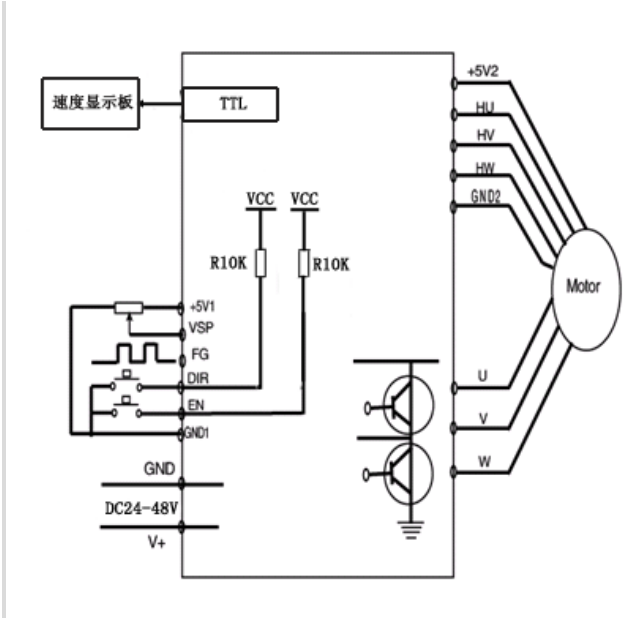
48QDM10

BRUSHLESS DC MOTOR DRIVER

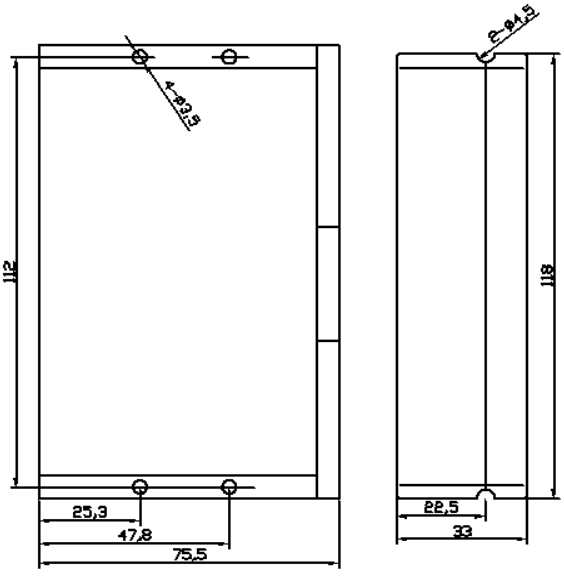
Features		
Change parameters via the debug software PC through USB interface		
Current and speed double closed loop design, high torque at low speed, smooth operation		
High torque high speed output, the maximum speed reaches 10000rpm/min(depend on speed of motor)		
Speed regulation: 0-5V analog and 10Hz-300Hz PWM speed control, user-friendly		
With EN(enable),DIR(direction) signal input terminal		
Speed pulse output(optoelectronic isolation, gate output)		
With protection function of over current, over voltage, under voltage, over heat and motor block		
Electrical Characteristics		
Power supply		DC24V~48V (capacity according to motor power selection)
Rated current		≤10A(depend on motor and rated load)
Rated power		Max 480W
Insulation resistance		>500MΩ at normal temperature
Insulation strength		0.5KV, 1min at normal temperatures and pressures
Working Environment		
Cooling		natural cooling or forced air cooling
Working environment	Situation	avoid dust, oil mist and corrosive gases
	Temperature	0℃ ~+50℃
	Humidity	< 80% RH, no condensation, no frost
	vibration	<0.5G(4.9m/s2) 10Hz-60Hz (non-continuous operation)
Storage temperature		-20℃ ~+65℃
Dimension		118x75.5x34mm
Weight		≈0.3kg

Instructions for the wiring port and indicator light		
Function	Mark	Description
Indicator light	POWER	Green indicator light, power on indicates normal power supply
	ALARM	Red light, slow flash-waiting, quick flash-operating and changing with motor speed, constant light-error
RS232 communication port	TTL	Display speed by connecting speed display board. Set drive parameters by connecting computer. See the debugging software instructions
Control	+5V1	Control signal power supply positive(Built-in power output)
	VSP	1.External speed control signal, 0-100% of the motor speed adjustment through external potentiometer 2.PMW speed control: connect PMW positive end with VSP and negative end with GND1, input frequency 10Hz-300KHz Change speed by controlling the occupation
	FG	Motor speed pulse output, motor actual speed can be converted by measuring the frequency of this signal
	DIR	Motor CW/ CCW rotation control ,CW when not connecting GND1 and CCW connecting GND1, cut off the power when CW and CCW switching
	EN	Start-stop control, motor running (on-line) connecting GND1 and stops(off-line) when not connecting GND1
	GND1	Control signal power ground
Hall	+5V2	Hall power supply positive
	HU	Hall sensor signal U phase input
	HV	Hall sensor signal V phase input
	HW	Hall sensor signal W phase input
	GND2	HALL power ground
Motor and power	U,V,W	motor three-phase output signals, connect the motor windings
	GND,V+	DC24V~48V power supply input

Wiring and dimension(unit: mm)



Wiring



Dimension