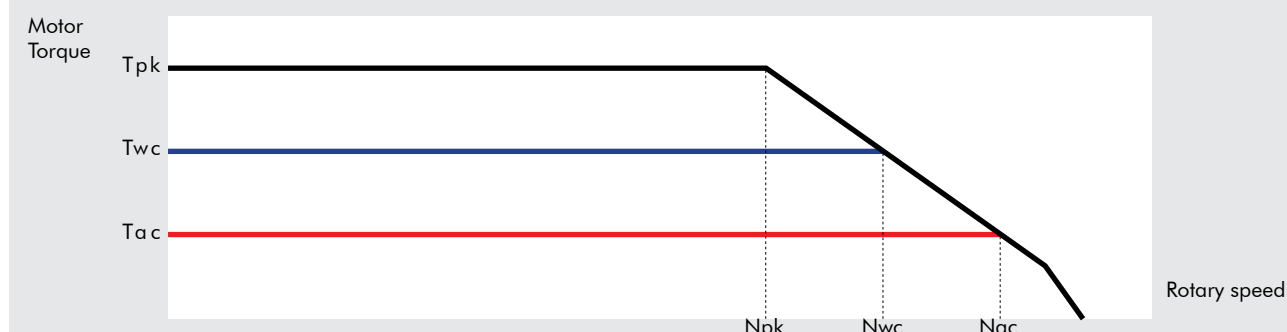
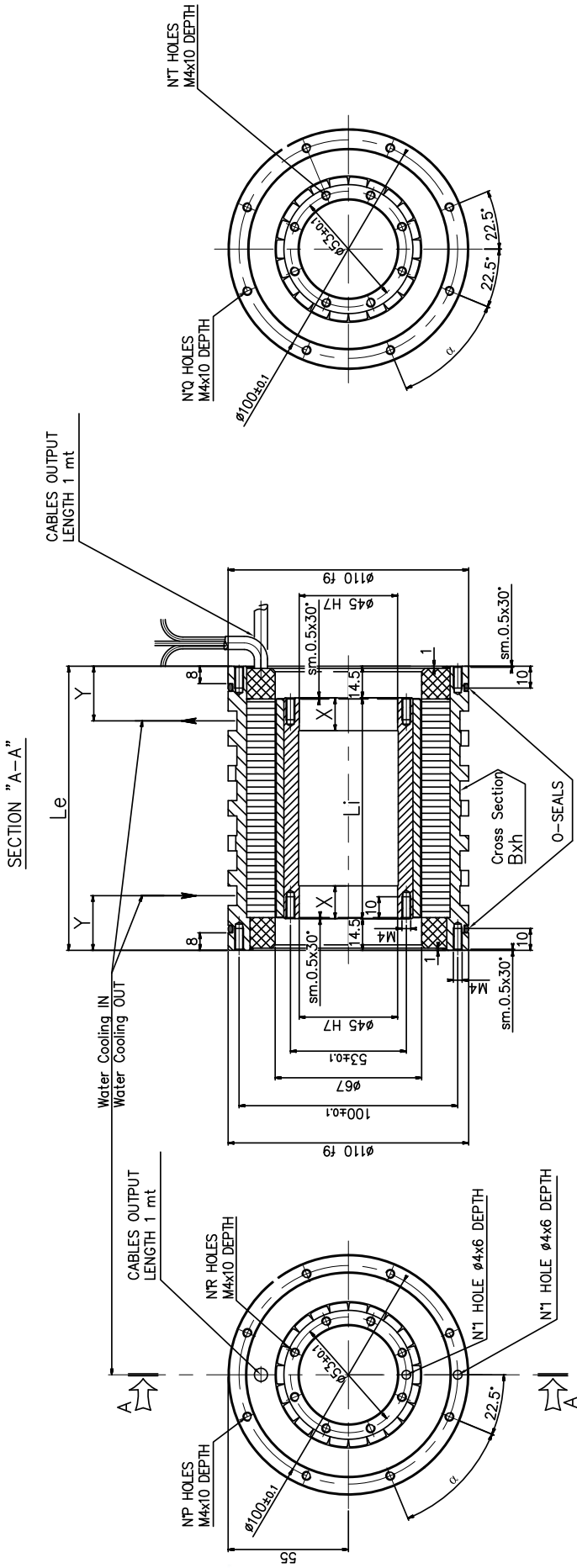


## Motor Specifications TECHNAI TECHNAI MK-CI 93 WA

Motor Specifications	Symbol	Unit	MK-CI 93-020 WA	MK-CI 93-030 WA	MK-CI 93-040 WA	MK-CI 93-050 WA	MK-CI 93-070 WA	MK-CI 93-090 WA	MK-CI 93-100 WA
Number of pole	P		22	22	22	22	22	22	22
Peak Torque	T <sub>pk</sub>	Nm	9	13,3	17,8	21,4	30	40	43
Continuos Torque (Water Cooling Dt100)	T <sub>wc</sub>	Nm	5,6	8	9,9	11,8	16,5	20,5	22
Continuos Torque (Air Cooling Dt100)	T <sub>ac</sub>	Nm	2,2	3,3	4,3	5,1	7,3	9	10
Stall Torque (Water Cooling)	T <sub>swc</sub>	Nm	4,25	6	7,6	9	12,3	16,2	16,8
Stall Torque (Air Cooling)	T <sub>sac</sub>	Nm	1,7	2,55	2,85	3,8	5,6	6,7	7,5
Ripple Torque (Cogging Torque)	T <sub>r</sub>	Nm	0,05	0,05	0,05	0,05	0,05	0,1	0,1
Power Loss at T <sub>wc</sub>	P <sub>wc</sub>	KW	0,5	0,55	0,6	0,62	0,65	0,72	0,76
Power Loss at T <sub>ac</sub>	P <sub>ac</sub>	KW	0,08	0,087	0,1	0,11	0,12	0,13	0,14
Termal Resistance Water Cooling	R <sub>thWc</sub>	K/W	0,211	0,202	0,175	0,164	0,155	0,138	0,132
Termal Resistance Air Cooling	R <sub>thAc</sub>	K/W	1,159	1,113	0,961	0,890	0,850	0,762	0,723
Torque Constant	K <sub>t</sub>	Nm/A	1,6	2,5	3,3	3,6	3,8	4,9	5,4
Back EMF Constant	K <sub>e</sub>	V/1000 Rpm	99,4	149	198,7	220	233	297	327
Maximum Speed at I <sub>pk</sub> at 600 Vdc	N <sub>pk</sub>	RPM	2000	1000	750	500	650	420	350
Maximum Speed at I <sub>wc</sub> at 600 Vdc	N <sub>wc</sub>	RPM	2000	1800	1400	1250	1250	950	900
Maximum Speed at I <sub>ac</sub> at 600 Vdc	N <sub>ac</sub>	RPM	2000	2000	1800	1500	1500	1200	1100
Winding Resistance (Phase to Phase)	R <sub>20</sub>	Ω	18,2	21,8	25,5	26,8	14,8	17,8	19,3
Winding Inductance (Phase to Phase)	L	mH	15,5	22,2	28,8	30,2	20,8	26,5	29,3
Peak Current	I <sub>pk</sub>	Arms	7,8	7,8	7,8	8,5	11,3	11,6	11,5
Continuos Current (Water Cooling Dt100)	I <sub>wc</sub>	Arms	3,5	3,3	3,25	3,3	4,5	4,4	4,35
Continuos Current (Air Cooling Dt100)	I <sub>ac</sub>	Arms	1,5	1,38	1,35	1,4	1,9	1,8	1,8
Stall Current at 0 Speed (Water Cooling)	I <sub>swc</sub>	Arms	2,7	2,5	2,5	2,5	3,5	3,4	3,3
Stall Current at 0 Speed (Air Cooling)	I <sub>sac</sub>	Arms	1,1	1,05	1	1	1,5	1,4	1,4
Maximum Winding Temperature		°C	130	130	130	130	130	130	130
Height of Rotor		mm	20	30	40	50	70	90	100
Height of Stator		mm	50	60	70	80	100	120	130
Outer Diameter of Stator		mm	110	110	110	110	110	110	110





TYPE MK-CI-93	020	030	040	050	070	090	100
STATOR LENGTH	Le 50	60	70	80	100	120	130
ROTOR LENGTH	Li 21	31	41	51	71	91	101
CENTERING LENGTH	X 21	10	10	15	15	15	15
COOLING IN/OUT	Y 20	22	20	25	25	25	25
COOLING GROOVE WIDTH	B 7	9	7	7	9	9	9
COOLING GROOVE DEPTH	h 4	4	4	4	4	4	4
COOLING GROOVES	No 2	2	4	4	4	6	6
STATOR HOLES	P 8	8	8	8	8	8	8
ROTOR HOLES	Q 8	8	8	8	8	8	8
ROTOR HOLES	R 8	8	8	8	8	8	8
HOLES PITCH ANGLE	T 8	8	8	8	8	8	8
	a 45°	45°	45°	45°	45°	45°	45°

