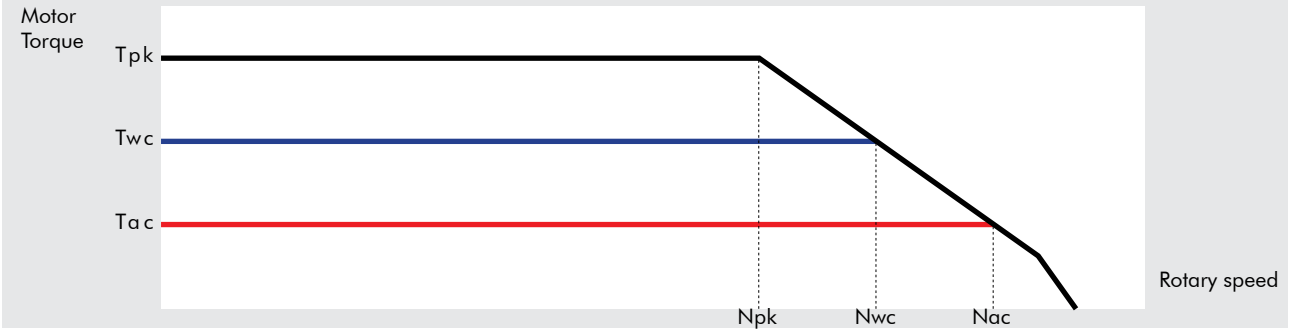
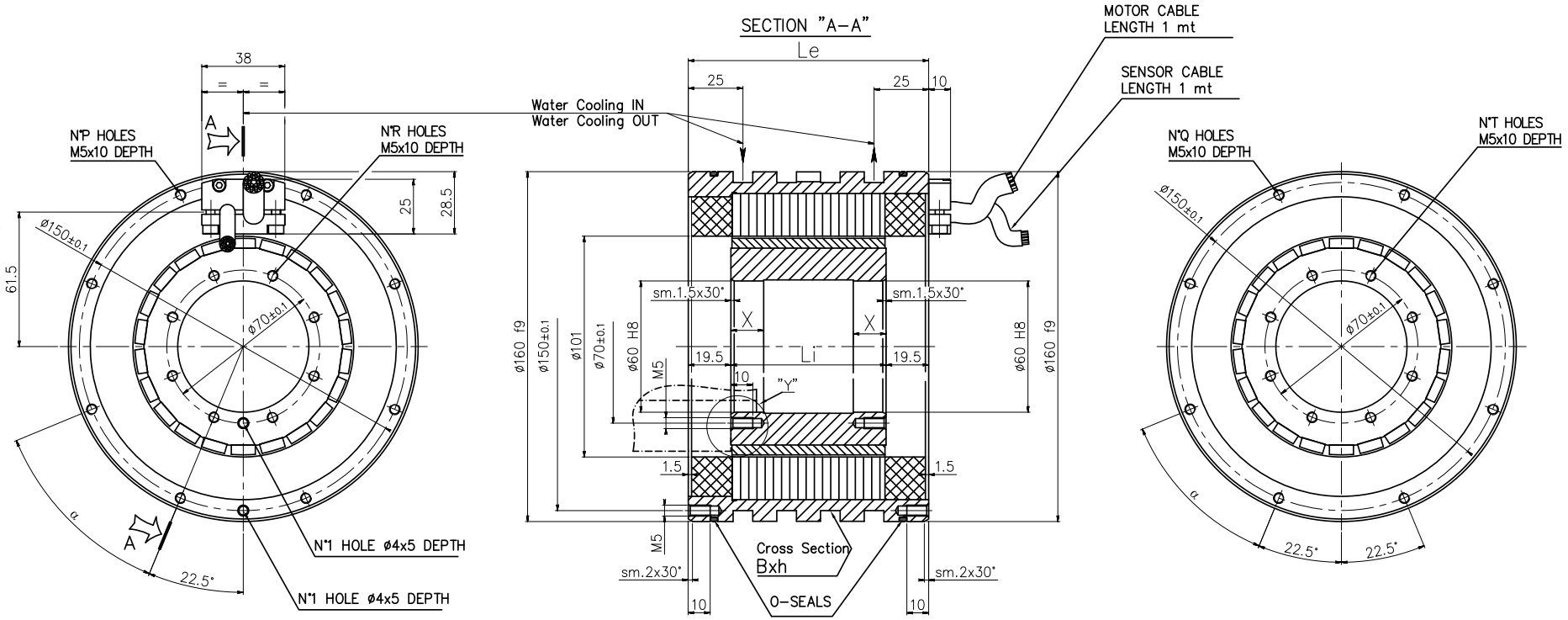
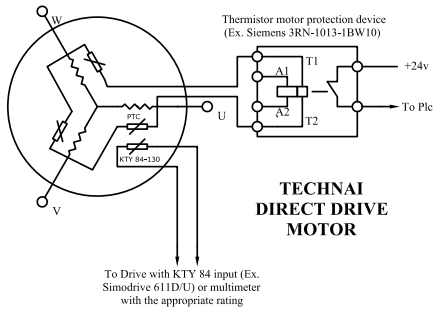
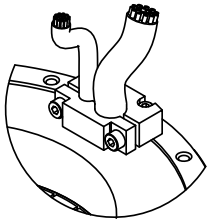
Motor Specifications TECHNAI TECHNAI MK-CI 140 WA

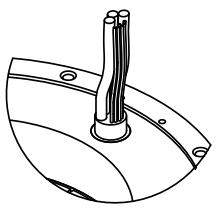
Motor Specifications	**Symbol**	**Unit**	**MK-CI 140-030 WA**	**MK-CI 140-050 WA**	**MK-CI 140-070 WA**	**MK-CI 140-100 WA**	**MK-CI 140-150 WA**
Number of pole	P		22	22	22	22	22
Peak Torque	Tpk	Nm	38	63	89	126	190
Continuos Torque (Water Cooling Dt100)	Twc	Nm	19,2	33,2	46	65	98,6
Continuos Torque (Air Cooling Dt100)	Tac	Nm	8,6	14,6	19,8	27,6	42
Stall Torque (Water Cooling)	Tswc	Nm	14,7	25,4	35,2	49,6	75,3
Stall Torque (Air Cooling)	Tsac	Nm	6,6	11,1	15,2	21	32
Ripple Torque (Cogging Torque)	Tr	Nm	0,2	0,35	0,5	0,6	0,75
Power Loss at Twc	Pwc	KW	0,7	1	1,2	1,45	1,9
Power Loss at Tac	Pac	KW	0,125	0,17	0,2	0,25	0,35
Termal Resistance Water Cooling	RthWc	K/W	0,153	0,100	0,090	0,070	0,054
Termal Resistance Air Cooling	RthAc	K/W	0,820	0,617	0,497	0,390	0,300
Torque Constant	Kt	Nm/A	3,3	5,6	5,4	7,8	11,7
Back EMF Constant	Ke	V/1000 Rpm	202	337	329	470	705
Maximum Speed at Ipk at 600 Vdc	Npk	RPM	700	370	450	240	50
Maximum Speed at Iwc at 600 Vdc	Nwc	RPM	1000	850	900	600	360
Maximum Speed at Iac at 600 Vdc	Nac	RPM	1000	1000	1000	750	490
Winding Resistance (Phase to Phase)	R20	Ω	8,7	11,3	7,3	9,4	12,9
Winding Inductance (Phase to Phase)	L	mH	21,7	30	20	27,9	41,2
Peak Current	Ipk	Arms	16,5	16,3	23,5	23,4	23,4
Continuos Current (Water Cooling Dt100)	Iwc	Arms	6,1	6,2	8,6	8,5	8,5
Continuos Current (Air Cooling Dt100)	Iac	Arms	2,6	2,6	3,7	3,6	3,6
Stall Current at 0 Speed (Water Cooling)	Iswc	Arms	4,7	4,7	6,6	6,5	6,5
Stall Current at 0 Speed (Air Cooling)	Isac	Arms	2	2	2,8	2,75	2,75
Maximum Winding Temperature		°C	130	130	130	130	130
Height of Rotor		mm	30	50	70	100	150
Height of Stator		mm	70	90	110	140	190
Outer Diameter of Stator		mm	160	160	160	160	160

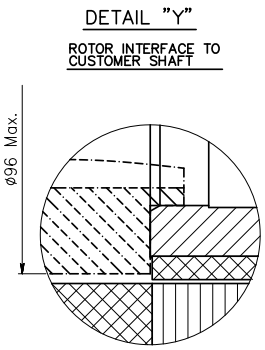












TYPE MK-CI-140		030	050	070	100	150
STATOR LENGTH	Le	70	90	110	140	190
ROTOR LENGTH	Li	31	51	71	101	151
CENTERING LENGTH	X	10	15	15	15	15
COOLING GROOVE WIDTH	B	8	8	9	8	9
COOLING GROOVE DEPTH	h	5	5	5	5	5
COOLING GROOVES	No	2	4	4	8	8
STATOR HOLES	P	8	8	8	14	14
	Q	8	8	8	16	16
ROTOR HOLES	R	8	8	8	15	15
	T	8	8	8	16	16
HOLES PITCH ANGLE	α	45°	45°	45°	22.5°	22.5°