SERVOMOTORS SMXN7
30-60 Nm

SWISS MEKATRONIX AG

TECHNICAL DATA

		VDC	560							
Magnets Nd-Fe-B			SMXN7-3000		SMXN7-4000		SMXN7-5000		SMXN7-6000	
Stall torque	M_0	Nm	30	30	40	40	50	50	60	60
Stall current	I_0	A	13,1	17,2	16,7	26,9	22,7	31,5	24	30
Nominal torque	M_N	Nm	26,1	23	32,8	26,7	40,4	30	44	27,3
Nominal speed	n_N	rpm	2000	3000	2000	3000	2000	3000	2000	3000
Nominal power	P_N	W	5466	7225	6869	8387	8461	9424	9215	8576
Nominal current	I_N	A	13,2	17,2	15,4	21	21,8	24,4	19,7	16,2
Maximum torque	M_{max}	Nm	85	85	120	120	150	150	180	180
Maximum current	I_{max}	A	46	64	59	95	79	109	82	102
Max. speed mech.	n_{max}	rpm	6000	6000	6000	6000	6000	6000	6000	6000
Torque constant	K_M	Nm/A	2,3	1,65	2,4	1,49	2,2	1,59	2,5	2
Voltage constant	K_E	V/1000 rpm	139	100	145	90	133	96	151	121
Motor poles	$_{2p}$	–	10	10	10	10	10	10	10	10
Resistance 2 ph.	R_{2Ph}	Ω	0,64	0,33	0,43	0,17	0,25	0,13	0,24	0,16
Inductance 2 ph.	L_{2Ph}	mH	10,1	5,2	7,8	3,1	4,9	2,6	5,1	3,3
Inertia	J	$kgcm^2$	49,5	49,5	69	69	88	88	107	107
Mass without brake	m	kg	15,5	15,5	20,2	20,2	24	24	30,5	30,5
Mass with brake	m_{Br}	kg	18,5	18,5	23,2	23,2	27	27	33,5	33,5
Brake torque	M_{Br}	Nm	36	36	36	36	36	36	36	36

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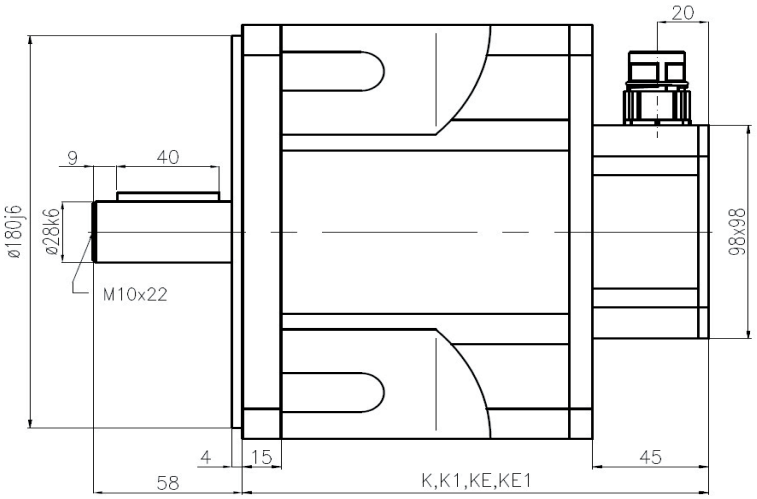
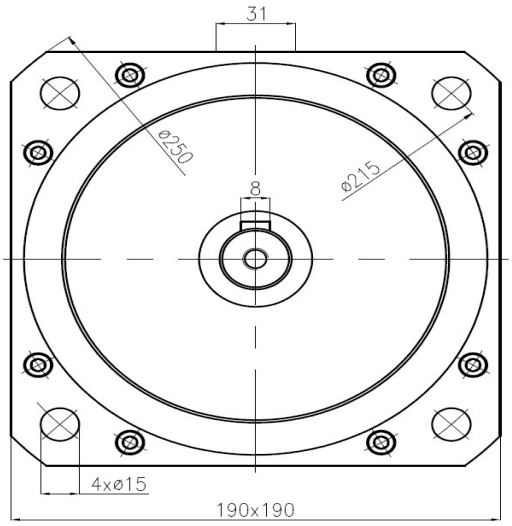
DIMENSIONS

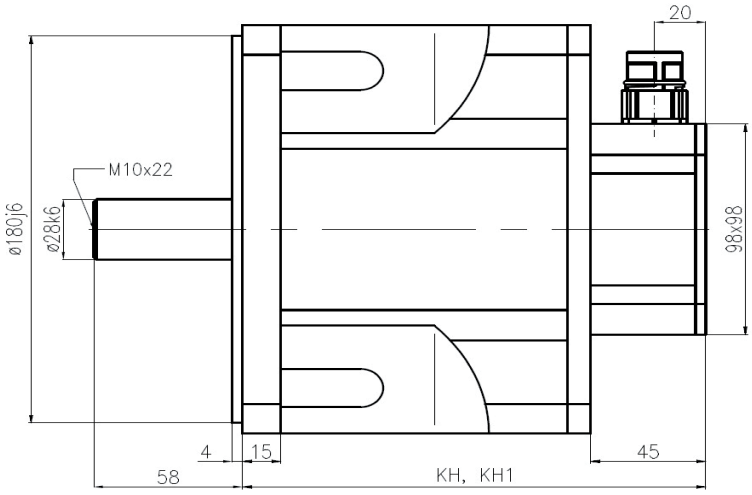


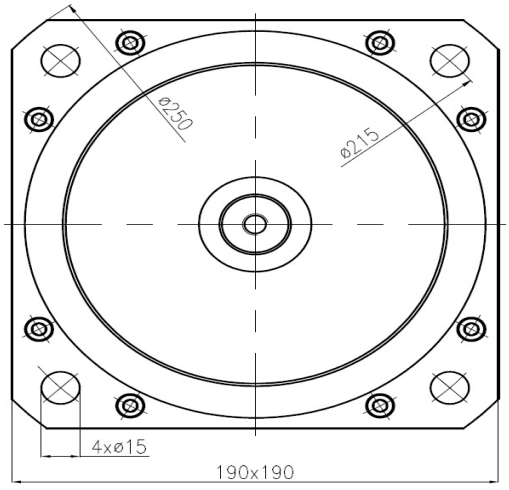


Type	K (Resolver)	K1 (Resolver+brake)	KE (EnDAT)	KE1 (EnDAT+brake)
SMXN7-3000	181 mm	240 mm	201 mm	260 mm
SMXN7-4000	211 mm	270 mm	231 mm	290 mm
SMXN7-5000	241 mm	300 mm	261 mm	320 mm
SMXN7-6000	271 mm	330 mm	291 mm	350 mm

Length of motor with Hiperface sensor is the same like legth of motor with EnDat sensor. In some types of motor can be smaller.

Servomotors with one integrated connector





Type	KH (DSL)	KH1 (DSL+brake)
SMXN7-3000	181 mm	241 mm
SMXN7-4000	211 mm	271 mm
SMXN7-5000	241 mm	301 mm
SMXN7-6000	271 mm	331 mm

On request we can send you the technical parameters of the motors designed for different DC-Voltages or speed/torque characteristics. Other adaptions and modifications are possible.

All technical changes reserved I Version April 2018