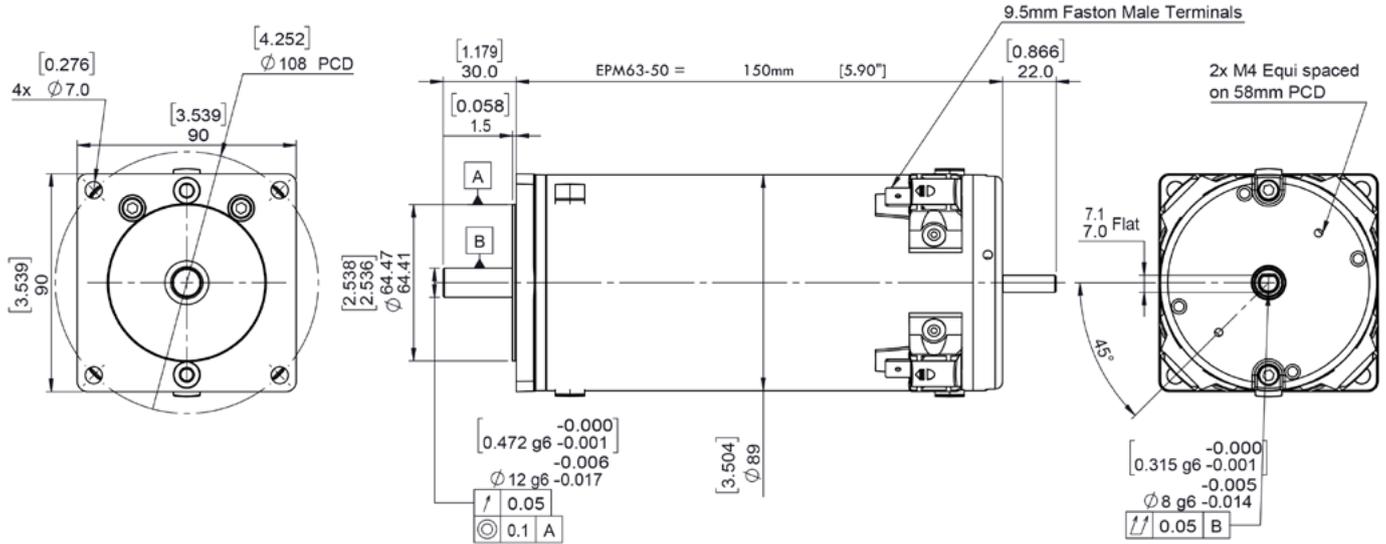


# EPM63-50 PMDC motor

Ø90 mm frame // 50 mm stack

**parvalux**  
by **maxon**



all dimensions in mm

### Part number key

|                 |       |
|-----------------|-------|
| Modular         | ##### |
| Standard        | ##### |
| Calculated data | ##### |

Please see our [customisation options page](#) for details on the modifications available on our products. Advice and guidance on these options are available from your local sales contact.

### Technical data

| 1 Part number                                |                         | -                       | -                       | -                       | -                       |
|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| 2 Nominal power                              | <b>W</b>                | 220                     | 220                     | 220                     | 220                     |
| 3 Nominal voltage                            | <b>V</b>                | 12                      | 24                      | 40                      | 48                      |
| 4 No load speed                              | <b>rpm</b>              | 3899                    | 3992                    | 3881                    | 3854                    |
| 5 No load current                            | <b>A</b>                | 4.70                    | 2.60                    | 1.50                    | 1.24                    |
| 6 Nominal speed                              | <b>rpm</b>              | 3000                    | 3000                    | 3000                    | 3000                    |
| 7 Nominal continuous torque (S1)             | <b>Nm</b>               | 0.7                     | 0.7                     | 0.7                     | 0.7                     |
| 8 Nominal continuous current (S1)            | <b>A</b>                | 28.4                    | 14.5                    | 8.4                     | 7.0                     |
| 9 Max. intermittent torque (S2 - 15 minutes) | <b>Nm</b>               | 1.17                    | 1.17                    | 1.17                    | 1.17                    |
| 10 Stall current                             | <b>A</b>                | 115                     | 83                      | 47                      | 39                      |
| 11 Stall torque                              | <b>Nm</b>               | 3.3                     | 4.8                     | 4.7                     | 4.6                     |
| 12 Stack length                              | <b>mm</b>               | 50                      | 50                      | 50                      | 50                      |
| 13 Maximum efficiency                        | <b>%</b>                | 67                      | 70                      | 70                      | 70                      |
| 14 Terminal resistance                       | <b>Ω</b>                | 0.10                    | 0.29                    | 0.85                    | 1.24                    |
| 15 Terminal inductance                       | <b>mH</b>               | -                       | -                       | -                       | -                       |
| 16 Speed constant                            | <b>rpm/V</b>            | 320                     | 159                     | 93                      | 77                      |
| 17 Torque constant                           | <b>Nm/A</b>             | 0.03                    | 0.06                    | 0.10                    | 0.12                    |
| 18 Speed torque gradient                     | <b>rpm/Nm</b>           | 1200                    | 831                     | 831                     | 831                     |
| 19 Rotor inertia                             | <b>Kgcm<sup>2</sup></b> | 6.13 x 10 <sup>-4</sup> |

### Thermal data

|                        |           |    |
|------------------------|-----------|----|
| 20 Ambient temperature | <b>°C</b> | 40 |
|------------------------|-----------|----|

### Mechanical data

|                                       |               |          |
|---------------------------------------|---------------|----------|
| 21 Radial load [distance from flange] | <b>N [mm]</b> | 200 [15] |
|---------------------------------------|---------------|----------|

### Other data

|                     |           |          |
|---------------------|-----------|----------|
| 22 Number of poles  |           | 4        |
| 23 Weight           | <b>Kg</b> | 3.00     |
| 24 IP rating        |           | IP44     |
| 25 Enclosure        |           | Enclosed |
| 26 Insulation Class |           | F        |
| 27 Reversible       |           | Yes      |

### Compatible products

| Gearbox | +L mm | Brake    | +L mm | Controller |
|---------|-------|----------|-------|------------|
| GB9     | 138   | 2.0 Nm   | 32.2  | SC 50/15   |
| GB12    | 110   |          |       | ESCON      |
| GB80    | 80    |          |       | EPOS       |
|         |       | Encoder  | +L mm |            |
|         |       | Optical  | 9     |            |
|         |       | Magnetic | 12    |            |

+L mm = approximate added length\*

### Compatible products key

|              |                      |
|--------------|----------------------|
| Product name | Standard combination |
| Product name | Modular combination  |

\*additional length may also be required for mounting flange between components