31	17	9	13	5
Maximum Speed at I <sub>wc</sub> at 600 Vdc	N <sub>wc</sub>	RPM	74	43	29	33	20
Maximum Speed at I <sub>ac</sub> at 600 Vdc	N <sub>ac</sub>	RPM	105	63	44	49	32
Winding Resistance (Phase to Phase)	R <sub>20</sub>	Ω	1,28	1,66	2,04	1,1	1,5
Winding Inductance (Phase to Phase)	L	mH	10,25	16,5	22,7	13,6	20,2
Peak Current	I <sub>pk</sub>	Arms	116	115,3	115,3	177	176
Continuos Current (Water Cooling Dt100)	I <sub>wc</sub>	Arms	45,3	45,9	46	73	72,8
Continuos Current (Air Cooling Dt100)	I <sub>ac</sub>	Arms	21,9	21,2	20,9	31,2	31,2
Stall Current at 0 Speed (Water Cooling)	I <sub>swc</sub>	Arms	34,6	35	35,1	56	55,6
Stall Current at 0 Speed (Air Cooling)	I <sub>sac</sub>	Arms	16,7	16,2	15,9	23,8	23,8
Maximum Winding Temperature		°C	130	130	130	130	130
Height of Rotor		mm	30	50	70	100	150
Height of Stator		mm	110	130	150	180	230
Outer Diameter of Stator		mm	1030	1030	1030	1030	1030





TYPE MK-CI-990	030	050	070	100	150	
STATOR LENGTH	Le	110	130	150	180	230
ROTOR LENGTH	Li	31	51	71	101	151
CENTERING LENGTH	X	10	15	15	15	15
COOLING GROOVE WIDTH	B	8	8	9	8	9
COOLING GROOVE DEPTH	h	5	5	5	5	5
COOLING GROOVES	No	2	4	4	8	8
STATOR HOLES	P	24	24	24	24	46
ROTOR HOLES	Q	24	24	24	24	48
HOLES PITCH ANGLE	R	24	24	24	24	47
	T	24	24	24	24	48
	a	15°	15°	15°	15°	7.5°



FOR TORQUE MOTOR TYPE MK-CI-990-150 ONLY CABLE OUTPUT CONFIGURATION MF