

PM3 motor data

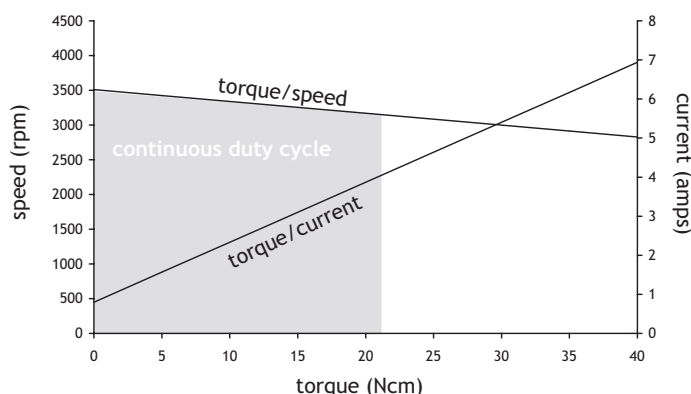
MOTOR POWER†	33 - 200 Watts
TYPE	Permanent magnet DC brushed motor
SPEED*	1500 - 5000 rpm
VOLTAGE*	12V - 220V DC available range
CONNECTION*	Flying leads 30cm flexible
SHAFT*	Single or double ended on request
INERTIA	$2.60 \times 10^{-4} \text{ kgm}^2$
WEIGHT	2.11 kg
RADIAL LOAD†	180 N
INSULATION CLASS	F
IP PROTECTION	Totally enclosed (IP54)
STARTING CURRENT	Approx 3 times full load current
ROTATION	Reversible two leads as standard
OPTIONS	See page 36



PM3 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	33	45	60	0.2	0.3	0.4	0.8	0.5	0.18	No load current (A)
							5.2	2.3	1.1	Full load current (A)
2000	45	60	90	0.2	0.3	0.4	0.9	0.5	0.18	No load current (A)
							6	3	1.2	Full load current (A)
3000	68	90	120	0.2	0.3	0.4	1.3	0.8	0.4	No load current (A)
							9.8	4.1	2.1	Full load current (A)
4000	90	120	150	0.2	0.3	0.4	1.5	0.6	0.6	No load current (A)
							10	5.4	2.4	Full load current (A)
5000	112	150	200	0.2	0.3	0.4	**Please contact sales support for load currents			

PM3 • 3000 rpm • 24V • 68W



† Rated output power

* We produce all our motors in the UK and therefore 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 "F" 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.

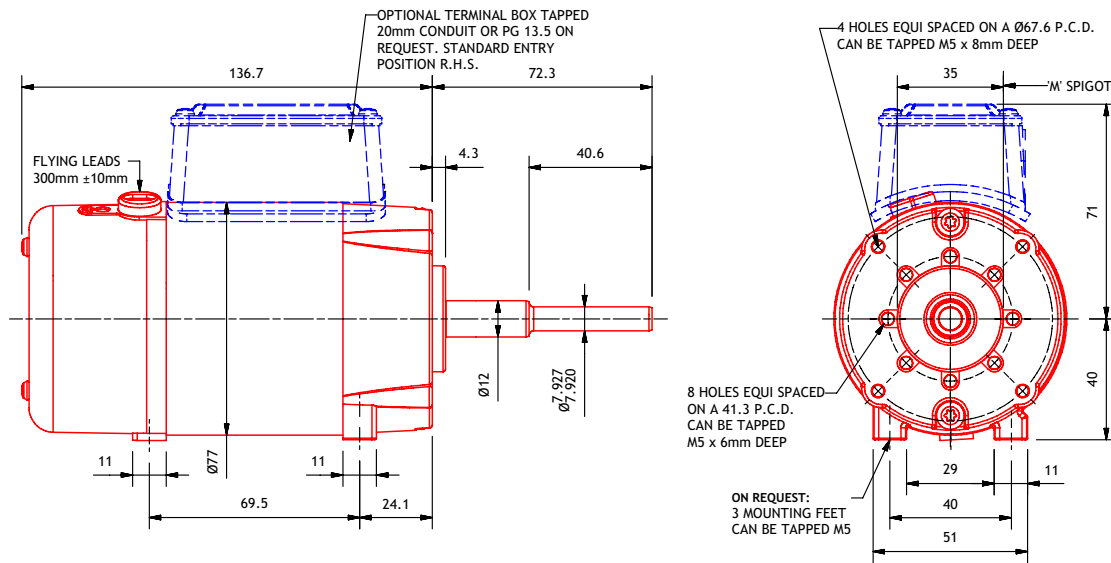
Brush gear

We provide an adjustable rocker type for maximum brush life and good commutation with easily accessible brushes. To achieve maximum brush life a form factor on the supply voltage as near to 1 as possible would be required.

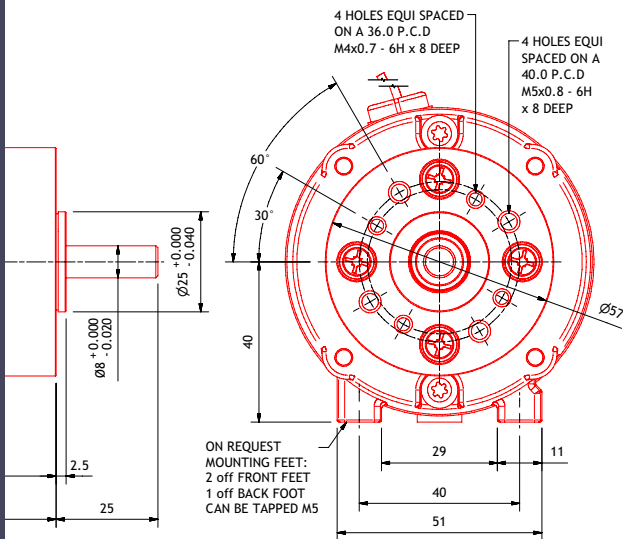
Temperature

The PM3 is built with Class "F" insulation to EN60085:2004 which allows a temperature rise of 115°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.

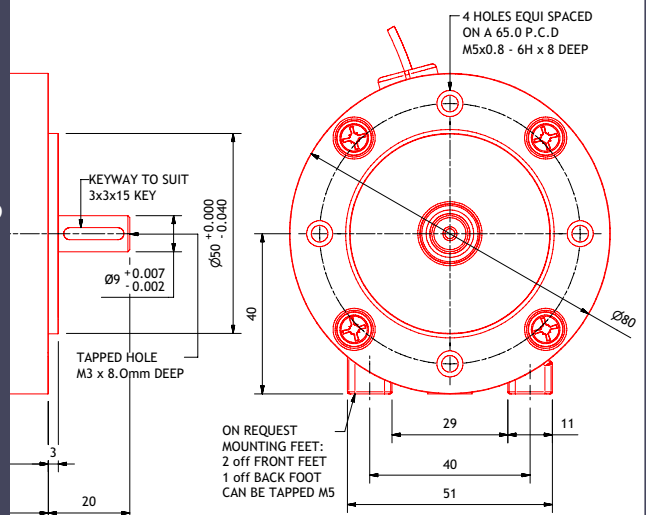
Parvalux standard flange/mount



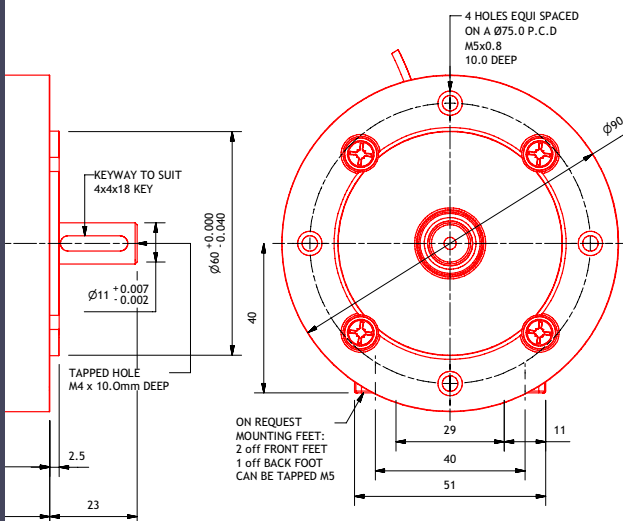
IEC Eurostandard flange/mount



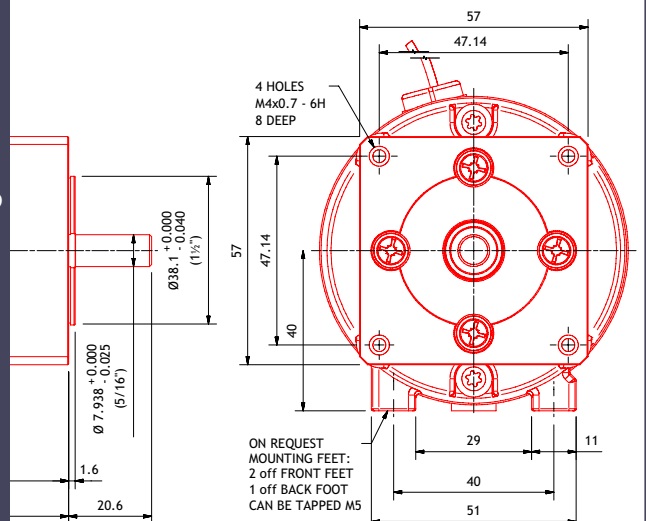
IEC B14 M56 flange/mount



IEC B14 M63 flange/mount



NEMA standard flange/mount



PM3M/MB

PARVALUX®

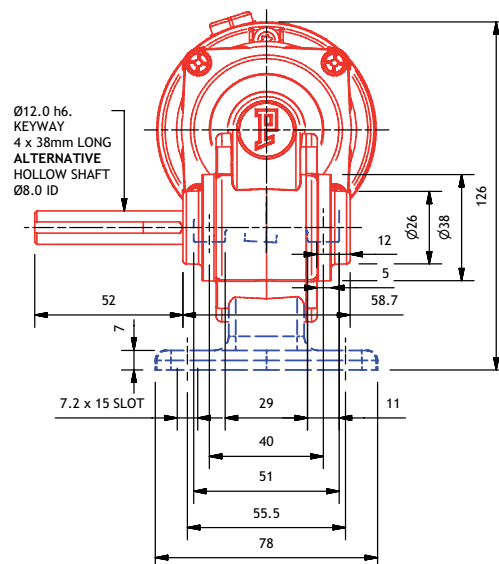
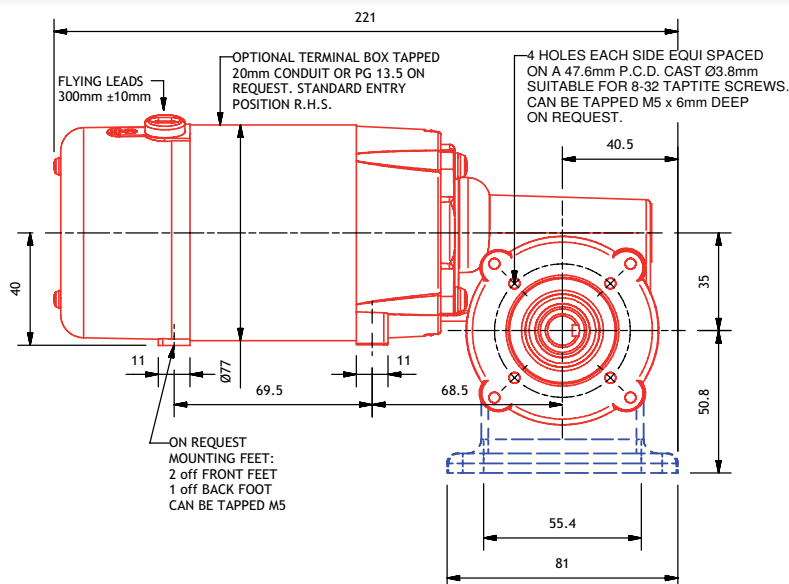
MOTOR	Permanent magnet DC motor
PROTECTION	Totally enclosed (IP54)
GEARBOX	Worm and wheel (M)
MOTOR POWER	33 - 150 Watts
SPEED	21 - 970 rpm
VOLTAGE	12V - 220V DC available range
WEIGHT	2.82 kg (M); 3.01 kg (MB)
RADIAL LOAD	132 N (M); 226 N (MB)
AXIAL LOAD	88 N (M); 108 N (MB)
SHAFT TYPE	Single ended as standard; hollow or double ended upon request
EXTRAS	See page 36



PM3M pictured

See page 158 to specify shaft and gearbox position

RATIO	Motor Power Cont (W)				TORQUE (Nm)					
	33	45	68	90						
	45	60	90	120						
	60	90	120	150						
	MOTOR SPEED (rpm)				CONTINUOUS		1 HOUR		15 MINUTE	
	1500	2000	3000	4000	Composite	Bronze	Composite	Bronze	Composite	Bronze
OUTPUT SPEED (rpm)										
72	21	28	42	56	5.1	5.1	5.1	6.8	5.1	7.3
66	23	30	45	61	4.9	4.9	5.1	6.5	5.1	7.3
60	25	33	50	67	4.7	4.7	5.9	6.2	5.9	7.9
54	28	37	56	74	4.5	4.5	5.9	5.9	5.9	7.9
48	31	42	63	83	4.2	4.2	5.5	5.5	5.9	7.4
44	34	45	68	91	4.0	4.0	5.3	5.3	5.9	7.0
40	38	50	75	100	3.8	3.8	5.0	5.0	6.7	6.7
36	42	56	83	111	3.5	3.5	4.7	4.7	6.3	6.3
33	45	61	91	121	3.4	3.4	4.5	4.5	5.9	5.9
30	50	67	100	133	3.2	3.2	4.2	4.2	5.6	5.6
27	56	74	111	148	3.0	3.0	3.9	3.9	5.2	5.2
25	60	80	120	160	2.8	2.8	3.7	3.7	5.0	5.0
22 1/2	67	89	133	178	2.6	2.6	3.5	3.5	4.6	4.6
20 1/2	73	98	146	195	2.5	2.5	3.3	3.3	4.4	4.4
18 1/2	81	108	162	216	2.3	2.3	3.0	3.0	4.1	4.1
16 1/2	91	121	182	242	2.1	2.1	2.8	2.8	3.8	3.8
15 1/2	97	129	194	258	2.0	2.0	2.7	2.7	3.6	3.6
14 1/2	103	138	207	276	1.9	1.9	2.6	2.6	3.4	3.4
13 1/3	113	150	225	300	1.8	1.8	2.4	2.4	3.2	3.2
12 1/3	122	162	243	324	1.7	1.7	2.3	2.3	3.0	3.0
11 1/3	132	176	265	353	1.6	1.6	2.2	2.2	2.9	2.9
10 1/3	145	194	290	387	1.5	1.5	2.0	2.0	2.7	2.7
9 1/3	161	214	321	429	1.4	1.4	1.9	1.9	2.5	2.5
8 1/3	180	240	360	480	1.3	1.3	1.7	1.7	2.3	2.3
7 1/4	207	276	414	552	1.2	1.2	1.5	1.5	2.1	2.1
6 1/6	243	324	486	649	1.0	1.0	1.4	1.4	1.8	1.8
5 1/8	293	390	585	780	0.9	0.9	1.2	1.2	1.6	1.6
4 1/8	364	485	727	970	0.8	0.8	1.0	1.0	1.3	1.3



worm gearboxes