

PM90 motor data

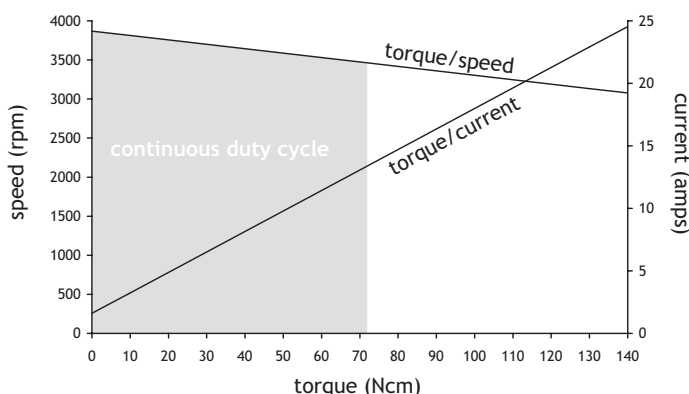
MOTOR POWER†	113 - 656 Watts
TYPE	Permanent magnet DC brushed motor
SPEED*	1500 - 5000 rpm
VOLTAGE*	12V - 48V available range
CONNECTION*	Flying leads 30cm flexible
SHAFT*	Single or double ended on request
INERTIA	$7.08 \times 10^{-4} \text{ kgm}^2$
WEIGHT	3.51 kg
RADIAL LOAD†	200 N
INSULATION CLASS	B
IP PROTECTION	Totally enclosed (IP54)
STARTING CURRENT	Approx 3 times full load current
ROTATION	Reversible two leads as standard
OPTIONS	See page 36



PM90 pictured with Parvalux standard flange

SPEED (Rpm)	MOTOR POWER (WATTS)			TORQUE (NM)			CURRENT (A)**			
	CONT	1 HOUR	15 MIN	CONT	1 HOUR	15 MIN	12V	24V	50V	
1500	113	141	198	0.7	0.9	1.3	1.6	0.7	0.4	No load current (A)
							12.1	6.7	3.4	Full load current (A)
2000	150	188	263	0.7	0.9	1.3	2.3	0.9	0.5	No load current (A)
							17.8	7.9	4	Full load current (A)
3000	225	281	394	0.7	0.9	1.3	2.9	1.6	1.8	No load current (A)
							26.2	13.4	6.4	Full load current (A)
4000	300	375	525	0.7	0.9	1.3	4.8	1.9	1	No load current (A)
							39.5	17.8	8.5	Full load current (A)
5000	375	469	656	0.7	0.9	1.3	**Please contact sales support for load currents			

PM90 • 3000 rpm • 24V • 225W



† Rated output power

* Voltage, speed, connection and shaft configuration can be customised to your exact requirements

† Based 10mm from motor mounting face with plain shaft extension

** Please contact our technical sales team for current ratings for alternative voltages and/or speeds

Motor construction

The motor frame comprises pressure die castings accurately located together ensuring a concentric air gap with correct bearing alignment. The armature laminations are pressed onto a precision steel shaft and are then statically and dynamically balanced. The armature is wound with first class quality synthetic covered copper wire manufactured to EN60085:2004 class "B" and then impregnated and baked in our automatic plant and accordingly can be considered to be tropically impregnated for all practical purposes.

Motor Enclosures

To IEC 34-5 and EN 60034: part 5 and IEC 34-6 and B.S. EN 60034-6. Please refer to the individual product pages to identify the corresponding ingress protection level (IP rating).

Bearings

We fit only first class shielded ball bearings into our motor and gearboxes which are spring loaded for quiet running. Typical operating temperatures range from -30°C to +120°C.

Brush gear

We provide four fixed brushes of two pole pairs accessible from the exterior of the motor that provide good brush life and commutation. To achieve maximum brush life a form factor on the supply voltage as near to 1 as possible would be required.

Temperature

PM90/95 motors are built with class "B" insulation to EN60085:2004 which allows a temperature rise of 90°C based on an ambient of 40°C. These figures are with the motor running in normal working conditions in free air and not in any form of enclosure. Caution: Under full load the heat of the motor casing will be such that it is NOT possible to physically handle for any length of time.