

STEPPER SYSTEM CATALOGUE

JKON-TEK
To Be The Best Motion Control Provider

深圳简控自动化技术有限公司

Shenzhen ECON Technology Co.,Ltd

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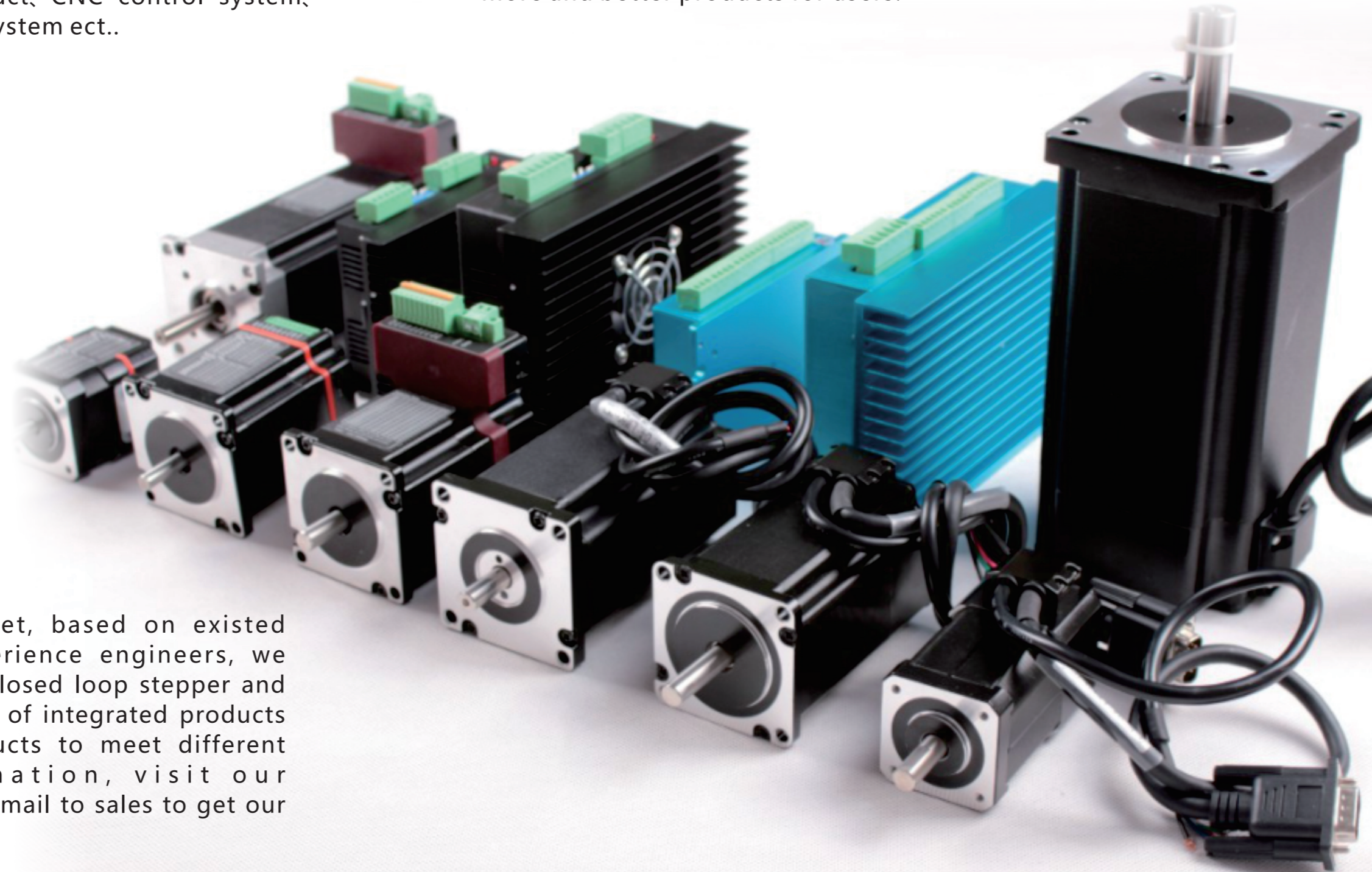
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Company profile

Shenzhen ECON Technology Co.,Ltd(Abb:ECON) establish in 2013,and devote to be the leading solution provider in automation industry. At the beginning, ECON is mainly selling CNC and CNC around products, such as ac servo product/stepper product, CNC control system, plasma/flame cutting system, engraving system ect..

ECON is continuous taken "market-oriented, engaged in developing functional economic CNC product" and "customer-centered, provide real-time and strong technical support" as principles, and develop more and better products for users.



In 2014,to meet the change of market, based on existed technology, and with some rich experience engineers, we developed own branded stepper driver, closed loop stepper and network stepper drivers, also some kinds of integrated products .Till now,we have wide range of products to meet different demands. For further information, visit our website:www.hybridservos.com or send e-mail to sales to get our newest catalog.

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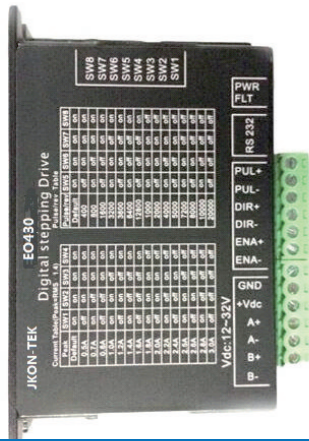
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EO 430



Features:

1. Voltage: 12V~32VDC, peak current 3A
2. Apply for magnetic linkage vector resonance resistance algorithm and electronic damping low-speed vibration arithmetic
3. Auto recognize motor parameters and auto tuning control parameters when power is on
4. Build-in micro-step algorithm, to achieve low micro-step control command, high micro-step operate effect
5. Receive differential and one terminal PUL/DIR command
6. Pulse, direction, enable signal port level compatible 4.5V~28VDC, no need to connect external resistor
7. Set positive edge, negative edge and motor initial direction by serial port
8. Control command Max pulse frequency is 500KHz (Default is 160KHz)
9. Provide 16 gears micro-step subdivision value setting, to set 200~51200 any subdivision by Serial port
10. Have RS-232, can set or change drive parameters
11. Reliable, signal port is optical isolation
12. Over-voltage, over-current, under-voltage protecting

Electrical Specifications (Tj = 25°C/77°F)

Parameters	EO 430			
	Min	Typical	Max	Unit
Output current[PK]	0.3	-	3.0(2.2 RMS)	A
Supply voltage	12	24	32	Vdc
Pulse Voltage	4.5	5	28	Vdc
Logic signal current	6	10	16	mA
Pulse input frequency	0	-	200	KHz
Isolation resistance	100	-	-	MΩ

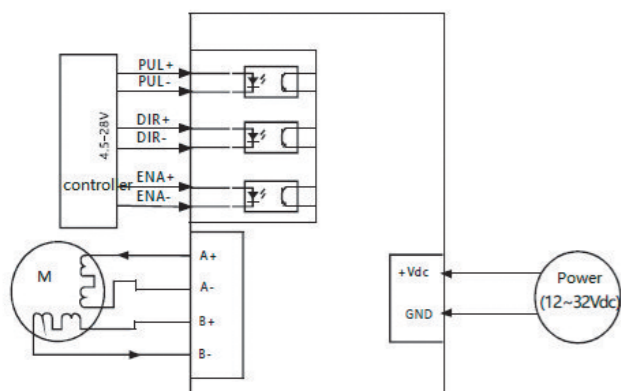
CURRENT SETTING

Peak Current	Sw1	Sw2	Sw3	Sw4
Default(0.3A)	ON	ON	ON	ON
0.5A	OFF	ON	ON	ON
0.7A	ON	OFF	ON	ON
0.8A	OFF	OFF	ON	ON
1.0A	ON	ON	OFF	ON
1.2A	OFF	ON	OFF	ON
1.4A	ON	OFF	OFF	ON
1.6A	OFF	OFF	OFF	ON
1.8A	ON	ON	ON	OFF
2.0A	OFF	ON	ON	OFF
2.2A	ON	OFF	ON	OFF
2.4A	OFF	OFF	ON	OFF
2.5A	ON	ON	OFF	OFF
2.6A	OFF	ON	OFF	OFF
2.8A	ON	OFF	OFF	OFF
3.0A	OFF	OFF	OFF	OFF

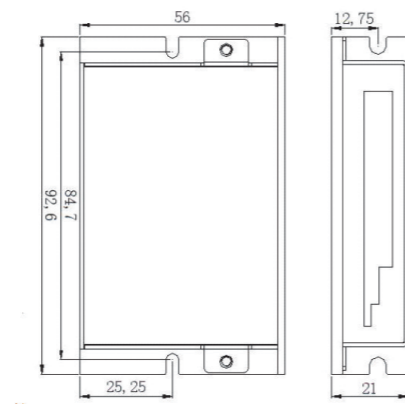
Micro-step Setting

Step/R	Sw5	Sw6	Sw7	Sw8
Default(200)	ON	ON	ON	ON
400	OFF	ON	ON	ON
800	ON	OFF	ON	ON
1600	OFF	OFF	ON	ON
3200	ON	ON	OFF	ON
6400	ON	OFF	OFF	ON
12800	OFF	OFF	OFF	ON
25600	OFF	OFF	OFF	ON
1000	ON	ON	ON	OFF
2000	OFF	ON	ON	OFF
4000	ON	OFF	ON	OFF
5000	OFF	OFF	ON	OFF
8000	OFF	ON	OFF	OFF
10000	ON	OFF	OFF	OFF
20000	OFF	OFF	OFF	OFF
25000	OFF	OFF	OFF	OFF

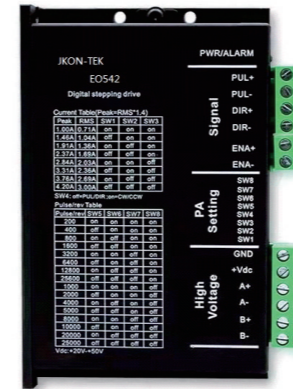
Product Diagram



Product Dimension



EO 542



Features:

1. Voltage: 24V~50VDC, peak current 4.2A
2. Apply for magnetic linkage vector resonance resistance algorithm and electronic damping low-speed vibration arithmetic
3. Auto recognize motor parameters and auto tuning control parameters when power is on
4. Build-in micro-step algorithm, to achieve low micro-step control command, high micro-step operate effect
5. Receive differential and one terminal PUL/DIR command
6. Pulse, direction, enable signal port level compatible 4.5V~28VDC, no need to connect external resistor
7. Set positive edge, negative edge, one pulse or dual pulse and motor initial direction by serial port
8. Control command Max pulse frequency is 500KHz (Default is 200KHz)
9. Provide 15 gears micro-step subdivision value setting, to set 200~51200 any subdivision by Serial port
10. Have RS-232 and RS-485 serial port, can set or control drive parameters (selection)
11. Reliable, signal port is optical isolation
12. Over-voltage, over-current, under-voltage protecting

Electrical Specifications (Tj = 25°C/77°F)

Parameters	EO 542			
	Min	Typical	Max	Unit
Output current[PK]	0.5	-	4.2(3.0 RMS)	A
Supply voltage	24	36	50	Vdc
Pulse Voltage	4.5	5	28	Vdc
Logic signal current	7	10	16	mA
Pulse input frequency	0	-	200	KHz
Isolation resistance	100	-	-	MΩ

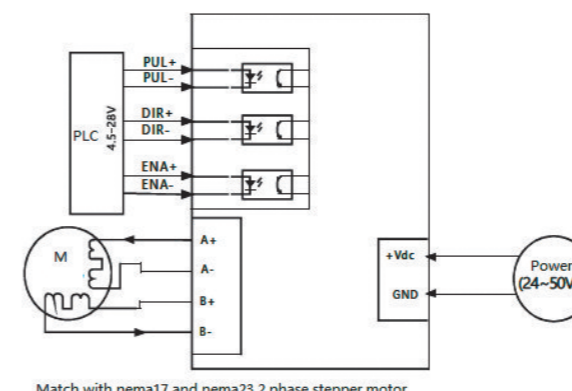
CURRENT SETTING

Peak Current	Valid current	Sw1	Sw2	Sw3
Default	0.7A(RMS)	ON	ON	ON
1.46A	1.04A	OFF	ON	ON
1.91A	1.36A	ON	OFF	ON
2.37A	1.69A	OFF	OFF	ON
2.84A	2.03A	ON	ON	OFF
3.31A	2.36A	OFF	ON	OFF
3.76A	2.69A	ON	OFF	OFF
5.50A	3.57A	OFF	OFF	OFF

Micro-step Setting

Step/R	Sw5	Sw6	Sw7	Sw8
Default	ON	ON	ON	ON
400	OFF	ON	ON	ON
800	ON	OFF	ON	ON
1600	OFF	OFF	ON	ON
3200	ON	ON	OFF	ON
6400	OFF	ON	OFF	ON
12800	ON	OFF	OFF	ON
25600	OFF	OFF	OFF	ON
1000	ON	ON	ON	OFF
2000	OFF	ON	ON	OFF
4000	ON	OFF	ON	OFF
5000	OFF	OFF	ON	OFF
8000	ON	ON	OFF	OFF
10000	OFF	ON	OFF	OFF
20000	ON	OFF	OFF	OFF
25000	OFF	OFF	OFF	OFF

Product Diagram



Match with nema17 and nema23 2 phase stepper motor

Product Dimension(Unit:mm)

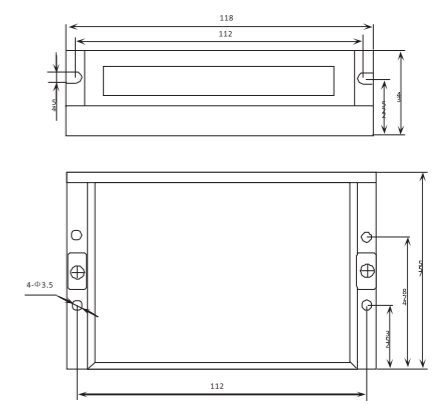
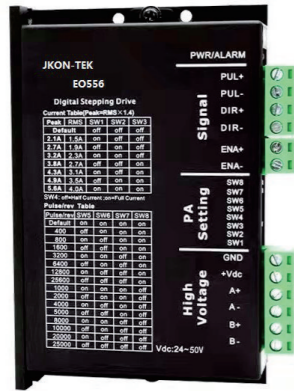


Figure1:Mechanical specifications

EO 556



Features:

1. Voltage:24V~50VDC,peak current 5.6A
2. Apply for magnetic linkage vector resonance resistance algorithm and electronic damping low-speed vibration arithmetic
3. Auto recognize motor parameters and auto tuning control parameters when power is on
4. Build-in micro-step segmentation algorithm, to achieve low micro-step control command, high micro-step operate effect
5. Receive differential and single-end PUL/DIR command
6. Pulse,direction,enable signal port electric level compatible 4.5V~28VDC ,no need to connect external resistor
7. Set positive edge ,negative edge and motor initial direction by serial port
8. Control command Max pulse frequency is 500KHz(Default is 200KHz)
9. Provide 15 gears micro-step value setting, to set 200~51200 micro-step by Serial port
10. Have serial port RS-232 or RS-485,can set or control drive parameters
11. can customized to 0~5V analogy speed function
12. Reliable,signal port is optical isolation
13. Over-voltage, over-current, under-voltage protecting

Electrical Specifications (Tj = 25°C/77°F)

Parameters	EO 556			
	Min	Typical	Max	Unit
Output current[PK]	0.5	-	5.6(4.0 RMS)	A
Supply voltage	24	36	50	Vdc
Pulse Voltage	4.5	5	28	Vdc
Logic signal current	7	10	16	mA
Pulse input frequency	0	-	200	KHz
Isolation resistance	100	-	-	MΩ

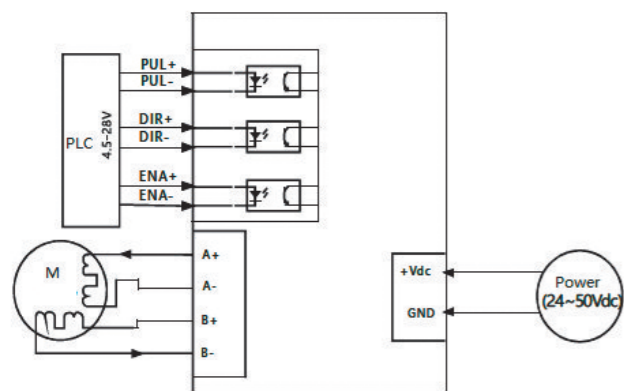
CURRENT SETTING

Peak Current	Valid current	Sw1	Sw2	Sw3
Default	1.0A(RMS)	OFF	OFF	OFF
2.1A	1.5A	ON	OFF	OFF
2.7A	1.9A	OFF	ON	OFF
3.2A	2.3A	ON	ON	OFF
3.8A	2.7A	OFF	OFF	ON
4.3A	3.1A	ON	OFF	ON
4.9A	3.5A	OFF	ON	ON
5.6A	4.0A	ON	ON	ON

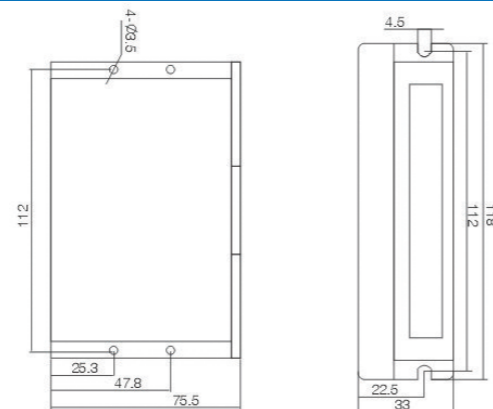
Micro-step Setting

Step/R	Sw5	Sw6	Sw7	Sw8
Default(200)	ON	ON	ON	ON
400	OFF	ON	ON	ON
800	ON	OFF	ON	ON
1600	OFF	OFF	ON	ON
3200	ON	ON	OFF	ON
6400	OFF	ON	OFF	ON
12800	ON	OFF	OFF	ON
25600	OFF	OFF	OFF	ON
1000	ON	ON	ON	OFF
2000	OFF	ON	ON	OFF
4000	ON	OFF	ON	OFF
5000	OFF	OFF	ON	OFF
8000	ON	ON	OFF	OFF
10000	OFF	ON	OFF	OFF
20000	ON	OFF	OFF	OFF
25000	OFF	OFF	OFF	OFF

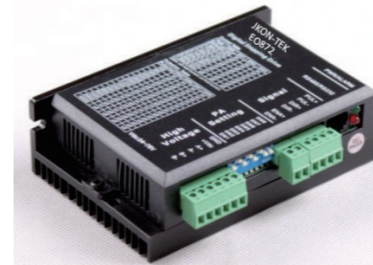
Product Diagram



Product Dimension(Unit:mm)



EO 872



Features:

1. Voltage:24V~75VDC,peak current 7.2A
2. Apply for magnetic linkage vector resonance resistance algorithm and electronic damping low-speed vibration arithmetic
3. Auto recognize motor parameters and auto tuning control parameters when power is on
4. Build-in micro-step segmentation algorithm, to achieve low micro-step control command, high micro-step operate effect
5. Receive differential and single-end PUL/DIR command
6. Pulse,direction,enable signal port electric level compatible 4.5V~28VDC ,no need to connect external resistor
7. Set positive edge ,negative edge, single pulse, dual pulse and motor initial direction by serial port
8. Control command Max pulse frequency is 500KHz(Default is 200KHz)
9. Provide 15 gears micro-step value setting, to set 200~51200 micro-step by Serial port
10. Have serial port RS-232 or RS-485,can set or control drive parameters
11. can customized to 0~5V analogy speed function
12. Reliable,signal port is optical isolation
13. Over-voltage, over-current, under-voltage protecting

Electrical Specifications (Tj = 25°C/77°F)

Parameters	EO 872			
	Min	Typical	Max	Unit
Output current[PK]	0.5	-	7.2(6.0 RMS)	A
Supply voltage	24	36	75	Vdc
Pulse Voltage	4.5	5	28	Vdc
Logic signal current	7	10	16	mA
Pulse input frequency	0	-	200	KHz
Isolation resistance	100	-	-	MΩ

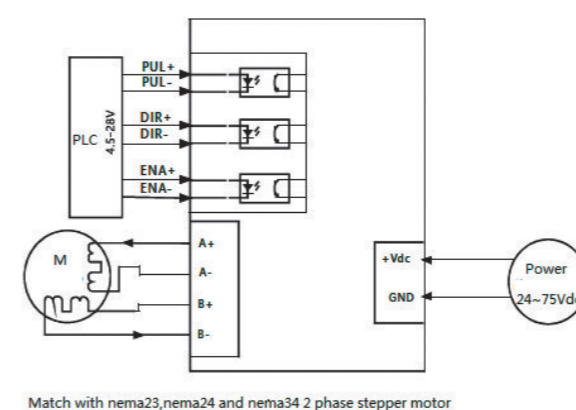
CURRENT SETTING

Peak Current	Valid current	Sw1	Sw2	Sw3
Default	2.0A(RMS)	ON	ON	ON
3.08A	2.57A	OFF	ON	ON
3.77A	3.14A	ON	OFF	ON
4.45A	3.71A	OFF	OFF	ON
5.14A	4.28A	ON	ON	OFF
5.83A	4.86A	OFF	ON	OFF
6.52A	5.43A	ON	OFF	OFF
7.20A	6.0A	OFF	OFF	OFF

Micro-step Setting

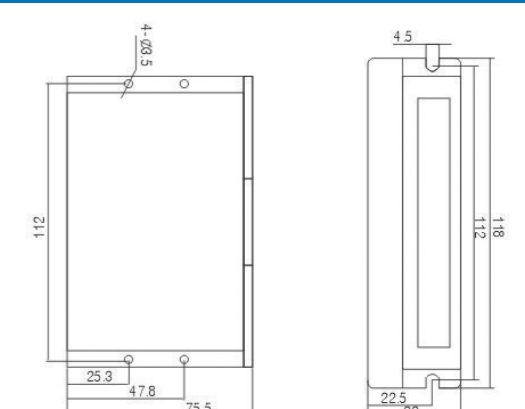
Step/R	Sw5	Sw6	Sw7	Sw8
400	ON	ON	ON	ON
800	OFF	ON	ON	ON
1600	ON	OFF	ON	ON
3200	OFF	OFF	ON	ON
6400	ON	ON	OFF	ON
12800	OFF	ON	OFF	ON
25600	ON	OFF	OFF	ON
52100	OFF	OFF	OFF	ON
1000	ON	ON	ON	OFF
2000	OFF	ON	ON	OFF
4000	ON	OFF	ON	OFF
5000	OFF	OFF	ON	OFF
8000	ON	ON	OFF	OFF
10000	OFF	ON	OFF	OFF
20000	ON	OFF	OFF	OFF
40000	OFF	OFF	OFF	OFF

Product Diagram



Match with nema23,nema24 and nema34 2 phase stepper motor

Product Dimension(Unit:mm)



EO 860AH



Product Features:

1. Voltage: 24V~80VAC or 24~110VDC, peak current 7.2A
2. Apply for magnetic linkage vector resonance resistance algorithm and electronic damping low-speed vibration arithmetic
3. Auto recognize motor parameters and auto tuning control parameters when power is on
4. Build-in micro-step segmentation algorithm, to achieve low micro-step control command, high micro-step operate effect
5. Receive differential and single-end PUL/DIR command
6. Control command Max pulse frequency is 500KHz (Default is 150KHz)
7. Provide 16 gears micro-step value setting
8. can customize 3 IO input control speed function
9. Reliable, signal port is optical isolation
10. Over-voltage, over-current, under-voltage protecting

Electrical Specifications (Tj = 25°C/77°F)

Parameters	EO 860AH			
	Min	Typical	Max	Unit
Output current [PK]	0.5	-	7.2 (6.0 RMS)	A
Supply voltage	24	48	75	Vdc
Pulse Voltage	4	5	28	Vdc
Logic signal current	7	10	16	mA
Pulse input frequency	0	-	200	KHz
Isolation resistance	100	-	-	MΩ

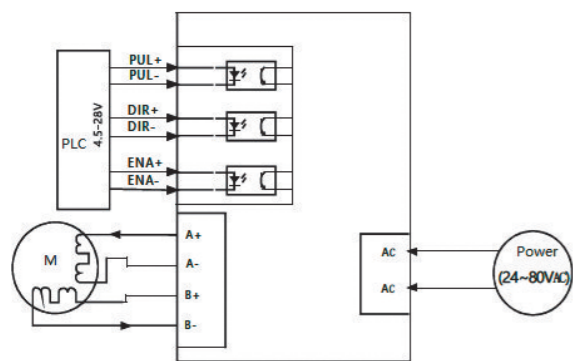
CURRENT SETTING

Peak Current	Valid current	Sw1	Sw2	Sw3
Default	2.0A (RMS)	ON	ON	ON
3.08A	2.57A	OFF	ON	ON
3.77A	3.14A	ON	OFF	ON
4.45A	3.71A	OFF	OFF	ON
5.14A	4.28A	ON	ON	OFF
5.83A	4.86A	OFF	ON	OFF
6.52A	5.43A	ON	OFF	OFF
7.20A	6.0A	OFF	OFF	OFF

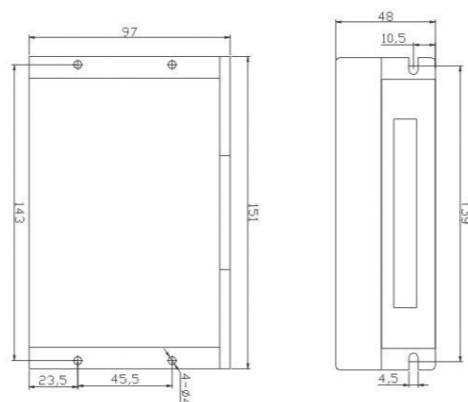
Micro-step Setting

Step/R	Sw5	Sw6	Sw7	Sw8
400	ON	ON	ON	ON
800	OFF	ON	ON	ON
1600	ON	OFF	ON	ON
3200	OFF	OFF	ON	ON
6400	ON	ON	OFF	ON
12800	OFF	ON	OFF	ON
25600	ON	OFF	OFF	ON
51200	OFF	OFF	OFF	ON
1000	ON	ON	ON	OFF
2000	OFF	ON	ON	OFF
4000	ON	OFF	ON	OFF
5000	OFF	OFF	ON	OFF
8000	ON	ON	OFF	OFF
10000	OFF	ON	OFF	OFF
20000	ON	OFF	OFF	OFF
40000	OFF	OFF	OFF	OFF

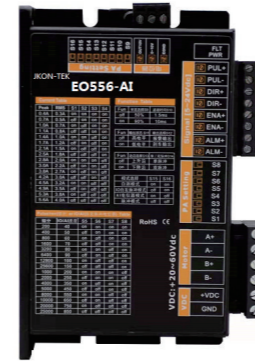
Product Diagram



Product Dimension (Unit:mm)



EO 556AI



Features:

1. New 32 Bit DSP Technology
2. Dial code can be set to pulse control, IO spontaneous pulse control, 0-10V analog speed control
3. It is able to select up or down edge, single or double pulse
4. Low filtering time (high response) or high filtering time (low vibration) can be selected by dial
5. 1-way 0-10V analog input
6. Automatic parameter power-on setting function
7. Variable current control greatly reduces the heat generation of the motor.
8. Automatic halving of current at rest
9. Can drive a variety of stepping motor, such as 28, 42, 57, 60
10. Three optical isolation signal inputs, two of which are high-speed opto-coupler isolation
11. 1 way alarm output, photoelectric isolation OC emitter output
12. The current setting is convenient and can be selected between 0.4-5.6 A
13. It has the protection functions of over-voltage, under-voltage and over-current.

Electrical Specifications (Tj = 25°C/77°F)

Explanation	EO 556AI			
	Minimum Value		Minimum Value	
Continuous output current	0.4	Continuous output current	0.4	Continuous output current
Power Supply Voltage (DC)	20	Power Supply Voltage (DC)	20	Power Supply Voltage (DC)
Control signal input current	6	Control signal input current	6	Control signal input current
Control signal interface level	5	Control signal interface level	5	Control signal interface level
OC output pull-up voltage	5	OC output pull-up voltage	5	OC output pull-up voltage
Insulation Resistance	-	Insulation Resistance	-	Insulation Resistance

The current setting

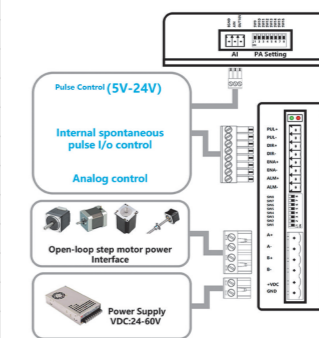
Peak	RMS	Sw1	Sw2	Sw3	Sw4
0.4A	0.3A	on	on	on	on
0.7A	0.5A	off	on	on	on
1.0A	0.7A	on	off	on	on
1.1A	0.8A	off	off	on	on
1.4A	1.0A	on	on	off	on
1.7A	1.2A	off	on	off	on
2.1A	1.5A	on	off	off	on
2.5A	1.8A	off	off	off	on
2.8A	2.0A	on	on	on	off
3.0A	2.2A	off	on	on	off
3.8A	2.7A	on	off	on	off
4.2A	3.0A	off	off	on	off
4.5A	3.2A	on	on	off	off
4.9A	3.5A	off	on	off	off
5.3A	3.8A	on	off	off	off
5.6A	4.0A	off	off	off	off

Note: Above format current is the standard EO556-AI current, other current can be derived according to customer demand, can set the current range between 0.3-5.6 A.

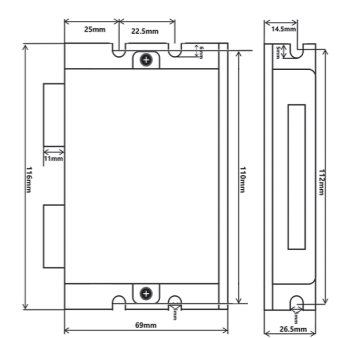
Dialing sets the subdivision and it-self spontaneous pulses

Pul/Rev	S5	S6	S7	S8	Remark
200	on	on	on	on	When SW5, SW6, SW7, SW8 all are ON, the driver subdivision of driver is the internal default subdivision, and can be the value of subdivision which customer need
400	off	on	on	on	
800	on	off	on	on	
1600	off	off	on	on	
3200	on	on	off	on	
6400	off	on	off	on	
12800	on	off	off	on	
25600	off	off	off	on	
1000	on	on	on	off	
2000	off	on	on	off	
4000	on	off	on	off	
5000	off	off	on	off	
8000	on	on	off	off	
10000	off	on	off	off	
20000	on	off	off	off	
25000	off	off	off	off	

Product Diagram



Product Dimension (Unit:mm)



IO/AI Speed Setting (Internal generate pulse or 0-10V analog speed control setting)

RPM/MIN	S5	S6	S7	S8	Speed Explanation
40	on	on	on	on	When SW5, SW6, SW7, SW8 all are ON, the driver speed applies its internal default speed: can derive the speed that customer need
50	off	on	on	on	
60	on	off	on	on	
70	off	off	on	on	
80	on	on	off	on	
90	off	on	off	on	
100	on	off	off	on	
150	off	off	off	on	
200	on	on	on	off	
250	off	on	on	off	
350	on	off	on	off	
450	off	off	on	off	
550	on	on	off	off	
650	off	on	off	off	
750	on	off	off	off	
850	off	off	off	off	

Note: 1, Above format subdivision are the standard product EO556-AI subdivisions, other subdivisions can be derived according to customer needs, can set the value between 200-51200, subdivide table refer to [Pulse/rev] this column table.

2, when the drive is set to IO control or analog control mode by dialing SW15 and SW16, the corresponding speed refer to [IO/AI (RPM)] this column speed table.

EO 556-IO



Product Features:

1. New 32-bit DSP technology
2. Ultra low vibration noise
3. Built-in micro-step subdivision function
4. Parameter power-on auto-tuning function
5. The variable current control greatly reduces the heating of the motor
6. The current is automatically halved when stationary
7. Can drive 4, 6, 8 wire two-phase stepper motors
8. Optically isolated differential signal input
9. The current setting is convenient and can be arbitrarily selected between 0.1-5.6A
10. Speed setting range is 1-1000RPM
11. With overvoltage, under-voltage, overcurrent and other protection functions

Electrical Specifications (Tj = 25°C/77°F)

Explanation	EO 556-IO			UNIT
	Value MIN	Typical Value	Value MAX	
Output Current	0.1	-	5.6	A
Input Voltage	24	36	50	VDC
Control Signal Input Current	6	10	16	mA
Control Signal interface level	4.5	5	28	Vdc
Input signal Min Pulse Width	1.5	-	-	us
Speed Range	1	-	1000	RPM
Resistor	500	-	-	MΩ

CURRENT SETTING

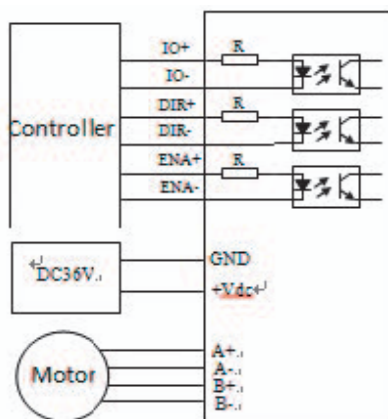
Peak Current	Valid current	Sw1	Sw2	Sw3	Current Self-Setting
1.0A(RMS)		OFF	OFF	OFF	When SW1, SW2 and SW3 are set to OFF, the required current can be set by PC software, the maximum value is 5.6A, and the resolution is 0.1A. If not set, the default current is 1.4A
2.1A	1.5A	ON	OFF	OFF	
2.7A	1.9A	OFF	ON	OFF	
3.2A	2.3A	ON	ON	OFF	
3.8A	2.7A	OFF	OFF	ON	
4.3A	3.1A	ON	OFF	ON	
4.9A	3.5A	OFF	ON	ON	
5.6A	4.0A	ON	ON	ON	

Note: The quiescent current can be set by the SW4 DIP switch, OFF means that the quiescent current is set to half of the dynamic current, and ON means that the quiescent current is the same as the dynamic current. In general use, SW4 should be set to OFF, so that the heat generation of the motor and the driver is reduced and the reliability is improved. About 400ms after the pulse train stops, the current is automatically reduced to about half (60% of the actual value), and the calorific value is theoretically reduced to 30%.

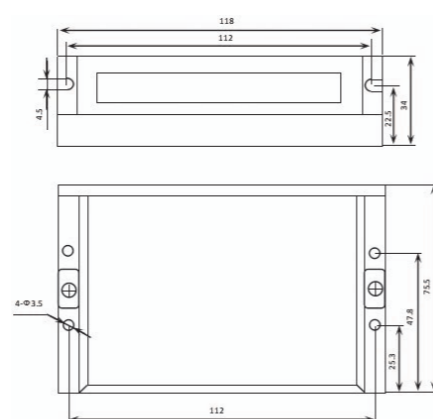
Internal self-transmit Pulse Speed Setting

RPM	Sw5	Sw6	Sw7	Sw8	Subdivision Description
Default[40]	ON	ON	ON	ON	When SW5, SW6, SW7, SW8 are all on, the internal speed of the drive is set by the user through the PC software ProTuner or STU debugger, the minimum value is 1, the resolution is 1, and the maximum value is 1000RPM.
50	OFF	ON	ON	ON	
60	ON	OFF	ON	ON	
70	OFF	OFF	ON	ON	
80	ON	ON	OFF	ON	
90	OFF	ON	OFF	ON	
100	ON	OFF	OFF	ON	
150	OFF	OFF	OFF	ON	
200	ON	ON	ON	OFF	
250	OFF	ON	ON	OFF	
350	ON	OFF	ON	OFF	
450	OFF	OFF	ON	OFF	
550	ON	ON	OFF	OFF	
650	OFF	ON	OFF	OFF	
750	ON	OFF	OFF	OFF	
850	OFF	OFF	OFF	OFF	

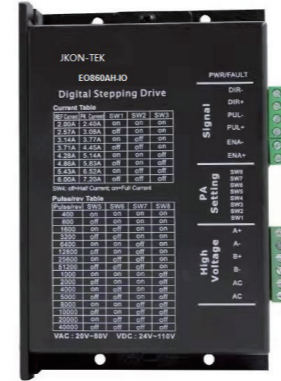
Product Diagram



Product Dimension(Unit:mm)



EO860AH-IO



Product Features:

- New 32-bit DSP technology
- Ultra low vibration noise
- Built-in high segmentation
- Parameter power-on auto-tuning function
- The variable current control greatly reduces the heating of the motor
- The current is automatically halved when driver is still
- Drive 4, 6, 8 leads two-phase stepper motor
- Optical isolation differential signal input or IO control high and low level input
- One driver can drive two motors, with good motor speed synchronization
- The current setting is convenient and can be arbitrarily selected between 2.1-7.2A
- The setting range of speed segment is 40-900RPM
- With over-voltage, under-voltage, over-current and other protection functions

Electrical Specifications (Tj = 25°C/77°F)

Parameters	EO 860AH-IO			Unit
	Min	Typical	Max	
Output current[PK]	0.1	-	7.2(6.0 RMS)	A
Supply voltage	24	48	75	Vac
Control signal port e-level Voltage	4.5	5	24	Vdc
Logic signal current	6	10	16	mA
Input signal Min pulse width	1.5	-	-	us
Speed Range	40	-	900	RPM
Isolation resistance	100	-	-	MΩ

CURRENT SETTING

Output Peak Current	Output Valid current	Sw1	Sw2	Sw3	Current Setting
Default[2.0A]		ON	ON	ON	When SW1, SW2, SW3 are set to OFF/ OFF/ OFF, the required current can be set by PC software, the maximum value is 7.20A, and the resolution is 0.1A. If do not set, the default current is 2.0A.
3.08A	2.57A	OFF	ON	ON	
3.77A	3.14A	ON	OFF	ON	
4.45A	3.71A	OFF	OFF	ON	
5.14A	4.28A	ON	ON	OFF	
5.83A	4.86A	OFF	ON	OFF	
6.52A	5.43A	ON	OFF	OFF	
7.20A	6.00A	OFF	OFF	OFF	

2) Still(Static) current setting

The quiescent current can be set by the SW4 DIP switch, OFF means that the quiescent current is set to half of the dynamic current, and ON means that the quiescent current is the same as the dynamic current. In general use, SW4 should be set to OFF to reduce the heat generation of the motor and driver and improve reliability. After 400ms of the pulse train stops, the current is automatically reduced to about half (60% of the actual value), and the calorific value is theoretically reduced to 30%.

Speed Setting

RPM	Sw5	Sw6	Sw7	Sw8	Description
Default[40]	ON	ON	ON	ON	When SW5, SW6, SW7, SW8 are all ON, the drive speed segment adopts the internal default speed of the drive: the user sets the motor speed through the PC software ProTuner or STU debugger, the minimum value is 1, the resolution is 1, and the maximum value is 1200RPM.
50	OFF	ON	ON	ON	
60	ON	OFF	ON	ON	
70	OFF	OFF	ON	ON	
80	ON	ON	OFF	ON	
90	OFF	ON	OFF	ON	
100	ON	OFF	OFF	ON	
150	OFF	OFF	OFF	ON	
200	ON	ON	ON	OFF	
250	OFF	ON	ON	OFF	
350	ON	OFF	ON	OFF	
450	OFF	OFF	ON	OFF	
550	ON	ON	OFF	OFF	
650	OFF	ON	OFF	OFF	
750	ON	OFF	OFF	OFF	
800	OFF	OFF	OFF	OFF	

Product Diagram

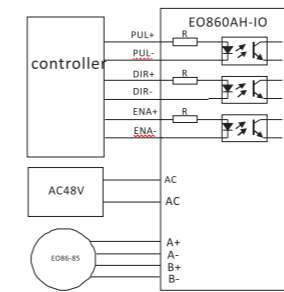
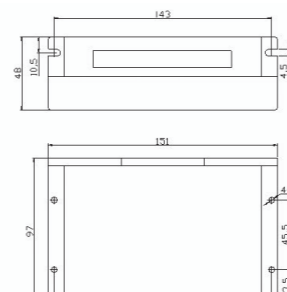


Fig. 7 EO860AH-IO with E086-85 wiring

Product Dimension(Unit:mm)



Self-Tuning Function

The driver can automatically complete the motor parameter identification and the self-tuning of the internal adjustment parameters within 400ms of power-on; when the motor, power supply voltage and other conditions change, please perform a self-tuning, otherwise, the motor may run abnormally. Note that IO control cannot be input at this time, the direction signal should not be changed, and the enable signal cannot be connected.

Note: This type of driver has the function of automatic tuning of power-on parameters, and can also match parameters for the specified motor.

3EO680(3 phase)



Features:

- 1.Voltage:24~75VDC,peak current 8.2A
- 2.Apply for magnetic linkage vector resonance resistance algorithm and electronic damping low-speed vibration arithmetic
- 3.Auto recognize motor parameters and auto tuning control parameters when power is on
- 4.Build-in micro-step segmentation algorithm, to achieve low micro-step control command, high micro-step operate effect
- 5.Receive differential and single-end PUL/DIR command
- 6.Pulse,direction,enable signal port electric level compatible 4.5V~28VDC ,no need to connect external resistor
- 7.Set positive edge ,negative edge, single pulse, dual pulse and motor initial direction by serial port
- 8.Control command Max pulse frequency is 500KHz(Default is 200KHz)
- 9.Provide 15 gears micro-step value setting, to set 200~51200 micro-step by Serial port
- 10.Have serial port RS-232 or RS-485,can set or control drive parameters
- 11.Reliable,signal port is optical isolation
12. Over-voltage, over-current, under-voltage protecting

Electrical Specifications (Tj = 25°C/77°F)

Parameters	3EO680(3 phase)			
	Min	Typical	Max	Unit
Output current[PK]	0.5	-	8.2(6.0 RMS)	A
Supply voltage	24	36	75	Vdc
Pulse Voltage	4.5	5	28	Vdc
Logic signal current	7	10	16	mA
Pulse input frequency	0	-	200	KHz
Isolation resistance	100	-	-	MΩ

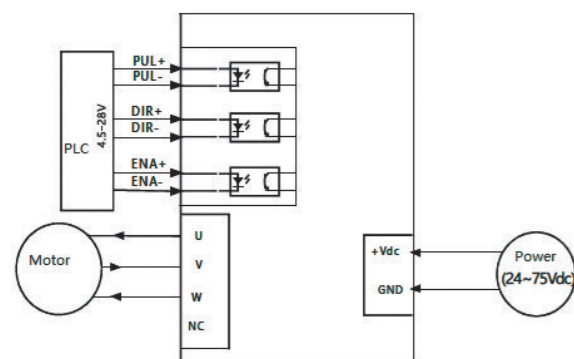
CURRENT SETTING

Peak Current	Valid current	Sw1	Sw2	Sw3
Default	3.0A(PK)	OFF	OFF	OFF
4.2A	3.0A	ON	OFF	OFF
4.9A	3.5A	OFF	ON	OFF
5.6A	4.0A	ON	ON	OFF
6.3A	4.5A	OFF	OFF	ON
7.0A	5.0A	ON	OFF	ON
7.8A	5.6A	OFF	ON	ON
8.20A	6.0A	ON	ON	ON

Micro-step Setting

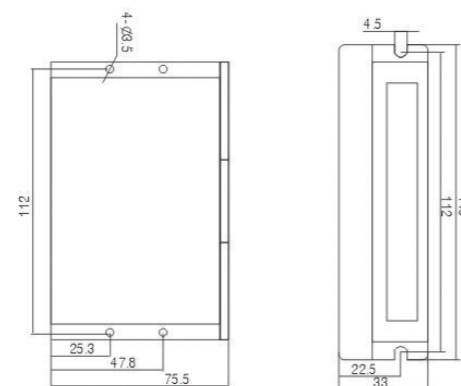
Step/R	Sw5	Sw6	Sw7	Sw8
Default	ON	ON	ON	ON
400	OFF	ON	ON	ON
800	ON	OFF	ON	ON
1600	OFF	OFF	ON	ON
3200	ON	ON	OFF	ON
6400	OFF	ON	OFF	ON
12800	ON	OFF	OFF	ON
25600	OFF	OFF	OFF	ON
1000	ON	ON	ON	OFF
2000	OFF	ON	ON	OFF
4000	ON	OFF	ON	OFF
5000	OFF	OFF	ON	OFF
8000	ON	ON	OFF	OFF
10000	OFF	ON	OFF	OFF
20000	ON	OFF	OFF	OFF
25000	OFF	OFF	OFF	OFF

Product Diagram



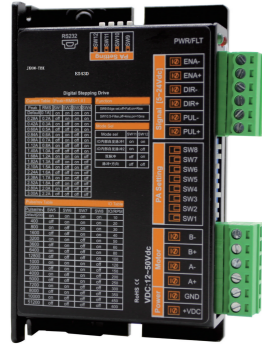
Match with nema23,nema24 and nema34 3 phase stepper motor

Product Dimension(Unit:mm)



OPEN LOOP STEPPER DRIVER S Series

ES 43D



Features:

- New 32-bit ARM technology
- Ultra low vibration noise
- Built-in high subdivision
- Parameter power-on automatic setting function
- Variable current control can greatly reduce the heating of the motor
- At still the current is automatically halved
- Can drive 4,6,8-wire two-phase stepping motor from 20mm to 57mm size
- Optical isolated differential signal input
- Pulse response frequency up to 500 KHZ (factory default 200 Khz)
- The current setting is convenient, and can be selected from 0.1 to 3.0 A
- Subdivision is from 200-51200
- With over-voltage, under-voltage, over-current and other protection function

Electrical Specifications

Description	ES43D			Unit
	Minimum Value	Typical Value	Maximal Value	
Continuous output current	0.1	-	3.0	A
Power Supply Voltage (DC)	12	24	50	Vdc
Logic input current	6	10	16	mA
Logical input voltage	5	5	24	Vdc
Minimum pulse width of input signal	1.5	-	-	us
Step frequency	0	-	200	KHz
Insulation Resistance	500	-	-	MΩ

CURRENT SETTING

Peak	RMS	SW1	SW2	SW3	SW4
DEFAULT[0.1A]		ON	ON	ON	ON
0.28A	0.2A	OFF	ON	ON	ON
0.42A	0.3A	ON	OFF	ON	ON
0.60A	0.5A	OFF	OFF	ON	ON
0.84A	0.6A	ON	ON	OFF	ON
0.98A	0.7A	OFF	ON	OFF	ON
1.12A	0.8A	ON	OFF	OFF	ON
1.40A	1.0A	OFF	OFF	OFF	ON
1.68A	1.2A	ON	ON	ON	OFF
1.82A	1.3A	OFF	ON	ON	OFF
2.10A	1.5A	ON	OFF	ON	OFF
2.24A	1.6A	OFF	OFF	ON	OFF
2.38A	1.7A	ON	ON	OFF	OFF
2.52A	1.8A	OFF	ON	OFF	OFF
2.80A	2.0A	ON	OFF	OFF	OFF
3.00A	2.2A	OFF	OFF	OFF	OFF

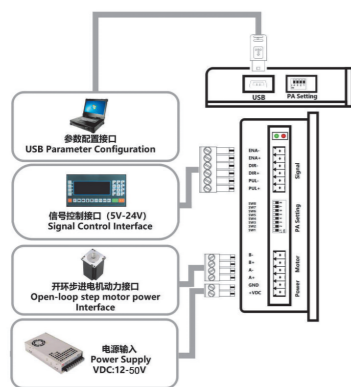
Note: If the current is standard product TD430S current, other current can be derived according to customer demand, can set the current range between 0.1-3.0 a arbitrary value.

Subdivision Setting/IO Internal Pulse Setting

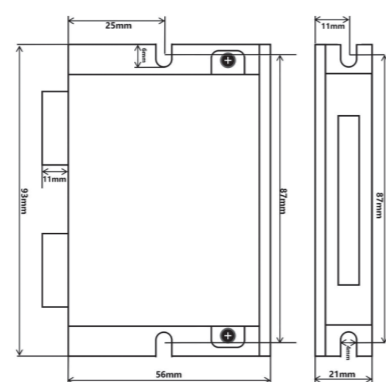
Pulse/rew	SW5	SW6	SW7	SW8	IO/RPM
Default[200]	ON	ON	ON	ON	10
400	OFF	ON	ON	ON	20
800	ON	OFF	ON	ON	30
1600	OFF	OFF	ON	ON	40
3200	ON	ON	OFF	ON	50
3600	OFF	ON	OFF	ON	60
6400	ON	OFF	OFF	ON	80
12800	OFF	OFF	OFF	ON	100
1000	ON	ON	ON	OFF	120
2000	OFF	ON	ON	OFF	150
4000	ON	OFF	ON	OFF	200
5000	OFF	OFF	ON	OFF	250
7200	ON	ON	OFF	OFF	300
8000	OFF	ON	OFF	OFF	350
10000	ON	OFF	OFF	OFF	450
512000	OFF	OFF	OFF	OFF	600

Note: The above subdivides into the standard product TD430S subdivides, other subdivides may according to the customer demand derivation, can set subdivides the scope between 200-51200 any value.

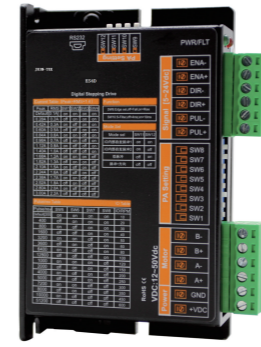
Product Diagram



Product Dimension



ES 4D



Features:

- New 32-bit ARM technology
- Ultra low vibration noise
- Built-in high subdivision
- Parameter power-on automatic setting function
- Variable current control can greatly reduce the heating of the motor
- At rest the current is automatically halved
- Can drive 4,6,8-wire two-phase stepping motor
- Optical isolated differential signal input
- Pulse response frequency up to 500 KHZ (factory default 200 Khz)
- The current setting is convenient, and can be anywhere from 0.1 to 3.0 A
- Subdivision is from 200 to 51200
- With over-voltage, under-voltage, over-current and other protection function

Electrical Specifications

Description	ES4D			
	Minimum Value	Typical Value	Maximal Value	Unit
Continuous output current	0.1	-	3.0	A
Power Supply Voltage (DC)	12	24	50	Vdc
Logic input current	6	10	16	mA
Logical input voltage	5	5	24	Vdc
Minimum pulse width of input signal	1.5	-	-	us
Step frequency	0	-	200	KHz
Insulation Resistance	500	-	-	MΩ

Function setting

SW9:Edge sel,OFF=Fall (Falling Edge) ;
ON=Rise(Rising Edge)
SW10:S-Filter,OFF=4ms (High-response) ;
on=10ms (Low vibration)

Mode sel	Sw11	Sw12
Io internal spontaneous pulse	ON	ON
Self-check	ON	OFF
Double Pulse	OFF	ON
Pulse+ Direction	OFF	OFF

CURRENT SETTING

PEAK	RMS	SW1	SW2	SW3	SW4
DEFAULT[0.1A]		ON	ON	ON	ON
0.28A	0.2A	OFF	ON	ON	ON
0.42A	0.3A	ON	OFF	ON	ON
0.60A	0.5A	OFF	OFF	ON	ON
0.84A	0.6A	ON	ON	OFF	ON
0.98A	0.7A	OFF	ON	OFF	ON
1.12A	0.8A	ON	OFF	OFF	ON
1.40A	1.0A	OFF	OFF	OFF	ON
1.68A	1.2A	ON	ON	ON	OFF
1.82A	1.3A	OFF	ON	ON	OFF
2.10A	1.5A	ON	OFF	ON	OFF
2.24A	1.6A	OFF	OFF	ON	OFF
2.38A	1.7A	ON	ON	OFF	OFF
2.52A	1.8A	OFF	ON	OFF	OFF
2.80A	2.0A	ON	OFF	OFF	OFF
3.00A	2.2A	OFF	OFF	OFF	OFF

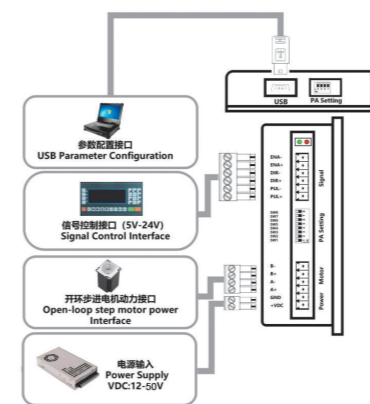
Note: If the current is standard product TD430S current, other current can be derived according to customer demand, can set the current range between 0.1-3.0 a arbitrary value.

Subdivision setting/IO internal spontaneous pulse setting

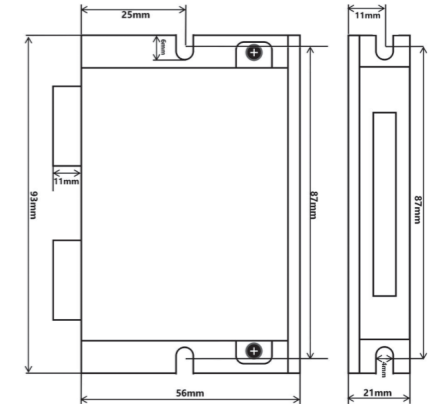
Pulse/rew	SW5	SW6	SW7	SW8	IO/RPM
Default[200]	ON	ON	ON	ON	10
400	OFF	ON	ON	ON	20
800	ON	OFF	ON	ON	30
1600	OFF	OFF	ON	ON	40
3200	ON	ON	OFF	ON	50
3600	OFF	ON	OFF	ON	60
6400	ON	OFF	OFF	ON	80
12800	OFF	OFF	OFF	ON	100
1000	ON	ON	ON	OFF	120
2000	OFF	ON	ON	OFF	150
4000	ON	OFF	ON	OFF	200
5000	OFF	OFF	ON	OFF	250
7200	ON	ON	OFF	OFF	300
8000	OFF	ON	OFF	OFF	350
10000	ON	OFF	OFF	OFF	450
512000	OFF	OFF	OFF	OFF	600

Note: The above subdivides into the standard product TD430S subdivides, other subdivides may according to the customer demand derivation, can set subdivides the scope between 200-51200 any value.

Product Diagram



Product Dimension



ES 6C



Features:

- New 32 Bit DSP Technology
- Ultra-low vibration noise
- Built-in high subdivision
- Automatic parameter power-on setting function
- Variable current control greatly reduces the heat generation of the motor.
- Automatic halving of current at rest
- Can drive 4,6,8-wire two-phase stepping motor
- Photoelectric isolated differential signal input
- Photoelectric isolation, alarm output
- Impulse response frequency up to 500KHz (factory default 200KHz)
- Voltage Range DC 15-50VDC or AC 12-36Vac
- The current setting is convenient and can be selected between 1.0-6.0 A
- subdivision set range 200-51200, higher can be customized
- It has the protection functions of overvoltage, under-voltage and overcurrent.
- It has rising/falling edge, IO control spontaneous pulse, single/double pulse, high response/high speed and low vibration, self-measuring function

Electrical Specifications

Description	ES6C			
	Min Value	Typical Value	Max Value	Unit
Continuous output current	0.1	-	6.0	A
Power Supply Voltage (DC/AC)	15/12	36/24	50/36	Vdc/Vac
Logic input current	6	10	16	mA
Logical input voltage	5	5	24	Vdc
Pulse Frequency	0	-	200	KHz
Pulse high width	1.5	-	-	US
Insulation Resistance	100	-	-	MΩ

Function setting

SW9:Edge sel,OFF=Fall (Falling Edge) ;
ON=Rise(Rising Edge)
SW10:S-Filter,OFF=4ms (High-response) ;
on=10ms (Low vibration)

Mode sel	Sw11	Sw12
Io internal spontaneous pulse	ON	ON
Self-check	ON	OFF
Double Pulse	OFF	ON
Pulse+ Direction	OFF	OFF

CURRENT SETTING

Peak	RMS	Sw1	Sw2	Sw3
Default[RMS=1.0A]		OFF	OFF	OFF
2.1A	1.5A	ON	OFF	OFF
2.7A	1.9A	OFF	ON	OFF
3.2A	2.3A	ON	ON	OFF
3.8A	2.7A	OFF	OFF	ON
4.3A	3.1A	ON	OFF	ON
4.9A	3.5A	OFF	ON	ON
6.0A	4.3A	ON	ON	ON

Sw4 is a half-current function, when SW4 = OFF, is half-current settings, when SW4 = ON, current static state is full-current axis locked

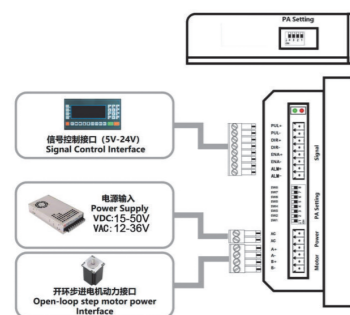
Note: Above current is standard product ES6C current, other current can be derived according to customer demand, current setting range is between 1.0-6.0A.

Subdivision setting/IO internal spontaneous pulse setting

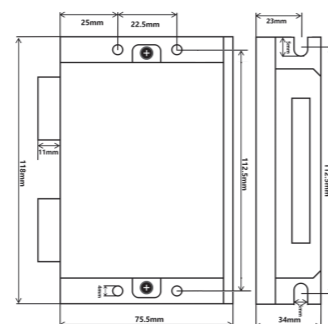
Pulse/rew	SW5	SW6	SW7	SW8	IO/RPM
Default[200]	ON	ON	ON	ON	10
400	OFF	ON	ON	ON	20
800	ON	OFF	ON	ON	30
1600	OFF	OFF	ON	ON	40
3200	ON	ON	OFF	ON	50
6400	OFF	ON	OFF	ON	60
12800	ON	OFF	OFF	ON	80
25600	OFF	OFF	OFF	ON	100
1000	ON	ON	ON	OFF	120
2000	OFF	ON	ON	OFF	150
4000	ON	OFF	ON	OFF	200
5000	OFF	OFF	ON	OFF	250
8000	ON	ON	OFF	OFF	300
10000	OFF	ON	OFF	OFF	350
20000	ON	OFF	OFF	OFF	450
25000	OFF	OFF	OFF	OFF	600

Note: The above subdivision is the standard product ES6C, other subdivides can derive according to the customer demand , subdivides can set between 200-51200 .

Product Diagram



Product Dimension



ES 6A



Features:

- New 32 Bit DSP Technology
- Ultra-low vibration noise
- Built-in high subdivision
- Automatic parameter power-on setting function
- Variable current control greatly reduces the heat generation of the motor.
- Automatic halving of current at static
- Can drive 4,6,8-wire two-phase stepping motor
- Photoelectric isolated differential signal input
- Photoelectric isolation, alarm output
- Impulse response frequency up to 500KHz (factory default 200KHz)
- Voltage Range DC 24-80VDC or AC 20-60Vac
- The current setting is convenient and can be selected between 1.0-6.0 A
- subdivision set range 200-51200, higher can be customized
- It has the protection functions of overvoltage, under-voltage and overcurrent.
- It has rising/falling edge, IO control spontaneous pulse, single/double pulse, high response/high speed and low vibration, self-measuring function

Electrical Specifications

Description	ES6A			
	Min Value	Typical Value	Max Value	Unit
Continuous output current	0.1	-	6.0	A
Power Supply Voltage (DC/AC)	24/20	24/36/48	80/60	Vdc/Vac
Logic input current	6	10	16	mA
Logical input voltage	5	5	24	Vdc
Pulse Frequency	0	-	200	KHz
Pulse high width	1.5	-	-	US
Insulation Resistance	100	-	-	MΩ

Function setting

SW9:Edge sel,OFF=Fall (Falling Edge) ;
ON=Rise(Rising Edge)
SW10:S-Filter,OFF=4ms (High-response) ;
on=10ms (Low vibration)

Mode sel	Sw11	Sw12
Io internal spontaneous pulse	ON	ON
Self-check	ON	OFF
Double Pulse	OFF	ON
Pulse+ Direction	OFF	OFF

CURRENT SETTING

Peak	RMS	Sw1	Sw2	Sw3
Default[RMS=1.0A]		OFF	OFF	OFF
2.1A	1.5A	ON	OFF	OFF
2.7A	1.9A	OFF	ON	OFF
3.2A	2.3A	ON	ON	OFF
3.8A	2.7A	OFF	OFF	ON
4.3A	3.1A	ON	OFF	ON
4.9A	3.5A	OFF	ON	ON
6.0A	4.3A	ON	ON	ON

Sw4 is a half-current function, when SW4 = OFF, is half-current settings, when SW4 = ON, current static state is full-current axis locked

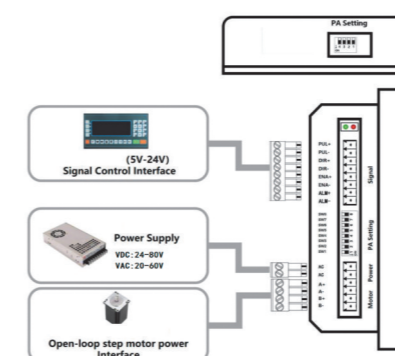
Note: Above current is standard product ES6A current, other current can be derived according to customer demand, current setting range is between 1.0-6.0A.

Subdivision setting/IO internal spontaneous pulse setting

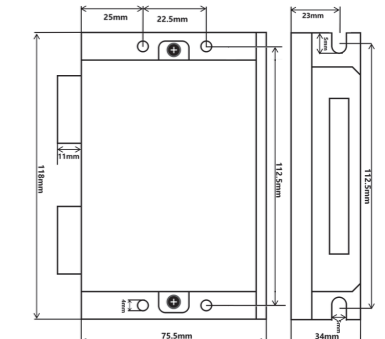
Pulse/rew	SW5	SW6	SW7	SW8	IO/RPM
Default[200]	ON	ON	ON	ON	10
400	OFF	ON	ON	ON	20
800	ON	OFF	ON	ON	30
1600	OFF	OFF	ON	ON	40
3200	ON	ON	OFF	ON	50
6400	OFF	ON	OFF	ON	60
12800	ON	OFF	OFF	ON	80
25600	OFF	OFF	OFF	ON	100
1000	ON	ON	ON	OFF	120
2000	OFF	ON	ON	OFF	150
4000	ON	OFF	ON	OFF	200
5000	OFF	OFF	ON	OFF	250
8000	ON	ON	OFF	OFF	300
10000	OFF	ON	OFF	OFF	350
20000	ON	OFF	OFF	OFF	450
25000	OFF	OFF	OFF	OFF	600

Note: The above subdivision is the standard product ES6A, other subdivides can derive according to the customer demand , subdivides can set between 200-51200 .

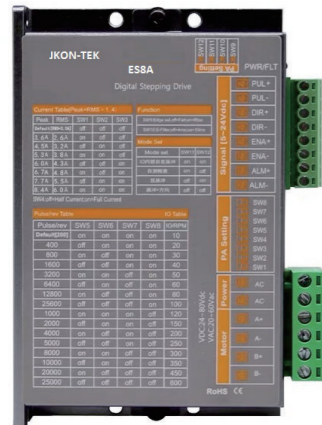
Product Diagram



Product Dimension



ES 8A



Features:

- New 32 Bit DSP Technology
- Ultra-low vibration noise
- Built-in high subdivision
- Automatic parameter power-on setting function
- Variable current control greatly reduces the heat generation of the motor.
- Automatic halving of current at rest
- Can drive 4,6,8-wire two-phase stepping motor
- Photoelectric isolated differential signal input
- Photoelectric isolation, alarm output
- Impulse response frequency up to 500KHz (factory default 200KHz)
- Voltage Range DC 24-80VDC or AC 20-60Vac
- The current setting is convenient and can be selected between 2.0-8.4A
- subdivision set range 200-51200, higher can be customized
- It has the protection functions of overvoltage, under-voltage and overcurrent.
- It has rising/falling edge, IO control spontaneous pulse, single/double pulse, high response/high speed and low vibration, self-measuring function

Electrical Specifications

Description	ES8A			
	Min Value	Typical Value	Max Value	Unit
Continuous output current	0.1	-	8.4	A
Power Supply Voltage (DC/AC)	24/20	24/36/48	80/60	Vdc/Vac
Logic input current	6	10	16	mA
Logical input voltage	5	5	24	Vdc
Pulse Frequency	0	-	200	KHz
Pulse high width	1.5	-	-	US
Insulation Resistance	100	-	-	MΩ

Function setting

SW9:Edge sel,OFF=Fall (Falling Edge) ;
ON=Rise(Rising Edge)
SW10:S-Filter,OFF=4ms (High-response) ;
on=10ms (Low vibration)

Mode sel	Sw11	Sw12
Io internal spontaneous pulse	ON	ON
Self-check	ON	OFF
Double Pulse	OFF	ON
Pulse+ Direction	OFF	OFF

CURRENT SETTING

Peak	RMS	Sw1	Sw2	Sw3
Default[RMS=2.0A]		OFF	OFF	OFF
3.6A	2.6A	ON	OFF	OFF
4.5A	3.2A	OFF	ON	OFF
5.3A	3.8A	ON	ON	OFF
6.0A	4.3A	OFF	OFF	ON
6.7A	4.8A	ON	OFF	ON
7.7A	5.5A	OFF	ON	ON
8.4A	6.0A	ON	ON	ON

Sw4 is a half-current function, when SW4 = OFF, is half-current settings, when SW4 = ON, current static state is full-current axis locked

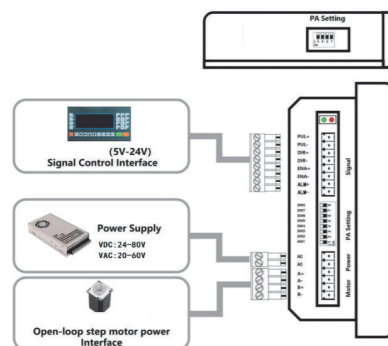
Note: Above current is standard product ES8A current, other current can be derived according to customer demand, current setting range is between 1.0-6.0A.

Subdivision setting/IO internal spontaneous pulse setting

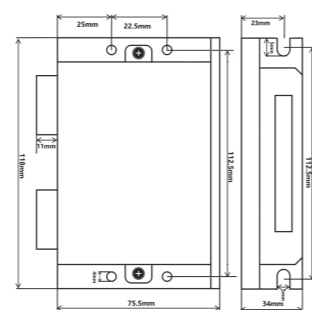
Pulse/rew	SW5	SW6	SW7	SW8	IO/RPM
Default[200]	ON	ON	ON	ON	10
400	OFF	ON	ON	ON	20
800	ON	OFF	ON	ON	30
1600	OFF	OFF	ON	ON	40
3200	ON	ON	OFF	ON	50
6400	OFF	ON	OFF	ON	60
12800	ON	OFF	OFF	ON	80
25600	OFF	OFF	OFF	ON	100
1000	ON	ON	ON	OFF	120
2000	OFF	ON	ON	OFF	150
4000	ON	OFF	ON	OFF	200
5000	OFF	OFF	ON	OFF	250
8000	ON	ON	OFF	OFF	300
10000	OFF	ON	OFF	OFF	350
20000	ON	OFF	OFF	OFF	450
25000	OFF	OFF	OFF	OFF	600

Note: The above subdivision is the standard product ES8A, other subdivides can derive according to the customer demand , subdivides can set between 200-51200 .

Product Diagram



Product Dimension



ES 8AH



Features:

- New 32 Bit DSP Technology
- Ultra-low vibration noise
- Built-in high subdivision
- Automatic parameter setting function when power on
- Variable current control greatly reduces the heat generation of the motor.
- Automatic halving of current at static
- Can drive 4,6,8-wire two-phase stepping motor
- Photoelectric isolated differential signal input
- Photoelectric isolation, alarm output
- Impulse response frequency up to 500KHz (factory default 200KHz)
- Voltage Range DC 24-110VDC or AC 20-80Vac
- The current setting is convenient and can be selected between 2.0-8.4 A
- Subdivision set range is 200-51200, higher can customize
- It has the protection functions of over-voltage, under-voltage and overcurrent.
- It has rising/falling edge, IO control spontaneous pulse, single/double pulse, high response/high speed and low vibration, self-test function

Electrical Specifications

Description	ES8AH			
	Min Value	Typical Value	Max Value	Unit
Continuous output current	2.0	-	8.4	A
Power Supply Voltage (DC/AC)	24/20	24/36/48	110/80	Vdc/Vac
Logic input current	6	10	16	mA
Logical input voltage	5	5	24	Vdc
Pulse Frequency	0	-	200	KHz
Pulse high width	1.5	-	-	US
Insulation Resistance	100	-	-	MΩ

Function setting

SW9:Edge sel,OFF=Fall (Falling Edge) ;
ON=Rise(Rising Edge)
SW10:S-Filter,OFF=4ms (High-response) ;
on=10ms (Low vibration)

Mode sel	Sw11	Sw12
Io internal spontaneous pulse	ON	ON
Self-check	ON	OFF
Double Pulse	OFF	ON
Pulse+ Direction	OFF	OFF

CURRENT SETTING

Peak	RMS	Sw1	Sw2	Sw3
Default[RMS=2.0A]		ON	ON	ON
3.6A	2.57A	OFF	ON	ON
4.5A	3.14A	ON	OFF	ON
5.3A	3.71A	OFF	OFF	ON
6.0A	4.28A	ON	ON	OFF
6.7A	4.86A	OFF	ON	OFF
7.7A	5.43A	ON	OFF	OFF
8.4A	6.00A	OFF	OFF	OFF

Sw4 is a half-current function, when SW4 = OFF, is half-current settings, when SW4 = ON, current static state is full-current axis locked

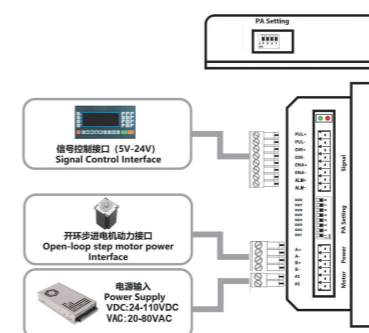
Note: Above current is standard product ES6A current, other current can be derived according to customer demand, current setting range is between 2.0-8.4A.

Subdivision setting/IO internal spontaneous pulse setting

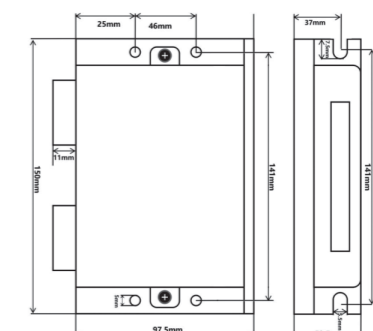
Pulse/rew	SW5	SW6	SW7	SW8	IO/RPM
Default[200]	ON	ON	ON	ON	10
400	OFF	ON	ON	ON	20
800	ON	OFF	ON	ON	30
1600	OFF	OFF	ON	ON	40
3200	ON	ON	OFF	ON	50
6400	OFF	ON	OFF	ON	60
12800	ON	OFF	OFF	ON	80
25600	OFF	OFF	OFF	ON	100
1000	ON	ON	ON	OFF	120
2000	OFF	ON	ON	OFF	150
4000	ON	OFF	ON	OFF	200
5000	OFF	OFF	ON	OFF	250
8000	ON	ON	OFF	OFF	300
10000	OFF	ON	OFF	OFF	350
20000	ON	OFF	OFF	OFF	450
40000	OFF	OFF	OFF	OFF	600

Note: The above subdivides are the standard product ES8AH' s, other subdivides can derive based on customer' s demand, the setting value is between 200-51200.

Product Diagram



Product Dimension



EtherCAT BUS STEPPER DRIVER

EST-525(open loop)



- Features:
- 1.New floating point 32bit MCU technology
 2. Auto –Tuning after power up
 - 3.3 channels opto–coupler isolation output
 - 4.Advanced vector control technology
 - 5.5 channels opto–coupler isolation input,2 of them are high speed opto coupler isolation input
 - 6.Communication Frequency up to 100MHz
 - 7.DIPs can set 127 IPs or automatic allocate IP
 - 8.Current setting range 0.3–2.5A(peak),the default is 1.5A
 - 9.The default subdivision is 50000,can change through software
 - 10.Smooth movement and ultra– low noise
 - 11.The matched motor can be nema11,nema14,nema17 open loop stepper motor

Electrical Specifications

Parameters	EST-525			Unit
	Min	Typical	Max	
Output current[PK]	0.5	–	2.5	A
Supply voltage	24	24/36	50	Vdc
Logic input current	7	10	16	mA
Logic input voltage	5	5	24	Vdc
OC output pull–up voltage	5	–	24	VDC
EtherCAT frequency	–	100	–	MHz
Isolation resistance	100	–	–	MΩ

CURRENT SETTING

Current(peak)	Current(RMS)	Sw1	Sw2	Sw3
Default[0.3A]				
0.6A	0.4A	OFF	ON	ON
0.8A	0.6A	ON	OFF	ON
1.4A	1.0A	ON	ON	OFF
1.7A	1.2A	OFF	ON	OFF
2.1A	1.5A	ON	OFF	OFF
2.5A	1.8A	OFF	OFF	OFF

Standstill current setting

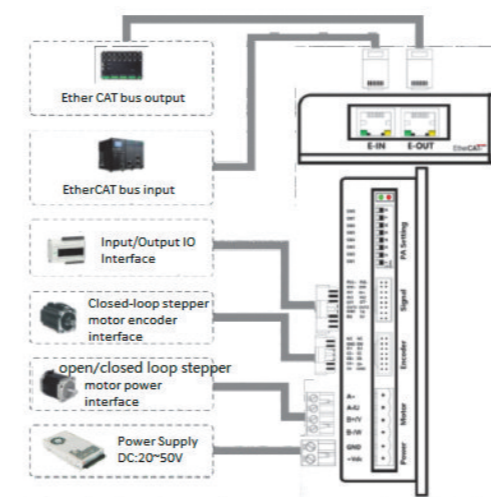
Sw4 is used for this purpose. OFF meaning that the standstill current is software configured, and ON meaning that standstill current is set to be the same as the selected dynamic current. Generally, set the SW4 to be off , that can reduce the heating of motor

Function Setting

Initial Motor direction setting			
Direction	Sw5	Remark	
CCW	OFF	Forward rotation	
CW	ON	Back–forward rotation	

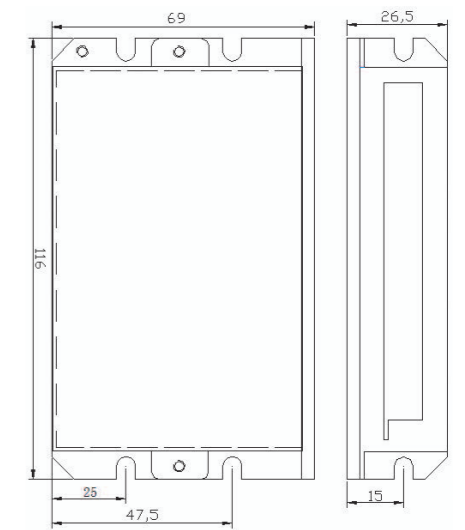
Smoothing filter time setting			
Filter Sel	Sw6	Sw7	Description
Default [0ms]	ON	ON	The more higher value for smoothing filter time setting, the more better performance for the Acc and Dec,but worse performance for the interpolation
2ms	OFF	ON	
12ms	ON	OFF	
25ms	OFF	OFF	

Product Diagram



※ Please refer to the product manual for communication content and protocol description.

Product Dimension(Unit:mm)



EST-556(open loop)



Features:

- New floating point 32bit MCU technology
- Auto-Tuning after power up
- 3 channels opto-coupler isolation output
- Advanced vector control technology greatly reduce the motor heating
- 5 channels opto-coupler isolation input, 2 of them are high speed opto-coupler isolation input
- Communication Frequency up to 100MHz
- DIPs can set 127 IPs or automatic allocate IP
- Current setting range 1-6A(peak), the default is 4A(peak current)
- The default subdivision is 50000, can change through software
- Smooth movement and ultra-low noise
- The matched motor can be nema17, nema23, nema24 open loop stepper motor
- With setting serial port and tuning function

Electrical Specifications

Parameters	EST-556			Unit
	Min	Typical	Max	
Output current[PK]	1	-	6	A
Supply voltage	20	24/36	50	Vdc
Logic input current	6	10	16	mA
Logic input voltage	5	5	24	Vdc
OC output pull-up voltage	5	-	24	VDC
EtherCAT frequency	-	100	-	MHz
Isolation resistance	100	-	-	MΩ

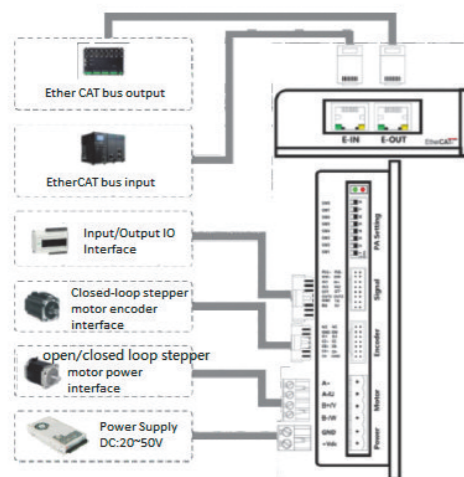
CURRENT SETTING

Current(peak)	Current(RMS)	Sw1	Sw2	Sw3
Default[1A]				
2.1A	1.5A	OFF	ON	ON
2.8A	2.0A	ON	OFF	ON
3.5A	2.5A	OFF	OFF	ON
3.9A	2.8A	ON	ON	OFF
4.4A	3.2A	OFF	ON	OFF
5.0A	3.6A	ON	OFF	OFF
6.0A	4.2A	OFF	OFF	OFF

Standstill current setting

Sw4 is used for this purpose. OFF meaning that the standstill current is software configured, and ON meaning that standstill current is set to be the same as the selected dynamic current. Generally, set the SW4 to be off, that can reduce the heating of motor

Product Diagram

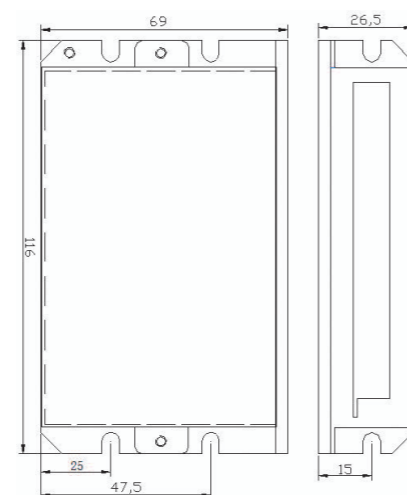


※ Please refer to the product manual for communication content and protocol description.

Function Setting

Initial Motor direction setting			
Direction	Sw5	Remark	
CCW	OFF	Forward rotation	
CW	ON	Back-forward rotation	
Smoothing filter time setting			
Filter Sel	Sw6	Sw7	Description
Default [0ms]	ON	ON	The more higher value for smoothing filter time setting, the more better performance for the Acc and Dec, but worse performance for the interpolation
2ms	OFF	ON	
12ms	ON	OFF	
25ms	OFF	OFF	

Product Dimension(Unit:mm)



EST-584(open loop)



Features:

- New floating point 32bit MCU technology
- Auto-Tuning after power up
- 3 channels opto-coupler isolation output
- Advanced vector control technology greatly reduce the motor heating
- 5.5 channels opto-coupler isolation input, 2 of them are high speed opto-coupler isolation input
- Communication Frequency up to 100MHz
- DIPs can set 127 IPs or automatic allocate IP
- Current setting range 2-8.4A(peak), the default is 4A(peak current)
- The default subdivision is 50000, can change through software
- Smooth movement and ultra-low noise
- The matched motor can be nema23, nema24, nema34 open loop stepper motor
- With setting serial port and tuning function

Electrical Specifications

Parameters	EST-584			Unit
	Min	Typical	Max	
Output current[PK]	2.0	-	8.4	A
Supply voltage	20	24/36	75	Vdc
Logic input current	6	10	16	mA
Logic input voltage	5	5	24	Vdc
OC output pull-up voltage	5	-	24	VDC
EtherCAT frequency	-	100	-	MHz
Isolation resistance	100	-	-	MΩ

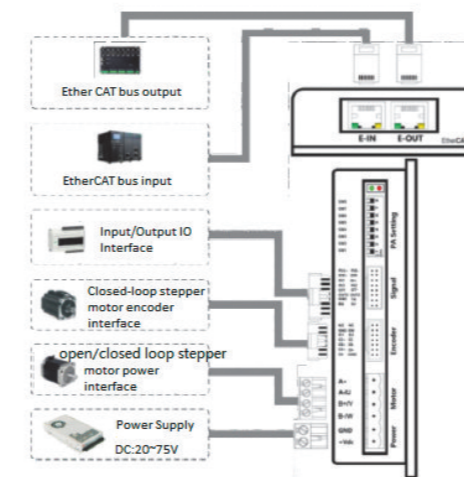
CURRENT SETTING

Current(peak)	Current(RMS)	Sw1	Sw2	Sw3
Default[1A]				
3.5A	2.5A	OFF	ON	ON
4.5A	3.2A	ON	OFF	ON
5.2A	3.7A	OFF	OFF	ON
5.8A	4.2A	ON	ON	OFF
6.7A	4.8A	OFF	ON	OFF
7.7A	5.5A	ON	OFF	OFF
8.4A	6.0A	OFF	OFF	OFF

Standstill current setting

Sw4 is used for this purpose. OFF meaning that the standstill current is software configured, and ON meaning that standstill current is set to be the same as the selected dynamic current. Generally, set the SW4 to be off, that can reduce the heating of motor

Product Diagram



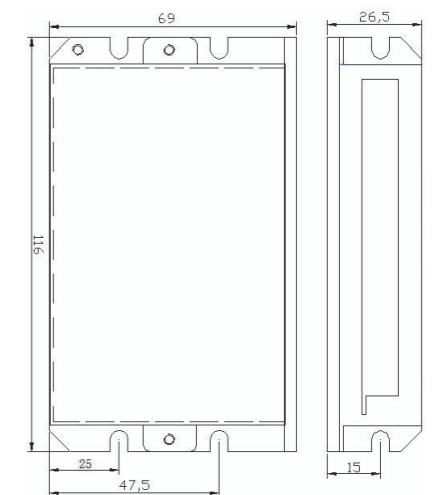
※ Please refer to the product manual for communication content and protocol description.

Function Setting

Initial Motor direction setting		
Direction	Sw5	Remark
CCW	OFF	Forward rotation
CW	ON	Back-forward rotation
Smoothing filter time setting		
Filter Sel	Sw6	Sw7
Default [0ms]	ON	ON
2ms	OFF	ON
12ms	ON	OFF
25ms	OFF	OFF

The more higher value for smoothing filter time setting, the more better performance for the Acc and Dec, but worse performance for the interpolation

Product Dimension(Unit:mm)



EHS-580(closed loop)



Features:

- 1.New floating point 32bit MCU technology
- 2.Auto –Tuning after power up
- 3.3 channels opto–coupler isolation output
- 4.Advanced vector control technology greatly reduce the motor heating
- 5.Encoder resolution can be 500~5000,the default is 1000PPREncoder
- 6.5 channels opto–coupler isolation input,2 of them are high speed opto coupler isolation input
- 7.Communication Frequency up to 100MHz
- 8.DIPs can set 127 IPs or automatic allocate IP
- 9.The default subdivision is 50000,can change through software
- 10.Smooth movement and ultra– low noise
- 11.The matched motor can be 20,28,35,42,57,60,86 frame size closed loop stepper motor
- 12.With setting serial port and tuning function

Electrical Specifications

Parameters	EHS-580			Unit
	Min	Typical	Max	
Output current[PK]	0.3	–	8	A
Supply voltage	20	24/36/48	75	Vdc
Logic input current	6	10	16	mA
Logic input voltage	5	5	24	Vdc
OC output pull–up voltage	5	–	24	VDC
EtherCAT frequency	–	100	–	MHz
Isolation resistance	100	–	–	MΩ

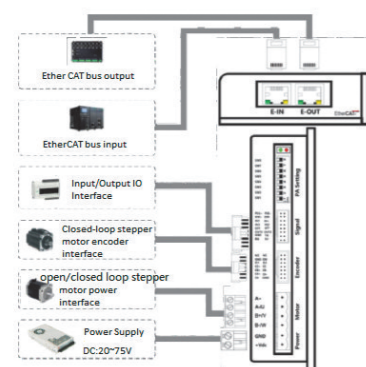
Function Setting

Closed loop stepper Motor setting			
Motor	Sw1	Sw2	Motor Setting
28	ON	ON	When SW1 and SW2 are setting to OFF, user can set the matched motor through software
42	OFF	ON	
57/60	ON	OFF	
Default[86]	OFF	OFF	
Open–loop/closed loop stepper motor setting			
Motor	Sw3		
Open loop	ON		
Closed loop	OFF		
Control Mode setting			
Control Mode	Sw4	Remark	
FOC	OFF	Vector closed loop control(ball–screw rotate)	
PM	ON	Power angle closed loop control(belt rotate)	

Function Setting

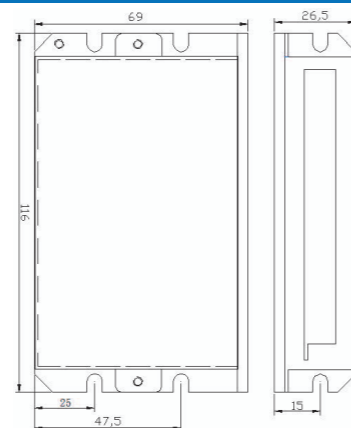
Motor initial direction setting			
Direction	Sw5	Remark	
CCW	OFF	Counter clockwise	
CW	ON	Clockwise	
Filter time setting			
Filter Sel	Sw6	Sw7	Remark
Default[0ms]	ON	ON	When SW6 and SW7 are set to ON/ON, user can set the filter time by software,and the max value is 25ms.The longer filter time,the better performance of acceleration and high speed, while interpolation effect becomes weak
2ms	OFF	ON	
12ms	ON	OFF	
25ms	OFF	OFF	

Product Diagram



* Please refer to the product manual for communication content and protocol description.

Product Dimension(Unit:mm)



LCD Display EtherCAT BUS STEPPER DRIVER

EST-6A(open loop)



Features:

- 1.New floating point 32bit MCU technology
- 2.Auto -Tunning after power up
- 3.4 channels opto-coupler isolation output
- 4.Variable current control technology greatly reduce the motor heating
- 5.5 channels opto-coupler isolation input,2 of them are high speed opto-coupler isolation input
- 6.Communication Frequency up to 100MHz
- 7.DIPs can set 127 IPs or automatic allocate IP
- 8.Current will be change in 1-6A according to the load
- 9.The default subdivision is 50000,can change through software

Electrical Specifications

Parameters	EST-6A			Unit
	Min	Typical	Max	
Output current[PK]	1	-	6.0	A
Supply voltage	20	24/36/48	80	Vdc
Logic input current	6	10	16	mA
Logic input voltage	5	5	24	Vdc
OC output pull-up voltage	5	-	24	VDC
EtherCAT frequency	-	100	-	MHz
Isolation resistance	100	-	-	MΩ

CURRENT SETTING

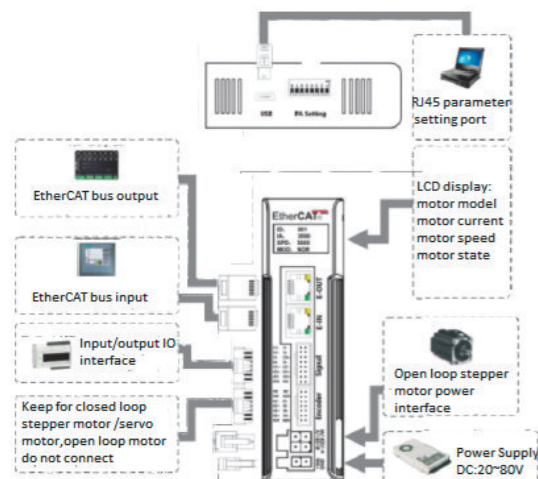
Current(peak)	Current(RMS)	Sw1	Sw2	Sw3
Default[1A]				
2.1A	1.5A	OFF	ON	ON
2.7A	1.9A	ON	OFF	ON
3.2A	2.3A	OFF	OFF	ON
3.8A	2.7A	ON	ON	OFF
4.3A	3.1A	OFF	ON	OFF
4.9A	3.5A	ON	OFF	OFF
5.6A	4.0A	OFF	OFF	OFF

When SW1,SW2 and SW3 are set to ON, user can set the demand current by software, max value is 6A,resolution is 0.1A.If no set, the default current is 1A.

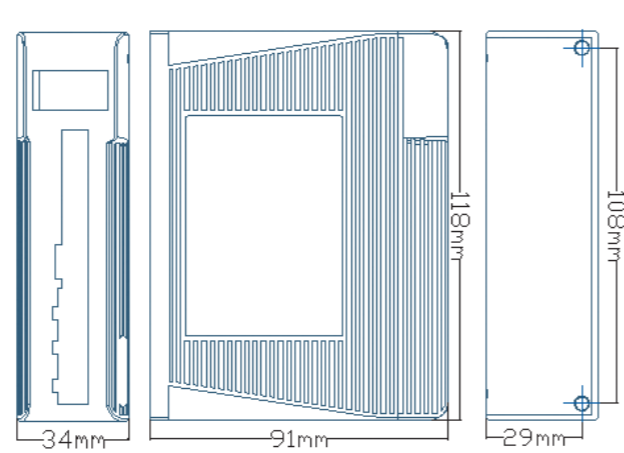
Function Setting

Standstill current setting			
Current	Sw4		
Half	OFF		
FULL	ON		
Initial Motor direction setting			
Direction	Sw5	Remark	
CCW	OFF	Forward rotation	
CW	ON	Back-forward rotation	
Smoothing filter time setting			
Filter Sel	Sw6	Sw7	Description
Default [0ms]	ON	ON	When SW6 and SW7 set to ON, user can set the filter time through software. The more higher value for smoothing filter time setting, the more better performance for the ACC and high speed, while the interpolation effect becomes weak
2ms	OFF	ON	
12ms	ON	OFF	
25ms	OFF	OFF	

Product Diagram



Product Dimension(Unit:mm)



EST-8A(open loop)



Features:

- 1.New floating point 32bit MCU technology
- 2.Auto -Tunning after power up
- 3.4 channels opto-coupler isolation output
- 4.Variable current control technology greatly reduce the motor heating
- 5.5 channels opto-coupler isolation input,2 of them are high speed opto-coupler isolation input
- 6.Communication Frequency up to 100MHz
- 7.DIPs can set 127 IPs or automatic allocate IP
- 8.Current will be change in 2-8A according to the load
- 9.The default subdivision is 50000,can change through software
- 10.Smooth movement and ultra- low noise
- 11.The matched motor can be 57,60,86 frame size open loop stepper motor

Electrical Specifications

Parameters	EST-8A			Unit
	Min	Typical	Max	
Output current[PK]	20	-	8.0	A
Supply voltage	20	24/36/48/60	80	Vdc
Logic input current	6	10	16	mA
Logic input voltage	5	5	24	Vdc
OC output pull-up voltage	5	-	24	VDC
EtherCAT frequency	-	100	-	MHz
Isolation resistance	100	-	-	MΩ

CURRENT SETTING

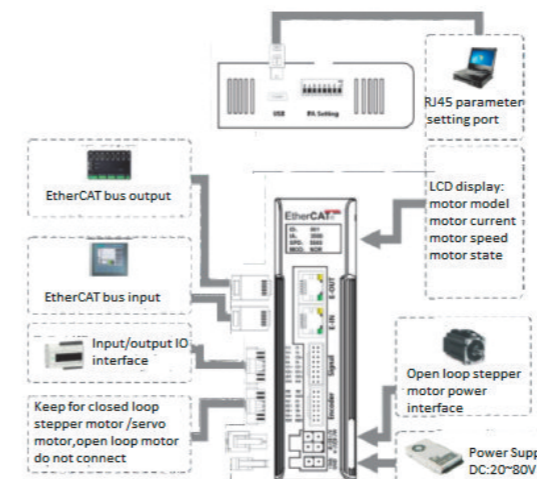
Current(peak)	Current(RMS)	Sw1	Sw2	Sw3
Default[2A]				
3.5A	2.5A	OFF	ON	ON
4.5A	3.2A	ON	OFF	ON
5.2A	3.7A	OFF	OFF	ON
5.8A	4.2A	ON	ON	OFF
6.7A	4.8A	OFF	ON	OFF
7.7A	5.5A	ON	OFF	OFF
8.0A	6.0A	OFF	OFF	OFF

When SW1,SW2 and SW3 are set to ON, user can set the demand current by software, max value is 8A,resolution is 0.1A.If no set, the default current is 2A.

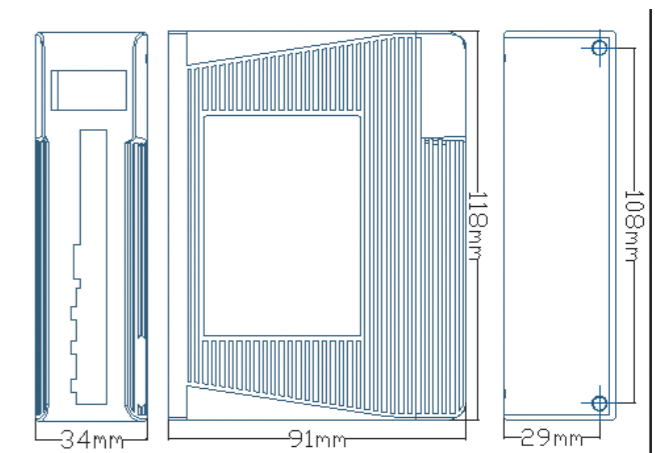
Function Setting

Standstill current setting			
Current	Sw4		
Half	OFF		
FULL	ON		
Initial Motor direction setting			
Direction	Sw5	Remark	
CCW	OFF	Counter clockwise	
CW	ON	Clockwise	
Smoothing filter time setting			
Filter Sel	Sw6	Sw7	Description
Default [0ms]	ON	ON	When SW6 and SW7 set to ON, user can set the filter time through software. The more higher value for smoothing filter time setting, the more better performance for the ACC and high speed, while the interpolation effect becomes weak
2ms	OFF	ON	
12ms	ON	OFF	
25ms	OFF	OFF	

Product Diagram



Product Dimension(Unit:mm)



EHS-808H(closed loop)



Features:

- 1.New floating point 32bit MCU technology
- 2.2 channels analog 0~5V input
- 3.Auto -Tuning after power up
- 4.4 channels opto-coupler isolation output
- 5.Variable current control technology greatly reduce the motor heating
- 6.Can set 500~5000 resolution encoder ,the default is 1000PPR
- 7.5 channels opto-coupler isolation input,2 of them are high speed opto-coupler isolation input
- 8.Communication Frequency up to 100MHz
- 9.DIPs can set 127 IPs or automatic allocate IP
- 10.Current will be change in 2~8A according to the load
- 11.The default subdivision is 50000,can change through software
- 12.Smooth movement and ultra- low noise
- 13.The matched motor can be 28,42,57,60,86 frame size easy servo motor

Electrical Specifications

Parameters	EHS-808H			Unit
	Min	Typical	Max	
Output current[PK]	0.5	-	8.0	A
Supply voltage	20	24/36/48	80	Vdc
Logic input current	6	10	16	mA
Logic input voltage	5	5	24	Vdc
OC output pull-up voltage	5	-	24	VDC
EtherCAT frequency	-	100	-	MHz
Isolation resistance	100	-	-	MΩ

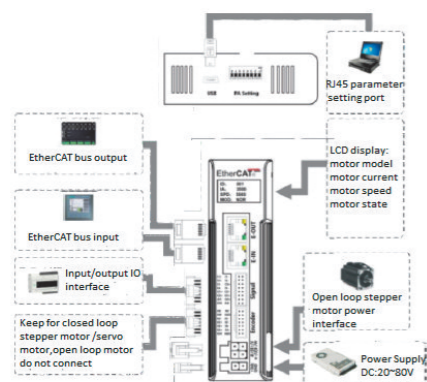
Function Setting

Closed loop stepper Motor setting			
Motor	Sw1	Sw2	Motor Setting
28	ON	ON	When SW1 and SW2 are setting to OFF, user can set the matched motor through software
42	OFF	ON	
57/60	ON	OFF	
Default[86]	OFF	OFF	
Open-loop/closed loop stepper motor setting			
Motor	Sw3		
Open loop	ON		
Closed loop	OFF		
Control Mode setting			
Control Mode	Sw4	Remark	
FOC	OFF	Vector closed loop control(ball-screw rotate)	
PM	ON	Power angle closed loop control(belt rotate)	

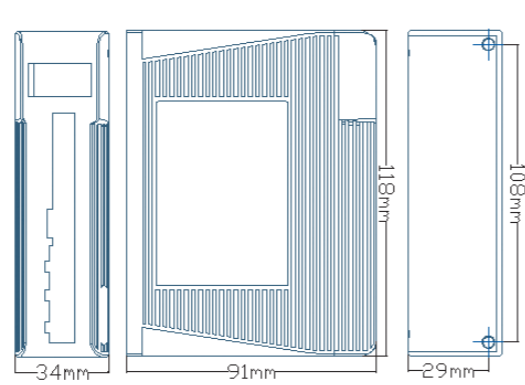
Function Setting

Motor initial direction setting			
Direction	Sw5	Remark	
CCW	OFF	Counter clockwise	
CW	ON	Clockwise	
Filter time setting			
Filter Sel	Sw6	Sw7	Remark
Default[0ms]	ON	ON	When SW6 and SW7 are set to ON/ON, user can set the filter time by software,and the max value is 25ms.The longer filter time,the better performance of acceleration and high speed, while interpolation effect becomes weak
2ms	OFF	ON	
12ms	ON	OFF	
25ms	OFF	OFF	

Product Diagram

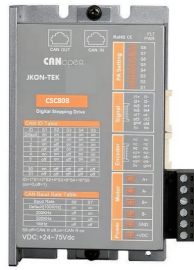


Product Dimension(Unit:mm)



CANopen BUS STEPPER DRIVER

CSO808(Open loop)



Features:

- 1.Latest 32bit DSP Technology
- 2.Serial Port And Auto Tune Function
- 3.4 channels opto-coupler isolation OC output
- 4.1 channel analog input(0~10V)
- 5.Advanced variable current control technology greatly reduces the motor heating
- 6.5 channels opto-coupler isolation input,2 of them are high speed opto-coupler isolation input
- 7.Communication Frequency up to 1Mhz(default is 9600hz)
- 8.Current setting range 0.1~8.4A
- 9.Over-voltage, under-voltage, over-current protection

Electrical Specifications

Parameters	CSO808			
	Min	Typical	Max	Unit
Output current[PK]	0.1	-	8.0	A
Supply voltage	24	36	75	Vdc
Control signal input current	6	10	16	mA
Control signal interface level	5	5	28	Vdc
OC output pull-up voltage	5		24	VDC
CAN OPEN frequency	1	-	1000	MHZ
Analog voltage input	0		5	Vdc
Isolation resistance	100	-	-	MΩ

Function Setting

ID	S1	S2	S3	S4	S5
Reserved(Default)	ON	ON	ON	ON	ON
1	OFF	ON	ON	ON	ON
2	ON	OFF	ON	ON	ON
3	OFF	OFF	ON	ON	ON
4	ON	ON	OFF	ON	ON
5	OFF	ON	OFF	ON	ON
.....
30	ON	OFF	OFF	OFF	OFF
31	OFF	OFF	OFF	OFF	OFF

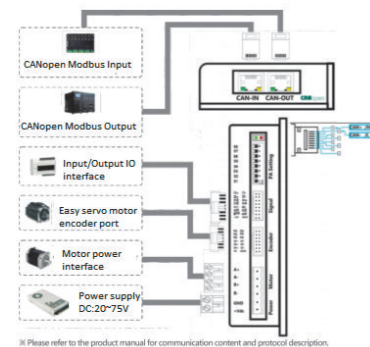
Control Signal Interface

Name	Function
PL+	High speed signal:pulse rising edge is effective,PL high level is 5~24VDC,low level is 0~0.5V.In order to reliably respond to the pulse signal,pulse width should be greater than 1.5us.
PL-	
DR+	
DR-	
IN+	Low speed signal: in1, in2, in3 common positive input,5~24VDC compatible
IN1	Low speed in1 negative input
IN2	Low speed in2 negative input
IN3	Low speed in3 negative input
OT-	Common negative OC emitter output, ot1, ot2, ot3 emitter OC output common terminal
OT1	ot1emitter output, the Max pull-up voltage 24Vdc, the pull-up resistance 2KΩ, the Max output current 100mA
OT2	ot2 emitter output, the Max pull-up voltage 24Vdc, the pull-up resistance 2KΩ, the Max output current 100mA
OT3	ot3 emitter output, the Max pull-up voltage 24Vdc, the pull-up resistance 2KΩ, the Max output current 100mA
OT4	ot4 emitter output, the Max pull-up voltage 24Vdc, the pull-up resistance 2KΩ, the Max output current 100mA
5V	Provide 5V voltage to analogy input, current 50mA
Ain	Analogy input, input range 0~5V
GND	Analogy input reference terminal negative

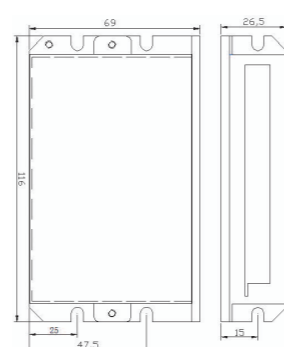
CAN Baud Rate Table

Baud Rate	Sw6	Sw7
100KHz(can be set by PC)	ON	ON
200KHz	OFF	ON
500KHz	ON	OFF
1MHz(Default)	OFF	OFF

Product Diagram



Product Dimension(Unit:mm)



CSC808(Closed loop)



Features:

- 1.Latest 32bit DSP Technology
- 2.Serial Port And Auto Tune Function
- 3.4 channels opto-coupler isolation OC output
- 4.1 channel analog input(0~10V)
- 5.Advanced variable current control technology greatly reduces the motor heating
- 6.Can drive the easy servo motor 28,42,57,60 and 86 frame size
- 7.5 channels opto-coupler isolation input,2 of them are high speed opto-coupler isolation input
- 8.Communication Frequency up to 1Mhz(default is 1Mhz)
- 9.Current setting range 0.1~8.0A
- 10.Over-voltage, under-voltage, over-current protection

Electrical Specifications

Parameters	CSC-808			
	Min	Typical	Max	Unit
Output current[PK]	0.5	-	8.0	A
Supply voltage	24	24/36/48	75	Vdc
Control signal input current	6	10	16	mA
Control signal interface level	5	5	28	Vdc
OC output pull-up voltage	5		24	VDC
CAN OPEN frequency	1	-	1000	MHZ
Analog voltage input	0		5	Vdc
Isolation resistance	100	-	-	MΩ

Function Setting

ID	S1	S2	S3	S4	S5
Reserved(Default)	ON	ON	ON	ON	ON
1	OFF	ON	ON	ON	ON
2	ON	OFF	ON	ON	ON
3	OFF	OFF	ON	ON	ON
4	ON	ON	OFF	ON	ON
5	OFF	ON	OFF	ON	ON
.....
30	ON	OFF	OFF	OFF	OFF
31	OFF	OFF	OFF	OFF	OFF

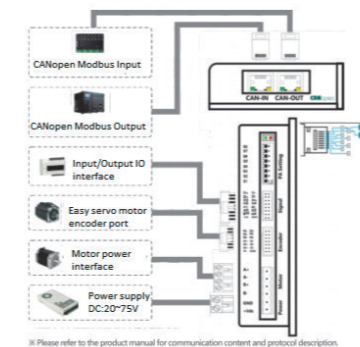
Control Signal Interface

Name	Function
PL+	High speed signal:pulse rising edge is effective,PL high level is 5~24VDC,low level is 0~0.5V.In order to reliably respond to the pulse signal,pulse width should be greater than 1.5us.
PL-	
DR+	
DR-	
IN+	Low speed signal: in1, in2, in3 common positive input,5~24VDC compatible
IN1	Low speed in1 negative input
IN2	Low speed in2 negative input
IN3	Low speed in3 negative input
OT-	Common negative OC emitter output, ot1, ot2, ot3 emitter OC output common terminal
OT1	ot1emitter output, the Max pull-up voltage 24Vdc, the pull-up resistance 2KΩ, the Max output current 100mA
OT2	ot2 emitter output, the Max pull-up voltage 24Vdc, the pull-up resistance 2KΩ, the Max output current 100mA
OT3	ot3 emitter output, the Max pull-up voltage 24Vdc, the pull-up resistance 2KΩ, the Max output current 100mA
OT4	ot4 emitter output, the Max pull-up voltage 24Vdc, the pull-up resistance 2KΩ, the Max output current 100mA
5V	Provide 5V voltage to analogy input, current 50mA
Ain	Analogy input, input range 0~5V
GND	Analogy input reference terminal negative

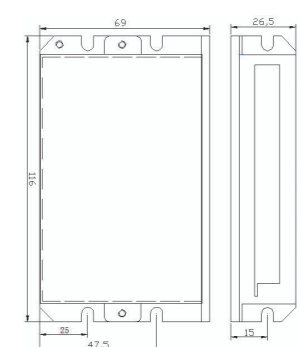
CAN Baud Rate Table

Baud Rate	Sw6	Sw7
100KHz(can be set by PC)	ON	ON
200KHz	OFF	ON
500KHz	ON	OFF
1MHz(Default)	OFF	OFF

Product Diagram



Product Dimension(Unit:mm)



RS485 BUS STEPPER DRIVER

RSO872(open loop)



Features:

- 1.Latest 32bit DSP Technology
- 2.Serial Port And Auto Tune Function
- 3.2 channels opto-coupler isolation OC output
- 4.1 channel analog input(0~10V)
- 5.Advanced variable current control technology greatly reduces the motor heating
- 6.5 channels opto-coupler isolation input,2 of them are high speed opto-coupler isolation input
- 7.Communication Frequency up to 1Mhz(default is 9600hz)
- 8.Current setting range 0.1~7.2A
- 9.Over-voltage, under-voltage, over-current protection
- 10.Can drive 20,28,42,57,60,86 frame size stepper motor

Electrical Specifications

Parameters	RSO870			
	Min	Typical	Max	Unit
Output current[PK]	0.1	-	7.2	A
Supply voltage	24	24/36/48	75	Vdc
Control signal input current	6	10	16	mA
Control signal interface level	5	5	24	Vdc
OC output pull-up voltage	5		24	VDC
CAN OPEN frequency	1	-	1000	MHZ
Analog voltage input	0		5	Vdc
Isolation resistance	100	-	-	MΩ

Function Setting

ID	S1	S2	S3	S4	S5
Reserved(Default)	ON	ON	ON	ON	ON
1	OFF	ON	ON	ON	ON
2	ON	OFF	ON	ON	ON
3	OFF	OFF	ON	ON	ON
4	ON	ON	OFF	ON	ON
5	OFF	ON	OFF	ON	ON
.....
30	ON	OFF	OFF	OFF	OFF
31	OFF	OFF	OFF	OFF	OFF

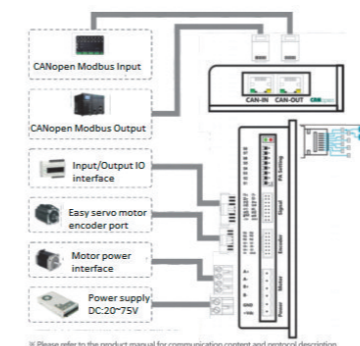
Control Signal Interface

Name	Function
PL+	High speed signal:pulse rising edge is effective,PL high level is 5~24VDC,low level is 0~0.5V.In order to reliably respond to the pulse signal,pulse width should be greater than 1.5us.
PL-	
DR+	
DR-	
IN+	Low speed signal: in1, in2, in3 common positive input,5~24VDC compatible
IN1	Low speed in1 negative input, Negative limit
IN2	Low speed in2 negative input, Positive limit
IN3	Low speed in3 negative input,reserve
OT-	Common cathode OC emitter output, ot1, ot2, ot3 emitter OC output common terminal
OT1	ot1 emitter output, the Max pull-up voltage 24Vdc, the pull-up resistance 2KΩ, the Max output current 100mA
OT2	ot2 emitter output, the Max pull-up voltage 24Vdc, the pull-up resistance 2KΩ, the Max output current 100mA
OT3	ot3 emitter output, the Max pull-up voltage 24Vdc, the pull-up resistance 2KΩ, the Max output current 100mA
OT4	Ot4 emitter output, the Max pull-up voltage 24Vdc, the pull-up resistance 2KΩ, the Max output current 100mA
5V	Provide 5V voltage to analogy input, current 50mA
Ain	Analogy input, input range 0~5V
GND	Analogy input reference terminal negative

CAN Baud Rate Table

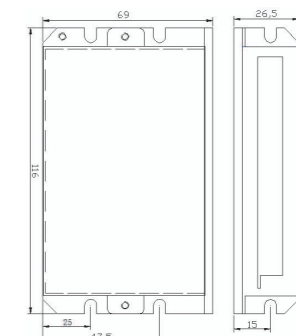
Baud Rate	Sw6	Sw7
9600Hz(default,can be set by PC)	ON	ON
19200Hz	OFF	ON
38400KHz	ON	OFF
57600Hz(Default)	OFF	OFF

Product Diagram



* Please refer to the product manual for communication content and protocol description.

Product Dimension(Unit:mm)



RSC878(closed loop)



Features:

- 1.Latest 32bit DSP Technology
- 2.Serial Port And Auto Tune Function
- 3.2 channels opto-coupler isolation OC output
- 4.1 channel analogy input(0~10V)
- 5.Advanced variable current control technology greatly reduces the motor heating
- 6.5 channels opto-coupler isolation input,2 of them are high speed opto-coupler isolation input
- 7.Communication Frequency up to 1Mhz(default is 9600hz)
- 8.Current setting range 0.5~8A
- 9.Over-voltage, under-voltage, over-current protection
- 10.Can drive ,28,42,57,60,86 frame size closed loop stepper motor

Electrical Specifications

Parameters	RSC878			
	Min	Typical	Max	Unit
Output current[PK]	0.5	-	8.0	A
Supply voltage	24	24/36/48	75	Vdc
Control signal input current	6	10	16	mA
Control signal interface level	5	5	24	Vdc
OC output pull-up voltage	5		24	VDC
CAN OPEN frequency	1	-	1000	MHZ
Analog voltage input	0		5	Vdc
Isolation resistance	100	-	-	MΩ

Function Setting

ID	S1	S2	S3	S4	S5
Reserved(Default)	ON	ON	ON	ON	ON
1	OFF	ON	ON	ON	ON
2	ON	OFF	ON	ON	ON
3	OFF	OFF	ON	ON	ON
4	ON	ON	OFF	ON	ON
5	OFF	ON	OFF	ON	ON
.....
30	ON	OFF	OFF	OFF	OFF
31	OFF	OFF	OFF	OFF	OFF

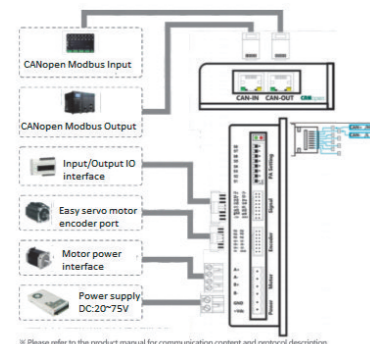
Control Signal Interface

Name	Function
PL+	High speed signal:pulse rising edge is effective,PL high level is 5~24VDC,low level is 0~0.5V.In order to reliably respond to the pulse signal,pulse width should be greater than 1.5us.
PL-	
DR+	
DR-	
IN+	Low speed signal: in1, in2, in3 common positive input,5~24VDC compatible
IN1	Low speed in1 negative input, Negative limit
IN2	Low speed in2 negative input, Positive limit
IN3	Low speed in3 negative input,reserve
OT-	Common cathode OC emitter output, ot1, ot2, ot3 emitter OC output common terminal
OT1	ot1 emitter output, the Max pull-up voltage 24Vdc, the pull-up resistance 2KΩ, the Max output current 100mA
OT2	ot2 emitter output, the Max pull-up voltage 24Vdc, the pull-up resistance 2KΩ, the Max output current 100mA
OT3	ot3 emitter output, the Max pull-up voltage 24Vdc, the pull-up resistance 2KΩ, the Max output current 100mA
OT4	ot4 emitter output, the Max pull-up voltage 24Vdc, the pull-up resistance 2KΩ, the Max output current 100mA
5V	Provide 5V voltage to analogy input, current 50mA
Ain	Analogy input, input range 0~5V
GND	Analogy input reference terminal negative

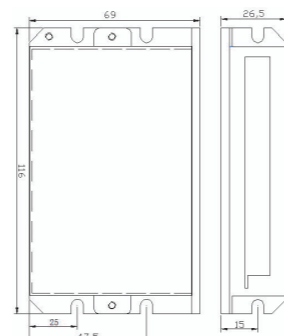
CAN Baud Rate Table

Baud Rate	Sw6	Sw7
9600Hz(default,can be set by PC)	ON	ON
19200Hz	OFF	ON
38400KHz	ON	OFF
57600Hz(Default)	OFF	OFF

Product Diagram



Product Dimension(Unit:mm)



CLOSED LOOP STEPPER DRIVER

EC808D



Features:

- 1.New floating point 32bit MCU technology
- 2.Ultra low vibration noise
- 3.Internal high Subdivision
- 4.The output current will automatically adjust based on the load
- 5.The continuous output current MAX value is 8.0A
- 6.Have the Indicator port function of the problem
- 7.Can accept the differential, single pulse/direction offline command
- 8.Advanced vector control technology greatly reduce the motor heating
- 9.Encoder resolution can be 500~5000,the default is 1000PPR encoder
- 10.Pulse response Frequency up to 500KHz (default 200KHz)
- 11.The number of per circle pulse can set by Protuner software or DIPs
- 12.Pulse, direction and offline signal input level is compatible 5~24V
- 13.Over-current,under-voltage and over-voltage protection
- 14.Apply the FOC and SVPWN close control technology
- 15.With the RJ45 serial TTL debugging function, need to use our serial debugging cable
- 16.Use for the closed loop stepper motor 42,57,60 and 86 frame size

Electrical Specifications

Parameters	EC808D			Unit
	Min	Typical	Max	
Output current[PK]	1.0	-	8	A
Supply voltage	20	24/36/48/60	80	Vdc
Logic input current	6	10	16	mA
Logic input voltage	5	5	24	Vdc
High Level pulse width	1.5	-	200	us
pulse frequency	0	-	-	KHz
Isolation resistance	100	± 1	-	MΩ
Position Error control accuracy	-	100	-	PULSE
MAX ACC(no load)	-	-	-	RPM/MS
Over-voltage protection Voltage	92	± 2	-	Vdc
Speed control accuracy	-	-	-	RPM

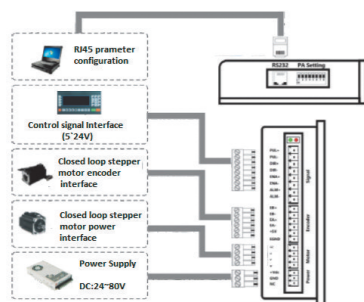
CURRENT SETTING

Steps/Revolution	Sw1	Sw2	Sw3	Sw4
Software Configured (Default 400)	ON	ON	ON	ON
800	OFF	ON	ON	ON
1600	ON	OFF	ON	ON
3200	OFF	OFF	ON	ON
6400	ON	ON	OFF	ON
12800	OFF	ON	OFF	ON
25600	ON	OFF	OFF	ON
500	OFF	OFF	OFF	ON
1000	ON	ON	ON	OFF
2000	OFF	ON	ON	OFF
4000	ON	OFF	ON	OFF
5000	OFF	OFF	ON	OFF
8000	ON	ON	OFF	OFF
10000	OFF	ON	OFF	OFF
3600	ON	OFF	OFF	OFF
7200	OFF	OFF	OFF	OFF

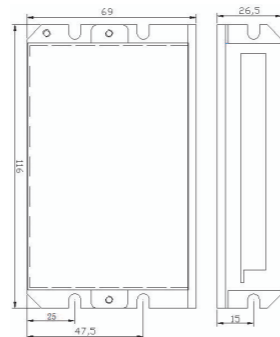
Function Setting

Motor Initial direction setting			
Direction	Sw5	Remark	
CCW	OFF	Clockwise	
CW	ON	Counter clockwise	
Control Mode setting			
Control Mode	Sw6	Remark	
FOC	OFF	Vector closed loop control(ball screw rotation)	
PM	ON	Power angle closed loop control(belt rotation)	
Closed loop stepper Motor setting			
Motor	Sw6	Sw7	Description
42	ON	ON	When SW7 and SW8 are setting to OFF, user can set the matched motor through software
57	OFF	ON	
60	ON	OFF	
Default[86]	OFF	OFF	

Product Diagram



Product Dimension(Unit:mm)



EC506D



Features:

- 1.New floating point 32bit MCU technology
- 2.Ultra low vibration noise
- 3.Internal high Subdivision
- 4.The output current will automatically adjust based on the load
- 5.The continuous output current MAX value is 6.0A
- 6.Have the Indicator port function of the problem
- 7.Can accept the differential, single pulse/direction offline command
- 8.Advanced vector control technology greatly reduce the motor heating
- 9.Encoder resolution can be 500~5000,the default is 1000PPR encoder
- 10.Pulse response Frequency up to 500KHz (default 200KHz)
- 11.The number of per circle pulse can set by Protuner software or DIPs
- 12.Pulse, direction and offline signal input level is compatible 5~24V
- 13.Over-current, under-voltage and over-voltage protection
- 14.Apply the FOC and SVPWN close control technology
- 15.With the RJ45 serial TTL debugging function, need to use our serial debugging cable
- 16.Use for the closed loop stepper motor 28,42,57,60 frame size

Electrical Specifications

Parameters	EC506D			Unit
	Min	Typical	Max	
Output current[PK]	0.5	-	6	A
Supply voltage	24	24/36	50	Vdc
Logic input current	6	10	16	mA
Logic input voltage	5	5	24	Vdc
High Level pulse width	1.5	-	-	us
pulse frequency	0	-	200	KHz
Isolation resistance	100	± 1	-	MΩ
Position Error control accuracy	-	100	-	PULSE
MAX ACC(no load)	-	-	-	RPM/MS
Over-voltage protection Voltage	55	± 2	-	Vdc
Speed control accuracy	-	-	-	RPM

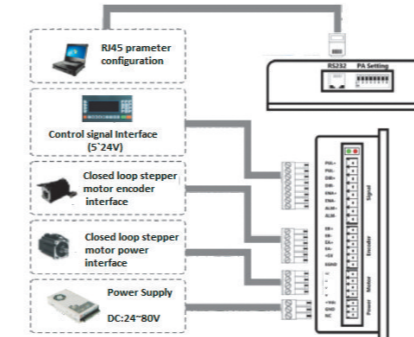
CURRENT SETTING

Steps/Revolution	Sw1	Sw2	Sw3	Sw4
Software Configured (Default 400)	ON	ON	ON	ON
800	OFF	ON	ON	ON
1600	ON	OFF	ON	ON
3200	OFF	OFF	ON	ON
6400	ON	ON	OFF	ON
12800	OFF	ON	OFF	ON
25600	ON	OFF	OFF	ON
500	OFF	OFF	OFF	ON
1000	ON	ON	ON	OFF
2000	OFF	ON	ON	OFF
4000	ON	OFF	ON	OFF
5000	OFF	OFF	ON	OFF
8000	ON	ON	OFF	OFF
10000	OFF	ON	OFF	OFF
3600	ON	OFF	OFF	OFF
7200	OFF	OFF	OFF	OFF

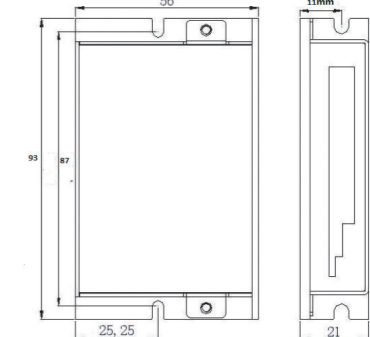
Function Setting

Motor Initial direction setting			
Direction	Sw5	Remark	
CCW	OFF	Clockwise	
CW	ON	Counter clockwise	
Control Mode setting			
Control Mode	Sw6	Remark	
FOC	OFF	Vector closed loop control(ball screw rotation)	
PM	ON	Power angle closed loop control(belt rotation)	
Closed loop stepper Motor setting			
Motor	Sw6	Sw7	Description
28	ON	ON	When SW7 and SW8 are setting to OFF, user can set the matched motor through software
42	OFF	ON	
57	ON	OFF	
60	OFF	OFF	

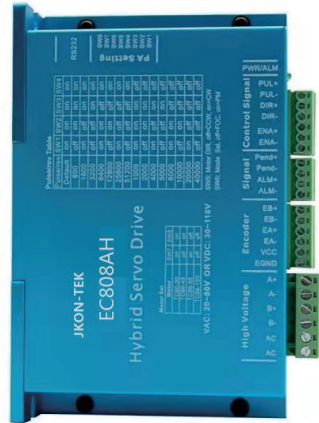
Product Diagram



Product Dimension(Unit:mm)



EC808AH



Features:

- 1.New floating point 32bit MCU technology
- 2.Ultra low vibration noise
- 3.Internal high Subdivision
- 4.The output current will automatically adjust based on the load
- 5.The continuous output current MAX value is 8.0A
- 6.Have the Indicator port function of the problem
- 7.Can accept the differential, single pulse/direction offline command
- 8.Advanced vector control technology greatly reduce the motor heating
- 9.Encoder resolution can be 500~5000,the default is 1000PPR encoder
- 10.Pulse response Frequency up to 500KHz (default 200KHz)
- 11.The number of per circle pulse can set by Protuner software or DIPs
- 12.Pulse, direction and offline signal input level is compatible 5~24V
- 13.Over-current,under-voltage and over-voltage protection
- 14.Apply the FOC and SVPWN close control technology
- 15.With the RJ45 serial TTL debugging function, need to use our serial debugging cable
- 16.Use for the closed loop stepper motor 42,57,60 and 86 frame size

Electrical Specifications

Parameters	EC808AH			Unit
	Min	Typical	Max	
Output current[PK]	1.0	-	8	A
Supply voltage	24/20	24/36/48/60	110/80	Vdc
Logic input current	6	10	16	mA
Logic input voltage	5	5	24	Vdc
High Level pulse width	1.5			us
pulse frequency	0	-	200	KHz
Isolation resistance	100	-	-	MΩ
Position Error control accuracy	-	± 1	-	PULSE
MAX ACC(no load)	-	100	-	RPM/MS
Over-voltage protection Voltage	90	92	94	Vdc
Speed control accuracy	-	± 2	-	RPM

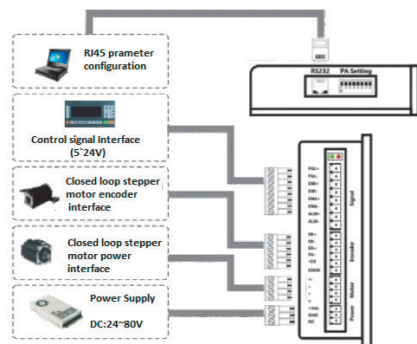
CURRENT SETTING

Steps/Revolution	Sw1	Sw2	Sw3	Sw4
Software Configured (Default 400)	ON	ON	ON	ON
800	OFF	ON	ON	ON
1600	ON	OFF	ON	ON
3200	OFF	OFF	ON	ON
6400	ON	ON	OFF	ON
12800	OFF	ON	OFF	ON
25600	ON	OFF	OFF	ON
51200	OFF	OFF	OFF	ON
1000	ON	ON	ON	OFF
2000	OFF	ON	ON	OFF
4000	ON	OFF	ON	OFF
5000	OFF	OFF	ON	OFF
8000	ON	ON	OFF	OFF
10000	OFF	ON	OFF	OFF
20000	ON	OFF	OFF	OFF
40000	OFF	OFF	OFF	OFF

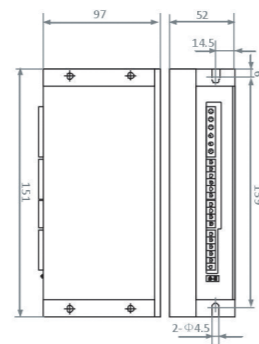
Function Setting

Motor Initial direction setting		
Direction	Sw5	Remark
CCW	OFF	Clockwise
CW	ON	Counter clockwise
Control Mode setting		
Control Mode	Sw6	Remark
FOC	OFF	Vector closed loop control(ball screw rotation)
PM	ON	Power angle closed loop control(belt rotation)
Function setting		
Edge Sel	Sw7	Remark
Rise	OFF	The rising edge is valid
Fall	ON	Falling Edge is valid
C/O Sel	SW8	Remark
Closed loop	OFF	Closed loop motor setting
Open loop	ON	Open loop motor setting

Product Diagram



Product Dimension(Unit:mm)



EC758(LCD)



Features:

- 1.The output current will automatically adjust based on the load
- 2.The continuous output current MAX value is 8.0A
- 3.Have the Indicator port function of the problem
- 4.Can accept the differential, single pulse/direction offline command
- 5.Advanced vector control and variable frequency technology greatly reduce the motor heating
- 6.Pulse response Frequency up to 500KHz (default 200KHz)
- 7.The number of per circle pulse can set by Protuner software or DIPs
- 8.Pulse, direction and offline signal input level is compatible 5~24V
- 9.Over-current,under-voltage and over-voltage protection
- 10.Apply the FOC and SVPWN close control technology
- 11.With the RJ45 serial TTL debugging function, need to use our serial debugging cable
- 12.Use for the closed loop stepper motor 86 frame size

Electrical Specifications

Parameters	Ec758			Unit
	Min	Typical	Max	
Output current[PK]	1.0	-	8	A
Supply voltage	20	60	75	Vdc
Logic input current	7	10	20	mA
Logic input voltage	5	5	24	Vdc
High Level pulse width	1.5			us
pulse frequency	0	-	200	KHz
Isolation resistance	100	-	-	MΩ
Position Error control accuracy	-	± 1	-	PULSE
MAX ACC(no load)	-	100	-	RPM/MS
Over-voltage protection Voltage	90	92	94	Vdc
Speed control accuracy	-	± 2	-	RPM

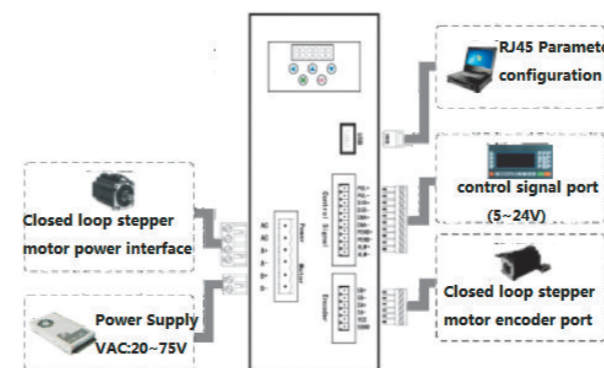
Control Signal Port (44 DB NEEDLE HEAD)

Terminal number	Symbols	Name	
3	PUL+	Pulse Positive Input	Compatible 5V- 24V level signal
4	PUL-	Pulse negative input	
5	DIR+	Directional Positive Input	OC open collector output, the MAX pull-up level 24V, maximum output current 100mA
6	DIR-	Directional negative input	
7	ALM+	Positive output of alarm signal	Compatible 5V- 24V level signal
8	ALM-	Negative output of alarm signal	
9	PEND+	position signal Positive output terminal	Compatible 5V- 24V level signal
10	PEND-	Position signal negative output terminal	
11	ENA+	Enable Positive Input	
12	ENA-	Enable negative input	

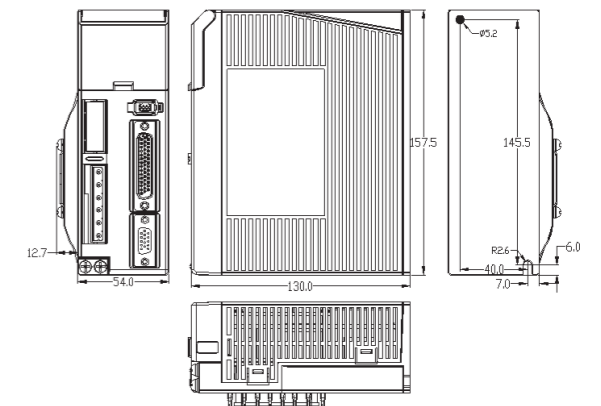
Encoder Signal Port (15 DB NEEDLE HEAD)

Terminal number	Symbols	Name
1	EA +	Encoder A channel positive input
2	EB +	Encoder B channel positive input
3	GND	Encoder GND
11	EA -	Encoder A channel negative input
12	EB -	Encoder B channel negative input

Product Diagram

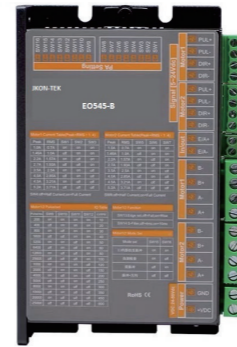


Product Dimension(Unit:mm)



MULTI-STEPPER DRIVER

EO545-B



Features:

1. New floating point 32bit MCU technology
2. Ultra low vibration noise
3. Internal high Subdivision
4. Automatically identify the motor parameters when it is power on
5. Advanced vector control technology greatly reduce the motor heating
6. Current reduce to half when it is in static
7. Can drive 2 pcs open loop stepper motor
8. Optically isolated differential signal input
9. Pulse response Frequency up to 500KHz (default 200KHz)
10. Vector variable current control technology, can be set in 0.7~5.2A
11. Subdivision setting range is 200~51200
12. Signal interface level is compatible of 5V and 24V, no need to serial limit resistor
13. Over-current, under-voltage and over-voltage protection

Electrical Specifications

Parameters	EO545-B			Unit
	Min	Typical	Max	
Output current[PK]	0.7	-	5.2	A
Supply voltage	24	24/36	50	Vdc
Control signal input current	6	10	16	mA
Control signal interface level	5	5	24	Vdc
Input signal Min pulse width	1.5	-	-	us
Step pulse frequency	0	-	200	KHz
Isolation resistance	100	-	-	MΩ
Over-voltage protection Voltage	55	-	-	Vdc

MOTOR CURRENT AND SUBDIVISION SETTING

MOTOR 1 CURRENT TABLE						
Peak	RMS	Sw1	Sw2	Sw3	Sw4 IS A HALF CURRENT FUNCTION, WHEN SW4=OFF, HALF CURRENT SETTING; WHEN SW4=ON, CURRENT STATIC STATE FOR FULL CURRENT LOCK AXIS	
1.0A	0.7A	ON	ON	ON		
1.46A	1.0A	OFF	ON	ON		
2.2A	1.57A	ON	OFF	ON		
2.7A	1.93A	OFF	OFF	ON		
3.5A	2.5A	ON	ON	OFF		
4.00A	2.85A	OFF	ON	OFF		
4.5A	3.21A	ON	OFF	OFF		
5.2A	3.71A	OFF	OFF	OFF		

MOTOR 2 CURRENT TABLE						
PEAK	RMS	Sw5	Sw6	Sw7	Sw8 IS A HALF CURRENT FUNCTION, WHEN SW8=OFF, HALF CURRENT SETTING; WHEN SW8=ON, CURRENT STATIC STATE FOR FULL CURRENT LOCK AXIS	
1.0A	0.7A	ON	ON	ON		
1.46A	1.0A	OFF	ON	ON		
2.2A	1.57A	ON	OFF	ON		
2.7A	1.93A	OFF	OFF	ON		
3.5A	2.5A	ON	ON	OFF		
4.00A	2.85A	OFF	ON	OFF		
4.5A	3.21A	ON	OFF	OFF		
5.2A	3.71A	OFF	OFF	OFF		

Motor Subdivision Setting

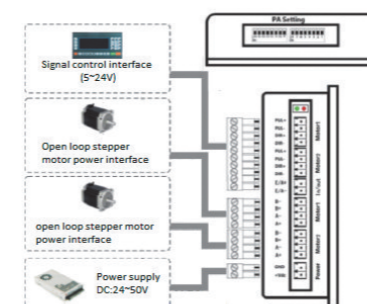
Motor 1, motor 2 and motor 3 DIPs Subdivision setting and IO pulse Speed					
Pulse/Revolution	Sw9	Sw10	Sw11	Sw12	IO/RPMMM
200	ON	ON	ON	ON	10
400	OFF	ON	ON	ON	20
800	ON	OFF	ON	ON	30
1600	OFF	OFF	ON	ON	40
3200	ON	ON	OFF	ON	50
6400	OFF	ON	OFF	ON	60
12800	ON	OFF	OFF	ON	80
25600	OFF	OFF	OFF	ON	100
1000	ON	ON	ON	OFF	120
2000	OFF	ON	ON	OFF	150
4000	ON	OFF	ON	OFF	200
5000	OFF	OFF	ON	OFF	250
8000	ON	ON	OFF	OFF	300
10000	OFF	ON	OFF	OFF	350
20000	ON	OFF	OFF	OFF	450
25000	OFF	OFF	OFF	OFF	600

Function Setting

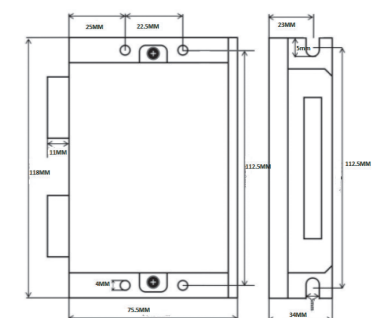
SW13: Edge sel, OFF=Fall, falling edge is valid; ON=RISE, rising edge
 SW14: S-Filter, OFF=4ms, high response; ON=10ms, low vibration

	Sw15	Sw16
Model Sel		
IO internal spontaneous pulse	ON	ON
Self-Test check	ON	OFF
CW/CCW	OFF	ON
PLU+DIR	OFF	OFF

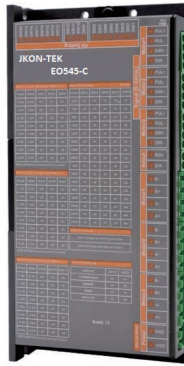
Product Diagram



Product Dimension(Unit:mm)



EO545-C



Features:

- 1.New floating point 32bit MCU technology
- 2.Ultra low vibration noise
- 3.Internal high Subdivision
- 4.Automatically identify the motor parameters when it is power on
- 5.Advanced vector control technology greatly reduce the motor heating
- 6.Current reduce to half when it is in static
- 7.Can drive 3 pcs open loop stepper motor
- 8.Optically isolated differential signal input
- 9.Pulse response Frequency up to 500KHz (default 200KHz)
- 10.Vector variable current control technology, can be set in 0.7~5.2A
- 11.Subdivision setting range is 200~51200
- 12.Signal interface level is compatible of 5V and 24V,no need to serial limit resistor
- 13.Over-current,under-voltage and over-voltage protection

Electrical Specifications

Parameters	EO 545-C			
	Min	Typical	Max	Unit
Output current[PK]	0.7	-	5.2	A
Supply voltage	24	24/36	50	Vdc
Control signal input current	6	10	16	mA
Control signal interface level	5	5	24	Vdc
Input signal Min pulse width	1.5	-	-	us
Step pulse frequency	0	-	200	KHz
Isolation resistance	100	-	-	MΩ
Over-voltage protection Voltage	55	-	-	Vdc

MOTOR 1 CURRENT TABLE

Peak	RMS	Sw1	Sw2	Sw3	Sw4 IS A HALF CURRENT FUNCTION, WHEN SW4=OFF,HALF CURRENT SETTING; WHEN SW4=ON, CURRENT STATIC STATE FOR FULL CURRENT LOCK AXIS
1.0A	0.7A	ON	ON	ON	
1.46A	1.0A	OFF	ON	ON	
2.2A	1.57A	ON	OFF	ON	
2.7A	1.93A	OFF	OFF	ON	
3.5A	2.5A	ON	ON	OFF	
4.00A	2.85A	OFF	ON	OFF	
4.5A	3.21A	ON	OFF	OFF	
5.2A	3.71A	OFF	OFF	OFF	

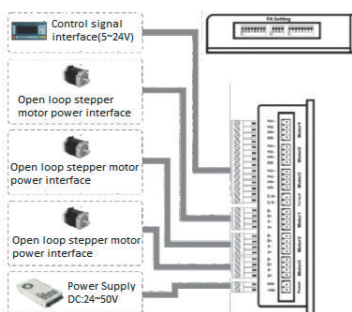
MOTOR 2 CURRENT TABLE

PEAK	RMS	Sw5	Sw6	Sw7	Sw8 IS A HALF CURRENT FUNCTION, WHEN SW8=OFF,HALF CURRENT SETTING; WHEN SW8=ON, CURRENT STATIC STATE FOR FULL CURRENT LOCK AXIS
1.0A	0.7A	ON	ON	ON	
1.46A	1.0A	OFF	ON	ON	
2.2A	1.57A	ON	OFF	ON	
2.7A	1.93A	OFF	OFF	ON	
3.5A	2.5A	ON	ON	OFF	
4.00A	2.85A	OFF	ON	OFF	
4.5A	3.21A	ON	OFF	OFF	
5.2A	3.71A	OFF	OFF	OFF	

MOTOR 3 CURRENT TABLE

PEAK	RMS	Sw9	Sw10	Sw11	Sw12 IS A HALF CURRENT FUNCTION, WHEN SW12=OFF,HALF CURRENT SETTING; WHEN SW12=ON, CURRENT STATIC STATE FOR FULL CURRENT LOCK AXIS
1.0A	0.7A	ON	ON	ON	
1.46A	1.0A	OFF	ON	ON	
2.2A	1.57A	ON	OFF	ON	
2.7A	1.93A	OFF	OFF	ON	
3.5A	2.5A	ON	ON	OFF	
4.00A	2.85A	OFF	ON	OFF	
4.5A	3.21A	ON	OFF	OFF	
5.2A	3.71A	OFF	OFF	OFF	

Product Diagram



Motor Subdivision Setting

Motor 1,motor 2 and motor 3 DIPs Subdivision setting and IO pulse Speed

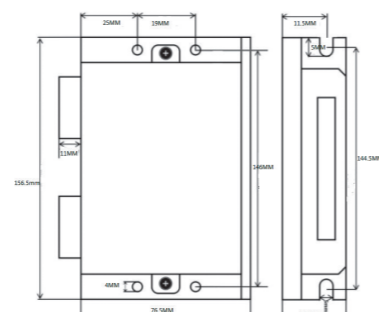
Pulse/Revolution	Sw13	Sw14	Sw15	Sw16	IO/RPMMM
200	ON	ON	ON	ON	10
400	OFF	ON	ON	ON	20
800	ON	OFF	ON	ON	30
1600	OFF	OFF	ON	ON	40
3200	ON	ON	OFF	ON	50
6400	OFF	ON	OFF	ON	60
12800	ON	OFF	OFF	ON	80
25600	OFF	OFF	OFF	ON	100
1000	ON	ON	ON	OFF	120
2000	OFF	ON	ON	OFF	150
4000	ON	OFF	ON	OFF	200
5000	OFF	OFF	ON	OFF	250
8000	ON	ON	OFF	OFF	300
10000	OFF	ON	OFF	OFF	350
20000	ON	OFF	OFF	OFF	450
25000	OFF	OFF	OFF	OFF	600

Function Setting

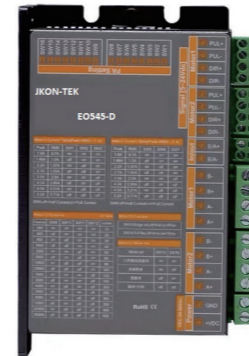
SW13:Edge sel,OFF=Fall, falling edge is valid;ON=RISE, rising edge
SW14:S-Filter,OFF=4ms,high response; ON=10ms,low vibration

Model Sel	Sw19	Sw20
IO internal spontaneous pulse	ON	ON
Self-Test check	ON	OFF
CW/CCW	OFF	ON
PLU+DIR	OFF	OFF

Product Dimension(Unit:mm)



EO545-D



Features:

- 1.New floating point 32bit MCU technology
- 2.Ultra low vibration noise
- 3.Internal high Subdivision
- 4.Automatically identify the motor parameters when it is power on
- 5.Advanced vector control technology greatly reduce the motor heating
- 6.Current reduce to half when it is in static
- 7.Can drive 4 pcs open loop stepper motor
- 8.Optically isolated differential signal input
- 9.Pulse response Frequency up to 500KHz (default 200KHz)
- 10.Vector variable current control technology, can be set in 0.7~5.2A
- 11.Subdivision setting range is 200~51200
- 12.Signal interface level is compatible of 5V and 24V,no need to serial limit resistor
- 13.Over-current,under-voltage and over-voltage protection

Electrical Specifications

Parameters	EO 545-D			
	Min	Typical	Max	Unit
Output current[PK]	0.7	-	5.2	A
Supply voltage	24	24/36	50	Vdc
Control signal input current	6	10	16	mA
Control signal interface level	5	5	24	Vdc
Input signal Min pulse width	1.5	-	-	us
Step pulse frequency	0	-	200	KHz
Isolation resistance	100	-	-	MΩ
Over-voltage protection Voltage	55	-	-	Vdc

MOTOR CURRENT AND SUBDIVISION SETTING

MOTOR 1 CURRENT TABLE

Peak	RMS	Sw1	Sw2	Sw3	Sw4 IS A HALF CURRENT FUNCTION, WHEN SW4=OFF, HALF CURRENT SETTING; WHEN SW4=ON, CURRENT STATIC STATE FOR FULL CURRENT LOCK AXIS
1.0A	0.7A	ON	ON	ON	
1.46A	1.0A	OFF	ON	ON	
2.2A	1.57A	ON	OFF	ON	
2.7A	1.93A	OFF	OFF	ON	
3.5A	2.5A	ON	ON	OFF	
4.00A	2.85A	OFF	ON	OFF	
4.5A	3.21A	ON	OFF	OFF	
5.2A	3.71A	OFF	OFF	OFF	

MOTOR 2 CURRENT TABLE

PEAK	RMS	Sw5	Sw6	Sw7	Sw8 IS A HALF CURRENT FUNCTION, WHEN SW8=OFF, HALF CURRENT SETTING; WHEN SW8=ON, CURRENT STATIC STATE FOR FULL CURRENT LOCK AXIS
1.0A	0.7A	ON	ON	ON	
1.46A	1.0A	OFF	ON	ON	
2.2A	1.57A	ON	OFF	ON	
2.7A	1.93A	OFF	OFF	ON	
3.5A	2.5A	ON	ON	OFF	
4.00A	2.85A	OFF	ON	OFF	
4.5A	3.21A	ON	OFF	OFF	
5.2A	3.71A	OFF	OFF	OFF	

Motor Subdivision Setting

Motor 1,motor 2 and motor 3 DIPs Subdivision setting and IO pulse Speed

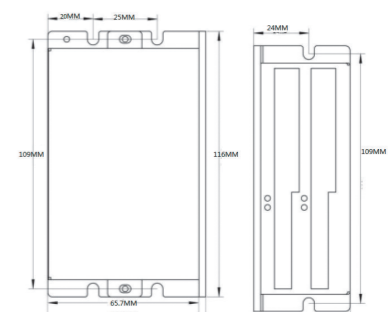
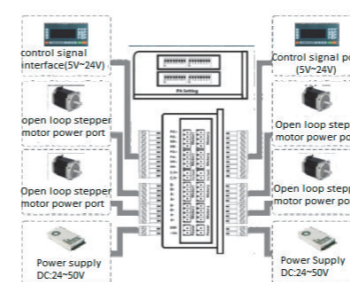
Pulse/Revolution	Sw9	Sw10	Sw11	Sw12	IO/RPMMM
200	ON	ON	ON	ON	10
400	OFF	ON	ON	ON	20
800	ON	OFF	ON	ON	30
1600	OFF	OFF	ON	ON	40
3200	ON	ON	OFF	ON	50
6400	OFF	ON	OFF	ON	60
12800	ON	OFF	OFF	ON	80
25600	OFF	OFF	OFF	ON	100
1000	ON	ON	ON	OFF	120
2000	OFF	ON	ON	OFF	150
4000	ON	OFF	ON	OFF	200
5000	OFF	OFF	ON	OFF	250
8000	ON	ON	OFF	OFF	300
10000	OFF	ON	OFF	OFF	350
20000	ON	OFF	OFF	OFF	450
25000	OFF	OFF	OFF	OFF	600

Function Setting

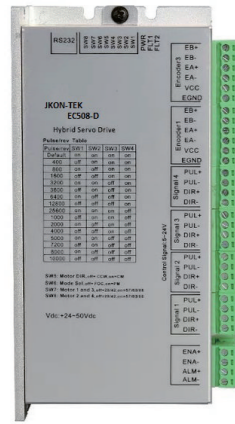
SW13:Edge sel,OFF=Fall, falling edge is valid;ON=RISE, rising edge
SW14:S-Filter,OFF=4ms,high response; ON=10ms,low vibration

Model Sel	Sw15	Sw16
IO internal spontaneous pulse	ON	ON
Self-Test check	ON	OFF
CW/CCW	OFF	ON
PLU+DIR	OFF	OFF

Product Dimension(Unit:mm)



EC508-D



Features:

1. New 32-bit dual-core technology
2. Ultra low vibration noise
3. Internal high Subdivision
4. Automatically identify the motor parameters when it is power on
5. Advanced vector control technology greatly reduce the motor heating
6. Current reduce to half when it is in static
7. Can drive 4 pcs easy servo motor
8. Optically isolated differential signal input
9. Pulse response Frequency up to 500KHz (default 200KHz)
10. Vector variable current control technology, can be set in 0.1~8.0A
11. Subdivision setting range is 200~51200
12. Signal interface level is compatible of 5V and 24V, no need to serial limit resistor
13. Over-current, under-voltage and over-voltage protection

Electrical Specifications

Parameters	EO 548-D			
	Min	Typical	Max	Unit
Output current[PK]	0.7	-	8.0	A
Supply voltage	24	36	50	Vdc
Control signal input current	6	10	16	mA
Control signal interface level	5	5	24	Vdc
Input signal Min pulse width	5	-	200	us
Step pulse frequency	0	-	-	KHz
Isolation resistance	100	-	-	MΩ
Over-voltage protection Voltage	63	-	-	Vdc

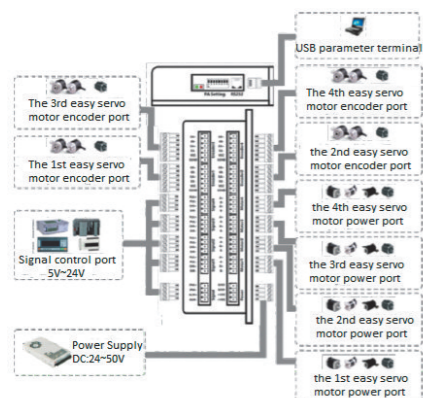
CURRENT SETTING

Pulse/Revolution	Sw1	Sw2	Sw3	Sw4
200	ON	ON	ON	ON
400	OFF	ON	ON	ON
800	ON	OFF	ON	ON
1600	OFF	OFF	ON	ON
3200	ON	ON	OFF	ON
6400	ON	OFF	OFF	ON
12800	OFF	OFF	OFF	ON
25600	ON	ON	ON	OFF
1000	OFF	ON	ON	OFF
2000	ON	OFF	ON	OFF
4000	OFF	OFF	ON	OFF
5000	ON	ON	OFF	OFF
7200	OFF	ON	OFF	OFF
8000	ON	OFF	OFF	OFF
10000	OFF	OFF	OFF	OFF

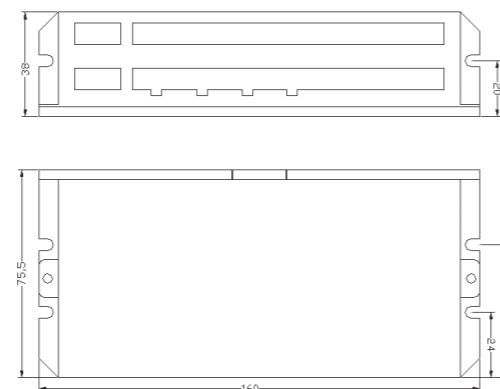
Function Setting

Motor Initial direction setting		
Direction	Sw5	Remark
CCW	OFF	Counter clockwise
CW	ON	Clockwise
Control Mode setting		
Control Mode	Sw6	Remark
FOC	OFF	Vector closed loop control(ball screw rotation)
PM	ON	Power angle closed loop control(belt rotation)
Closed loop stepper Motor setting		
Motor	MOTOR1/MOTOR3	MOTOR2/MOTOR4
28/42	SW7:OFF	SW8:OFF
57/60/86	SW7:ON	SW8:ON

Product Diagram



Product Dimension(Unit:mm)



Integraed DRIVER MOTOR

Integraed Pulse CLOSED-Loop Stepper Driver Motor

I042



Product Features

- 32 bit digital technology
- low vibration ,less noise, smoothness
- Internal high micro-step and smooth filter function
- Auto- fitting motor parameters when power is on
- Current variable technology make low heating of motor& drive
- Auto reduce to half-current when motor is static
- Optically isolated single - ended signal input(pulse,direction,enable)
- Pulse response frequency is 200KHz(MAX 500KHz)
- Convenient to set current, select range is 0.1~2.2A(peak)
- Micro-step range is 200~51200
- Support over-voltage, under-voltage, over-current protections

Electrical Specifications

Parameters	I042			
	Min	Typical	Max	Unit
Output current[PK]	0.5	-	2.2	A
Supply voltage	15	24	32	Vdc
Control signal input current	6	10	16	mA
Control signal interface level	-	5	-	Vdc
Min time of pulse high level width	1.5			us
Step pulse frequency	0	-	200	KHz
Isolation resistance	100	-	-	MΩ
Over-voltage protection Voltage	35	-	-	Vdc

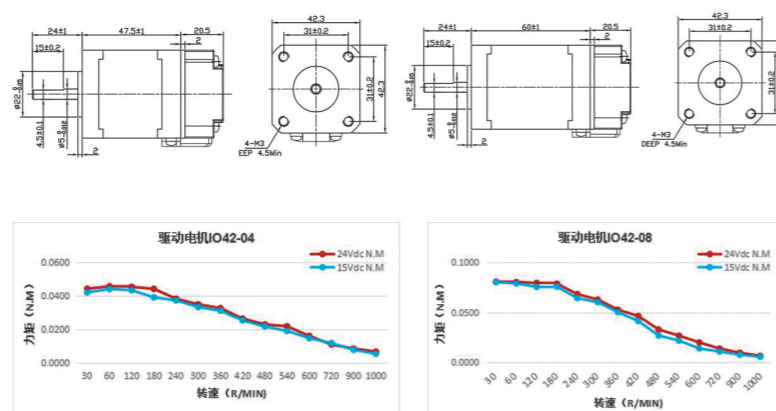
Current Setting

Peak	RMS	SW1	SW2	SW3
Default	0.5A(PK)	ON	ON	ON
0.7A	0.5A	OFF	ON	ON
1.0A	0.71A	ON	OFF	ON
1.2A	0.85A	OFF	OFF	ON
1.5A	1.0A	ON	ON	OFF
1.8A	1.28A	OFF	ON	OFF
2.0A	1.42A	ON	OFF	OFF
2.2A	1.58A	OFF	OFF	OFF

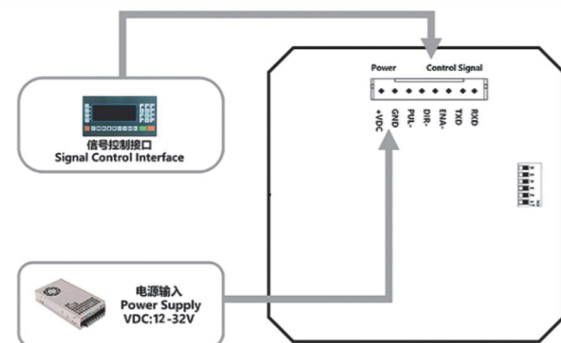
Subdivision Setting

Pul/REV	SW4	SW5	SW6
Default(400)	ON	ON	ON
800	OFF	ON	ON
1600	ON	OFF	ON
3200	OFF	OFF	ON
4000	ON	ON	OFF
5000	OFF	ON	OFF
6400	ON	OFF	OFF
12800	OFF	OFF	OFF

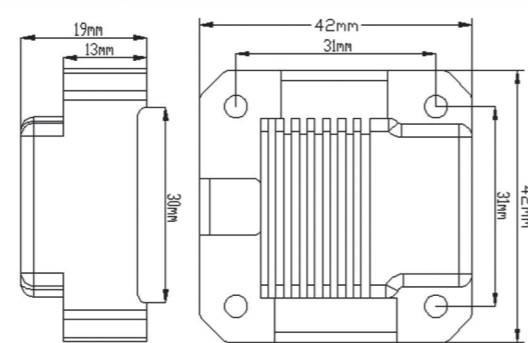
Torque-Speed Curve



Product Diagram



Mechanical Dimension(UNIT:mm)



I057



Product Features

- New 32 Bit DSP Technology
- Low vibration, low noise, smooth operation
- Built-in high-resolution and smooth filtering function
- Automatic parameter power-on setting function
- Variable current control greatly reduces the heat generation of the motor.
- Automatic halving of current at rest
- Can drive 4,6,8-wire tow-phase stepping motor
- Photoelectric isolation of single-ended signal input (pulse, direction and enable)
- Impulse response frequency up to 500KHz (factory default 200KHz)
- The current setting is convenient and can be selected between 0.1-5.6 A
- subdivision setting range 200-51200, higher subdivision can customize
- It has the protection functions of overvoltage, undervoltage and overcurrent.

Electrical Specifications

Parameters	I057			
	Min	Typical	Max	Unit
Output current[PK]	1.0	-	5.6	A
Supply voltage	15	24/36	50	Vdc
Control signal input current	6	10	16	mA
Control signal interface level	-	5	-	Vdc
Min time of pulse high level width	1.5			us
Step pulse frequency	0	-	200	KHz
Isolation resistance	100	-	-	MΩ
Over-voltage protection Voltage	52	-	-	Vdc

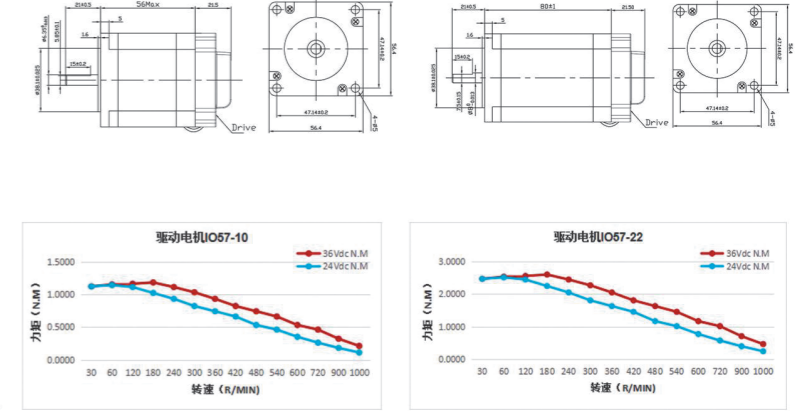
Current Setting

Peak	RMS	SW1	SW2	SW3
Default	1.5A(PK)	ON	ON	ON
2.1A	1.5A	OFF	ON	ON
2.7A	1.9A	ON	OFF	ON
3.2A	2.3A	OFF	OFF	ON
3.8A	2.7A	ON	ON	OFF
4.3A	3.1A	OFF	ON	OFF
4.9A	3.5A	ON	OFF	OFF
5.6A	4.0A	OFF	OFF	OFF

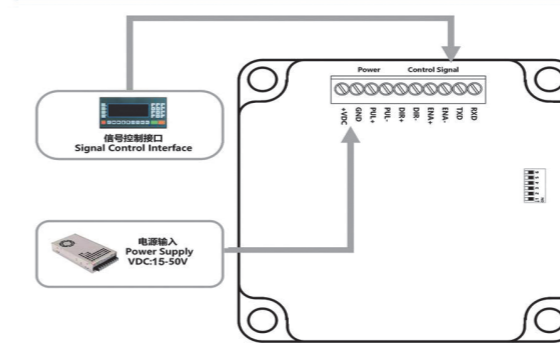
Subdivision Setting

Pul/REV	SW4	SW5	SW6
Default(400)	ON	ON	ON
800	OFF	ON	ON
1600	ON	OFF	ON
3200	OFF	OFF	ON
4000	ON	ON	OFF
5000	OFF	ON	OFF
6400	ON	OFF	OFF
12800	OFF	OFF	OFF

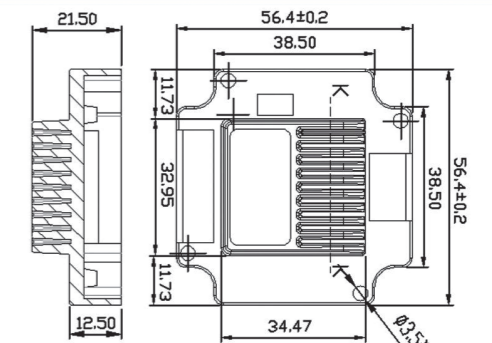
Torque-Speed Curve



Product Diagram

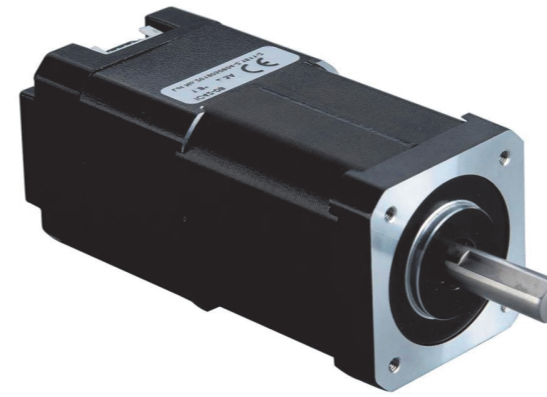


Mechanical Dimension(UNIT:mm)



Integraed Pulse CLOSED-LOPP Stepper Driver Motor

IC42



Product Features

- New 32 Bit DSP Technology
- Low vibration, low noise, smooth operation
- Built-in high-resolution and smooth filtering function
- Automatic parameter setting function
- Variable current control greatly reduces the heat generation of the motor.
- Automatic halving of current at still
- It can drive 42 closed-loop two-phase stepping motor
- Photoelectric isolation of single-ended signal input (pulse, direction and enable)
- Impulse response frequency up to 500KHz (factory default 200KHz)
- The current is closed loop as the load
- subdivision setting range 200-51200, higher subdivision can customize
- It has the protection functions of overvoltage, undervoltage and overcurrent.

Electrical Specifications

Parameters	IC42			Unit
	Min	Typical	Max	
Output current[PK]	0.5	-	2.5	A
Supply voltage	15	24	32	Vdc
Control signal input current	6	10	16	mA
Control signal interface level	-	5	-	Vdc
Min time of pulse high level width	1.5			us
Step pulse frequency	0	-	200	KHz
Isolation resistance	100	-	-	MΩ
Over-voltage protection Voltage	35	-	-	Vdc

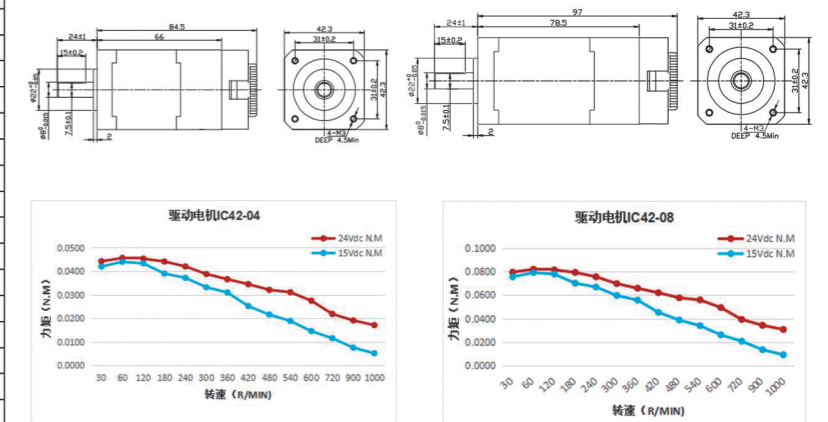
Function Setting

Initial orientation of motor		
Direction	SW5	Remark
CCW	ON	Counter-clockwise
CW	OFF	Clockwise
Drive control mode setting		
Control Mode	SW6	Remark
FOC	OFF	Vector closed-loop control(screw rotation)
PM	ON	Power angle closed loop control(belt rotation)

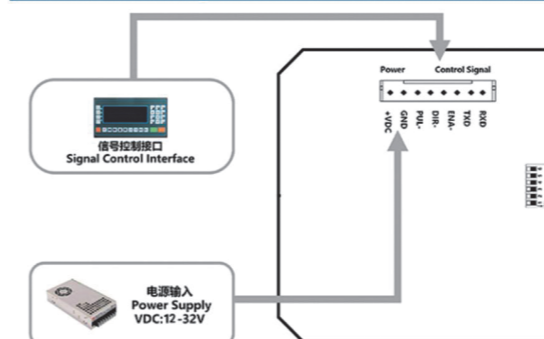
Subdivision Setting

Pulse/Rev	S1	S2	S3	S4
Default	on	on	on	on
800	off	on	on	on
1600	on	off	on	on
3200	off	off	on	on
6400	on	on	off	on
12800	off	on	off	on
25600	on	off	off	on
51200	off	off	off	on
1000	on	on	on	off
2000	off	on	on	off
4000	on	off	on	off
5000	off	off	on	off
8000	on	on	off	off
10000	off	on	off	off
20000	on	off	off	off
40000	off	off	off	off

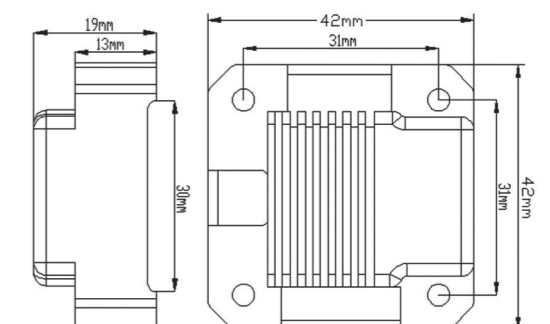
Torque-Speed Curve

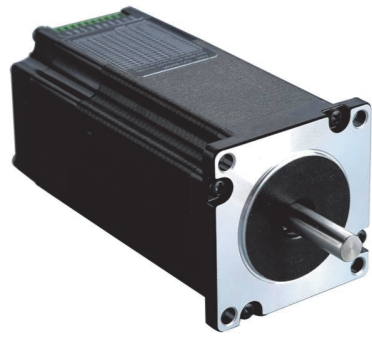


Product Diagram



Mechanical Dimension(UNIT:mm)





Product Features

- Working Voltage: DC INPUT VOLTAGE 15VDC ~ 50VDC, recommended working voltage 36V
- Maximum continuous output current 8.0 A (advanced step servo overload capability)
- Can accept differential and single-ended pulse/direction command, with position/speed/torque three control modes
- FOC magnetic field positioning control technology and Svpwm closed-loop control technology are adopted
- use of advanced variable current technology and frequency technology, effectively reduce the motor and driver heating
- The number of pulses per cycle can be set by debugging software or Dips (subdivision)
- With over-voltage, under-voltage, over-current and over-differential protection functions
- Single/double pulse mode, pulse effective edge optional
- The maximum pulse frequency of Control Instruction is 500 KHz (factory default is 200 KHz)
- The pulse, direction and enable signal input interface levels are 5V
- Have serial port RS232 debugging function, but need to use the company's dedicated serial port debugging cable
- PERFORMANCE: stable speed, small overshoot, small tracking error, motor and driver low heating

Electrical Specifications

Parameters	IC57			
	Min	Typical	Max	Unit
Output current[PK]	1.0	-	8.0	A
Supply voltage	15	24/36	50	Vdc
Control signal input current	6	10	16	mA
Control signal interface level	-	5	-	Vdc
Min time of pulse high level width	1.5			us
Accuracy of position error control		± 1		pulse
Accuracy of speed error control		± 2		rpm
Step pulse frequency	0	-	200	KHz
Isolation resistance	100	-	-	MΩ
Over-voltage protection Voltage	52	-	-	Vdc

Function Setting

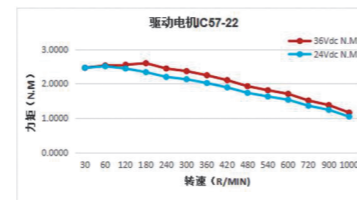
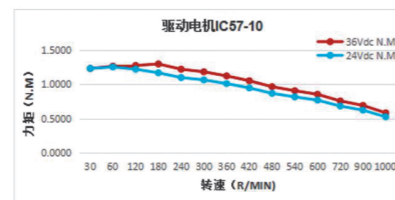
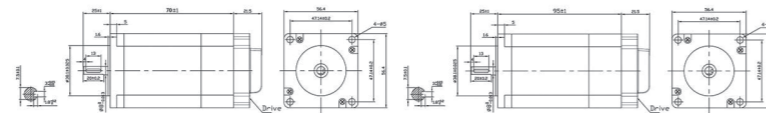
Initial orientation of motor		
Direction	SW5	Remark
CCW	ON	Counter-clockwise
CW	OFF	Clockwise
Drive control mode setting		
Control Mode	SW6	Remark
FOC	OFF	Vector closed-loop control(screw rotation)
PM	ON	Power angle closed loop control(belt rotation)

Integrated Brushless Servo Driver Motor

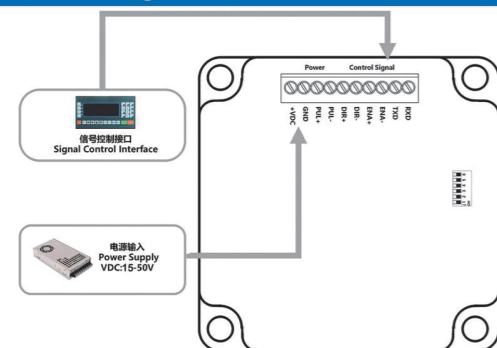
Subdivision Setting

Pulse/Rev	SW1	SW2	SW3	SW4
Default	on	on	on	on
800	off	on	on	on
1600	on	off	on	on
3200	off	off	on	on
6400	on	on	off	on
12800	off	on	off	on
25600	on	off	off	on
51200	off	off	off	on
1000	on	on	on	off
2000	off	on	on	off
4000	on	off	on	off
5000	off	off	on	off
8000	on	on	off	off
10000	off	on	off	off
20000	on	off	off	off
40000	off	off	off	off

Mechanical Dimension(UNIT:mm)



Product Diagram



- Can Choose 100W, 140W and 200W three DC brushless servo motor
- With over-voltage, under-voltage, over-current and over-differential protection functions
- Single/double pulse mode, pulse effective edge optional
- The maximum pulse frequency of Control is 500 KHz (factory default is 200 KHz)
- The pulse, direction and enable signal input interface levels are compatible 5-24V
- Have serial port RS232 debugging function, but need to use the company's dedicated serial port debugging cable
- PERFORMANCE: stable speed, small overshoot, small tracking error, motor and driver low heating

Electrical Specifications

Parameters	IV57			
	Min	Typical	Max	Unit
Output current[PK]	0	-	10	A
Supply voltage	15	36	50	Vdc
Control signal input current	6	10	16	mA
Logic input voltage	5	5	24	Vdc
pulse high level width	1.5			us
Accuracy of position error control		+1		pulse
Accuracy of speed error control		+2		rpm
pulse frequency	0	-	200	KHz
Isolation resistance	100	-	-	MΩ
Max acceleration(no load)	-	100	-	Rpm/ms
Motor Speed	3500	-	-	RPM

Function Setting

Initial orientation of motor		
Direction	SW5	Remark
CCW	OFF	Counter-clockwise
CW	ON	Clockwise
Drive control mode setting		
Control Mode	SW6	Remark
FOC	OFF	Suitable for screw
PM	ON	Suitable for belt

Subdivision Setting

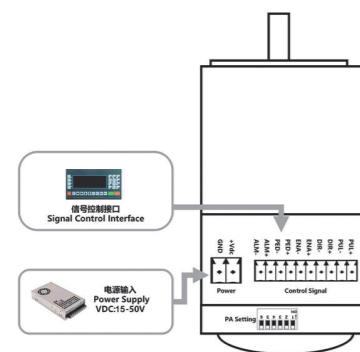
Pulse/Rev	SW1	SW2	SW3	SW4
Default	on	on	on	on
800	off	on	on	on
1600	on	off	on	on
3200	off	off	on	on
6400	on	on	off	on
12800	off	on	off	on
25600	on	off	off	on
51200	off	off	off	on
1000	on	on	on	off
2000	off	on	on	off
4000	on	off	on	off
5000	off	off	on	off
8000	on	on	off	off
10000	off	on	off	off
20000	on	off	off	off
40000	off	off	off	off

Standard Motor

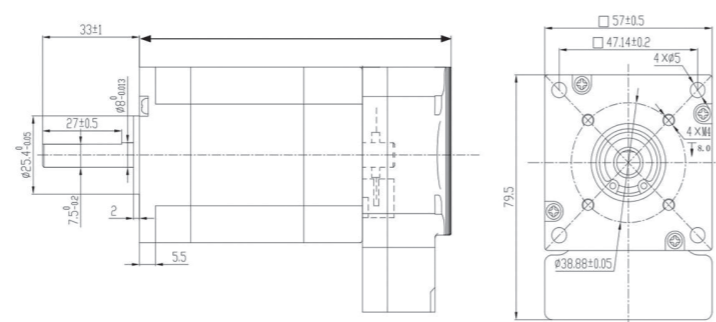
Model No.	Rated power	Total Length	Weight
	W	mm	kg
IV57-09	100W	107±1	0.9
IV57-13	140W	127±1	1.0
IV57-18	200W	147±1	1.2

OPEN LOOP STEPPER MOTOR 2 PHASE

Product Diagram



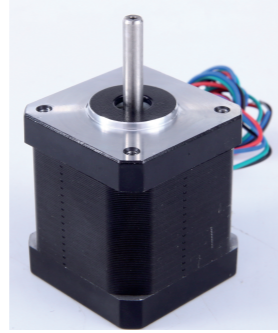
Mechanical Dimension(UNIT:mm)



EO 42 Series Motor

EO42 Series Specification

Accuracy	± 5%(full step, unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩ min 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)



Electrical Specification

EO 42MM Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Inertia (g.cm)	Detent Torque(N.cm)	Motor length(mm)	Weight (kg)
EO42-02	2	1.8	0.22	1.3	2.9	2.3	4	34	1.6	34	0.22
EO42-03	2	1.8	0.28	0.4	30	30	6	54	2.2	40	0.28
EO42-04	2	1.8	0.4	1.7	2.8	1.5	4	54	2.2	40	0.35
EO42-05	2	1.8	0.52	1.3	5.5	3.2	4	68	2.6	48	0.35
EO42-06	2	1.8	0.65	1.3	9.5	4.2	4	102	3.8	60	0.46

Mechanical Dimension(UNIT:mm)

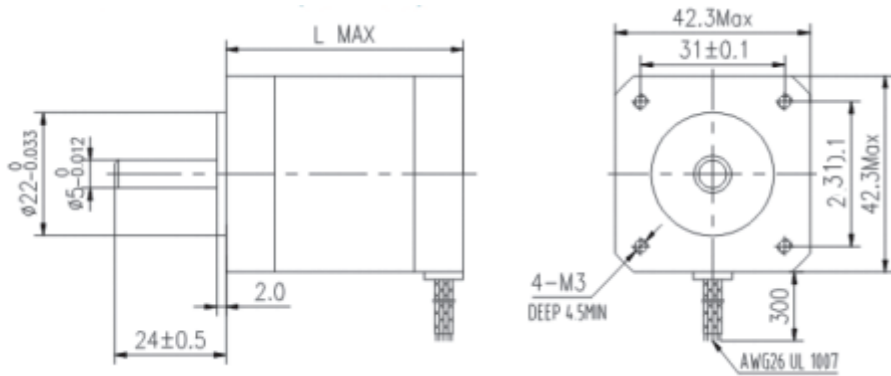


Diagram Wiring:



EO 57 Series Motor

EO57 Series Specification

Accuracy	± 5%(full step, unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩ min 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)



Electrical Specification

EO 57MM Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Inertia (g.cm)	Detent Torque(N.cm)	Motor length(mm)	Weight (kg)
EO57-05/06	2	1.8	0.55	0.6	22	10	4	150	2.5	41	0.47
EO57-05/20	2	1.8	0.55	2	2.8	1.3	4	150	2.5	41	0.47
EO57-08	2	1.8	0.8	0.62	26	12	4	230	2.8	51	0.52
EO57-09	2	1.8	0.9	2.8	2.1	0.85	4	230	3	51	0.59
EO57-10/25	2	1.8	1.1	2.5	4	1.3	4	280	3.5	56	0.68
EO57-10/42	2	1.8	1.1	4.2	1.3	0.4	4	280	3.5	56	0.68
EO57-18	2	1.8	1.8	2.8	4.3	1.2	4	440	6	76	1.05
EO57-20	2	1.8	2	4.2	2.2	0.6	4	500	7	80	1.1
EO57-22	2	1.8	2.2	4.2	2.5	0.65	4	560	8	83	1.2
EO 57-23	2	1.8	2.3	4.5	2.3	0.55	4	560	8	83	1.2
EO57-25	2	1.8	2.5	4.2	2.9	0.75	4	680	10	100	1.5
EO57-28	2	1.8	2.8	3	6.8	1.6	4	800	12	112	1.7

Mechanical Dimension(UNIT:mm)

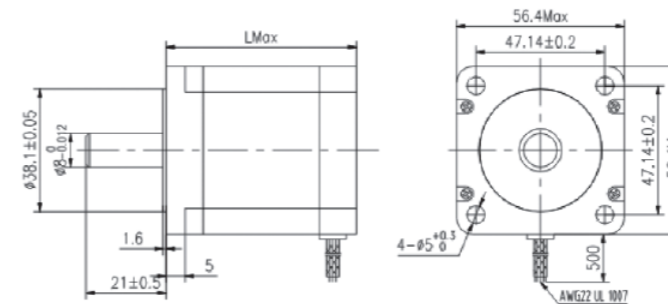


Diagram Wiring:



EO 60 Series Motor

EO60 Series Specification

Accuracy	± 5%(full step, unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩ min 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)



Electrical Specification

EO 60MM Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Inertia (g.cm)	Detent Torque(N.cm)	Motor length(mm)	Weight (kg)
EO60-08	2	1.8	0.85	2.5	2.2	1	4	200	3	45	0.55
EO60-16/25	2	1.8	1.6	2.5	4.2	1.3	4	350	4	56	0.7
EO60-16/42	2	1.8	1.6	4.2	1.2	0.4	4	350	4	56	0.7
EO60-18/30	2	1.8	1.8	3	2.3	0.8	4	450	5	65	0.85
EO60-18/42	2	1.8	1.8	4.2	1.2	0.55	4	450	5	65	0.85
EO60-22/25	2	1.8	2.2	2.5	6.5	1.8	4	550	7	76	1.15
EO60-22/30	2	1.8	2.2	3	3.5	1	4	550	7	76	1.15
EO60-20/42	2	1.8	2.2	4.2	1.8	0.6	4	550	7	76	1.15
EO60-26/30	2	1.8	2.6	3.0	5.5	1.4	4	780	12	89	1.4
EO60-26/42	2	1.8	2.6	4.2	2.8	0.7	4	780	12	89	1.4
EO60-30	2	1.8	3.0	4.2	3	0.7	4	900	16	100	1.6
EO60-36	2	1.8	3.6	4.2	3.5	0.85	4	900	16	112	1.8

Mechanical Dimension(UNIT:mm)

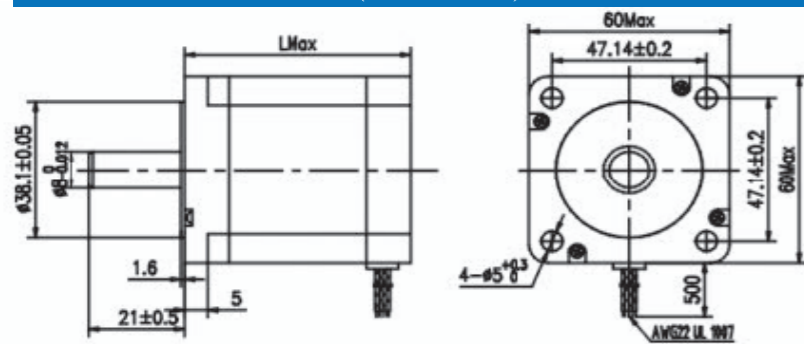
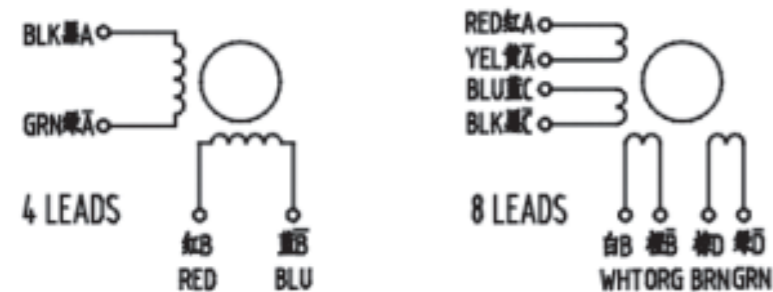


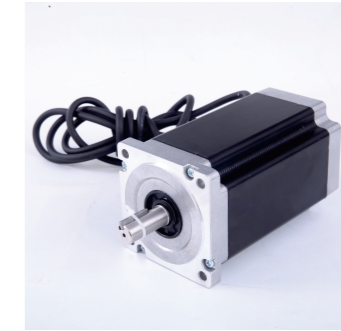
Diagram Wiring:



EO 86 Series Motor

EO86 Series Specification

Accuracy	± 5%(full step, unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩ min 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)



Electrical Specification

EO 86MM Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Inertia (g.cm)	Detent Torque(N.cm)	Motor length(mm)	Weight (kg)
EO86-35/30	2	1.8	3.5	3.0	6.8	1.2	4	1000	5.5	68	2
EO86-35/42	2	1.8	3.5	4.2	1.6	0.6	6	1000	5.5	68	2
EO86-35/60	2	1.8	3.5	6.0	1.7	0.3	4	1000	5.5	68	2
EO86-45/20	2	1.8	4.5	2	10	2.2	8	1400	6.5	78	2.5
EO86-45/42	2	1.8	4.5	4.2	2.8	0.7	8	1400	6.5	78	2.5
EO86-45/60	2	1.8	4.5	6	2.8	0.35	4	1400	6.5	78	2.5
EO86-70/42	2	1.8	7	4.2	4.2	0.8	4	2000	9.5	98	3
EO86-70/60	2	1.8	7	6	4.2	0.4	8	2000	9.5	98	3
EO86-80/42	2	1.8	8	4.2	5.8	1.1	8	2700	12.5	114	3.7
EO86-80/60	2	1.8	8	6	5.8	0.6	4	2700	12.5	114	3.7
EO86-85/42	2	1.8	8.5	4.2	5.8	1.1	8	2700	12.5	118	4
EO86-85/60	2	1.8	8.5	6	5.8	0.6	4	2700	12.5	118	4
EO86-100/42	2	1.8	10	4.2	6.2	1.2	8	3300	18.5	126	4.2
EO86-100/60	2	1.8	10	6	6.2	0.6	4	3300	18.5	126	4.2
EO86-120/42	2	1.8	12	4.2	8.6	1.5	8	4000	24.5	150	5

Mechanical Dimension(UNIT:mm)

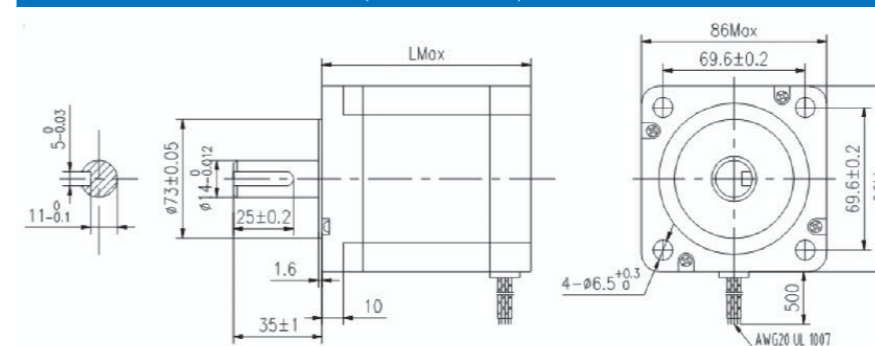
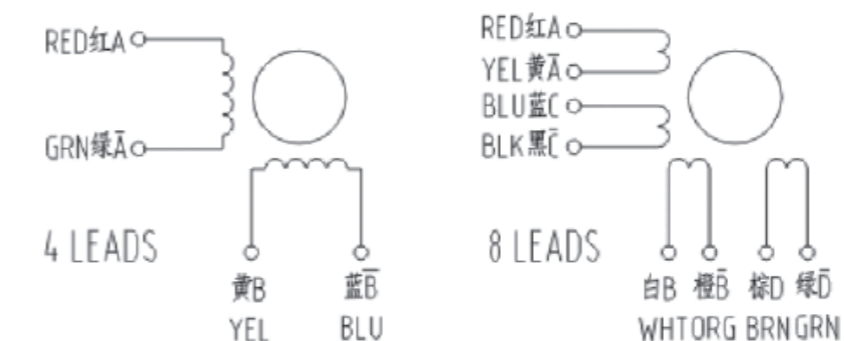


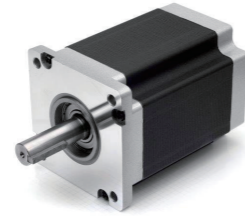
Diagram Wiring:



EO 110 Series Motor

EO110 Series Specification

Accuracy	± 5%(full step, unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩ min 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)



Electrical Specification

EO 110MM Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Inertia (g.cm)	Detent Torque(N.cm)	Motor length(mm)	Weight (kg)
EO110-110	2	1.8	11	5.5	9.8	0.7	4	5500	30	100	5
EO110-160	2	1.8	16	6	4.9	0.37	4	7200	40	115	6
EO110-210	2	1.8	21	6.5	11	0.75	4	10900	59	150	8.4
EO110-280	2	1.8	28	8	12	0.7	4	16200	75	200	13

Mechanical Dimension(UNIT:mm)

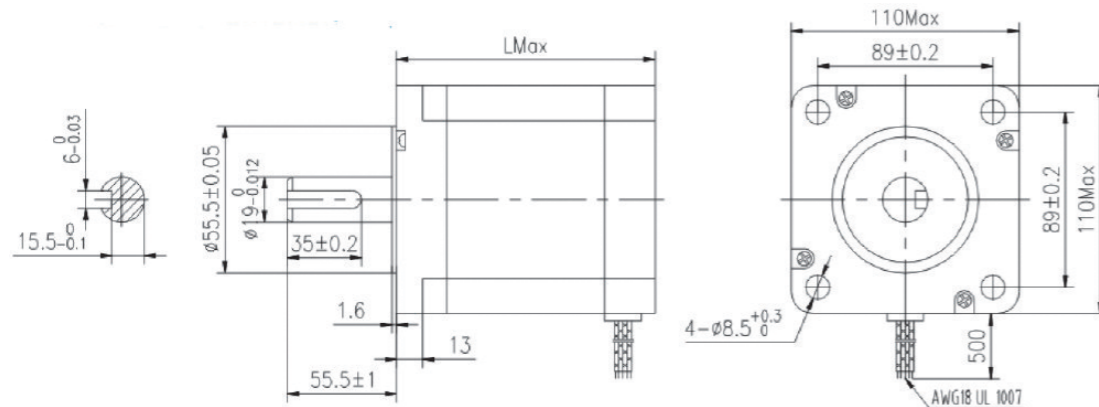
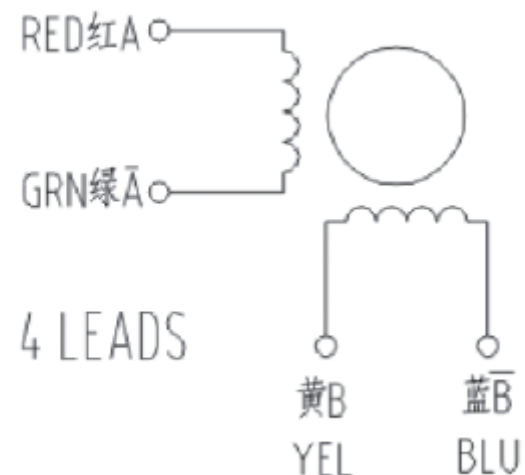


Diagram Wiring:

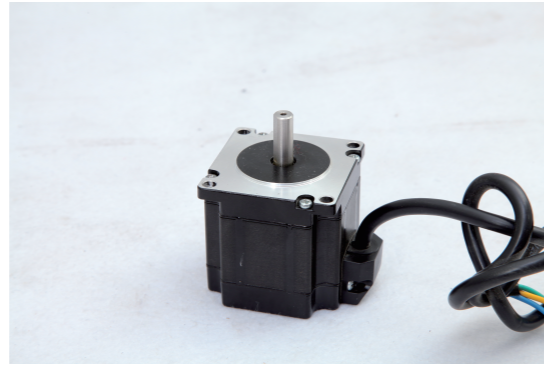


OPEN LOOP STEPPER MOTOR 3 PHASE

3EO 57 Series Motor

3EO 57 Series Specification

Accuracy	± 5%(full step, unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩ min 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)



Electrical Specification

3EO 57MM Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Inertia (g.cm)	Detent Torque(N.cm)	Motor length(mm)	Weight (kg)
3EO57-08	3	1.2	0.8	3.5	1.7	0.6	3	300	3.5	56	0.7
3EO57-15	3	1.2	1.5	6	2	0.8	6	500	6	76	1.1
3EO57-20	3	1.2	2.0	10	1.7	0.45	3	700	10	105	1.3

Mechanical Dimension(UNIT:mm)

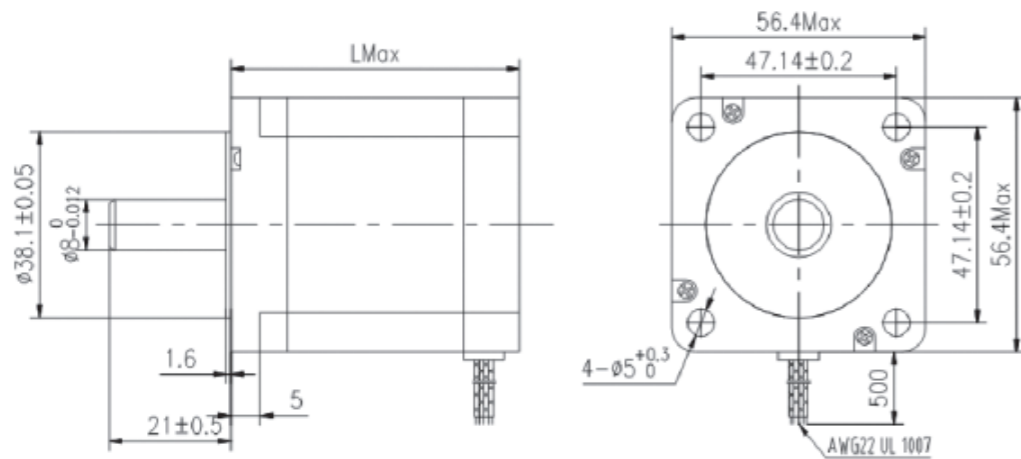
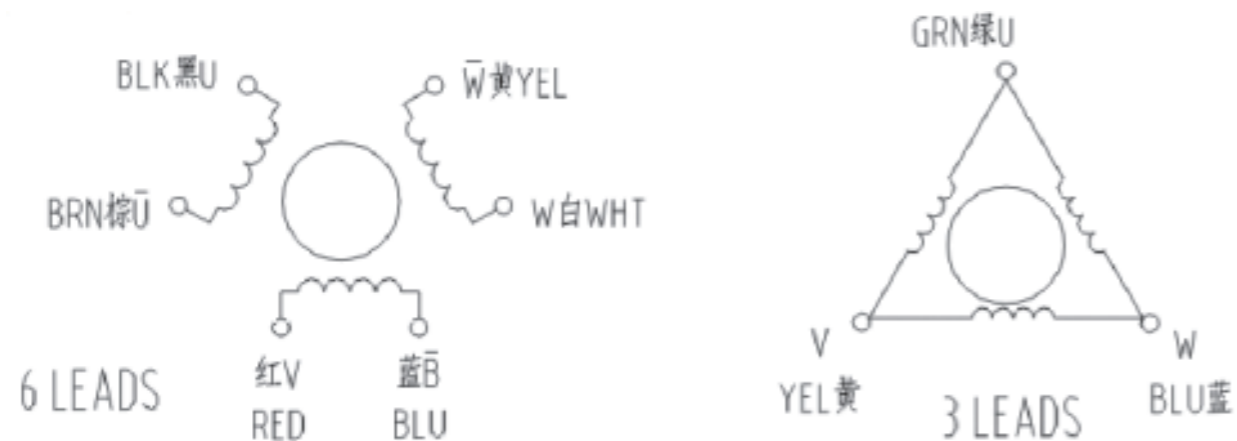


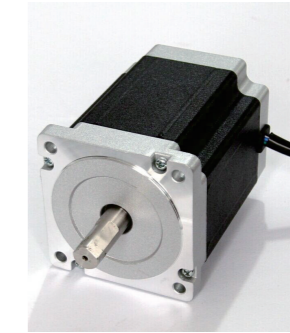
Diagram Wiring:



3EO 86 Series Motor

3EO86 Series Specification

Accuracy	± 5%(full step, unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩ min 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)



Electrical Specification

3EO 86MM Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Inertia (g.cm)	Motor length(mm)	Weight (kg)
3EO86-21/18	3	1.2	2.1	1.75	12.3	4.25	3	850	68	2
3EO86-21/68	3	1.2	2.1	6.8	0.65	0.3	3	850	68	2
3EO86-35/35	3	1.2	3.5	3.5	5	1.6	3	1050	78	2.5
3EO86-35/45	3	1.2	3.5	4.5	3	1	3	1050	78	2.5
3EO86-35/68	3	1.2	3.5	6.8	1.3	0.42	3	1050	78	2.5
3EO86-50/20	3	1.2	5	2	23	5.4	3	1500	98	3
3EO86-50/45	3	1.2	5	4.5	3.9	2.1	6	1550	98	3
3EO86-50/58	3	1.2	5	5.8	3	0.8	3	1550	98	3
3EO86-62/35	3	1.2	6.2	3.5	8.2	3.1	3	1800	114	3.5
3EO86-62/45	3	1.2	6.2	4.5	4.8	1.8	3	1800	114	3.5
3EO86-62/68	3	1.2	6.2	6.8	2.1	0.75	3	1800	114	3.5
3EO86-76/35	3	1.2	7.6	3.5	9.8	3.5	3	2200	126	4
3EO86-76/45	3	1.2	7.6	4.5	6.2	2.1	3	2200	126	4
3EO86-76/68	3	1.2	7.6	6.8	2.6	0.9	3	2200	126	4
3EO86-92/68	3	1.2	9.2	6.8	3.5	0.7	3	2500	150	4.5

Mechanical Dimension(UNIT:mm)

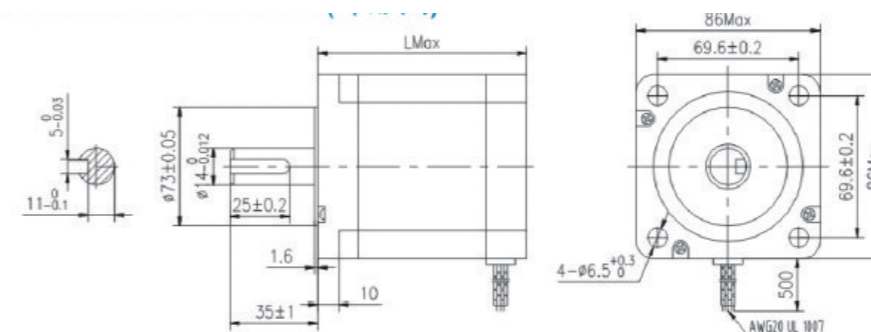
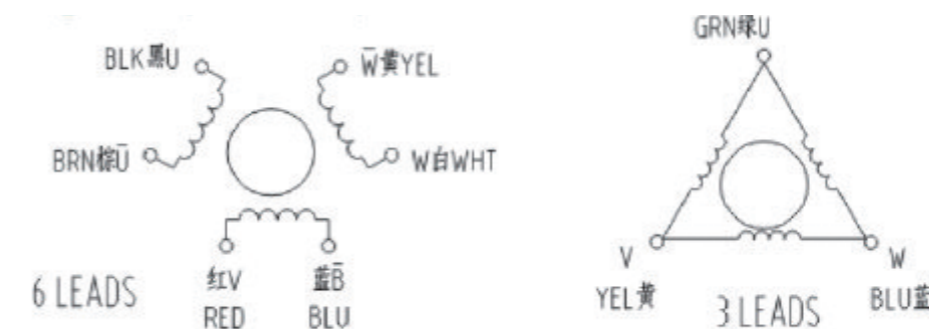


Diagram Wiring:



3EO 110 Series Motor

3EO 110 Series Specification

Accuracy	± 5%(full step, unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩ min 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)



Electrical Specification

3EO 110MM Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Inertia (g.cm)	Detent Torque(N.cm)	Motor length(mm)	Weight (kg)
3EO110-120	3	1.2	12	6	11.5	0.8	3	11900	40	160	7.1
3EO110-160	3	1.2	16	6	18	1.3	3	14800	55	185	8.8
3EO110-200	3	1.2	20	6	20	1.5	3	19600	68	220	11

Mechanical Dimension(UNIT:mm)

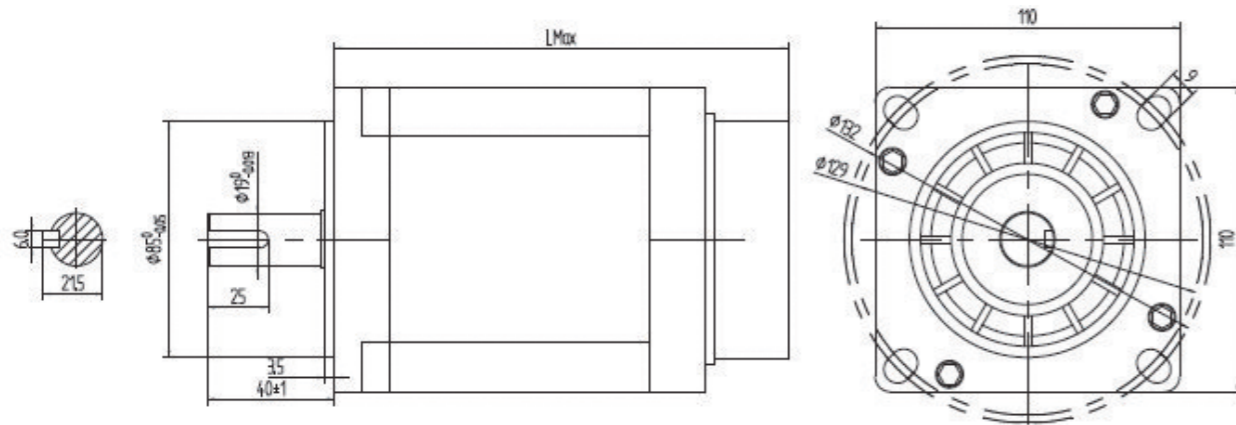
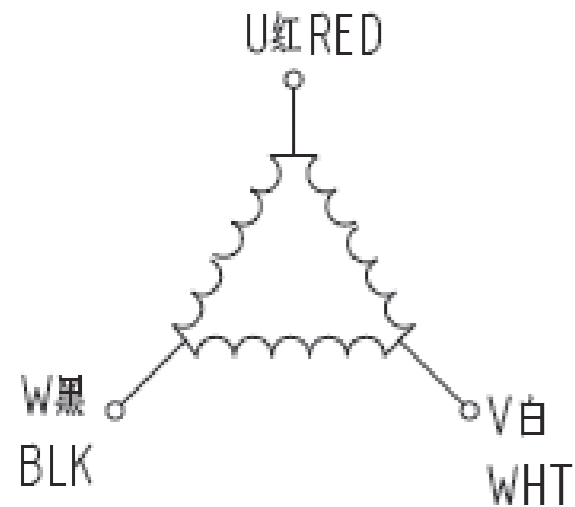


Diagram Wiring:



3EO 130 Series Motor

3EO30 Series Specification

Accuracy	± 5%(full step, unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩ min 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)



Electrical Specification

3EO 130MM Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Inertia (g.cm)	Detent Torque(N.cm)	Motor length(mm)	Weight (kg)
3EO130-240	3	1.2	24	6.8	16	0.96	3	26870	100	180	14
3EO130-280	3	1.2	28	6.8	19	1.1	3	33970	160	220	17
3EO130-350	3	1.2	35	6.8	24	1.4	3	41400	240	250	19
3EO130-500	3	1.2	50	6.8	18	1.5	3	47300	280	285	20.5

Mechanical Dimension(UNIT:mm)

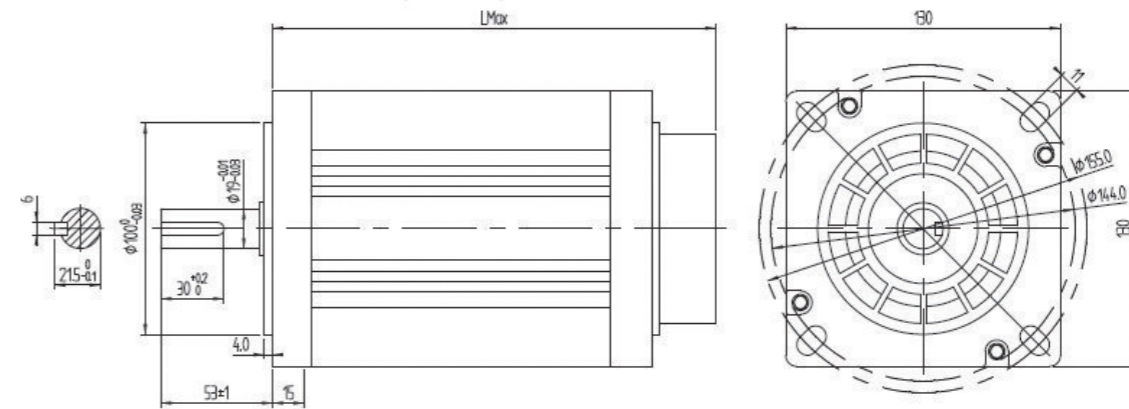
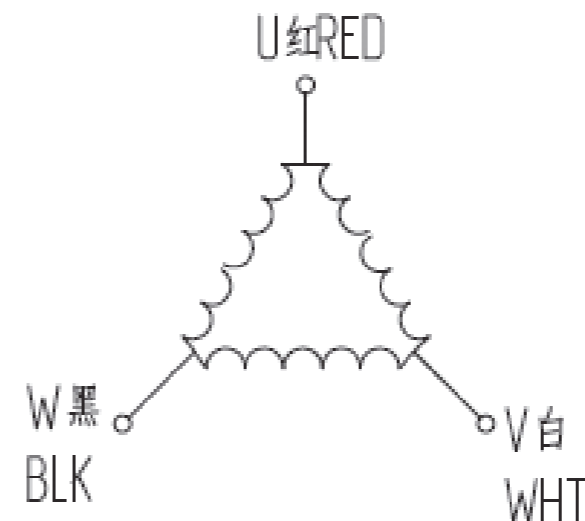


Diagram Wiring:



CLOSED LOOP STEPPER MOTOR

EC42 series



EC 42 Series Specification

Accuracy	±5%(full step, unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩmin 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)

Electrical Specification

EC 42MM Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Inertia (g.cm ²)	Detent Torque(N.cm)	Motor length (mm)	Weight (g)
EC42-03	2	1.8	0.28	2.0	1.0	0.9	4	34	1.6	34	260
EC42-04	2	1.8	0.4	2.5	0.8	1.0	4	54	2.2	40	320
EC42-05	2	1.8	0.52	2.5	1.3	1.3	4	68	2.6	48	390
EC42-06	2	1.8	0.65	2.5	2.2	1.5	4	102	3.8	60	500

Mechanical Dimension(UNIT:mm)

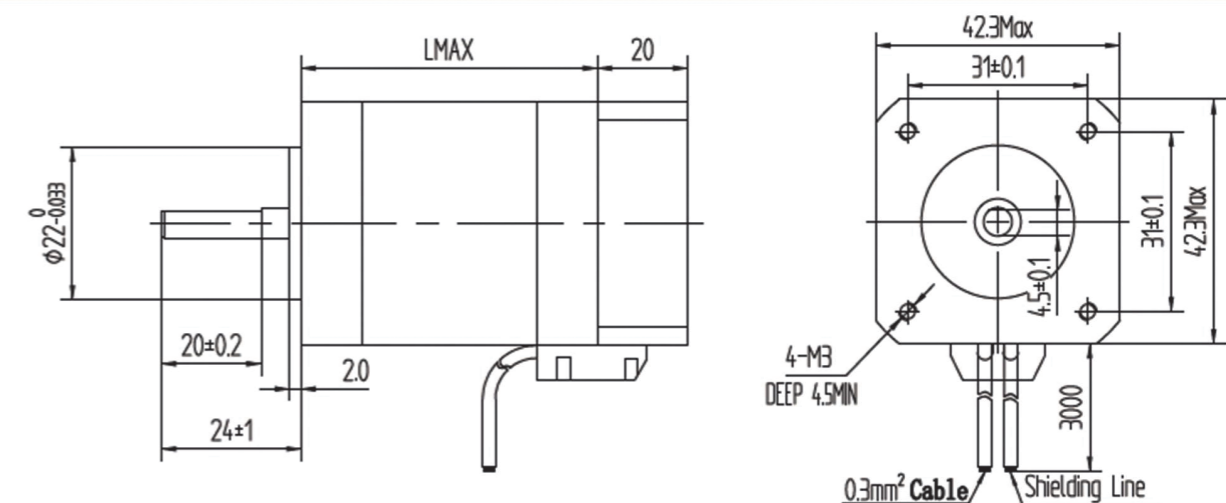
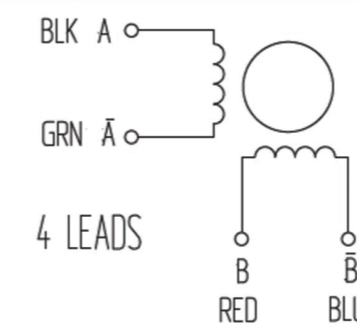


Diagram Wiring:



A	A-	B	B-	VCC	0v
BLACK	Brown	Yellow	Green	Red	White

EC57 series



EC 57 Series Specification

Accuracy	±5%(full step、unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩmin 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)

Electrical Specification

EC 57MM Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Inertia (g.cm ²)	Detent Torque(N.cm)	Motor length (mm)	Weight (kg)
EC57-10	2	1.8	1.1	4.2	1.2	0.4	4	280	3.5	56	0.8
EC57-22	2	1.8	2.2	3.5	3.8	0.8	4	500	7.0	80	1.4
EC57-22	2	1.8	2.2	4.2	2.0	0.7	4	500	7.0	80	1.4
EC57-28	2	1.8	2.8	4.2	3.5	0.8	4	800	12.0	112	1.8

Mechanical Dimension(UNIT:mm)

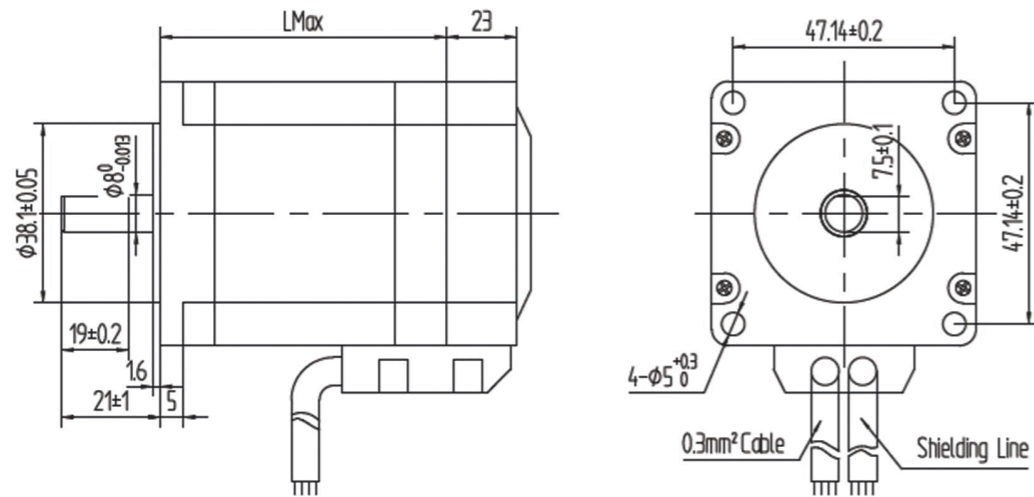
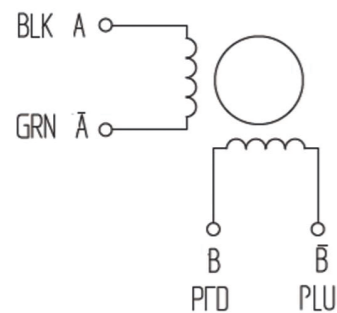


Diagram Wiring:



PA+	PA-	PB+	PB-	VCC	GND
Black	Blue	Yellow	Green	Red	White

EC60 series



EC 60 Series Specification

Accuracy	±5%(full step、unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩmin 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)

Electrical Specification

EC 60MM Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Inertia (g.cm ²)	Detent Torque(N.cm)	Motor length (mm)	Weight (kg)
EC60-27	2	1.8	2.7	5.0	2.5	0.7	4	840	12	89	2.2
EC60-35	2	1.8	3.5	5.0	3.8	0.8	4	1200	18	112	2.8

Mechanical Dimension(UNIT:mm)

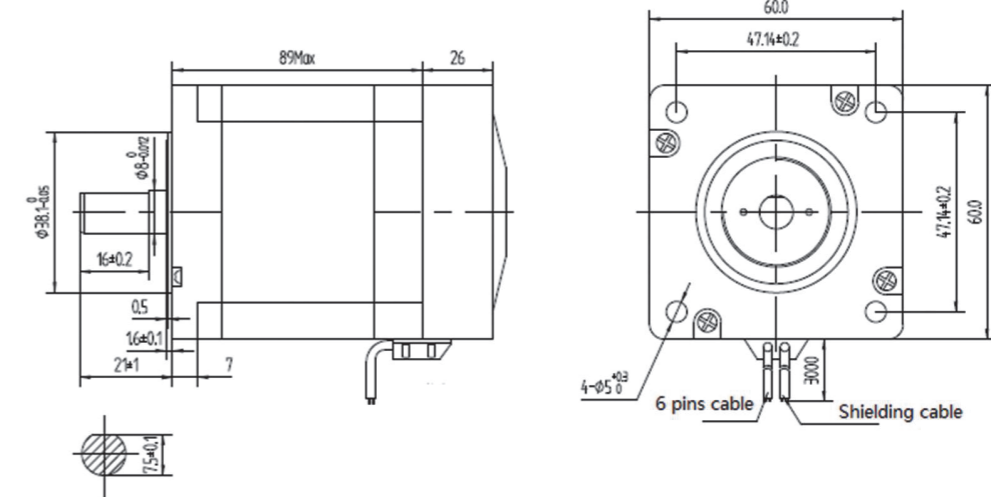
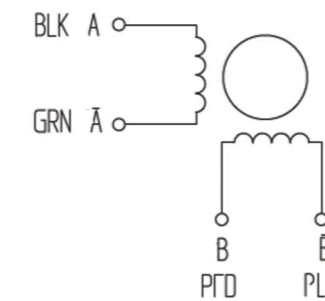


Diagram Wiring:



PA+	PA-	PB+	PB-	VCC	GND
Black	Blue	Yellow	Green	Red	White

EC86 series



EC 86 Series Specification

Accuracy	±5%(full step、unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩmin 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)

Electrical Specification

EC 86MM Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Inertia (g.cm ²)	Detent Torque(N.cm)	Motor length (mm)	Weight (kg)
EC86-40	2	1.8	4.0	6.0	2.5	0.35	4	1400	6.5	80	3
EC86-85	2	1.8	8.5	6.0	4.5	0.45	4	2700	12.5	118	4.2
EC86-120	2	1.8	12.5	6.0	8.5	0.92	4	4000	25	156	6

OPEN-LOOP Stepper Motor With Brake

Mechanical Dimension(UNIT:mm)

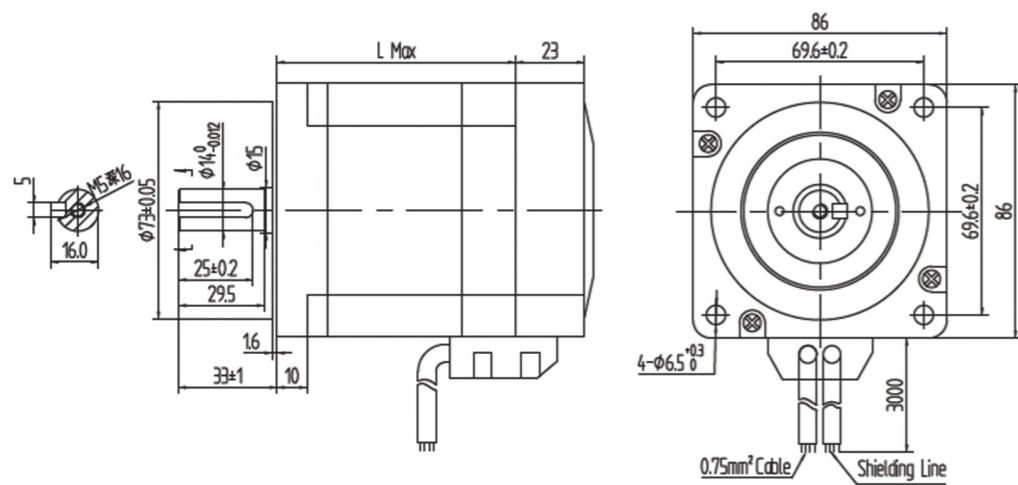
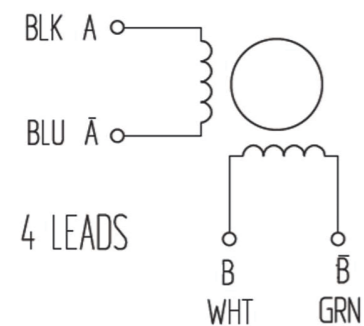


Diagram Wiring:



PA+	PA-	PB+	PB-	VCC	GND
Black	Blue	Yellow	Green	Red	White

EO86-BK



EO86 Brake Series Specification

Accuracy	±5%(full step、unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩmin 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)

Electrical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Brake Voltage (V)	Detent Torque (N.cm)	Motor length (mm)
EO86-40BK	2	1.8	4	6	2.8	0.35	4	24	4	78
EO86-60BK	2	1.8	6.2	6	4.2	0.4	4	24	4	98
EO86-80BK	2	1.8	8	6	5.8	0.6	4	24	8	114
EO86-120BK	2	1.8	12	6	8.6	0.75	4	24	8	150

Mechanical Dimension(Unit: mm)

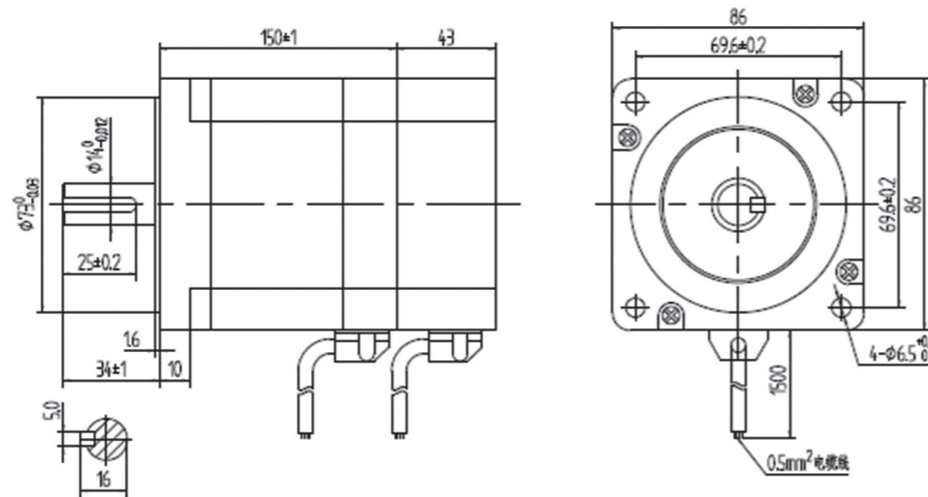
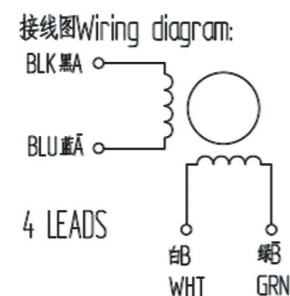


Diagram Wiring:



EO110-BK



EO110 BK Series Specification

Accuracy	±5%(full step、unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩmin 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)

Electrical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Brake Voltage (V)	Detent Torque (N.cm)	Motor length (mm)
EO110-110BK	2	1.8	11	5.5	9.8	0.7	4	24	8	100
EO110-160BK	2	1.8	16	6	4.9	0.37	4	24	8	115
EO110-210BK	2	1.8	21	6.5	11	0.75	4	24	8	150

Mechanical Dimension(UNIT:mm)

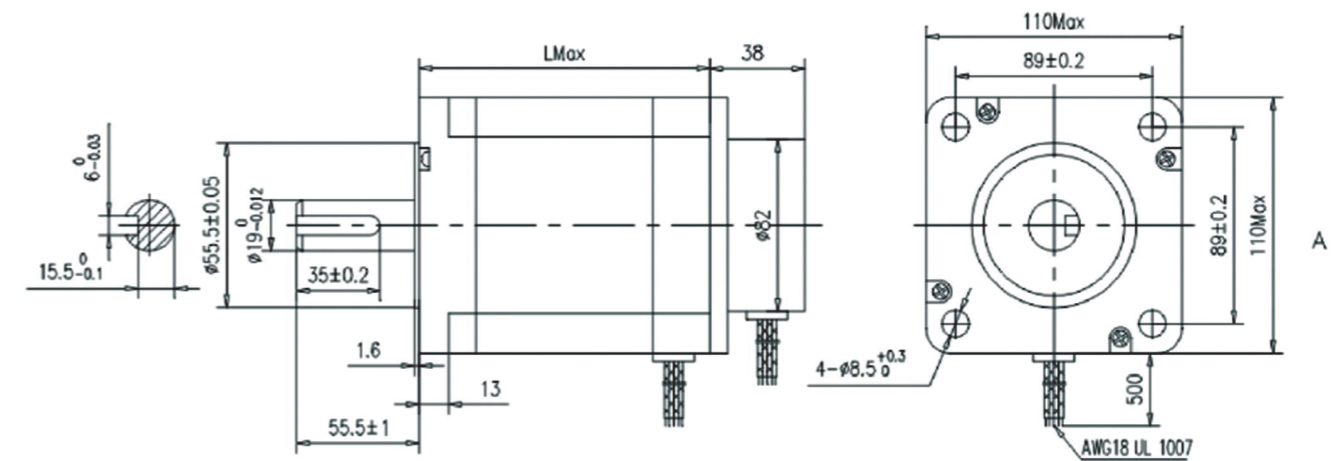
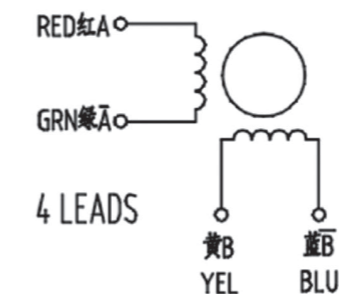


Diagram Wiring:



CLOSED-LOOP Stepper Motor With Brake

EC42-BK



EC 42 BRAKE Series Specification

Accuracy	±5%(full step、unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩmin 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)

Electrical Specification

EC 42-BK Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Brake Voltage(V)	Inertia (g.cm ²)	Detent Torque(N.cm)	Motor length (mm)	Weight (g)
EC42-03BK	2	1.8	0.28	2.0	1.0	0.9	4	24	34	1.6	34	340
EC42-04BK	2	1.8	0.4	2.5	0.8	1.0	4	24	54	2.2	40	380
EC42-05BK	2	1.8	0.52	2.5	1.3	1.3	4	24	68	2.6	48	450
EC42-06BK	2	1.8	0.65	2.5	2.2	1.5	4	24	102	3.8	60	560

Mechanical Dimension(Unit: mm)

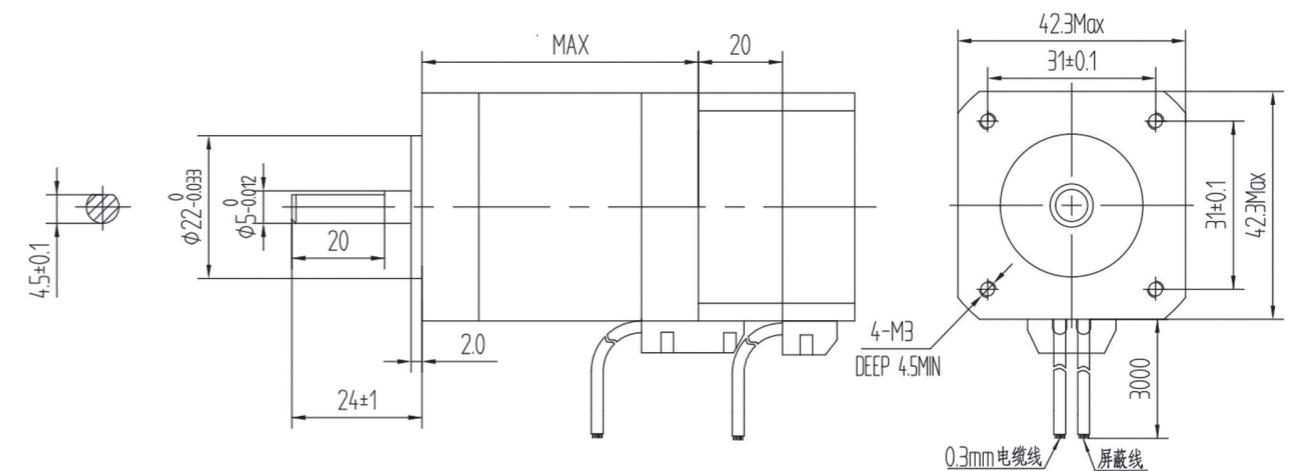


Diagram Wiring:



Encoder wiring:

Definition	PA+	PA-	PB+	PB-	VCC	GND
Color	BLK	BLE	YEL	GRN	RED	WHT

EC57-BK



EC 57-BK Series Specification

Accuracy	±5%(full step、unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩmin 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)

Electrical Specification

EC 57-BK Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Brake voltage(V)	Inertia (g.cm ²)	Detent Torque(N.cm)	Motor length (mm)	Weight (kg)
EC57-10BK	2	1.8	1.1	4.2	1.2	0.4	4	24	280	3.5	56	1.2
EC57-22BK	2	1.8	2.2	3.5	3.8	0.8	4	24	500	7.0	80	1.7
EC57-22BK	2	1.8	2.2	4.2	2.0	0.7	4	24	500	7.0	80	1.7
EC57-28BK	2	1.8	2.8	4.2	3.5	0.8	4	24	800	12.0	112	2.4

Mechanical Dimension(UNIT:mm)

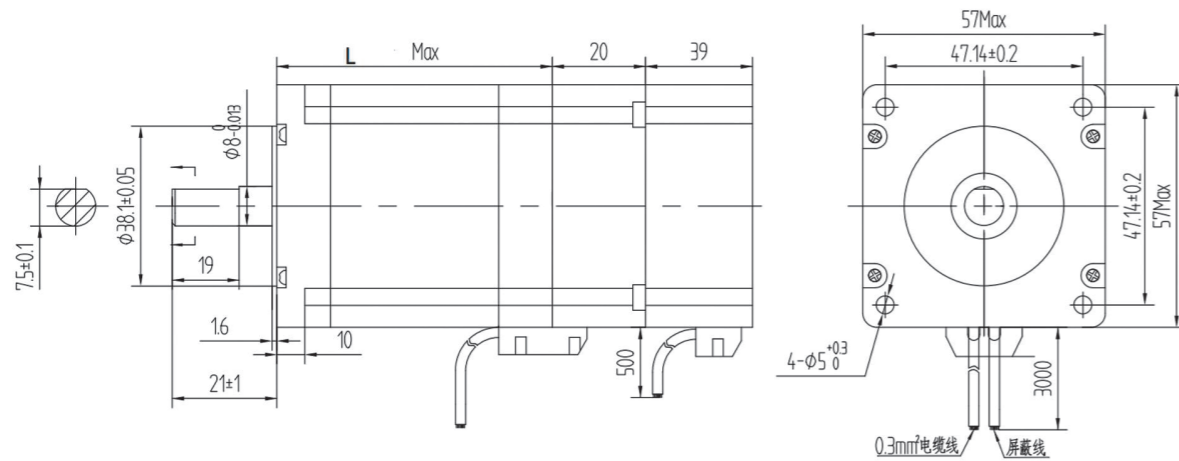
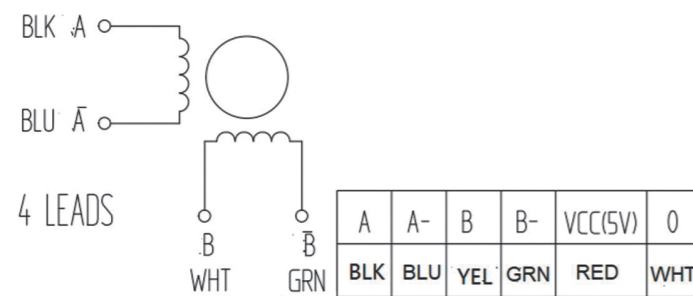


Diagram Wiring:



EC60-BK



EC60-BK Series Specification

Accuracy	±5%(full step、unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩmin 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)

Electrical Specification

EC 60MM Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Inertia (g.cm ²)	Detent Torque(N.cm)	Motor length (mm)	Weight (kg)
EC60-27BK	2	1.8	2.7	5.0	2.5	0.7	4	840	12	89	2.2
EC60-35BK	2	1.8	3.5	5.0	3.8	0.8	4	1200	18	112	2.8

Mechanical Dimension(Unit: mm)

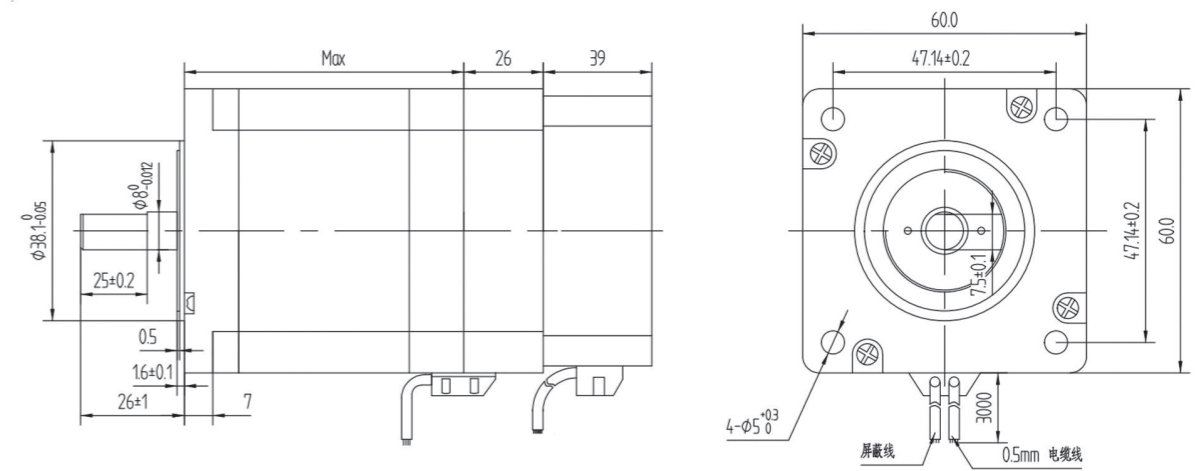
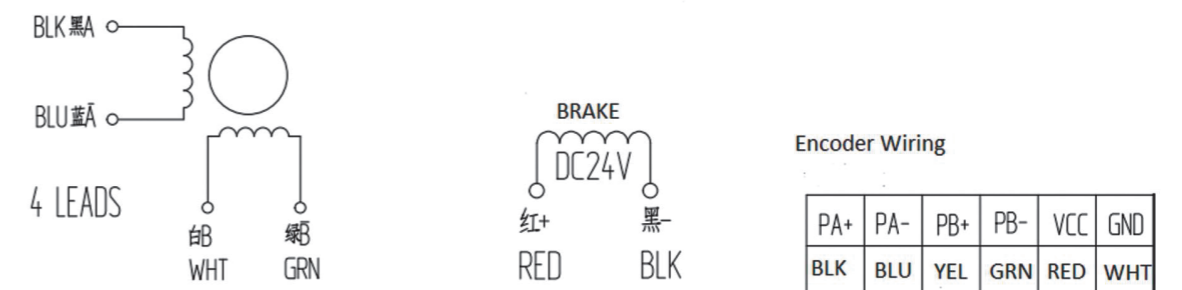
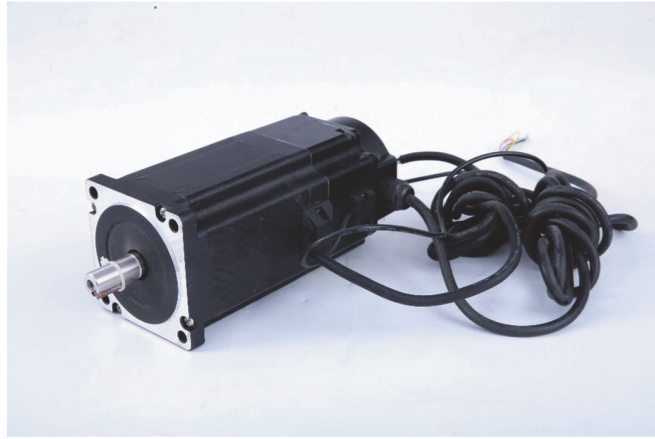


Diagram Wiring:



EC86-BK



Accuracy	±5%(full step、 unload)
Temperature	85°C MAX
Environment	-25°C~+55°C
Insulation Resistance	100MΩmin 500VDC
Pressure	500VAC for one minute
Radial runout	0.02 Max(450g-load)
Axial runout	0.08 Max(450g-load)

Electrical Specification

EC 86-BK Series Technical Specification

Model	Phase	Step Angle	Torque (NM)	Current (A)	Inductance (mH)	Resistance (ohm)	Lead	Brake Voltage(V)	Inertia (g.cm ²)	Detent Torque(N.cm)	Motor length (mm)	Weight (kg)
EC86-40BK	2	1.8	4.0	6.0	2.5	0.35	4	24	1400	6.5	80	4
EC86-85BK	2	1.8	8.5	6.0	4.5	0.45	4	24	2700	12.5	118	5
EC86-120BK	2	1.8	12.5	6.0	8.5	0.92	4	24	4000	25	156	7

Mechanical Dimension(UNIT:mm)

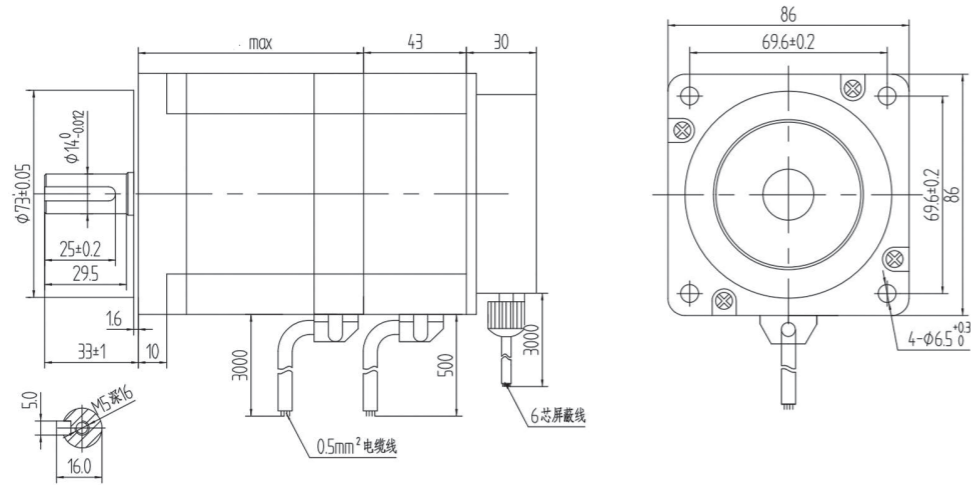


Diagram Wiring:

