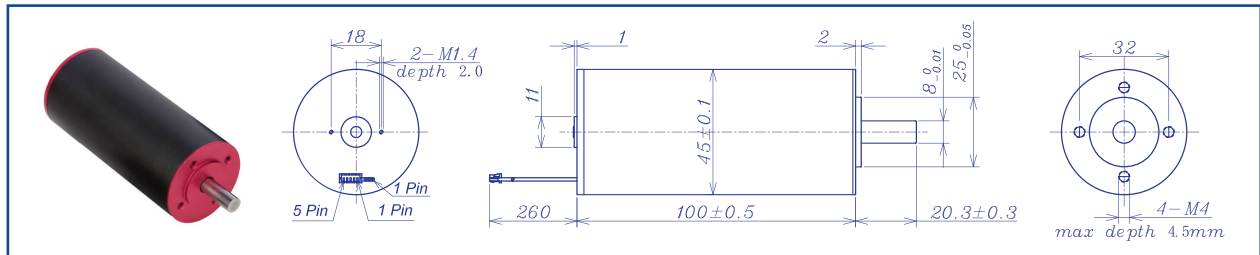


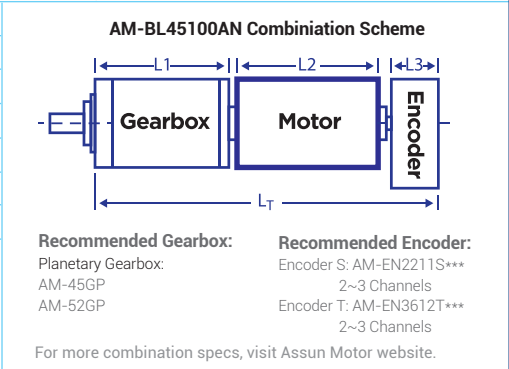
AM-BL45100AN Series



| | | Brushless Motor | | | Ball Bearings | | | |
|--|------------------|-----------------|-------|--------|---------------|-------|-------|-------|
| Motor Model | | 2411 | 2406 | 3610 | 3606 | 4810 | 4806 | |
| Nominal voltage | V | 24 | 24 | 36 | 36 | 48 | 48 | |
| No load speed ±12% | rpm | 11240 | 5900 | 10340 | 6380 | 10360 | 6450 | |
| No load current Max 150% | mA | 600 | 320 | 390 | 200 | 370 | 190 | |
| Recommend limit for continuous operating | Max cont. torque | mN.m | 69.0 | 161.5 | 69.9 | 123.4 | 49.8 | 120.8 |
| | Rated Speed | rpm | 10984 | 5466 | 10127 | 6032 | 10215 | 6108 |
| | Rated Current | mA | 4000 | 4500 | 2500 | 2500 | 1500 | 1900 |
| | Rated Power | W | 79.4 | 92.4 | 74.1 | 77.9 | 53.2 | 77.3 |
| Starting current | mA | 150000 | 57143 | 102857 | 42353 | 81356 | 32432 | |
| Stall torque | mN.m | 3034 | 2195 | 3394 | 2261 | 3567 | 2278 | |
| Maximum power output | W | 892.8 | 339.0 | 918.7 | 377.6 | 967.4 | 384.6 | |
| Maximum Efficiency | % | 88 | 86 | 88 | 87 | 87 | 85 | |
| Terminal resistance ±12% | Ω | 0.16 | 0.42 | 0.35 | 0.85 | 0.59 | 1.48 | |
| Inductance (1KHz) | mH | 0.035 | 0.14 | 0.11 | 0.31 | 0.21 | 0.55 | |
| Mechanical time constant | ms | 4.3 | 3.1 | 3.5 | 3.2 | 3.3 | 3.3 | |
| Moment of inertia | gcm ² | 109.8 | 109.8 | 109.8 | 109.8 | 109.8 | 109.8 | |
| Torque constant | mN.m/A | 20.3 | 38.6 | 33.1 | 53.6 | 44.0 | 70.6 | |
| Speed constant | rpm/V | 470 | 247 | 288 | 178 | 217 | 135 | |
| Speed/torque gradient | rpm/mN.m | 3.7 | 2.7 | 3.0 | 2.8 | 2.9 | 2.8 | |
| Weight | g | 846.5 | 850.2 | 852.5 | 841.5 | 847.5 | 840.3 | |

| ADDITIONAL INFORMATION | | | |
|---|----------|--|--------------|
| Motor thermal resistance: | 3.6 K/W | Motor thermal time constant: | 1286 S |
| Axial (dynamic): | 8.0 N | Radial (5mm from mounting face): | 180.0 N |
| Press-fit force (static): | 170 N | Max allowable screw depth into flange: | 4.5 mm |
| Maximum radial play (5mm from mounting face): | ≤0.02 mm | Axial play: | 0 (<8.0N) |
| Maximum winding temperature: | 85°C | Ambient temperature range: | -30 to 65°C |
| Standard rear shaft diameter: | 8 mm | Standard rear shaft length "L": | 0/3.7/5.5 mm |

| Connection (AWG 18#) | Total Length: L _T =L1+L2+L3 | | | | |
|--|---|---------|---------|----------|----------|
| Cable 1: Yellow Winding A | L1:45GP | L1:52GP | L2:BL45 | L3:EN22S | L3:EN36T |
| Cable 2: Red Winding B | 36.1 | 46.3 | 100.0 | 10.7 | 12.0 |
| Cable 3: Blue Winding C | 48.1 | 62.8 | | | |
| Plug definition (AWG 28#) Molex: 51021-0500 | 60.1 | 79.3 | | | |
| | 72.1 | 95.8 | | | |
| Plug 1: Brown Hall 3~16V | | | | | |
| Plug 2: Black Hall GND | | | | | |
| Plug 3: Yellow Hall A | Remarks: Client can choose gearbox and encoder to match with this motor. Some combinations are listed here for reference. | | | | |
| Plug 4: Red Hall B | | | | | |
| Plug 5: Blue Hall C | | | | | |



Motor data tested at 25°C. Motor operation exceeding continuous limits will reduce life or result in damage. At elevated ambient temperatures, load current must be reduced.

Download datasheet: <https://assunmotor.com/documents-download>

Visit Our Website and Online Shop at <https://assunmotor.com> Contact: info@assunmotor.com