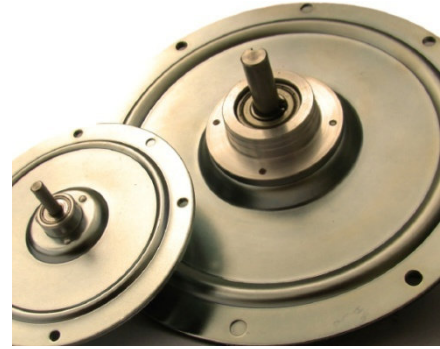


# GP Series

Peak Torque **100 to 1700 Ncm**  
 Cont. Torque **10 to 170 Ncm**  
 Power **38 to 533 Watts**  
 Speed **<1 to 6000 rpm**

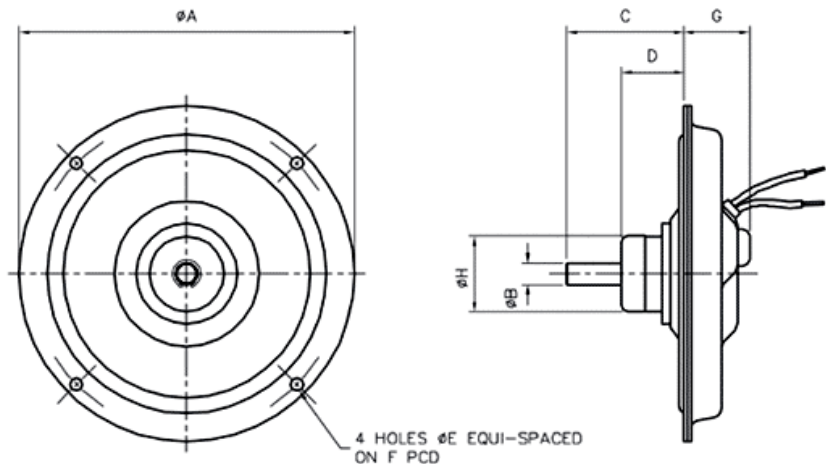
The Printed Motor Works *GP* series is a totally enclosed dc motor in an ultra slim pancake profile. This pancake motor can provide a cost effective servo capability. Using flat armature technology the motor is ideal for general purpose applications. Two variants of each size are available: one with a standard ferrite magnet (*GPM*) and the other with high-power neodymium magnets (*GPN*).



Motor Ratings	Symbol	Unit	GPM9	GPN9	GPM12	GPN12	GPM16	GPN16
Power	P	Watt	41	94	110	200	300	533
Torque	T	Ncm	13.1	30	35	64	96	170
Speed	N	rpm	3000	3000	3000	3000	3000	3000
Voltage	V	Volt	14.5	22.5	23.5	37.5	43.3	75.8
Current	I	Amp	6.9	6.85	7.6	7.3	9.3	8.4
Cont. Stall Current	IS	Amp	4.5	4.5	5	5	6	6

### General benefits

- Low profile
- Zero cogging
- High instantaneous torque
- Rapid acceleration
- Low inertia
- Ultra slow/creep capability
- Wide speed range
- Low inductance
- Long brush life
- Excellent electromagnetic characteristics (EMC)
- Easily driven from a servo amplifier
- Design options for tachometer, encoder, gearbox, pulley, shaft, special performance tuning brushes



Motor type	Dimensions								Wt (Kg)
	A	B	C	D	E	F	G	H	
GPx9	120	6.003/5.998	30	11.7	4.75	110	26	19.05	0.59
GPx12	152	9.995/9.982	53	28.0	5.76	142	32	34.3	1.22
GPx16	215	11.988/11.976	59.9	32.5	7.1	200	35.6	45.72	2.9

All dimensions are in mm

### Sample applications

#### Medical

Portable X-ray machines  
 Blood centrifuges  
 CT scanners

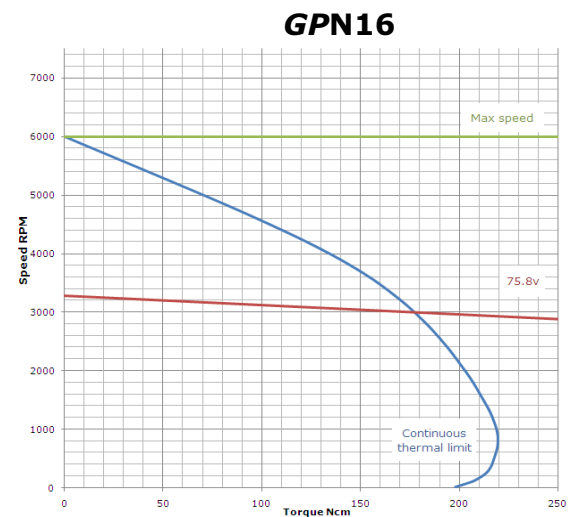
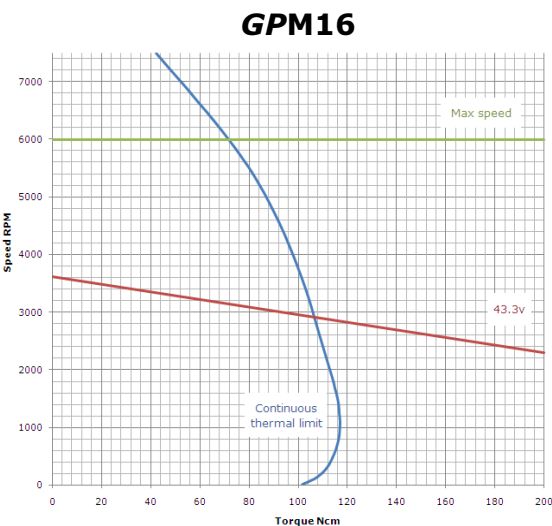
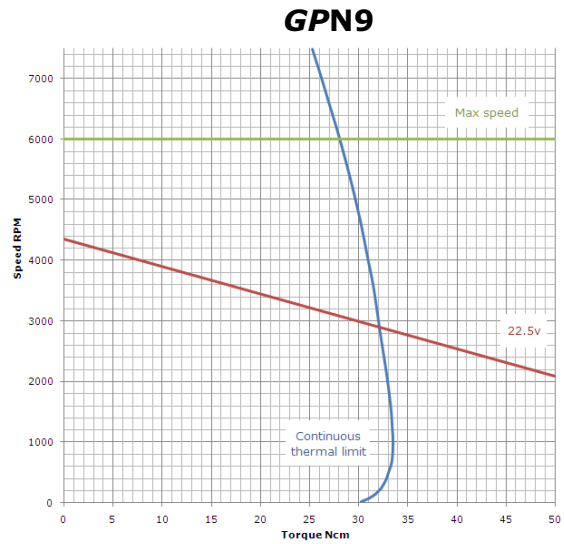
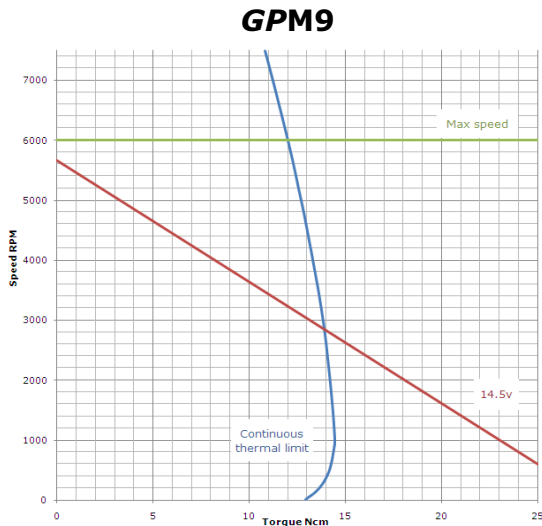
#### Industrial

Tensile Testing  
 Metallurgical analysers  
 Film processing  
 Servo assisted brakes  
 Paper handling

#### Marine

Auto pilots  
 Wave generation

# GP Series



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.