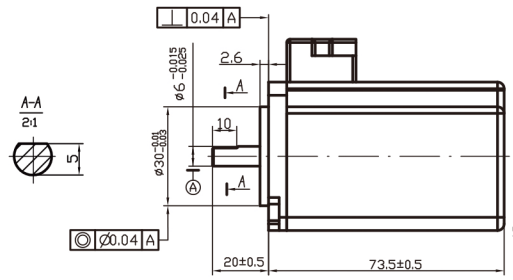
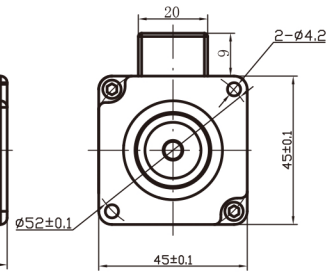
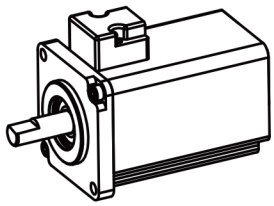
# BMP45 | Brushless

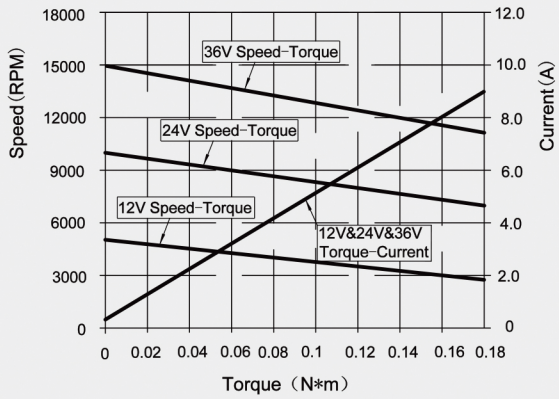


## Motor Data

| | motor model | | BMP4512 | BMP4524 | BMP4536 | |
|---|---|---|---|---|---|---|
| 1 | no load voltage | V | 12 | 24 | 36 | volts |
| 2 | no load speed | Wnl | 5000 | 10000 | 15000 | rpm |
| 3 | no load current | Inl | 0.4 | 0.8 | 1.2 | Amps |
| 4 | nominal voltage | Vc | 12 | 24 | 36 | VDC |
| 5 | nominal torque | Tc | 0.18 | 0.16 | 0.14 | Nm |
| 6 | nominal speed | Wc | 3000 | 7500 | 12000 | rpm |
| 7 | nominal current | Ic | 8.5 | 7.5 | 6.6 | amps |
| 8 | output power | Pc | 57 | 126 | 176 | watts |
| 9 | torque constant | Kt | 0.0233 | 0.0233 | 0.0233 | Nm / apm |
| 10 | back EMF constant | Kv | 410 | 410 | 410 | rpm / volt |
| | | Ke | 2.44 | 2.44 | 2.44 | V / Krpm |
| 11 | teminal resistance | Rt | 0.43 | 0.43 | 0.43 | Ω |
| 12 | cogging and hysteresis torque | Tc Th | 0 | 0 | 0 | mNm |
| 13 | terminal inductance | L | 30 | 30 | 30 | μH |
| 14 | mechanical time constant | Tm | 28 | 28 | 28 | ms |
| 15 | electrical time constant | Te | 0.07 | 0.07 | 0.07 | ms |
| 16 | weight | Wt | 0.52 | 0.52 | 0.52 | kg |
| 17 | max. efficiency | η | 71 | 81 | 84 | % |
| 18 | max. permissible rotor temperature | Temp | | 120 | | °C |
| 19 | max. output power | Pmax | 74 | 230 | 435 | W |
| 20 | teminal definitions | U: green V: black W: red +5V: yellow GND:grey H1: brown H2: orange H3: blue Thermistor: violet | | | | |

## Graph

Torque - Speed - Current