



82(NEMA34)-35260-110 Brushless DC Motor Product Datasheet

82-35260-110 BLDC Overview

- Three Phase, Six Step, Full Wave, Y-Circuit
- Sintered Nd-Fe-B Permanent Magnet Rotor
- Hall Sensor
- Step (Low Cogging)
- Slot

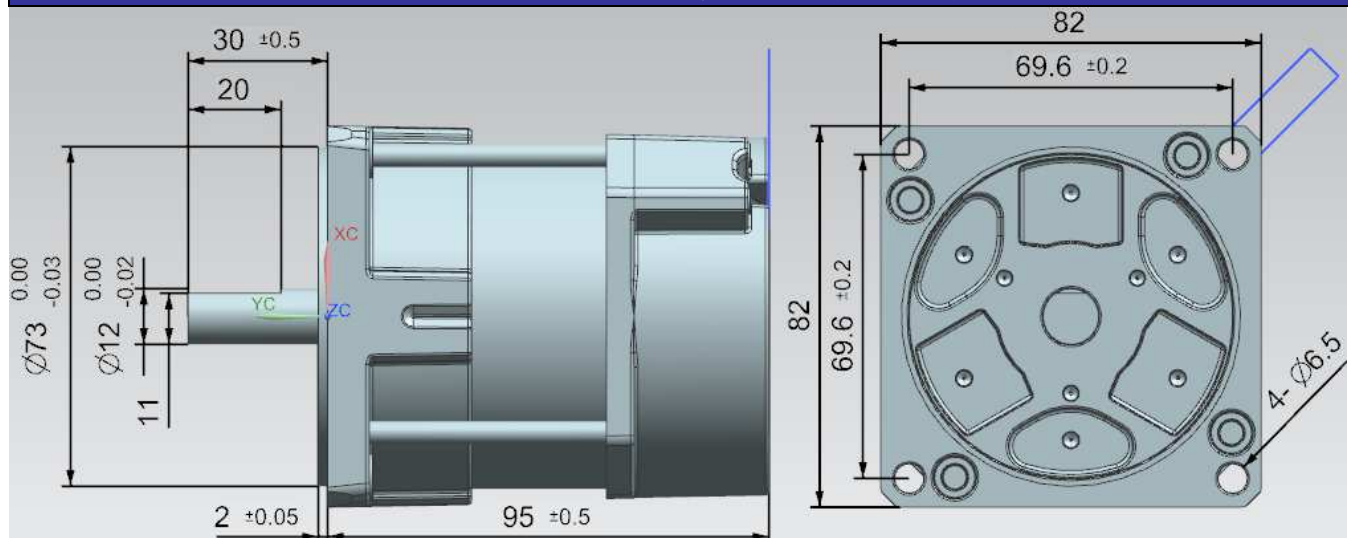


| Parameters | 82-35260-110 BLDC Absolute Maximum Ratings | Unit |
|-------------------------------------|--|------|
| Rotor/Bearing Broken Speed | 20000 | rpm |
| Winding and Rotor Temperature | 130 | °C |
| Front/Rear Lids Surface Temperature | 0 to 70 | °C |
| HIPOT (Winding to Shell) | 2000VDC, 1s | |

Notice: The Absolute Maximum Ratings are those values beyond which the safety of the device cannot be guaranteed

| Parameters | 82-35260-110 BLDC Intrinsic Characteristics (20°C) | Unit |
|-----------------------------|--|--------|
| Resistance (Including Line) | 6.9 | Ohm |
| Inductance (Including Line) | 19 | mH |
| Speed-Torque Gradient | 1700 | rpm/Nm |
| Torque Constant | 0.31 | Nm/A |
| Speed Constant | 33 | rpm/V |
| Back-EMF Constant | 30 | mV/rpm |
| Rotor Magnetic Poles | 4 | Poles |
| Weight (Including Line) | Approximate | 1600 g |

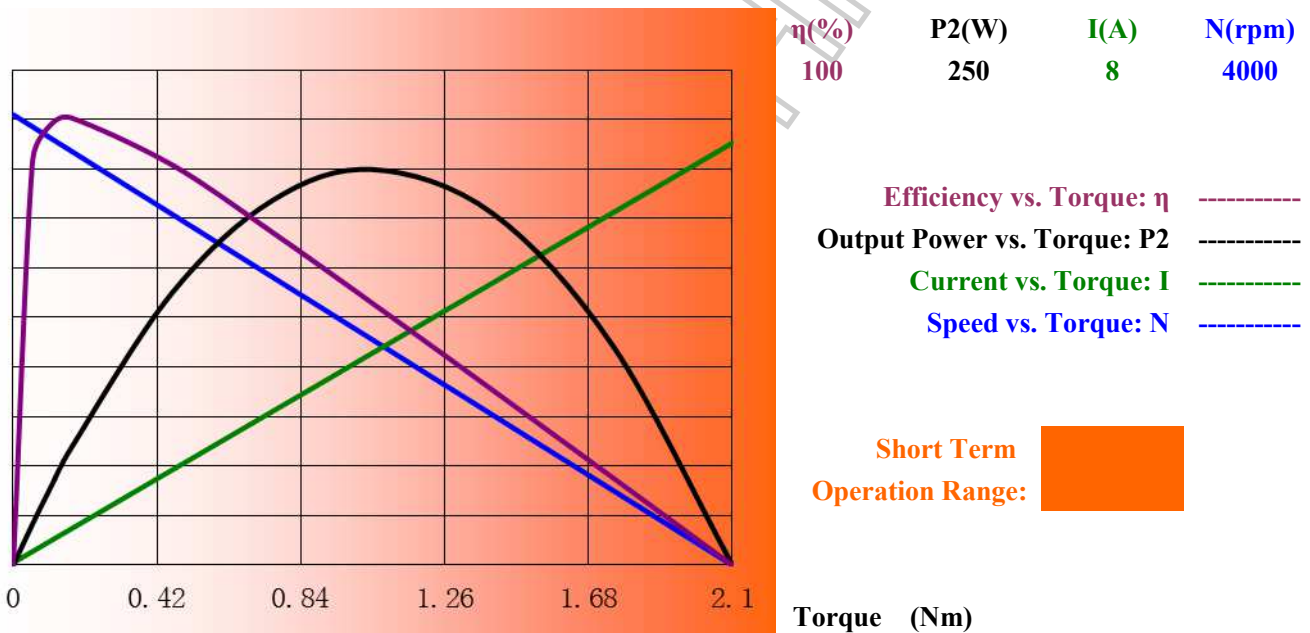
82-35260-110 BLDC Physical Size (Unit: mm)



Notice: Shaft could be custom made in batch order.

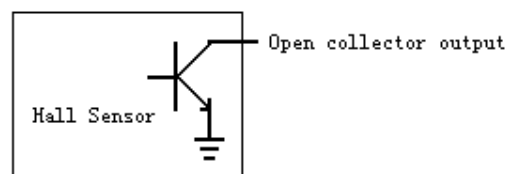
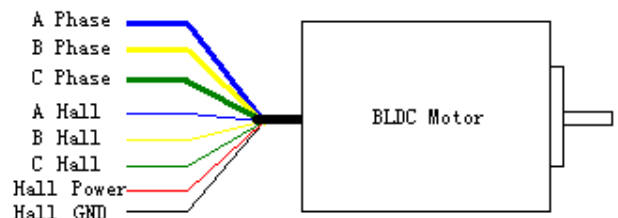


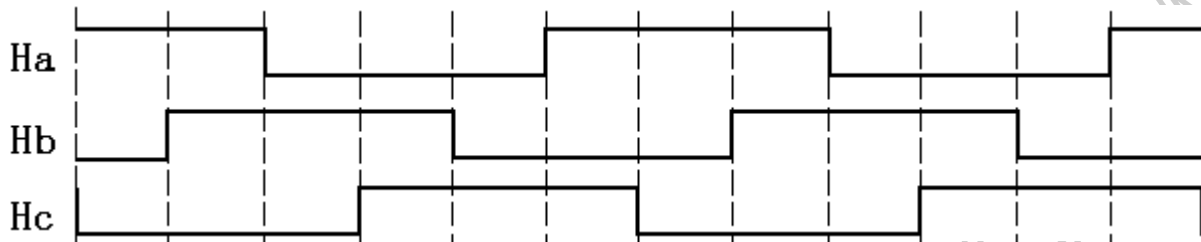
| Parameters | 82-35260-110 BLDC Performance Characteristics (20°C) | | | | | Unit |
|-------------------------------------|--|--------------------------------|------|------|---------|------|
| Nominal Voltage | 110 VAC | Rectified and Filted | | | 155 VDC | V |
| Maximum Output Power (P2) | 200 | | | | | W |
| (See Curves Below) | No Load Point | Some Loaded Points Performance | | | | |
| Output Torque (T) | 0 | 0.2 | 0.3 | 0.4 | 0.5 | Nm |
| Output Speed (N) | 3630 | 3290 | 3120 | 2950 | 2780 | rpm |
| Input Current (I) | 0.05 | 0.69 | 1.0 | 1.3 | 1.7 | AAC |
| Output Power (P2) | 0 | 69 | 98 | 124 | 146 | W |
| Efficiency (η) | 0 | 90 | 88 | 84 | 80 | % |
| External Forced Ventilation Cooling | Please keep the front and rear air holes unblocked. If PTC protection is often active (R>1Kohm), fan or other cooling equipments must be installed. Otherwise the motor may be damaged by hotness. | | | | | |



82-35260-110 BLDC Connection Diagram and Hall Output Waveforms

- Three Phases: AWG18, thick lines, Blue--A phase, Yellow--B phase, Green--C phase
- Halls: AWG24, thin lines, Blue--A hall, Yellow--B hall, Green--C hall, Red--Hall Positive, Black--Hall GND
- Hall Supply Voltage: 4.5 to 16VDC Regulated Supply
- Hall Power Supply Current: Less than 20mA
- Hall Output: Open collector. Require external pull-up resistors. Maximum output voltage is 16V
- Electrical Hall Sensor Phasing: 120°
- PTC: MZ6-105, Tk=105C, AWG24, Brown--Brown.
- Line Length: 0.5m

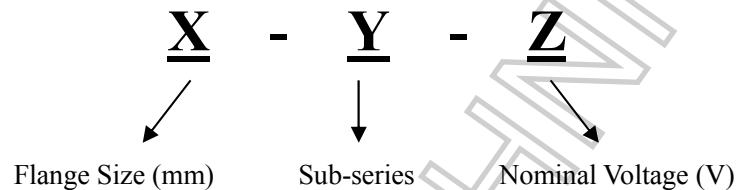




Hall Sensor Output Commutation Waveforms

Notice: The A, B, C three windings and Ha, Hb, Hc three hall sensors must be connected correctly, otherwise the controller and motor may be damaged.

Eletechnic BLDC Motor Product Code Regulation



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Page 3

