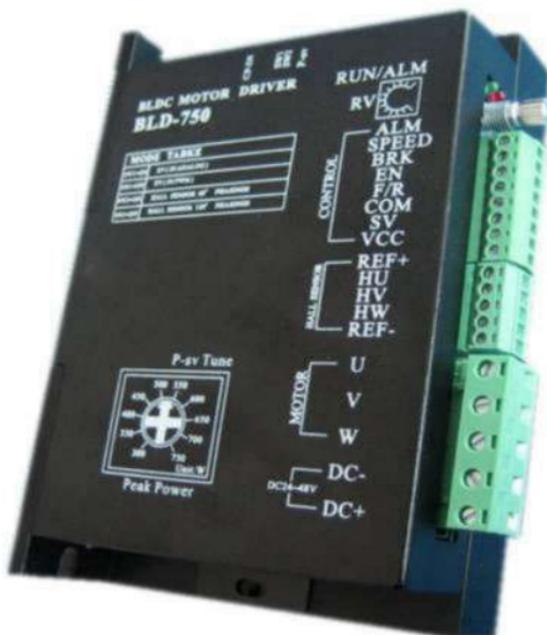


## BLD750 Brushless DC Motor Drive



## Description

The BLD750 BLDC motor drive is a high performance, cost-effective 3phase BLDC motor drive, which can provide power output Max 750VA. The design is based on advanced DSP technology and feature high torque, low noise, low vibration, PID speed loop, PID current loop, over current protection, over load protection and a combined use of manual speed adjustment and automatic speed adjustment.

## Connection Definition

Mark	Definition
DC+/DC-	DC Power Input (DC24V~DC48V)
U,V,W	Motor Lead Wire
Hu,Hv,Hw	Hall Sensor Lead Wire
REF+	Hall Sensor Power Supply +
REF-	Hall Sensor Power Supply -
VCC	External Potentiometer Power Supply ( Internal Power Supply Only)
SV	External Potentiometer ( No Connection When Adjusting Speed With Internal Potentiometer ) or Pulse Rate In <b>Note①</b>
COM	Common (Low Level/Ground)
F/R	Direction: Low Level/CCW High Level or No Connection/CW <b>Note ②</b>
EN	Enable: High Level/Stop Low Level/Run <b>Note ②</b>
BRK	Quick Brake: High Level/Stop Low Level/Run <b>Note ②</b>
SPEED	Speed Signal Output
ALARM	Alarm Signal Output

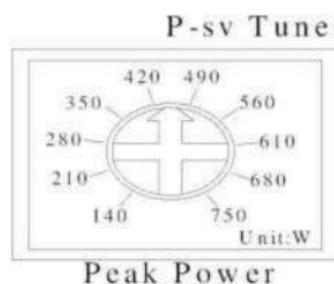
**Note①:** Potentiometer/10K $\Omega$  or analog signal DC 0V~+5V (Change internal switch J1/DC0-10V). Turn off the internal potentiometer RV when using an external potentiometer to adjust the motor speed.

**Note②:** High level/5V (5mA)

## Electrical Specifications

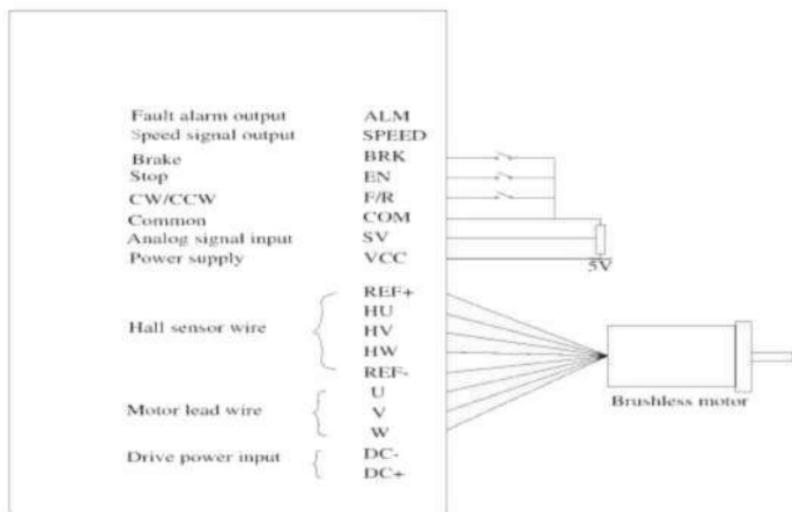
Parameter	Min	Rated	Max	Unit
Motor Hall Sensor Angle	120°/240°			
DC Power Input	18	48	50	V
Drive Current Output	0	25	45	A
Suitable Motor Speed	0		20000	rpm
Hall Sensor Voltage	4.5	5	5.5	V
Hall Sensor Current		20		mA
External Potentiometer		10K		$\Omega$

### Peak Power Output Setting:

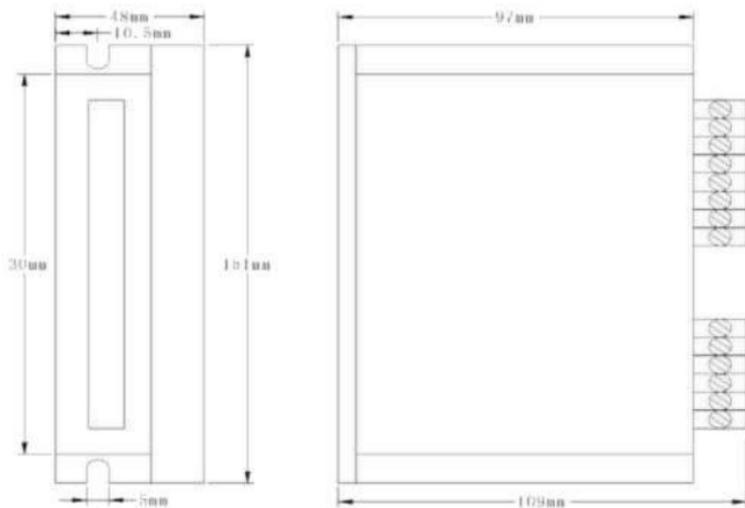


**Note:** To protect the motor, set the arrow number as the same as the motor nominated power. Whenever overload occurs the drive will turn out to be the protection mode.

### Connection:



## Mechanical Drawings:



## Speed Adjustment Instruction:

- Motor Speed Adjusted By The Internal Potentiometer RV:

SW1/ Off (Factory setting)

- **Motor Speed Adjusted By Analog DC 0V~+5V Input:**

SW1/ Off (Factory setting) set J1 (internal) as  (user Setting)  
RV—Turn Off

- **Motor Speed Adjusted By Analog DC 0V~+10V Input:**

SW1/ Off (Factory setting) set J1 (internal) as  (user Setting)  
RV—Turn Off

- **Motor Speed Adjusted By Pulse Rate Input:**

Pulse rate: 0K—3KHZ Speed linear modulation

Pulse amplitude: 5V Pulse duty ratio: 50%

SW1/ On (User setting) RV—Turn Off

J7 (Internal)/ Switch on with the jumper cap on J1 (User setting)

- **Motor Speed Quick Response Setting:**

SW2/ On ( User setting): PID closed loop--quick speed response

SW2/Off (Factory setting): Open loop--Normal speed response

- **Motor Speed Signal Output:**

Connecting SPEED and COM to get pulse output  $F=N*P/60$

F—Pulse output frequency

P—Pole number of BLDC motor

- **Drive Alarm Output:**

When drive alarm, it will break over with the port of COM and be low level. The drive stop to work and alarm light run.

- **Lead Wire Connection:** Take care of the sequence of U,V,W

**Note: RS232 Communication Interface CP-in (Ethernet PIn) is Undocumented and UnFunctional**