

Low-Voltage DC Brushless Motor Driver

EA-BLDC10-120LD



Features

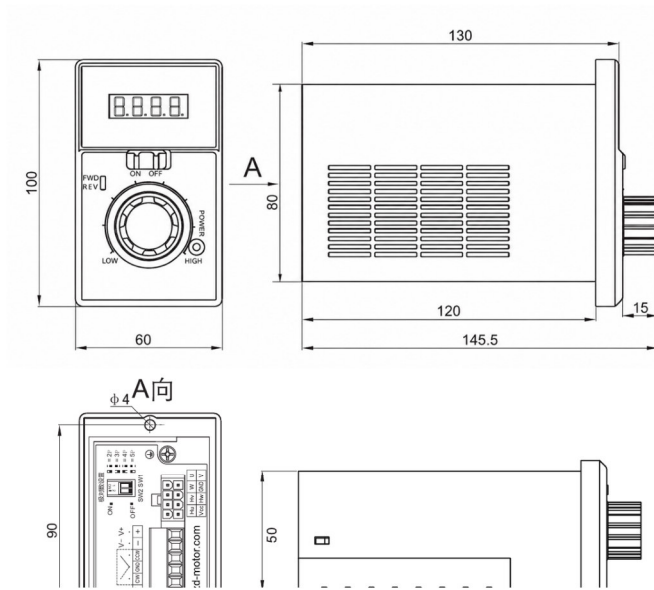
- Digital display Uses a 4-digit digital tube display: operating status, set speed, running speed, and fault indication.
- Stable operation Closed-loop speed control (control accuracy $\pm 0.5\%$).
- Input / Output 2 groups of NPN digital input ports (forward and reverse); 1 group of open-drain digital output port (fault output).
- Speed setting Set the running speed with the panel knob for convenient and quick adjustment.
- Complete fault detection and protection Provides undervoltage, overvoltage, overcurrent, overload, stall, short circuit, phase loss, overtemperature and other fault detection/protection. After a fault occurs, the driver performs the corresponding protective action according to the fault type; fault information is shown on the digital display.

Product Model

EA-BLDC10-120LD

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Mark	Description	Content
1	Company	EA: Misumi Economy
2	Type	BLD: Brushless Motor Driver
3	Series	C10: C10 Series
4	Power	120: Max. output power 120W (24V), 200W (48V)
5	Attribute	L: DC24V~48V H: High voltage AC220V D: Digital display R: RS485 communication



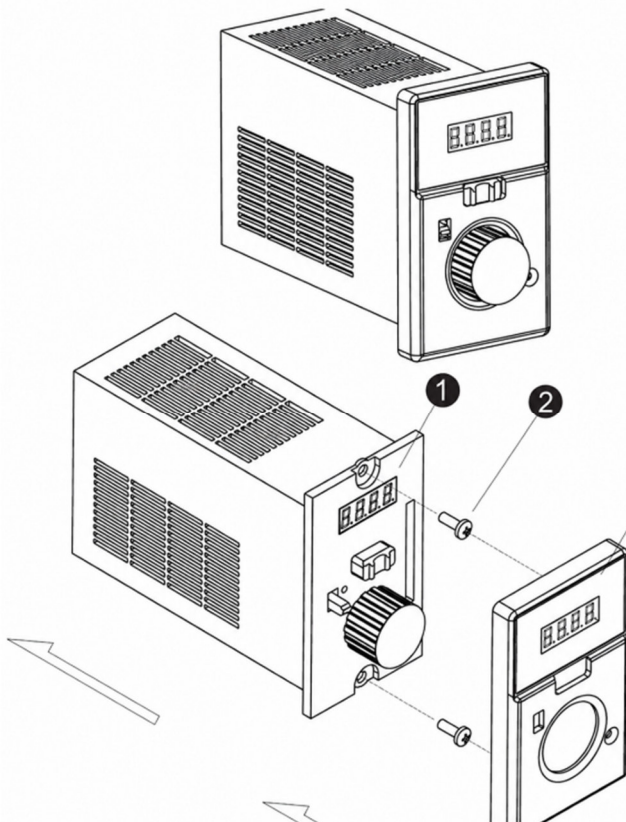
Environmental Requirements

Ambient Temp	-10°C~+40°C (no condensation)
Humidity	≤85% (no condensation)
Altitude	≤1000 m
Vibration	No continuous vibration or excessive shock
Protection	IP20

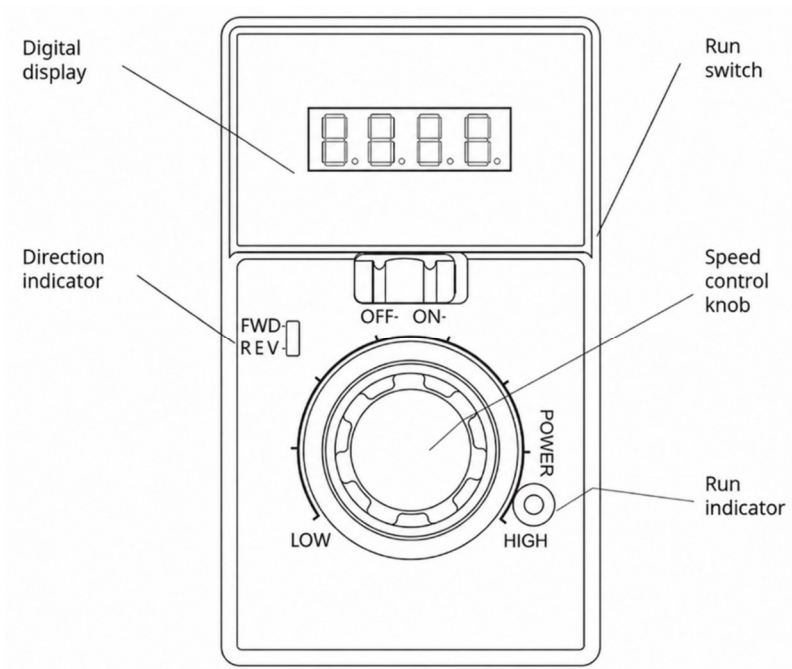
Installation & Fixing

Installation Steps

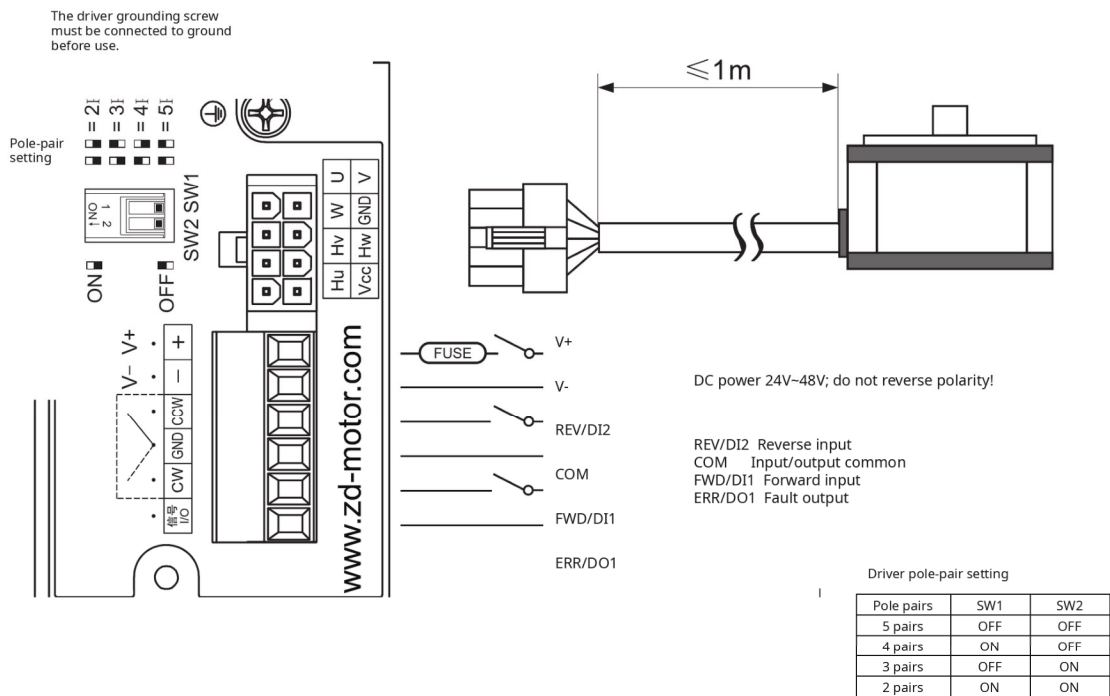
1. Open the panel (3).
2. Insert driver body (1) into the fixing position.
3. Fasten with M4 countersunk screws (GB68-85) (2).
4. Press panel (3) until it is in place as shown.



Do not use in explosive, flammable, corrosive, or water-contact environments. Otherwise explosion, injury, or fire may occur!



Connection & Operation



When the driver detects a fault, it will stop and indicate the fault code on the digital display. Users can troubleshoot according to the fault code.

Before inspection or troubleshooting, be sure to disconnect the power supply for 5 minutes!!!

Fault No.	Fault Name	Indication Code	Fault Cause	Solution
1	Hardware acceleration overcurrent	OCH1	1. Voltage too low 2. Driver power too small 3. Sudden load applied 4. Phase-to-phase short circuit 5. Strong external interference source	1. Check input voltage 2. Select a higher-power driver 3. Check whether the load is normal 4. Check/replace cable or motor 5. Check for strong interference source
2	Hardware deceleration overcurrent	OCH2		
3	Hardware constant-speed overcurrent	OCH3		
4	Software acceleration overcurrent	OC1		
5	Software deceleration overcurrent	OC2		
6	Software constant-speed overcurrent	OC3		
7	Overvoltage during acceleration	OV1	1. Input voltage too high 2. Rapid forward/reverse switching 3. Driven by external force; generating state	1. Check power supply voltage 2. Increase forward/reverse switching time 3. Add external braking device
8	Overvoltage during deceleration	OV2		
9	Overvoltage at constant speed	OV3		
10	Bus undervoltage fault	UV	1. Supply voltage too low 2. Acceleration too fast; external power supply protection 3. Supply voltage drop 4. Driver hardware abnormal	1. Check power input 2. Reduce speed 3. Reset fault 4. Seek technical support
11	Motor overload	OL1	1. Supply voltage too low 2. Motor power too large 3. Motor stalled or sudden load change	1. Check power input 2. Set motor rated current 3. Reduce load; check motor and machinery
12	Driver overload	OL2	1. Supply voltage too low 2. Load too large	1. Check power input 2. Replace with a higher-power controller
13	Hall fault	HALL	1. Hall wire disconnected 2. Strong external interference source	1. Check Hall connection 2. Check for strong interference source
14	Stall fault	LOCK	1. Load too large 2. Motor jammed	1. Check motor mechanical connection 2. Check motor wiring
19	Current detection fault	CUr	1. Driver hardware damaged	1. Replace driver
27	Parameter storage fault	EEP	1. Single power-on erase/write count reached	1. Power on again
29	Overcurrent feedback fault	OCHF	1. Driver hardware damaged	1. Replace driver
30	Output phase loss fault	POUT	1. U/V/W output phase loss 2. Driver hardware damaged	1. Check whether U/V/W are connected securely 2. Replace driver

Driver technical support: 173-0648-3696 (WeChat same number)