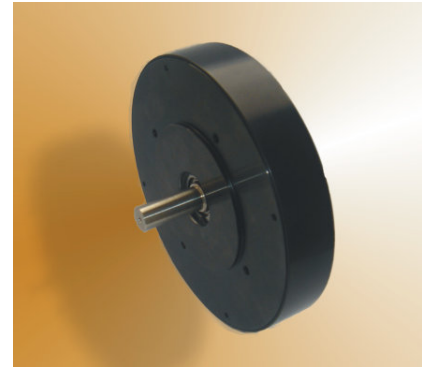


# GN Series



Peak Torque **490 to 2550 Ncm**  
 Cont. Torque **49 to 255 Ncm**  
 Power **140 to 800 Watts**  
 Speed **<1 to 6000 rpm**

The Printed Motor Works GN series is an exceptionally powerful and extremely accurate range of servo motors that provides all the advantages of the printed armature with, the thin profile offered, by using rare earth magnet technologies for industrial automation and scientific applications. GN motors are available in 3 sizes GN9, 12 and 16. The GNxT options incorporate a second flat armature to provide a highly accurate tacho pulse generation.

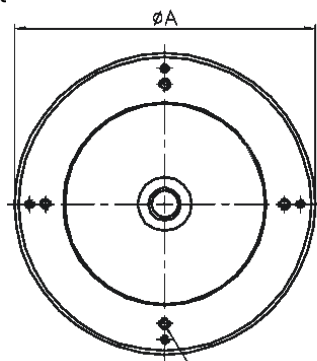


GN Series

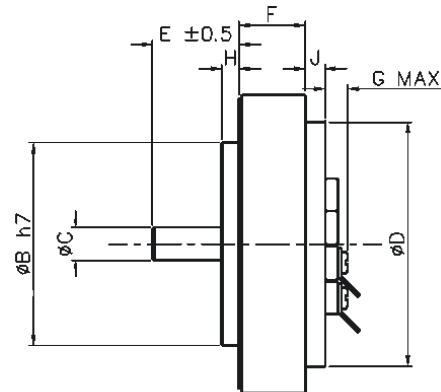
Motor Ratings	Symbol	Unit	GN9	GN9T	GN12	GN12T	GN16R	GN16RT
Power	P	Watt	154	140	344	320	800	754
Torque	T	Ncm	49	45	111	102	255	240
Speed	N	rpm	3000	3000	3000	3000	3000	3000
Voltage	V	Volt	30	27.7	46	46	99.4	93.2
Current	I	Amp	7.9	7.4	9.2	9.3	9.4	9.6
Cont. Stall Current	IS	Amp	7	6.6	8	6	8	6
Tacho Output	V	V/krpm	-	3.5	-	6.6	-	10.5
Ripple p-p @1 krpm	-	-	-	3%	-	3.5%	-	3%

### General benefits

- High peak torque output
- Zero cogging
- Low inertia
- Rapid acceleration
- Extra slim profile
- High instantaneous torque
- Long brush life
- Controllable with PMA and PMC drives
- Design options with special shaft and additional ancillaries available



4 HOLES K  
 X L DEEP EQUI-SPACED  
 ON M P.C.D



Motor type	Dimensions												Wt (Kg)
	A	B	C	D	E	F	G	H	J	K	L	M	
GN9	111	75h7	12j6	90	32	24	16	6.5	6	M4	5	88	1.5
GN9T	111	75h7	12j6	90	32	25	16	6.5	6	M4	5	88	1.5
GN12	140	75h7	12j6	90	32	25.8	16	2.5	6	M5	6	88	2.3
GN12T	140	75h7	12j6	90	32	26.5	16	6.5	6	M5	6	88	2.4
GN16	188	95h7	14g6	100	30	26	20	3	10	M8	8	115	4.5
GN16T	188	110h7	14j6	100	32	26.5	20	8.1	6	M8	8	130	4.7

### Sample applications

#### Scientific

Seismic analysers  
 Inspection systems  
 Operation in sub zero temperatures

#### Industrial

Tensile testing  
 Paper slitting  
 Film processing

#### Military

Elevation adjustment  
 Turret annulus drive



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Printed Motor Works

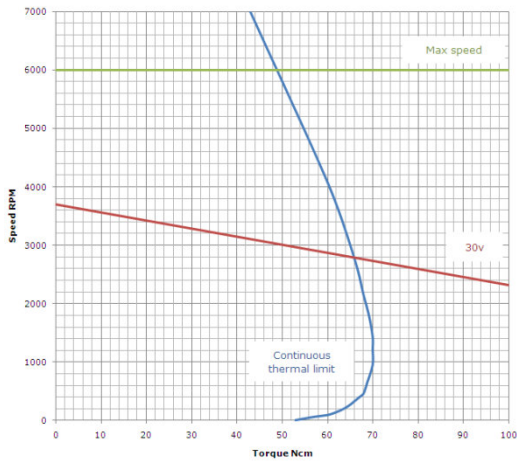
Newman Lane, Alton  
 Hampshire GU34 2QW, UK

# GN Series

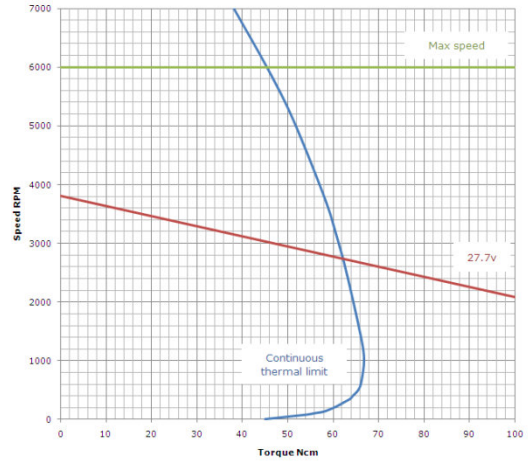


GN Series

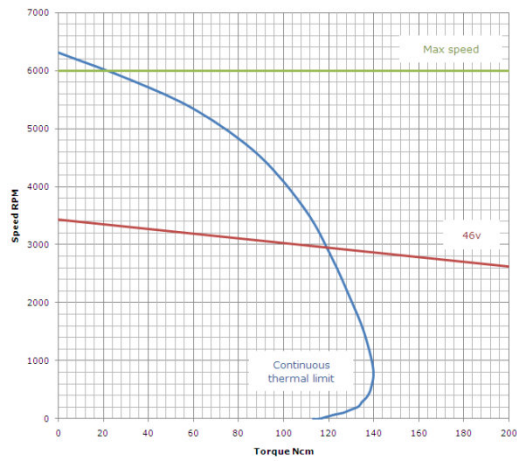
**GN9**



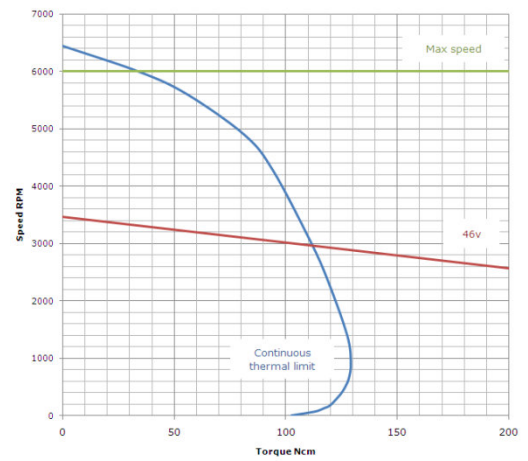
**GN9T**



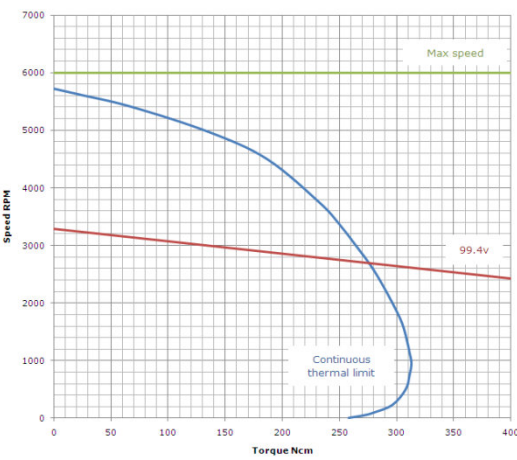
**GN12**



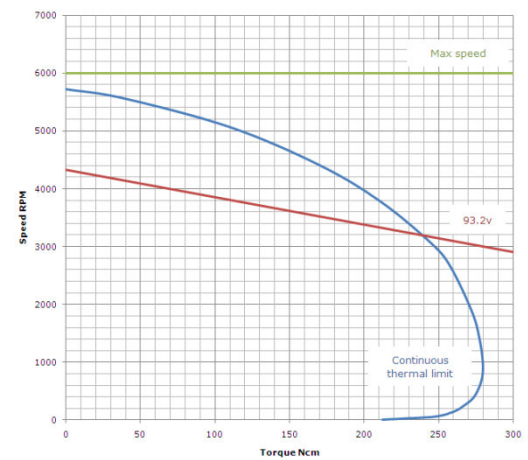
**GN12T**



**GN16R**



**GN16RT**



NOTE: The angle of the Torque/Speed curve remains the same for higher and lower voltages. The speed varies proportionally from zero rpm relative to the voltage supplied. The stated voltage is an example, not a predefined maximum or minimum. Due to ongoing product improvement data in this datasheet may be subject to change without notice.



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