Brushless Servomotors

TC5-xxxx series

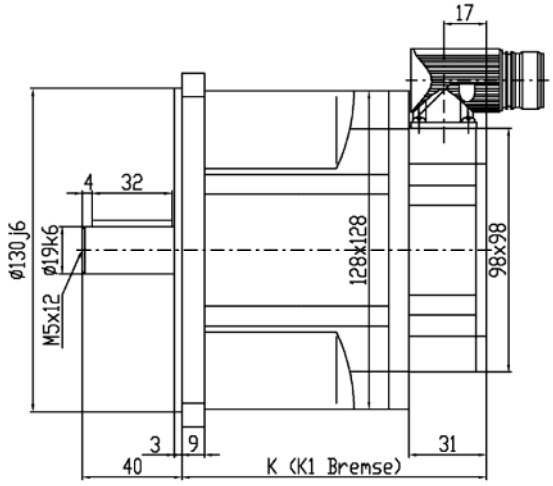
Udc = 320 / 560 VDC

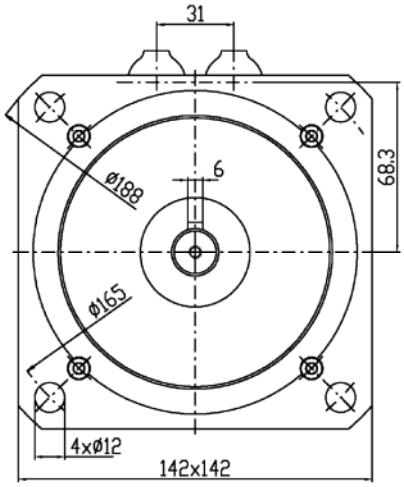
General Description:

Compact Design
Rare Earth Magnets
Resolver Feedback
Intercontec-Connectors

Options:

Holding Brake
Shaft Keyway DIN 6885
Encoder Feedback
Flying Leads





Parameters			TC5-0210		TC5-0430	
DC Bus Voltage	U_{dc}	V	320	560	320	560
Rated Torque	M_N	Nm	1,90		3,9	
Rated AC Current	I_N	A	3,80	2,1	6,5	3,9
Stall Torque	M_0	Nm	2,1		4,3	
Stall Current	I_0	A	3,9	2,2	6,8	4,1
Peak Torque	M_{max}	Nm	6,3		12,9	
Peak AC Current	I_{max}	A	19,2	10,9	34,0	20
Rated Speed*	n_N	min^{-1}	3000			
Max. Mech. Speed	n_{max}	min^{-1}	9000			
Torque Constant	K_T	Nm/A	0,55	0,96	0,64	1,06
Voltage Constant	K_E	V/1000	33	58	38,5	64
Resistance$_{Ph-Ph}$	R_{Ph}	Ω	3,9	11,3	1,47	4,17
Inductance$_{Ph-Ph}$	L_{Ph}	mH	15,9	44,9	8,2	23,3
El. Time Constant	T_{el}	ms	4,1	4,0	5,6	5,6
Therm. Constant	T_{th}	min	33		34	
Inertia	J	$kgcm^2$	2,0		2,9	
Rated Brake Torque	M_{Br}	Nm	9,0			
Weight w/o Brake	m	kg	3,90		6,8	
Weight with Brake	m_{Br}	kg	5,25		8,15	
Length w/o Brake	K	mm	122		139	
Length with Brake	K1	mm	158		175	

* Windings for different rated speeds are available; parameter tolerance +/-10%

Protection Class	IP64, optional IP65 or IP67
Electrical Connections	Intercontec-Connectors (2 pcs)
Thermal Protection	PTC, optional thermal switch (normally closed type) tripping out at 140°C, KTY or NTC
Rated Parameters	Acc. to EN 60034-1, ambient temperature T_A = 40°C, cooling flange 65°C, temperature rise T_R = 110 K
Motor Controller	Standard winding designed for power supply U_{cc} = 320 or 560 VDC, different execution optional
Flange/Shaft	Acc. to DIN 42955 N, optional R