

## BLDC17F Series Brushless DC Motor



- NEMA Size 17 BLDC Motors
- Cost Effective
- Compact Size and Power Density
- Custom Design Service Available

### Electrical Specifications:

| Model #    | Rated Voltage (VDC) | Rated speed (RPM) | Output Power (Watts) | Continuous Torque (oz-in) | Peak Torque (oz-in) | Peak Current (Amps) | Line to Line Resistance (Ohms) | Line to Line Inductance (mH) | Torque constant (oz-in/A) | Back EMF (V/kRPM) | Rotor inertia (oz-in-sec <sup>2</sup> ) | Body Length L (in) | Weight (lbs) |
|------------|---------------------|-------------------|----------------------|---------------------------|---------------------|---------------------|--------------------------------|------------------------------|---------------------------|-------------------|-----------------------------------------|--------------------|--------------|
| BLDC17F-19 | 24                  | 4000              | 26                   | 9                         | 25                  | 4.6                 | 1.8                            | 0.54                         | 5.9                       | 4.4               | 0.00034                                 | 1.9                | 0.7          |
| BLDC17F-25 | 24                  | 4000              | 52                   | 18                        | 54                  | 9.4                 | 0.9                            | 0.27                         | 6.1                       | 4.5               | 0.00068                                 | 2.5                | 1.1          |
| BLDC17F-31 | 24                  | 4000              | 78                   | 27                        | 85                  | 14.1                | 0.6                            | 0.18                         | 6.2                       | 4.65              | 0.00102                                 | 3.1                | 1.4          |

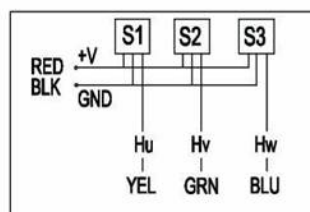
Note: Peak Torque is provided for the purpose of performance calculations only. Operate near or at this condition for a long time will result in motor damaged.

### General Specifications:

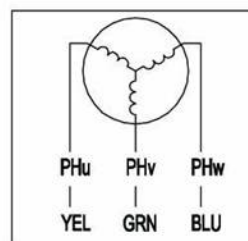
|                                          |                            |
|------------------------------------------|----------------------------|
| <b>Winding Type</b>                      | <b>Star</b>                |
| <b>Hall Effect Angle</b>                 | <b>120°</b>                |
| <b>Electrical angle Insulation Class</b> | <b>B Ambient</b>           |
| <b>Temperature Range</b>                 | <b>-20 ° C --- +50 ° C</b> |
| <b>Insulation Resistance</b>             | <b>100 m Ω Min. 500V</b>   |
| <b>DC Dielectric Strength</b>            | <b>500 VAC 1 minute</b>    |
| <b>Number of Poles</b>                   | <b>8</b>                   |
| <b>Number of Phases</b>                  | <b>3</b>                   |

### Wiring Diagram:

Connection diagram:



Hall sensor cables  
Note: hall sensor power supply  
voltage +5 to +20VDC



Wiring cables

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### Dimensions (inch):

