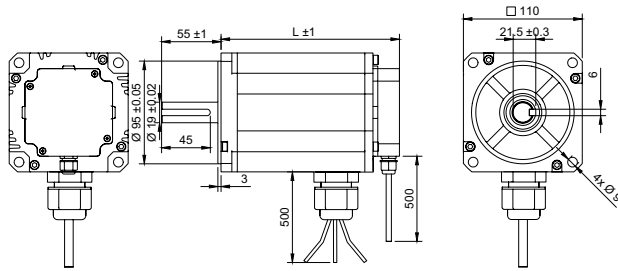


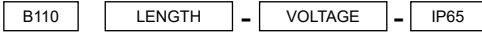
DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION



Example: B110165-48-IP65

ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

| BRUSHLESS DC MOTOR DATA | B110165-48-IP65 | B110182-48-IP65 | C |
|------------------------------------|-------------------|-----------------|-------|
| Nominal voltage | V | 48 | 48 |
| No load speed | rpm | 4000 | 4200 |
| No load current | A | 1 | 1 |
| Nominal speed | rpm | 3000 | 3000 |
| Nominal torque | Nm | 4.8 | 6.4 |
| Nominal current | A | 45 | 58 |
| Peak current | A | 130 | 170 |
| Peak torque | Nm | 14 | 19 |
| Efficiency | % | 69 | 72 |
| Nominal power | W | 1500 | 2000 |
| Terminal resistance ¹ | Ω | 0.022 | 0.017 |
| Terminal inductance ² | mH | 0.29 | 0.2 |
| Insulation resistance ³ | MΩ | 100 | 100 |
| Dielectric strength ⁴ | V | 600 | 600 |
| Back EMF | V/rpm | 0.008 | 0.008 |
| Torque constant | Nm/A | 0.11 | 0.11 |
| Rotor inertia | kgcm ² | 3.1 | 4.1 |
| Bearing type | | Ball bearing | |
| Axial play ⁵ | mm | 0.08 | |
| Radial play ⁵ | mm | 0.02 | |
| Max. dynamic axial load | N | 320 | |
| Max. radial load ⁶ | N | 630 | |

NOTES

1. Measured at 20°C.
2. Measured at 1 kHz.
3. Measured at 500 V.
4. At a duration of 1 second.
5. Max. 4 N.
6. 20 mm from flange.
7. In storage, relative humidity less than 85%.

| OTHER BRUSHLESS DC MOTOR DATA | B110165-48-IP65 | B110182-48-IP65 | C |
|---------------------------------------|-----------------|--|-----|
| Number of pole pairs | | 10 | |
| Number of phases | | 3 | |
| Weight | kg | 5 | 6.7 |
| Operating temperature | °C | -20 to 50 | |
| Storage temperature ⁷ | °C | -20 to 85 | |
| Winding type | | Star connection | |
| Motor insulation class | | B | |
| IP rating | | IP65 | |
| Hall sensors and power harness length | mm | 500 | |
| Power harness | | AWG10 | |
| Hall sensors harness | | AWG22 | |
| Motor length | mm | 165 | 182 |
| Shaft length from flange | mm | 55 | |
| Shaft diameter | mm | 19 | |
| Service life | h | 10000 | |
| Manufacturing standard | | ISO 9001:2015 ISO 14001 IATF 16949 | |

CABLE AND PIN CONFIGURATION

| Wire | Definition | Color |
|------|------------|--------|
| U | | Yellow |
| V | Power | Red |
| W | | Black |
| H1 | Hall | Blue |
| H2 | | Green |
| H3 | | White |
| Vcc | | Red |
| GND | | Black |