

# Brushless DC Motor Hetai 57BL

## General Specifications

|                           |                       |
|---------------------------|-----------------------|
| Winding Type              | Star                  |
| Hall Effect angle         | 120° electrical angle |
| Insulation Class          | B                     |
| Ambient Temperature Range | -20°C~+50°C           |
| Insulation Resistance     | 100MΩ Min.500V DC     |
| Dielectric Strength       | 700V AC 1minute       |



## Technical Specifications

| Model              | 57BL01 | 57BL02 | 57BL03 | 57BL04 | 57BL05 | 57BL06 |
|--------------------|--------|--------|--------|--------|--------|--------|
| Number of Poles    | 4      |        |        |        |        |        |
| Number of Phase    | 3      |        |        |        |        |        |
| Rated Voltage VDC  | 24     | 24     | 24     | 24     | 24     | 24     |
| Rated speed RPM    | 2500   | 3000   | 3000   | 3000   | 3000   | 3000   |
| Rated Torque N-m   | 0.057  | 0.11   | 0.165  | 0.22   | 0.33   | 0.44   |
| Rated Current Amps | 1.2    | 2.3    | 3.0    | 4.4    | 6.6    | 8.6    |
| Output Power Watts | 15     | 34     | 52     | 69     | 103    | 138    |
| Peak Torque N-m    | 0.18   | 0.38   | 0.58   | 0.8    | 1.2    | 1.6    |

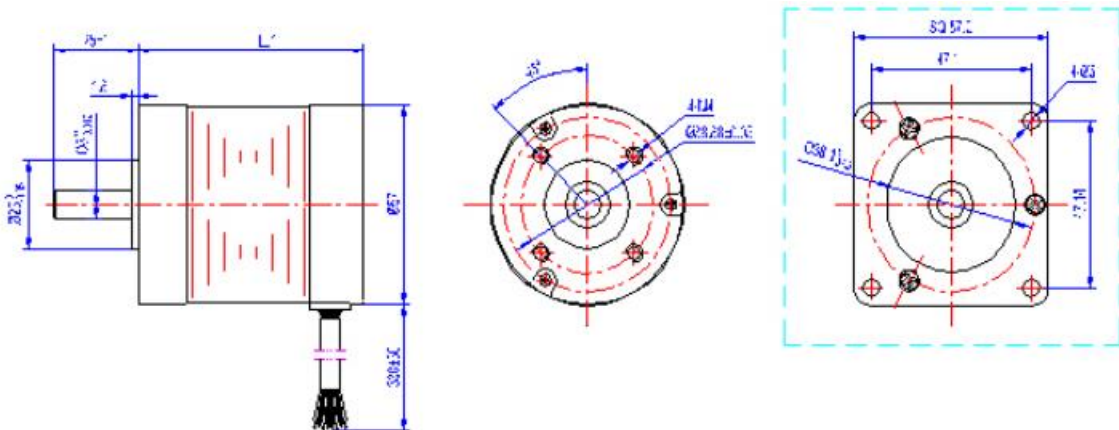
Caution 1: Peak Torque is provided for the purpose of performance calculations only. Operate near, or at this condition will result in motor damaged.

Note: We can also manufacture products according to customer's requirements

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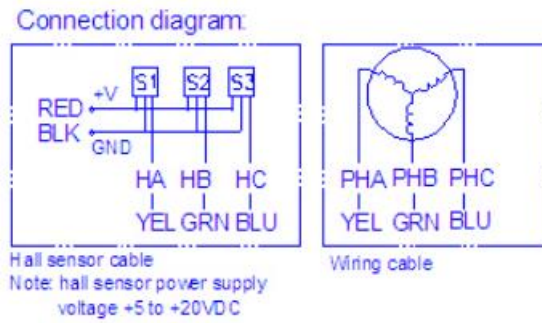
| Model                           | 57BL01 | 57BL02 | 57BL03 | 57BL04 | 57BL05 | 57BL06 |
|---------------------------------|--------|--------|--------|--------|--------|--------|
| Peak Current Amps               | 3.6    | 6.8    | 9      | 13.2   | 19.8   | 25.8   |
| Torque constant N-m/Amps        | 0.074  | 0.059  | 0.06   | 0.062  | 0.062  | 0.063  |
| Back EMF V/kRPM                 | 7.75   | 6.2    | 6.3    | 6.5    | 6.5    | 6.6    |
| Rotor inertia g*cm <sup>2</sup> | 32     | 42     | 58     | 72     | 106    | 140    |
| Motor Height (L) mm             | 41.5   | 46.5   | 56.5   | 66.5   | 86.5   | 106.5  |
| Motor Weight (kg)               | 0.43   | 0.5    | 0.67   | 0.75   | 1.0    | 1.25   |

## Mechanical Dimensions

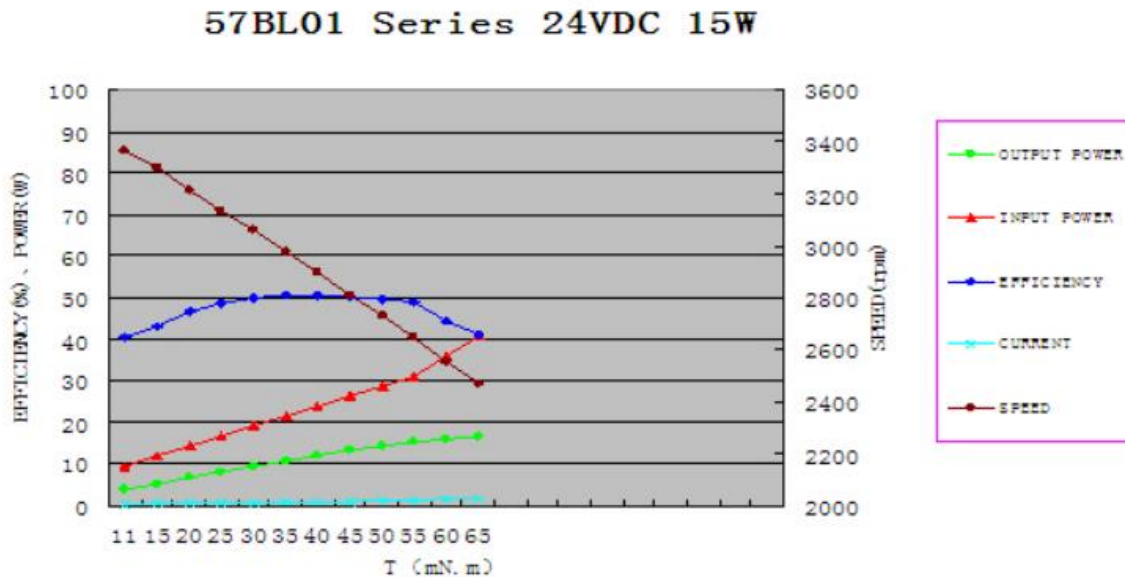


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## Wiring Diagram

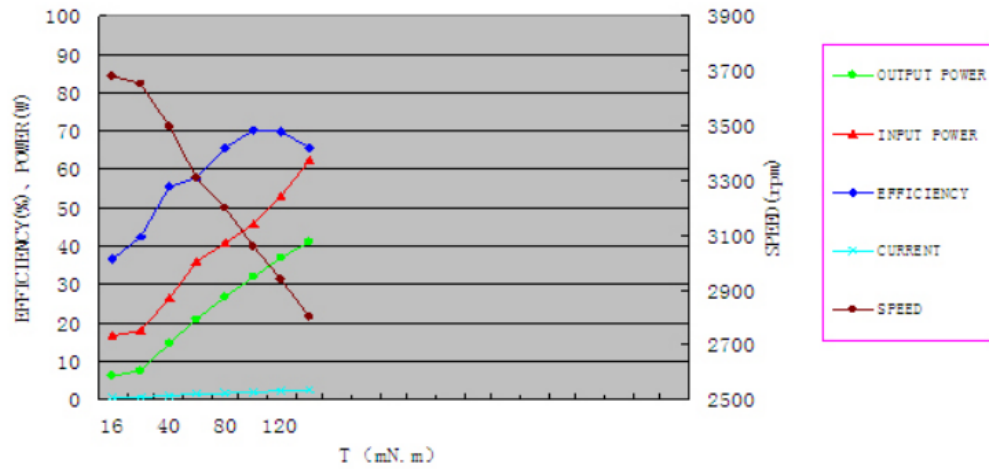


## Mechanical Performance Curves

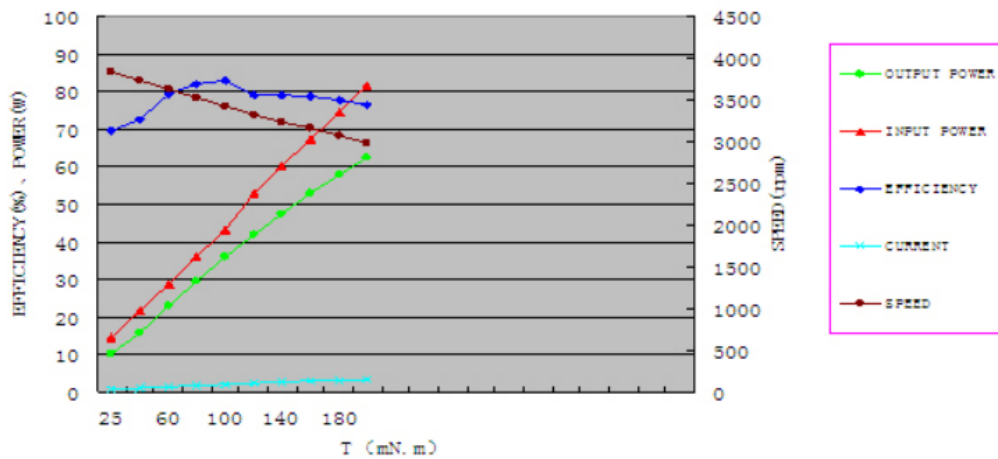


# Brushless DC Motor Hetai 57BL

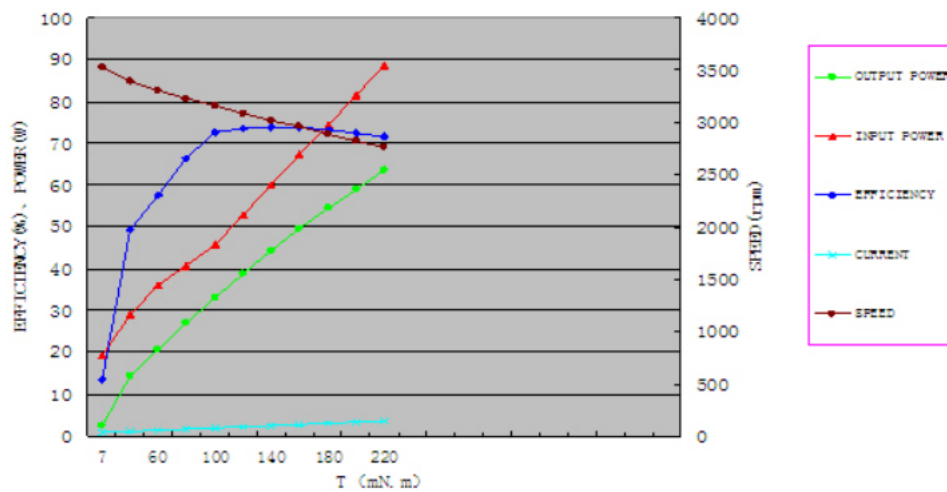
## 57BL02A Series 24VDC 34W



## 57BL03B Series 24VDC 52W

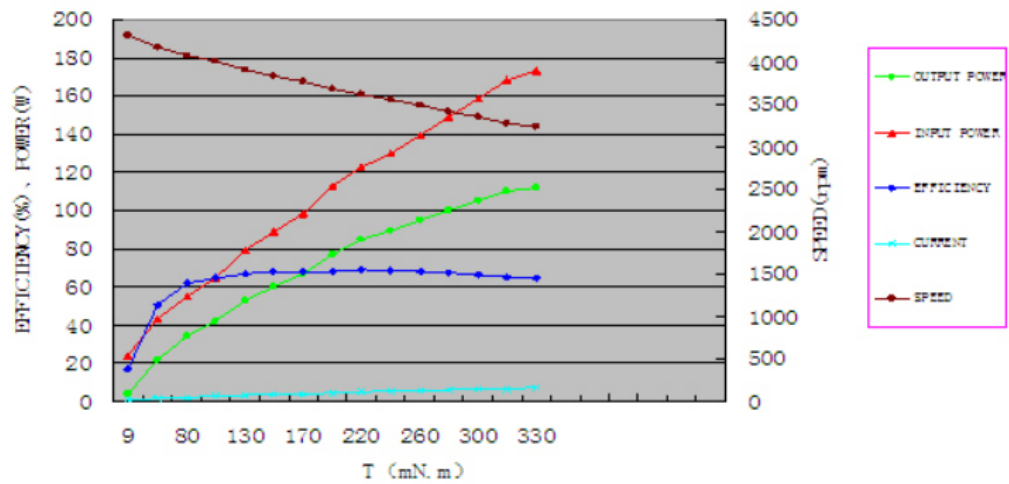


## 57BL04A Series 24VDC 69W

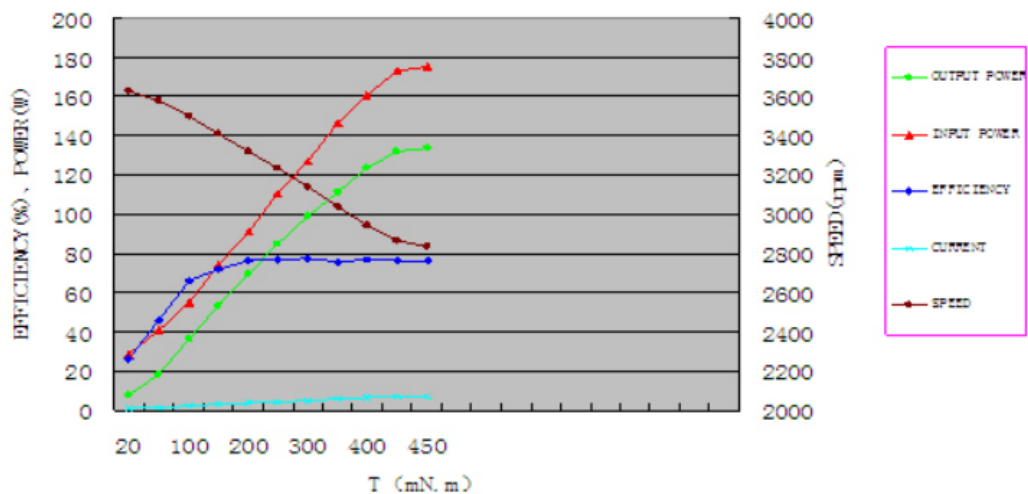


# Brushless DC Motor Hetai 57BL

## 57BL05A Series 24VDC 103W



## 57BL06 Series 24VDC 138W



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