



## Brushless Servomotors

### N3-xxxx Series

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

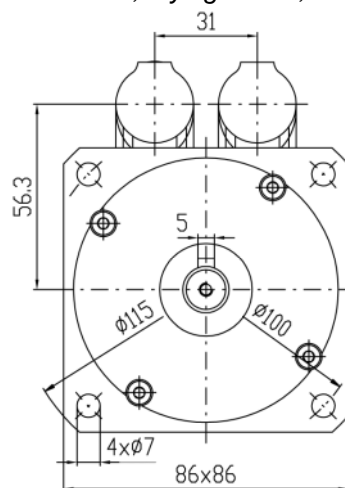
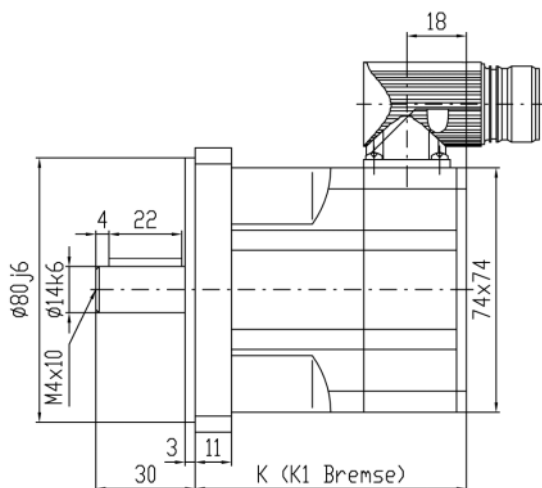


#### General Description:

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			N3-0115		N3-0205		N3-0350		N3-0480	
DC Bus Voltage	U <sub>dc</sub>	V	320	560	320	560	320	560	320	560
Rated Torque	M <sub>N</sub>	Nm	1,13		1,90		3,0		3,7	
Rated AC Current	I <sub>N</sub>	A	2,3	1,3	3,1	1,7	4,3	2,4	4,5	2,6
Stall Torque	M <sub>0</sub>	Nm	1,15		2,05		3,5		4,8	
Stall Current	I <sub>0</sub>	A	2,0	1,1	2,8	1,6	4,2	2,4	4,8	2,8
Peak Torque	M <sub>max</sub>	Nm	3,5		6,2		10,5		14,4	
Peak AC Current	I <sub>max</sub>	A	9,2	5,0	12,7	7,2	19,4	10,9	17,3	9,9
Rated Speed*	n <sub>N</sub>	min <sup>-1</sup>	3000							
Max. Mech. Speed	n <sub>max</sub>	min <sup>-1</sup>	12000							
Torque Constant	K <sub>T</sub>	Nm/A	0,57	1,04	0,74	1,31	0,83	1,47	0,99	1,74
Voltage Constant	K <sub>E</sub>	V/1000	34,5	63	44,5	79	50	89	60	105
Resistance Ph-Ph	R <sub>Ph</sub>	Ω	8,4	27,8	5,4	17,3	2,8	8,9	2,5	7,7
Inductance Ph-Ph	L <sub>Ph</sub>	mH	18,0	59,3	13,3	42,4	8,1	25,5	7,5	23,5
El. Time Constant	T <sub>el</sub>	ms	2,1	2,1	2,5	2,5	2,9	2,9	3,0	3,1
Therm. Constant	T <sub>th</sub>	min	21		23		27		30	
Inertia	J	kgcm <sup>2</sup>	0,31		0,55		1,04		1,52	
Rated Brake Torque	M <sub>Br</sub>	Nm	4,5							
Weight w/o brake	m	kg	1,5		2,0		2,9		3,8	
Weight with brake	m <sub>Br</sub>	kg	2,0		2,5		3,4		4,3	
Length w/o brake	K	mm	82		100		136		172	
Length with brake	K1	mm	120		138		174		210	

\*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, T <sub>Ambient</sub> = 40°C, T <sub>Rise</sub> = 110 K, Flange Temperature ≤ 65°C
Motor Controller	Standard winding designed for power supply U <sub>cc</sub> = 320 or 560 VDC, different execution optional
Flange/Shaft	Acc. To DIN 42955N, optional R