







Changzhou **Holry**  
Electric Technology Co., Ltd

常州浩瑞电控科技有限公司

## Changzhou Holry Electric Technology Co., Ltd

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## 01 Companies resume

Changzhou Holy Electric Technology Co., Ltd. is located in Changzhou, Jiangsu province, which has developed economy and convenient transportation. The company specializes in R&D and production of spindle motors, brushless motors, stepping motors, AC servo motors, reducers and drive systems. The factory was established in 2010 and currently has two brands: Bohong and Holy. Production capacity exceeds more than 1.5 million motors per year. With complete testing equipment, advanced testing methods and strict standards, we devote ourselves to improving the quality and performance of our products and to provide high quality products as per international standards for global engineering-control industry with excellent and quick technical support as well as aftersales service.

Our Products are mainly exported to more than 80 countries including the United States, Italy, Germany, Brazil, Russia, and Pakistan. Our company has successfully passed the quality management system certification for the ISO9001. All products are RoHS compliant and CE certified; some are UL approved.

Holy insists the quality first, innovation and social responsibility as company's concept of development and continues to provide global customers with specialized control motor manufacturing and R&D services.



## 02 Application Area



## 03 Company Certificate

# BRUSHLESS MOTOR BRIEF INTRODUCTION

## BRIEFDESCRIPTION

- Adapt to harsh environments, high consumption efficiency, high efficiency, energy saving and environmental protection, more than 80%;
- Using earth terrain, high conduction and low volume, good dynamic response;
- Three - phase sine wave , with excellent low-speed design characteristics;
- Low noise, maintenance-free, long life;

## DESCRIPTION OF STORAGE AND TRANSPORTATION

Storage temperature: -25~+55°C, no freezing; relative humidity: 5%~95%, no condensation; keep away from corrosive, flammable gas, oil droplets and dust. Transportation: The packaging should not be heavy, handle with care.

## GENERAL TECHNICAL CHARACTERISTICS

Applicable environmental characteristics: The motor can meet the rated output power at an Altitude of not more than 1000 meters at 5~+40°C and normal pressure. Power loss: at 40~+50°C, the altitude is more than 1000 meters, and the power is reduced by 1.5% for every additional 100 meters. Power-off brake (optional): When the motor is de-energized or suddenly powered off, the brake works to keep the motor shaft from rotating to avoid personal injury or equipment damage. Bearing characteristics: All DC brushless motors adopt imported single-row double-sided dust-proof ball bearings, high and low temperature grease, and their lifespan is not less than 20,000 hours under normal load conditions.

## ELECTRICAL TECHNICAL CHARACTERISTICS

Electrical Technology includes servers to avoid interference and interference from external electromagnetic equipment, and requires good shielding measures. To prevent high - frequency interference, strictly separate wires and ground wires and cannot be lowered. The connection line of the personal and device must be a shielded line, and its reactance capacity is more than 50pF/m, and the position feedback information should not be less than 120pF/m.

## BRIEFDESCRIPTION

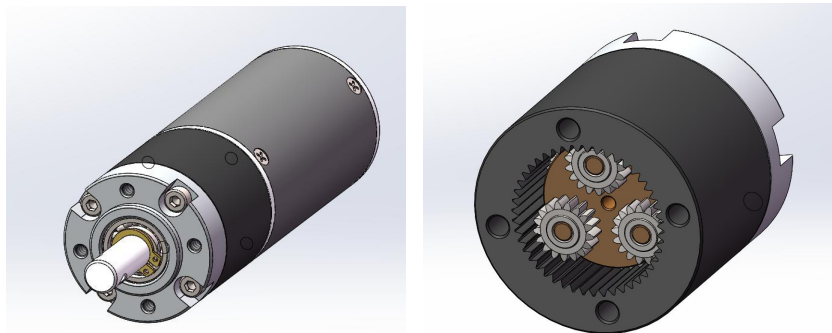
60 BLDC 2 10 30 A PL10 N B - 01  
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

- ①.DC motor basecode -36,42,57,60,80,86,110,130 /Unit: mm
- ②.BLDC-Brushless DC Motor
- ③. 1-Driver input voltage 1--12VDC /2 --24VDC /3--36 VDC /4--48 V DC /5- -220VAC(50/60Hz)
- ④.10 -Rated powerx10 (W)
- ⑤.30 -Rated speedx100(30x100=3000)rpm
- ⑥.A-Motor Type
- ⑦.PL10 -Planetary reducer 1: 10
- N -No sense (No Hall element)
- ⑧.B -Brake device
- ⑨.01 -Derivative number

## MECHANICAL TECHNICAL CHARACTERISTICS

Motor housing can avoid motor damage. It is forbidden to clean the surface of the mechanism during the operation of the mechanism to avoid injury. The Brushless motor must ensure the concentricity of the load shaft system and the motor shaft during the installation process to prevent the motor shaft from breaking and damaging the load mechanism. If the shaft end of the motor is equipped with synchronous belt wheels, gears, helical gears and planetary gears, it must be checked with reference to the technical parameters of the motor's axial ( $F_a$ ) and radial ( $F_r$ ) loads to avoid damage to the motor; the verification standards are as follows: The diameters of synchronous belt wheels, gears, helical gears and planetary gears  $d_{min} \geq 2T_m$ .  $T_m$  is the peak torque of the Brushless motor.

### 36BLDC-G Brushless DC reducer motor



#### General Technical Requirements

Projects	Parameter
Winding way	Star
Include built-in drive	24VDC 3A (max.)
Hall Effect Angle	120°
Insulation Class	B级
Insulation Resistance	100MΩ (MIN.)
Dielectric Strength	600VDC 2mA 1S

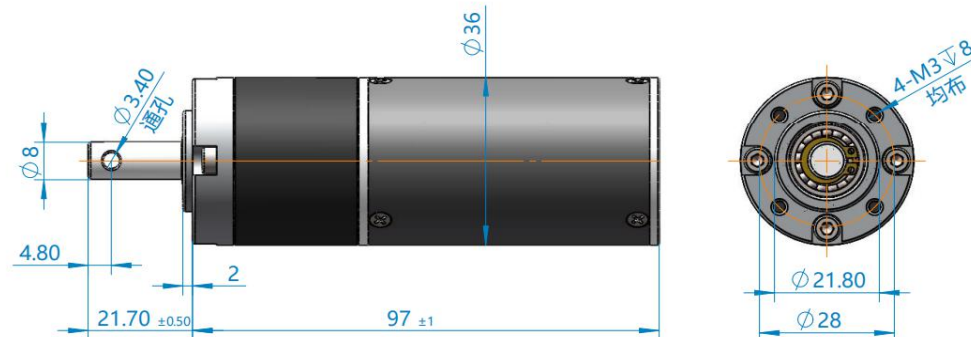
#### PERFORMANCE PARAMETERS

Model	36BLDC-005G	
Number of phase	<b>N</b>	3
Number of poles	<b>P</b>	4
Rated Voltage	<b>VDC</b>	24
Rated Speed	<b>RPM</b>	52
Rated torque	<b>N.M</b>	3
Rated Power	<b>W</b>	16.3
Rated Current	<b>A</b>	1.5
Peak Torque	<b>N.M</b>	8
Body-length/mm	<b>mm</b>	97
Weight	<b>KG</b>	0.45

#### Optional gear box reduction ratio

3.7:1	5.18:1	14:1	19:1	27:1	50:1	71:1
100:1	139:1	189:1	263:1	369:1	516:1	721:1

#### DIMENSIONS(UNIT mm)

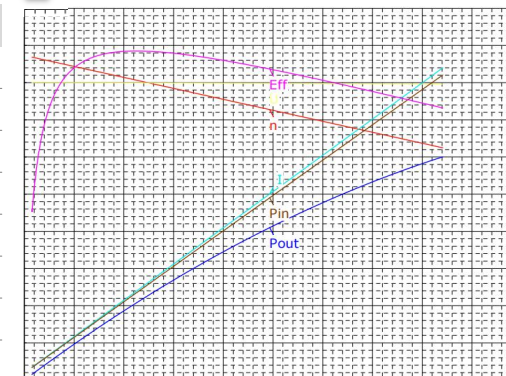


※ The above size is for reference only!

#### Customizable Projects

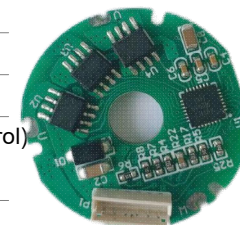
Projects	OEM
Voltage	Yes
Speed	Yes
Power	Yes
Shaft	Yes
Cover	Yes
Length	Yes
Wire	Yes
Control	Yes
IP	Yes

#### Parametric curves

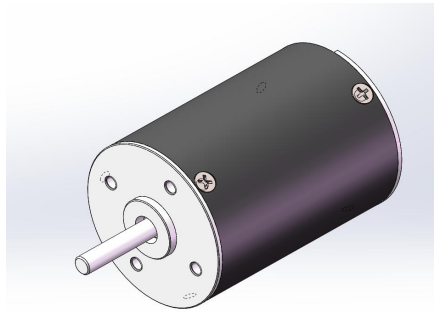


#### The method of wire connection

<b>Red</b>	+24VDC
<b>Black</b>	GND
<b>White</b>	Direction control
<b>Blue</b>	Speed control (support PWM, analog voltage speed control)
<b>Green</b>	Speed signal output



### 36BLDC Brushless DC motor



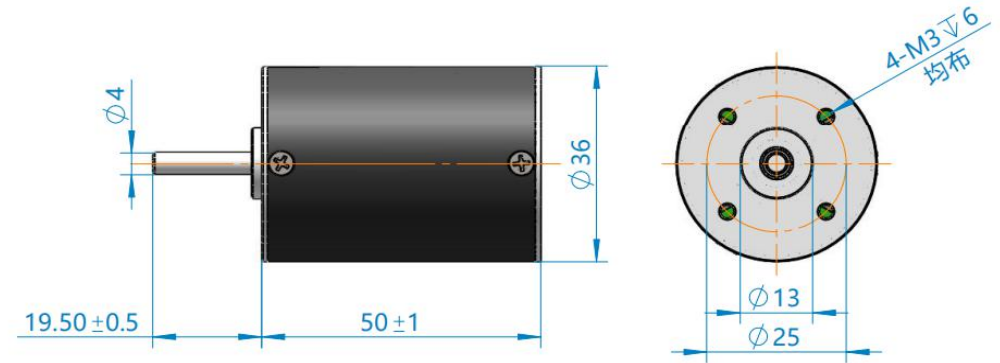
#### General Technical Requirements

Projects	Parameter
Winding way	星型
Shaft diameter range	5mm (max.)
Hall Effect Angle	120°
Insulation Class	B级
Insulation Resistance	100MΩ (MIN.)
Dielectric Strength	600VDC 2mA 1S

#### PERFORMANCE PARAMETERS

Model	36BLDC-005G		
Number of phase	N	3	
Number of poles	P	4	
Rated Voltage	VDC	12	24
Rated Speed	RPM	3000	4000
Rated torque	mN.M	40	30
Rated Power	W	12.5	12.5
Rated Current	A	1.75	0.75
Peak Torque	mN.M	100	100
Torque Constant	N.m/A	0.022	0.04
Back EMF	V/KPRM	2.3	4.1
Body-length/mm	mm	55	50
Weight	KG	0.2	0.2

### DIMENSIONS(UNIT mm)

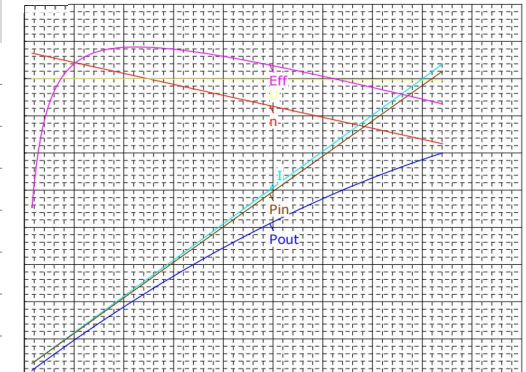


※ The above size is for reference only!

#### Customizable Projects

Projects	OEM
Voltage	Yes
Speed	Yes
Power	Yes
Shaft	Yes
Cover	Yes
Length	Yes
Wire	Yes
Control	Yes
IP	Yes

#### Parametric curves

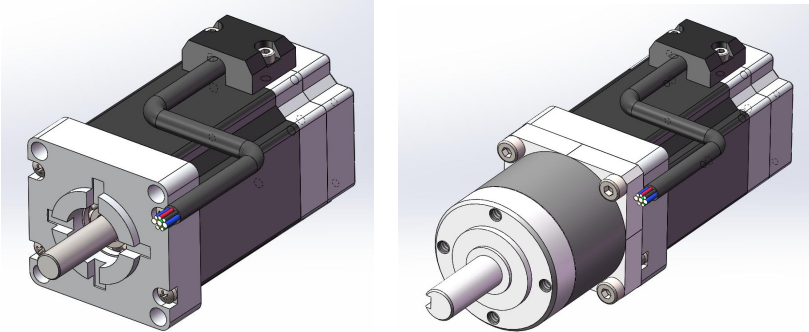


#### The method of wire connection

Yellow(Thick)	Green(Thick)	Blue(Thick)
U	V	W

Red(Thin)	Black(Thin)	Yellow(Thin)	Green(Thin)	Blue(Thin)
Vcc+5V	GND	Hu	Hv	Hw

## 42 Brushless DC motor



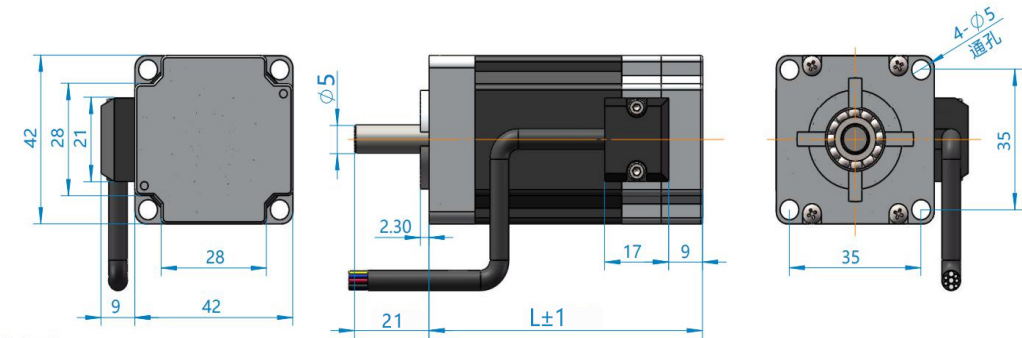
### General Technical Requirements

Projects	Parameter
Winding way	Star
Shaft diameter range	8mm (max.)
Hall Effect Angle	120°
Insulation Class	B级
Insulation Resistance	100MΩ (MIN.)
Dielectric Strength	600VDC 2mA 1S

### PERFORMANCE PARAMETERS

Model	42BLDC				
Number of phase	<b>N</b>	3			
Number of poles	<b>P</b>	8			
Rated Voltage	<b>VDC</b>	24	24	24	24
Rated Spee	<b>RPM</b>	4000	4000	4000	4000
Rated torque	<b>N.M</b>	0.15	0.38	0.55	0.75
Rated Power	<b>W</b>	30	50	78	105
Rated Current	<b>A</b>	1.8	3.5	5.2	6.6
Peak Torque	<b>N.M</b>	0.4	0.7	1	1
Torque Constant	<b>N.m/A</b>	0.035	0.036	0.036	0.0376
Back EMF	<b>V/KPRM</b>	2.45	2.71	2.74	2.62
Body-length/mm	<b>mm</b>	41	61	81	100
Weight	<b>KG</b>	0.33	0.45	0.65	0.8

### DIMENSIONS(UNIT mm)

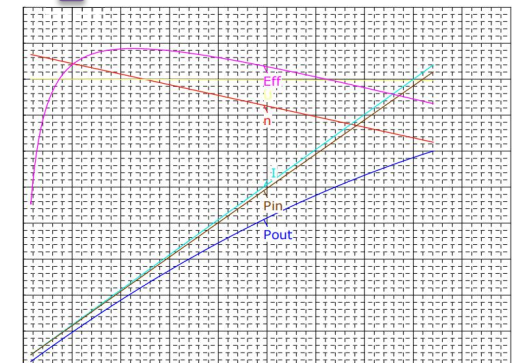


※ The above size is for reference only!

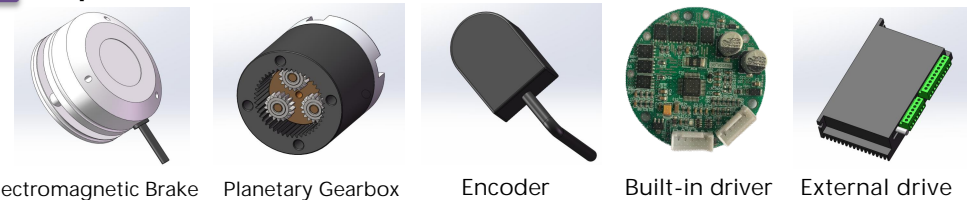
### Customizable Projects

Projects	OEM
Voltage	Yes
Speed	Yes
Power	Yes
Shaft	Yes
Cover	Yes
Length	Yes
Wire	Yes
Control	Yes

### Parametric curves



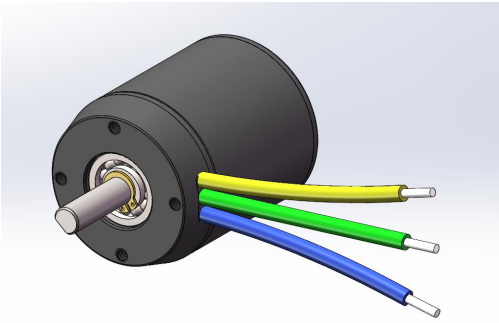
### Optional accessories



### The method of wire connection

Yellow(Thick)	Green(Thick)	Blue(Thick)	Red(Thin)	Black(Thin)	Yellow(Thin)	Green(Thin)	Blue(Thin)
<b>U</b>	<b>V</b>	<b>W</b>	<b>Vcc+5V</b>	<b>GND</b>	<b>Hu</b>	<b>Hv</b>	<b>Hw</b>

## 50BL65 Brushless DC motor



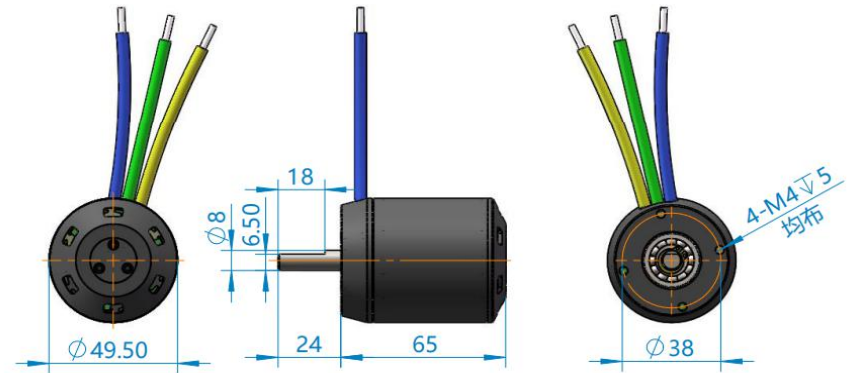
### General Technical Requirements

Projects	Parameter
Winding way	Triangle
Shaft diameter range	17mm (max.)
Hall Effect Angle	120°
Insulation Class	B级
Insulation Resistance	100MΩ (MIN.)
Dielectric Strength	600VDC 2mA 1S

### PERFORMANCE PARAMETERS

Model	50BL65	
Number of phase	<b>N</b>	3
Number of poles	<b>P</b>	14
Rated Voltage	<b>VDC</b>	36
Rated Speed	<b>RPM</b>	3500
Rated torque	<b>N.M</b>	1.5
Rated Power	<b>W</b>	550
Rated Current	<b>A</b>	19
Peak Torque	<b>N.M</b>	3.5
Torque Constant	<b>N.m/A</b>	0.079
Back EMF	<b>V/KPRM</b>	8
Body-length/mm	<b>mm</b>	65
Weight	<b>KG</b>	1

### DIMENSIONS(UNIT mm)

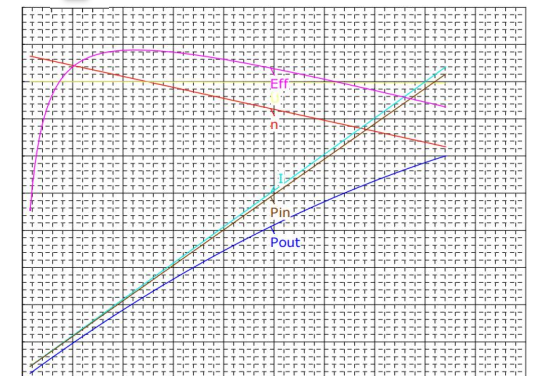


※ The above size is for reference only!

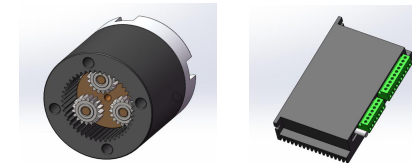
### Customizable Projects

Projects	OEM
Voltage	Yes
Speed	Yes
Power	Yes
Shaft	Yes
Cover	Yes
Length	Yes
Wire	Yes
Control	Yes

### Parametric curves



### Optional accessories

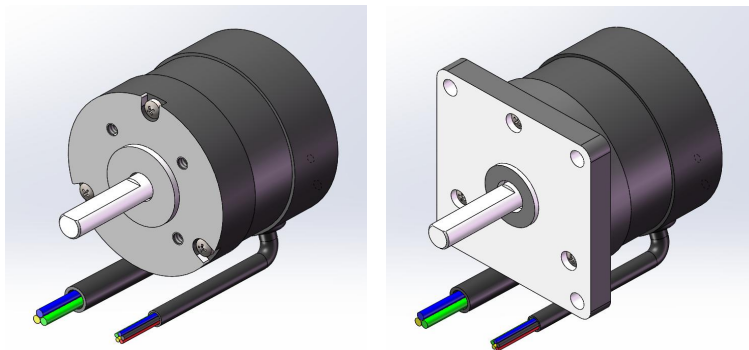


外置驱动

### The method of wire connection

Yellow(Thick)	Green(Thick)	Blue(Thick)	Red(Thin)	Black(Thin)	Yellow(Thin)	Green(Thin)	Blue(Thin)
<b>U</b>	<b>V</b>	<b>W</b>	<b>Vcc+5V</b>	<b>GND</b>	<b>Hu</b>	<b>Hv</b>	<b>Hw</b>

## 57 Brushless DC motor



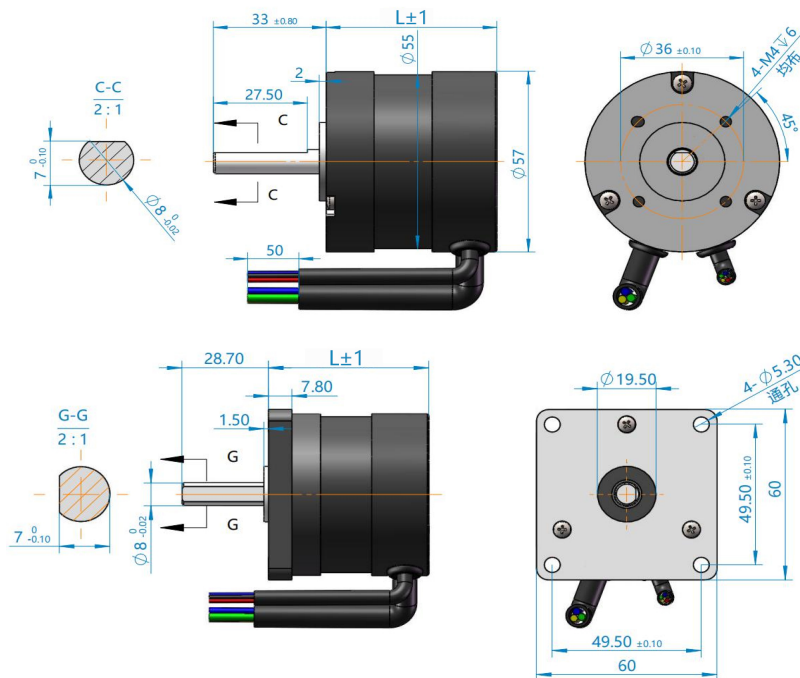
### General Technical Requirements

Projects	Parameter
Winding way	Star/Triangle
Shaft diameter range	10mm (max.)
Hall Effect Angle	120°
Insulation Class	B级
Insulation Resistance	100MΩ (MIN.)
Dielectric Strength	600VDC 2mA 1S

### PERFORMANCE PARAMETERS

Model	57BLDC						
Number of phase	N	3					
Number of poles	P	4					
Rated Voltage	VDC	24	24	24	24	24	
Rated Speed	RPM	3000	3000	3000	3000	3000	
Rated torque	N.M	0.055	0.11	0.22	0.33	0.45	
Rated Power	W	20	35	75	105	140	
Rated Current	A	1.16	2.4	4.8	6.6	8.6	
Peak Torque	N.M	0.165	0.33	0.66	0.99	1.35	
Torque Constant)	N.m/A	0.075	0.050	0.057	0.093	0.093	
Back EMF	V/KPRM	3.8	6.6	6.6	6.6	6.6	
Body-length/mm	mm	45	55	75	95	115	
Weight	KG	0.33	0.44	0.75	1.0	1.25	

### DIMENSIONS(UNIT mm)

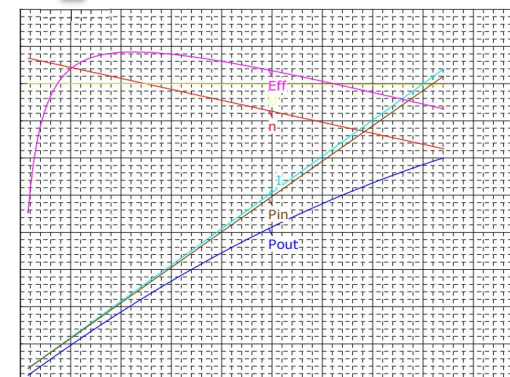


※ The above size is for reference only!

### Customizable Projects

Projects	OEM
Voltage	Yes
Speed	Yes
Power	Yes
Shaft	Yes
Cover	Yes
Length	Yes
Wire	Yes
Control	Yes

### Parametric curves

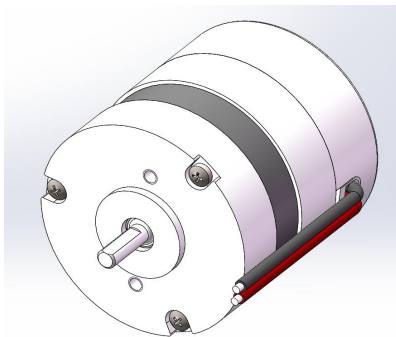


### The method of wire connection

Yellow(Thick)	Green(Thick)	Blue(Thick)	Red(Thin)	Black(Thin)	Yellow(Thin)	Green(Thin)	Blue(Thin)
U	V	W	Vcc+5V	GND	Hu	Hv	Hw



### 57 Brushless DC motor



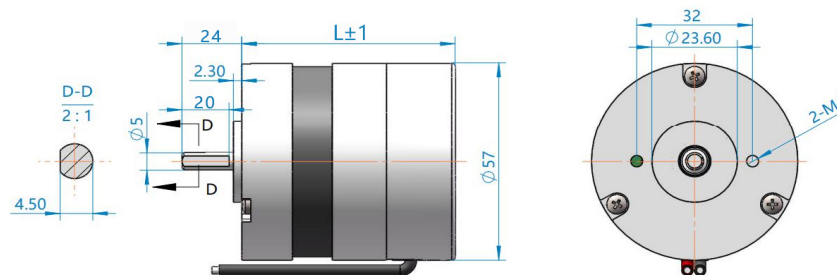
### General Technical Requirements

Projects	Parameter
Winding way	Star/Triangle
Shaft diameter range	10mm (max.)
Hall Effect Angle	120°
Insulation Class	B级
Insulation Resistance	100MΩ (MIN.)
Dielectric Strength	600VDC 2mA 1S

### PERFORMANCE PARAMETERS

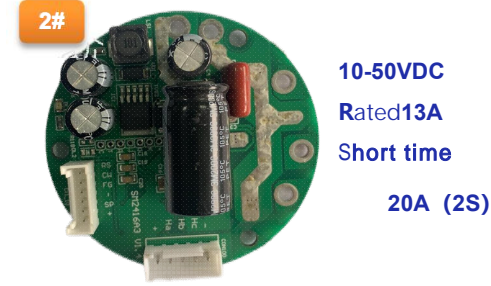
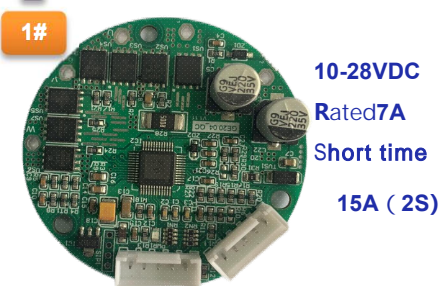
Model		57BLDC				
Number of phase	<b>N</b>	3				
Number of poles	<b>P</b>	4				
Rated Voltage	<b>VDC</b>	24	24	24	24	24
Rated Speed	<b>RPM</b>	3000	3000	3000	3000	3000
Rated torque	<b>N.M</b>	0.055	0.11	0.22	0.33	0.45
Rated Power	<b>W</b>	20	35	75	105	140
Rated Current	<b>A</b>	1.16	2.4	4.8	6.6	8.6
Peak Torque	<b>N.M</b>	0.165	0.33	0.66	0.99	1.35
Torque Constant)	<b>N.m/A</b>	0.075	0.050	0.057	0.093	0.093
Back EMF	<b>V/KPRM</b>	3.8	6.6	6.6	6.6	6.6
Body-length/mm	<b>mm</b>	45	55	75	95	115
Weight	<b>KG</b>	0.33	0.44	0.75	1.0	1.25

### DIMENSIONS(UNIT mm)



※ The above size is for reference only!

### Native driver



### Customizable Projects

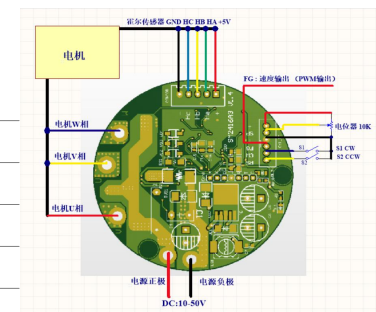
Projects	OEM
Voltage	Yes
Speed	Yes
Power	Yes
Shaft	Yes
Cover	Yes
Length	Yes
Wire	Yes
Control	Yes

### Drive protection function

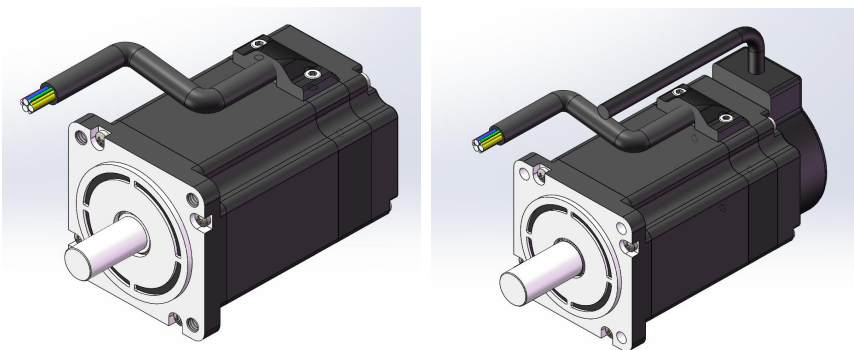
NO.	Project
1	Locked-rotor protection
2	Hardware overcurrent protection
3	Software overcurrent protection
4	Overvoltage protection
5	Temperature protection
6	Stall / stall protection

### The method of wire connection

<b>Red</b>	+24VDC
<b>Black</b>	GND
<b>White</b>	Direction control
<b>Blue</b>	Speed control (support analog voltage speed control)



### 60 Brushless DC motor



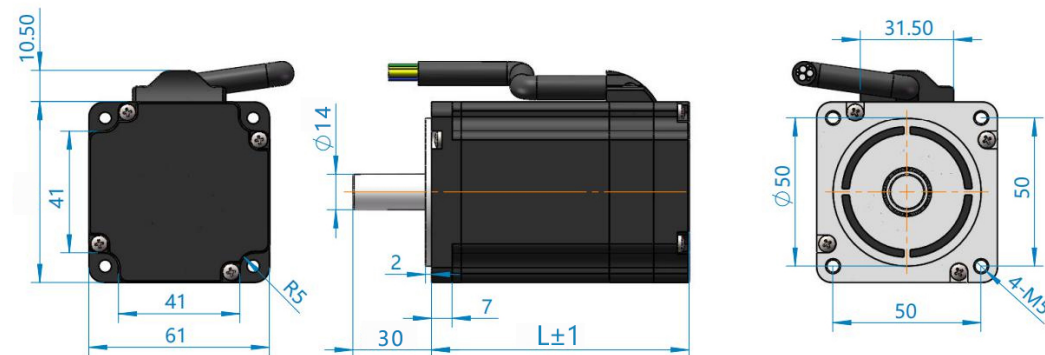
### General Technical Requirements

Projects	Parameter
Winding way	Star/Triangle
Shaft diameter range	15mm (max.)
Hall Effect Angle	120°
Insulation Class	B级
Insulation Resistance	100MΩ (MIN.)
Dielectric Strength	600VDC 2mA 1S

### PERFORMANCE PARAMETERS

Model	60BLDC				
Number of phase	N	3			
Number of poles	P	8		10	
Rated Voltage	VDC	24	24	48	48
Rated Speed	RPM	3000	3000	3000	3000
Rated torque	N.M	0.32	0.63	1.0	1.27
Rated Power	W	100	200	300	400
Rated Current	A	5.08	9.8	9.5	12
Peak Torque	N.M	0.954	1.9	2.85	3.84
Torque Constant	N.m/A	0.060	0.060	0.09	0.12
Back EMF	V/KPRM	6.3	6.3	6.4	8.4
Body-length/mm	mm	78	99	120	140
Weight	KG	0.85	1.25	1.62	2.05

### DIMENSIONS(UNIT mm)

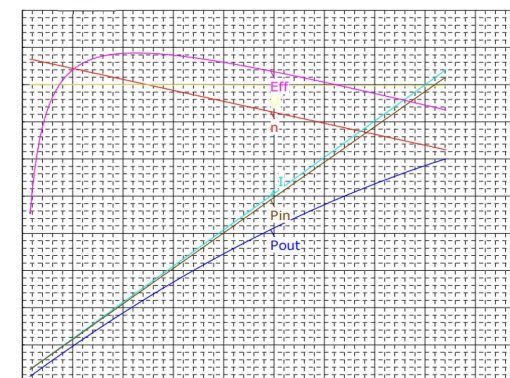


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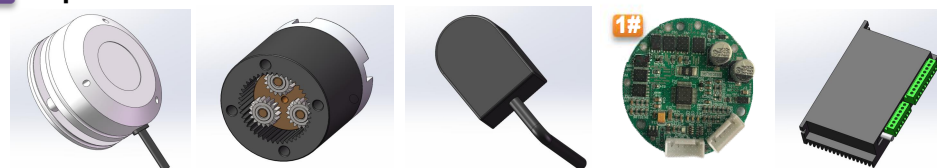
### Customizable Projects

Projects	OEM
Voltage	Yes
Speed	Yes
Power	Yes
Shaft	Yes
Cover	Yes
Length	Yes
Wire	Yes
Control	Yes

### Parametric curves



### Optional accessories

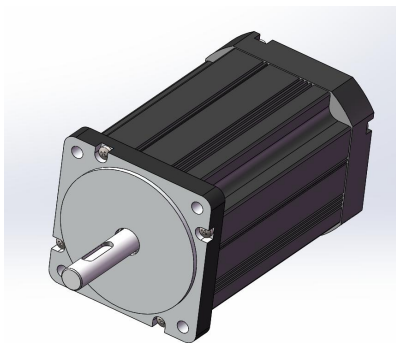


Electromagnetic Brake Planetary Gearbox Encoder Built-in driver External drive

### The method of wire connection

Yellow(Thick)	Green(Thick)	Blue(Thick)	Red(Thin)	Black(Thin)	Yellow(Thin)	Green(Thin)	Blue(Thin)
U	V	W	Vcc+5V	GND	Hu	Hv	Hw

## 70 Brushless DC motor



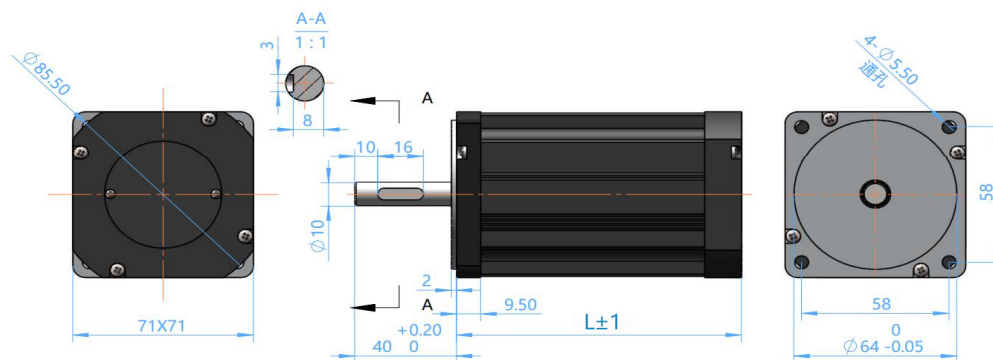
### General Technical Requirements

Projects	Parameter
Winding way	Star/Triangle
Shaft diameter range	15mm (max.)
Hall Effect Angle	120°
Insulation Class	B级
Insulation Resistance	100MΩ (MIN.)
Dielectric Strength	600VDC 2mA 1S

### PERFORMANCE PARAMETERS

Model		70BLDC			
Number of phase	N	3			
Number of poles	P	10			
Rated Voltage	VDC	24	48	48	48
Rated Speed	RPM	3000	3000	3000	3000
Rated torque	N.M	0.3	0.6	1.2	1.2
Rated Power	W	95	190	380	380
Rated Current	A	5.6	10.5	19.7	21
Peak Torque	N.M	0.5	0.5	1.5	2.5
Torque Constant)	N.m/A	0.054	0.057	0.060	0.057
Back EMF	V/KPRM	5.65	5.96	6.28	5.96
Body-length/mm	mm	86	86	116	146
Weight	KG	1.2	1.7	1.8	2.3

### DIMENSIONS(UNIT mm)

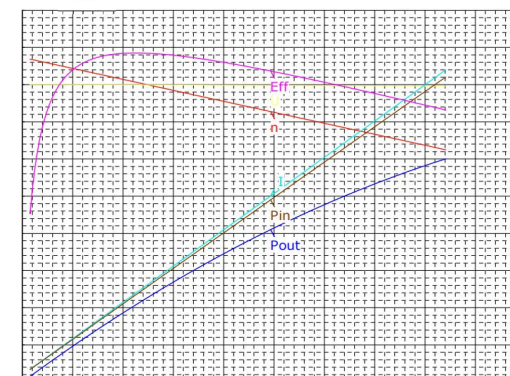


※ The above size is for reference only!

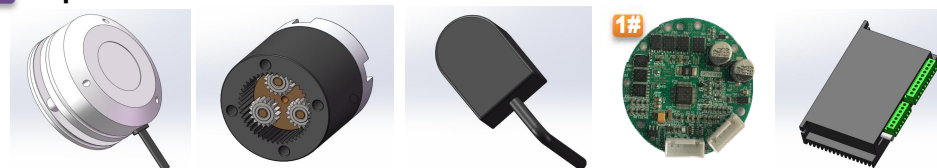
### Customizable Projects

Projects	OEM
Voltage	Yes
Speed	Yes
Power	Yes
Shaft	Yes
Cover	Yes
Length	Yes
Wire	Yes
Control	Yes

### Parametric curves



### Optional accessories

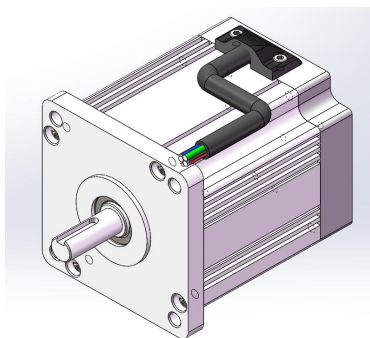


Electromagnetic Brake   Planetary Gearbox   Encoder   Built-in driver   External drive

### The method of wire connection

Yellow(Thick)	Green(Thick)	Blue(Thick)	Red(Thin)	Black(Thin)	Yellow(Thin)	Green(Thin)	Blue(Thin)
U	V	W	Vcc+5V	GND	Hu	Hv	Hw

## 80 Brushless DC motor



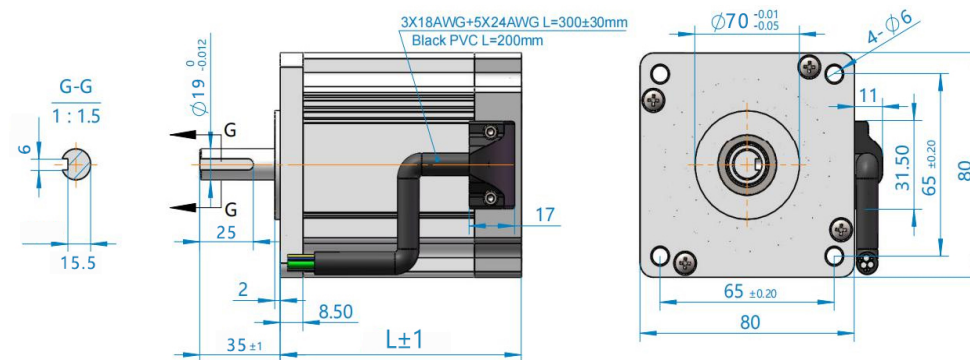
### General Technical Requirements

Projects	Parameter
Winding way	Star/Triangle
Shaft diameter range	17mm (max.)
Hall Effect Angle	120°
Insulation Class	B级
Insulation Resistance	100MΩ (MIN.)
Dielectric Strength	600VDC 2mA 1S

### PERFORMANCE PARAMETERS

Model	80BLDC				
Number of phase	N	3			
Number of poles	P	8			
Rated Voltage	VDC	48	48	48	310
Rated Speed	RPM	3000	3000	3000	3000
Rated torque	N.M	1.27	1.59	2.38	2.38
Rated Power	W	400	500	750	750
Rated Current	A	10.58	13.28	18.5	3.9
Peak Torque	N.M	2	2	4	5
Torque Constant)	N.m/A	0.12	0.12	0.12	0.663
Back EMF	V/KPRM	8.3	8.3	8.3	55
Body-length/mm	mm	113	123	143	143
Weight	KG	1.5	1.5	3.3	3.3

### DIMENSIONS(UNIT mm)

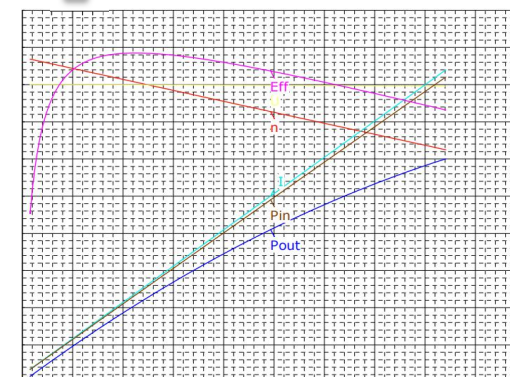


※ The above size is for reference only!

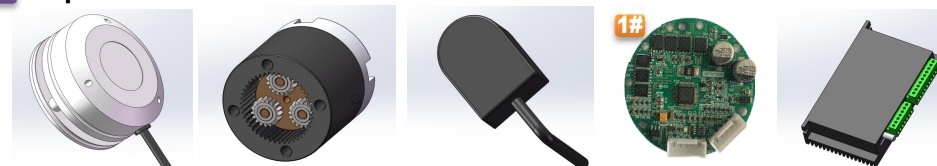
### Customizable Projects

Projects	OEM
Voltage	Yes
Speed	Yes
Power	Yes
Shaft	Yes
Cover	Yes
Length	Yes
Wire	Yes
Control	Yes

### Parametric curves



### Optional accessories

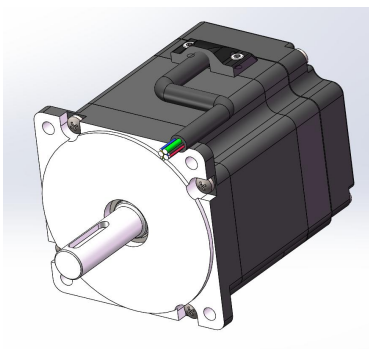


Electromagnetic Brake   Planetary Gearbox   Encoder   Built-in driver   External drive

### The method of wire connection

Yellow(Thick)	Green(Thick)	Blue(Thick)	Red(Thin)	Black(Thin)	Yellow(Thin)	Green(Thin)	Blue(Thin)
U	V	W	Vcc+5V	GND	Hu	Hv	Hw

## 86 Brushless DC motor



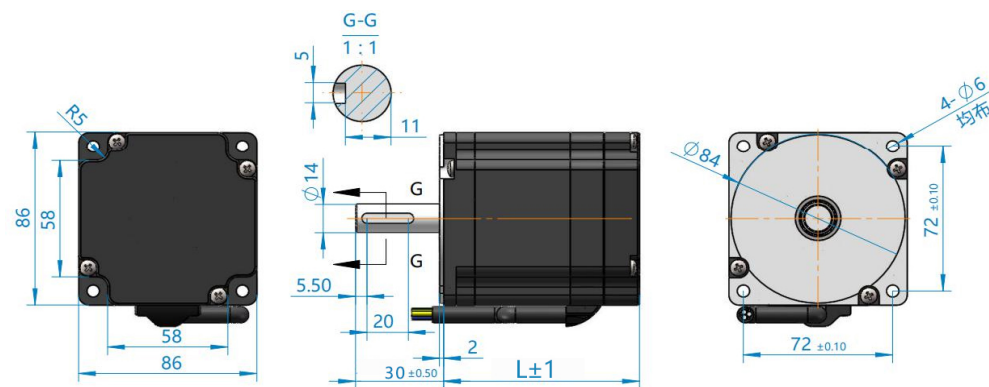
### General Technical Requirements

Projects	Parameter
Winding way	Star/Triangle
Shaft diameter range	17mm (max.)
Hall Effect Angle	120°
Insulation Class	B级
Insulation Resistance	100MΩ (MIN.)
Dielectric Strength	600VDC 2mA 1S

### PERFORMANCE PARAMETERS

Model)	86BLDC					
Number of phase	<b>N</b>	3				
Number of poles	<b>P</b>	8				
Rated Voltage	<b>VDC</b>	48	48	48	310	
Rated Speed	<b>RPM</b>	3000	3000	2000	2500	
Rated torque	<b>N.M</b>	1	1.8	2.1	2.5	
Rated Power	<b>W</b>	300	400	500	750	
Rated Current	<b>A</b>	8.5	15	17	4	
Peak Torque	<b>N.M</b>	3	5.4	6.3	7.5	
Torque Constant	<b>N.m/A</b>	0.131	0.131	0.127	0.127	
Back EMF	<b>V/KPRM</b>	13.7	13.7	13.3	13.3	
Body-length/mm	<b>mm</b>	80	106	115	130	
Weight	<b>KG</b>	2.3	3.4	3.8	4.3	

### DIMENSIONS(UNIT mm)

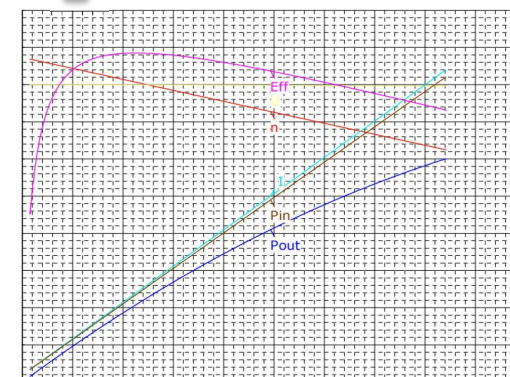


※ The above size is for reference only!

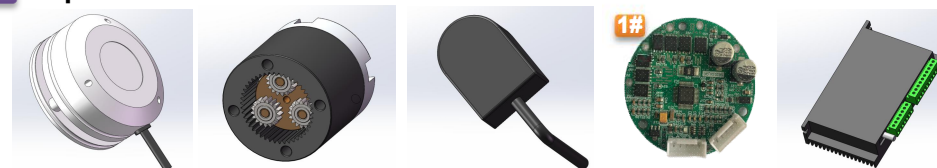
### Customizable Projects

Projects	OEM
Voltage	Yes
Speed	Yes
Power	Yes
Shaft	Yes
Cover	Yes
Length	Yes
Wire	Yes
Control	Yes

### Parametric curves



### Optional accessories

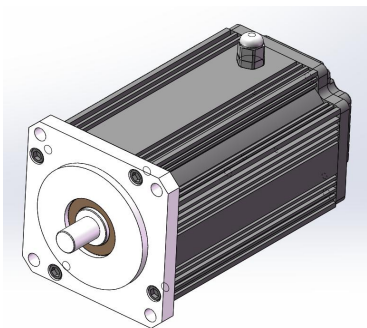


Electromagnetic Brake Planetary Gearbox Encoder Built-in driver External drive

### The method of wire connection

Yellow(Thick)	Green(Thick)	Blue(Thick)	Red(Thin)	Black(Thin)	Yellow(Thin)	Green(Thin)	Blue(Thin)
<b>U</b>	<b>V</b>	<b>W</b>	<b>Vcc+5V</b>	<b>GND</b>	<b>Hu</b>	<b>Hv</b>	<b>Hw</b>

## 110 Brushless DC motor



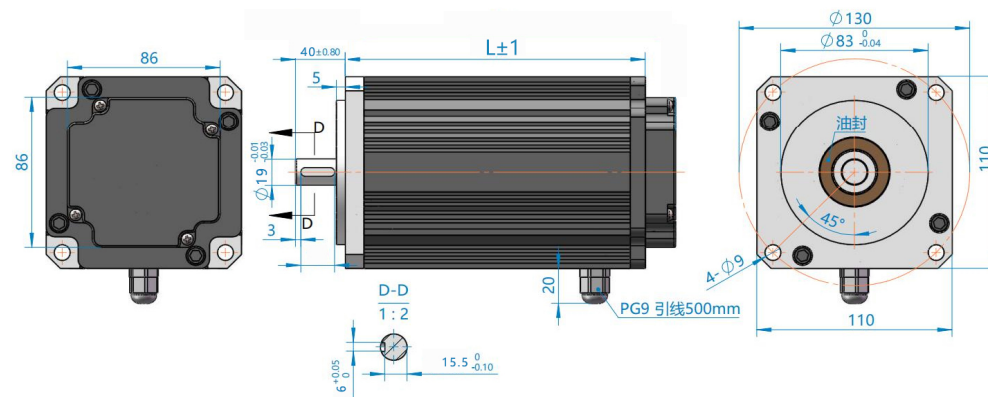
### General Technical Requirements

Projects	Parameter
Winding way	Star
Shaft diameter range	25mm (max.)
Hall Effect Angle	120°
Insulation Class	B级
Insulation Resistance	100MΩ (MIN.)
Dielectric Strength	600VDC 2mA 1S

### PERFORMANCE PARAMETERS

Model	110BLDC				
Number of phase	<b>N</b>	3			
Number of poles	<b>P</b>	8			
Rated Voltage	<b>VDC</b>	48	48	48	310
Rated Speed	<b>RPM</b>	3000	3000	3000	3000
Rated torque	<b>N.M</b>	3.18	5	6	7
Rated Power	<b>W</b>	1000	1260	1500	2500
Rated Current	<b>A</b>	24.5	31	40	12.11
Peak Torque	<b>N.M</b>	5.5	8	38	20
Torque Constant	<b>N.m/A</b>	0.129	0.129	0.129	0.578
Back EMF	<b>V/KPRM</b>	8.3	8.3	8.3	35
Body-length/mm	<b>mm</b>	112	122	142	152
Weight	<b>KG</b>	4.2	5.2	6.2	8.2

### DIMENSIONS(UNIT mm)

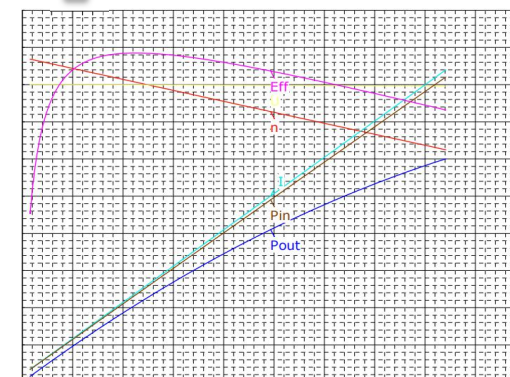


※ The above size is for reference only!

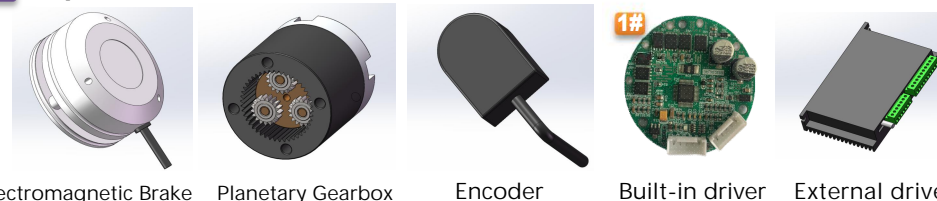
### Customizable Projects

Projects	OEM
Voltage	Yes
Speed	Yes
Power	Yes
Shaft	Yes
Cover	Yes
Length	Yes
Wire	Yes
Control	Yes

### Parametric curves



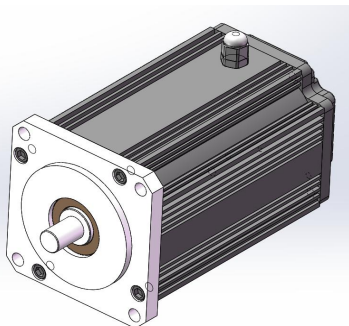
### Optional accessories



### The method of wire connection

Yellow(Thick)	Green(Thick)	Blue(Thick)	Red(Thin)	Black(Thin)	Yellow(Thin)	Green(Thin)	Blue(Thin)
<b>U</b>	<b>V</b>	<b>W</b>	<b>Vcc+5V</b>	<b>GND</b>	<b>Hu</b>	<b>Hv</b>	<b>Hw</b>

## 130 Brushless DC motor



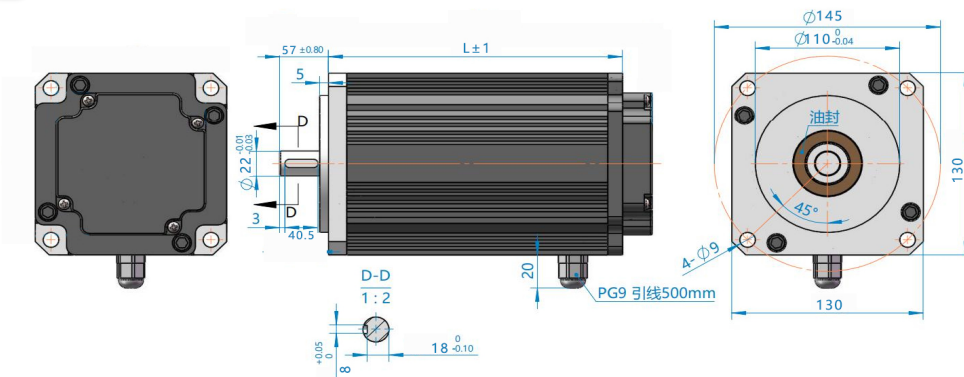
### General Technical Requirements

Projects	Parameter
Winding way	Star
Shaft diameter range	25mm (max.)
Hall Effect Angle	120°
Insulation Class	B级
Insulation Resistance	100MΩ (MIN.)
Dielectric Strength	600VDC 2mA 1S

### PERFORMANCE PARAMETERS

Model		80BLDC			
Number of phase	N	3			
Number of poles	P	8			
Rated Voltage	VDC	220	220	380	380
Rated Speed	RPM	2000	2000	3000	3000
Rated torque	N.M	7.5	9	10.5	15
Rated Power	W	1570	1880	2200	3150
Rated Current	A	6.3	7.5	40	12.6
Peak Torque	N.M	18.75	27	31.5	45
Torque Constant	N.m/A	0.120	0.120	0.130	1.19
Back EMF	V/KPRM	72	72	72	72
Body-length/mm	mm	112	122	132	152
Weight	KG	5	9	11	13

## DIMENSIONS(UNIT mm)

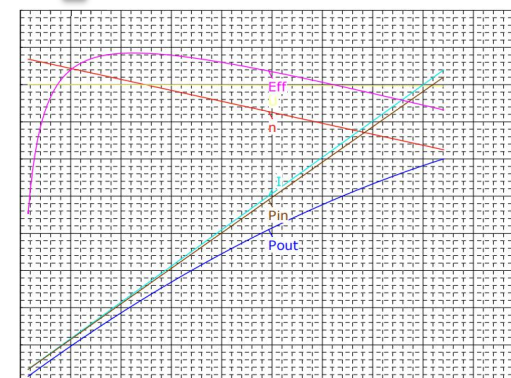


※ The above size is for reference only!

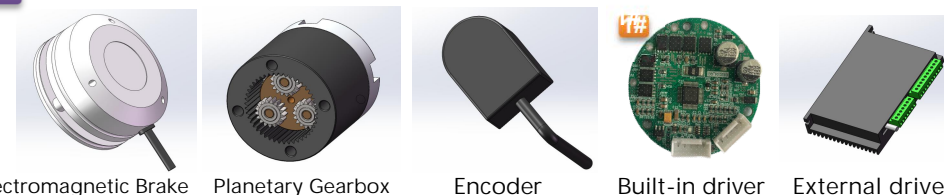
### Customizable Projects

Projects	OEM
Voltage	Yes
Speed	Yes
Power	Yes
Shaft	Yes
Cover	Yes
Length	Yes
Wire	Yes
Control	Yes

### Parametric curves



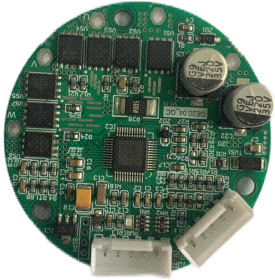
### Optional accessories



### The method of wire connection

Yellow(Thick)	Green(Thick)	Blue(Thick)	Red(Thin)	Black(Thin)	Yellow(Thin)	Green(Thin)	Blue(Thin)
U	V	W	Vcc+5V	GND	Hu	Hv	Hw

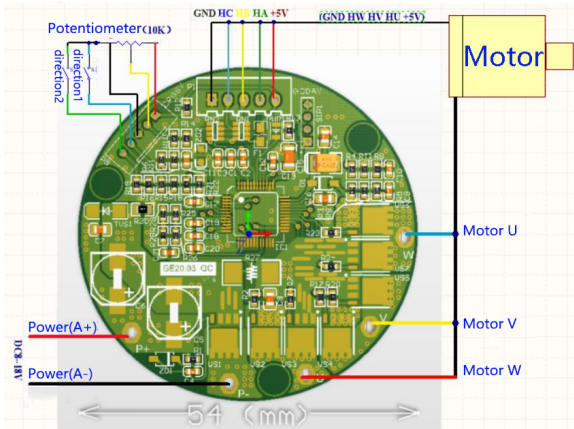
## Brushless DC motor driver



### Basic parameter

Projects	Parameter
Voltage	8-18VDC
Rated Current	7A
Max Current	15A (< 2S)
Speed Mode	0-5V Potentionmeter、PWM
Speed Control	Closed loop Current (Speed)
Control Mode	Square wave commutation control

### The method of wire connection

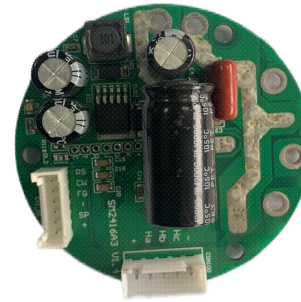


- 1) The thick line U VW is the motor phase line
- 2) Thin wire GNDHCHBHA+5V is Hall signal line;
- 3) The thick red and black wires are the input power, and the voltage range is 8-18V;
- 4) Potentiometer: This driver supports 0-5V, Analog speed control, usually 10Kpotentiometer;
- 5) Control port: the drive supports start-stop and direction,Control function direction 1: CW direction 2: CCW

### Indicator light description

When normal operation,operation indicator light is always on, when abnormal, operation indicator light flashing error code .

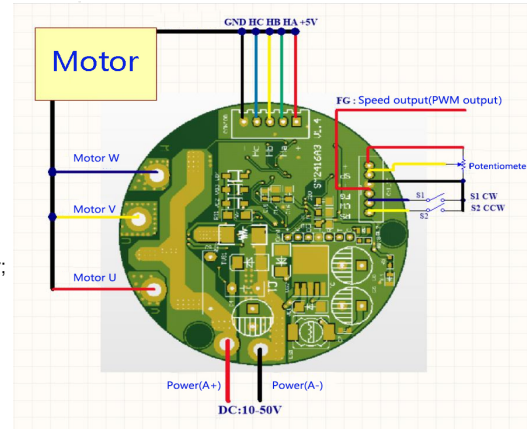
Error code (number of flashing lights)	Explain
1	Hardware overcurrent protection
2	Software overcurrent protection (locked rotor during operation)
4	Overvoltage protection
5	Undervoltage protection
6	Start stall or stall



### Basic parameter

Projects	Parameter
Voltage	10-50VDC
Rated Current	13A
Max Current	20A (< 2S)
Speed Mode	0-5V Potentionmeter、PWM
Speed Control	Closed loop Current (Speed)
Control Mode	Square wave commutation control

### The method of wire connection



- 1) The thick line U VW is the motor phase line
- 2) Thin wire GNDHCHBHA+5V is Hall signal line;
- 3) The thick red and black wires are the input power, and the voltage range is 10-50V;
- 4) Potentiometer: This driver supports 0-5V, Analog speed control, usually 10Kpotentiometer;
- 5) Control port: the drive supports start-stop and direction,Control function direction 1: CW direction 2: CCW

### Indicator light description

When normal operation,operation indicator light is always on, when abnormal, operation indicator light flashing error code .

Error code (number of flashing lights)	Explain
1	Hardware overcurrent protection
2	Software overcurrent protection (locked rotor during operation)
4	Overvoltage protection
5	Undervoltage protection
6	Start stall or stall



## Brushless DC motor driver



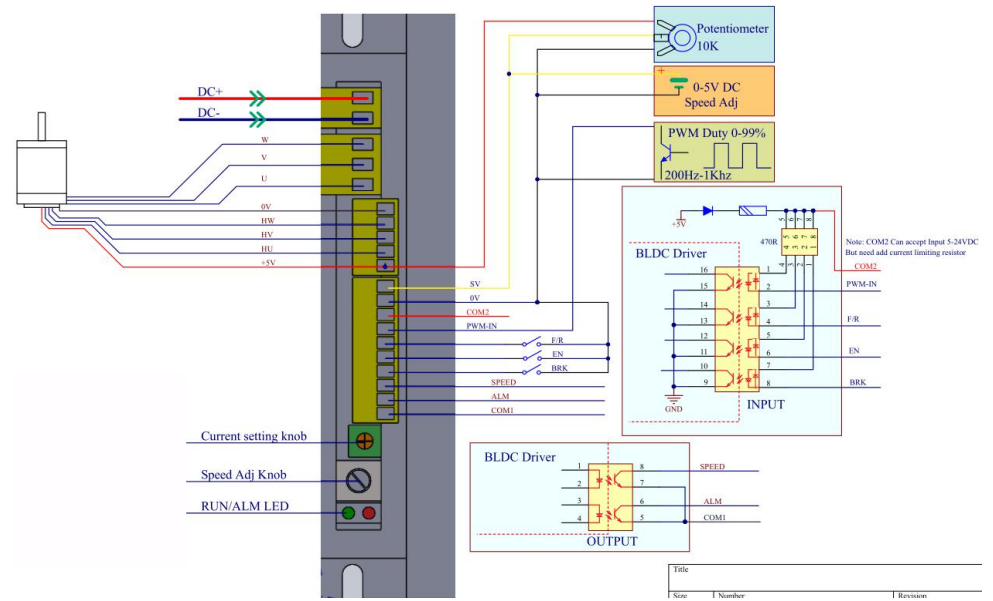
### Basic parameter

Projects	Parameter
Voltage	48VDC (10-60VDC)
Rated Current	10A
Max Current	15A (< 5min.)
Motor Speed	100-30000rpm
Speed Regulation Voltage	0-5V
PWMSpeed Regulation Voltage	3.3-24V

### Product feature

- RS485 / UART_TTLControl and parameter setting	- Synchronous rectification/Asynchronous rectification
- Acceleration/deceleration acceleration setting	- Open/Closed-loop control
- Maximum rated speed setting	- Built-in/external potentiometer speed control
- Maximum current output setting	- External analog signal/PWM speed control
- Restart	- Motor locked-rotor torque retention
- Various alarm indications	

### Driver interface description



### Function selection set up and run

#### I-Acceleration/Deceleration Acceleration Setting

Set the acceleration/deceleration of the motor through the potentiometer ACC/DEC. Rotate clockwise to increase acceleration. Rotate counterclockwise to reduce acceleration.

#### I- Open/Closed Loop Control Setting

Select open and closed loop control through SW2.

ON = Closed-loop control OFF = Open loop control

**!** Before the motor starts, this button is valid, after the motor starts, this button is invalid.

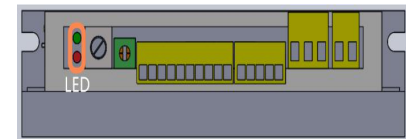
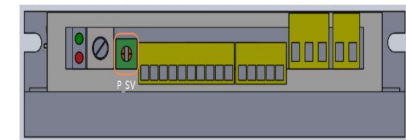
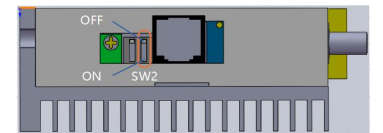
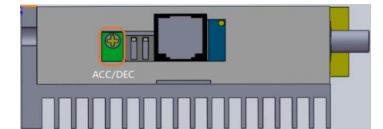
#### I- Peak output current setting

Set the peak output current through the P-sv potentiometer, when the load in the case of sudden increase, the output current will be limited to the set value. Reduce the motor speed to protect the motor from damage.

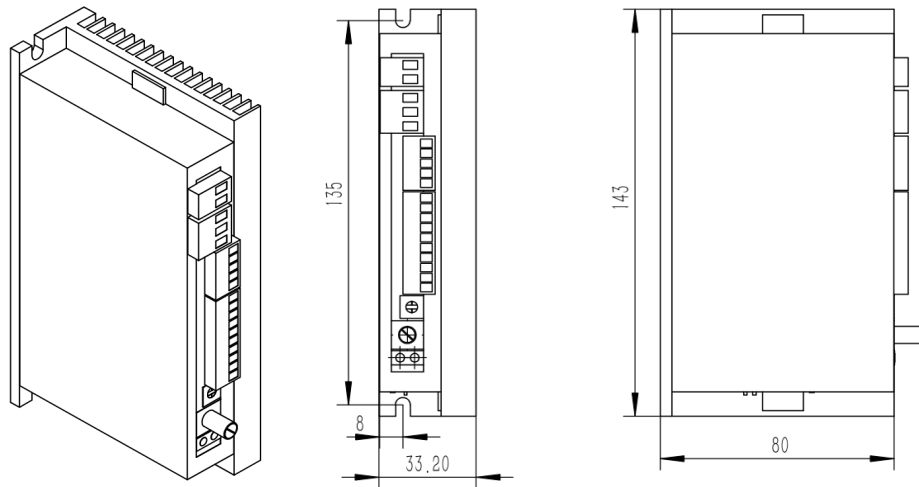
#### I-Green light (running indicator light), red light (error indicator light)

When the drive is in standby, the green light is on for one second and off for one second.

When the drive is wrong, the red light flashes for error indication.

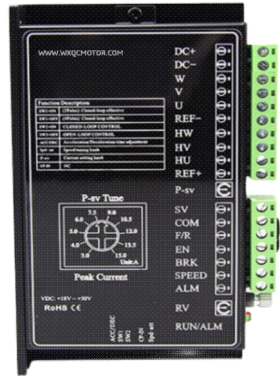


### DIMENSIONS(UNIT mm)



※ The above size is for reference only!

## Brushless DC motor driver



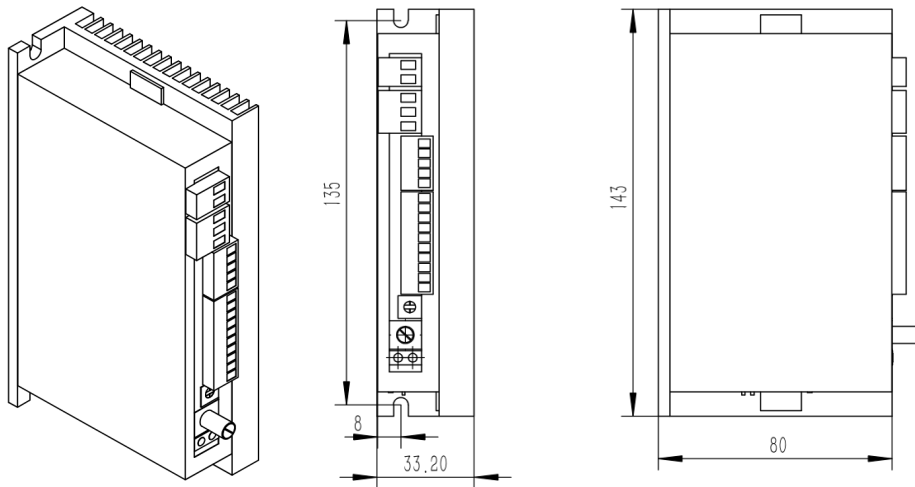
### Basic parameter

Projects	Parameter
Voltage	80VDC (36-95VDC)
Rated Current	8A
Max Current	10A (< 5min.)
Motor Speed	100-30000rpm
Speed Regulation Voltage	0-5V
PWMSpeed Regulation Voltage	3.3-24V

### Product feature

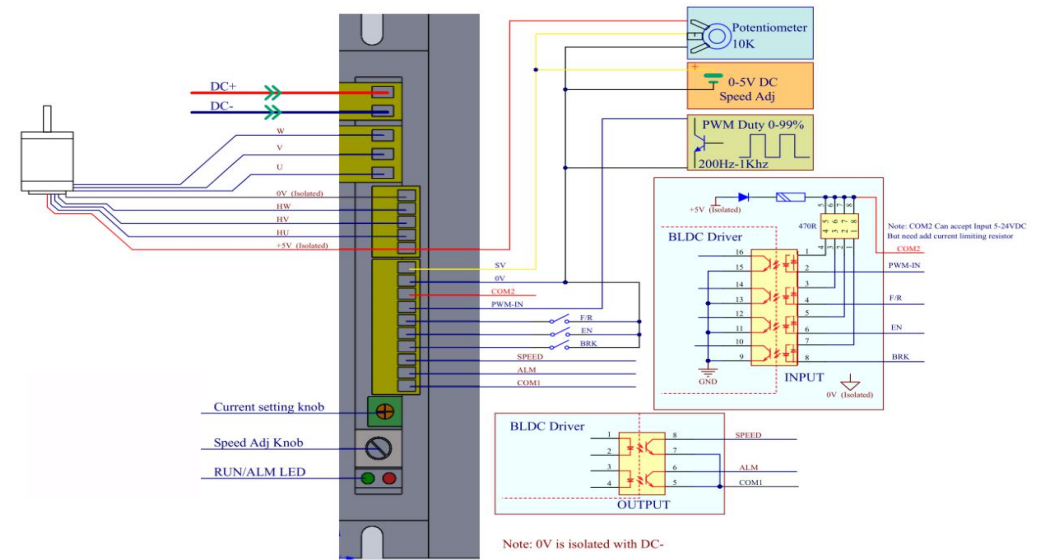
- RS485 / UART\_TTL Control and parameter setting
- Acceleration/deceleration acceleration setting
- Maximum rated speed setting
- Maximum current output setting
- Restart
- Various alarm indications
- Synchronous rectification/Asynchronous rectification
- Open/Closed-loop control
- Built-in/external potentiometer speed control
- External analog signal/PWM speed control
- Motor locked-rotor torque retention
- Control port optocoupler isolation

### DIMENSIONS(UNIT mm)



※ The above size is for reference only!

### Driver interface description



### Function selection set up and ru

Set the acceleration/deceleration of the motor through the potentiometer ACC/DEC. Rotate clockwise to increase acceleration. Rotate counterclockwise to reduce acceleration.

#### Open/closed loop control setting

Select open and closed loop control through SW2.

ON = Closed-loop control ;OFF = Open loop control

**⚠** Before the motor starts, this button is valid, after the motor starts, this button is invalid.

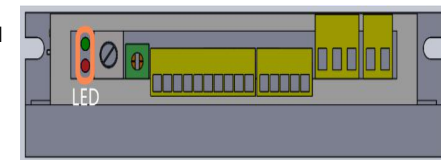
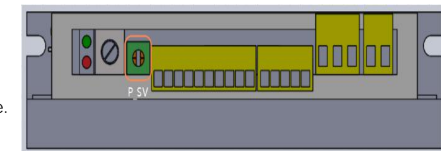
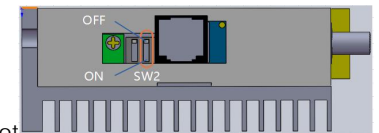
#### Peak output current setting

Set the peak output current through the P-sv potentiometer, when the load in the case of sudden increase, the output current will be limited to the set value. Reduce the motor speed to protect the motor from damage.

#### Green light (running indicator light), red light (error indicator light)

When the drive is in standby, the green light is on for one second and off for one second.

When the drive is wrong, the red light flashes wrong



## Brushless DC motor driver



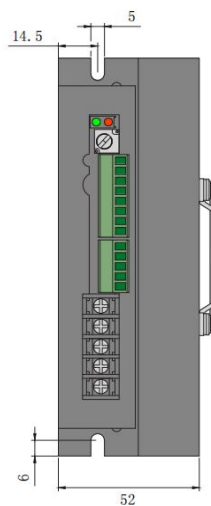
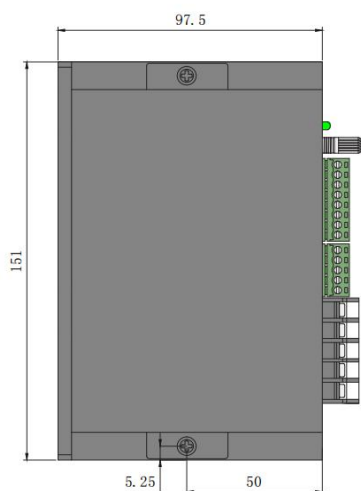
### Basic parameter

Projects	Parameter
Voltage	48VDC (18-50VDC)
Rated Current	25A
Max Current	45A (< 5min.)
Motor Speed	0-20000rpm
Speed Regulation Voltage	0-5V
External speed regulating potentiometer	10K

### Product feature

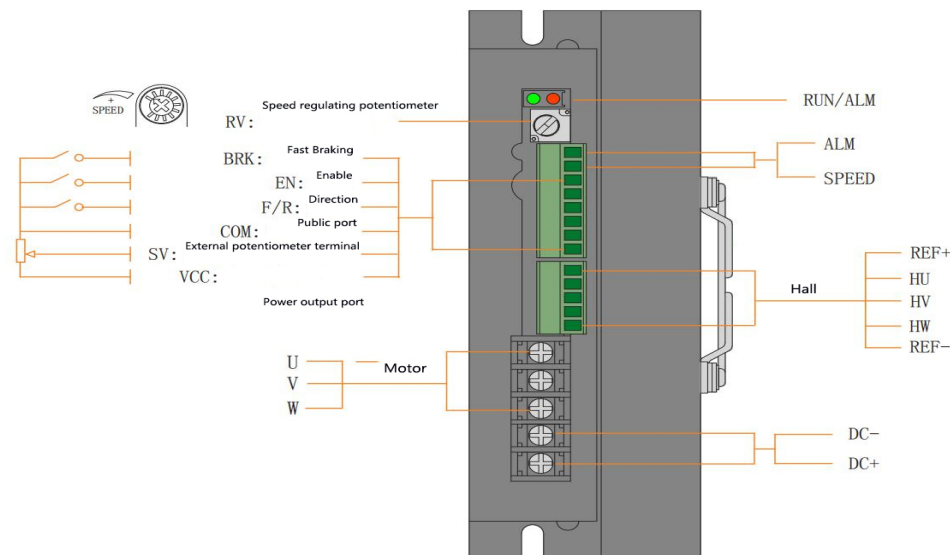
- RS232/ UART_TTL Control and parameter setting	- Synchronous rectification/Asynchronous rectification
- Acceleration/deceleration acceleration setting	- Open/Closed-loop control
- Maximum rated speed setting	- Built-in/external potentiometer speed control
- Maximum current output setting	- External analog signal
- Restart	- PWM speed control
- Various alarm indications	- Motor locked-rotor torque retention

### DIMENSIONS(UNIT mm)



※ The above size is for reference only!

### Driver interface description



### Function selection set up and run

#### I- Speed Setting

Select the no-load speed mode through SW1  
 ON = SV (Pulse control) OFF = SV (Analog control)

#### I- Open/Closed Loop Control Setting

Select open and closed loop control through SW2.  
 ON = Closed-loop control OFF = Open loop control

**⚠** Before the motor starts, this button is valid, after the motor starts, this button is invalid.

#### I- Peak output current setting

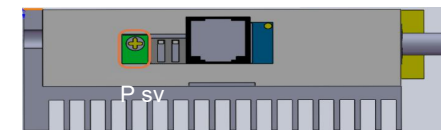
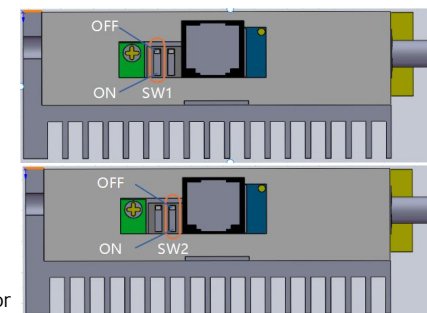
Set the peak output current through the P-sv potentiometer, when the load In the case of sudden increase, the output current will be limited to the set value.

Reduce the motor speed to protect the motor from damage.

#### I-Green light (running indicator light),

#### Red light (error indicator light)

When the drive is powered on, the green light is always on,  
 When the drive is wrong, the red light flashes for error indication.



## Brushless motor AC driver



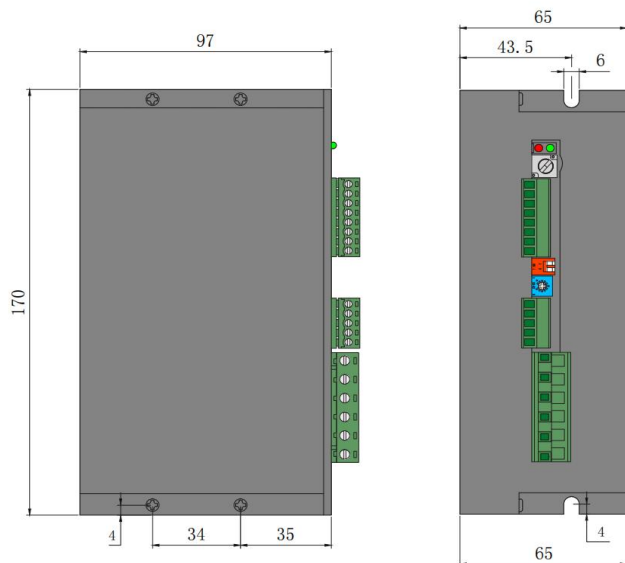
### Basic parameter

Projects	Parameter
Voltage	220VAC (180-265VAC)
Rated Current	4.2A
Max Current	8A (< 5min.)
Motor Speed	0-20000rpm
Speed Regulation Voltage	0-5V
External speed regulating potentiometer	10K

### Product feature

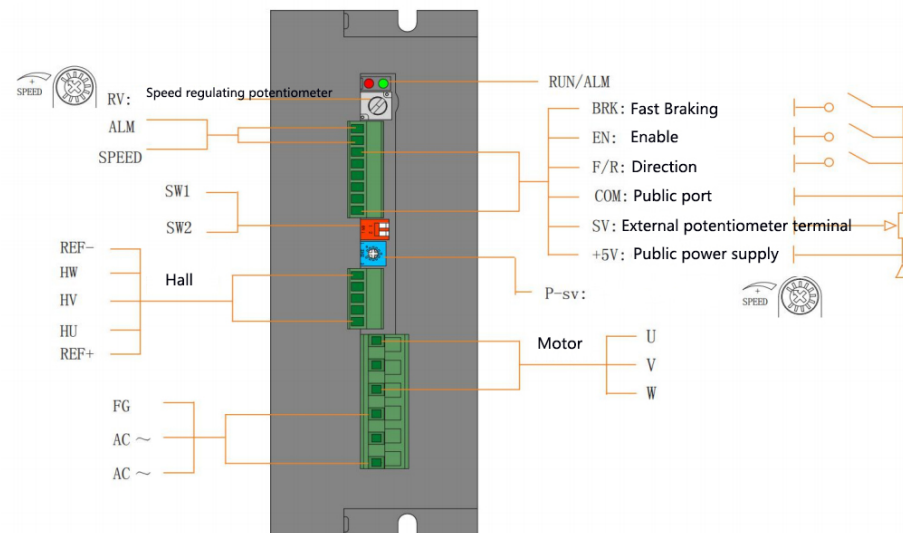
- RS232/ UART\_TTL Control and parameter setting
- Acceleration/deceleration acceleration setting
- Maximum rated speed setting
- Maximum current output setting
- Restart
- Various alarm indications
- Synchronous rectification/Asynchronous rectification
- Open/Closed-loop control
- Built-in/external potentiometer speed control
- External analog signal
- PWM speed control
- Motor locked-rotor torque retention

### DIMENSIONS(UNIT mm)



※ The above size is for reference only!

### Driver interface description



### Function selection set up and run

#### - Speed Setting

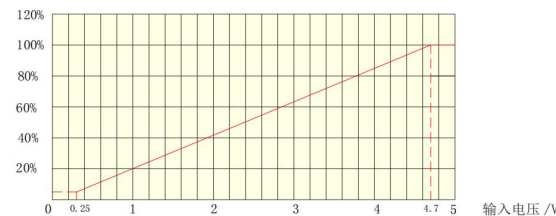
SW1 ON = PID Closed loop control, speed feedback control.

SW1 OFF = Open loop control, no speed feedback control.

SW2 ON = The number of poles of the motor is 4 opposite poles, that is the maximum speed 6000RPM  
 SW2 OFF = The number of poles of the motor is 8 opposite poles, i.e. the maximum speed 3000RPM

**⚠** Before the motor starts, this button is valid, after the motor starts, this button is invalid.

- External Signal Speed Regulation 0-5V  
 (The Relationship Between Voltage And No-Load Speed)  
 转速 / RPM



#### - Maximum Output Current Setting

The maximum current output setting is used to protect the brushless DC motor from being damaged during overload operation.

