



High Voltage, Square Wave Brushless DC Motor Controller

ASSUN MOTOR

2015 edition. Specifications are subject to change without notice.

PRODUCT FEATURES

1.1 System Characteristics:

Input Voltage: 20~60V DC

Continuous Current: 5A

Max. Current: 8A

Temperature - Operation: 0 ~ +45°C

Temperature - Storage: -20 ~ +85°C

Humidity: ≤85% (non-condensing)

1.2 Information:

Dimension: Length: 55mm. width: 46mm

Cooling Method: Natural Cooling

Protective Function: Current limit, Undervoltage

Weight: 11g

1.3 Installation Notes:

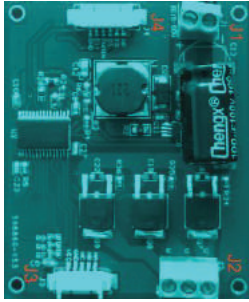
a) Please install in dry and ventilated place

b) Avoid vibration and collision

c) Do not let metal dust and iron cut falling on controller

d) Fix installation is needed

e) Use qualify connection cables



INTERFACE & CONTROL SIGNALS

J1: Electric Connections

Sign	Name	Note
+	Positive pole	Input Voltage: DC20-60V
-	Negative pole	DV

J2: Motor Connections

Name	Note
U	Motor Winding U
V	Motor Winding V
W	Motor Winding W

J3: Motor Sensor Connections

Name	Note
HA	Hall Sensor A(U)
HE	Hall Sensor B(V)
HC	Hall Sensor C(W)
GND	Hall Sensor Power Ground
VCC	Hall Sensor Power Positive

J4: Control and Feedback Signal Connections

Sign	Name	Note (Low: 0~0.8VDC; High: 2.2~5.0VDC; Null: Not Connect)
HP	High signal output	Speed signal output (4 output styles available)
FR	Direction port	Low-Positive; High/Null-Negative, Turning direction refer to motor
SS	Start/Stop control	Low-Motor rotate; High-Motor stop
PWMIN	PWM Speed control	PWM frequency range; 20KHz-50KHz
EI+	Input voltage control	EI+input voltage range; 0~DC3.3V, Speed can be adjusted by changing EI+input voltage
GND	Control power ground	0V

NOTE ON USAGE

1. Controller should be installed with 20mm space for cooling. The environment should be ventilated.
2. Change direction only when motor stopped completely (or <100rpm) to prevent damage of electronic components.
3. The controller is a two quadrant operation mode, it cannot be use when speed change is rapid.
4. Please read this manual before installation. Whenever there is problem, please stop the current immediately. Then check carefully the connections.

REMARKS

Clients can choose gearbox and encoder to match with this motor. Some combinations are listed here for reference.

Motor Data Tested at 25°.

Motor Operation exceeds continuous limits of operating range will compromise the life of the device.