



# Brushless Servomotors N5-xxxx Series



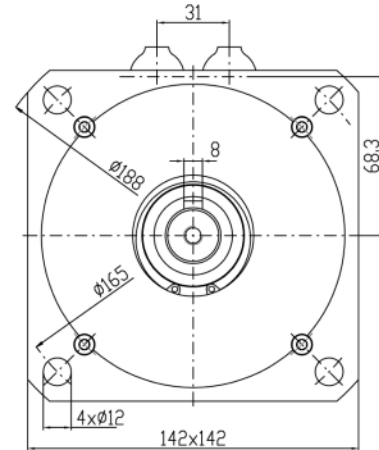
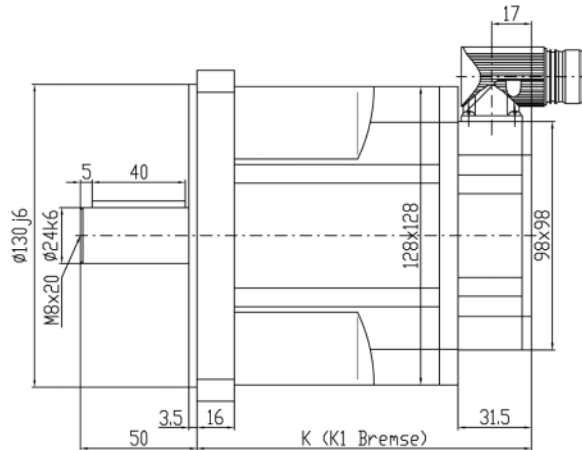
U<sub>dc</sub> = 320 / 560 VDC

## General Description:

Compact Design  
Rare Earth Magnets  
Resolver Feedback  
Intercontec-Connectors

## Options:

Holding Brake, different Encoders,  
Shaft Keyway DIN 6885, UL, ATEX,  
spec. Shaft / Flange / Housing,  
Gearbox, Flying Leads, etc...



Parameters			N5-1200		N5-1600		N5-2000		N5-2400	
DC Bus Voltage	U <sub>dc</sub>	V	320	560	320	560	320	560	320	560
Rated Torque	M <sub>N</sub>	Nm	10,5		13,8		17,5	16	22	20
Rated AC Current	I <sub>N</sub>	A	14,7	8,3	17,0	9,9	16,4	11,5	16,4	14,1
Stall Torque	M <sub>0</sub>	Nm	12		16		20		24	
Stall Current	I <sub>0</sub>	A	14,2	8,0	17,3	10,1	16,1	11,6	15,4	13,8
Peak Torque	M <sub>max</sub>	Nm	36		48		60		72	
Peak AC Current	I <sub>max</sub>	A	53	29	61	36	55	40	53	47
Rated Speed*	n <sub>N</sub>	min <sup>-1</sup>	3000		3000	3000	2000	3000	2000	3000
Max. Mech. Speed	n <sub>max</sub>	min <sup>-1</sup>	9000							
Torque Constant	K <sub>T</sub>	Nm/A	0,84	1,51	0,93	1,59	1,24	1,72	1,55	1,74
Voltage Constant	K <sub>E</sub>	V/1000	51	91	56	96	75	104	94	105
Resistance Ph-Ph	R <sub>Ph</sub>	Ω	0,42	1,33	0,30	0,88	0,37	0,72	0,45	0,56
Inductance Ph-Ph	L <sub>Ph</sub>	mH	3,4	10,9	2,5	7,5	3,3	6,3	4,1	4,9
El. Time Constant	T <sub>el</sub>	ms	8,1	8,2	8,4	8,5	8,8	8,8	9,0	8,8
Therm. Constant	T <sub>th</sub>	min	45		55		65		75	
Inertia	J	kgcm <sup>2</sup>	7,9		11,5		15,1		18,7	
Rated Brake Torque	M <sub>Br</sub>	Nm	18							
Weight w/o brake	m	kg	7,5		9,5		11,5		13,5	
Weight with brake	m <sub>Br</sub>	kg	8,6		10,6		12,6		14,6	
Length w/o brake	K	mm	145		175		205		235	
Length with brake	K1	mm	281		211		241		271	

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

Protection Class  
Electrical Connections  
Thermal Protection  
Rated Parameters  
Motor Controller  
Flange/Shaft

IP64, optional IP65 or IP67  
Intercontec-Connectors (2 pcs)  
PTC, optional thermal switch (normally closed type) tripping out at 140°C, KTY or NTC  
Acc. to EN 60034-1, T<sub>Ambient</sub> = 40°C, T<sub>Rise</sub> = 110 K, Flange Temperature ≤ 65°C  
Standard winding designed for power supply U<sub>cc</sub> = 320 or 560 VDC, different execution optional  
Acc. To DIN 42955N, optional R