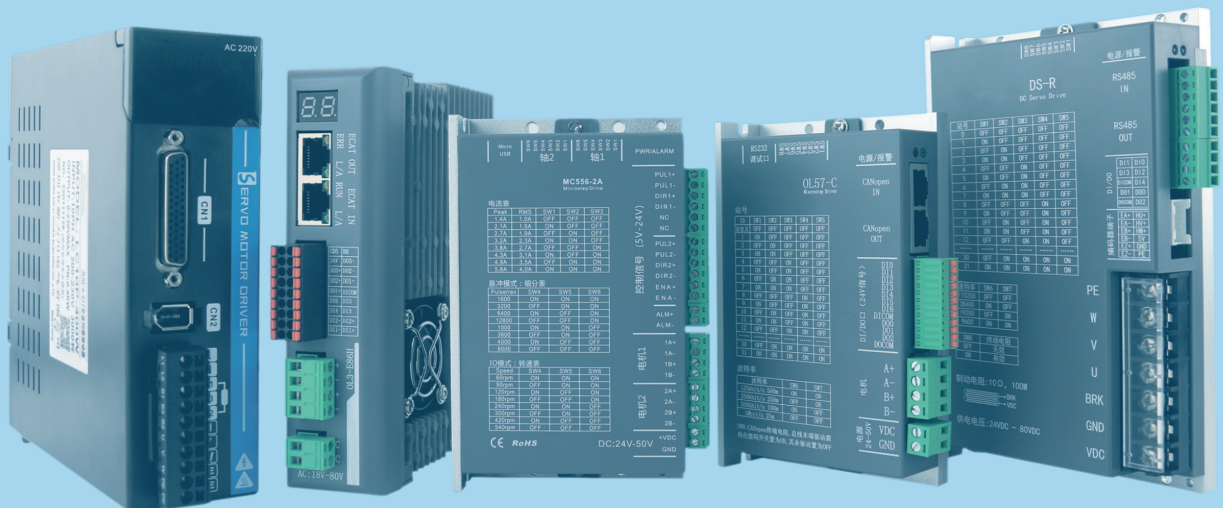


Servo Comprehensive Manual

VKE



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MC425E 2 Phase Digital Driver

Technical parameter

- Voltage input range: DC18V~36V
- Maximum peak current: 2.5A
- Subdivision range: 400~6400ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With protection functions such as overvoltage, overcurrent, tracking error out of tolerance, etc.

Environmental parameters

- Storage temperature: -20°C~65°C
- Operating temperature: 0°C~50°C
- Operating humidity: 40~90%RH (non-condensing)
- Vibration frequency: less than 0.5G (4.9m/s²) 10Hz~55Hz (discontinuous operation)
- Avoid dust, oil stains, corrosive gases, places with too much humidity and too strong vibration, and prohibit flammable gas and conductive dust

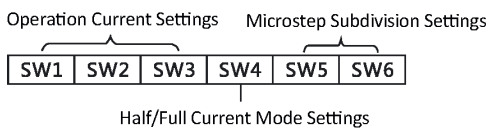


Drive function description

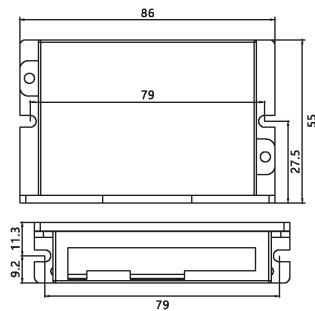
Drive function	Instructions
Microstep subdivision setting	4 microstep subdivisions can be set for the Driver through 2 dial switches SW5~SW6. The Driver shall be stopped while setting subdivision. See driver panel instruction for microstep subdivision settings.
Output current setting	8 output currents can be set for the Driver through 3 dial switches SW1~SW3. See driver panel instruction for output current settings.
Automatic half-flow function	Automatic half current function can be set for the Driver through switch SW4. OFF means that quiescent current is set to half of operating current; ON means that quiescent current and dynamic current are the same. SW4 shall be set as OFF for general use to reduce heat generation of the motor and the driver and to improve reliability. About 0.3s after pulse train stops, current will automatically reduce 50% (actual value 55%) and theoretically, heat generation will reduce 65%.
Signal interface	PUL is the negative terminal of pulse signal control; DIR is the negative terminal of direction signal; ENA is the negative terminal of enable signal; OPT is the positive terminal of pulse/direction/enable signal (5V public terminal).
Motor interface	A+ and A- connect to positive and negative terminals of A phase winding of stepper motor; B+ and B- connect to positive and negative terminals of B phase winding of stepper motor. When A and B phase windings are switched, the Motor direction will be reversed.
Power connector	DC power supply, operation input voltage range: 18V-36V DC, 24V DC is suggested.
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
Installation Notes	Dimensions of the Driver: 86x55x20.5mm, installation pitch of holes: 79mm. Both horizontal and vertical installations can be selected (vertical installation is suggested). The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

Subdivision precision, dynamic and half/full currents can be set for MC425E Driver through 6-bit dial switch as follows:



Microstep subdivision setting



Working current setting

Output peak current	SW1	SW2	SW3
0.5A	on	on	on
0.7A	off	on	on
1.0A	on	off	on
1.3A	off	off	on
1.6A	on	on	off
1.9A	off	on	off
2.2A	on	off	off
2.5A	off	off	off

Microstep subdivision setting

Steps/revolution	SW5	SW6
400	on	on
1600	off	on
3200	on	off
6400	off	off

MC442E 2 Phase Digital Driver

Technical parameter

- Voltage input range: DC20V~40V
- Maximum peak current: 4.2A
- Subdivision range: 200~25600ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With protection functions such as overvoltage, overcurrent, tracking error out of tolerance, etc.

Environmental parameters

- Voltage input range: DC20V~50V
- Maximum peak current: 4.2A
- Subdivision range: 200~25600ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With protection functions such as overvoltage, overcurrent, tracking error out of tolerance, etc.

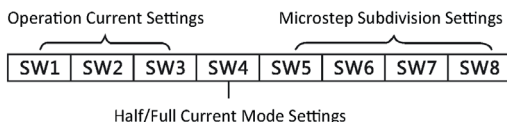


Drive function description

Drive function	Instructions
Microstep subdivision setting	16 microstep subdivisions can be set for the Driver through 4 dial switches SW5~SW8. The Driver shall be stopped while setting subdivision. See driver panel instruction for microstep subdivision settings.
Output current setting	8 output currents can be set for the Driver through 3 dial switches SW1~SW3. See driver panel instruction for output current settings.
Automatic half-flow function	Automatic half current function can be set for the Driver through switch SW4. OFF means that quiescent current is set to half of operating current; ON means that quiescent current and dynamic current are the same. SW4 shall be set as OFF for general use to reduce heat generation of the motor and the driver and to improve reliability. About 0.3s after pulse train stops, current will automatically reduce 50% (actual value 55%) and theoretically, heat generation will reduce 65%.
Signal interface	PUL+ and PUL- are positive and negative terminals of pulse signal control; DIR+ and DIR- are positive and negative terminals of direction signal; ENA+ and ENA- are positive and negative terminals of enable signals.
Motor interface	A+ and A- connect to positive and negative terminals of A phase winding of stepper motor; B+ and B- connect to positive and negative terminals of B phase winding of stepper motor. When A and B phase windings are switched, the Motor direction will be reversed.
Power connector	DC power supply, operation input voltage range: 18V~36V DC, 24V DC operation voltage is suggested, power supply shall be higher than 100W.
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
Installation Notes	Dimensions of the Driver: 116x69.2x26.5mm, installation pitch of holes: 109mm. Both horizontal and vertical installations can be selected (vertical installation is suggested). The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

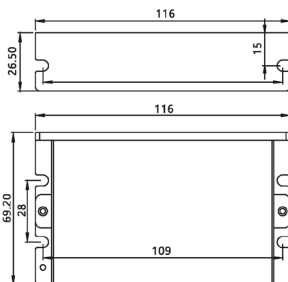
Subdivision precision, operating and half/full currents can be set for MC442E Driver through 8-bit dial switch as follows:



Working current setting

Output peak current	Output average current	SW1	SW2	SW3
1.0A	0.71A	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
4.2A	3.0A	off	off	off

Microstep subdivision setting



Microstep subdivision setting

Steps/revolution	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

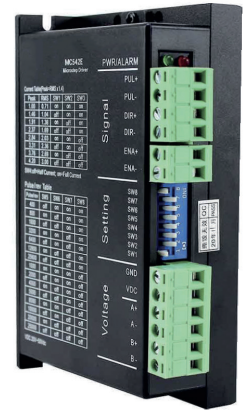
MC542E 2 Phase Digital Driver

Technical parameter

- Voltage input range: DC20V~50V
- Maximum peak current: 4.2A
- Subdivision range: 200~25600ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With protection functions such as overvoltage, overcurrent, tracking error out of tolerance, etc.

Environmental parameters

- Storage temperature: -20°C~65°C
- Operating temperature: 0°C~50°C
- Operating humidity: 40~90%RH (non-condensing)
- Vibration frequency: less than 0.5G (4.9m/s²) 10Hz~55Hz (discontinuous operation)
- Avoid dust, oil stains, corrosive gases, places with too much humidity and too strong vibration, and prohibit flammable gas and conductive dust

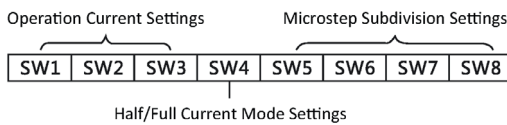


Drive function description

Drive function	Instructions
Microstep subdivision setting	15 microstep subdivisions can be set for the Driver through 4 dial switches SW5~SW8. The Driver shall be stopped while setting subdivision. See driver panel instruction for microstep subdivision settings.
Output current setting	8 output currents can be set for the Driver through 3 dial switches SW1~SW3. See driver panel instruction for output current settings.
Automatic half-flow function	Automatic half current function can be set for the Driver through switch SW4. OFF means that quiescent current is set to half of operating current; ON means that quiescent current and dynamic current are the same. SW4 shall be set as OFF for general use to reduce heat generation of the motor and the driver and to improve reliability. About 0.3s after pulse train stops, current will automatically reduce 50% (actual value 55%) and theoretically, heat generation will reduce 65%.
Signal interface	PUL+ and PUL- are positive and negative terminals of pulse signal control; DIR+ and DIR- are positive and negative terminals of direction signal, ENA+ and ENA- are positive and negative terminals of enable signals.
Motor interface	A+ and A- connect to positive and negative terminals of A phase winding of stepper motor; B+ and B- connect to positive and negative terminals, When A and B phase windings are switched, the Motor direction on will be reversed;
Power connector	DC power supply, operation input voltage range: 20V~50VDC, 36VDC operation voltage is suggested, power supply shall be higher than 100W.
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
Installation Notes	Dimensions of the Driver: 117x78x34mm, installation pitch of holes: 111mm. Both horizontal and vertical installations can be selected (vertical installation is suggested). The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

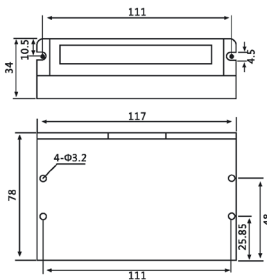
Subdivision precision, dynamic and half/full currents can be set for MC542E Driver through 8-bit dial switch as follows:



Working current setting

Output peak current	Output average current	SW1	SW2	SW3
1.0A	0.71A	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
4.2A	3.0A	off	off	off

Microstep subdivision setting



Microstep subdivision setting

Steps/revolution	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
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8000	on	on	off	off
10000	off	on	off	off
20000	on	off	off	off
25000	off	off	off	off

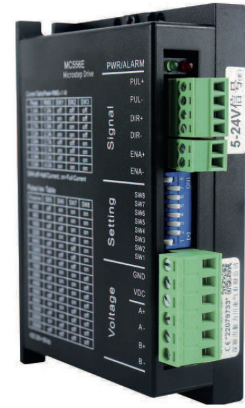
MC556E 2 Phase Digital Driver

Technical parameter

- Voltage input range: DC20V~50V
- Maximum peak current: 5.6A
- Subdivision range: 200~25600ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With protection functions such as overvoltage, overcurrent, tracking error out of tolerance, etc.

Environmental parameters

- Voltage input range: DC24V~110V/AC18V~80V
- Maximum peak current: 7.2A
- Subdivision range: 400~51200ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With protection functions such as overvoltage, overcurrent, tracking error out of tolerance, etc.

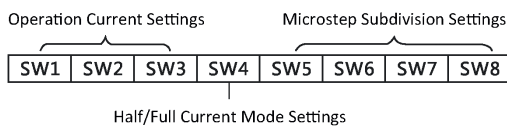


Drive function description

Drive function	Instructions
Microstep subdivision setting	15 microstep subdivisions can be set for the Driver through 4 dial switches SW5~SW8. The Driver shall be stopped while setting subdivision. See driver panel instruction for microstep subdivision settings.
Output current setting	8 output currents can be set for the Driver through 3 dial switches SW1~SW3. See driver panel instruction for output current settings.
Automatic half-flow function	Automatic half current function can be set for the Driver through switch SW4. OFF means that quiescent current is set to half of operating current; ON means that quiescent current and dynamic current are the same. SW4 shall be set as OFF for general use to reduce heat generation of the motor and the driver and to improve reliability. About 0.3s after pulse train stops, current will automatically reduce 50% (actual value 55%) and theoretically, heat generation will reduce 65%.
Signal interface	PUL+ and PUL- are positive and negative terminals of pulse signal control; DIR+ and DIR- are positive and negative terminals of direction signal; ENA+ and ENA- are positive and negative terminals of enable signals.
Motor interface	A+ and A- connect to positive and negative terminals of A phase winding of stepper motor; B+ and B- connect to positive and negative terminals of B phase winding of stepper motor. When A and B phase windings are switched, the Motor direction will be reversed.
Power connector	DC/AC power supply, operation input voltage range: 20 ~ 50 VDC, 36VDC input voltage is suggested, power supply shall be higher than 100W.
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
Installation Notes	Dimensions of the Driver: 117 x 78 x 34mm, installation pitch of holes: 111mm. Both horizontal and vertical installations can be selected (vertical installation is suggested)The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

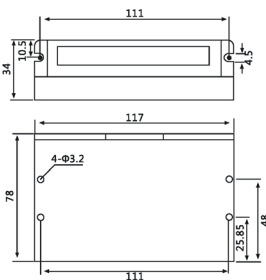
Subdivision precision, dynamic and half/full currents can be set for MC556E Driver through 8-bit dial switch as follows:



Working current setting

Output peak current	Output average current	SW1	SW2	SW3
1.4A	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
5.6A	4.0A	on	on	on

Microstep subdivision setting



Microstep subdivision setting

Steps/revolution	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

MC860G 2 Phase Digital Driver



Technical parameter

- Voltage input range: DC24V~110V/AC18V~80V
- Maximum peak current: 7.2A
- Subdivision range: 400~51200ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With protection functions such as overvoltage, overcurrent, tracking error out of tolerance, etc.

Environmental parameters

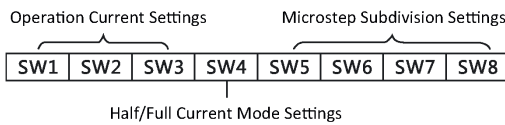
- Storage temperature: -20°C~65°C
- Operating temperature: 0°C~50°C
- Operating humidity: 40~90%RH (non-condensing)
- Vibration frequency: less than 0.5G (4.9m/s²) 10Hz~55Hz (discontinuous operation)
- Avoid dust, oil stains, corrosive gases, places with too much humidity and too strong vibration, and prohibit flammable gas and conductive dust

Drive function description

Drive function	Instructions
Microstep subdivision setting	15 microstep subdivisions can be set for the Driver through 4 dial switches SW5~SW8. The Driver shall be stopped while setting subdivision. See driver panel instruction for microstep subdivision settings.
Output current setting	8 output currents can be set for the Driver through 3 dial switches SW1~SW3. See driver panel instruction for output current settings.
Automatic half-flow function	Automatic half current function can be set for the Driver through switch SW4. OFF means that quiescent current is set to half of operating current; ON means that quiescent current and dynamic current are the same. SW4 shall be set as OFF for general use to reduce heat generation of the motor and the driver and to improve reliability. About 0.3s after pulse train stops, current will automatically reduce 50% (actual value 55%) and theoretically, heat generation will reduce 65%.
Signal interface	PUL+ and PUL- are positive and negative terminals of pulse signal control; DIR+ and DIR- are positive and negative terminals of direction signal; ENA+ and ENA- are positive and negative terminals of enable signals.
Motor interface	A+ and A- connect to positive and negative terminals of A phase winding of stepper motor; B+ and B- connect to positive and negative terminals of B phase winding of stepper motor. When A and B phase windings are switched, the Motor direction will be reversed.
Power connector	Powered by AC/DC power supply, the voltage range is 24~110VDC or 18~80VAC, and the terminals are not divided into positive and negative poles. Recommended power supply DC 48V, power greater than 250W.
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
Installation Notes	Dimensions of the Driver: 150x97.5x52.6mm, installation pitch of holes: 138.5mm. Both horizontal and vertical installations can be selected (vertical installation is suggested)The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

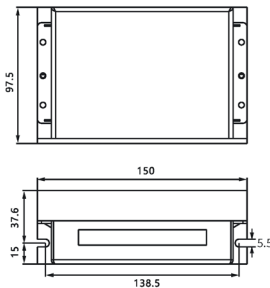
Subdivision precision, operating and half/full currents can be set for MC860G Driver through 8-bit dial switch as follows:



Working current setting

Output peak current	Output average current	SW1	SW2	SW3
2.4A	2.0A	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
7.2A	6.0A	off	off	off

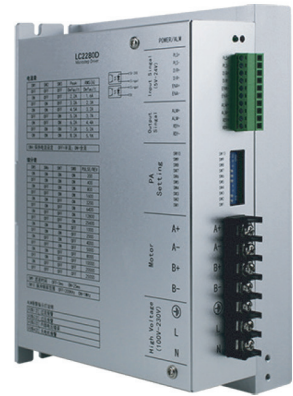
Microstep subdivision setting



Microstep subdivision setting

Steps/revolution	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

LC2280D 2 Phase Digital Driver



Technical parameter

- Voltage input range: AC110V~280V
- Maximum peak current: 7.0A
- Subdivision range: 400~60000ppr
- Pulse form: pulse + direction (do not support c
- Impulse response frequency: 0~1MHz
- The pulse stops for 1.5S, and the coil current is reduced to half of the set value
- With over-voltage, over-current, motor lack of equal p

Environmental parameters

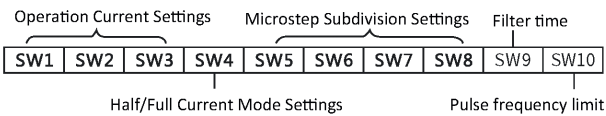
- Voltage input range: DC18V~36V
- Maximum peak current: 2.5A
- Subdivision range: 400~6400ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With overcurrent, overvoltage and other protection functions.

Drive function description

Drive function	Instructions
Microstep subdivision setting	The number of micro-step subdivisions of the driver is set by four DIP switches SW5~SW8. There are 16 micro-step subdivisions in total. When the user sets subdivisions, the driver should be stopped first. For score setting, please follow the driver panel instructions.
Output current setting	The output current of the driver is set by four DIP switches SW1~SW4, and there are 16 output currents in total. For the specific output current setting, please refer to the driver panel description.
Automatic half-flow function	About 0.3 seconds after the pulse train stops, the current is automatically reduced by 50% (the actual value is 55%), and the heat generation is theoretically reduced by 65%, which reduces the heat generation of the motor and the driver and improves the reliability.
Signal interface	PUL+ and PUL- are the positive and negative ends of the control pulse signal; DIR+ and DIR- are the positive and negative ends of the direction signal; ENA+ and ENA- are the positive and negative ends of the enable signal, ALM+ and ALM- are the alarm signal output, RDY+ and RDY- are ready for signal output.
Motor interface	A+ and A- are connected to the positive and negative ends of the A-phase winding of the stepping motor; B+ and B- are connected to the positive and negative ends of the B-phase winding of the stepping motor. When the A and B two-phase windings are exchanged, the direction of the motor can be reversed.
Power connector	Powered by AC power, working input voltage range: 110V ~ 280VAC.
Indicator light	The drive has two indicator lights, red and green. The green light is the power indicator, which is always on when the drive is powered on; the red light is the fault indicator, which is always on when there is an overvoltage or overcurrent fault. After the fault is cleared, the red light goes out. When the drive fails, only a power cycle and re-enable can clear the fault.
Installation Notes	The external dimensions of the driver are: 203 x 147 x 78mm, and the mounting hole distance is 193mm. It can be installed horizontally or vertically (vertical installation is recommended). When installing, it should be close to the metal cabinet to facilitate heat dissipation.

Parameter setting

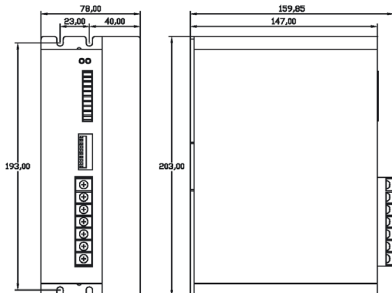
The LC2280D driver uses a 10-digit dial switch to set the subdivision accuracy, dynamic current, filter and pulse frequency, which are described in detail as follows:



Working current setting

Peak current	Mean Current	SW1	SW2	SW3
default				
2.2A	1.6A	off	off	off
3.2A	2.3A	off	on	off
4.5A	3.2A	on	on	off
5.2A	3.7A	off	off	on
6.2A	4.4A	on	off	on
7.3A	5.2A	off	on	on
8.2A	5.9A	on	on	on

Microstep subdivision setting



Microstep subdivision setting

Subdivision	SW5	SW6	SW7	SW8
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

MC425-Mini 2 Phase Digital Driver

Technical parameter

- Voltage input range: DC18V~36V
- Maximum peak current: 2.5A
- Subdivision range: 400~6400ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With overcurrent, overvoltage and other protection functions.

Environmental parameters

- Storage temperature: -20°C~65°C
- Operating temperature: 0°C~50°C
- Operating humidity: 40~90%RH (non-condensing)
- Vibration frequency: less than 0.5G (4.9m/s²) 10Hz~55Hz (discontinuous operation)
- Avoid dust, oil stains, corrosive gases, places with too much humidity and too strong vibration, and prohibit flammable gas and conductive dust

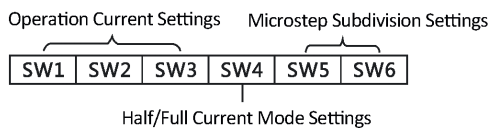


Drive function description

Drive function	Instructions
Microstep subdivision setting	4 microstep subdivisions can be set for the Driver through 2 dial switches SW5~SW6. The Driver shall be stopped while setting subdivision. See driver panel instruction for microstep subdivision settings.
Output current setting	8 output currents can be set for the Driver through 3 dial switches SW1~SW3. See driver panel instruction for output current settings.
Automatic half-flow function	Automatic half current function can be set for the Driver through switch SW4. OFF means that quiescent current is set to half of operating current; ON means that quiescent current and dynamic current are the same. SW4 shall be set as OFF for general use to reduce heat generation of the motor and the driver and to improve reliability. About 0.3s after pulse train stops, current will automatically reduce 50% (actual value 55%) and theoretically, heat generation will reduce 65%.
Signal interface	PUL is the negative terminal of pulse signal control; DIR is the negative terminal of direction signal; ENA is the negative terminal of enable signal; OPT is the positive terminal of pulse/direction/enable signal (5V public terminal).
Motor interface	A+ and A- connect to positive and negative terminals of A phase winding of stepper motor; B+ and B- connect to positive and negative terminals of B phase winding of stepper motor. When A and B phase windings are switched, the Motor direction will be reversed.
Power connector	DC power supply, operation input voltage range: 18V-36V DC, 24V DC is suggested.
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
Installation Notes	Dimensions of the Driver: 73x51x20.5mm, installation pitch of holes: 69mm. Both horizontal and vertical installations can be selected (vertical installation is suggested). The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

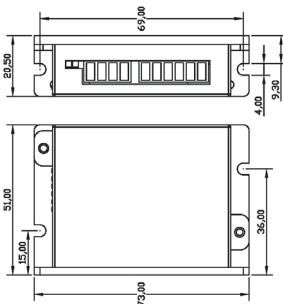
Subdivision precision, dynamic and half/full currents can be set for MC425-Mini Driver through 6-bit dial switch as follows:



Working current setting

Output peak current	SW1	SW2	SW3
0.5A	on	on	on
0.7A	off	on	on
1.0A	on	off	on
1.3A	off	off	on
1.6A	on	on	off
1.9A	off	on	off
2.2A	on	off	off
2.5A	off	off	off

Microstep subdivision setting



Microstep subdivision setting

Steps/revolution	SW5	SW6
400	on	on
1600	off	on
3200	on	off
6400	off	off

MC542-Mini 2 Phase Digital Driver

Technical parameter

- Voltage input range: DC20V~50V
- Maximum peak current: 4.2A
- Subdivision range: 200~25600ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With overcurrent, overvoltage and other protection functions.

Environmental parameters

- Voltage input range: DC20V~50V
- Maximum peak current: 5.6A
- Subdivision range: 200~25600ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With overcurrent, overvoltage and other protection functions.

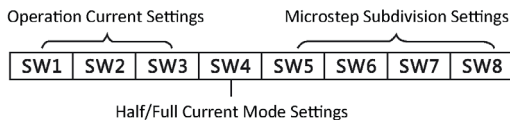


Drive function description

Drive function	Instructions
Microstep subdivision setting	15 microstep subdivisions can be set for the Driver through 4 dial switches SW5~SW8. The Driver shall be stopped while setting subdivision. See driver panel instruction for microstep subdivision settings.
Output current setting	8 output currents can be set for the Driver through 3 dial switches SW1~SW3. See driver panel instruction for output current settings.
Automatic half-flow function	Automatic half current function can be set for the Driver through switch SW4. OFF means that quiescent current is set to half of operating current; ON means that quiescent current and dynamic current are the same. SW4 shall be set as OFF for general use to reduce heat generation of the motor and the driver and to improve reliability. About 0.3s after pulse train stops, current will automatically reduce 50% (actual value 55%) and theoretically, heat generation will reduce 65%.
Signal interface	PUL+ and PUL- are positive and negative terminals of pulse signal control; DIR+ and DIR- are positive and negative terminals of direction signal, ENA+ and ENA- are positive and negative terminals of enable signals.
Motor interface	A+ and A- connect to positive and negative terminals of A phase winding of stepper motor; B+ and B- connect to positive and negative terminals, When A and B phase windings are switched, the Motor direction on will be reversed;
Power connector	DC power supply, operation input voltage range: 20V~50VDC, 36VDC operation voltage is suggested, power supply shall be higher than 100W.
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
Installation Notes	Dimensions of the Driver: 116x69.2x26.5mm, installation pitch of holes: 109mm. Both horizontal and vertical installations can be selected (vertical installation is suggested). The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

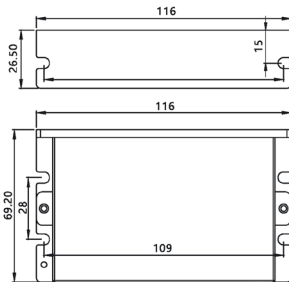
Subdivision precision, dynamic and half/full currents can be set for MC542-Mini Driver through 8-bit dial switch as follows:



Working current setting

Output peak current	Output average current	SW1	SW2	SW3
1.0A	0.71A	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
4.2A	3.0A	off	off	off

Microstep subdivision setting



Microstep subdivision setting

Steps/revolution	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
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8000	on	on	off	off
10000	off	on	off	off
20000	on	off	off	off
25000	off	off	off	off

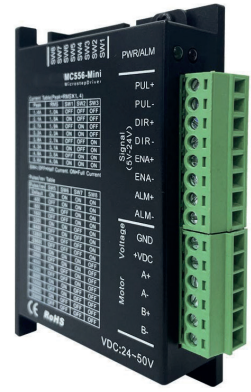
MC556-Mini 2 Phase Digital Driver

Technical parameter

- Voltage input range: DC20V~50V
- Maximum peak current: 5.6A
- Subdivision range: 200~25600ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With overcurrent, overvoltage and other protection functions.

Environmental parameters

- Storage temperature: -20°C~65°C
- Operating temperature: 0°C~50°C
- Operating humidity: 40~90%RH (non-condensing)
- Vibration frequency: less than 0.5G (4.9m/s²) 10Hz~55Hz (discontinuous operation)
- Avoid dust, oil stains, corrosive gases, places with too much humidity and too strong vibration, and prohibit flammable gas and conductive dust

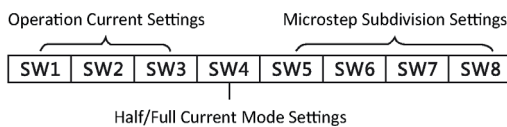


Drive function description

Drive function	Instructions
Microstep subdivision setting	15 microstep subdivisions can be set for the Driver through 4 dial switches SW5~SW8. The Driver shall be stopped while setting subdivision. See driver panel instruction for microstep subdivision settings.
Output current setting	8 output currents can be set for the Driver through 3 dial switches SW1~SW3. See driver panel instruction for output current settings.
Automatic half-flow function	Automatic half current function can be set for the Driver through switch SW4. OFF means that quiescent current is set to half of operating current; ON means that quiescent current and dynamic current are the same. SW4 shall be set as OFF for general use to reduce heat generation of the motor and the driver and to improve reliability. About 0.3s after pulse train stops, current will automatically reduce 50% (actual value 55%) and theoretically, heat generation will reduce 65%.
Signal interface	PUL+ and PUL- are positive and negative terminals of pulse signal control; DIR+ and DIR- are positive and negative terminals of direction signal; ENA+ and ENA- are positive and negative terminals of enable signals.
Motor interface	A+ and A- connect to positive and negative terminals of A phase winding of stepper motor; B+ and B- connect to positive and negative terminals of B phase winding of stepper motor. When A and B phase windings are switched, the Motor direction will be reversed.
Power connector	DC/AC power supply, operation input voltage range: 20 ~ 50 VDC, 36VDC input voltage is suggested, power supply shall be higher than 100W.
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
Installation Notes	Dimensions of the Driver: 86 x 55 x 20.5mm, installation pitch of holes: 79mm. Both horizontal and vertical installations can be selected (vertical installation is suggested)The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

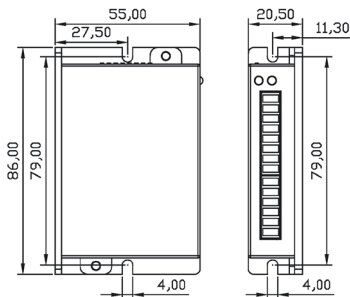
Subdivision precision, dynamic and half/full currents can be set for MC556-Mini Driver through 8-bit dial switch as follows:



Working current setting

Output peak current	Output average current	SW1	SW2	SW3
1.4A	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
5.6A	4.0A	on	on	on

Microstep subdivision setting



Microstep subdivision setting

Steps/revolution	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

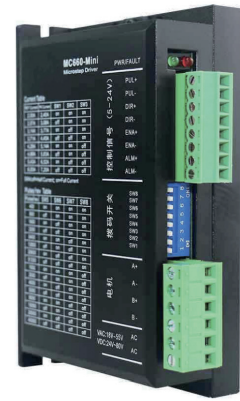
MC660-Mini 2 Phase Digital Driver

Technical parameter

- Voltage input range: DC24V~80V/AC18V~55V
- Maximum peak current: 7.2A
- Subdivision range: 400~51200ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With overcurrent, overvoltage and other protection functions.

Environmental parameters

- Voltage input range: DC24V~110V/AC18V~80V
- Maximum peak current: 7.2A
- Subdivision range: 400~51200ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With overcurrent, overvoltage and other protection functions.

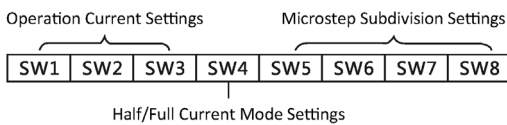


Drive function description

Drive function	Instructions
Microstep subdivision setting	The number of micro-step subdivisions of the driver is set by four DIP switches SW5~SW8. There are 16 micro-step subdivisions in total. When the user sets subdivisions, the driver should be stopped first. For score setting, please follow the driver panel instructions.
Output current setting	The output current of the driver is set by three DIP switches SW1~SW3, and its output current has 8 gears. For the specific output current setting, please refer to the driver panel description.
Automatic half-flow function	The user can set the automatic half-flow function of the driver through the SW4 switch. OFF means that the quiescent current is set to half of the dynamic current, and ON means that the quiescent current and dynamic current are the same. In general use, SW4 should be set to OFF to reduce the heat generation of the motor and driver and improve reliability. About 0.3 seconds after the pulse train stops, the current will automatically decrease by 50% (actual value 55%), the calorific value is theoretically reduced by 65%.
Signal interface	PUL+ and PUL- are the positive and negative ends of the control pulse signal; DIR+ and DIR- are the positive and negative ends of the direction signal; ENA+ and ENA- are the positive and negative ends of the enable signal, ALM+ and ALM- are the alarm output.
Motor interface	A+ and A- are connected to the positive and negative ends of the A-phase winding of the stepping motor; B+ and B- are connected to the positive and negative ends of the B-phase winding of the stepping motor. When the A and B two-phase windings are exchanged, the direction of the motor can be reversed.
Power connector	Use AC/DC power supply, the voltage range is 24~80VDC or 18~55VAC, the terminals are not divided into positive and negative poles, the recommended power supply is DC 48V, and the power is greater than 250W.
Indicator light	The drive has two indicator lights, red and green. The green light is the power indicator, when the driver is powered on, the green light is always on; the red light is the fault indicator, when there is an overvoltage or overcurrent fault, the fault light is always on. After the fault is cleared, the red light goes out. When the drive fails, only a power cycle and re-enable can clear the fault.

Parameter setting

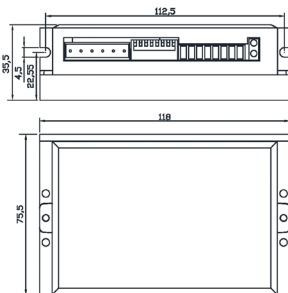
Subdivision precision, dynamic and half/full currents can be set for MC660-Mini Driver through 8-bit dial switch as follows:



Working current setting

Output peak current	Output average current	SW1	SW2	SW3
2.4A	2.0A	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
7.2A	6.0A	off	off	off

Microstep subdivision setting



Microstep subdivision setting

Steps/revolution	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

MC860-Mini 2 Phase Digital Driver

Technical parameter

- Voltage input range: DC24V~110V/AC18V~80V
- Maximum peak current: 7.2A
- Subdivision range: 400~51200ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With overcurrent, overvoltage and other protection functions.

Environmental parameters

- Storage temperature: -20°C~65°C
- Operating temperature: 0°C~50°C
- Operating humidity: 40~90%RH (non-condensing)
- Vibration frequency: less than 0.5G (4.9m/s²) 10Hz~55Hz (discontinuous operation)
- Avoid dust, oil stains, corrosive gases, places with too much humidity and too strong vibration, and prohibit flammable gas and conductive dust

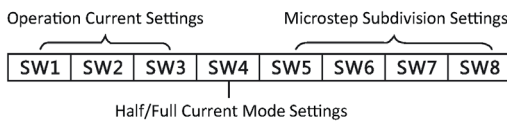


Drive function description

Drive function	Instructions
Microstep subdivision setting	The number of micro-step subdivisions of the driver is set by four DIP switches SW5~SW8. There are 16 micro-step subdivisions in total. When the user sets subdivisions, the driver should be stopped first. For score setting, please follow the driver panel instructions.
Output current setting	The output current of the driver is set by three DIP switches SW1~SW3, and its output current has 8 gears. For the specific output current setting, please refer to the driver panel description.
Automatic half-flow function	The user can set the automatic half-flow function of the driver through the SW4 switch. OFF means that the quiescent current is set to half of the dynamic current, and ON means that the quiescent current and dynamic current are the same. In general use, SW4 should be set to OFF to reduce the heat generation of the motor and driver and improve reliability. About 0.3 seconds after the pulse train stops, the current will automatically decrease by 50% (actual value 55%), the calorific value is theoretically reduced by 65%.
Signal interface	PUL+ and PUL- are the positive and negative ends of the control pulse signal; DIR+ and DIR- are the positive and negative ends of the direction signal; ENA+ and ENA- are the positive and negative ends of the enable signal, ALM+ and ALM- are the alarm output.
Motor interface	A+ and A- are connected to the positive and negative ends of the A-phase winding of the stepping motor; B+ and B- are connected to the positive and negative ends of the B-phase winding of the stepping motor. When the A and B two-phase windings are exchanged, the direction of the motor can be reversed
Power connector	Use AC/DC power supply, the voltage range is 24~110VDC or 18~80VAC, the terminals are not divided into positive and negative poles, the recommended power supply is DC 48V, and the power is greater than 250W.
Indicator light	The drive has two indicator lights, red and green. The green light is the power indicator, when the driver is powered on, the green light is always on; the red light is the fault indicator, when there is an overvoltage or overcurrent fault, the fault light is always on. After the fault is cleared, the red light goes out. When the drive fails, only a power cycle and re-enable can clear the fault.
Installation Notes	The external dimensions of the driver are: 119 x 76 x 34mm, and the mounting hole distance is 112mm It can be installed horizontally or vertically (vertical installation is recommended). When installing, it should be close to the metal cabinet to facilitate heat dissipation.

Parameter setting

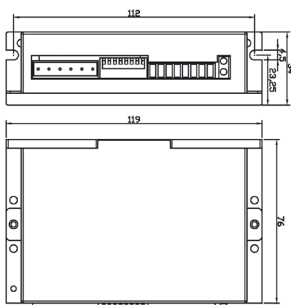
Subdivision precision, dynamic and half/full currents can be set for MC860-Mini Driver through 8-bit dial switch as follows:



Working current setting

Output peak current	Output average current	SW1	SW2	SW3
2.4A	2.0A	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
7.2A	6.0A	off	off	off

Microstep subdivision setting



Microstep subdivision setting

Steps/revolution	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
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10000	off	on	off	off
20000	on	off	off	off
40000	off	off	off	off

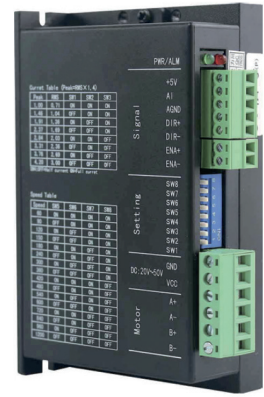
MC542P Analog Stepper Driver

Technical parameter

- Voltage input range: DC20V~50V
- Maximum peak current: 4.2A
- Analog input voltage range: 0~5V (can be customized as 0~10V input)
- Insulation resistance: 500M
- With overcurrent, overvoltage and other protection functions.

Environmental parameters

- Voltage input range: DC24V~110V/AC18V~80V
- Maximum peak current: 7.2A
- Analog input voltage range: 0~5V (can be customized as 0~10V input)
- Insulation resistance: 500M
- With overcurrent, overvoltage and other protection functions.

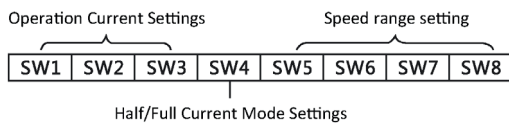


Drive function description

Drive function	Instructions
Speed range setting	The four DIP switches SW5~SW8 are used to set the speed range of the drive. There are 16 speed ranges in total. When the user sets the speed, the drive should be stopped first. For the setting of the specific speed range, please follow the instructions on the drive panel.
Output current setting	8 output currents can be set for the Driver through 3 dial switches SW1~SW3. See driver panel instruction for output current settings.
Automatic half-flow function	Automatic half current function can be set for the Driver through switch SW4. OFF means that quiescent current is set to half of operating current; ON means that quiescent current and dynamic current are the same. SW4 shall be set as OFF for general use to reduce heat generation of the motor and the driver and to improve reliability. About 0.3s after pulse train stops, current will automatically reduce 50% (actual value 55%) and theoretically, heat generation will reduce 65%.
Signal interface	+5V and AGND are the positive and negative terminals of the 5V power output; AI is the analog voltage input terminal; DIR+ and DIR- are the positive and negative terminals of the direction signal; ENA+ and ENA- are the positive and negative terminals of the enable signal.
Motor interface	A+ and A- connect to positive and negative terminals of A phase winding of stepper motor; B+ and B- connect to positive and negative terminals. When A and B phase windings are switched, the Motor direction will be reversed;
Power connector	DC power supply, operation input voltage range: 20V~50VDC, 36VDC operation voltage is suggested, power supply shall be higher than 100W.
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
Installation Notes	Dimensions of the Driver: 117x78x34mm, installation pitch of holes: 111mm. Both horizontal and vertical installations can be selected (vertical installation is suggested). The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

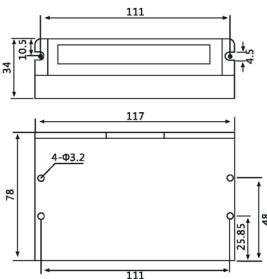
The speed range, dynamic and half/full current of the MC542P drive can be set as follows through the 8-bit DIP switch:



Working current setting

Output peak current	Output average current	SW1	SW2	SW3
1.0A	0.71A	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
4.2A	3.0A	off	off	off

Microstep subdivision setting



Microstep subdivision setting

SPD	SW5	SW6	SW7	SW8
60	on	on	on	on
90	off	on	on	on
120	on	off	on	on
150	off	off	on	on
180	on	on	off	on
240	off	on	off	on
300	on	off	off	on
360	off	off	off	on
420	on	on	on	off
480	off	on	on	off
540	on	off	on	off
600	off	off	on	off
720	on	on	off	off
840	off	on	off	off
960	on	off	off	off
1200	off	off	off	off

MC860P Analog Stepper Driver

Technical parameter

- Voltage input range: DC24V~110V/AC18V~80V
- Maximum peak current: 7.2A
- Analog input voltage range: 0~5V (can be customized as 0~10V input)
- Insulation resistance: 500M
- With overcurrent, overvoltage and other protection functions.

Environmental parameters

- Storage temperature: -20°C~80°C
- Operating temperature: 0°C~55°C
- Operating humidity: 90%RH (non-condensing)
- Vibration frequency: less than 0.5G (4.9m/s²) 10Hz~60Hz (discontinuous operation)
- Avoid dust, oil stains, corrosive gases, places with too much humidity and too strong vibration, and prohibit flammable gas and conductive dust

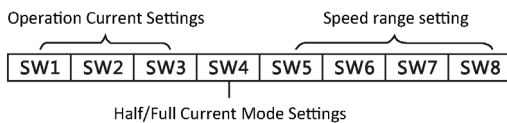


Drive function description

Drive function	Instructions
Speed range setting	The four DIP switches SW5~SW8 are used to set the speed range of the drive. There are 16 speed ranges in total. When the user sets the speed, the drive should be stopped first. For the setting of the specific speed range, please follow the instructions on the drive panel.
Output current setting	8 output currents can be set for the Driver through 3 dial switches SW1~SW3. See driver panel instruction for output current settings.
Automatic half-flow function	Automatic half current function can be set for the Driver through switch SW4. OFF means that quiescent current is set to half of operating current; ON means that quiescent current and dynamic current are the same. SW4 shall be set as OFF for general use to reduce heat generation of the motor and the driver and to improve reliability. About 0.3s after pulse train stops, current will automatically reduce 50% (actual value 55%) and theoretically, heat generation will reduce 65%.
Signal interface	+5V and AGND are the positive and negative terminals of the 5V power output; AI is the analog voltage input terminal; DIR+ and DIR- are the positive and negative terminals of the direction signal; ENA+ and ENA- are the positive and negative terminals of the enable signal.
Motor interface	A+ and A- connect to positive and negative terminals of A phase winding of stepper motor; B+ and B- connect to positive and negative terminals, When A and B phase windings are switched, the Motor direction on will be reversed;
Power connector	Use AC/DC power supply, the voltage range is 24~110VDC or 18~80VAC, the terminals are not divided into positive and negative poles, the recommended power supply is DC 48V, and the power is greater than 250W.
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
Installation Notes	Dimensions of the Driver: 150x97.5x52.6mm, installation pitch of holes: 138.5mm. Both horizontal and vertical installations can be selected (vertical installation is suggested). The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

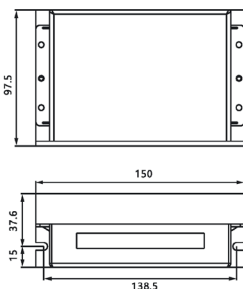
The speed range, dynamic and half/full current of the MC860P drive can be set as follows through the 8-bit DIP switch:



Working current setting

Output peak current	Output average current	SW1	SW2	SW3
2.4A	2.00A	on	on	on
3.0A	2.57A	off	on	on
3.7A	3.14A	on	off	on
4.3A	3.71A	off	off	on
5.0A	4.28A	on	on	off
5.6A	4.86A	off	on	off
6.4A	5.43A	on	off	off
7.0A	6.00A	off	off	off

Microstep subdivision setting



Microstep subdivision setting

SPD	SW5	SW6	SW7	SW8
60	on	on	on	on
120	off	on	on	on
180	on	off	on	on
240	off	off	on	on
300	on	on	off	on
360	off	on	off	on
420	on	off	off	on
600	off	off	off	on
800	on	on	on	off
900	off	on	on	off
1000	on	off	on	off
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1300	off	on	off	off
1400	on	off	off	off
1500	off	off	off	off

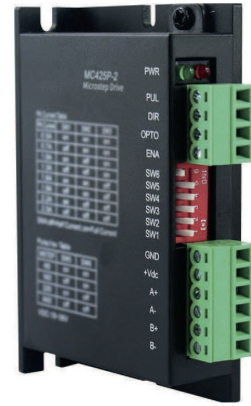
MC425P-2 Switch Step Driver

Technical parameter

- Voltage input range: DC18V~36V
- Maximum peak current: 2.5A
- Speed range: 60~480rpm
- Switch quantity (IO) control type
- Motor parameter automatic tuning function
- It has protection functions such as overvoltage overcurrent, and tracking error.

Environmental parameters

- Voltage input range: DC20V~50V
- Maximum peak current: 4.2A
- Insulation resistance: 500M
- With overcurrent, overvoltage and other protection functions.

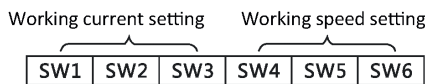


Drive function description

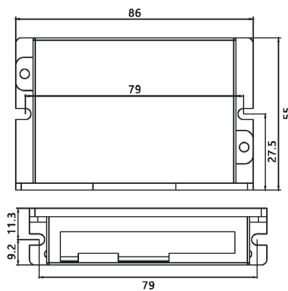
Drive function	Instructions
Working speed setting	The working speed of the drive is set by the three DIP switches SW4-SW6. There are 4 working speeds in total. When the user sets the speed, the drive should be stopped first. For the setting of the specific working speed, please follow the instructions on the drive panel.
Output current setting	The output current of the driver is set by three switches SW1~SW3, and its output current has 8 gears. For the specific output current setting, please refer to the driver panel description.
Signal interface	PUL is the negative terminal of the start control signal; it is used to control the start and stop of the motor, the low level is valid, when the signal is valid, the motor starts to run at the speed set by the dial code, the input resistance is 220Ω; the low level is 0~0.5V, and the pulse width is >2.5 μs, DIR is the negative terminal of the direction control signal; used to control the rotation direction of the motor, low level active, input resistance 220Ω; requirements: low level 0~0.5V, pulse width>2.5μs, OPTO is PUL/DIR/ENA Connect to 5V power supply, +5V~24V can be driven, higher than 5V need to connect current limiting resistor; +12V connect 1.2KΩ current limiting resistor, +24V connect 3KΩ current limiting resistor, ENA is the enable control signal The negative terminal of ; when it is turned on (low level), it is used to turn off the motor enable, so that the motor shaft is in a free state.
Motor interface	A+ and A- are connected to the positive and negative ends of the A-phase windings of the motor; B+ and B- are connected to the positive and negative ends of the B-phase windings of the motor. When the two-phase windings of A and B are exchanged, the direction of the motor can be reversed.
Power interface	+VDC is the positive pole of the power supply; GND is the negative pole of the power supply, using DC power supply, the working input voltage range: 18V~36VDC, the recommended working voltage is 24VDC.
Indicator light	The drive has two indicator lights, red and green. The green light is the power indicator, which is always on when the drive is powered on; the red light is the fault indicator, which is always on when there is an overvoltage or overcurrent fault. After the fault is cleared, the red light goes out. When the drive fails, only a power cycle and re-enable can clear the fault.
Installation Notes	The external dimensions of the driver are: 86 x 55 x 20.5mm, and the mounting hole distance is 79mm It can be installed horizontally or vertically (vertical installation is recommended). When installing, it should be close to the metal cabinet to facilitate heat dissipation.

Parameter setting

The MC425P-2 driver uses a six-bit DIP switch to set the working current and working speed. The detailed description is as follows:



Microstep subdivision setting



Working current setting

Output peak current	SW1	SW2	SW3
0.5A	on	on	on
0.7A	off	on	on
1.0A	on	off	on
1.3A	off	off	on
1.6A	on	on	off
1.9A	off	on	off
2.2A	on	off	off
2.5A	off	off	off

Microstep subdivision setting

Speed (RPM)	SW4	SW5	SW6
60	on	on	on
90	off	on	on
120	on	off	on
180	off	off	on
240	on	on	off
300	off	on	off
360	on	off	off
480	off	off	off

MC542P-2 Switch Step Driver

Technical parameter

- Voltage input range: DC20V~50V
- Maximum peak current: 4.2A
- Insulation resistance: 500M
- With overcurrent, overvoltage and other protection functions.

Environmental parameters

- Storage temperature: -20°C~80°C
- Operating temperature: 0°C~55°C
- Operating humidity: 90%RH (non-condensing)
- Vibration frequency: less than 0.5G (4.9m/s²) 10Hz~60Hz (discontinuous operation)
- Avoid dust, oil stains, corrosive gases, places with too much humidity and too strong vibration, and prohibit flammable gas and conductive dust

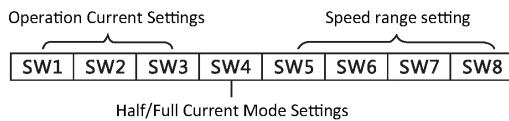


Drive function description

Drive function	Instructions
Speed range setting	The four DIP switches SW5~SW8 are used to set the speed range of the drive. There are 16 speed ranges in total. When the user sets the speed, the drive should be stopped first. For the setting of the specific speed range, please follow the instructions on the drive panel.
Output current setting	8 output currents can be set for the Driver through 3 dial switches SW1~SW3. See driver panel instruction for output current settings.
Automatic half-flow function	Automatic half current function can be set for the Driver through switch SW4. OFF means that quiescent current is set to half of operating current; ON means that quiescent current and dynamic current are the same. SW4 shall be set as OFF for general use to reduce heat generation of the motor and the driver and to improve reliability. About 0.3s after pulse train stops, current will automatically reduce 50% (actual value 55%) and theoretically, heat generation will reduce 65%.
Signal interface	PUL+ and PUL- are the motor start control terminals, which support 5V or 24V switching signals; DIR+ and DIR- are the positive and negative terminals of the direction signal; ENA+ and ENA- are the positive and negative terminals of the enable signal.
Motor interface	A+ and A- connect to positive and negative terminals of A phase winding of stepper motor; B+ and B- connect to positive and negative terminals, When A and B phase windings are switched, the Motor direction will be reversed;
Power connector	DC power supply, operation input voltage range: 20V~50VDC, 36VDC operation voltage is suggested, power supply shall be higher than 100W.
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
Installation Notes	Dimensions of the Driver: 117x78x34mm, installation pitch of holes: 111mm. Both horizontal and vertical installations can be selected (vertical installation is suggested). The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

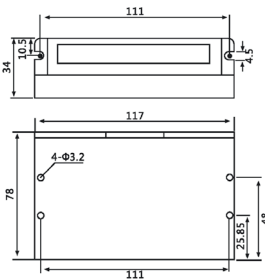
The speed range, dynamic and half/full current of the MC542P-2 drive can be set as follows through the 8-bit DIP switch:



Working current setting

Output peak current	Output average current	SW1	SW2	SW3
1.0A	0.71A	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
4.2A	3.0A	off	off	off

Microstep subdivision setting



Microstep subdivision setting

SPD	SW5	SW6	SW7	SW8
60	on	on	on	on
90	off	on	on	on
120	on	off	on	on
150	off	off	on	on
180	on	on	off	on
240	off	on	off	on
300	on	off	off	on
360	off	off	off	on
420	on	on	on	off
480	off	on	on	off
540	on	off	on	off
600	off	off	on	off
720	on	on	off	off
840	off	on	off	off
960	on	off	off	off
1200	off	off	off	off

MC860P-2 Switch Step Driver



Technical parameter

- Voltage input range: DC24V~110V/AC18V~8
- Maximum peak current: 7.2A
- Insulation resistance: 500M
- With overcurrent, overvoltage and other protection functions.

Environmental parameters

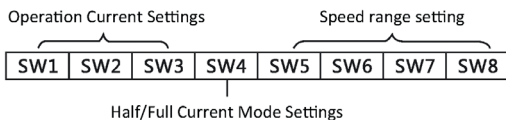
- Voltage input range: DC20V~50V
- Maximum peak current: 8.0A
- Subdivision range: 200~10000ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With overcurrent, overvoltage and other protection functions.

Drive function description

Drive function	Instructions
Speed range setting	The four DIP switches SW5~SW8 are used to set the speed range of the drive. There are 16 speed ranges in total. When the user sets the speed, the drive should be stopped first. For the setting of the specific speed range, please follow the instructions on the drive panel.
Output current setting	8 output currents can be set for the Driver through 3 dial switches SW1~SW3. See driver panel instruction for output current settings.
Automatic half-flow function	Automatic half current function can be set for the Driver through switch SW4. OFF means that quiescent current is set to half of operating current; ON means that quiescent current and dynamic current are the same. SW4 shall be set as OFF for general use to reduce heat generation of the motor and the driver and to improve reliability. About 0.3s after pulse train stops, current will automatically reduce 50% (actual value 55%) and theoretically, heat generation will reduce 65%.
Signal interface	PUL+ and PUL- are the motor start control terminals, which support 5V or 24V switching signals; DIR+ and DIR- are the positive and negative terminals of the direction signal; ENA+ and ENA- are the positive and negative terminals of the enable signal.
Motor interface	A+ and A- connect to positive and negative terminals of A phase winding of stepper motor; B+ and B- connect to positive and negative terminals, When A and B phase windings are switched, the Motor direction on will be reversed;
Power connector	Use AC/DC power supply, the voltage range is 24~110VDC or 18~80VAC, the terminals are not divided into positive and negative poles, the recommended power supply is DC 48V, and the power is greater than 250W.
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
Installation Notes	Dimensions of the Driver: 150x97.5x52.6mm, installation pitch of holes: 138.5mm. Both horizontal and vertical installations can be selected (vertical installation is suggested). The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

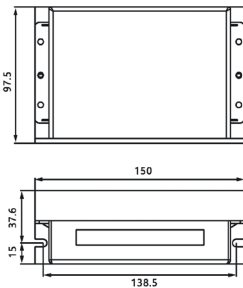
The speed range, dynamic and half/full current of the MC860P-2 drive can be set as follows through the 8-bit DIP switch:



Working current setting

Output peak current	Output average current	SW1	SW2	SW3
2.4A	2.0A	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
7.2A	6.0A	off	off	off

Microstep subdivision setting



Microstep subdivision setting

SPD	SW5	SW6	SW7	SW8
60	on	on	on	on
90	off	on	on	on
120	on	off	on	on
150	off	off	on	on
180	on	on	off	on
240	off	on	off	on
300	on	off	off	on
360	off	off	off	on
420	on	on	on	off
480	off	on	on	off
540	on	off	on	off
600	off	off	on	off
720	on	on	off	off
840	off	on	off	off
960	on	off	off	off
1200	off	off	off	off

3MC580 3 Phase Digital Driver



Technical parameter

- Voltage input range: DC20V~50V
- Maximum peak current: 8.0A
- Subdivision range: 200~10000ppr
- Pulse form: pulse + direction
- Impulse response frequency: 0~200KHz
- Motor parameter auto-tuning function
- With overcurrent, overvoltage and other protection functions.

Environmental parameters

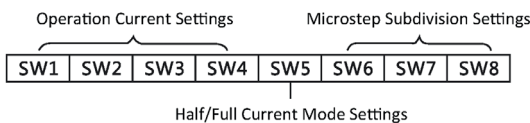
- Storage temperature: -20°C~65°C
- Operating temperature: 0°C~50°C
- Operating humidity: 40~90%RH (non-condensing)
- Vibration frequency: less than 0.5G (4.9m/s²) 10Hz~55Hz (discontinuous operation)
- Avoid dust, oil stains, corrosive gases, places with too much humidity and too strong vibration, and prohibit flammable gas and conductive dust

Drive function description

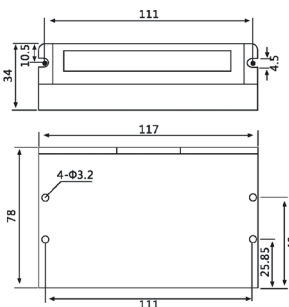
Drive function	Instructions
Microstep subdivision setting	15 microstep subdivisions can be set for the Driver through 4 dial switches SW5~SW8. The Driver shall be stopped while setting subdivision. See driver panel instruction for microstep subdivision settings.
Output current setting	8 output currents can be set for the Driver through 3 dial switches SW1~SW3. See driver panel instruction for output current settings.
Automatic half-flow function	Automatic half current function can be set for the Driver through switch SW4. OFF means that quiescent current is set to half of operating current; ON means that quiescent current and dynamic current are the same. SW4 shall be set as OFF for general use to reduce heat generation of the motor and the driver and to improve reliability. About 0.3s after pulse train stops, current will automatically reduce 50% (actual value 55%) and theoretically, heat generation will reduce 65%.
Signal interface	PUL+ and PUL- are positive and negative terminals of pulse signal control; DIR+ and DIR- are positive and negative terminals of direction signal; ENA+ and ENA- are positive and negative terminals of enable signals.
Motor interface	A+ and A- connect to positive and negative terminals of A phase winding of stepper motor; B+ and B- connect to positive and negative terminals of B phase winding of stepper motor. When A and B phase windings are switched, the Motor direction will be reversed.
Power connector	DC/AC power supply, operation input voltage range: 20~110 DC AC or 18V~80V, 48V input voltage is suggested, power supply shall be higher than 300W.
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
Installation Notes	Dimensions of the Driver: 118x75.5x35.5mm, installation pitch of holes: 112.5mm. Both horizontal and vertical installations can be selected (vertical installation is suggested)The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

ubdivision precision, operating and half/full currents can be set for 3MC580 Driver through 8-bit dial switch as follows:



Microstep subdivision setting



Working current setting

Peak	RMS	SW1	SW2	SW3	SW4
2.1A	1.5A	off	off	off	off
2.5A	1.8A	on	off	off	off
2.9A	2.1A	off	on	off	off
3.2A	2.3A	on	on	off	off
3.6A	2.6A	off	off	on	off
4.0A	2.9A	on	off	on	off
4.5A	3.2A	off	on	on	off
4.9A	3.5A	on	on	on	off
5.3A	3.8A	off	off	off	on
5.7A	4.1A	on	off	off	on
6.2A	4.4A	off	on	off	on
6.4A	4.6A	on	on	off	on
6.9A	4.9A	off	off	on	on
7.3A	5.2A	on	off	on	on
7.7A	5.5A	off	on	on	on
8.0A	5.7A	on	on	on	on

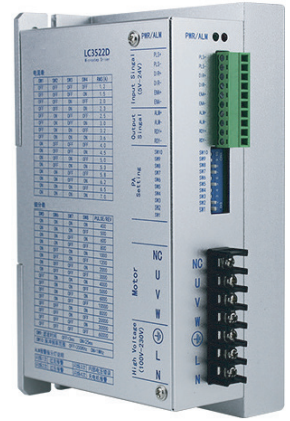
Microstep subdivision setting

Pulse/rev	SW6	SW7	SW8
200	on	on	on
400	off	on	on
500	on	off	on
1000	off	off	on
2000	on	on	off
4000	off	on	off
5000	on	off	off
10000	off	off	off

LC3522D 3 Phase Digital Driver

Technical parameter

- Voltage input range: AC110V~280V
- Maximum peak current: 7.0A
- Subdivision range: 400~60,000ppr
- Pulse form: pulse+direction (dual pulse not supported)
- Impulse response frequency: 0~1MHz
- When the pulse stops for 1.5 seconds, the coil current automatically decreases to half of the set value
- Equipped with overvoltage, overcurrent, and motor short circuit protection functions
- This driver has added a 1Mhz and 200Hz pulse input mode switching dial switch, effectively solving the interference problem in some occasions, making the product more widely used.



Working current setting

The operating current of the driver is set by the SW1-SW4 terminals, and the operating current is the normal operating output current setting switch (see the table below for details)

Operating current(A)	1.2	1.5	2.0	2.3	2.5	3.0	3.2	3.6
SW1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
SW2	OFF	OFF	OFF	OFF	ON	ON	ON	ON
SW3	OFF	OFF	ON	ON	OFF	OFF	ON	ON
SW4	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Operating current(A)	4.0	4.5	5.0	5.3	5.8	6.2	6.5	7.0
SW1	ON	ON	ON	ON	ON	ON	ON	ON
SW2	OFF	OFF	OFF	OFF	ON	ON	ON	ON
SW3	OFF	OFF	ON	ON	OFF	OFF	ON	ON
SW4	OFF	ON	OFF	ON	OFF	ON	OFF	ON

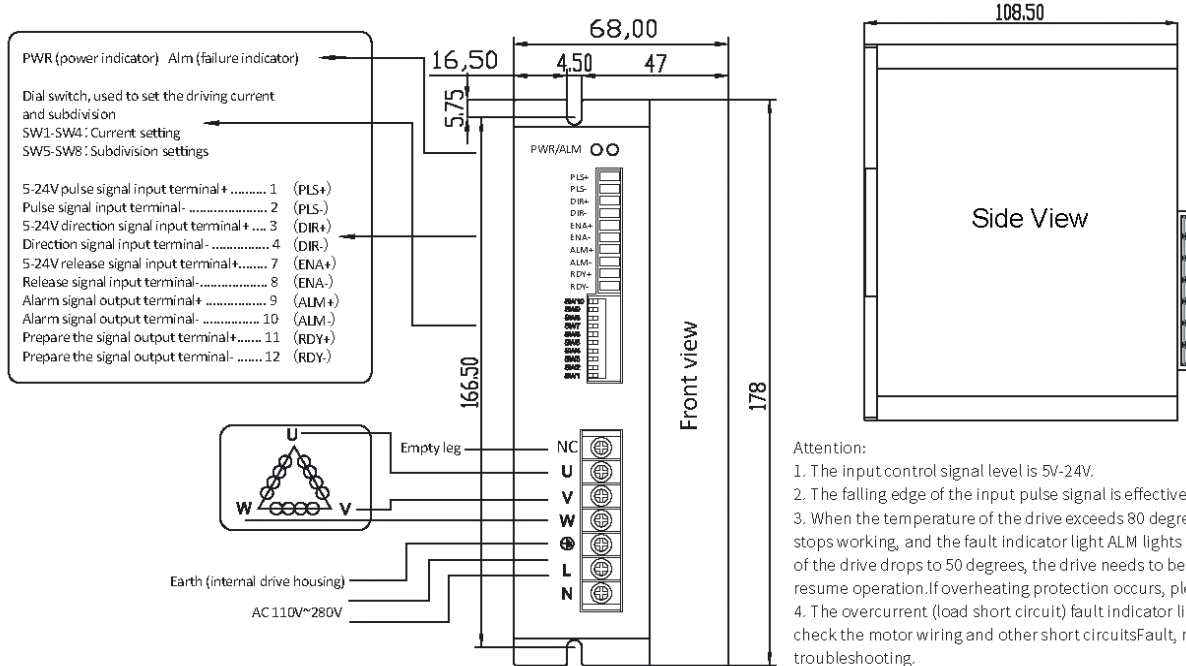
Microstep subdivision setting

The driver subdivision is set by the SW5-SW8 terminals, a total of 16 gears, SW9 and SW10 are function settings. Attached table such as: subdivision number (pulse/revolution)

Subdivision	400	500	600	800	1000	1200	2000	3000
SW5	ON	ON	ON	ON	ON	ON	ON	ON
SW6	ON	ON	ON	ON	OFF	OFF	OFF	OFF
SW7	ON	ON	OFF	OFF	ON	ON	OFF	OFF
SW8	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Subdivision	4000	5000	6000	10000	8000	20000	30000	60000
SW5	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
SW6	ON	ON	ON	ON	OFF	OFF	OFF	OFF
SW7	ON	ON	OFF	OFF	ON	ON	OFF	OFF
SW8	ON	OFF	ON	OFF	ON	OFF	ON	OFF
SW9	Filtering time, OFF=3ms, ON=25ms, driving internal acceleration and deceleration time.							
SW10	Pulse frequency limit, OFF=200KHz, ON=1MHz.							
	When set to OFF, limit the maximum frequency of input pulses to 200KHz to prevent external interference signals from causing inaccurate motor positioning.							

LC3522D 3 Phase Digital Driver

Driver wiring and size drawing (unit: mm)

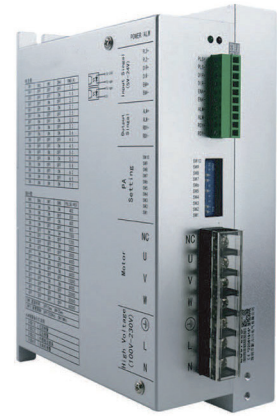


port definition	Terminal number	Marker symbol	Function	Notes
control signal terminal	1	PLS+	Pulse signal input positive terminal	Universal input terminal of 5V-24V pulse signal, the maximum pulse frequency is 1MHz, which can be passed through SW10 is limited to 200KHz, the low level is required to be 0V-0.5V, and the pulse width is >2.5us
	2	PLS-	Pulse signal input negative terminal	
	3	DIR+	Direction signal input positive terminal	5V-24V direction signal universal input, control the direction of motor rotation, low requirements Level between 0V-0.5V, pulse width>2.5us
	4	DIR-	Direction signal input negative terminal	
	5	ENA+	Release signal input positive terminal	5V-24V release signal general input terminal, used to turn off the motor enable, make the motor axis is free
	6	ENA-	Release signal input negative terminal	
	7	ALM+	Positive terminal of fault output signal	Fault output signal, default normally closed switch signal, according to the needs of the host computer, according to different The wiring method selects high-level or low-level output
	8	ALM-	Fault output signal negative terminal	
	9	RDY+	Ready to output signal positive terminal	The driver is normally enabled, and the ready signal is valid. According to the needs of the host computer, press different The wiring method selects high-level or low-level output
	10	RDY-	Ready to output the negative terminal of the signal	
Motor power terminal	1	NC	Empty leg	---
	2	U	Motor power line	U, V, W correspond to the motor windings. Swap two of the three winding wires arbitrarily to make the motor direction change
	3	V		
	4	W		
	5	PE	Ground wire	Earth, inside the starter shell
	6,7	L,N	Single-phase AC power	AC 110V~280V

LC3722D 3 Phase Digital Driver

Technical parameter

- Voltage input range: AC110V~280V
- Maximum peak current: 7.0A
- Subdivision range: 400~60000ppr
- Pulse form: pulse + direction (does not support double pulse)
- Impulse response frequency: 0~1MHz
- The pulse stops for 1.5S, and the coil current is automatically reduced to half of the set value
- With over-voltage, over-current, motor lack of equal protection function



Working current setting

The operating current of the driver is set by the SW1-SW4 terminals, and the operating current is the normal operating output current setting switch (see the table below for details)

Operating current(A)	1.2	1.5	2.0	2.3	2.5	3.0	3.2	3.6
SW1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
SW2	OFF	OFF	OFF	OFF	ON	ON	ON	ON
SW3	OFF	OFF	ON	ON	OFF	OFF	ON	ON
SW4	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Operating current(A)	4.0	4.5	5.0	5.3	5.8	6.2	6.5	7.0
SW1	ON	ON	ON	ON	ON	ON	ON	ON
SW2	OFF	OFF	OFF	OFF	ON	ON	ON	ON
SW3	OFF	OFF	ON	ON	OFF	OFF	ON	ON
SW4	OFF	ON	OFF	ON	OFF	ON	OFF	ON

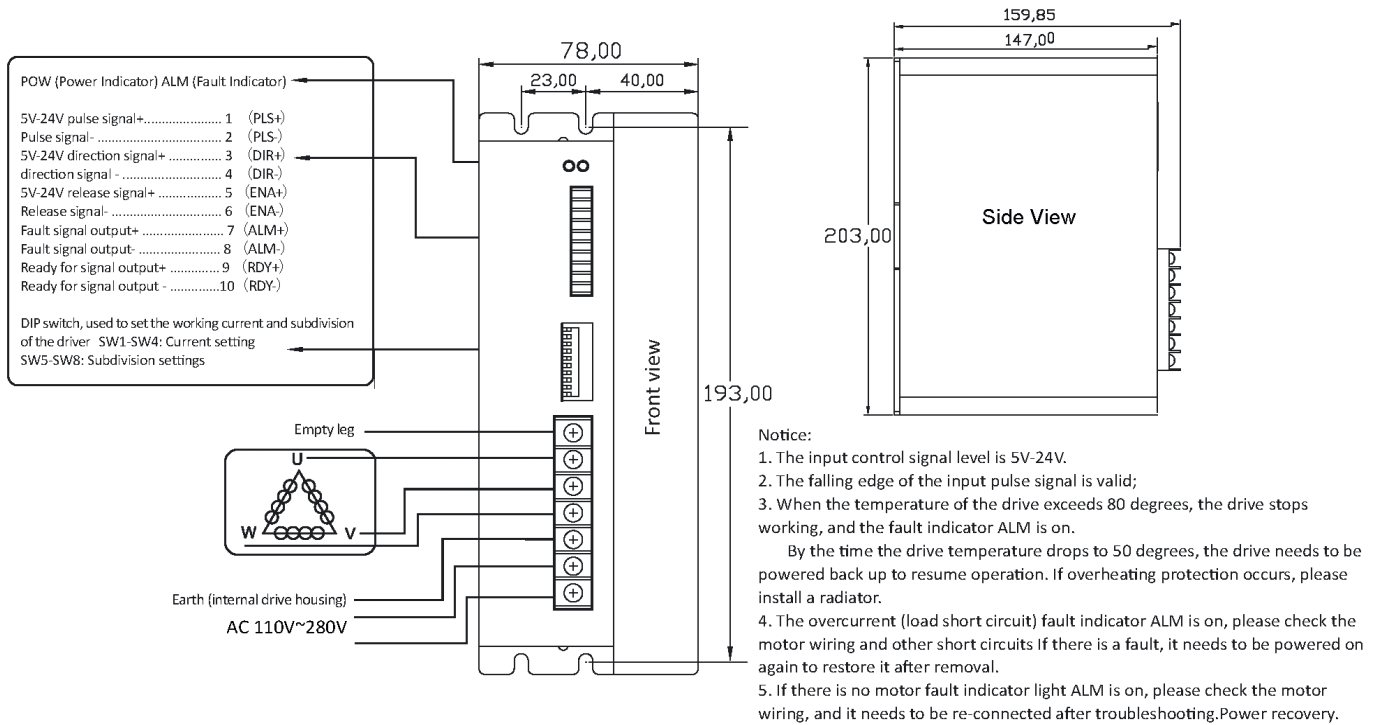
Microstep subdivision setting

The driver subdivision is set by the SW5-SW8 terminals, a total of 16 gears, SW9 and SW10 are function settings. Attached table such as: subdivision number (pulse/revolution)

Subdivision	400	500	600	800	1000	1200	2000	3000
SW5	ON	ON	ON	ON	ON	ON	ON	ON
SW6	ON	ON	ON	ON	OFF	OFF	OFF	OFF
SW7	ON	ON	OFF	OFF	ON	ON	OFF	OFF
SW8	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Subdivision	4000	5000	6000	10000	8000	20000	30000	60000
SW5	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
SW6	ON	ON	ON	ON	OFF	OFF	OFF	OFF
SW7	ON	ON	OFF	OFF	ON	ON	OFF	OFF
SW8	ON	OFF	ON	OFF	ON	OFF	ON	OFF
SW9	filter time, OFF=3ms, ON=25ms, the drive's internal acceleration and deceleration time.							
SW10	Pulse frequency limit, OFF=200KHz, ON=1MHz							
	When set to OFF, the maximum input pulse frequency is limited to 200KHz to prevent external interference signals from causing inaccurate motor positioning.							

LC3722D 3 Phase Digital Driver

Driver wiring and size drawing (unit: mm)



port definition	Terminal number	Marker symbol	Function	Notes
control signal terminal	1	PLS+	Pulse signal input positive terminal	Universal input terminal of 5V-24V pulse signal, the maximum pulse frequency is 1MHz, which can be passed through SW10 is limited to 200KHz, the low level is required to be 0V-0.5V, and the pulse width is >2.5us
	2	PLS-	Pulse signal input negative terminal	
	3	DIR+	Direction signal input positive terminal	5V-24V direction signal universal input, control the direction of motor rotation, low requirements Level between 0V-0.5V, pulse width>2.5us
	4	DIR-	Direction signal input negative terminal	
	5	ENA+	Release signal input positive terminal	5V-24V release signal general input terminal, used to turn off the motor enable, make the motor axis is free
	6	ENA-	Release signal input negative terminal	
	7	ALM+	Positive terminal of fault output signal	Fault output signal, default normally closed switch signal, according to the needs of the host computer, according to different The wiring method selects high-level or low-level output
	8	ALM-	Fault output signal negative terminal	
	9	RDY+	Ready to output signal positive terminal	The driver is normally enabled, and the ready signal is valid. According to the needs of the host computer, press different The wiring method selects high-level or low-level output
	10	RDY-	Ready to output the negative terminal of the signal	
Motor power terminal	1	NC	Empty leg	----
	2	U	Motor power line	U, V, W correspond to the motor windings. Swap two of the three winding wires arbitrarily to make the motor direction change
	3	V		
	4	W		
	5	PE	Ground wire	Earth, inside the starter shell
	6,7	L,N	Single-phase AC power	AC 110V~280V

MC556-2A 3 Axis Stepper Driver

Technical parameter

- Voltage input range: DC24V~50V
- Maximum peak current: 5.6A
- Subdivision/Speed Range: 1000 ~ 12800ppr/60 ~ 540R/min
- Signal input: differential/single-ended, pulse/direction or double pulse
- Impulse response frequency: 200KHz
- Parameters can be configured through the serial port
- Support external pulse input and IO spontaneous pulse two control modes

Environmental parameters

- Storage temperature: -20°C~65°C
- Operating temperature: 0°C~50°C
- Operating humidity: 40~90%RH (non-condensing)
- Vibration frequency: less than 0.5G (4.9m/s²) 10Hz~55Hz (discontinuous operation)
- Avoid dust, oil stains, corrosive gases, places with too much humidity and too strong vibration, and prohibit flammable gas and conductive dust

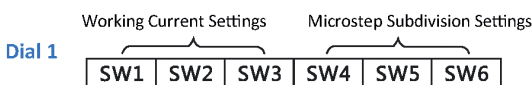


Drive function description

Drive function	Instructions
Micro step subdivision or RPM setting	SW4 ~ SW6 three dial switches to set the drive micro-step subdivision or speed settings, a total of 8, users set subdivision or speed, should first stop the drive operation, specific micro-step subdivision or speed settings, please follow the instructions on the drive panel.
Output current setting	8 output currents can be set for the Driver through 3 dial switches SW1~SW3. See driver panel instruction for output current settings.
Automatic half-flow function	The user can set the automatic semi-flow function of the driver through the software. By setting the half-current proportion and half-current time, the driver can enter the half-current state at a certain time after the pulse train stops, thus reducing the heat of the motor itself and improving the reliability.
Signal interface	Pulse mode: PUL + and PUL- for the control pulse signal positive and negative; DIR + and DIR- for direction signal positive and negative; ENA + and ENA- for enable signal positive and negative. Spontaneous Pulse IO mode: PUL + and PUL- for the start signal positive and negative; DIR + and DIR- for the direction of the signal positive and negative; ENA + and ENA- for the enable signal positive and negative.
Motor interface	Motor 1/Motor 2: A and A- the positive and negative ends of the A-phase winding of the stepper motor; B and B- are connected to the positive and negative ends of the B-phase windings of the stepper motor. When the winding of A and B is changed, the direction of the motor can be reversed.
Power connector	DC power supply, working input voltage range: 24V ~ 50VDC, recommended working voltage 36VDC, power supply more than 150W.
Indicator light	The drive has two red and green lights. Among them, the green light is the power supply indicator, when the driver is powered on, the green light is always on; the red light is the fault indicator, when overvoltage, overcurrent, lack of phase and other faults occur, the power supply and the fault lamp will flicker regularly, after the fault is cleared, the red light went off. When the drive fails, the failure can only be cleared by re-energizing and re-enabling.
Installation Notes	Dimensions of the Driver: 134 x 83 x 33mm, installation pitch of holes: 111mm. Both horizontal and vertical installations can be selected (vertical installation is suggested)The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

The MC556-2A driver uses a 12-bit dial switch to set subdivision accuracy, dynamic current, and speed, described in detail as follows:



Working current setting

PEAK (peak current)	RMS (mean current)	SW1	SW2	SW3
1.4A	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
5.6A	4.0A	on	on	on

Microstep subdivision setting

Subdivision	SW4	SW5	SW6
1600	on	on	on
3200	off	on	on
6400	on	off	on
12800	off	off	on
1000	on	on	off
3600	off	on	off
4000	on	off	off
8000	off	off	off

Working speed setting

Subdivision	SW4	SW5	SW6
60rpm	on	on	on
90rpm	off	on	on
120rpm	on	off	on
180rpm	off	off	on
240rpm	on	on	off
300rpm	off	on	off
420rpm	on	off	off
540rpm	off	off	off

MC556-2A 2 Axis Stepper Driver

Driver wiring and size drawing (unit: mm)

Terminal Name	Description
PUL1+	Shaft 1-external pulse mode: for pulse signal input, the signal voltage supports 5v-24v; pulse input mode: pulse + direction (for pulse port) , double pulse (for CW port) ; pulse effective edge is adjustable, the rising edge of the default pulse is valid, and the pulse width should be greater than 2.5 μ s for reliable response of the pulse signal. Shaft 1-IO spontaneous pulse mode: motor start control end, speed through SW4-SW6 regulation.
PUL1-	
DIR1+	Shaft 1-external pulse mode: direction port input, signal voltage support 5v-24v; pulse input mode: pulse + direction (direction port) , double pulse (CCW port) ; high/low level signal, in order to ensure the reliable commutation of the motor, the direction signal should be established at least 5 μ s before the pulse signal. Shaft 1-IO spontaneous pulse mode: Direction Signal Control Terminal for motor direction switching.
DIR1-	
NC	Empty Foot
NC	
PUL2+	Shaft 2-external pulse mode: for pulse signal input, the signal voltage supports 5v-24v; pulse input mode: pulse + direction (as pulse port) , double pulse (as CW port) ; pulse effective length adjustable, the rising edge of the default pulse is valid, and the pulse width should be greater than 2.5 μ s for reliable response of the pulse signal. Shaft 2-IO spontaneous pulse mode: motor start control end, speed through SW4-SW6 regulation.
PUL2-	
DIR2+	Axis 2-external pulse mode: direction port input, signal voltage support 5v-24v; pulse input mode: pulse + direction (direction port) , double pulse (CCW port) ; high/low level signal, in order to ensure the reliable commutation of the motor, the direction signal should be established at least 5 μ s before the pulse signal. Shaft 2-IO spontaneous pulse mode: Direction Signal Control Terminal for motor direction switching.
DIR2-	
ENA+	Enable control signal, this input signal is used to enable or disable drive shaft 1 and shaft 2 outputs. Ena low level (or internal optocoupler) , the driver will cut off the current in each phase of the motor to make the motor in a free state, does not respond to the stepping pulse. When this function is not needed, the enable signal can be suspended. (signal voltage supports 5-24V)
ENA-	
ALM+	Alarm output signal, need external access to 24 power supply; when shaft 1 or shaft 2 motor alarm through the alarm output signal port. (the default always open interface, that is, alarm signal output; can be modified by software communication parameter PA-25 set to 1 to always closed output, that is, alarm signal disconnect.)
ALM-	

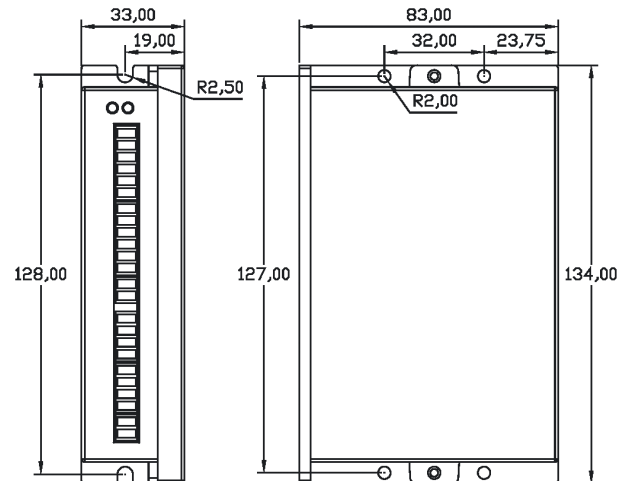
Motor winding terminal

Terminal Name	Description
1A+	1 axis motor a-phase and b-phase motor winding interface motor rotation movement direction mode: a-phase winding with b-direction winding exchange, a + with a-exchange, B + with b-exchange; three ways can make the motor direction commutation.
1A-	
1B+	
1B-	
2A+	2-axis motor a-phase and b-phase motor winding interface motor rotation direction: a-phase winding with b-direction winding exchange, a+with a-exchange, B + with b-exchange; three ways can make the motor direction commutation.
2A-	
2B+	
2B-	

Power Terminal

Terminal Name	Description
+VDC	Voltage Input Terminal: support DC24-50V recommended power supply 36V, 10A or 48V, 6A and above
GND	

Installation size (unit: mm)



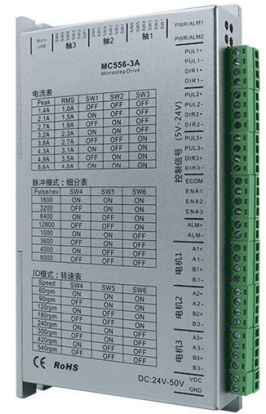
MC556-3A 3 Axis Stepper Driver

Technical parameter

- Voltage input range: DC24V~50V
- Maximum peak current: 5.6A
- Subdivision range: 200-6000ppr
- Pulse form: pulse+direction, CW+CCW
Pulse response frequency: 0-200KHz
- IO mode: operation+direction mode, forward rotation+reverse mode
- Automatic half current: When the pulse stops for 1.5 seconds, the coil current automatically decreases to half of the set value

Environmental parameters

- Storage temperature: -20°C~65°C
- Operating temperature: 0°C~50°C
- Operating humidity: 40~90%RH (non-condensing)
- Vibration frequency: less than 0.5G (4.9m/s²) 10Hz~55Hz (discontinuous operation)
- Avoid dust, oil stains, corrosive gases, places with too much humidity and too strong vibration, and prohibit flammable gas and conductive dust

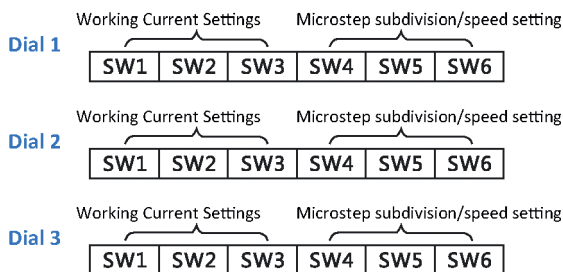


Drive function description

Drive function	Instructions
Micro step subdivision or RPM setting	SW4 ~ SW6 three dial switches to set the drive micro-step subdivision or speed settings, a total of 8, users set subdivision or speed, should first stop the drive operation, specific micro-step subdivision or speed settings, please follow the instructions on the drive panel.
Output current setting	8 output currents can be set for the Driver through 3 dial switches SW1~SW3. See driver panel instruction for output current settings.
Automatic half-flow function	The user can set the automatic semi-flow function of the driver through the software. By setting the half-current proportion and half-current time, the driver can enter the half-current state at a certain time after the pulse train stops, thus reducing the heat of the motor itself and improving the reliability.
Signal interface	Pulse mode: PUL + and PUL- for the control pulse signal positive and negative; DIR + and DIR- for direction signal positive and negative; ENA + and ENA- for enable signal positive and negative. Spontaneous Pulse IO mode: PUL + and PUL- for the start signal positive and negative; DIR + and DIR- for the direction of the signal positive and negative; ENA + and ENA- for the enable signal positive and negative.
Motor interface	Motor 1/Motor 2/Motor 3: A and A- the positive and negative ends of the A-phase winding of the stepper motor; B and B- are connected to the positive and negative ends of the B-phase windings of the stepper motor. When the winding of A and B is changed, the direction of the motor can be reversed.
Power connector	DC power supply, working input voltage range: 24V ~ 50VDC, recommended working voltage 36VDC, power supply more than 200W.
Indicator light	The drive has two red and green lights. Among them, the green light is the power supply indicator, when the driver is powered on, the green light is always on; the red light is the fault indicator, when overvoltage, overcurrent, lack of phase and other faults occur, the power supply and the fault lamp will flicker regularly, after the fault is cleared, the red light went off. When the drive fails, the failure can only be cleared by re-energizing and re-enabling.
Installation Notes	Dimensions of the Driver: 164 x 90.5 x 28mm, installation pitch of holes: 157mm. Both horizontal and vertical installations can be selected (vertical installation is suggested)The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

The MC556-3A driver uses an eighteen bit dial switch to set subdivision accuracy and dynamic current And speed, detailed description as follows:



Working current setting

PEAK (peak current)	1.4A	2.1A	2.7A	3.2A	3.8A	4.3A	4.9A	5.6A
RMS (mean current)	1.0A	1.5A	1.9A	2.3A	2.7A	3.1A	3.5A	4.0A
SW1	off	on	off	on	off	on	off	on
SW2	off	off	on	on	off	off	on	on
SW3	off	off	off	off	on	on	on	on

Microstep subdivision setting

Subdivision	SW4	SW5	SW6
1600	on	on	on
3200	off	on	on
6400	on	off	on
12800	off	off	on
1000	on	on	off
3600	off	on	off
4000	on	off	off
8000	off	off	off

Working speed setting

Subdivision	SW4	SW5	SW6
60rpm	on	on	on
90rpm	off	on	on
120rpm	on	off	on
180rpm	off	off	on
240rpm	on	on	off
300rpm	off	on	off
420rpm	on	off	off
540rpm	off	off	off

MC556-3A 3 Axis Stepper Driver

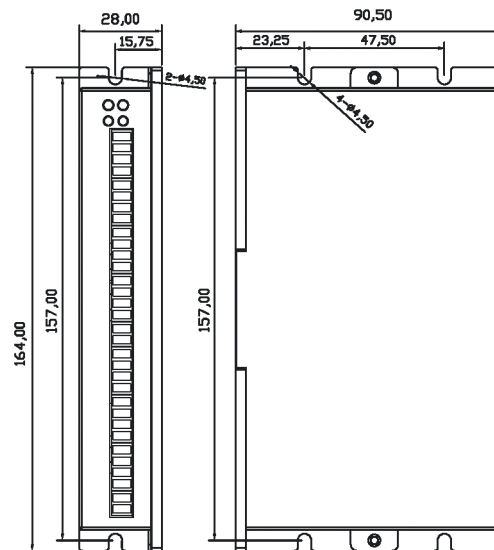
Control signal wiring terminal

Serial number	Symbol	illustrate		
		PULSE mode	IO mode	
			Operation+direction mode	Forward+reverse mode
1	PUL1+	1 axis pulse signal input terminal (5V-24V)	1 axis running signal, connected to the rear motorStart rotation	1 axis positive operating signal, after the motor is turned on positive
2	PUL1-			
3	DIR1+	1 axis direction signal input terminal (5V-24V)	1 axis direction signal, switched on and offRunning direction	1 axis reverse operation signal, after switching on the motor reverse
4	DIR1-			
5	PUL2+	2 axis pulse signal input terminal (5V-24V)	2 axis running signal, connected to rear motorStart rotation	2 axis positive operating signal, after the motor is turned on
6	PUL2-			
7	DIR2+	2 axis direction signal input terminal (5V-24V)	2 axis directional signal, switched on and off Running direction	2 axis reverse operation signal, turn the motor on
8	DIR2-			
9	PUL3+	3 axis pulse signal input terminal (5V-24V)	3 axis operation signal, switch on the motor, start to rotate	3 axis positive operating signal, the motor is turned on
10	PUL3-			
11	DIR3+	3 axis direction signal input terminal (5V-24V)	3 axis direction signal, switch operation direction after switch on	3 axis reverse operation signal, turn the motor on
12	DIR3-			
13	ECOM	Release Signal Common Terminal (5V-24V)		
14	ENA1-2	1 axis 2 axis release signal (common)		
15	NC	Empty		
16	ENA3	3 axis release signal		
17	ALM+	Alarm signal output (normally closed)		
18	ALM-			

Motor and power terminals

Serial number	Symbol	illustrate
1	A1+	1 axis motor a-phase and B-phase windings, a + and a-switch direction.
2	A1-	
3	B1+	
4	B1-	
5	A2+	2 axis motor A phase and B phase windings,Swapping A+and A - direction switchable
6	A2-	
7	B2+	
8	B2-	
9	A3+	3 axis motor A phase and B phase windings,Swapping A+and A - direction switchable
10	A3-	
11	B3+	
12	B3-	
13	VDC	DC power input positive pole (24V-50V)
14	GND	DC power input negative pole

Installation size (unit: mm)



LCDA257-2A 2 Axis Closed-Loop Stepper Driver

Technical parameter

LCDA257-2A driver is a digital step-by-step driver with one-drive and two-axis control developed by the latest 32-bit DSP chip. The driver can cover step-by-step motors of 57,60 and 86 bases. The driver supports two-axis independent and synchronous pulse control modes, and can independently or synchronously control two-axis stepping motors for precise positioning control. The driver integrates two axes step-by-step, not only can save the cost of installation space for customers, but also can be used for one-drive two machine gantry mechanism to improve the synchronous control accuracy of customers, convenient wiring and debugging, at the same time, it improves the flexibility and convenience of field application.



Functional Characteristics

- Voltage input range: DC20V~50V
- Max peak current: 5.6A
- Subdivision/Speed Range: 800 ~ 51200ppr
- Signal input: differential/single-ended, pulse/direction or double pulse
- Two axes independent external pulse input control and synchronous pulse input control are supported
- Pulse response frequency: 200 khz
- Parameters can be configured through the serial port
- With over-current, over-voltage, under-voltage, lack of phase and excessive position deviation protection function

Application Industry

Apply to various small and medium-sized automation equipment and devices, such as: engraving machine, wire decoating machine, marking machine, cutting machine, laser machine, plotting instrument, medical equipment, CNC, automatic assembly equipment, electronic processing equipment and etc. Excellent application effects for low-noise and high-speed equipment.

Main Parameters

1. Motor coding interface definition

Serial number	illustrate
1A+	1 axis motor a-phase and b-phase motor, winding interface motor rotation movement direction, direction can be SW5 switch
1A-	
1B+	
1B-	
2A+	2 axis motor a-phase and b-phase motor winding interface motor rotation direction mode can be SW5 switch
2A-	
2B+	
2B-	

3. Power terminals

Serial number	illustrate
+VDC	Voltage Input Terminal: support DC24-50V recommended power supply 36V, 10A or 48V, 6A and above
GND	

2. Encoder wiring pin definition

Serial number	illustrate
EB1+	1 axis motor encoder b-phase positive feedback pulse pin
EB1-	1 axis motor encoder b-phase negative feedback pulse pin
EA1+	1 axis motor encoder a phase positive feedback pulse pin
EA1-	1 axis motor encoder a phase negative feedback pulse pin
EVCC	1 axis motor encoder power supply positive terminal (voltage+5V)
EGND	1 axis motor encoder power supply negative end
EB2+	2 axis motor encoder b-phase positive feedback pulse pin
EB2-	2 axis motor encoder b-phase negative feedback pulse pin
EA2+	2 axis motor encoder a phase positive feedback pulse pin
EA2-	2 axis motor encoder a phase negative feedback pulse pin
EVCC	2 axis motor encoder power supply positive terminal (voltage+5V)
EGND	2-axis motor encoder power supply negative end

LCDA257-2A 2 Axis Closed-Loop Stepper Driver

4. Control terminals

Serial number	illustrate
PUL1+	Axis 1 external pulse mode: for pulse signal input, the signal voltage supports 5v-24v; pulse input mode: pulse + direction (as pulse port) , double pulse (as CW port) ; pulse effective edge adjustable, the rising edge of the default pulse is valid, and the pulse width should be greater than 2.5 μs for reliable response of the pulse signal.
PUL1-	
DIR1+	Axis 1 external pulse mode: direction port input, signal voltage support 5v-24v; pulse input mode: pulse + direction (direction port) , double pulse (CCW port) ; high/low level signal, in order to ensure the reliable commutation of the motor, the direction signal should be established at least 5μs before the pulse signal.
DIR1-	
ENA1+	Axis 1 enable control signal, this input signal is used to enable or disable drive shaft 1 and shaft 2 outputs. Ena low level (or internal optocoupler) , the driver will cut off the current in each phase of the motor to make the motor in a free state, does not respond to the stepping pulse. When this function is not needed, the enable signal can be suspended. (signal voltage supports 5-24V)
ENA2-	
PUL2+	Axis 2 external pulse mode: for pulse signal input, the signal voltage supports 5v-24v; pulse input mode: pulse + direction (as pulse port) , double pulse (as CW port) ; pulse effective length adjustable, the rising edge of the default pulse is valid, and the pulse width should be greater than 2.5 μs for reliable response of the pulse signal.
PUL2-	
DIR2+	Axis 2 external pulse mode: direction port input, signal voltage support 5v-24v; pulse input mode: pulse + direction (direction port) , double pulse (CCW port) ; high/low level signal, in order to ensure the reliable commutation of the motor, the direction signal should be established at least 5μs before the pulse signal.
DIR2-	
ENA2+	Axis 2 enable control signal, this input signal is used to enable or disable drive shaft 1 and shaft 2 outputs. Ena low level (or internal optocoupler) , the driver will cut off the current in each phase of the motor to make the motor in a free state, does not respond to the stepping pulse. When this function is not needed, the enable signal can be suspended. (signal voltage supports 5-24V)
ENA2-	
ALM1+	Axis 1 alarm output signal, external access to 24 power supply; when shaft 1 motor alarm output signal through the alarm port. (the default always-open interface, that is, alarm signal output; can be modified by software communication parameter Pa-21 set to 1 to always-closed output, that is, alarm signal disconnect.)
ALM1-	
ALM2+	Axis 2 alarm output signal, external access to 24 power supply; when shaft 1 motor alarm output signal through the alarm port. (the default always open interface, that is, the alarm signal output; can be modified by software communication parameter PA-47 set to 1 to change the normal closed output, that is, the alarm signal disconnect.)
ALM2-	

Motor and power terminals

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
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10000	off	on	off	off
20000	on	off	off	off
40000	off	off	off	off

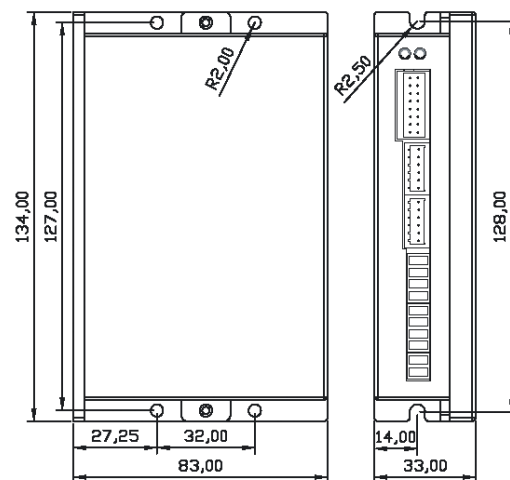
Top Dial Switch Instructions:

SW1-SW4: microstep subdivision settings

SW5: the initial direction of the motor is defined as OFF: CW On: CCW

SW6: Open/closed-loop option OFF: open-loop ON: Closed-loop

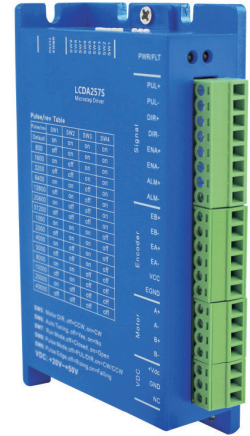
Installation size (unit: mm)



LCDA257S 2 Phase Closed Loop Stepper Drive

Technical parameter

LCDA257S adopts the latest special motor control DSP chip and servo control technologies, completely solves step missing issues for open loop stepper motor, obviously improves motor performance at high speed, reduces heat generation and vibration of motor, increases processing speed and precision of machine, decreases power consumption. applies to 2 phase Nema23 closed loop stepper motors, is convenient for upgrading traditional stepper driver solutions and largely reduces cost.



Functional Characteristics

- Full subdivision range: 400-51200 (Default gear can be set to any subdivision through debugging software).
- Pulse form: pulse + direction, CW/CCW
- Pulse response frequency: 0~20kHz
- Logical input current: 10~20mA
- Servo control mode, low noise during motor operation.
- Over-voltage, over-current, tracking error and out of error protection functions.
- Closed loop vector control, assure high-speed and big-torque output and no step missing of motor.

Application Industry

Apply to various small and medium-sized automation equipment and devices, such as: engraving machine, wire decoating machine, marking machine, cutting machine, laser machine, plotting instrument, medical equipment, CNC, automatic assembly equipment, electronic processing equipment and etc. Excellent application effects for low-noise and high-speed equipment.

Main Parameters

1. Electric indexes

Parameter	LCDA257S			
	Min	Type	Max	Unit
Max peak current	-	-	6	A
Input supply voltage	24	36	50	VDC
Logic input current	7	10	20	mA
Pulse frequency	-	-	200	KHZ

2. Interface Definition

(1) Motor and Power Supply Input Interface

Symbol	Name	Description
A+	Positive Terminal of A Phase Motor Winding	-
A-	Negative Terminal of A Phase Motor Winding	-
B+	Positive Terminal of B Phase Motor Winding	-
B-	Negative Terminal of B Phase Motor Winding	-
+VDC	Positive Terminal of Power Supply	+20V~+50V
GND	Negative Terminal of Power Supply	0V

LCDA257S 2 Phase Closed Loop Stepper Drive

(2) Signal input port of encoder (6Pin green terminal is adopted for LCDA257S encoder, pin definition is as follows)

Symbol	Name
EB+	B Phase Positive Input of Motor Encoder
EB-	B Phase Negative Input of Motor Encoder
EA+	A Phase Positive Input of Motor Encoder
EA-	A Phase Negative Input of Motor Encoder
VCC	Encoder Power Supply
EGND	Encoder power ground

(3) Control Signal Port

Name	Description
PUL+	Pulse input signal: Pulse rising edge is effective; for reliable response to pulse signal, pulse width shall be > 2.5μs. 1.5K resistance shall be connected in series when +12V or +24V is adopted
PUL-	
DIR+	Direction input signal: Switch motor direction through high/low level signal, direction signal shall be established at least 5μs before pulse signal. 1.5K resistance shall be connected in series when +12V or +24V is adopted.
DIR-	
ENA+	Enable control signal, such input signal is used for enabling or disabling the Driver output. When this function is not needed, enable signal terminal can be hung. 1.5K resistance shall be connected in series when +12V or +24V is used.
ENA-	
ALM+	Positive Terminal of Alarm Output
ALM-	Negative Terminal of Alarm Output

Motor and power terminals

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

Instructions for Top Dial Switch:

SW1~SW4: microstep subdivision settings

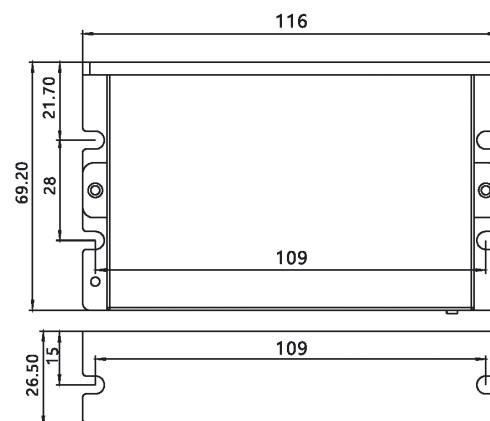
SW5: select forward/backward rotation direction of motor

SW6: select current auto-tuning mode

SW7: switch closed and open loop modes

SW8: select single/double pulse SW9: select pulse edge

Installation size (unit: mm)



LCDA257E/LCDA257F 2 Phase Closed Loop Stepper Drive

Technical parameter

LCDA257E/LCDA257F adopts the latest special motor control DSP chip and servo control technologies, completely solves step missing issues for open loop stepper motor, obviously improves motor performance at high speed, reduces heat generation and vibration of motor, increases processing speed and precision of machine, decreases power consumption. applies to 2 phase Nema23 closed loop stepper motors, is convenient for upgrading traditional stepper driver solutions and largely reduces cost.

Functional Characteristics

- Full subdivision range: Default 400/rev, any subdivision (200~51200) can be set through debugging panel.
- With overcurrent, overvoltage and other protection functions.
- Pulse response frequency: 0~20kHz
- Logical input current: 10~20mA
- Servo control mode, low noise during motor operation.
- Over-voltage, over-current, tracking error and out of error protection functions.
- Closed loop vector control, assure high-speed and big-torque output and no step missing of motor.

Application Industry

Apply to various small and medium-sized automation equipment and devices, such as: engraving machine, wire decoating machine, marking machine, cutting machine, laser machine, plotting instrument, medical equipment, CNC, automatic assembly equipment, electronic processing equipment and etc. Excellent application effects for low-noise and high-speed equipment.

Main Parameters

1. Electric indexes

Parameter	LCDA257E/LCDA257F			
	Min	Type	Max	Unit
Max peak current	-	-	6	A
Input supply voltage	20	36	50	VDC
Logic input current	7	10	20	mA
Pulse frequency	-	-	200	KHZ

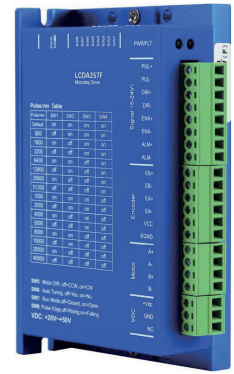
2. Interface Definition

(1) Motor and Power Supply Input Interface

Symbol	Name	Description
A+	Positive Terminal of A Phase Motor Winding	-
A-	Negative Terminal of A Phase Motor Winding	-
B+	Positive Terminal of B Phase Motor Winding	-
B-	Negative Terminal of B Phase Motor Winding	-
+VDC	Positive Terminal of Power Supply	+20V~+50V
GND	Negative Terminal of Power Supply	0V



LCDA257E



LCDA257F

LCDA257E/LCDA257F 2 Phase Closed Loop Stepper Drive

(2) Signal input port of encoder (6Pin green terminal is adopted for LCDA257S encoder, pin definition is as follows)

Symbol	Name
EB+	B Phase Positive Input of Motor Encoder
EB-	B Phase Negative Input of Motor Encoder
EA+	A Phase Positive Input of Motor Encoder
EA-	A Phase Negative Input of Motor Encoder
VCC	Encoder Power Supply
EGND	Encoder power ground

(3) Control Signal Port

Name	Description
PUL+	Pulse input signal: Pulse rising edge is effective; for reliable response to pulse signal, pulse width shall be > 2.5μs. 1.5K resistance shall be connected in series when +12V or +24V is adopted
PUL-	
DIR+	Direction input signal: Switch motor direction through high/low level signal, direction signal shall be established at least 5μs before pulse signal. 1.5K resistance shall be connected in series when +12V or +24V is adopted.
DIR-	
ENA+	Enable control signal, such input signal is used for enabling or disabling the Driver output. When this function is not needed, enable signal terminal can be hung. 1.5K resistance shall be connected in series when +12V or +24V is used.
ENA-	
ALM+	Positive Terminal of Alarm Output
ALM-	Negative Terminal of Alarm Output

Motor and power terminals

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

Instructions for Top Dial Switch:

SW1~SW4: microstep subdivision settings

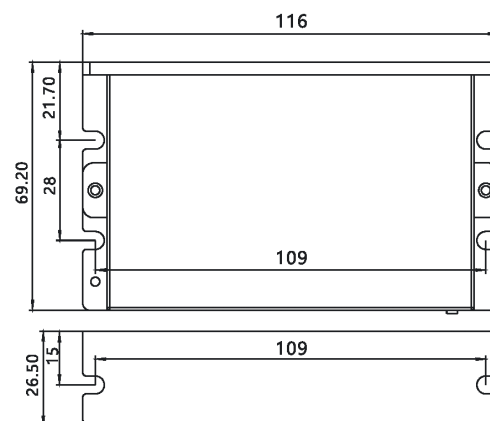
SW5: select forward/backward rotation direction of motor

SW6: select current auto-tuning mode

SW7: switch closed and open loop modes

SW8: select single/double pulse SW9: select pulse edge

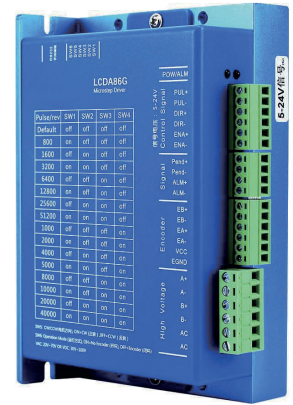
Installation size (unit: mm)



LCDA86G 2 Phase Closed Loop Stepper Drive

Technical parameter

LCDA86G adopts the latest special motor control DSP chip and vector closed loop control technology, completely solves step missing issues for open loop stepper motor, completely solves step missing issues for open loop stepper motor, obviously improves motor performance at high speed, reduces heat generation and vibration of motor, increases processing speed and precision of machine, decreases power consumption, applies to 2 phase Nema34 closed loop motors, has both stepper and servo advantages, is 50% cheaper than servo systems in market and an optimal upgrading stepper program for clients.



Functional Characteristics

- Subdivision range: Default 4000/rev, any subdivision (200~51200) can be set through debugging panel.
- Pulse limit frequency: 200KHZ
- Signal input: Pulse, direction and enable signals
- Output signal: In-place signal and failure output signal, full motor encoder feedback: AB differential input.
- Over-voltage, over-current, tracking error and out of error protection functions.
- Closed loop vector control, assure high-speed and big-torque output and no step missing of motor.

Application Industry

Apply to various small and medium-sized automation equipment and devices, such as: engraving machine, wire decoating machine, marking machine, cutting machine, laser machine, plotting instrument, medical equipment, CNC, automatic assembly equipment, electronic processing equipment and etc. Excellent application effects for low-noise and high-speed equipment.

Main Parameters

1. Electric indexes

Parameter	LCDA86G			
	Min	Type	Max	Unit
Max peak current	-	-	6	A
Input supply voltage	24	60	70	VDC/VAC
Logic input current	7	10	16	mA
Pulse frequency	-	200	500	KHZ

2. Interface Definition

(1) Motor and Power Supply Input Interface

Symbol	Name	Description
A+	Positive Terminal of A Phase Motor Winding	-
A-	Negative Terminal of A Phase Motor Winding	-
B+	Positive Terminal of B Phase Motor Winding	-
B-	Negative Terminal of B Phase Motor Winding	-
AC	Power Supply Connection Terminal	VDC: 30V-100V VAC: 20V-70V
AC	Power Supply Connection Terminal	

LCDA86G 2 Phase Closed Loop Stepper Drive

Symbol	Name
EB+	B Phase Positive Input of Motor Encoder
EB-	B Phase Negative Input of Motor Encoder
EA+	A Phase Positive Input of Motor Encoder
EA-	A Phase Negative Input of Motor Encoder
VCC	Encoder Power Supply
EGND	Encoder power ground

(3) Control Signal Port

Name	Description
PUL+	Pulse input signal: the rising edge of the pulse is valid; in order to respond to the pulse signal reliably, the pulse width should be greater than 2.5 μ s. Compatible with 5V-24V signals, no series resistance is required.
PUL-	
DIR+	Direction input signal: switch the motor direction by high/low level signal, the direction signal should be established at least 5 μ s before the pulse signal. Compatible with 5V-24V signals, no series resistance is required.
DIR-	
ENA+	Enable control signal, this input signal is used to enable or disable the driver output. When this function is not needed, the enable signal terminal can be left floating. Compatible with 5V-24V signals, no series resistance is required.
ENA-	
Pend+	Positive Terminal of Positioning Finish Signal
Pend-	Negative Terminal of Positioning Finish Signal
ALM+	Positive Terminal of Alarm Output
ALM-	Positive Terminal of Alarm Output

Motor and power terminals

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

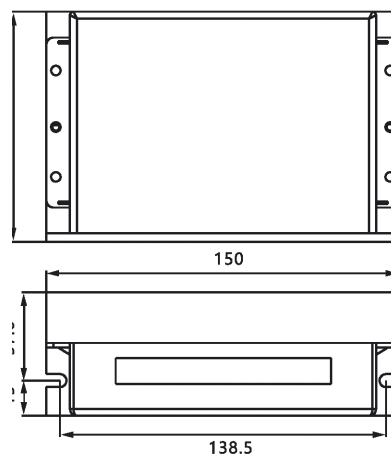
Instructions for Top Dial Switch:

SW1~SW4: microstep subdivision settings

SW5: select forward/backward rotation direction of motor

SW6: switch closed and open modes

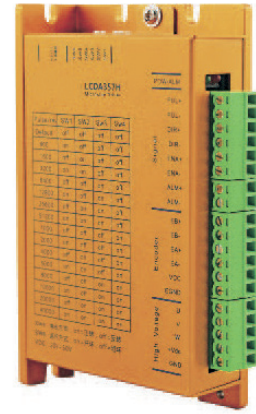
Installation size (unit: mm)



LCDA357H 3 Phase Closed Loop Stepper Drive

Technical parameter

LCDA357H adopts the latest special motor control DSP chip and vector closed loop control technology, completely solves step missing issues for open loop stepper motor, obviously improves motor performance at high speed, reduces heat generation and vibration of motor, increases processing speed and precision of machine, decreases power consumption, applies to 3 phase Nema23 closed loop stepper motors, is convenient for upgrading traditional stepper driver solutions and largely reduces cost.



Functional Characteristics

- Voltage input range: DC20V~50V (36V and above recommended)
- Max peak current: 7A
- Subdivision range: 200 ~ 51200pp
- Signal input: Differential/single terminal, pulse/direction
- Pulse response frequency: 200KHZ
- Power-on Parameter Automatic Tuning Function
- Over-voltage, over-current, tracking error and out of error protection functions.
- Closed loop vector control, assure high-speed large-torque output and no step missing of motor.

Application Industry

Apply to various small and medium-sized automation equipment and devices, such as: engraving machine, wire decoating machine, marking machine, cutting machine, laser machine, plotting instrument, medical equipment, CNC, automatic assembly equipment, electronic processing equipment and etc. Excellent application effects for low-noise and high-speed equipment.

Main Parameters

1. Electric indexes

Parameter	LCDA357H			
	Min	Type	Max	Unit
Max peak current	-	-	7	A
Input supply voltage	20	36	50	VDC
Logic input current	7	10	16	mA
Pulse frequency	-	-	200	KHZ

2. Interface Definition

(1) Motor and Power Supply Input Interface

Symbol	Name	Description
U	U Phase Winding of Motor	-
V	V Phase Winding of Motor	-
W	W Phase Winding of Motor	-
VDC	Positive Terminal of Power Supply Input	+20V~+50V
GND	Negative Terminal of Power Supply Input	0V

LCDA357H 3 Phase Closed Loop Stepper Drive

(2) Signal input port of encoder (6Pin green terminal is adopted for LCDA357H encoder, pin definition is as follows)

Symbol	Name
EB+	B Phase Positive Input of Motor Encoder
EB-	B Phase Negative Input of Motor Encoder
EA+	A Phase Positive Input of Motor Encoder
EA-	A Phase Negative Input of Motor Encoder
VCC	Encoder Power Supply
EGND	Encoder power ground

(3) Control Signal Port

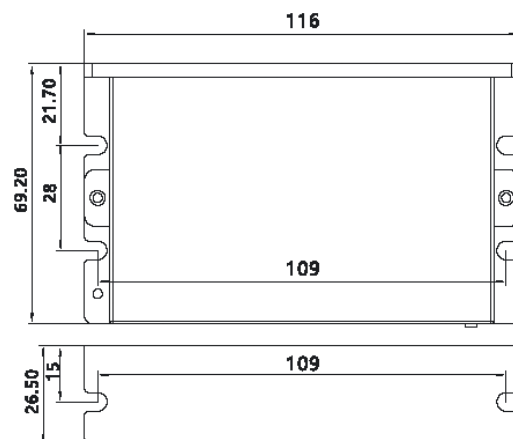
Name	Description
PUL+	Pulse input signal: Pulse rising edge is effective; for reliable response to pulse signal, pulse width shall be > 2.5μs. 1.5K resistance shall be connected in series when +12V or +24V is adopted.
PUL-	
DIR+	Direction input signal: Switch motor direction through high/low level signal, direction signal shall be established at least 5ps before pulse signal. 1.5K resistance shall be connected in series when +12V or +24V is adopted.
DIR-	
ENA+	Enable control signal, such input signal is used for enabling or disabling the Driver output. When this function is not needed, enable signal terminal can be hung. 1.5K resistance shall be connected in series when +12V or +24V is adopted.
ENA-	
ALM+	Positive Terminal of Alarm Output
ALM-	Negative Terminal of Alarm Output

Motor and power terminals

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

Instructions for Top Dial Switch:
 SW1~SW4: microstep subdivision settings
 SW5: select forward/backward rotation direction of motor
 SW6: switch closed and open modes

Installation size (unit: mm)



LCDA808F 2 Phase Digital Hybrid Servo Drive

Technical parameter

LCDA808F adopts the latest special motor control DSP chip and vector closed loop control technology, completely solves step missing issues for open loop stepper motor, obviously improves motor performance at high speed, reduces heat generation and vibration of motor, increases processing speed and precision of machine, decreases power consumption, applies to 2 phase Nema34 closed loop motors, has both stepper and servo advantages, low noise, strong anti-interference capacity, is suitable for high speed, external digital debugging panel and easy parameter settings and monitoring.



Functional Characteristics

- Voltage input range: AC50V~80V
- Max peak current: 8A
- Subdivision range: 200~51200ppr
- Pulse response frequency: 200KHZ
- Signal input: Differential/single terminal, pulse/direction
- External digital debugging panel, easy parameter settings and monitoring.
- Over-voltage, over-current, tracking error and out of error protection functions.
- Closed loop vector control, assure high-speed large-torque output and no step missing of motor.
- Serial port communication function, current, subdivision, signal edge and alarm output logic functions can be adjusted.

Application Industry

Apply to various small and medium-sized automation equipment and devices, such as: engraving machine, wire decoating machine, marking machine, cutting machine, laser machine, plotting instrument, medical equipment, CNC, automatic assembly equipment, electronic processing equipment and etc. Excellent application effects for low-noise and high-speed equipment.

Main Parameters

1. Electric indexes

Parameter	LCDA808F			
	Min	Type	Max	Unit
Max peak current	-	-	8	A
Input supply voltage	50	70	80	VAC
Logic input current	7	10	16	mA
Pulse frequency	-	-	200	KHZ

2. Interface Definition

(1) Motor and Power Supply Input Interface

Symbol	Name	Description
A+	Positive Terminal of A Phase Motor Winding	-
A-	Negative Terminal of A Phase Motor Winding	-
B+	Positive Terminal of B Phase Motor Winding	-
B-	Negative Terminal of B Phase Motor Winding	-
AC	Power Supply Connection Terminal	50V~80VAC
AC	Power Supply Connection Terminal	

LCDA357H 3 Phase Closed Loop Stepper Drive

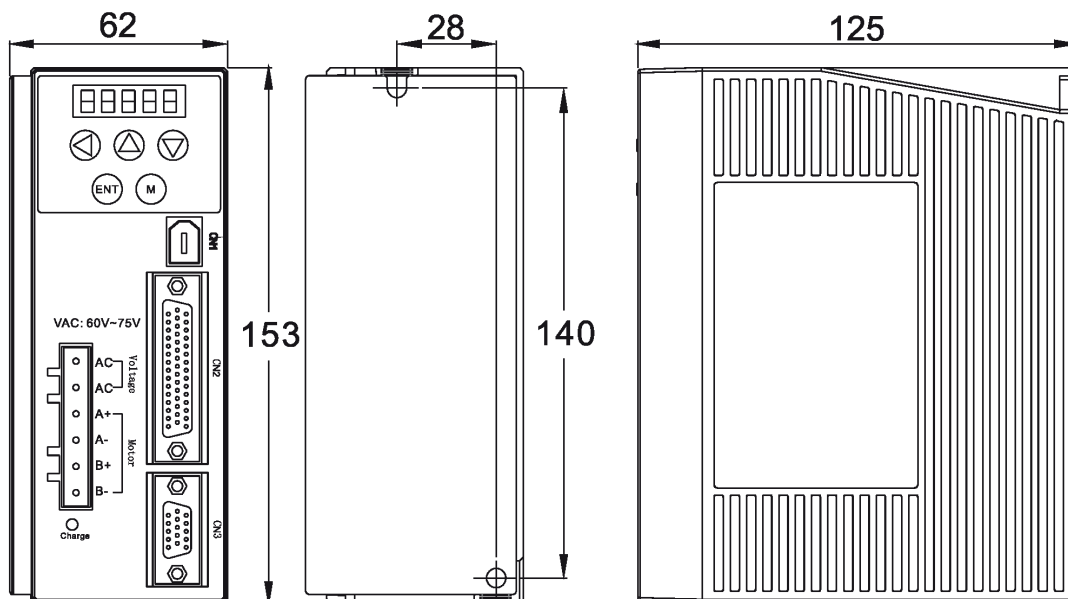
(2) Signal input port of encoder (15Pin green terminal is adopted for LCD808F encoder, pin definition is as follows)

Pin	Symbol	Name
1	EB+	B Phase Positive Input of Motor Encoder
11	EB-	B Phase Negative Input of Motor Encoder
2	EA+	A Phase Positive Input of Motor Encoder
12	EA-	A Phase Negative Input of Motor Encoder
13	VCC	Encoder Power Supply
3	EGND	Encoder power ground

(3) Control Signal Port

Pin	Name	Description
3	PUL+	Pulse input signal: the rising edge of the pulse is valid; in order to respond to the pulse signal reliably, the pulse width should be greater than 2.5 μ s. Compatible with 5V-24V signals, no series resistance is required.
4	PUL-	
5	DIR+	Direction input signal: switch the motor direction by high/low level signal, the direction signal should be established at least 5 μ s before the pulse signal. Compatible with 5V-24V signals, no series resistance is required.
6	DIR-	
7	ENA+	Enable control signal, this input signal is used to enable or disable the driver output. When this function is not needed, the enable signal terminal can be left floating. Compatible with 5V-24V signals, no series resistance is required.
8	ENA-	
9	Pend+	Positive Terminal of Positioning Finish Signal
10	Pend-	Negative Terminal of Positioning Finish Signal
11	ALM+	Positive Terminal of Alarm Output
12	ALM-	Positive Terminal of Alarm Output

Motor and power terminals



LCDA2262C 2 Phase Digital Hybrid Servo Drive

Technical parameter

LCDA2262C is a new generation of digital two-phase closed-loop step driver based on 32-bit DSP technology. The driver adopts a brand-new structure and control scheme, and a brand-new interface scheme, so that users can use it more conveniently and quickly, the driver combines more advanced algorithms to substantially reduce the noise of the motor while running, making the motor run more smoothly and reliably.



Functional Characteristics

- Voltage input range: AC150V~250V
- Max peak current: 6A
- Subdivision range: 400~60000ppr
- Pulse form: pulse+direction (dual pulse not supported)
- Pulse response frequency: 0-200kHz
- Equipped with overvoltage, overcurrent, and motor short circuit protection functions

Application Industry

Apply to various small and medium-sized automation equipment and devices, such as: engraving machine, wire decoating machine, marking machine, cutting machine, laser machine, plotting instrument, medical equipment, CNC, automatic assembly equipment, electronic processing equipment and etc. Excellent application effects for low-noise and high-speed equipment.

Main Parameters

1. Electrical indicators

Serial number	Symbols	illustrate
1	A+	Two-phase stepping motor winding
2	A-	
3	B+	
4	B-	
5	PE	Ground terminal
6	AC	AC power supply input AC150V-250V
7	AC	

2. Control signal terminal

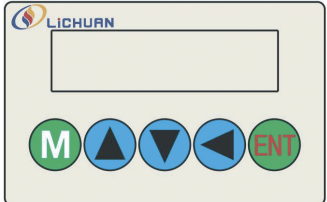





Serial number	Symbols	illustrate
1	PUL+	Pulse signal input (5V-24V)
2	PUL-	
3	DIR+	Directional signal input (5V-24V)
4	DIR-	
5	ENA+	Release signal input (5V-24V)
6	ENA-	
7	ALM+	Alarm signal output (normally closed output)
8	ALM-	
9	RDY+	Prepare the signal output (normally closed output)
10	RDY-	

LCDA2262C 2 Phase Digital Hybrid Servo Drive

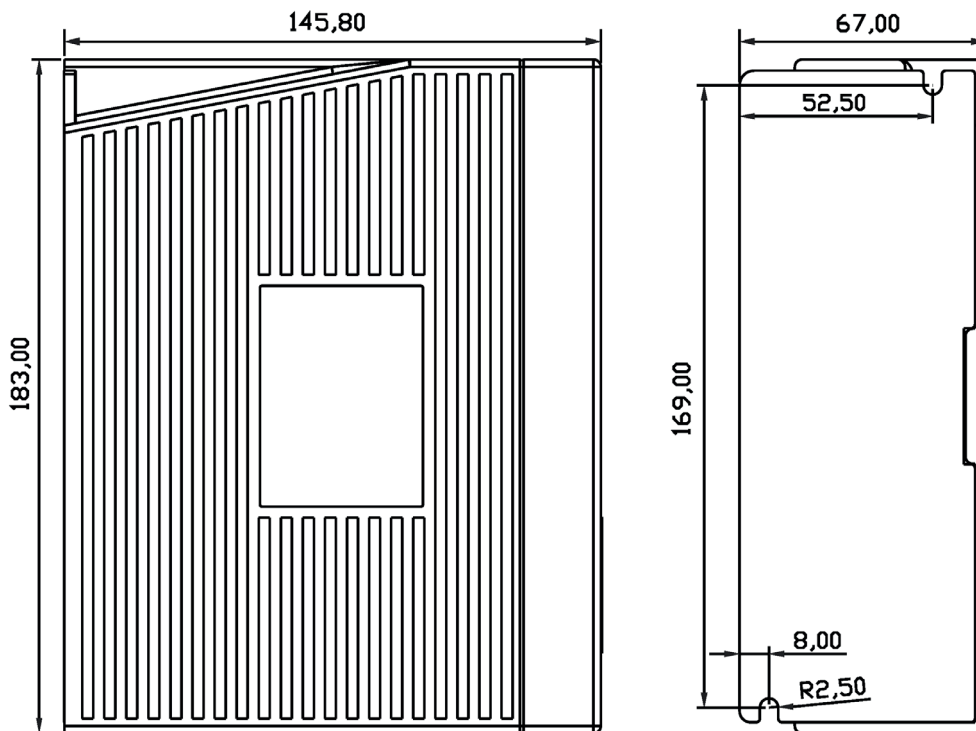
3. Encoder signal terminal

Pin	Name	illustrate
1	EA+	Encoder a phase feedback signal
2	EA-	
3	EB+	Encoder B phase feedback signal
4	EB-	
5	EZ+	Encoder z-phase feedback signal (not connected by default)
6	EZ-	
7	+5V	Encoder power supply is positive
8	GND	Encoder power supply negative

4. Key function description (introduction to debug panel)

	Key symbol	Key instructions
		
		Switch Submenus and increase values
		Switch Submenus and reduce values
		Enter the submenu and determine the input
		Can switch between modes

Motor and power terminals



LCDA2260E 3 Phase Digital Hybrid Servo Drive

Technical parameter

LCDA2260E adopts the latest special motor control DSP chip and vector closed loop control technology, completely solves step missing issues for open loop stepper motor, obviously improves motor performance at high speed, reduces heat generation and vibration of motor, increases processing speed and precision of machine, decreases power consumption. When continuous overload of motor occurs, the Driver will timely output alarm signal, it is as reliable as AC servo system. Applies to motor installation dimensions which are fully compatible with Nema34/42 series stepper motors, is convenient for upgrading traditional stepper driver solutions and largely reduces cost.



Functional Characteristics

- Voltage input range: AC150V~230V (generally connected to 220V)
- Statistic and dynamic currents can be set within 0~6A.
- External digital debugging panel, current and subdivision can be adjusted.
- Subdivision adjustment range: 200~51200, max pulse response frequency: 200KHZ
- Dynamic current control largely decreases heat generation and vibration noise of motor.
- Closed loop vector control, assure high-speed large-torque output and no step missing of motor.
- Serial port communication function, current, subdivision, signal edge and alarm output logic functions can be adjusted, over-voltage, over-current, tracking error and out of error protection functions.
- Built-in micro subdivision, stable operation at low speed and low subdivision, automatic parameter tuning function.

Application Industry

Apply to various small and medium-sized automation equipment and devices, such as: engraving machine, wire decoating machine, marking machine, cutting machine, laser machine, plotting instrument, medical equipment, CNC, automatic assembly equipment, electronic processing equipment and etc. Excellent application effects for low-noise and high-speed equipment.

Main Parameters

1. Electric indexes

Parameter	LCDA2260E			
	Min	Type	Max	Unit
Max peak current	-	-	8	A
Input supply voltage	150	220	230	VAC
Logic input current	7	10	16	mA
Pulse frequency	-	-	200	KHZ

2. Interface Definition

(1) Power Terminal Port

Symbol	Name	Description
R	Power Supply Input Terminal	150-230VAC
S		Empty terminal
NC		
BR1	Outer Braking Resistance	External braking resistor Connected between BR1 and P+
P+	Linear Bus Voltage	

LCDA2260E 3 Phase Digital Hybrid Servo Drive

(2) Power Terminal Port 2

Symbol	Name	Description
U	U Phase Winding + of Motor	-
V	V Phase Winding + of Motor	-
W	W Phase Winding + of Motor	-
PE	Grounding terminals	-
r	Control Power Input	150V-230VAC
s		

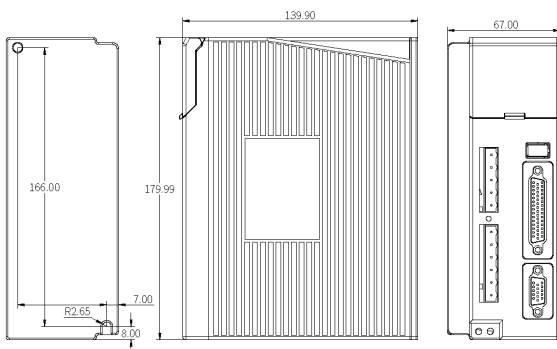
(3) Signal input CN3 port of encoder (15Pin DB head is adopted for LCDA2260H encoder, pin definition is as follows)

Pin	Symbol	Name	Description
2	EB+	B Phase Positive Input of Motor Encoder	-
12	EB-	B Phase Negative Input of Motor Encoder	-
1	EA+	A Phase Positive Input of Motor Encoder	-
11	EA-	A Phase Negative Input of Motor Encoder	-
13	VCC	Encoder Power Supply	+ 5V
3	EGND	Encoder power ground	0 V

(4) Control Signal CN2 Port (44 Pin DB Head)

Pin	Name	Description
3	PUL+	Pulse input signal: the rising edge of the pulse is valid; in order to respond to the pulse signal reliably, the pulse width should be greater than 2.5μs. Compatible with 5V-24V signals, no series resistance is required.
4	PUL-	
5	DIR+	Direction input signal: switch the motor direction by high/low level signal, the direction signal should be established at least 5μs before the pulse signal. Compatible with 5V-24V signals, no series resistance is required.
6	DIR-	
7	ENA+	Enable control signal, this input signal is used to enable or disable the driver output. When this function is not needed, the enable signal terminal can be left floating. Compatible with 5V-24V signals, no series resistance is required.
8	ENA-	
9	Pend+	Positive Terminal of Positioning Finish Signal
10	Pend-	Negative Terminal of Positioning Finish Signal
11	ALM+	Positive Terminal of Alarm Output
12	ALM-	Negative Terminal of Alarm Output

Motor and power terminals



LCDA2263C 3 Phase Digital Hybrid Servo Drive

Technical parameter

LCDA2263C is a new generation of digital three-phase closed-loop step driver based on 32-bit DSP technology. The driver adopts a new structure and control scheme, a new interface scheme, which makes the user use more convenient and quick, the driver combines more advanced algorithms to substantially reduce the noise of the motor while running, making the motor run more smoothly and reliably.



Functional Characteristics

- Voltage input range: AC150V~250V
- Maximum Peak Current: 6A
- Subdivision: 400-60000ppr
- Pulse form: pulse+direction (dual pulse not supported)
- Pulse response frequency: 0 ~ 200kHz
- With over-voltage, over-current, motor lack of phase protection functions

Application Industry

Apply to various small and medium-sized automation equipment and devices, such as: engraving machine, wire decoating machine, marking machine, cutting machine, laser machine, plotting instrument, medical equipment, CNC, automatic assembly equipment, electronic processing equipment and etc. Excellent application effects for low-noise and high-speed equipment.

Main Parameters

1. Electrical indicators

Serial number	Symbols	illustrate
1	NC	Empty feet
2	U	Three-phase stepping motor winding
3	V	
4	W	
5	PE	Earth
6	AC	AC power supply input AC150V-250V
7	AC	

2. Control signal terminal

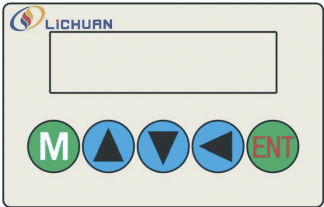





Serial number	Symbols	illustrate
1	PUL+	Pulse signal input (5V-24V)
2	PUL-	
3	DIR+	Directional signal input (5V-24V)
4	DIR-	
5	ENA+	Release signal input (5V-24V)
6	ENA-	
7	ALM+	Alarm signal output (normally closed output)
8	ALM-	
9	RDY+	Prepare the signal output (normally closed output)
10	RDY-	

LCDA2263C 3 Phase Digital Hybrid Servo Drive

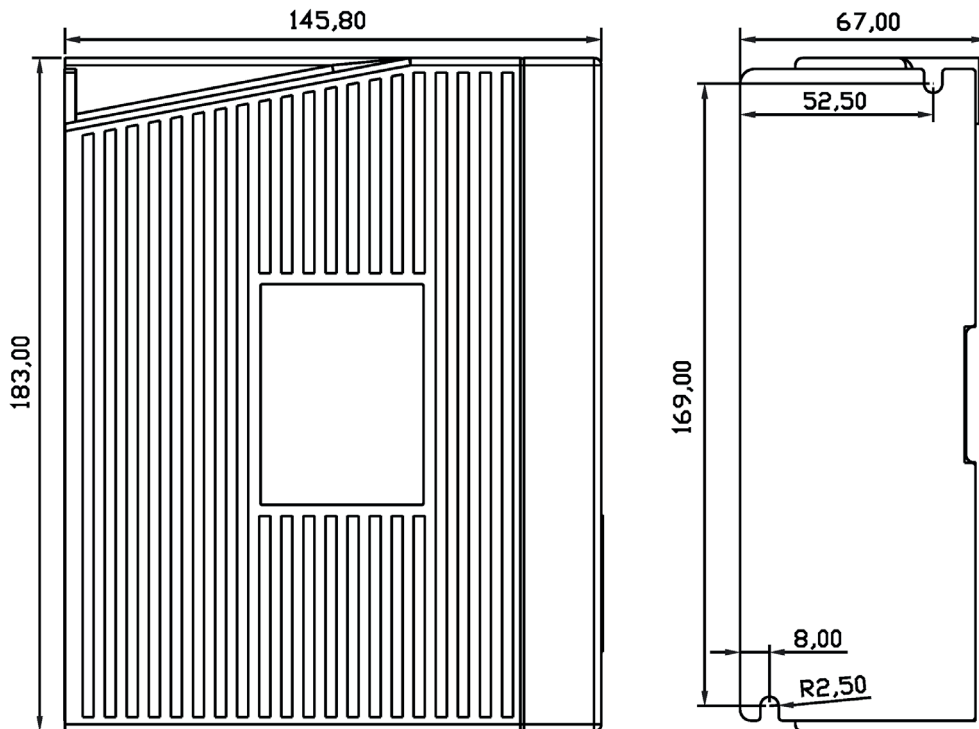
3. Encoder signal terminal

Pin	Name	illustrate
1	EA+	Encoder a phase feedback signal
2	EA-	
3	EB+	Encoder B phase feedback signal
4	EB-	
5	EZ+	Encoder z-phase feedback signal (not connected by default)
6	EZ-	
7	+5V	Encoder power supply is positive
8	GND	Encoder power supply negative

4. Key function description (introduction to debug panel)

	Key symbol	Key instructions
		The input bit (blinking) moves left
		Switch Submenus and increase values
		Switch Submenus and reduce values
		Enter the submenu and determine the input
		Can switch between modes

Motor and power terminals



OL57-R 2 Phase Stepper Driver

Technical parameter

- Voltage input range: DC24V~50V
- Maximum peak current: 5A
- Communication interface: RS485
- Communication protocol: Modbus RTU
- Motor parameter auto-tuning function
- With overvoltage, overcurrent and other protection functions.

Environmental parameters

- Storage temperature: -20°C~65°C
- Operating temperature: 0°C~45°C
- Operating humidity: 90%RH (non-condensing)
- Vibration frequency: less than 0.5G (4.9m/s²) 10Hz~60Hz (discontinuous operation)
- Installation environment: no corrosive gas, flammable gas, oil mist or dust, etc.

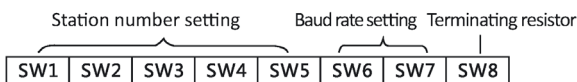


Drive function description

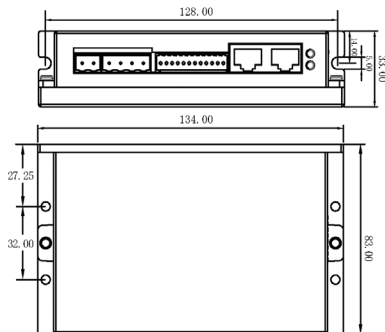
Drive function	Instructions
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
RS485IN/OUT	RS485 communication interface, support standard Modbus-RTU bus communication protocol.
Station number setting	The communication station number of the drive is set by the five DIP switches SW1~SW5. It supports up to 31 slave stations. In actual use, the drive should be stopped first. For details, please set the slave station address according to the instructions on the drive panel table.
Baud rate setting	The driver's communication baud rate is set by the three DIP switches SW6~SW8. The setting range is 9600~115200, a total of 6 levels. In actual use, the driver should be stopped first. For details, please set the communication wave according to the instructions on the driver panel. Special rate.
DI/DO signal port	There are 6 groups of DI input ports and 3 groups of DO output ports. The corresponding command value can be configured according to actual needs, and the function corresponding to this command value can be used; for details, please set according to the driver manual.
Motor interface	A+ and A- are connected to the positive and negative ends of the A-phase winding of the stepping motor; B+ and B- are connected to the positive and negative ends of the B-phase winding of the stepping motor.
Power connector	Adopt DC power supply, working input voltage range: 24V~50VDC, recommended working voltage 36VDC, it is recommended that the power of a single drive is greater than 100W.
Installation Notes	Dimensions of the Driver: 134 x 83 x 33mm, installation pitch of holes: 128mm. Both horizontal and vertical installations can be selected (vertical installation is suggested)The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

OL57-R driver supports RS485 bus, with a total of 8 dial switches, which can be used to set RS485 station number, communication baud rate, and terminal resistance, as shown in the following table:



Installation size (unit: mm)



Baud rate setting

Baud rate	9600	19200	38400	115200
SW6	on	off	on	off
SW7	on	on	off	off

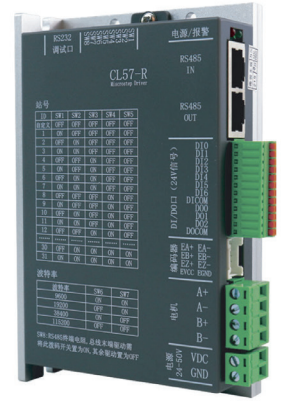
Station number setting

Station No	SW1	SW2	SW3	SW4	SW5
customize	off	off	off	off	off
1	on	off	off	off	off
2	off	on	off	off	off
3	on	on	off	off	off
4	off	off	on	off	off
5	on	off	on	off	off
6	off	on	on	off	off
7	on	on	on	off	off
8	off	off	off	on	off
9	on	off	off	on	off
10	off	on	off	on	off
11	on	on	off	on	off
12	off	off	on	on	off
13	on	off	on	on	off
14	off	on	on	on	off
15	on	on	on	on	off
16	off	off	off	off	on
17	on	off	off	off	on
18	off	on	off	off	on
19	on	on	off	off	on
20	off	off	on	off	on
21	on	off	on	off	on
22	off	on	on	off	on
23	on	on	on	off	on
24	off	off	off	on	on
25	on	off	off	on	on
26	off	on	off	on	on
27	on	on	off	on	on
28	off	off	on	on	on
29	on	off	on	on	on
30	off	on	on	on	on
31	on	on	on	on	on

CL57-R 2 Phase Closed Loop Stepper Driver

Technical parameter

The CL57-R stepping driver samples a new generation of 32-bit DSP technology, combines RS485 bus control functions, supports MODBUS-RTU communication protocol, can mount up to 31 axes, and can realize multi-axis bus synchronization control. The driver has 15 internal positions and 15 The internal speed of the segment supports functions such as automatic zero return, absolute/relative positioning, and JOG, which can be directly controlled by the touch screen or the controller with RS485 interface.



Functional Characteristics

- Voltage input range: DC24V~50V
- Maximum peak current: 5A
- Communication interface: RS485
- Communication protocol: Modbus RTU
- Baud rate: 9600, 19200, 38400, 115200 (set by dialing SW6~SW7)
- Station number: 1~31 (set by dialing SW1~SW5)
- Terminal resistance: 120 ohms (set by dialing SW8)
- Parity: no parity (default), odd parity, even parity

Application Industry

It is suitable for assembly line, lighting control, smart home, automated agricultural machinery, multi-axis positioning platform and other fields.

Main Parameters

1. Product Specifications

Drive model	CL57-R	Matching motor	2 Phase 42/57/60 stepping closed-loop motor
DI port input current	10~50mA	DI port input voltage	24V DC
Encoder	1000 line incremental	Insulation resistance	100MΩ
Drive size	134*83*33mm	Drive weight	0.3kg
Storage environment	-20~65°C (no frost), below 90%RH (no condensation)		
Use environment	Temperature: 0°C~45°C; Humidity: ≤90% RH or less, no condensation; altitude: ≤1000m; installation environment: no corrosive gas, flammable Gas, oil mist or dust, etc.; vibration: less than 0.5G (4.9m/s ²), 10~60 Hz (non-continuous operation)		

2. Motor and power input interface

Symbol	Name	illustrate
A+	A phase motor winding positive end	-
A-	A phase motor winding negative terminal	-
B+	B phase motor winding positive end	-
B-	B phase motor winding negative terminal	-
VDC	DC power input positive terminal	+24V~+50V
GND	DC power input negative terminal	

CL57-R 2 Phase Closed Loop Stepper Driver

3. Encoder signal input terminal (CL57-R encoder signal interface uses 6Pin green terminals, and the pin definitions are as follows)

Symbol	Name	Symbol	Name
EA+	Motor encoder phase A positive input	EZ-	Motor encoder Z phase negative input
EA-	Motor encoder phase A negative input	EVCC	Positive terminal of encoder power supply (5V)
EB+	Motor encoder B phase positive input	EGND	Encoder power negative terminal
EB-	Motor encoder B phase negative input	NC	Empty feet
EZ+	Motor encoder Z phase positive input	NC	Empty feet

4. DI/DO signal interface

	Name	Symbol	Name
DI0	Single-ended input; effective working voltage 24V	DI6	Single-ended input; effective working voltage 24V
DI1	Single-ended input; effective working voltage 24V	DICOM	Common terminal of input port; compatible with common anode/common cathode connection
DI2	Single-ended input; effective working voltage 24V	DO0	Single-ended output
DI3	Single-ended input; effective working voltage 24V	DO1	Single-ended output
DI4	Single-ended input; effective working voltage 24V	DO2	Single-ended output
DI5	Single-ended input; effective working voltage 24V	DOCOM	The common end of the output port; can only be connected to the negative end of the power supply

Station number setting

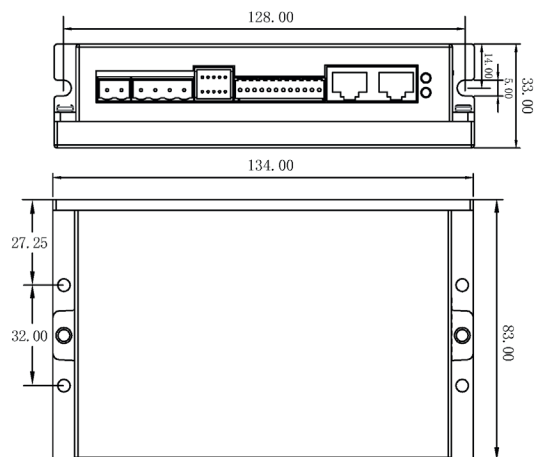
Station No	SW1	SW2	SW3	SW4	SW5
customize	off	off	off	off	off
1	on	off	off	off	off
2	off	on	off	off	off
3	on	on	off	off	off
4	off	off	on	off	off
5	on	off	on	off	off
6	off	on	on	off	off
7	on	on	on	off	off
8	off	off	off	on	off
9	on	off	off	on	off
10	off	on	off	on	off
11	on	on	off	on	off
12	off	off	on	on	off
13	on	off	on	on	off
14	off	on	on	on	off
15	on	on	on	on	off
16	off	off	off	off	on
17	on	off	off	off	on
18	off	on	off	off	on
19	on	on	off	off	on
20	off	off	on	off	on
21	on	off	on	off	on
22	off	on	on	off	on
23	on	on	on	off	on
24	off	off	off	on	on
25	on	off	off	on	on
26	off	on	off	on	on
27	on	on	off	on	on
28	off	off	on	on	on
29	on	off	on	on	on
30	off	on	on	on	on
31	on	on	on	on	on

Baud rate setting

SW8: Set the terminal resistance

When SW8 is set to ON, a 120Ω terminal resistance will be connected between the signal lines to prevent the signal sent by the node on the network is reflected when it reaches the end of the cable.

Installation size (unit: mm)



OL86-R 2 Phase Stepper Driver

Technical parameter

- Voltage input range: DC30V~110V/AC20V~80V
- Maximum peak current: 8A
- Communication interface: RS485
- Communication protocol: Modbus RTU
- Motor parameter auto-tuning function
- With overvoltage, overcurrent and other protection functions.

Environmental parameters

- Storage temperature: -20°C~65°C (no frost)
- Operating temperature: 0°C~45°C
- Operating humidity: 90%RH (non-condensing)
- Vibration frequency: less than 0.5G (4.9m/s²) 10Hz~60Hz (discontinuous operation)
- Installation environment: no corrosive gas, flammable gas, oil mist or dust, etc.

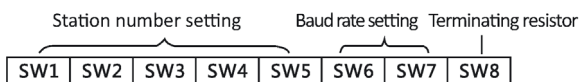


Drive function description

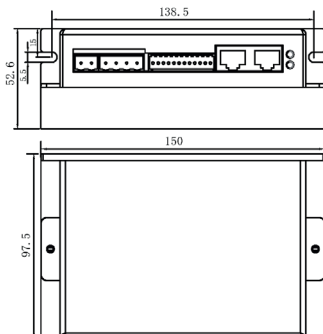
Drive function	Instructions
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
RS485IN/OUT	RS485 communication interface, support standard Modbus-RTU bus communication protocol.
Station number setting	The communication station number of the drive is set by the five DIP switches SW1~SW5. It supports up to 31 slave stations. In actual use, the drive should be stopped first. For details, please set the slave station address according to the instructions on the drive panel table.
Baud rate setting	The driver's communication baud rate is set by the three DIP switches SW6~SW8. The setting range is 9600~115200, a total of 6 levels. In actual use, the driver should be stopped first. For details, please set the communication wave according to the instructions on the driver panel. Special rate.
DI/DO signal port	There are 6 groups of DI input ports and 3 groups of DO output ports. The corresponding command value can be configured according to actual needs, and the function corresponding to this command value can be used; for details, please set according to the driver manual.
Motor interface	A+ and A- are connected to the positive and negative ends of the A-phase winding of the stepping motor; B+ and B- are connected to the positive and negative ends of the B-phase winding of the stepping motor.
Power connector	Adopt DC power supply, working input voltage range: 30V ~ 110VDC or 20V ~ 80VAC, recommended input voltage is greater than 48V, power supply is greater than 300W.
Installation Notes	Dimensions of the Driver: 150 x 97.5 x 52.6mm, installation pitch of holes: 138.5mm. Both horizontal and vertical installations can be selected (vertical installation is suggested)The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

OL86-R driver supports RS485 bus, with a total of 8 dial switches, which can be used to set RS485 station number, communication baud rate, and terminal resistance, as shown in the following table:



Installation size (unit: mm)



Baud rate setting

Baud rate	9600	19200	38400	115200
SW6	on	off	on	off
SW7	on	on	off	off

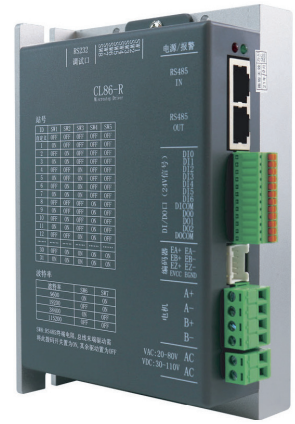
Station number setting

Station No	SW1	SW2	SW3	SW4	SW5
customize	off	off	off	off	off
1	on	off	off	off	off
2	off	on	off	off	off
3	on	on	off	off	off
4	off	off	on	off	off
5	on	off	on	off	off
6	off	on	on	off	off
7	on	on	on	off	off
8	off	off	off	on	off
9	on	off	off	on	off
10	off	on	off	on	off
11	on	on	off	on	off
12	off	off	on	on	off
13	on	off	on	on	off
14	off	on	on	on	off
15	on	on	on	on	off
16	off	off	off	off	on
17	on	off	off	off	on
18	off	on	off	off	on
19	on	on	off	off	on
20	off	off	on	off	on
21	on	off	on	off	on
22	off	on	on	off	on
23	on	on	on	off	on
24	off	off	off	on	on
25	on	off	off	on	on
26	off	on	off	on	on
27	on	on	off	on	on
28	off	off	on	on	on
29	on	off	on	on	on
30	off	on	on	on	on
31	on	on	on	on	on

CL86-R 2 Phase Closed Loop Stepper Driver

Technical parameter

The CL86-R stepping driver samples a new generation of 32-bit DSP technology, combines RS485 bus control functions, supports MODBUS-RTU communication protocol, can mount up to 31 axes, and can realize multi-axis bus synchronization control. The driver has 15 internal positions and 15 The internal speed of the segment supports functions such as automatic zero return, absolute/relative positioning, and JOG, which can be directly controlled by the touch screen or the controller with RS485 interface.



Functional Characteristics

- Voltage input range: DC30V~110V / AC20V~80V
- Maximum peak current: 8A
- Communication interface: RS485
- Communication protocol: Modbus RTU
- Baud rate: 9600, 19200, 38400, 115200 (set by dialing SW6~SW7)
- Station number: 1~31 (set by dialing SW1~SW5)
- Terminal resistance: 120 ohms (set by dialing SW8)
- Parity: no parity (default), odd parity, even parity

Application Industry

It is suitable for assembly line, lighting control, smart home, automated agricultural machinery, multi-axis positioning platform and other fields.

Main Parameters

1. Product Specifications

Drive model	CL86-R	Matching motor	2 Phase 60/86 stepping closed-loop motor
DI port input current	10~50mA	DI input voltage	24V DC
Encoder	1000 line incremental	Insulation resistance	100MΩ
Drive size	150*97.5*52.6mm	Drive weight	0.5kg
Storage environment	-20~65°C (no frost), below 90%RH (no condensation)		
Use environment	Temperature: 0°C~45°C; Humidity: ≤90% RH or less, no condensation; altitude: ≤1000m; installation environment: no corrosive gas, flammable Gas, oil mist or dust, etc.; vibration: less than 0.5G (4.9m/s ²), 10~60 Hz (non-continuous operation)		

2. Motor and power input interface

Symbol	Name	illustrate
A+	A phase motor winding positive end	-
A-	A phase motor winding negative terminal	-
B+	B phase motor winding positive end	-
B-	B phase motor winding negative terminal	-
AC	Power input	VDC: 30V ~110V VAC: 20V ~ 80V
AC	Power input	

CL86-R 2 Phase Closed Loop Stepper Driver

3. Encoder signal input terminal (CL86-R encoder signal interface uses 6Pin green terminals, and the pin definitions are as follows)

Symbol	Name	Symbol	Name
EA+	Motor encoder phase A positive input	EZ-	Motor encoder Z phase negative input
EA-	Motor encoder phase A negative input	EVCC	Positive terminal of encoder power supply (5V)
EB+	Motor encoder B phase positive input	EGND	Encoder power negative terminal
EB-	Motor encoder B phase negative input	NC	Empty feet
EZ+	Motor encoder Z phase positive input	NC	Empty feet

4. DI/DO signal interface

Symbol	Name	Symbol	Name
DI0	Single-ended input; effective working voltage 24V	DI6	Single-ended input; effective working voltage 24V
DI1	Single-ended input; effective working voltage 24V	DICOM	Common terminal of input port; compatible with common anode/common cathode connection
DI2	Single-ended input; effective working voltage 24V	DO0	Single-ended output
DI3	Single-ended input; effective working voltage 24V	DO1	Single-ended output
DI4	Single-ended input; effective working voltage 24V	DO2	Single-ended output
DI5	Single-ended input; effective working voltage 24V	DOCOM	The common end of the output port; can only be connected to the negative end of the power supply

Station number setting

Station No	SW1	SW2	SW3	SW4	SW5
customize	off	off	off	off	off
1	on	off	off	off	off
2	off	on	off	off	off
3	on	on	off	off	off
4	off	off	on	off	off
5	on	off	on	off	off
6	off	on	on	off	off
7	on	on	on	off	off
8	off	off	off	on	off
9	on	off	off	on	off
10	off	on	off	on	off
11	on	on	off	on	off
12	off	off	on	on	off
13	on	off	on	on	off
14	off	on	on	on	off
15	on	on	on	on	off
16	off	off	off	off	on
17	on	off	off	off	on
18	off	on	off	off	on
19	on	on	off	off	on
20	off	off	on	off	on
21	on	off	on	off	on
22	off	on	on	off	on
23	on	on	on	off	on
24	off	off	off	on	on
25	on	off	off	on	on
26	off	on	off	on	on
27	on	on	off	on	on
28	off	off	on	on	on
29	on	off	on	on	on
30	off	on	on	on	on
31	on	on	on	on	on

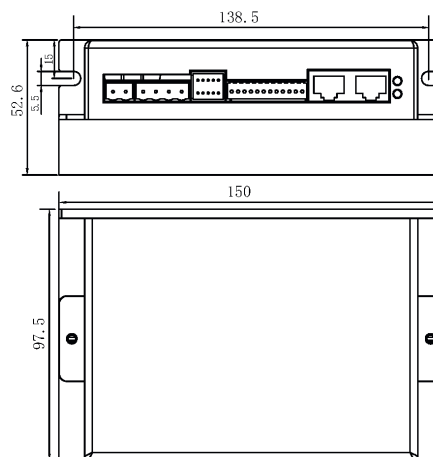
Baud rate setting

Baud rate	9600	19200	38400	115200
SW6	on	off	on	off
SW7	on	on	off	off

SW8: Set the terminal resistance

When SW8 is set to ON, a 120Ω terminal resistance will be connected between the signal lines to prevent the signal sent by the node on the network is reflected when it reaches the end of the cable.

Installation size (unit: mm)



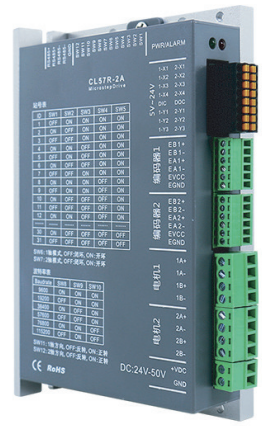
CL57R-2A Bus Type 2 Axis Closed-Loop Driver

Technical parameter

CL57R-2A is an all-digital drive-control type closed-loop one-drag two step driver, the driver uses RS485 interface, support the standard Modbus-RTU protocol, the multi-axis motion control function can be realized by touch screen or controller with RS485 communication interface. The user can control up to 31 drives at the same time, support internal position auto-switch, return to zero, position trigger, JOG and other functions.

Functional Characteristics

- Voltage input range: DC20V~50V
- Maximum peak current: 6A
- 1000 line encoder
- Communication Interface: RS485
- Communication Protocol: Modbus RTU
- Motor parameter auto-setting function
- With over-voltage, over-current, position error alarm and other protection functions



Application Industry

It is suitable for assembly line, lighting control, smart home, automated agricultural machinery, multi-axis positioning platform and other fields.

Main Parameters

1. Communication terminal description (5p terminal)

Pin	1	2	3	4	5
Signal Definition	GND	485-	485+	485-	485+

2. Di/DO terminal description

	Driver control terminal pin definition (driver socket diagram)
--	---

Terminal serial number	Function	illustrate	Terminal serial number	Function	illustrate
1	1-DI1	Axis 1 digital input 1(NPN only)	9	DICOM	Public side of digital input
2	2-DI1	Axis 2 digital input 1(NPN only)	10	DOCOM	Public end of digital output
3	1-DI2	Axis 1 digital input 2(NPN only)	11	1-DO1	Axis 1 digital output 1
4	2-DI2	Axis 2 digital input 2(NPN only)	12	2-DO1	Axis 2 digital output 1
5	1-DI3	Axis 1 digital input 3	13	1-DO2	Axis 1 digital output 2
6	2-DI3	Axis 2 digital input 3	14	2-DO2	Axis 2 digital output 2
7	1-DI4	Axis 1 digital input 4	15	1-DO3	Axis 1 digital output 3
8	2-DI4	Axis 2 digital input 4	16	2-DO3	Axis 2 digital output 3

CL57R-2A Bus Type 2 Axis Closed-Loop Driver

3. Power terminal description

Terminal name	Functional description	Terminal name	Functional description
GND	DC power supply input negative terminal	1B-	Axis 1 motor B phase winding negative end
VDC	DC power input positive terminal	2A+	Axis 2 motor phase a winding front end
1A+	Axis 1 motor phase a winding front end	2A-	Axis 2 motor a phase winding negative end
1A-	Axis 1 motor a phase winding negative end	2B+	Axis 2 motor B phase winding front end
1B+	Axis 1 motor b-phase winding front end	2B-	Axis 2 motor B phase winding negative end

4. Encoder terminal description

Terminal name	Functional description	Terminal name	Functional description
1EA+	Axis 1 encoder feedback a signal	1EVCC	Axis 1 encoder power supply is positive
1EA-		1EGND	Axis 1 encoder power supply negative
1EB+	Axis 1 encoder feedback a signal		
1EB-			
2EA+	Axis 2 encoder feedback a signal	2EVCC	Axis 2 encoder power supply is positive
2EA-		2EGND	Axis 2 encoder power supply negative
2EB+	Axis 2 encoder feedback a signal		
2EB-			

Station number setting

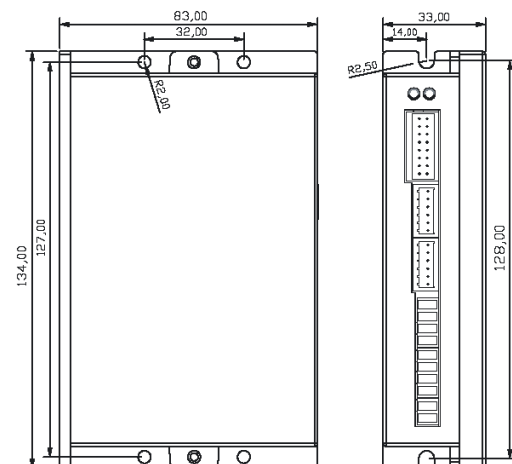
ID	SW1	SW2	SW3	SW4	SW5
1	off	on	on	on	on
2	on	off	on	on	on
3	off	off	on	on	on
4	on	on	off	on	on
5	off	on	off	on	on
6	on	off	off	on	on
7	off	off	off	on	on
8	on	on	on	off	on
9	off	on	on	off	on
10	on	off	on	off	on
11	off	off	on	off	on
12	on	on	off	off	on
13	off	on	off	off	on
14	on	off	off	off	on
15	off	off	off	off	on
16	on	on	on	on	off
17	off	on	on	on	off
18	on	off	on	on	off
19	off	off	on	on	off
20	on	on	off	on	off
21	off	on	off	on	off
22	on	off	off	on	off
23	off	off	off	on	off
24	on	on	on	off	off
25	off	on	on	off	off
26	on	off	on	off	off
27	off	off	on	off	off
28	on	on	off	off	off
29	off	on	off	off	off
30	on	off	off	off	off
31	off	off	off	off	off

Baud rate setting

Baud rate	9600	19200	38400	37600	76800	115200
SW8	on	off	on	off	on	off
SW9	on	on	off	off	on	on
SW10	on	on	on	on	off	off

SW6: Axis 1 mode/SW7: Axis 2 mode, OFF: closed-loop, ON: open-loop
 SW11: Axis 1/SW12: Axis 2, OFF: reverse, ON: forward

Installation size (unit: mm)



OL57-C 2 Phase Stepper Driver

Technical parameter

- Voltage input range: DC24V~50V
- Maximum peak current: 5A
- Communication interface: CANopen
- Communication protocol: CiA301 and CiA402 sub-protocol
- Motor parameter auto-tuning function
- With overvoltage, overcurrent and other protection functions.

Environmental parameters

- Storage temperature: -20°C~65°C (no frost)
- Operating temperature: 0°C~45°C
- Operating humidity: below 90%RH (no condensation)
- Vibration frequency: less than 0.5G (4.9m/s²), 10~60 Hz (non-continuous operation)
- Installation environment: no corrosive gas, flammable gas, oil mist or dust, etc.

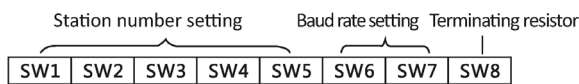


Drive function description

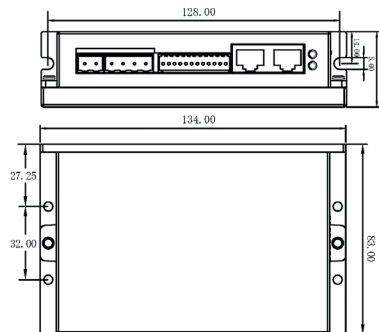
Drive function	Instructions
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
CANopen IN/OUT	CANopen communication interface, support CIA301 protocol and CIA402.V2 sub-protocol.
Station number setting	The communication station number of the drive is set by the five DIP switches SW1~SW5. It supports up to 31 slave stations. In actual use, the drive should be stopped first. For details, please set the slave station address according to the instructions on the drive panel table.
Baud rate setting	The driver's communication baud rate is set by the two DIP switches SW6~SW7, and the setting range is 125K~1M, a total of 4 ranges. In actual use, the driver should be stopped first. For details, please set the communication wave according to the instructions on the driver panel. Special rate, SW8 is terminal resistance.
DI/DO signal port	DI0~DI6 are single-ended input ports, DICOM is public input port, DO0~DO2 are single-ended output ports, DOCOM is public output port, you can configure the corresponding command value according to actual needs, you can use the corresponding command value Function;
Motor interface	A+ and A- are connected to the positive and negative ends of the A-phase winding of the stepping motor; B+ and B- are connected to the positive and negative ends of the B-phase winding of the stepping motor.
Power connector	Adopt DC power supply, working input voltage range: 24V~50VDC, recommended working voltage 36VDC, it is recommended that the power of a single drive is greater than 100W.
Installation Notes	Dimensions of the Driver: 134 x 83 x 33mm, installation pitch of holes: 128mm. Both horizontal and vertical installations can be selected (vertical installation is suggested)The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

OL57-C driver supports CANopen bus, with a total of 8 dial switches, which can be used to set CANopen station number, communication baud rate, and terminal resistance, as shown in the following table:



Installation size (unit: mm)



Baud rate setting

Baud rate	125Kbps	250Kbps	500Kbps	1Mbps
SW6	on	off	on	off
SW7	on	on	off	off

Station number setting

Station No	SW1	SW2	SW3	SW4	SW5
customize	off	off	off	off	off
1	on	off	off	off	off
2	off	on	off	off	off
3	on	on	off	off	off
4	off	off	on	off	off
5	on	off	on	off	off
6	off	on	on	off	off
7	on	on	on	off	off
8	off	off	off	on	off
9	on	off	off	on	off
10	off	on	off	on	off
11	on	on	off	on	off
12	off	off	on	on	off
13	on	off	on	on	off
14	off	on	on	on	off
15	on	on	on	on	off
16	off	off	off	off	on
17	on	off	off	off	on
18	off	on	off	off	on
19	on	on	off	off	on
20	off	off	on	off	on
21	on	off	on	off	on
22	off	on	on	off	on
23	on	on	on	off	on
24	off	off	off	on	on
25	on	off	off	on	on
26	off	on	off	on	on
27	on	on	off	on	on
28	off	off	on	on	on
29	on	off	on	on	on
30	off	on	on	on	on
31	on	on	on	on	on

CL57-C 2 Phase Closed Loop Stepper Driver

Technical parameter

The CL57-C stepping driver samples a new generation of 32-bit DSP technology, combines the CANopen bus control function, supports the CiA301 protocol and the CiA402.V2 sub-protocol, can mount up to 31 axes, can realize multi-axis high-speed bus synchronization control, and the driver supports position Mode, speed mode and return to zero mode, standardized protocols make the entire control system more stable and reliable, and simple field wiring can effectively avoid the problem of pulse loss in traditional drives in interference environments.



Functional Characteristics

- Voltage input range: DC24V~50V
- Maximum peak current: 5A
- Communication interface: CANopen
- Communication protocol: CiA301 and CiA402 sub-protocol
- Baud rate: 125K, 250K, 500K, 1M (set by dialing SW6~SW7)
- Station number: 1~31 (set by dialing SW1~SW5)
- Terminal resistance: 120 ohms (set by dialing SW8)
- Installation environment: no corrosive gas, flammable gas, oil mist or dust, etc.

Application Industry

It is suitable for assembly line, lighting control, smart home, automated agricultural machinery, multi-axis positioning platform and other fields.

Main Parameters

1. Product Specifications

Drive model	CL57-C	Encoder	2 Phase 42/57/60 stepping closed-loop motor
DI input current	10~50mA	DI input voltage	24V DC
Encoder	1000 line incremental	Serial debugging	RS232 interface
Insulation resistance	100MΩ	Drive size	134*83*33mm
Storage environment	-20~65°C (no frost), below 90%RH (no condensation)	Drive weight	0.3kg
Use environment	Temperature: 0°C~45°C; Humidity: no condensation below 90% RH; altitude: ≤1000m; installation environment: no corrosive gas, flammable gas, oil mist or dust, etc.; vibration: less than 0.5G (4.9m/s ²), 10~60 Hz (non-continuous operation)		

2. Motor and power input interface

Symbol	Name	illustrate
A+	A phase motor winding positive end	-
A-	A phase motor winding negative terminal	-
B+	B phase motor winding positive end	-
B-	B phase motor winding negative terminal	-
VDC	Power input positive terminal	VDC:24V~50V
GND	Power input negative terminal	

3. RS232 Communication port

Pin	Signal definition	Name
1	GND	Signal ground
2	GND	Signal ground
3	TXD	Communication
4	RXD	Communication reception
5	GND	Signal ground
6	GND	Signal ground

CL57-C 2 Phase Closed Loop Stepper Driver

3. Encoder signal input terminal (CL57-C encoder signal interface uses 6Pin green terminals, and the pin definitions are as follows)

Symbol	Name	Symbol	Name
EA+	Motor encoder phase A positive input	EZ-	Motor encoder Z phase negative input
EA-	Motor encoder phase A negative input	EVCC	Positive terminal of encoder power supply (5V)
EB+	Motor encoder B phase positive input	EGND	Encoder power negative terminal
EB-	Motor encoder B phase negative input	NC	Empty feet
EZ+	Motor encoder Z phase positive input	NC	Empty feet

4. DI/DO signal interface

Symbol	Name	Symbol	Name
DI0	Single-ended input; effective working voltage 24V	DI6	Single-ended input; effective working voltage 24V
DI1	Single-ended input; effective working voltage 24V	DICOM	Common terminal of input port; compatible with common anode/common cathode connection
DI2	Single-ended input; effective working voltage 24V	DO0	Single-ended output
DI3	Single-ended input; effective working voltage 24V	DO1	Single-ended output
DI4	Single-ended input; effective working voltage 24V	DO2	Single-ended output
DI5	Single-ended input; effective working voltage 24V	DOCOM	The common end of the output port; can only be connected to the negative end of the power supply

Station number setting

Station No	SW1	SW2	SW3	SW4	SW5
customize	off	off	off	off	off
1	on	off	off	off	off
2	off	on	off	off	off
3	on	on	off	off	off
4	off	off	on	off	off
5	on	off	on	off	off
6	off	on	on	off	off
7	on	on	on	off	off
8	off	off	off	on	off
9	on	off	off	on	off
10	off	on	off	on	off
11	on	on	off	on	off
12	off	off	on	on	off
13	on	off	on	on	off
14	off	on	on	on	off
15	on	on	on	on	off
16	off	off	off	off	on
17	on	off	off	off	on
18	off	on	off	off	on
19	on	on	off	off	on
20	off	off	on	off	on
21	on	off	on	off	on
22	off	on	on	off	on
23	on	on	on	off	on
24	off	off	off	on	on
25	on	off	off	on	on
26	off	on	off	on	on
27	on	on	off	on	on
28	off	off	on	on	on
29	on	off	on	on	on
30	off	on	on	on	on
31	on	on	on	on	on

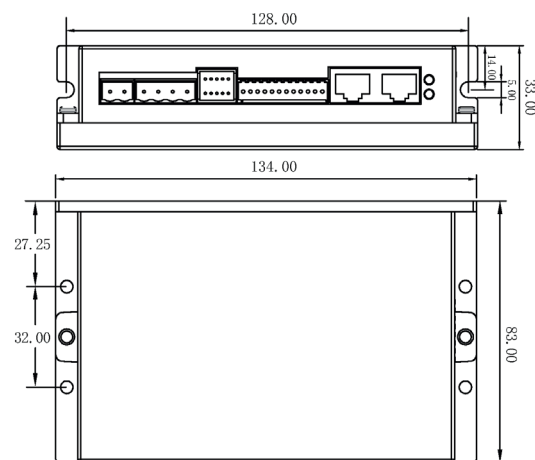
Baud rate setting

Baud rate	125Kbps	250Kbps	500Kbps	1Mbps
SW6	on	off	on	off
SW7	on	on	off	off

SW8: Set the terminal resistance

When SW8 is set to ON, a 120Ω terminal resistance will be connected between the signal lines to prevent the signal sent by the node on the network is reflected when it reaches the end of the cable.

Installation size (unit: mm)



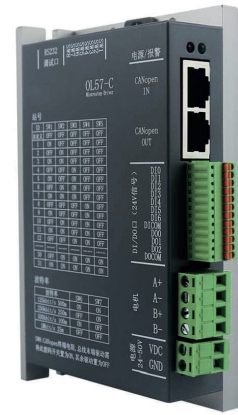
OL86-C 2 Phase Stepper Driver

Technical parameter

- Voltage input range: DC30V~110V/AC20V~80V
- Maximum peak current: 8A
- Communication interface: CANopen
- Communication protocol: CiA301 and CiA402 sub-protocol
- Motor parameter auto-tuning function
- With overvoltage, overcurrent and other protection functions.

Environmental parameters

- Storage temperature: -20°C~65°C (no frost)
- Operating temperature: 0°C~45°C
- Operating humidity: below 90%RH (no condensation)
- Vibration frequency: less than 0.5G (4.9m/s²), 10~60 Hz (non-continuous operation)
- Installation environment: no corrosive gas, flammable gas, oil mist or dust, etc.



Drive function description

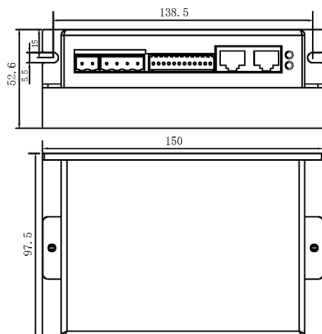
Drive function	Instructions
Indicator light	There is 1 green indicator light and 1 red indicator light on the Driver. The green one is power indicator light, it illuminates when the Driver is connected to power supply; the red one is failure indicator light, it illuminates when over-voltage or over-current failure occurs. Red indicator light goes off after failure is eliminated. Failure of the Driver can only be eliminated by re-connecting to power supply and reusing.
CANopen IN/OUT	CANopen communication interface, support CIA301 protocol and CIA402.V2 sub-protocol.
Station number setting	The communication station number of the drive is set by the five DIP switches SW1~SW5. It supports up to 31 slave stations. In actual use, the drive should be stopped first. For details, please set the slave station address according to the instructions on the drive panel table.
Baud rate setting	The driver's communication baud rate is set by the two DIP switches SW6~SW7, and the setting range is 125K~1M, a total of 4 ranges. In actual use, the driver should be stopped first. For details, please set the communication wave according to the instructions on the driver panel. Special rate, SW8 is terminal resistance.
DI/DO signal port	DI0~DI6 are single-ended input ports, DICOM is public input port, DO0~DO2 are single-ended output ports, DOCOM is public output port, you can configure the corresponding command value according to actual needs, you can use the corresponding command value Function;
Motor interface	A+ and A- are connected to the positive and negative ends of the A-phase winding of the stepping motor; B+ and B- are connected to the positive and negative ends of the B-phase winding of the stepping motor.
Power connector	Adopt DC power supply, working input voltage range: 30V ~ 110VDC or 20V ~ 80VAC, recommended input voltage is greater than 48V, power supply is greater than 300W.
Installation Notes	Dimensions of the Driver: 150 x 97.5 x 52.6mm, installation pitch of holes: 138.5mm. Both horizontal and vertical installations can be selected (vertical installation is suggested)The Driver shall be installed closely against metal cabinet for heat dissipation.

Parameter setting

OL86-C driver supports CANopen bus, with a total of 8 dial switches, which can be used to set Set the CANopen station number, communication baud rate, and terminal resistance, as shown in the following table:



Installation size (unit: mm)



Baud rate setting

Baud rate	125Kbps	250Kbps	500Kbps	1Mbps
SW6	on	off	on	off
SW7	on	on	off	off

Station number setting

Station No	SW1	SW2	SW3	SW4	SW5
customize	off	off	off	off	off
1	on	off	off	off	off
2	off	on	off	off	off
3	on	on	off	off	off
4	off	off	on	off	off
5	on	off	on	off	off
6	off	on	on	off	off
7	on	on	on	off	off
8	off	off	off	on	off
9	on	off	off	on	off
10	off	on	off	on	off
11	on	on	off	on	off
12	off	off	on	on	off
13	on	off	on	on	off
14	off	on	on	on	off
15	on	on	on	on	off
16	off	off	off	off	on
17	on	off	off	off	on
18	off	on	off	off	on
19	on	on	off	off	on
20	off	off	on	off	on
21	on	off	on	off	on
22	off	on	on	off	on
23	on	on	on	off	on
24	off	off	off	on	on
25	on	off	off	on	on
26	off	on	off	on	on
27	on	on	off	on	on
28	off	off	on	on	on
29	on	off	on	on	on
30	off	on	on	on	on
31	on	on	on	on	on

C L86-C 2 Phase Closed Loop Stepper Driver

Technical parameter

CL86-C stepping driver samples a new generation of 32-bit DSP technology, combined with CANopen bus control function, supports CiA301 protocol and CiA402.V2 sub-protocol, can mount up to 31 axes, can realize multi-axis high-speed bus synchronous control, and the driver supports position mode, Speed mode and return to zero mode, standardized protocols make the entire control system more stable and reliable, and simple on-site wiring can effectively avoid the problem of pulse loss in the interference environment of traditional drives.



Functional Characteristics

- Voltage input range: DC30V~110V / AC20V~80V
- Maximum peak current: 8A
- Communication interface: CANopen
- Communication protocol: CiA301 and CiA402 sub-protocol
- Baud rate: 125K, 250K, 500K, 1M (set by dialing SW6~SW7)
- Station number: 1~31 (set by dialing SW1~SW5)
- Terminal resistance: 120 ohms (set by dialing SW8)
- Installation environment: no corrosive gas, flammable gas, oil mist or dust, etc.

Application Industry

It is suitable for assembly line, lighting control, smart home, automated agricultural machinery, multi-axis positioning platform and other fields.

Main Parameters

1. Product Specifications

Drive model	CL86-C	Matching motor	2 Phase 60/86 stepping closed-loop motor
DI input current	10~50mA	DI input voltage	24V DC
Encoder	1000 line incremental	Serial debugging	RS232 interface
Insulation resistance	100MΩ	Drive size	150*97.5*52.6mm
Storage environment	-20~65°C (no frost), below 90%RH (no condensation)	Drive weight	0.5kg
Use environment	Temperature: 0°C~45°C; Humidity: no condensation below 90% RH; altitude: ≤1000m; installation environment: no corrosive gas, flammable gas, oil mist or dust, etc.; vibration: less than 0.5G (4.9m /s ²), 10~60 Hz (non-continuous operation)		

2. Motor and power input interface

Symbol	Name	illustrate
A+	A phase motor winding positive end	-
A-	A phase motor winding negative terminal	-
B+	B phase motor winding positive end	-
B-	B phase motor winding negative terminal	-
VDC	Power input positive terminal	VDC:30V~110V VAC:20V~80V
GND	Power input negative terminal	

3. RS232 Communication port

Pin	Signal definition	Name
1	GND	Signal ground
2	GND	Signal ground
3	TXD	Communication
4	RXD	Communication reception
5	GND	Signal ground
6	GND	Signal ground

C L86-C 2 Phase Closed Loop Stepper Driver

3. Encoder signal input terminal (CL86-C encoder signal interface uses 6Pin green terminals, and the pin definitions are as follows)

Symbol	Name	Symbol	Name
EA+	Motor encoder phase A positive input	EZ-	Motor encoder Z phase negative input
EA-	Motor encoder phase A negative input	EVCC	Positive terminal of encoder power supply (5V)
EB+	Motor encoder B phase positive input	EGND	Encoder power negative terminal
EB-	Motor encoder B phase negative input	NC	Empty feet
EZ+	Motor encoder Z phase positive input	NC	Empty feet

4. DI/DO signal interface

Symbol	Name	Symbol	Name
DI0	Single-ended input; effective working voltage 24V	DI6	Single-ended input; effective working voltage 24V
DI1	Single-ended input; effective working voltage 24V	DICOM	Common terminal of input port; compatible with common anode/common cathode connection
DI2	Single-ended input; effective working voltage 24V	DO0	Single-ended output
DI3	Single-ended input; effective working voltage 24V	DO1	Single-ended output
DI4	Single-ended input; effective working voltage 24V	DO2	Single-ended output
DI5	Single-ended input; effective working voltage 24V	DOCOM	The common end of the output port; can only be connected to the negative end of the power supply

Station number setting

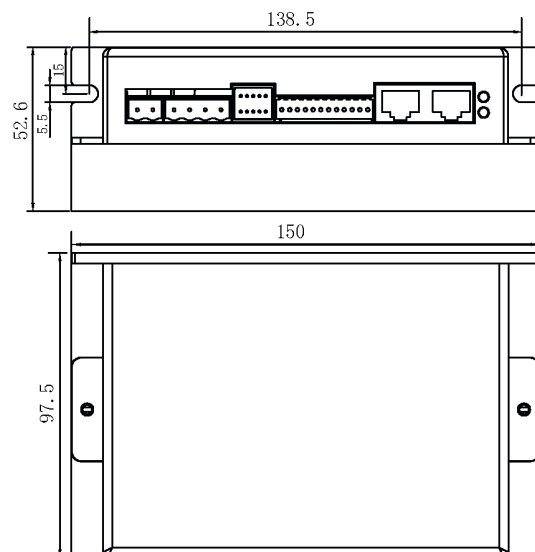
Station No	SW1	SW2	SW3	SW4	SW5
customize	off	off	off	off	off
1	on	off	off	off	off
2	off	on	off	off	off
3	on	on	off	off	off
4	off	off	on	off	off
5	on	off	on	off	off
6	off	on	on	off	off
7	on	on	on	off	off
8	off	off	off	on	off
9	on	off	off	on	off
10	off	on	off	on	off
11	on	on	off	on	off
12	off	off	on	on	off
13	on	off	on	on	off
14	off	on	on	on	off
15	on	on	on	on	off
16	off	off	off	off	on
17	on	off	off	off	on
18	off	on	off	off	on
19	on	on	off	off	on
20	off	off	on	off	on
21	on	off	on	off	on
22	off	on	on	off	on
23	on	on	on	off	on
24	off	off	off	on	on
25	on	off	off	on	on
26	off	on	off	on	on
27	on	on	off	on	on
28	off	off	on	on	on
29	on	off	on	on	on
30	off	on	on	on	on
31	on	on	on	on	on

Baud rate setting

Baud rate	125Kbps	250Kbps	500Kbps	1Mbps
SW6	on	off	on	off
SW7	on	on	off	off

OL86C driver supports CANopen bus, with a total of 8 dial switches, which can be used to set Set the CANopen station number, communication baud rate, and terminal resistance, as shown in the following table:

Installation size (unit: mm)



EtherCAT Bus Type Stepper Driver

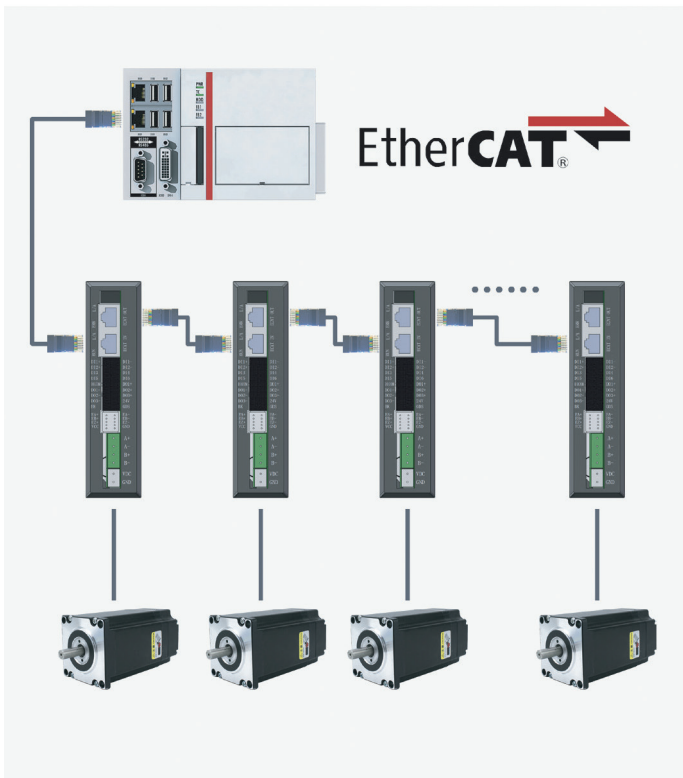
Overview of EtherCAT

EtherCAT (Ethernet for Control Automation Technology) is a real-time industrial fieldbus communication protocol based on an Ethernet-based development framework. It was introduced to the market in 2003, became an international standard in 2007, and became a Chinese national standard in 2014. The emergence of EtherCAT has established a new standard for the system's real-time performance and topology flexibility.

Functional Characteristics

- Flexible topology: EtherCAT can form linear, tree, and star topology.
- High-precision synchronization: The data transmission speed of EtherCAT can reach 100Mbit/s, and the high-resolution distributed clock enables the synchronization accuracy between each slave node to reach the micro level.
- Simple maintenance: EtherCAT node address can be automatically set, no network debugging is required.
- The hardware is simple and cost-effective: the EtherCAT master device does not need a special card, and the slave device uses a highly integrated chip.

EtherCAT networking diagram



EtherCAT communication specifications

Physical layer	100BASE-TX
Communication connector	RJ45 × 2 (input: CN4A; output: CN4B)
Network Architecture	Cascade
Transmission rate	2 x 100 Mbps (full duplex)
Data frame length	Maximum 1484 bytes
Application layer protocol	CoE: CANopen over EtherCAT
Sync mode	DC synchronization mode (SYNC0) Asynchronous mode (Free Run)
Communication object	SDO: Aperiodic Data Object PDO: Periodic Data Object EMCY: emergency items
Application layer specifications	CiA402 Drive Profile
Supported control modes	PP: Profile position mode PV: Profile speed mode HM: Home mode (HM) CSP: Cyclic Synchronous Position Mode

Product specifications and electrical characteristics

Drive model parameter	OL3-E57H	CL3-E57H	OL3-E86H	CL3-E86H
Matching motor	2 Phase 42/57/60 series Open loop motor	2 Phase 42/57/60 series Closed loop motor	2 Phase 60/86 series Open loop motor	2 Phase 60/86 series Closed loop motor
Supply voltage	24V~48VDC		24V~110VDC / 18V~80VAC	
Output current	5A		8A	
Drive size	133*34*90mm		151*40*114mm	
Drive weight	0.3kg		0.6kg	
input Output	2 differential inputs, 4 24V single-ended inputs; 3 differential outputs; independent brake output signal			

OL3-E57H Bus Type Stepping Driver

Product description

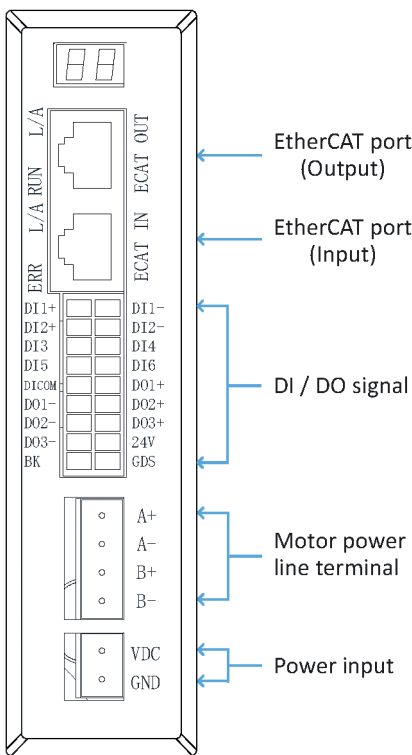
OL3-E57H bus-type stepping driver is a digital stepping driver that combines advanced digital stepping motor algorithms and EtherCAT bus communication protocol. This product supports the CoE (CANopen over EtherCAT) protocol and conforms to the CIA402 standard. Compared with the traditional pulse-type driver, the bus-type driver has simpler wiring, real-time data transmission, high-reliability communication, and can realize multi-axis synchronous communication control. This series of drivers sample advanced digital stepper motor algorithms, which can effectively suppress motor temperature rise and reduce motor vibration, and can be adapted to 42/57/60 series open-loop stepper motors.



Application Industry

It can be used in 3C electronics industry, stage lighting control, robotic arm, medical treatment, lithium battery and other automation equipment.

Function Description



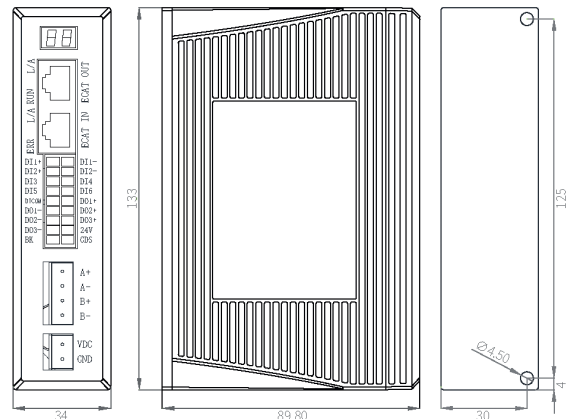
DI/DO signal interface

symbol	Name
D11+	The differential input signal DI1, 12V~24V is valid, the maximum input frequency is 500K, the signal function can be freely configured, and the default function is the probe input signal 1.
D11-	
D12+	The differential input signal DI2, 12V~24V is valid, the maximum input frequency is 500K, the signal function can be freely configured, and the default function is the probe input signal 2.
D12-	
D13	Single-ended input signal, 12V~24V is valid, the default is the origin signal.
D14	Single-ended input signal, 12V~24V is valid, the default is positive limit signal.
D15	Single-ended input signal, 12V~24V is valid, the default is negative limit signal.
D16	Single-ended input signal, 12V~24V valid, no default function defined.
DICOM	The common terminal of single-ended input signal can use common anode or common cathode connection.
DO1+	Differential output signal DO1, the maximum current is 100mA, the default is the alarm output signal.
DO1-	
DO2+	Differential output signal DO2, the maximum current is 100mA, the default is the positioning completion signal.
DO2-	
DO3+	Differential output signal DO3, the maximum current is 100mA, the default is the zero return completion signal.
DO3-	
+24V	Brake signal 24V power positive input terminal.
BK	The brake control signal can be directly connected to the motor brake without adding a relay.
GDS	Brake signal The negative input terminal of 24V power supply.

MODBUS Communication

symbol	Name
A+	A phase motor winding positive end
A-	A phase motor winding negative terminal
B+	B phase motor winding positive end
B-	B phase motor winding negative terminal
VDC	The power supply is connected to the positive terminal (power supply voltage: DC24V~48V)
GND	Power supply is connected to the negative terminal

Installation size (unit: mm)



CL3-E57H Bus Type Closed Loop Stepper Driver

Product description

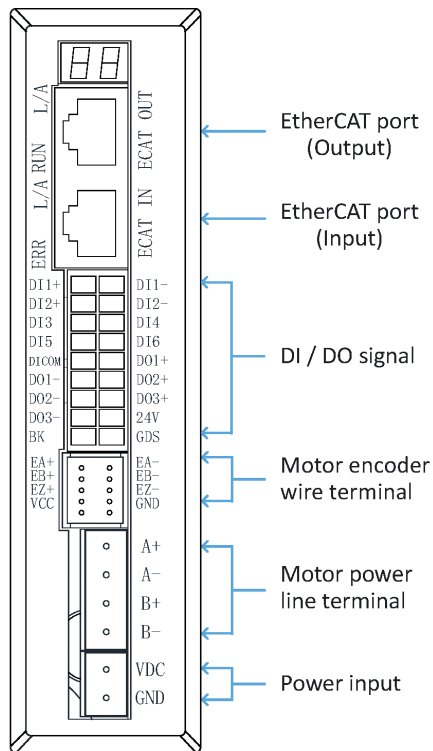
CL3-E57H bus type closed-loop stepper driver is a digital closed-loop stepper driver that combines the latest closed-loop control algorithm and EtherCAT bus communication protocol. This product supports the CoE (CANopen over EtherCAT) protocol and conforms to the CIA402 standard. Compared with the traditional pulse-type driver, the bus-type driver has simpler wiring, real-time data transmission, high-reliability communication, and can realize multi-axis synchronous communication control. This series of drivers sample advanced closed-loop algorithms, which can effectively suppress motor temperature rise, reduce motor vibration, and effectively increase motor rotation. Torque, can be adapted to 42/57/60 series closed-loop stepper motors.



Application Industry

It can be used in 3C electronics industry, stage lighting control, robotic arm, medical treatment, lithium battery and other automation equipment.

Function Description



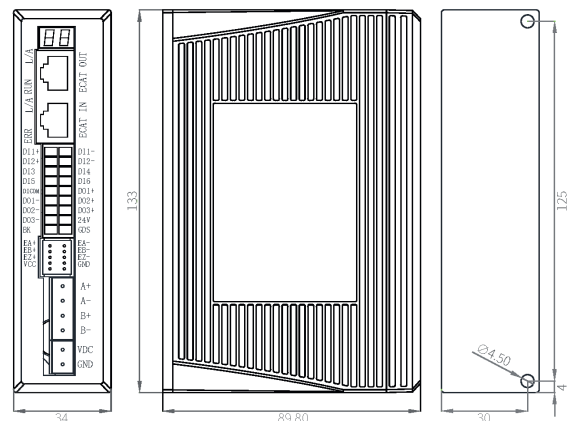
DI/DO signal interface

symbol	Name
D11+	The differential input signal DI1, 12V~24V is valid, the maximum input frequency is 500K, the signal function can be freely configured, and the default function is the probe input signal 1.
D11-	
D12+	The differential input signal DI2, 12V~24V is valid, the maximum input frequency is 500K, the signal function can be freely configured, and the default function is the probe input signal 2.
D12-	
D13	Single-ended input signal, 12V~24V is valid, the default is the origin signal.
D14	Single-ended input signal, 12V~24V is valid, the default is positive limit signal.
D15	Single-ended input signal, 12V~24V is valid, the default is negative limit signal.
D16	Single-ended input signal, 12V~24V valid, no default function defined.
DICOM	The common terminal of single-ended input signal can use common anode or common cathode connection.
DO1+	Differential output signal DO1, the maximum current is 100mA, the default is the alarm output signal.
DO1-	
DO2+	Differential output signal DO2, the maximum current is 100mA, the default is the positioning completion signal.
DO2-	
DO3+	Differential output signal DO3, the maximum current is 100mA, the default is the zero return completion signal.
DO3-	
+24V	Brake signal 24V power positive input terminal.
BK	The brake control signal can be directly connected to the motor brake without adding a relay.
GDS	Brake signal The negative input terminal of 24V power supply.

MODBUS Communication

symbol	Name
A+	A phase motor winding positive end
A-	A phase motor winding negative terminal
B+	B phase motor winding positive end
B-	B phase motor winding negative terminal
VDC	The power supply is connected to the positive terminal (power supply voltage: DC24V~48V)
GND	Power supply is connected to the negative terminal

Installation size (unit: mm)



OL3-E86H Bus Type Stepping Driver

Product description

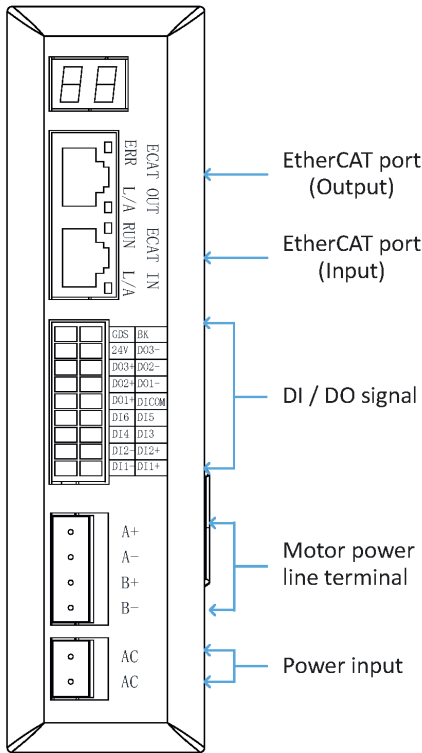
OL3-E86H bus-type stepping driver is a digital stepping driver that combines advanced digital stepping motor algorithms and EtherCAT bus communication protocol. This product supports the CoE (CANopen over EtherCAT) protocol and conforms to the CIA402 standard. Compared with the traditional pulse-type driver, the bus-type driver has simpler wiring, real-time data transmission, high-reliability communication, and can realize multi-axis synchronous communication control. This series of drivers sample the advanced digital stepping motor algorithm, which can effectively suppress the motor temperature rise and reduce the motor vibration. It can be adapted to 86 series open loop stepper motors.



Application Industry

It can be used in 3C electronics industry, stage lighting control, robotic arm, medical treatment, lithium battery and other automation equipment.

Function Description



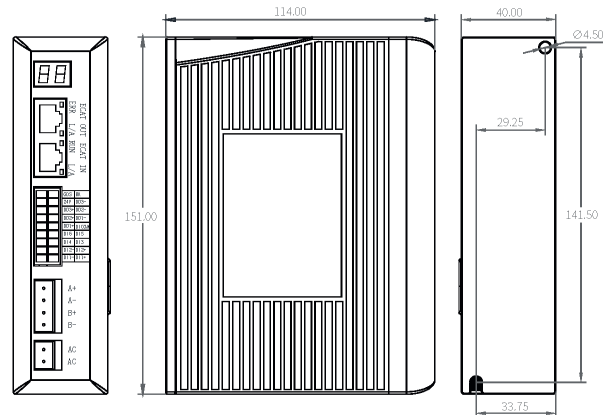
DI/DO signal interface

symbol	Name
D11+	The differential input signal DI1, 12V~24V is valid, the maximum input frequency is 500K, the signal function can be freely configured, and the default function is the probe input signal 1.
D11-	
D12+	The differential input signal DI2, 12V~24V is valid, the maximum input frequency is 500K, the signal function can be freely configured, and the default function is the probe input signal 2.
D12-	
D13	Single-ended input signal, 12V~24V is valid, the default is the origin signal.
D14	Single-ended input signal, 12V~24V is valid, the default is positive limit signal.
D15	Single-ended input signal, 12V~24V is valid, the default is negative limit signal.
D16	Single-ended input signal, 12V~24V valid, no default function defined.
DICOM	The common terminal of single-ended input signal can use common anode or common cathode connection.
DO1+	Differential output signal DO1, the maximum current is 100mA, the default is the alarm output signal.
DO1-	
DO2+	Differential output signal DO2, the maximum current is 100mA, the default is the positioning completion signal.
DO2-	
DO3+	Differential output signal DO3, the maximum current is 100mA, the default is the zero return completion signal.
DO3-	
+24V	Brake signal 24V power positive input terminal.
BK	The brake control signal can be directly connected to the motor brake without adding a relay.
GDS	Brake signal The negative input terminal of 24V power supply.

MODBUS Communication

symbol	Name
A+	A phase motor winding positive end
A-	A phase motor winding negative terminal
B+	B phase motor winding positive end
B-	B phase motor winding negative terminal
AC	Power access terminal (Power supply voltage: DC24V~110V/AC18V~80V)
AC	

Installation size (unit: mm)



CL3-E86H Bus Type Closed Loop Stepper Driver

Product description

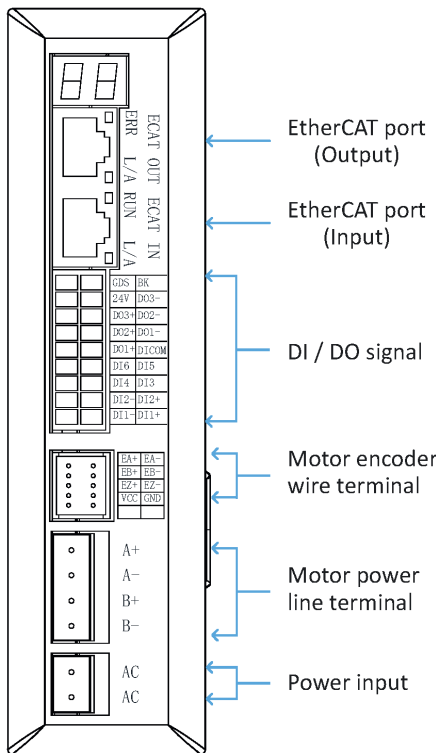
CL3-E86H bus-type closed-loop stepper driver is a digital closed-loop stepper driver that combines the latest closed-loop control algorithm and EtherCAT bus communication protocol. This product supports the CoE (CANopen over EtherCAT) protocol and conforms to the CIA402 standard. Compared with the traditional pulse-type driver, the bus-type driver has simpler wiring, real-time data transmission, high-reliability communication, and can realize multi-axis synchronous communication control. This series of drivers sample advanced closed-loop algorithms, which can effectively suppress motor temperature rise, reduce motor vibration, and effectively increase motor torque. It can be adapted to 86 series closed-loop stepper motors.



Application Industry

It can be used in 3C electronics industry, stage lighting control, robotic arm, medical treatment, lithium battery and other automation equipment.

Function Description



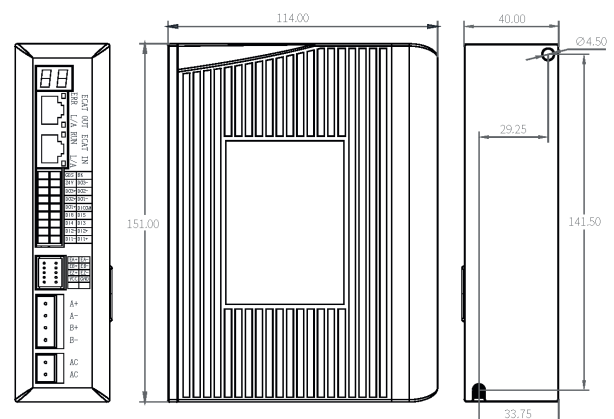
DI/DO signal interface

symbol	Name
D11+	The differential input signal DI1, 12V~24V is valid, the maximum input frequency is 500K, the signal function can be freely configured, and the default function is the probe input signal 1.
D11-	
D12+	The differential input signal DI2, 12V~24V is valid, the maximum input frequency is 500K, the signal function can be freely configured, and the default function is the probe input signal 2.
D12-	
D13	Single-ended input signal, 12V~24V is valid, the default is the origin signal.
D14	Single-ended input signal, 12V~24V is valid, the default is positive limit signal.
D15	Single-ended input signal, 12V~24V is valid, the default is negative limit signal.
D16	Single-ended input signal, 12V~24V valid, no default function defined.
DICOM	The common terminal of single-ended input signal can use common anode or common cathode connection.
DO1+	Differential output signal DO1, the maximum current is 100mA, the default is the alarm output signal.
DO1-	
DO2+	Differential output signal DO2, the maximum current is 100mA, the default is the positioning completion signal.
DO2-	
DO3+	Differential output signal DO3, the maximum current is 100mA, the default is the zero return completion signal.
DO3-	
+24V	Brake signal 24V power positive input terminal.
BK	The brake control signal can be directly connected to the motor brake without adding a relay.
GDS	Brake signal The negative input terminal of 24V power supply.

MODBUS Communication

symbol	Name
A+	A phase motor winding positive end
A-	A phase motor winding negative terminal
B+	B phase motor winding positive end
B-	B phase motor winding negative terminal
AC	Power access terminal (Power supply voltage: DC24V~110V/AC18V~80V)
AC	

Installation size (unit: mm)



DS-P Low Voltage DC Servo Drive

Technical parameter

DS-P series low-voltage servo driver is a low-voltage pulse-type servo controller developed by using the latest generation of 32-bit DSP chips and our company's many years of experience in servo motion control. It supports pulse + direction and double-pulse input control; it has small size and stable performance, and reliable protection.

Through the optimized PID control algorithm, the driver realizes full digital control of position, speed and torque accuracy, and has the advantages of high accuracy and fast response. It can support 100W~750W, the encoder is a 2500-line incremental low-voltage servo motor, and the sampling low-voltage DC power supply is used to meet the different requirements of customer performance.

Application Industry

Suitable for all kinds of small and medium-sized automation equipment and instruments, such as: engraving machines, wire stripping machines, marking machines, cutting machines, laser machines, plotters, medical equipment, CNC machine tools, automated assembly equipment, electronic processing equipment, etc. It is particularly effective in applications where users expect low noise and high speed.



DS_P_100/200/400 Driver

DS_P_750 Driver

Main Parameters

1. Product Specifications

Drive model Parameter	DS_P_100	DS_P_200	DS_P_400	DS_P_750
Match motor	100W	200W	400W	750W
Supply voltage	24V-50V	24V-50V	24V-50V	24V-80V
Rated output current	5A	7A	10A	20A
Maximum output current	15A	21A	30A	57A
Encoder	2500 line incremental			
Size(L*H*W)	134*83*33mm			168*100*36mm
Weight	0.35kg			0.7kg

2. Definition of power terminal interface (DS_P_100/200/400)

Terminal name	illustrate
W	The three-phase winding of the motor, the winding order cannot be reversed, Otherwise it will cause malfunction or flying!
V	
U	
VDC	DC power input positive terminal
GND	DC power input negative terminal
RB+	Connect the external braking resistor between RB+ and RB-10R 50W aluminum case resistor is recommended
RB-	

3. Definition of power terminal interface (DS_P_750)

Terminal name	illustrate
PE	Motor ground wire
W	The three-phase winding of the motor, the winding order cannot be reversed, Otherwise it will cause malfunction or flying!
V	
U	
BRK	Connect an external braking resistor between BRK and VDC It is recommended to use 10R 100W aluminum case resistor
GND	DC power input negative terminal
VDC	DC power input positive terminal

DS-P Low Voltage DC Servo Drive

4. Definition of driver encoder wire terminal

Pin number	Signal	Color	Pin number	Signal	Color
1	EA+	yellow	2	HU+	Ash
3	EA-	yellow black	4	HV+	orange
5	EB+	green	6	HW+	White
7	EB-	green black	8	5V	red
9	EZ+	brown	10	GND	black
11	EZ-	brown black	12	PE	shield

5. Definition of motor terminals

Pin number	Definition	Pin number	Definition	Pin number	Definition
1	0V	6	Z+	11	V-
2	5V	7	B+	12	U-
3	W+	8	A+	13	Z-
4	V+	9	empty leg	14	B-
5	U+	10	W-	15	A-

6. Control signal terminals

Terminal name	illustrate	Terminal name	illustrate
PUL+	Pulse signal input positive terminal (5-24V)	PEND+	Positioning completion signal output positive terminal (NC)
PUL-	Pulse signal input negative terminal (5-24V)	PEND-	Positioning complete signal output negative terminal (NC)
DIR+	Direction signal input positive terminal (5-24V)	ALM+	Alarm signal output positive terminal (NC)
DIR-	Direction signal input negative terminal (5-24V)	ALM-	Alarm signal output negative terminal (NC)
ENA+	Enable signal input positive terminal (5-24V)		
ENA-	Enable signal input negative terminal (5-24V)		

Electronic gear settings

Pulse/circle	SW1	SW2	SW3	SW4
40000	off	off	off	off
20000	on	off	off	off
10000	off	on	off	off
8000	on	on	off	off
5000	off	off	on	off
4000	on	off	on	off
2000	off	on	on	off
1000	on	on	on	off
51200	off	off	off	on
25600	on	off	off	on
12800	off	on	off	on
7200	on	on	off	on
6400	off	off	on	on
3600	on	off	on	on
3200	off	on	on	on
1600	on	on	on	on

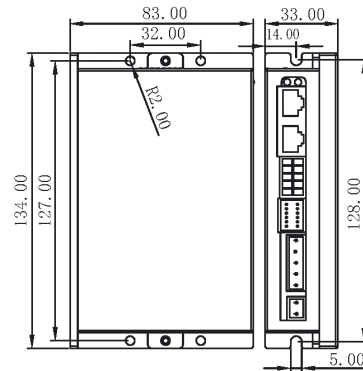
Rigid settings

Rigidity	100%	80%	75%	50%
SW5	off	on	off	on
SW6	off	off	on	on

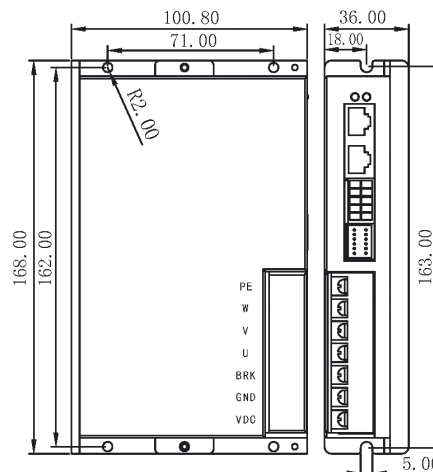
SW7: OFF: direction + pulse, ON: double pulse

SW8: OFF: Counterclockwise, ON: Clockwise

Installation size (unit: mm)



DS_P_100/200/400 Driver Dimensions



DS-R Low Voltage DC Servo Drive

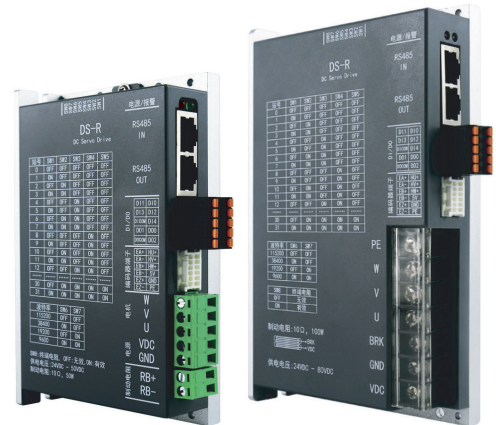
Technical parameter

DS-R series low-voltage servo driver is a low-voltage 485 bus-type servo controller developed with the latest generation of 32-bit DSP chips and our company's many years of servo motion control experience. It integrates single-axis motion suitable for I/O signals and MODBUS-RTU input. Control; the product has the characteristics of small size, stable performance and reliable protection.

Through the optimized PID control algorithm, the driver realizes full digital control of position, speed and torque accuracy, and has the advantages of high accuracy and fast response. It can support 100W~750W, the encoder is a 2500-line incremental low-voltage servo motor, and the sampling low-voltage DC power supply is used to meet the different requirements of customer performance.

Application Industry

Suitable for all kinds of small and medium-sized automation equipment and instruments, such as: engraving machines, wire stripping machines, marking machines, cutting machines, laser machines, plotters, medical equipment, CNC machine tools, automated assembly equipment, electronic processing equipment, etc. It is particularly effective in applications where users expect low noise and high speed.



DS_R_100/200/400 Driver

DS_R_750 Driver

Main Parameters

1. Product Specifications

Drive model Parameter	DS_R_100	DS_R_200	DS_R_400	DS_R_750
Match motor	100W	200W	9600 400W	750W
Supply voltage	24V-50V	24V-50V	24V-50V	24V-80V
Rated output current	5A	7A	10A	20A
Maximum output current	15A	21A	30A	57A
Encoder	2500 line incremental			
Size(L*H*W)	134*83*33mm			168*100*36mm
Weight	0.35kg			0.7kg

2. Definition of power terminal interface (DS_R_100/200/400)

Terminal name	illustrate
W	The three-phase winding of the motor, the winding order cannot be reversed, Otherwise it will cause malfunction or flying!
V	
U	
VDC	DC power input positive terminal
GND	DC power input negative terminal
RB+	Connect the external braking resistor between RB+ and RB-10R 50W aluminum case resistor is recommended
RB-	

3. Definition of power terminal interface (DS_R_750)

Terminal name	illustrate
PE	Motor ground wire
W	The three-phase winding of the motor, the winding order cannot be reversed, Otherwise it will cause malfunction or flying!
V	
U	
BRK	Connect an external braking resistor between BRK and VDC It is recommended to use 10R 100W aluminum case resistor
GND	DC power input negative terminal
VDC	DC power input positive terminal

DS-R Low Voltage DC Servo Drive

4. Definition of driver encoder wire terminal

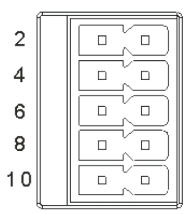
Pin number	Signal	Color	Pin number	Signal	Color
1	EA+	yellow	2	HU+	Ash
3	EA-	yellow black	4	HV+	orange
5	EB+	green	6	HW+	White
7	EB-	green black	8	5V	red
9	EZ+	brown	10	GND	black
11	EZ-	brown black	12	PE	shield

5. Definition of motor terminals

Pin number	Definition	Pin number	Definition	Pin number	Definition
1	0V	6	Z+	11	V-
2	5V	7	B+	12	U-
3	W+	8	A+	13	Z-
4	V+	9	empty leg	14	B-
5	U+	10	W-	15	A-

6. DI/DO terminal

Serial number	Name	Serial number	Name	Terminal Definition Diagram
1	DI0	6	DICOM	
2	DI1	7	DO0	
3	DI2	8	DO1	
4	DI3	9	DO2	
5	DI4	10	DOCOM	



Electronic gear settings

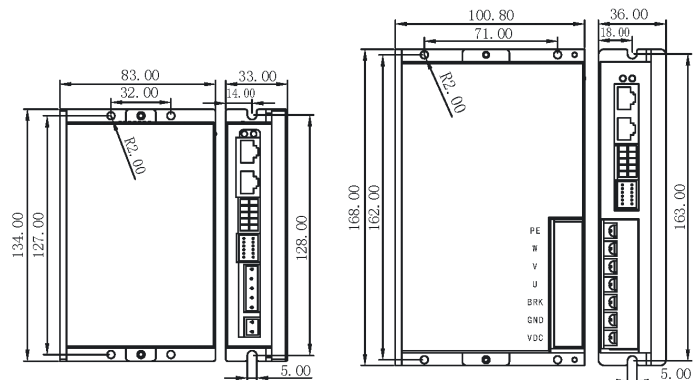
Station No	SW1	SW2	SW3	SW4	SW5
0	off	off	off	off	off
1	on	off	off	off	off
2	off	on	off	off	off
3	on	on	off	off	off
4	off	off	on	off	off
5	on	off	on	off	off
6	off	on	on	off	off
7	on	on	on	off	off
8	off	off	off	on	off
9	on	off	off	on	off
10	off	on	off	on	off
11	on	on	off	on	off
12	off	off	on	on	off
13	on	off	on	on	off
14	off	on	on	on	off
15	on	on	on	on	off
16	off	off	off	off	on
17	on	off	off	off	on
18	off	on	off	off	on
19	on	on	off	off	on
20	off	off	on	off	on
21	on	off	on	off	on
22	off	on	on	off	on
23	on	on	on	off	on
24	off	off	off	on	on
25	on	off	off	on	on
26	off	on	off	on	on
27	on	on	off	on	on
28	off	off	on	on	on
29	on	off	on	on	on
30	off	on	on	on	on
31	on	on	on	on	on

Rigid settings

Baud rate	9600	19200	38400	115200
SW6	on	off	on	off
SW7	on	on	off	off

SW8: Terminal resistance, OFF: invalid, ON: valid

Installation size (unit: mm)



DS_R_100/200/400 Driver Dimensions

DS_R_750 Driver Dimensions

DS-C Low Voltage DC Servo Drive

Technical parameter

DS-C series low-voltage servo driver is a low-voltage CANopen bus-type servo controller developed with the latest generation of 32-bit DSP chips and our company's many years of servo motion control experience. It supports CANopen bus and can be transmitted in real time with only one communication line. The command of the driver and the status feedback information of the motor/driver, the product has the characteristics of small size, stable performance and reliable protection.

Through the optimized PID control algorithm, the driver realizes full digital control of position, speed and torque accuracy, and has the advantages of high accuracy and fast response. It can support 100W~750W, and the encoder is a 2500-line incremental low-voltage servo motor.

Application Industry

Suitable for all kinds of small and medium-sized automation equipment and instruments, such as: engraving machines, wire stripping machines, marking machines, cutting machines, laser machines, plotters, medical equipment, CNC machine tools, automated assembly equipment, electronic processing equipment, etc. It is particularly effective in applications where users expect low noise and high speed.



DS_C_100/200/400 Driver

DS_C_750 Driver

Main Parameters

1. Product Specifications

Drive model Parameter	DS_C_100	DS_C_200	DS_C_400	DS_C_750
Match motor	100W	200W	9600 400W	750W
Supply voltage	24V-50V	24V-50V	24V-50V	24V-80V
Rated output current	5A	7A	10A	20A
Maximum output current	15A	21A	30A	57A
Encoder	2500 line incremental			
Size(L*H*W)	134*83*33mm			168*100*36mm
Weight	0.35kg			0.7kg

2. Definition of power terminal interface (DS_C_100/200/400)

Terminal name	illustrate
W	The three-phase winding of the motor, the winding order cannot be reversed, Otherwise it will cause malfunction or flying!
V	
U	
VDC	DC power input positive terminal
GND	DC power input negative terminal
RB+	Connect the external braking resistor between RB+ and RB-10R 50W aluminum case resistor is recommended
RB-	

3. Definition of power terminal interface (DS_C_750)

Terminal name	illustrate
PE	Motor ground wire
W	The three-phase winding of the motor, the winding order cannot be reversed, Otherwise it will cause malfunction or flying!
V	
U	
BRK	Connect an external braking resistor between BRK and VDC It is recommended to use 10R 100W aluminum case resistor
GND	DC power input negative terminal
VDC	DC power input positive terminal

DS-C Low Voltage DC Servo Drive

4. Definition of driver encoder wire terminal

Pin number	Signal	Color	Pin number	Signal	Color
1	EA+	yellow	2	HU+	Ash
3	EA-	yellow black	4	HV+	orange
5	EB+	green	6	HW+	White
7	EB-	green black	8	5V	red
9	EZ+	brown	10	GND	black
11	EZ-	brown black	12	PE	shield

5. Definition of motor terminals

Pin number	Definition	Pin number	Definition	Pin number	Definition
1	0V	6	Z+	11	V-
2	5V	7	B+	12	U-
3	W+	8	A+	13	Z-
4	V+	9	empty leg	14	B-
5	U+	10	W-	15	A-

6. DI/DO terminal

Serial number	Name	Serial number	Name	Terminal Definition Diagram
1	DI0	6	DICOM	
2	DI1	7	DO0	
3	DI2	8	DO1	
4	DI3	9	DO2	
5	DI4	10	DOCOM	

Electronic gear settings

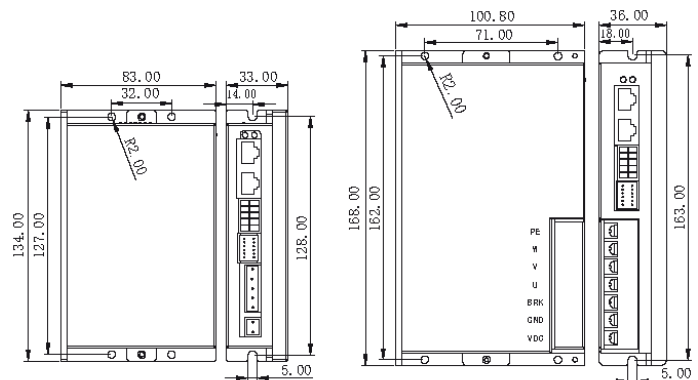
Station No	SW1	SW2	SW3	SW4	SW5
0	off	off	off	off	off
1	on	off	off	off	off
2	off	on	off	off	off
3	on	on	off	off	off
4	off	off	on	off	off
5	on	off	on	off	off
6	off	on	on	off	off
7	on	on	on	off	off
8	off	off	off	on	off
9	on	off	off	on	off
10	off	on	off	on	off
11	on	on	off	on	off
12	off	off	on	on	off
13	on	off	on	on	off
14	off	on	on	on	off
15	on	on	on	on	off
16	off	off	off	off	on
17	on	off	off	off	on
18	off	on	off	off	on
19	on	on	off	off	on
20	off	off	on	off	on
21	on	off	on	off	on
22	off	on	on	off	on
23	on	on	on	off	on
24	off	off	off	on	on
25	on	off	off	on	on
26	off	on	off	on	on
27	on	on	off	on	on
28	off	off	on	on	on
29	on	off	on	on	on
30	off	on	on	on	on
31	on	on	on	on	on

Rigid settings

Baud rate	125Kbps	250Kbps	500Kbps	1Mbps
SW6	on	off	on	off
SW7	on	on	off	off

SW8: Terminal resistance, OFF: invalid, ON: valid

Installation size (unit: mm)



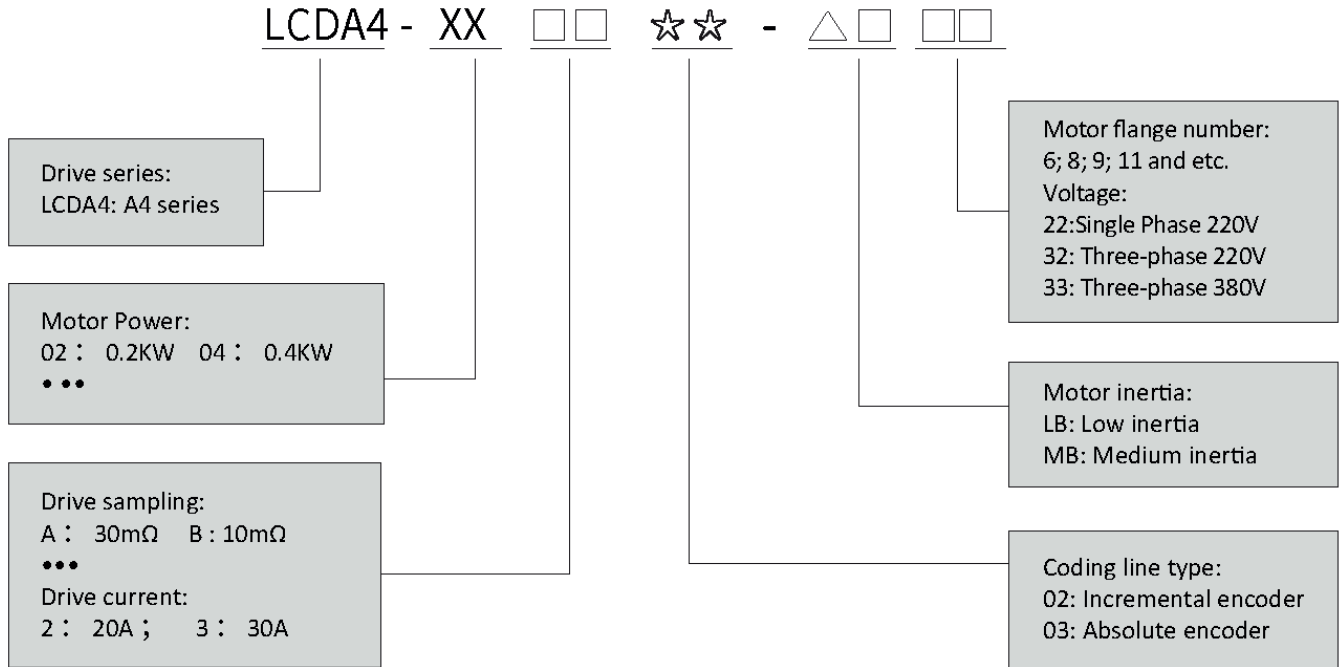
DS_C_100/200/400 Driver Dimensions

DS_C_750 Driver Dimensions

A4 Series AC Servo Drive

Drive naming rules

LCDA4 - 02A202 - LB632



A4 series servo drive specifications

Input power	Control power	Single phase 220VAC
	Main power	Single-phase/three-phase 220VAC
Working environment	Temperature	0 ~ 45°C
	Humidity	≤90% RH or less, no condensation
	Altitude	Altitude ≤1000m
	Installation Environment	No corrosive gas, flammable gas, oil mist or dust, etc.
	Installation method	Vertical installation
Encoder feedback		2500 p/r (resolution: 10000), incremental encoder
Control signal	Digital input	10 ordinary digital inputs, with configurable functions.
	Digital output	6 digital outputs, with configurable functions.
Pulse signal	Enter	2 high-speed inputs: differential (600K) and single-ended (200K) pulses. Support pulse input mode: PULS+DIR, A+B, CW+CCW
	Output	3 high-speed pulse outputs, output signal form: 5V differential signal. 1 channel Z signal single-ended output signal.
Analog signal	Enter	2 analog inputs, 12-bit resolution, input range -10~+10V. AI2 is fixed as the torque limit input.
	Output	None
Communication function		RS485 communication, Modbus protocol. The main controller can control the position/speed/torque of the servo through RS485, up to 32 control stations
Display panel and key operation		5 buttons (Mode, Set, Left, Up, Down) and 6 digital tubes
Regenerative discharge braking resistor		Built-in 100W, 40Ω braking resistor. In frequent braking situations, an external braking resistor is required.

A4 Series AC Servo Drive

MODBUS Communication

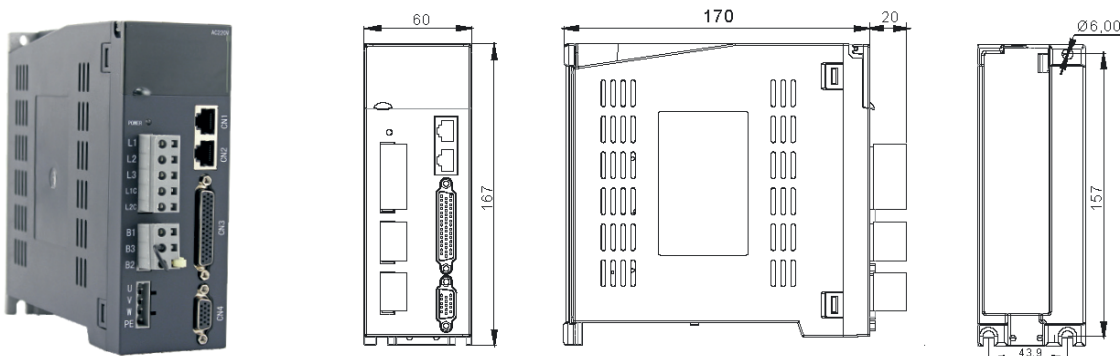
A4 series servo drivers have MODBUS communication function, location/speed/torque control can be realized for the Servo through controller with MODBUS function, control stations can be as many as 32 and controller cost can be largely reduced.

Item	Specification
Communication	MODBUS RTU
Bus Connections	RJ45(CN1、CN2)
Baud Rate	9600、19200、38400
Number of sites	At most 32 (the last station shall be short connected to terminal resistance jumper)

Combination of A4 Series Servo Driver Model and Motor

Driver model	Motor Model	Power (KW)
LCDA4-XXA2	005L02 - 40M00130	0.05
	01L02 - 40M00330	0.1
	02L02 - 60M00630	0.2
LCDA4-XXB2	04L02-60M01330	0.4
	06L02-60M01930	0.6
	04L02-80M01330	0.4
	07L02-80M02430	0.75
	07M02-80M03520	0.75
	07L02-90M02430	0.75
	07M02-90M03520	0.75
	06L02-110M02030	0.6
	08L02-110M04020	0.8
LCDA4-XXC2	10L02-80M04025	1.0
	10L02-90M04025	1.0
	10L02-130M04025	1.0
LCDA4-XXC3	12L02-110M04030	1.2
	15L02-110M05030	1.5
	12L02-110M06020	1.2
	18L02-110M06030	1.8
	13L02-130M05025	1.3
	15L02-130M06025	1.5
	10M02-130M10010	1.0
	15M02-130M10015	1.5
LCDA4-XXD3	20L02-130M07725	2.0
	26M02-130M10025	2.6
	23M02-130M15015	2.3

Installation Dimensions of A4 Servo Drivers (Unit: mm)

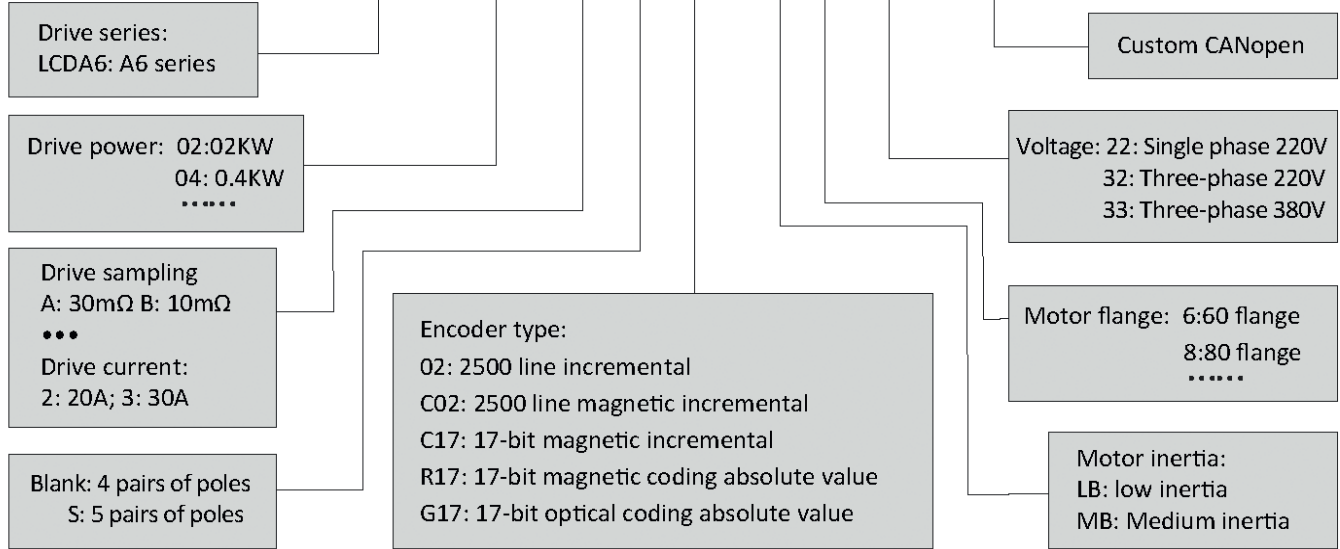


A6 Series AC Servo Drive

Drive naming rules

LCDA6 - 02 A2S02 - LB632 - CAN

LCDA6 - XX - □□ S☆☆ - △□□□ - CAN



A4 series servo drive specifications

Input power	Control power	Single phase 220VAC
	Main power	Single-phase/three-phase 220VAC
Working environment	Temperature	0 ~ 45°C
	Humidity	≤90% RH or less, no condensation
	Altitude	Altitude ≤1000m
	Installation Environment	No corrosive gas, flammable gas, oil mist or dust, etc.
	Installation method	Vertical installation
Encoder feedback		2500 p/r (resolution: 10000), incremental encoder
Control signal	Digital input	10 ordinary digital inputs, with configurable functions.
	Digital output	6 digital outputs, with configurable functions.
Pulse signal	Enter	2 high-speed inputs: differential (600K) and single-ended (200K) pulses. Support pulse input mode: PULS+DIR, A+B, CW+CCW
	Output	3 high-speed pulse outputs, output signal form: 5V differential signal. 1 channel Z signal single-ended output signal.
Analog signal	Enter	2 analog inputs, 12-bit resolution, input range -10~+10V. AI2 is fixed as the torque limit input.
	Output	None
Communication function		RS485 communication, Modbus protocol. The main controller can control the position/speed/torque of the servo through RS485, up to 32 control stations
Display panel and key operation		5 buttons (Mode, Set, Left, Up, Down) and 6 digital tubes
Regenerative discharge braking resistor		Built-in 100W, 40Ω braking resistor. In frequent braking situations, an external braking resistor is required.

A6 Series AC Servo Drive

MODBUS Communication

A4 series servo drivers have MODBUS communication function, location/speed/torque control can be realized for the Servo through controller with MODBUS function, control stations can be as many as 32 and controller cost can be largely reduced.

Item	Specification
Communication	MODBUS RTU
Bus Connections	RJ45(CN1、CN2)
Baud Rate	9600、19200、38400
Number of sites	Up to 32 (the last station needs to short-circuit the terminal resistance jumper)

CANopen Communication

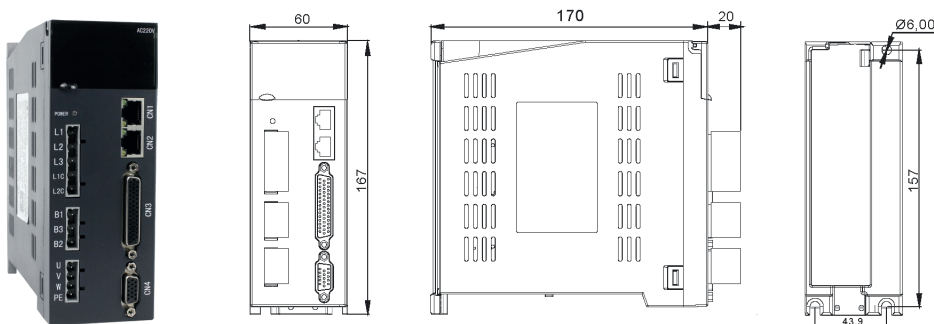
The A6 series supports CANopen high-speed bus, the maximum communication rate can be as large as 1Mbps, multi-axis synchronous control can be realized, and the heartbeat detection function can ensure the overall stability and reliability of the system.

Item	Specification
Communication	CIA301、CIA402.V2
Communication connector	RJ45 × 2 (input: CN6A; output: CN6B)
Baud Rate	125K、250K、500K、1M
Number of sites	Up to 32 (the last station needs to short-circuit the terminal resistance jumper)

Combination of A6 Series Servo Driver Model and Motor

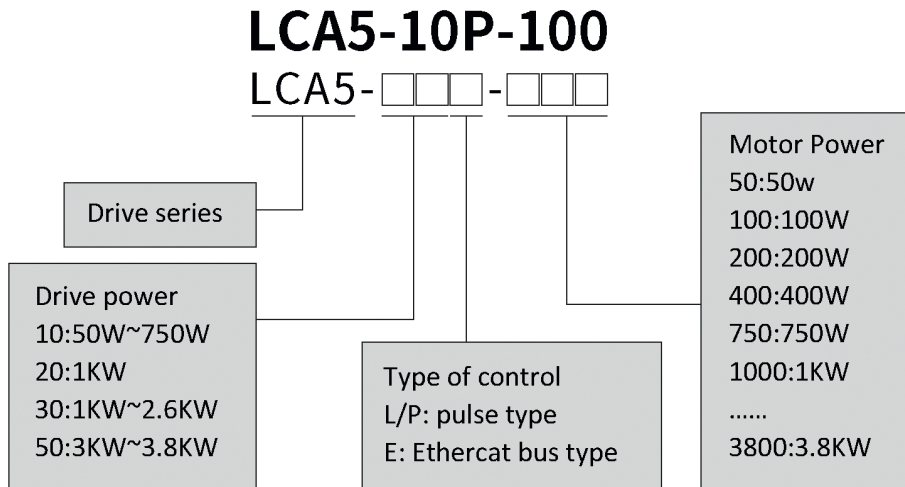
Driver model	Motor Model	Power (KW)
LCDA6-XXA2	005L02 - 40M00130	0.05
	01L02 - 40M00330	0.1
	02L02 - 60M00630	0.2
LCDA6-XXB2	04L02-60M01330	0.4
	06L02-60M01930	0.6
	04L02-80M01330	0.4
	07L02-80M02430	0.75
	07M02-80M03520	0.75
	07L02-90M02430	0.75
	07M02-90M03520	0.75
	06L02-110M02030	0.6
	08L02-110M04020	0.8
LCDA6-XXC2	10L02-80M04025	1.0
	10L02-90M04025	1.0
	10L02-130M04025	1.0
LCDA6-XXC3	12L02-110M04030	1.2
	15L02-110M05030	1.5
	12L02-110M06020	1.2
	18L02-110M06030	1.8
	13L02-130M05025	1.3
	15L02-130M06025	1.5
	10M02-130M10010	1.0
	15M02-130M10015	1.5
LCDA6-XXD3	20L02-130M07725	2.0
	26M02-130M10025	2.6
	23M02-130M15015	2.3

Installation Dimensions of A6 Servo Drivers (Unit: mm)



A5 Series AC Servo Drive

Drive naming rules



A4 series servo drive specifications

Enter the power supply		Single-phase 220VAC (A5 -10/A5 -20)/three-phase 220VAC (A5 -30/A5 -50)
Working Environment	Temperature	0 ~ 45°C
	Humidity	≤90% Rh, no condensation
	Altitude	Elevation ≤1000m
	Installation environment	No corrosive gas, flammable gas, oil mist or dust, etc.
	Installation mode	Vertical installation
Encoders		Support 17-bit incremental/absolute encoder, 23-bit incremental/absolute encoder
Output Power	24V voltage output	100mA, can supply power to DI port and pulse port.
Control signal	Digital quantity input	8 channels of ordinary digital input, the function can be configured.
	Digital quantity output	6-way digital output, function configurable.
Pulse signal	Input	2 high-speed input: the highest support 1MHz pulse, duty cycle 50% ; support pulse input: Puls + DIR, a + b, CW + CC.
	Output	3 channels high-speed pulse output, output signal form: 5V differential signal; 1 channel Z signal single-ended output signal.
Analog signal	Input	2 analog inputs, 12-bit discrimination, input range-9.5~+ 9.5 V. Where AI2 is fixed as the torque limit input.
	Output	None
Communication function		RS485 communication, MODBUSRTU protocol.
Display panel and key operation		5 buttons (Mode, Set, Left, Up, Down) and 6 digital tubes
Regenerative discharge brake resistance		Built-in 50W 40w brake resistance. External brake resistance is required for frequent braking.

A4 series servo drive specifications

A5 series servo drivers have MODBUS communication function, location/speed/torque control can be realized for the Servo through controller with MODBUS function, control stations can be as many as 32 and controller cost can be largely reduced.

Item	Specification
Communication	MODBUS RTU
Bus Connections	RJ45(CN3、CN4)
Baud Rate	2400bps、4800bps、9600bps、19200bps、38400bps、57600bps
Number of sites	At most 32 (the last station shall be short connected to terminal resistance jumper)

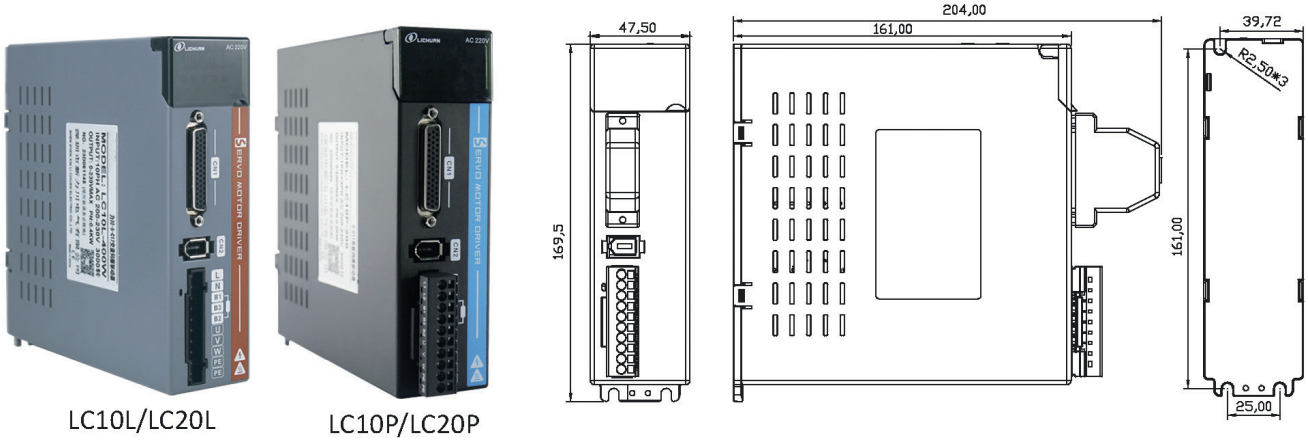
A5 Series AC Servo Drive

Combination of A5 Series Servo Driver Model and Motor

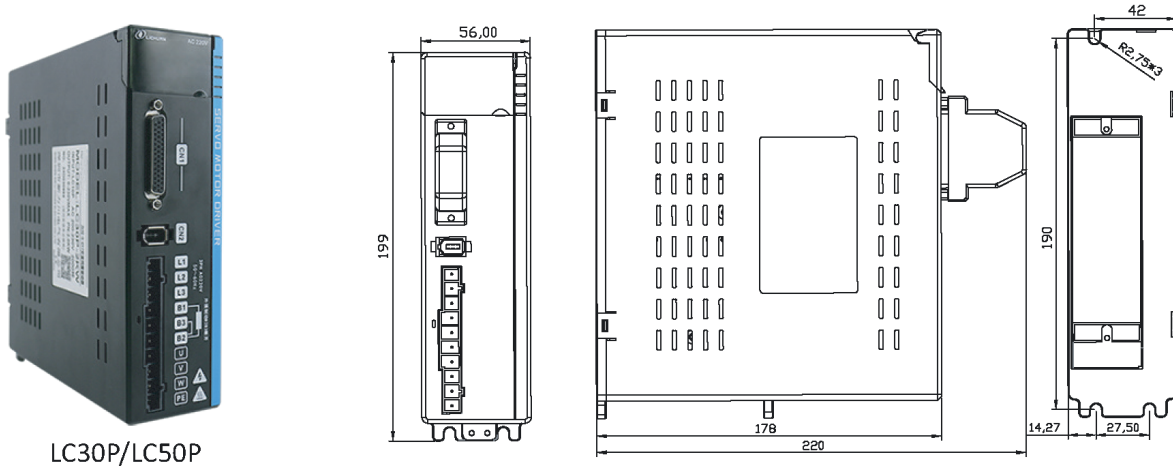
Driver model	Motor Model (5 pairs of Poles)	Power (KW)	Driver model	Motor Model (5 pairs of Poles)	Power (KW)
LC10L/LC10P	005SLC17 - 40M00130B	0.05	LC10L/LC10P	06SLC17 - 60M01930B	0.6
	01SLC17 - 40M00330B	0.1		07SLC17 - 80M02430B	0.75
	02SLC17 - 60M00630B	0.2	LC20L/LC20P	10SLC17 - 80M03230B	1.0
	04SLC17 - 60M01330B	0.4		10SLC17 - 80M04025B	1.0

Driver model	Motor Model (4 pairs of Poles)	Power (KW)	Driver model	Motor Model (5 pairs of Poles)	Power (KW)
LC30P	12LC17 - 110M04030B	1.2	LC30P	13SMC17 - 110M04230B	1.3
	15LC17 - 110M05030B	1.5		16SMC17 - 110M07520B	1.6
	18LC17 - 110M06030B	1.8		17SMC17 - 110M05430B	1.7
	10LC17 - 130M04025B	1.0		17SMC17 - 110M06425B	1.7
	13LC17 - 130M05025B	1.3		08SMC17 - 130M05415B	0.85
	15LC17 - 110M06025B	1.5		13SMC17 - 130M08315B	1.3
	20LC17 - 130M07725B	2.0		18SMC17 - 130M11515B	1.8
	15MC17 - 130M10015B	1.5		10SMC17 - 130M04820B	1.0
	26LC17 - 130M10025B	2.6		15SMC17 - 130M07220B	1.5
	23MC17 - 130M15015B	2.3		20SMC17 - 130M09620B	2.0
LC50P	38MC17 - 130M15025B	3.8	LC50P	30SMC17 - 130M14320B	3.0

Installation Dimensions of LC10/20 Servo Drivers (Unit: mm)



Installation Dimensions of LC30/50 Servo Drivers (Unit: mm)

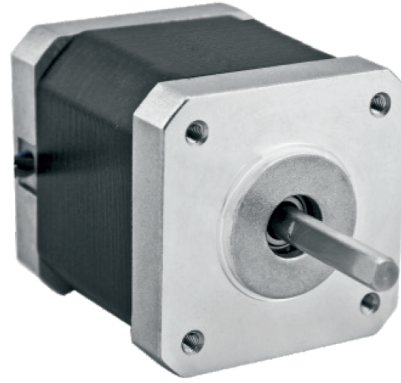


2 Phase Nema17 Series Hybrid Stepper Motor

Electrical Performance Parameters

Item	Specifications
Step Angle Accuracy	±5% (Full Step)
Resistance Accuracy	±10% (20°C)
Inductance Accuracy	±20% (1KHZ)
Temperature Rise	80°C max (rated current, 2 phase power on)
Ambient Temperature	-20°C ~ * 50°C
Insulation Resistance	100MΩMin 500VDC
Dielectric Strength	500V AC 1 minute
Allowable Radial Load	0.02mm Max . (450g load)
Allowable Thrust Load	0.08mm Max . (450g load)
Radial Max Load	28N (20mm from flange surface)
Shaft Max Load	10N

2Phase



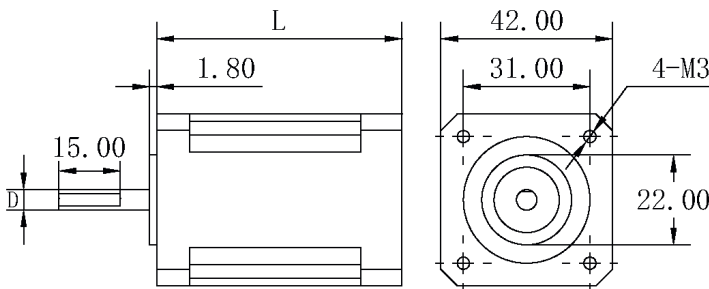
CE RoHS

Technical Data

Series	Step Angle (°)	Motor Length (mm)	Holding Torque (N.m)	Rated Current (A)	Phase Resistance (Ω)	Phase Inductance (mH)	Rotor Inertia (g.cm ²)	Motor Weight (Kg)	Lead Wire (No.)
LC42HS28	1.8	28	0.12	1.2	0.8	1.0	30	0.15	4
LC42HS34	1.8	34	0.21	1.2	1.2	1.8	35	0.22	4
LC42HS40	1.8	40	0.3	1.2	1.5	2.8	54	0.3	4
LC42HS48	1.8	48	0.4	1.2	1.2	1.6	68	0.38	4
LC42HS60	1.8	60	0.6	1.2	2.75	6.4	102	0.5	4

Above are representative products. Products can be customized!

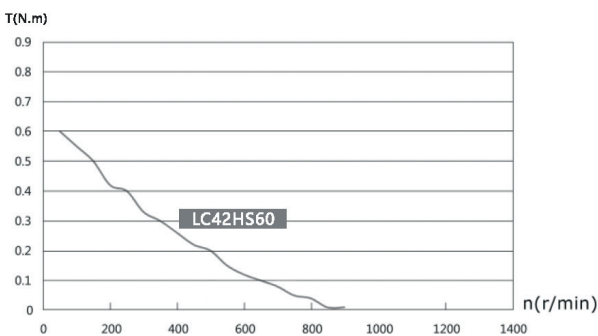
Shape and installation size (unit:mm)



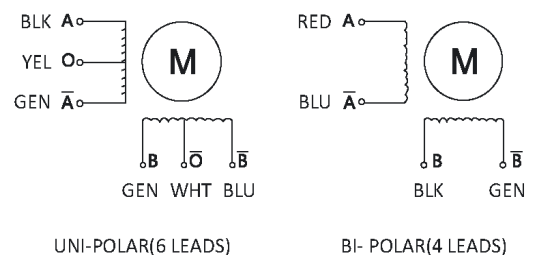
Shaft Mode of Motor

Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
LC42HS28	φ5	D-cut 0.5 x 15	24
LC42HS34	φ5	D-cut 0.5 x 15	24
LC42HS40	φ5	D-cut 0.5 x 15	24
LC42HS48	φ5	D-cut 0.5 x 15	24
LC42HS60	φ5	D-cut 0.5 x 15	24

Curves of Torque Frequency Characteristics



Motor Wiring Diagram

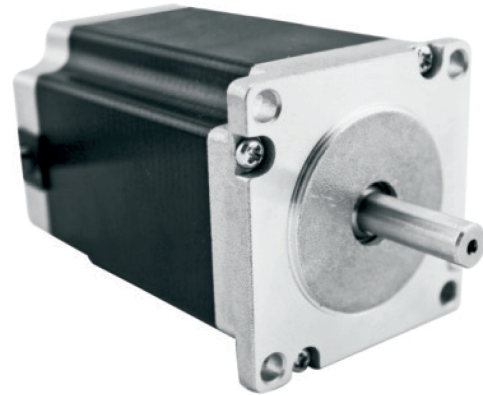


2 Phase Nema23 Series Hybrid Stepper Motor

Electrical Performance Parameters

Item	Specifications
Step Angle Accuracy	±5% (Full Step)
Resistance Accuracy	±10% (20°C)
Inductance Accuracy	±20% (1KHZ)
Temperature Rise	80°C max (rated current, 2 phase power on)
Ambient Temperature	-20°C~ * 50°C
Insulation Resistance	100MΩMin 500VDC
Dielectric Strength	500V AC 1 minute
Allowable Radial Load	0.02mm Max . (450g load)
Allowable Thrust Load	0.08mm Max . (450g load)
Radial Max Load	75N (20mm from flange surface)
Shaft Max Load	15N

2Phase



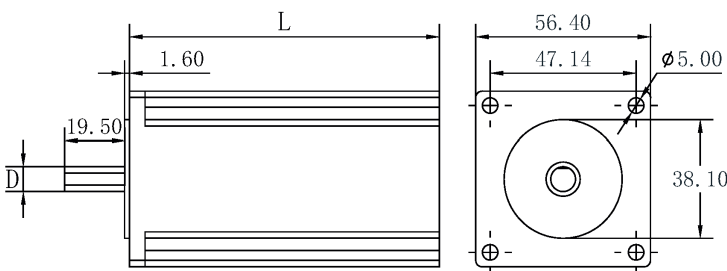
CE RoHS

Technical Data

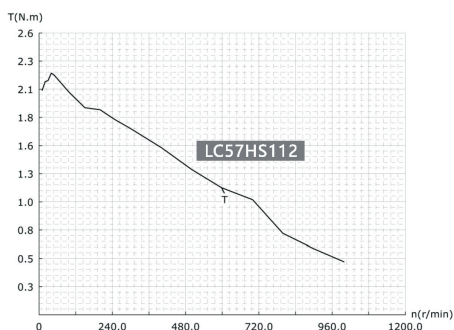
Series	Step Angle(°)	Motor Length(mm)	Holding Torque(N.m)	Rated Current(A)	Phase Resistance(Ω)	Phase Inductance(mH)	Rotor Inertia (g.cm ²)	Motor Weight (Kg)	Lead Wire(No.)
LC57HS41	1.8	41	0.6	2.5	1.2	3.2	120	0.5	4
LC57HS56	1.8	56	1.0	3.0	0.8	2.4	300	0.68	4
LC57HS64	1.8	64	1.5	3.0	0.8	2.3	400	1.08	4
LC57HS76	1.8	76	2.0	3.0	1.0	3.5	480	1.2	4
LC57HS82	1.8	82	2.2	4.0	1.1	2.1	530	1.25	4
LC57HS100	1.8	100	2.6	4.0	1.4	5.5	700	1.58	4
LC57HS112	1.8	112	3.0	4.0	1.6	6.8	800	1.78	4

Above are representative products. Products can be customized!

Shape and installation size (unit:mm)



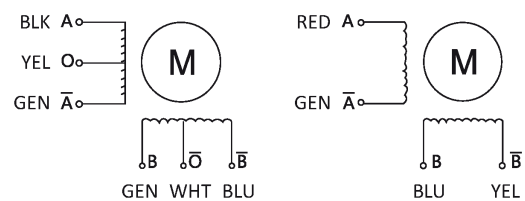
Curves of Torque Frequency Characteristics



Shaft Mode of Motor

Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
LC57HS41	φ6.35	D-cut 0.5X19.5	21
LC57HS56	φ6.35 or φ8	D-cut 0.5X19.5	21
LC57HS64	φ6.35 or φ8	D-cut 0.5X19.5	21
LC57HS76	φ6.35 or φ8	D-cut 0.5X19.5	21
LC57HS82	φ8	D-cut 0.5X19.5	21 or 24
LC57HS100	φ8	D-cut 0.5X19.5	21
LC57HS112	φ8 or φ10	D-cut 0.5X19.5	21

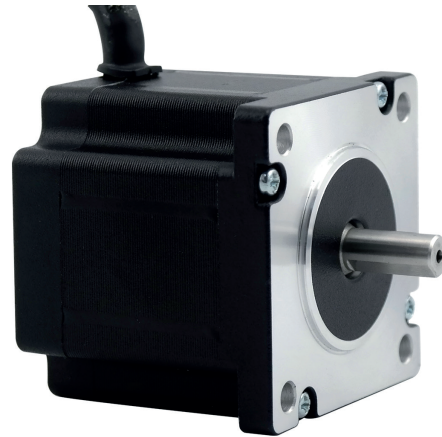
Motor Wiring Diagram



2 Phase Nema24 Series Hybrid Stepper Motor

Electrical Performance Parameters

Item	Specifications
Step Angle Accuracy	±5% (Full Step)
Resistance Accuracy	±10% (20°C)
Inductance Accuracy	±20% (1KHZ)
Temperature Rise	80°C max (rated current, 2 phase power on)
Ambient Temperature	-20°C ~ * 50°C
Insulation Resistance	100MΩMin 500VDC
Dielectric Strength	500V AC 1 minute
Allowable Radial Load	0.02mm Max . (450g load)
Allowable Thrust Load	0.08mm Max . (450g load)
Radial Max Load	75N (20mm from flange surface)
Shaft Max Load	15N



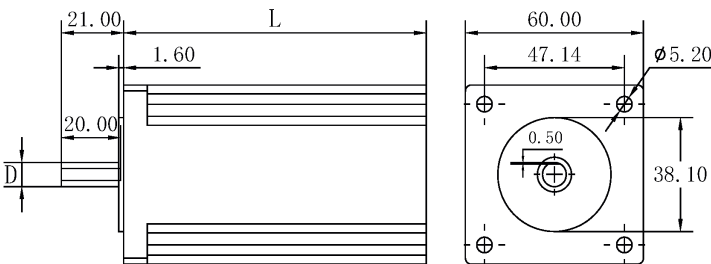
2Phase

CE RoHS

Technical Data

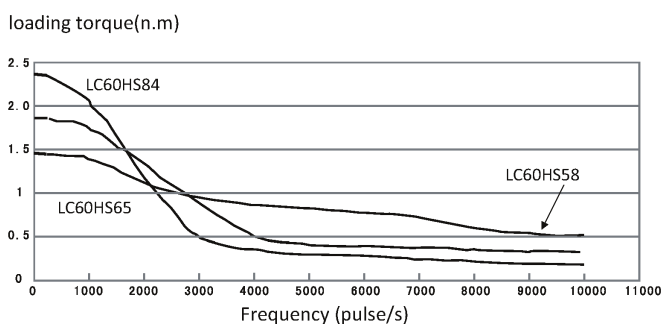
Series	Step Angle(°)	Motor Length(mm)	Holding Torque(N.m)	Rated Current(A)	Phase Resistance(Ω)	Phase Inductance(mH)	Rotor Inertia (g.cm ²)	Motor Weight (Kg)	Lead Wire(No.)
LC60HS58	1.8	58	1.6	3.0	0.42	2.65	300	0.85	4
LC60HS65	1.8	65	2.1	3.0	0.65	1.6	570	1.0	4
LC60HS78	1.8	76	2.5	3.0	0.5	1.66	620	1.1	4
LC60HS84	1.8	84	3.1	3.0	0.63	1.8	840	1.29	4
LC60HS102	1.8	102	3.5	3.0	0.75	2.4	1000	1.65	4
LC60HS112	1.8	112	3.8	3.0	1.56	3.9	1200	1.807	4

Shape and installation size (unit:mm)



Note: 60 series motors with 50x50mm holes are available. Please confirm with salesman about motor model!

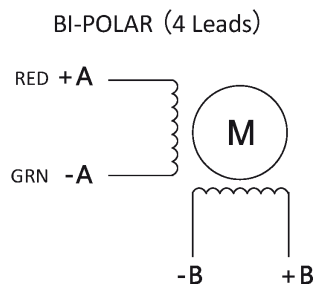
Curves of Torque Frequency Characteristics



Shaft Mode of Motor

Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
LC60HS58	φ8	D-cut 0.5 X 20	21
LC60HS65	φ8	D-cut 0.5 X 20	21
LC60HS78	φ8	D-cut 0.5 X 20	21
LC60HS84	φ8	D-cut 0.5 X 20	21
LC60HS102	φ8	D-cut 0.5 X 20	21
LC60HS112	φ8	D-cut 0.5 X 20	21

Motor Wiring Diagram



2 Phase Nema34 Series Hybrid Stepper Motor

Motor Wiring Diagram

Item	Specifications
Step Angle Accuracy	±5% (Full Step)
Resistance Accuracy	±10% (20°C)
Inductance Accuracy	±20% (1KHZ)
Temperature Rise	80°C max (rated current, 2 phase power on)
Ambient Temperature	-20°C~ * 50°C
Insulation Resistance	100MΩMin 500VDC
Dielectric Strength	500V AC 1 minute
Allowable Radial Load	0.02mm Max . (450g load)
Allowable Thrust Load	0.08mm Max . (450g load)
Radial Max Load	130N (20mm from flange surface)
Shaft Max Load	30N



2Phase

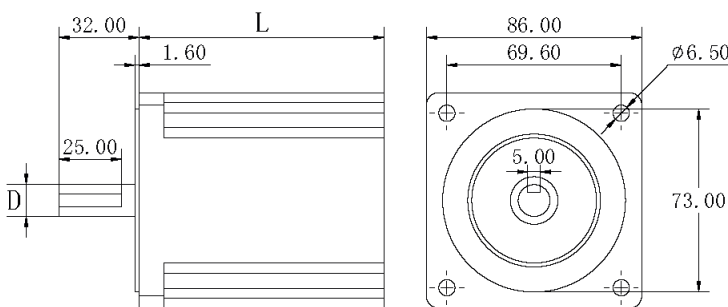
CE RoHS

Technical Data

Series	Step Angle(°)	Motor Length(mm)	Holding Torque(N.m)	Rated Current(A)	Phase Resistance(Ω)	Phase Inductance(mH)	Rotor Inertia (g.cm ²)	Motor Weight (Kg)	Lead Wire(No.)
LC86HS66	1.8	66	3.3	3.0	0.6	1.6	1000	2.0	4
LC86HS80	1.8	80	4.5	5.0	0.7	3.0	1400	2.5	4
LC86HS98	1.8	98	6.9	5.0	0.98	4.1	2100	3.4	4
LC86HS114	1.8	114	8.5	6.0	0.49	3.58	2800	4.0	4
LC86HS128	1.8	128	10	6.0	1.3	5.8	3200	4.5	4
LC86HS150	1.8	150	12	6.0	1.4	9.2	4000	5.4	4

Above are representative products. Products can be customized!

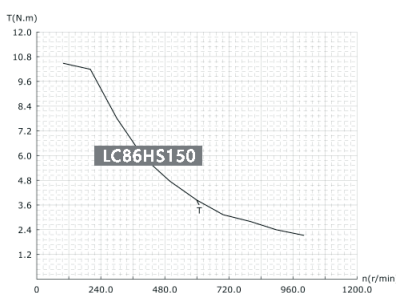
Shape and installation size (unit:mm)



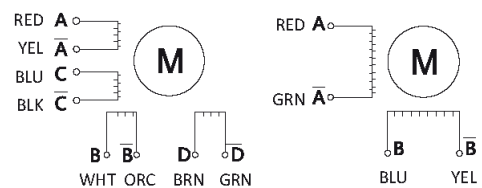
Shaft Mode of Motor

Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
LC86HS66	φ9.5	D-cut 1 X 25	32
LC86HS80	φ12.7 or φ14	D-cut 1 X 25	32
LC86HS98	φ12.7 or φ14	Keyway 5 x 5 x 25	32
LC86HS114	φ12.7 or φ14	Keyway 5 x 5 x 25	32
LC86HS128	φ12.7 or φ14	Keyway 5 x 5 x 25	32
LC86HS150	φ12.7 or φ14 or φ15.8	Keyway 5 x 5 x 25	32

Curves of Torque Frequency Characteristics



Motor Wiring Diagram

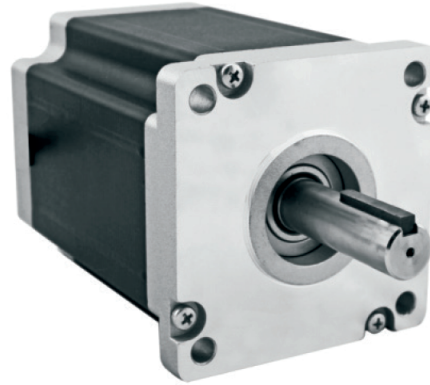


2 Phase Nema42 Series Hybrid Stepper Motor

Electrical Performance Parameters

Item	Specifications
Step Angle Accuracy	±5% (Full Step)
Resistance Accuracy	±10% (20°C)
Inductance Accuracy	±20% (1KHZ)
Temperature Rise	80°C max (rated current, 2 phase power on)
Ambient Temperature	-20°C~ * 50°C
Insulation Resistance	100MΩMin 500VDC
Dielectric Strength	500V AC 1 minute
Allowable Radial Load	0.02mm Max . (450g load)
Allowable Thrust Load	0.08mm Max . (450g load)
Radial Max Load	220N (20mm from flange surface)
Shaft Max Load	60N

2Phase



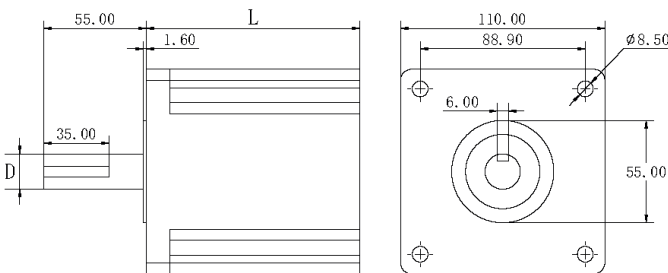
CE RoHS

Technical Data

Series	Step Angle(°)	Motor Length(mm)	Holding Torque(N.m)	Rated Current(A)	Phase Resistance(Ω)	Phase Inductance(mH)	Rotor Inertia (g.cm ²)	Motor Weight (Kg)	Lead Wire(No.)
LC110-99	1.8	99	12	6.0	0.5	6.0	5500	5.0	4
LC110-115	1.8	115	15	6.0	0.47	7.5	7200	6.0	4
LC110-150	1.8	150	22	6.0	0.8	13.5	10900	8.4	4
LC110-201	1.8	201	29	6.5	1.1	22	16200	11.7	4

Above are representative products. Products can be customized!

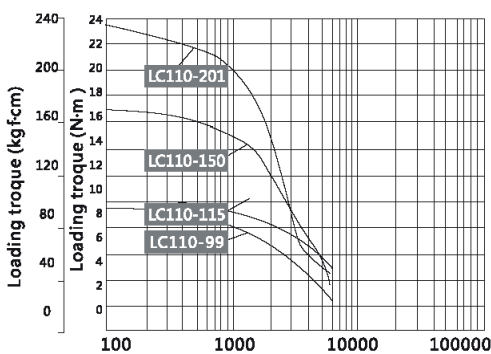
Shape and installation size (unit:mm)



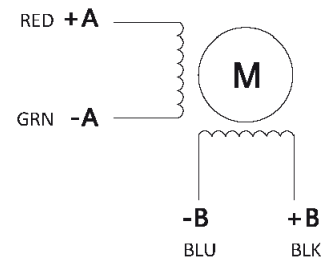
Shaft Mode of Motor

Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
LC110-99	φ16	Keyway 6 x 35	55
LC110-115	φ19	Keyway 6 x 35	55
LC110-150	φ19	Keyway 6 x 35	55
LC110-201	φ19	Keyway 6 x 35	55

Curves of Torque Frequency Characteristics



Motor Wiring Diagram

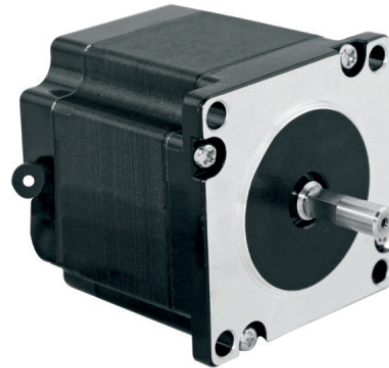


3 Phase Nema23 Series Hybrid Stepper Motor

Electrical Performance Parameters

Item	Specifications
Step Angle Accuracy	±5% (Full Step)
Resistance Accuracy	±10% (20°C)
Inductance Accuracy	±20% (1KHZ)
Temperature Rise	80°C max (rated current, 2 phase power on)
Ambient Temperature	-20°C~ * 50°C
Insulation Resistance	100MΩMin 500VDC
Dielectric Strength	500V AC 1 minute
Allowable Radial Load	0.02mm Max . (450g load)
Allowable Thrust Load	0.08mm Max . (450g load)
Radial Max Load	75N (20mm from flange surface)
Shaft Max Load	15N

3Phase



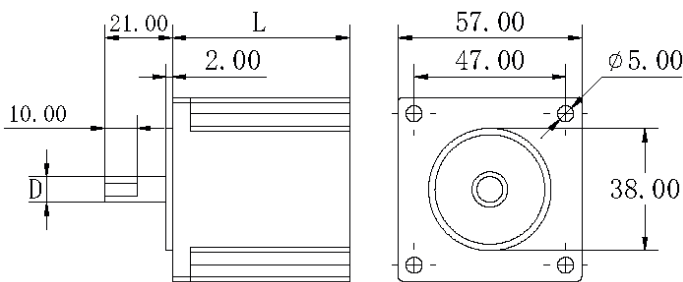
CE RoHS

Technical Data

Series	Step Angle(°)	Motor Length(mm)	Holding Torque(N.m)	Rated Current(A)	Phase Resistance(Ω)	Phase Inductance(mH)	Rotor Inertia (g.cm ²)	Matched Driver	Lead Wire(No.)	Motor Weight (Kg)
LC57HS341	1.2	41	0.45	5.2	100	0.242	0.22	3MC580	3	0.5
LC57HS354	1.2	54	0.9	5.6	220	0.24	0.267	3MC580	3	0.75
LC57HS376	1.2	76	1.5	5.8	380	0.29	0.39	3MC580	3	1.1
LC57HS3100	1.2	100	2.0	5.8	530	0.376	0.5	3MC580	3	1.57

Above are representative products. Products can be customized!

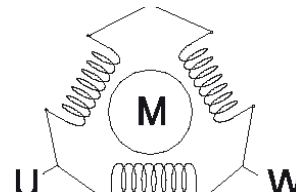
Shape and installation size (unit:mm)



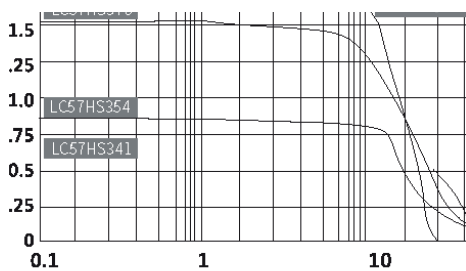
Shaft Mode of Motor

Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
LC57HS341	φ6.35	D-cut 0.5 X 10	21
LC57HS354	φ8	D-cut 0.5 X 10	21
LC57HS376	φ8	Keyway 3 x 15	21
LC57HS3100	φ8	Keyway 3 x 15	21

Motor Wiring Diagram



Curves of Torque Frequency Characteristics



3 Phase Nema34 Series Hybrid Stepper Motor

Electrical Performance Parameters

Item	Specifications
Step Angle Accuracy	±5% (Full Step)
Resistance Accuracy	±10% (20°C)
Inductance Accuracy	±20% (1KHZ)
Temperature Rise	80°C max (rated current, 2 phase power on)
Ambient Temperature	-20°C~ * 50°C
Insulation Resistance	100MΩMin 500VDC
Dielectric Strength	500V AC 1 minute
Allowable Radial Load	0.02mm Max. (450g load)
Allowable Thrust Load	0.08mm Max. (450g load)
Radial Max Load	130N (20mm from flange surface)
Shaft Max Load	30N

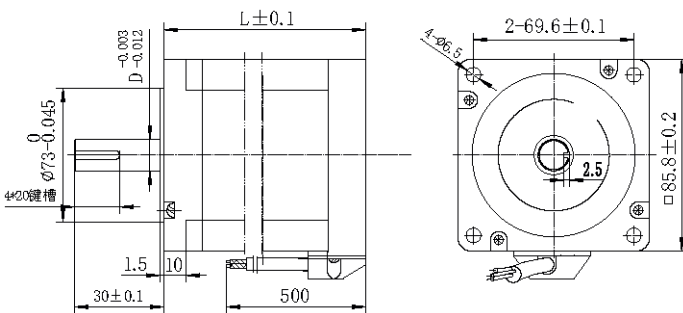


CE RoHS

Technical Data

Series	Step Angle(°)	Motor Length(mm)	Holding Torque(N.m)	Rated Current(A)	Rotor Inertia (g.cm ²)	Phase Resistance(Ω)	Phase Inductance(mH)	Matched Driver	Lead Wire(No.)	Motor Weight (Kg)
LC86HS376	1.2	76	3.0	3.0	1320	0.5	0.9	3MCS80	3	2.0
LC86HS398-H	1.2	98	4.0	2.0	2400	4.6	14.6	LC3722D	3	3.0
LC86HS398	1.2	98	4.0	5.8	2400	0.7	1.5	3MCS80	3	3.0
LC86HS3114-H	1.2	114	6.0	3.0	3480	2.0	8.0	LC3722D	3	4.0
LC86HS3114	1.2	114	6.0	5.8	3480	0.9	2.17	3MCS80	3	4.0
LC86HS3129-H	1.2	129	8.0	5.0	3900	1.08	6.5	LC3722D	3	4.6
LC86HS3156-H	1.2	156	10	5.0	4600	1.29	8.8	LC3722D	3	5.2

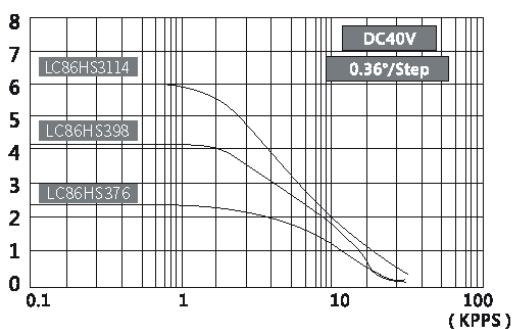
Shape and installation size (unit:mm)



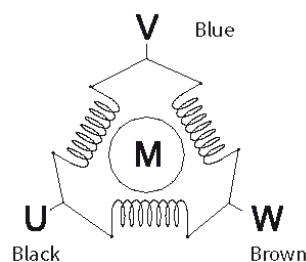
Shaft Mode of Motor

Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
LC86HS376	φ14	Keyway 4 x 20	35
LC86HS398-H	φ12	Keyway 4 x 20	30
LC86HS398	φ12	Keyway 4 x 20	30
LC86HS3114-H	φ14	Keyway 5 x 25	35
LC86HS3114	φ14	Keyway 5 x 25	35
LC86HS3129-H	φ14	Keyway 5 x 25	32
LC86HS3156-H	φ14	Keyway 5 x 25	35

Curves of Torque Frequency Characteristics



Motor Wiring Diagram



3 Phase Nema42 Series Hybrid Stepper Motor

Electrical Performance Parameters

Item	Specifications
Step Angle Accuracy	±5% (Full Step)
Resistance Accuracy	±10% (20°C)
Inductance Accuracy	±20% (1KHZ)
Temperature Rise	80°C max (rated current, 2 phase power on)
Ambient Temperature	-20°C~ * 50°C
Insulation Resistance	100MΩMin 500VDC
Dielectric Strength	500V AC 1 minute
Allowable Radial Load	0.02mm Max . (450g load)
Allowable Thrust Load	0.08mm Max . (450g load)
Radial Max Load	220N (20mm from flange surface)
Shaft Max Load	60N

2Phase



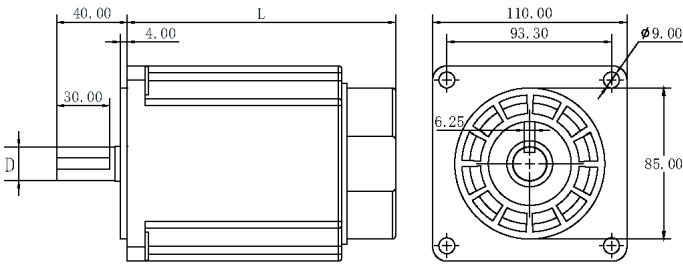
CE RoHS

Technical Data

Series	Step Angle(°)	Motor Length(mm)	Holding Torque(N.m)	Rated Current(A)	Rotor Inertia (g.cm ²)	Phase Resistance(Ω)	Phase Inductance(mH)	Matched Driver	Lead Wire(No.)	Motor Weight (Kg)
LC31112	1.2	128	8.0	4.3	6000	1.25	4.49	LC3722D	3	5.0
LC31115	1.2	152	12	6.0	9720	1.89	8.34	LC3722D	3	6.6
LC31118	1.2	186	16	6.4	13560	1.89	8.73	LC3722D	3	9.0
LC31122	1.2	219	20	6.9	17400	1.859	7.26	LC3722D	3	11.1

Above are representative products. Products can be customized!

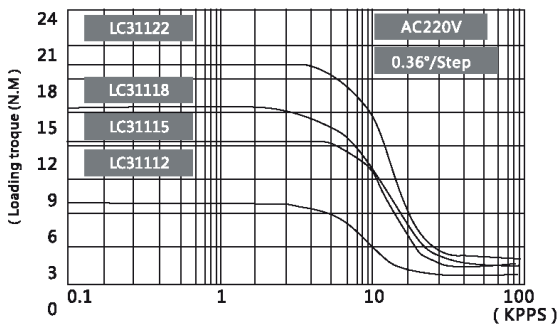
Shape and installation size (unit:mm)



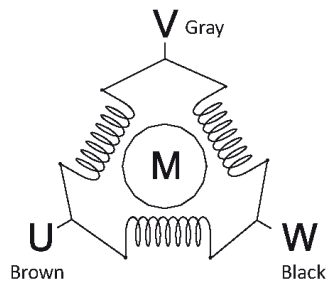
Shaft Mode of Motor

Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
LC31112	φ19	Keyway 6 x 30	40
LC31115	φ19	Keyway 6 x 30	40
LC31118	φ19	Keyway 6 x 30	40
LC31122	φ19	Keyway 6 x 30	40

Curves of Torque Frequency Characteristics



Motor Wiring Diagram



3 Phase Nema51 Series Hybrid Stepper Motor

Electrical Performance Parameters

Item	Specifications
Step Angle Accuracy	±5% (Full Step)
Resistance Accuracy	±10% (20°C)
Inductance Accuracy	±20% (1KHZ)
Temperature Rise	80°C max (rated current, 2 phase power on)
Ambient Temperature	-20°C~ * 50°C
Insulation Resistance	100MΩMin 500VDC
Dielectric Strength	500V AC 1 minute
Allowable Radial Load	0.02mm Max . (450g load)
Allowable Thrust Load	0.08mm Max . (450g load)
Radial Max Load	300N (20mm from flange surface)
Shaft Max Load	80N

3Phase



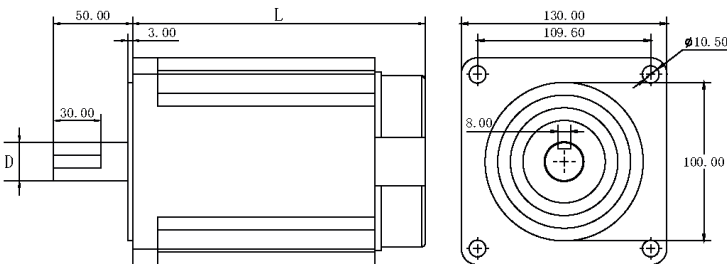
CE RoHS

Technical Data

Series	Step Angle(°)	Motor Length(mm)	Holding Torque(N.m)	Rated Current(A)	Rotor Inertia (g.cm ²)	Phase Resistance(Ω)	Phase Inductance(mH)	Matched Driver	Lead Wire(No.)	Motor Weight (Kg)
LC31315	1.2	154	15	6.9	20000	0.88	3.7	LC3722D	3	11
LC31318	1.2	185	20	6.9	26700	1.1	4.9	LC3722D	3	14.1
LC31322	1.2	218	28	6.9	33970	2.8	17.9	LC3722D	3	17.2
LC31325	1.2	255	35	6.9	41240	3.3	21.52	LC3722D	3	19.8
LC31332	1.2	280	50	6.9	55780	4.2	28.9	LC3722D	3	26

Above are representative products. Products can be customized!

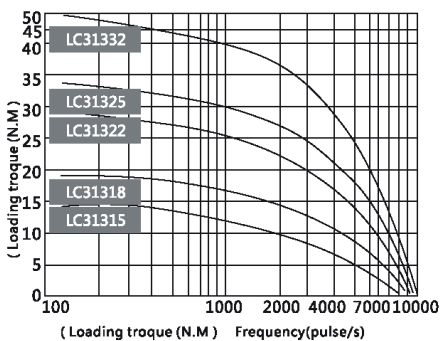
Shape and installation size (unit:mm)



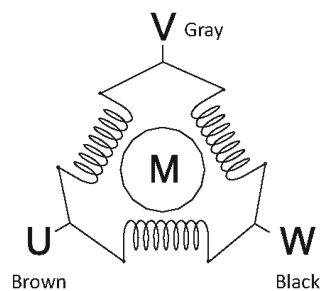
Shaft Mode of Motor

Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
LC31315	φ24	Keyway 8 x 30	50
LC31318	φ24	Keyway 8 x 30	50
LC31322	φ24	Keyway 8 x 30	50
LC31325	φ24	Keyway 8 x 30	50
LC31332	φ24	Keyway 8 x 30	50

Curves of Torque Frequency Characteristics



Motor Wiring Diagram



2 Phase Nema17 Series Closed Loop Stepper Motor

Electrical Performance Parameters

Item	Specifications
Step Angle Accuracy	±5% (Full Step)
Resistance Accuracy	±10% (20°C)
Inductance Accuracy	±20% (1KHZ)
Temperature Rise	80°C max (rated current, 2 phase power on)
Ambient Temperature	-20°C~ +50°C
Insulation Resistance	100MΩMin 500VDC
Dielectric Strength	500V AC 1 minute
Allowable Radial Load	0.02mm Max . (450g load)
Allowable Thrust Load	0.08mm Max . (450g load)
Radial Max Load	28N (20mm from flange surface)
Shaft Max Load	10N

2Phase



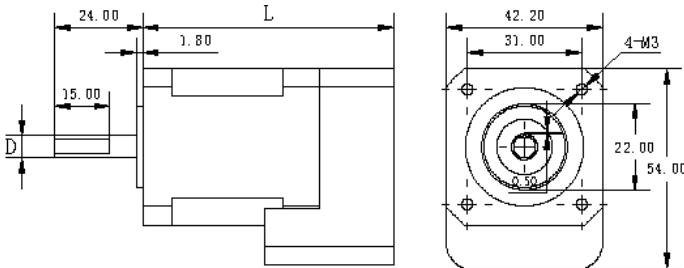
CE RoHS

Technical Data

Series	Step Angle (°)	Length (mm)	Holding Torque (N.m)	Phase Current (A)	Rotational Inertia (g.cm ²)	Weight (kg)	Encoder Resolution(PPR)
LC42H249	1.8	68	0.48	1.2	68	0.47	1000
LC42H261	1.8	79	0.72	1.2	102	0.60	1000

Above are representative products. Products can be customized!

Shape and installation size (unit:mm)



Shaft Mode of Motor

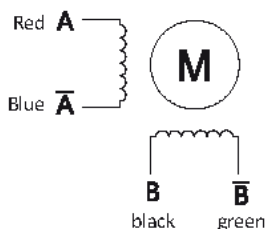
Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
LC42H249	φ5 or φ6	D-cut 0.5 x 15	24
LC42H261	φ5 or φ6	D-cut 0.5 x 15	24

Notes

1. Phases shall be correctly connected while connecting motor and the Driver.
2. Obvious heat generation of motor may occur under different driving conditions. Surface temperature of motor is allowed to exceed 85°C during operation.
3. Motor must be positioned by installation rabbet on front cover of motor, attention shall be paid on error matching, and the concentricity between motor shaft and load shall be controlled strictly.

Motor Wiring Diagram

Motor Wire Colors



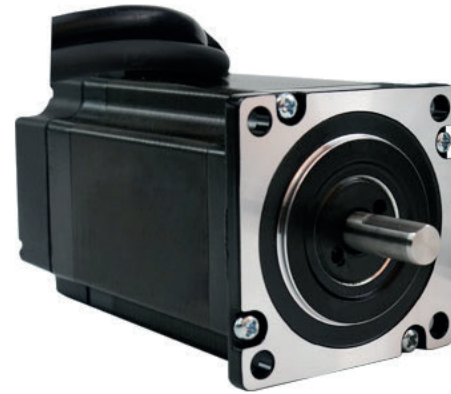
Definitions of Encoder Lead Colors

1	yellow	EB+
2	green	EB-
3	black	EA+
4	blue	EA-
5	Red	+5VCC
6	White	EGND

2 Phase Nema23 Series Closed Loop Stepper Motor

Electrical Performance Parameters

Item	Specifications
Step Angle Accuracy	±5% (Full Step)
Resistance Accuracy	±10% (20°C)
Inductance Accuracy	±20% (1KHZ)
Temperature Rise	80°C max (rated current, 2 phase power on)
Ambient Temperature	-20°C~ +50°C
Insulation Resistance	100MΩMin 500VDC
Dielectric Strength	500V AC 1 minute
Allowable Radial Load	0.02mm Max . (450g load)
Allowable Thrust Load	0.08mm Max . (450g load)
Radial Max Load	75N (20mm from flange surface)
Shaft Max Load	15N



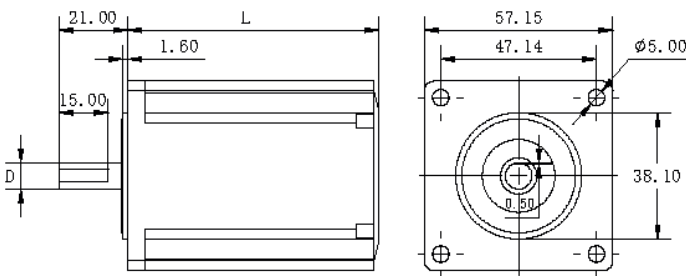
CE RoHS

Technical Data

Series	Step Angle (°)	Length (mm)	Holding Torque (N.m)	Phase Current (A)	Rotational Inertia (g.cm ²)	Weight (kg)	Encoder Resolution(PPR)
LC57H256	1.8	76	1.0	3.0	300	0.78	1000
LC57H265	1.8	85	1.5	3.0	400	1.18	1000
LC57H276	1.8	98	2.0	3.0	480	1.2	1000
LC57H280	1.8	102	2.2	4.0	520	1.5	1000
LC57H2100	1.8	123	3.0	4.0	720	1.7	1000
LC57H2112	1.8	134	3.5	4.0	800	1.8	1000

Above are representative products. Products can be customized!

Shape and installation size (unit:mm)

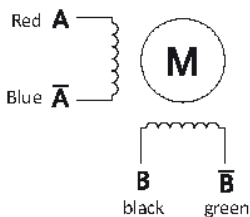


Shaft Mode of Motor

Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
LC57H256	φ8	D-cut 0.5 x 15	21
LC57H265	φ8	D-cut 0.5 x 15	21
LC57H276	φ8	D-cut 0.5 x 15	21
LC57H280	φ8	D-cut 0.5 x 15	21
LC57H2100	φ8	D-cut 0.5 x 15	21
LC57H2112	φ8	D-cut 0.5 x 15	21

Motor Wiring Diagram

Motor Wire Colors



Definitions of Encoder Lead Colors

1	yellow	EB+
2	green	EB-
3	black	EA+
4	blue	EA-
5	Red	+5VCC
6	White	EGND

Notes

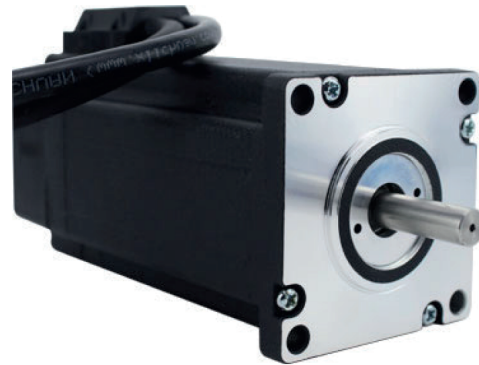
1. Phases shall be correctly connected while connecting motor and the Driver.
2. Obvious heat generation of motor may occur under different driving conditions. Surface temperature of motor is allowed to exceed 85°C during operation.
3. Motor must be positioned by installation rabbet on front cover of motor, attention shall be paid on error matching, and the concentricity between motor shaft and load shall be controlled strictly.

2 Phase Nema24 Series Closed Loop Stepper Motor

Electrical Performance Parameters

Item	Specifications
Step Angle Accuracy	±5% (Full Step)
Resistance Accuracy	±10% (20°C)
Inductance Accuracy	±20% (1KHZ)
Temperature Rise	80°C max (rated current, 2 phase power on)
Ambient Temperature	-20°C~ * 50°C
Insulation Resistance	100MΩMin 500VDC
Dielectric Strength	500V AC 1 minute
Allowable Radial Load	0.02mm Max . (450g load)
Allowable Thrust Load	0.08mm Max . (450g load)
Radial Max Load	75N (20mm from flange surface)
Shaft Max Load	15N

2Phase



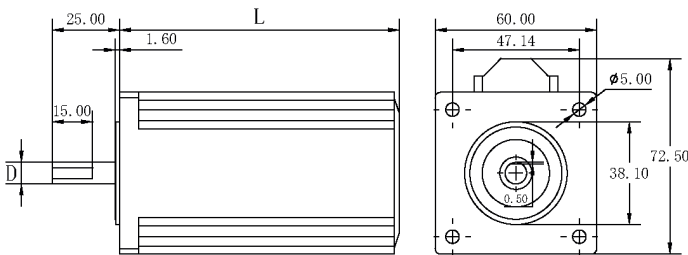
CE RoHS

Technical Data

Series	Step Angle(°)	Length (mm)	Holding Torque (N.m)	Phase Current (A)	Rotational Inertia (g.cm ²)	Weight (kg)	Encoder Resolution(PPR)
LC60H265	1.8	90	2.0	4.0	560	1.0	1000
LC60H278	1.8	104	2.3	4.0	570	1.1	1000
LC60H286	1.8	112	2.8	4.5	620	1.45	1000
LC60H2102	1.8	126	4.5	5.0	1000	1.87	1000
LC60H2112	1.8	137	4.8	5.8	1200	2.1	1000
LC60H2127	1.8	152	5.5	5.8	1370	2.45	1000

Above are representative products. Products can be customized!

Shape and installation size (unit:mm)

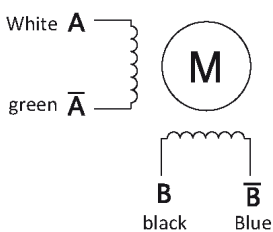


Shaft Mode of Motor

Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
LC60H265	φ8 or φ10	D-cut 0.5 x 15	25
LC60H278	φ8 or φ10	D-cut 0.5 x 15	25
LC60H286	φ8 or φ10	D-cut 0.5 x 15	25 or 31
LC60H2102	φ8 or φ10	D-cut 0.5 x 15	25 or 31
LC60H2112	φ8 or φ10	D-cut 0.5 x 15	25
LC60H2127	φ8 or φ10	Keyway 3 x 16	35

Motor Wiring Diagram

Motor Wire Colors



Definitions of Encoder Lead Colors

1	yellow	EB+
2	green	EB-
3	black	EA+
4	blue	EA-
5	Red	+5VCC
6	White	EGND

Notes

1. Phases shall be correctly connected while connecting motor and the Driver.
2. Obvious heat generation of motor may occur under different driving conditions. Surface temperature of motor is allowed to exceed 85°C during operation.
3. Motor must be positioned by installation rabbet on front cover of motor, attention shall be paid on error matching, and the concentricity between motor shaft and load shall be controlled strictly.

2 Phase Nema34 Series Closed Loop Stepper Motor

Electrical Performance Parameters

Item	Specifications
Step Angle Accuracy	±5% (Full Step)
Resistance Accuracy	±10% (20°C)
Inductance Accuracy	±20% (1KHZ)
Temperature Rise	80°C max (rated current, 2 phase power on)
Ambient Temperature	-20°C~ * 50°C
Insulation Resistance	100MΩMin 500VDC
Dielectric Strength	500V AC 1 minute
Allowable Radial Load	0.02mm Max . (450g load)
Allowable Thrust Load	0.08mm Max . (450g load)
Radial Max Load	130N (20mm from flange surface)
Shaft Max Load	30N

3Phase



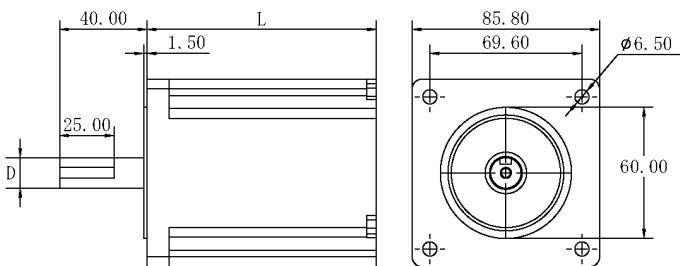
CE RoHS

Technical Data

Series	Step Angle (°)	Length (mm)	Holding Torque (N.m)	Phase Current (A)	Phase Resistance (Ω)	Phase Inductance (mH)	Rotational Inertia (g.cm ²)	Weight (kg)	Encoder Resolution(PPR)
LC86H260	1.8	82	3.0	6.0	0.3	1.6	1100	2.0	1000
LC86H268	1.8	90	3.5	6.0	0.3	2.2	1400	2.2	1000
LC86H280	1.8	105	4.5	6.0	0.3	3.4	1800	2.5	1000
LC86H298	1.8	123	6.5	6.0	0.5	4.3	2800	3.3	1000
LC86H2114	1.8	140	8.0	6.0	0.5	3.6	2800	4.0	1000
LC86H2128	1.8	155	10	7.5	0.4	4.6	4200	4.5	1000
LC86H2150	1.8	176	12	7.5	0.5	4.7	4300	5.5	1000

Above are representative products. Products can be customized!

Shape and installation size (unit:mm)



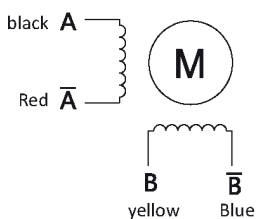
Remarks: 73/60mm is available for motor stop with brake (brake), and 60mm without brake. Please pay attention to the model selection!

Shaft Mode of Motor

Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
LC86H260	φ14	Keyway 5 x 5 x 15	40
LC86H268	φ14	Keyway 5 x 5 x 15	40
LC86H280	φ14	Keyway 5 x 5 x 15	40
LC86H298	φ14	Keyway 5 x 5 x 15	40
LC86H2114	φ14	Keyway 5 x 5 x 15	40
LC86H2128	φ14	Keyway 5 x 5 x 15	40
LC86H2150	φ14	Keyway 5 x 5 x 15	40

Motor Wiring Diagram

Motor Wire Colors



Definitions of Encoder Lead Colors

1	yellow	EB+
2	green	EB-
3	black	EA+
4	blue	EA-
5	Red	+5VCC
6	White	EGND

Notes

1. Phases shall be correctly connected while connecting motor and the Driver.
2. Obvious heat generation of motor may occur under different driving conditions. Surface temperature of motor is allowed to exceed 85°C during operation.
3. Motor must be positioned by installation rabbet on front cover of motor, attention shall be paid on error matching, and the concentricity between motor shaft and load shall be controlled strictly.

3 Phase Nema23 Series Closed Loop Stepper Motor

Electrical Performance Parameters

Item	Specifications
Step Angle Accuracy	±5% (Full Step)
Resistance Accuracy	±10% (20°C)
Inductance Accuracy	±20% (1KHZ)
Temperature Rise	80°C max (rated current, 2 phase power on)
Ambient Temperature	-20°C~ * 50°C
Insulation Resistance	100MΩMin 500VDC
Dielectric Strength	500V AC 1 minute
Allowable Radial Load	0.02mm Max . (450g load)
Allowable Thrust Load	0.08mm Max . (450g load)
Radial Max Load	75N (20mm from flange surface)
Shaft Max Load	15N



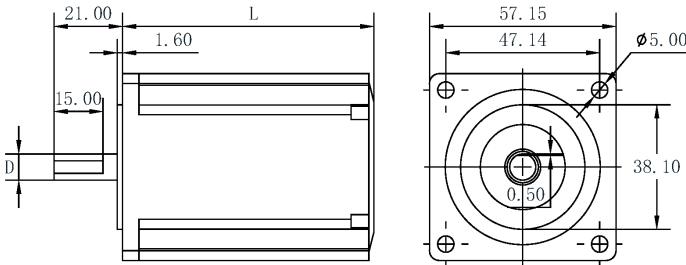
3Phase

CE RoHS

Technical Data

Series	Step Angle (°)	Length (mm)	Holding Torque (N.m)	Phase Current (A)	Rotational Inertia (g.cm ²)	Weight (kg)	Encoder Resolution(PPR)
LC57H355	1.2	77	1.0	3.5	300	1.0	1000
LC57H380	1.2	102	2.0	3.5	500	1.4	1000
LC57H3100	1.2	123	3.0	4.0	700	1.8	1000

Shape and installation size (unit:mm)

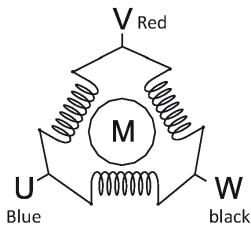


Shaft Mode of Motor

Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
LC57H355	φ8	D-cut 0.5 x 15	21
LC57H380	φ8	D-cut 0.5 x 15	21
LC57H3100	φ8	D-cut 0.5 x 15	21

Motor Wiring Diagram

Motor Wire Colors



Definitions of Encoder Lead Colors

1	yellow	EB+
2	green	EB-
3	black	EA+
4	blue	EA-
5	Red	+5VCC
6	White	EGND

Notes

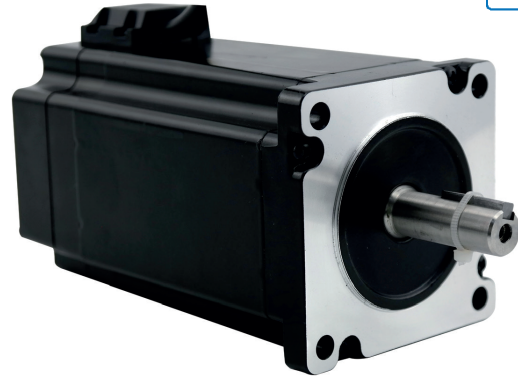
1. Phases shall be correctly connected while connecting motor and the Driver.
2. Obvious heat generation of motor may occur under different driving conditions. Surface temperature of motor is allowed to exceed 85°C during operation.
3. Motor must be positioned by installation rabbet on front cover of motor, attention shall be paid on error matching, and the concentricity between motor shaft and load shall be controlled strictly.

3 Phase Nema34 Series Closed Loop Stepper Motor

Electrical Performance Parameters

Item	Specifications
Step Angle Accuracy	±5% (Full Step)
Resistance Accuracy	±10% (20°C)
Inductance Accuracy	±20% (1KHZ)
Temperature Rise	80°C max (rated current, 2 phase power on)
Ambient Temperature	-20°C~ * 50°C
Insulation Resistance	100MΩMin 500VDC
Dielectric Strength	500V AC 1 minute
Allowable Radial Load	0.02mm Max . (450g load)
Allowable Thrust Load	0.08mm Max . (450g load)
Radial Max Load	130N (20mm from flange surface)
Shaft Max Load	30N

3Phase



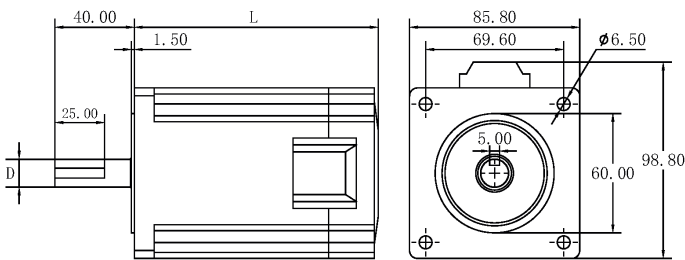
CE RoHS

Technical Data

Series	Step Angle(°)	Length (mm)	Holding Torque(N.m)	Phase Current(A)	Rotational Inertia(g.cm ²)	Phase Resistance(Ω)	Phase Inductance(mH)	Matchend driver	Lead wire(No.)	Weight (kg)
LC86H398	1.2	123	6.0	3.0	2800	1.3	8.0	LCDA2260E	3	3.5
LC86H3114	1.2	140	6.8	3.0	3600	0.98	7.0	LCDA2260E	3	4.2
LC86H3129	1.2	154	10	3.0	3800	2.45	16	LCDA2260E	3	4.7
LC86H3156	1.2	182	12	3.0	4000	2.5	18	LCDA2260E	3	5.5

Above are representative products. Products can be customized!

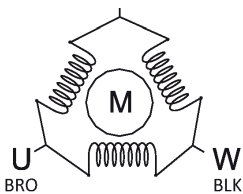
Shape and installation size (unit:mm)



Shaft Mode of Motor

Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
LC86H398	φ14	Keyway 5 x 5 x 15	40
LC86H3114	φ14	Keyway 5 x 5 x 15	40
LC86H3129	φ14	Keyway 5 x 5 x 15	40
LC86H3156	φ14	Keyway 5 x 5 x 15	40

Motor Wiring Diagram



2	green	EB-
3	black	EA+
4	blue	EA-
5	Red	+5VCC
6	White	EGND

Notes

1. Phases shall be correctly connected while connecting motor and the Driver.
2. Obvious heat generation of motor may occur under different driving conditions. Surface temperature of motor is allowed to exceed 85°C during operation.
3. Motor must be positioned by installation rabbet on front cover of motor, attention shall be paid on error matching, and the concentricity between motor shaft and load shall be controlled strictly.

3 Phase Nema42 Series Closed Loop Stepper Motor

Electrical Performance Parameters

Item	Specifications
Step Angle Accuracy	±5% (Full Step)
Resistance Accuracy	±10% (20°C)
Inductance Accuracy	±20% (1KHZ)
Temperature Rise	80°C max (rated current, 2 phase power on)
Ambient Temperature	-20°C~ * 50°C
Insulation Resistance	100MΩmin 500VDC
Dielectric Strength	500V AC 1 minute
Allowable Radial Load	0.02mm Max . (450g load)
Allowable Thrust Load	0.08mm Max . (450g load)
Radial Max Load	220N (20mm from flange surface)
Shaft Max Load	60N

3Phase



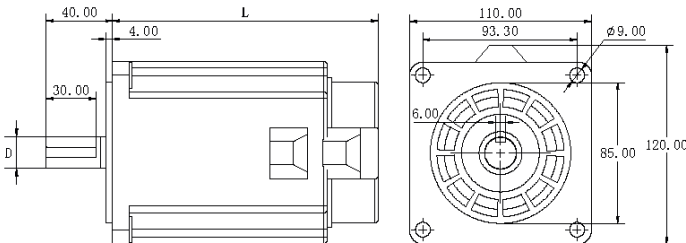
CE RoHS

Technical Data

Series	Step Angle (°)	Length (mm)	Holding Torque (N.m)	Phase Current (A)	Rotational Inertia (g.cm ²)	Phase Resistance (Ω)	Phase Inductance (mH)	Matchend driver	Lead wire(No.)	Weight (kg)
LC110H3151	1.2	161	12	6.0	9720	1.89	8.34	LCDA2260E	3	6.6
LC110H3185	1.2	185	16	6.4	13560	1.89	8.73	LCDA2260E	3	9.0
LC110H3219	1.2	219	20	6.9	17400	1.859	7.26	LCDA2260E	3	11.1

Above are representative products. Products can be customized!

Shape and installation size (unit:mm)



Shaft Mode of Motor

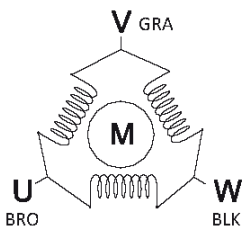
Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
LC110H3151	φ19	Keyway 6 x 30	40
LC110H3185	φ19	Keyway 6 x 30	40
LC110H3219	φ19	Keyway 6 x 30	40

Notes

1. Phases shall be correctly connected while connecting motor and the Driver.
2. Obvious heat generation of motor may occur under different driving conditions. Surface temperature of motor is allowed to exceed 85°C during operation.
3. Motor must be positioned by installation rabbet on front cover of motor, attention shall be paid on error matching, and the concentricity between motor shaft and load shall be controlled strictly.

Motor Wiring Diagram

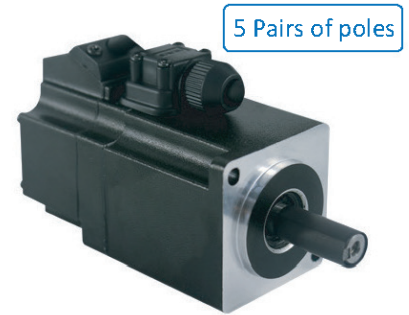
Motor Wire Colors



Definitions of Encoder Lead Colors

1	yellow	EB+
2	green	EB-
3	black	EA+
4	blue	EA-
5	Red	+5VCC
6	White	EGND

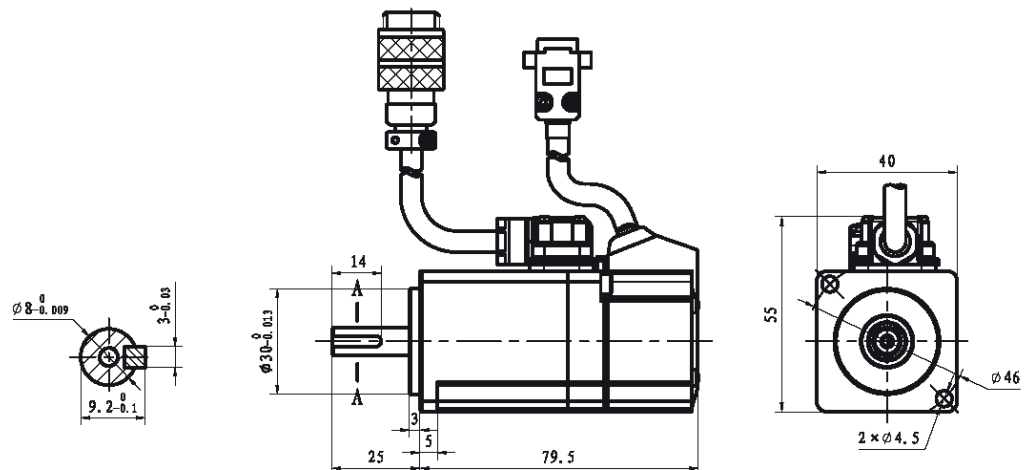
Lichuan 40 Series DC 5 Pairs of Poles Servo Motor



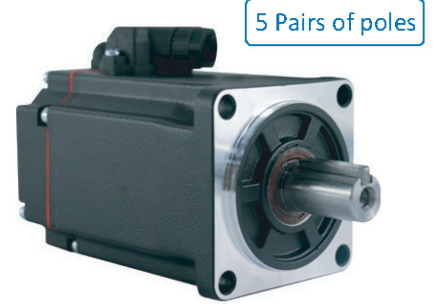
Technical Specifications

Motor model	LCMT-01SLC02NB-40M00330DC
Rated power(KW)	0.1
Rated voltage(V)	24
Rated current (A)	6
Rated speed(rpm)	3000
Holding torque (N.m)	0.32
Peak torque (N.m)	0.64
Voltage constant(V/1000r/min)	3.2
Torque coefficient (N.m/A)	0.05
Rotor inertia (Kg.m ²)	0.053 x 10 ⁻⁴
Phase Resistance(Ω)	0.4
Phase Inductance (mH)	0.38
Mechanical time-constant (Ms)	0.95
Weight(Kg)	0.5
Encoder line number{PPR}	2500
Insulation class	Class B(130°C)
Safety class	IP65

Appearance and Installation Dimensions (Unit: mm)



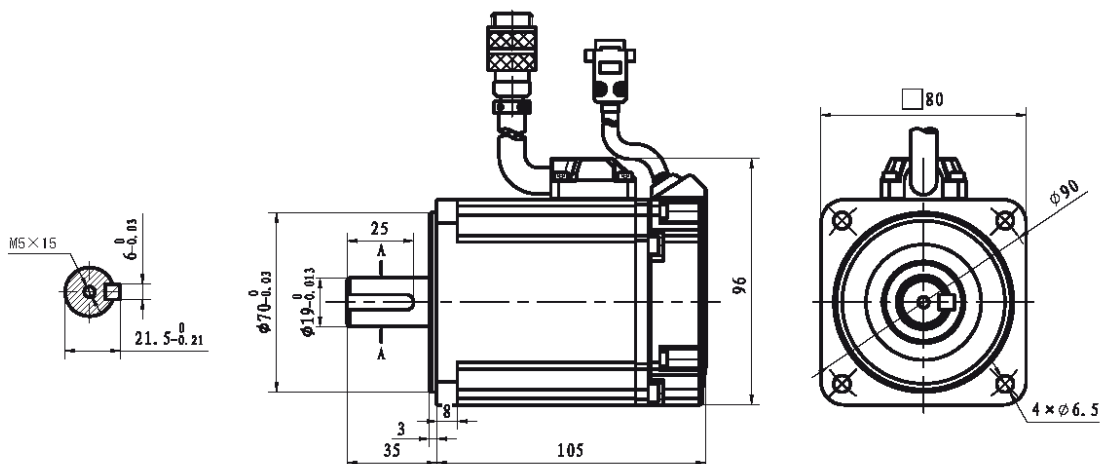
Lichuan 60 Series DC 5 Pairs of Poles Servo Motor



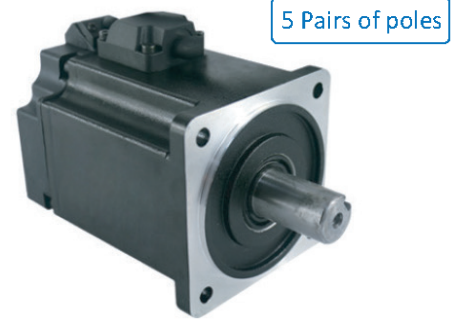
Technical Specifications

Motor model	LCMT-02SLC02NB-60M00630DC	LCMT-04SLC02NB-60M01330DC
Rated power(KW)	0.2	0.4
Rated voltage(V)	48	48
Rated current (A)	6	10
Rated speed(rpm)	3000	3000
Holding torque (N.m)	0.637	1.27
Peak torque (N.m)	1.91	3.81
Voltage constant(V/1000r/min)	7.7	8.6
Torque coefficient (N.m/A)	0.106	0.127
Rotor inertia (Kg.m ²)	0.3×10^{-4}	0.53×10^{-4}
Phase Resistance(Ω)	0.63	0.39
Phase Inductance (mH)	1.12	0.72
Mechanical time-constant (Ms)	1.77	1.8
Weight(Kg)	1.0	1.4
Encoder line number(PPR)	2500	
Insulation class	Class B(130°C)	
Safety class	IP65	

Appearance and Installation Dimensions (Unit: mm)



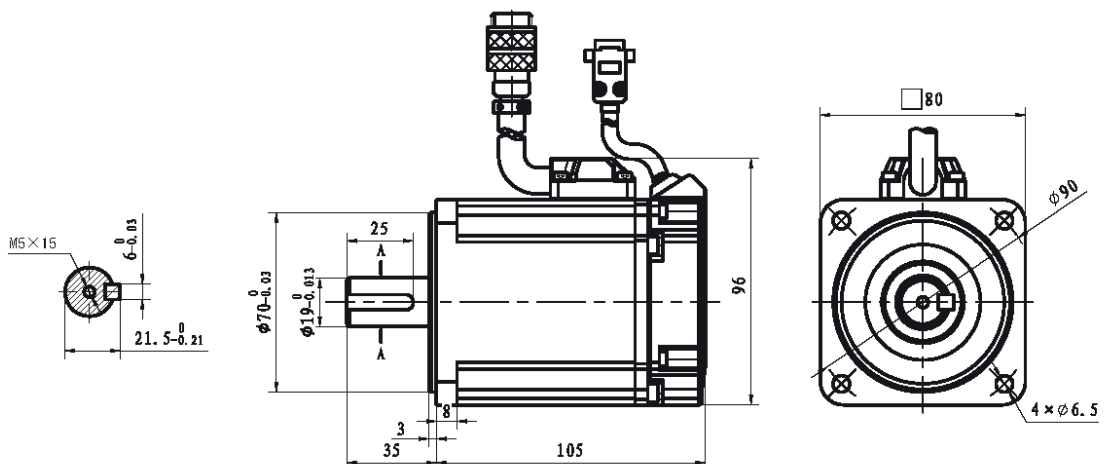
Lichuan 80 Series DC 5 Pairs of Poles Servo Motor



Technical Specifications

Motor model	LCMT-07SLC02NB-80M02430DC
Rated power(KW)	0.75
Rated voltage(V)	48
Rated current (A)	19
Rated speed(rpm)	3000
Holding torque (N.m)	2.4
Peak torque (N.m)	4.8
Voltage constant(V/1000r/min)	8
Torque coefficient (N.m/A)	0.13
Rotor inertia (Kg.m ²)	1.62 × 10 ⁻⁴
Phase Resistance(Ω)	0.08
Phase Inductance (mH)	0.27
Mechanical time-constant (Ms)	3.4
Weight(Kg)	2.5
Encoder line number(PPR)	2500
Insulation class	Class B(130°C)
Safety class	IP65

Appearance and Installation Dimensions (Unit: mm)



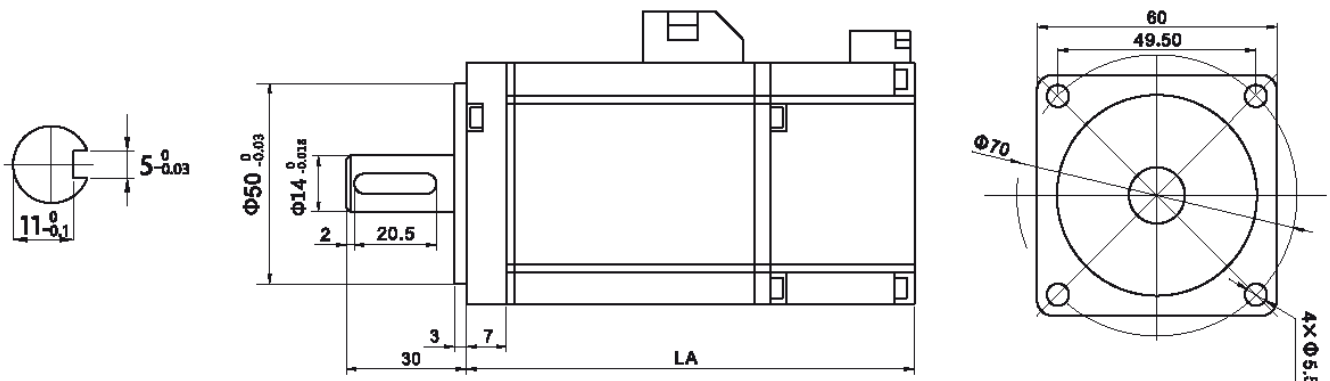
Lichuan 40 Series Servo Motors



Technical Specifications

Motor model	LCMT-005L□□-40M00130	LCMT-01L□□-40M00330
Rated power(KW)	0.05	0.1
Rated voltage(V)	220	220
Rated current (A)	0.4	0.6
Rated speed(rpm)	3000	3000
Holding torque (N.m)	0.16	0.32
Peak torque (N.m)	0.32	0.64
Voltage constant(V/1000r/min)	36.8	32.8
Torque coefficient (N.m/A)	0.4	0.53
Rotor inertia (Kg.m ²)	0.025 x 10 ⁻⁴	0.051 x 10 ⁻⁴
Phase Resistance(Ω)	108	34
Phase Inductance (mH)	108	40
Mechanical time-constant (Ms)	1.0	1.18
Weight(Kg)	0.32	0.47
Encoder line number(PPR)	2500 / Absolute Value Encoder	
Insulation class	Class B(130°C)	
Safety class	IP64	

Appearance and Installation Dimensions (Unit: mm)



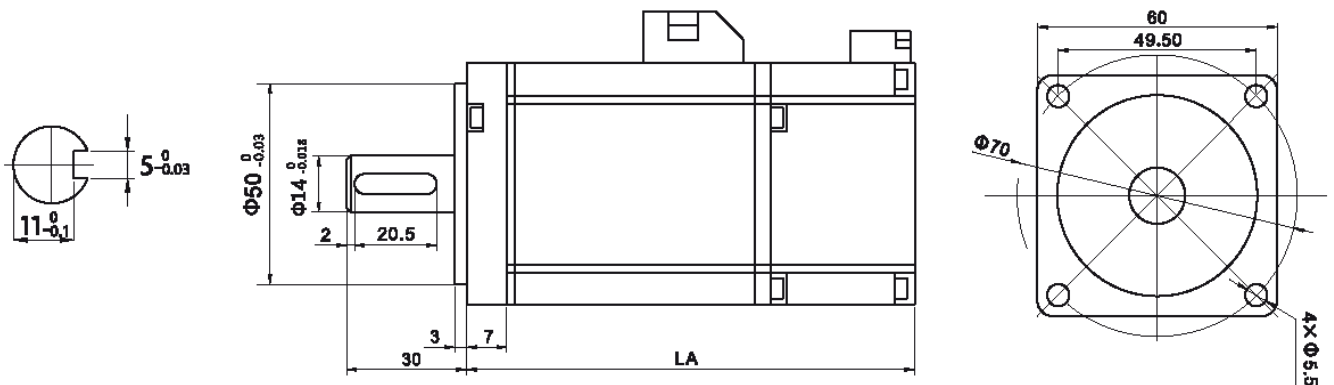
Lichuan 60 Series Servo Motors



Technical Specifications

Motor model	LCMT-02L□□-60M00630	LCMT-04L□□-60M01330	LCMT-06L□□-60M01930
Rated power(KW)	0.2	0.4	0.6
Rated voltage(V)	220	220	220
Rated current (A)	1.5	2.8	3.5
Rated speed(rpm)	3000	3000	3000
Holding torque (N.m)	0.637	1.27	1.91
Peak torque (N.m)	1.911	3.8	5.73
Voltage constant(V/1000r/min)	28	28	28
Torque coefficient (N.m/A)	0.42	0.5	0.55
Rotor inertia (Kg.m ²)	0.17×10^{-4}	0.302×10^{-4}	0.438×10^{-4}
Phase Resistance(Ω)	11.6	5.83	3.49
Phase Inductance (mH)	22	12.23	8.47
Mechanical time-constant (Ms)	1.9	2.1	2.4
Weight(Kg)	1.11	1.33	1.78
Encoder line number(PPR)	2500 / Absolute Value Encoder		
Insulation class	Class B(130°C)		
Safety class	IP64		

Appearance and Installation Dimensions (Unit: mm)



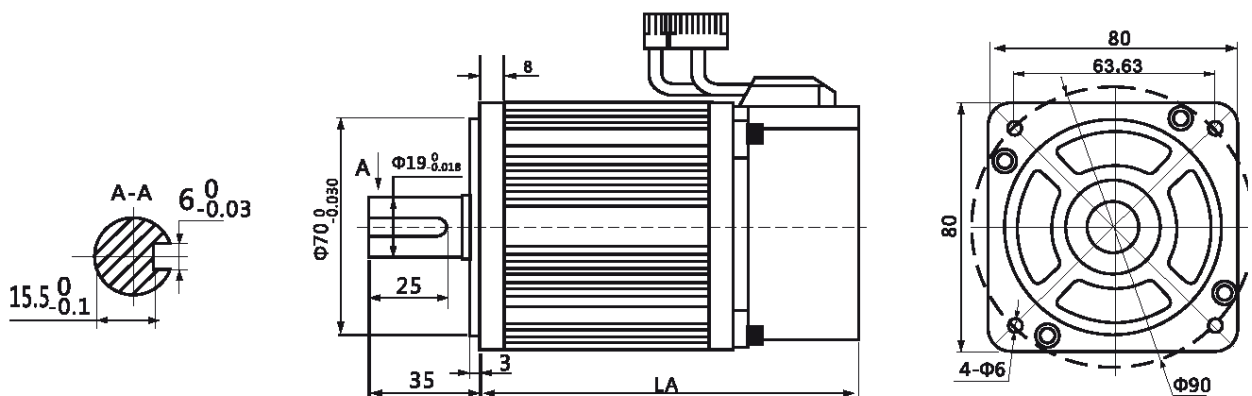
Lichuan 80 Series Servo Motors



Technical Specifications

Motor model	LCMT-04L□□-80M01330	LCMT-07L□□-80M02430	LCMT-07M□□-80M03520	LCMT-10L□□-80M04025
Rated power(KW)	0.4	0.75	0.75	1.0
Rated voltage(V)	220	220	220	220
Rated current (A)	2.0	3.0	3.0	4.4
Rated speed(rpm)	3000	3000	2000	2500
Holding torque(N.m)	1.27	2.39	3.5	4.0
Peak torque(N.m)	3.8	7.1	10.5	12
Peak current(A)	6.0	9.0	9.0	13.2
Voltage constant(V/1000r/min)	40	48	71	56
Torque coefficient(N.m/A)	0.64	0.8	1.17	0.9
Rotor inertia (Kg.m ²)	1.05×10^{-4}	1.82×10^{-4}	2.63×10^{-4}	2.97×10^{-4}
Phase Resistance(Ω)	4.44	2.88	3.65	1.83
Phase Inductance(mH)	7.93	6.4	8.8	4.72
Mechanical time-constant (Ms)	1.66	2.22	2.4	2.58
Weight(Kg)	1.78	2.86	3.7	3.8
Encoder line number(PPR)	2500 / Absolute Value Encoder			
Insulation class	Class B(130°C)			
Safety class	IP65			

Appearance and Installation Dimensions (Unit: mm)



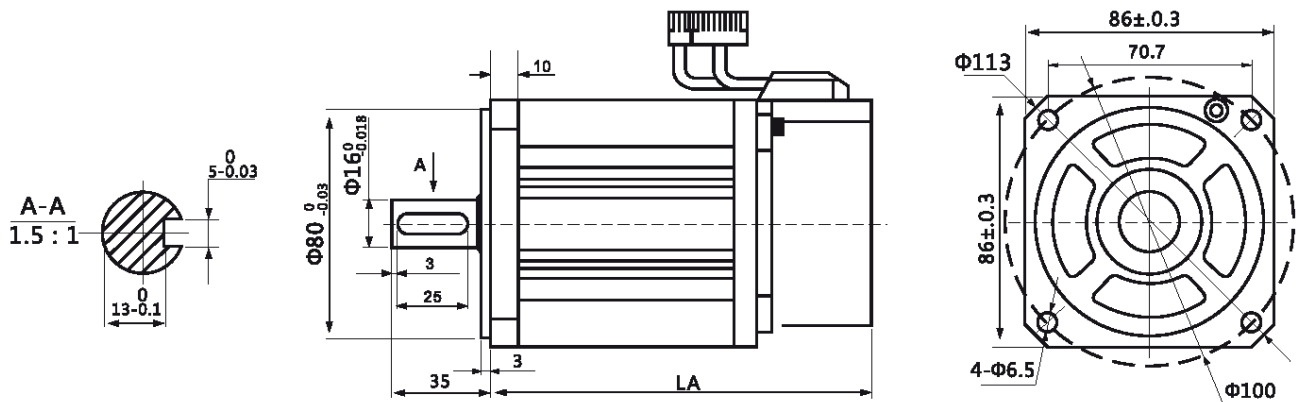
Lichuan 90 Series Servo Motors



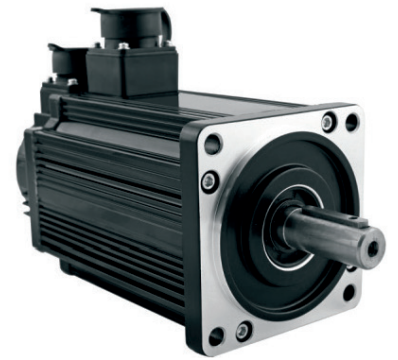
Technical Specifications

Motor model	LCMT-07L□□-90M02430	LCMT-07M□□-90M03520	LCMT-10L□□-90M04025
Rated power(KW)	0.75	0.75	1.0
Rated voltage(V)	220	220	220
Rated current (A)	3.0	3.0	4.0
Rated speed(rpm)	3000	2000	2500
Holding torque(N.m)	2.4	3.5	4.0
Peak torque(N.m)	7.1	10.5	12
Peak current(A)	9.0	7.5	12
Voltage constant(V/1000r/min)	51	67	60
Torque coefficient(N.m/A)	0.8	1.2	1.0
Rotor inertia (Kg.m ²)	2.45 x 10 ⁻⁴	3.4 x 10 ⁻⁴	3.7 x 10 ⁻⁴
Phase Resistance(Ω)	3.2	4.06	2.69
Phase Inductance(mH)	7.0	9.7	6.21
Mechanical time-constant (Ms)	2.2	2.39	2.3
Weight(Kg)	3.4	3.8	4.13
Encoder line number(PPR)	2500 / Absolute Value Encoder		
Insulation class	Class B(130°C)		
Safety class	IP66		

Appearance and Installation Dimensions (Unit: mm)



Lichuan 110 Series Servo Motors



Technical Specifications

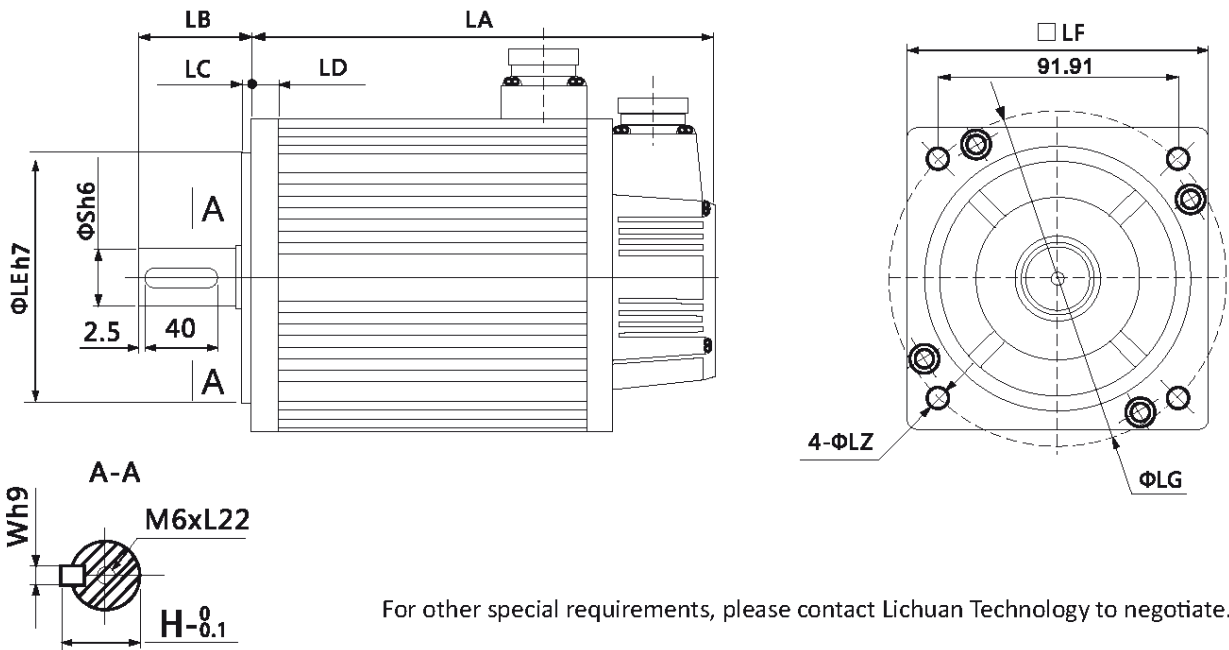
Motor model	LCMT-06L□□ -110M02030	LCMT-08L□□ -110M04020	LCMT-12L□□ -110M04030	LCMT-15L□□ -110M05030	LCMT-12L□□ -110M06020	LCMT-18L□□ -110M06030										
Rated power(KW)	0.6	0.8	1.2	1.5	1.2	1.8										
Rated voltage(V)	220	220	220	220	220	220										
Rated current (A)	2.5	3.5	5.0	6.0	4.5	6.0										
Rated speed(rpm)	3000	2000	3000	3000	2000	3000										
Holding torque(N.m)	2.0	4.0	4.0	5.0	6.0	6.0										
Peak torque(N.m)	6.0	12	12	15	12	18										
Voltage constant (V/1000r/min)	56	79	54	62	83	60										
Torque coefficient(N.m/A)	0.8	1.14	0.8	0.83	1.3	1.0										
Rotor inertia (Kg.m ²)	0.31 x 10 ⁻³	0.54 x 10 ⁻³	0.54 x 10 ⁻³	0.63 x 10 ⁻³	0.76 x 10 ⁻³	0.76 x 10 ⁻³										
Phase Resistance(Ω)	3.6	2.41	1.09	1.03	1.46	0.81										
Phase Inductance(mH)	8.32	7.3	3.3	3.43	4.7	2.59										
Mechanical time-constant (Ms)	2.3	3.0	3.0	3.33	3.2	3.2										
Weight(Kg)	4.5	5.2	5.5	6.1	6.7	6.7										
Encoder line number(PPR)	2500 / Absolute Value Encoder															
Insulation class	Class B(130°C)															
Safety class	IP65															
Use environment	Temperature:-20°C~ + 50°C Humidity: Below 90% RH No dewing															
Motor winding plug	Winding lead wire	U			V			W			PE					
	Plug serial number	2			3			4			1					
Encoder plug	Signal lead wire	5V	0V	A +	B +	Z +	A -	B -	Z -	U +	V +	W +	U -	V -	W -	PE
	Plug serial number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

Lichuan 110 Series Servo Motors

Installation Notes

110 Series				
Rated torque(N.m)	2.0	4.0	5.0	6.0
LA (Length)	159	189	204	219
LB (Shaft Length)	55	55	55	55
LC (Rabbit Depth)	5.0	5.0	5.0	5.0
LD (Flange Depth)	12	12	12	12
LE (Rabbit Diameter)	95	95	95	95
LF (Flange Size)	110	110	110	110
LG (Diagonal Pitch)	130	130	130	130
LZ (Installation Holes)	9.0	9.0	9.0	9.0
S (Shaft Diameter)	19	19	19	19
W (Key Slot Width)	6.0	6.0	6.0	6.0
H (Key to wheelbase)	21.5	21.5	21.5	21.5
Length of body with brake	223	263	278	293

Appearance and Installation Dimensions (Unit: mm)



For other special requirements, please contact Lichuan Technology to negotiate.

Lichuan 130 Series Servo Motors



Technical Specifications

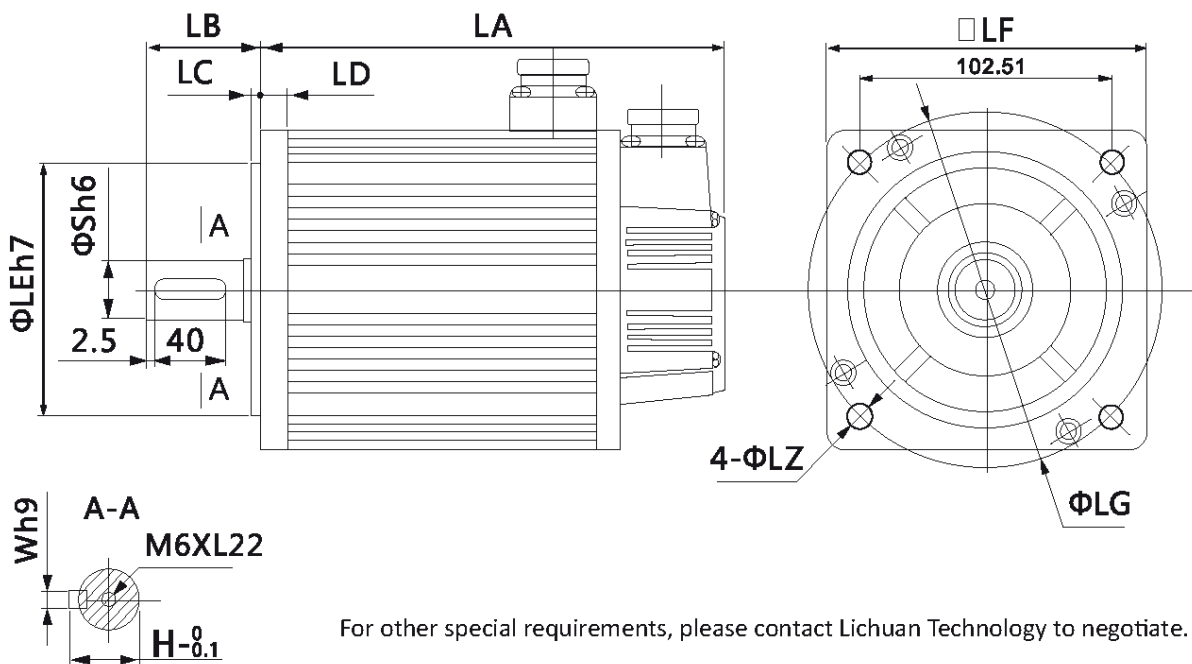
Motor model	LCMT-10□□ -130M04025	LCMT-13□□ -130M05025	LCMT-15□□ -130M06025	LCMT-20□□ -130M07725	LCMT-10M□□ -130M10010	LCMT-15M□□ -130M10015	LCMT-26M□□ -130M10025	LCMT-23M□□ -130M15015	LCMT-30M□□ -130M15020	LCMT-38M□□ -130M15025						
Rated power(KW)	1.0	1.3	1.5	2.0	1.0	1.5	2.6	2.3	3.0	3.8						
Rated voltage(V)	220	220	220	220	220	220	220	220	220	220						
Rated current (A)	4.0	5.0	6.0	7.5	4.5	6.0	10	9.5	12	13.5						
Rated speed(rpm)	2500	2500	2500	2500	1000	1500	2500	1500	2000	2500						
Holding torque(N.m)	4.0	5.0	6.0	7.7	10	10	10	15	15	15						
Peak torque(N.m)	12	16	18	22	20	25	25	30	30	30						
Voltage constant (V/1000r/min)	72	68	65	68	140	103	70	114	80	67						
Torque coefficient (N.m/A)	1.0	1.0	1.0	1.03	2.2	1.67	1.0	1.58	1.25	1.11						
Rotor inertia (Kg.m ²)	0.85 x 10 ⁻³	1.06 x 10 ⁻³	1.26 x 10 ⁻³	1.53 x 10 ⁻³	1.94 x 10 ⁻³	1.94 x 10 ⁻³	1.94 x 10 ⁻³	2.77 x 10 ⁻³	2.77 x 10 ⁻³	2.77 x 10 ⁻³						
Phase Resistance(Ω)	2.76	1.84	1.21	1.01	2.7	1.29	0.73	1.1	0.64	0.49						
Phase Inductance(mH)	6.42	4.9	3.87	2.94	8.8	5.07	2.45	4.45	4.45	1.68						
Mechanical time-constant (Ms)	2.32	2.66	3.26	3.80	3.26	3.93	3.36	4.05	4.05	3.43						
Weight(Kg)	7.7	8.2	8.9	10	11.5	11.5	11.5	14.4	14.4	14.4						
Encoder line number (PPR)	2500 / Absolute Value Encoder															
Insulation class	Class B(130°C)															
Safety class	IP66															
Use environment	Temperature:-20°C~ + 50°C Humidity: Below 90% RH No dewing															
Motor winding plug	Winding lead wire	U			V			W			PE					
	Plug serial number	2			3			4			1					
Encoder plug	Signal lead wire	5V	0V	A +	B +	Z +	A -	B -	Z -	U +	V +	W +	U -	V -	W -	PE
	Plug serial number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

Lichuan 130 Series Servo Motors

Installation Notes

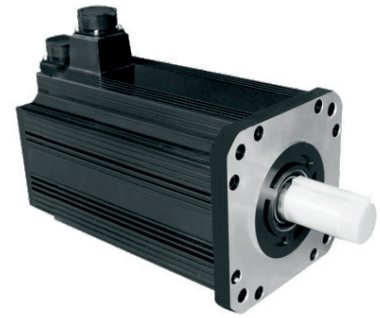
130 Series										
Rated torque(N.m)	4.0	5.0	6.0	7.7	10			15		
					1000rpm	1500rpm	2500rpm	1500rpm	2000rpm	2500rpm
LA (Length)	166	171	179	192	213			209	241	231
LB (Shaft Length)	57	57	57	57	57	57	57	57	57	57
LC (Rabbit Depth)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
LD (Flange Depth)	14	14	14	14	14	14	14	14	14	14
LE (Rabbit Diameter)	110	110	110	110	110	110	110	110	110	110
LF (Flange Size)	130	130	130	130	130	130	130	130	130	130
LG (Diagonal Pitch)	145	145	145	145	145	145	145	145	145	145
LZ (Installation Holes)	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
S (Shaft Diameter)	22	22	22	22	22	22	22	22	22	22
W (Key Slot Width)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
H (Key to wheelbase)	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
Length of body with brake	223	228	236	249	294	290	322	312	312	312

Appearance and Installation Dimensions (Unit: mm)



For other special requirements, please contact Lichuan Technology to negotiate.

Lichuan 180 Series Servo Motors



Technical Specifications

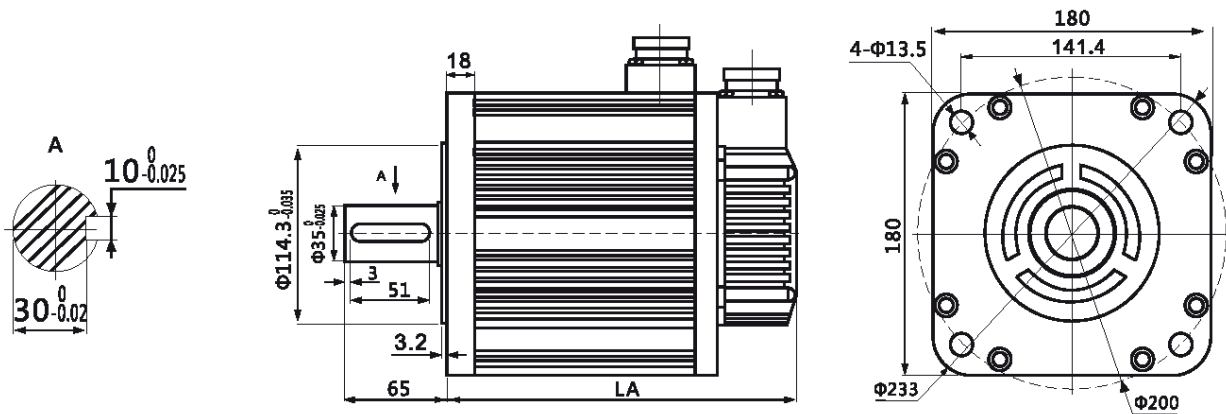
Motor model	LCMT-27M□□-180M17215		LCMT-30M□□-180M19015		LCMT-45M□□-180M21520		LCMT-29M□□-180M27010									
Rated power(KW)	2.7		3.0		4.5		2.9									
Rated voltage(V)	220	380	220	380	220	380	220	380								
Rated current (A)	10.5	6.5	12	7.5	16	9.5	12	7.5								
Rated speed(rpm)	1500		1500		2000		1000									
Holding torque(N.m)	17.2		19		21.5		27									
Peak torque(N.m)	43		47		53		67									
Voltage constant (V/1000r/min)	112	167	94	158	84	140	138	224								
Torque coefficient(N.m/A)	1.64	2.65	1.58	2.5	1.34	2.26	2.25	3.6								
Rotor inertia (Kg.m ²)	3.4 x 10 ⁻³		3.8 x 10 ⁻³		4.7 x 10 ⁻³		6.1 x 10 ⁻³									
Phase Resistance(Ω)	0.7	1.47	0.4	1.15	0.24	0.71	0.48	1.37								
Phase Inductance(mH)	3.5	7.8	2.42	6.4	1.45	4.0	3.26	8.6								
Mechanical time-constant (Ms)	5.0	5.3	6.0	5.57	6.0	5.6	6.79	6.27								
Weight(Kg)	19.5		20.5		22.2		25.5									
Encoder line number(PPR)	2500 / Absolute Value Encoder															
Insulation class	Class B(130°C)															
Safety class	IP66															
Use environment	Temperature:-20°C~ + 50°C Humidity: Below 90% RH No dewing															
Motor winding plug	Winding lead wire	U			V			W			PE					
	Plug serial number	2			3			4			1					
Encoder plug	Signal lead wire	5V	0V	A +	B +	Z +	A -	B -	Z -	U +	V +	W +	U -	V -	W -	PE
	Plug serial number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

Lichuan 180 Series Servo Motors

Installation Notes

Motor model	LCMT-43M□□-180M27015		LCMT-37M□□-180M35010		LCMT-55M□□-180M35015		LCMT-75M□□-180M48015	
Rated power(KW)	4.3		3.7		5.5		7.5	
Rated voltage(V)	220	380	220	380	220	380	220	380
Rated current (A)	16	10	16	10	19	12	32	20
Rated speed(rpm)	1500		1000		1500		1500	
Holding torque(N.m)	27		35		35		48	
Peak torque(N.m)	67		70		70		96	
Voltage constant (V/1000r/min)	103	172	134	223	113	181	94	156
Torque coefficient(N.m/A)	1.69	2.7	2.2	3.5	1.84	2.9	1.5	2.4
Rotor inertia (Kg.m ²)	6.1 x 10 ⁻³		8.6 x 10 ⁻³		8.6 x 10 ⁻³		9.5 x 10 ⁻³	
Phase Resistance(Ω)	0.28	0.796	0.31	0.93	0.21	0.62	0.104	0.273
Phase Inductance(mH)	1.74	4.83	3.28	9.1	1.57	4.0	0.77	2.14
Mechanical time-constant (Ms)	6.2	6.0	10.58	9.78	7.47	6.45	7.4	7.8
Weight(Kg)	25.5		30.5		30.5		40	

Appearance and Installation Dimensions (Unit: mm)



Specifications (Torque)	17.2N.m	19N.m	21.5N.m	27N.m	35N.m	48N.m
LA (Length)	226	232	243	262	292	346
Length of Motor with Brake	298	304	315	334	364	418

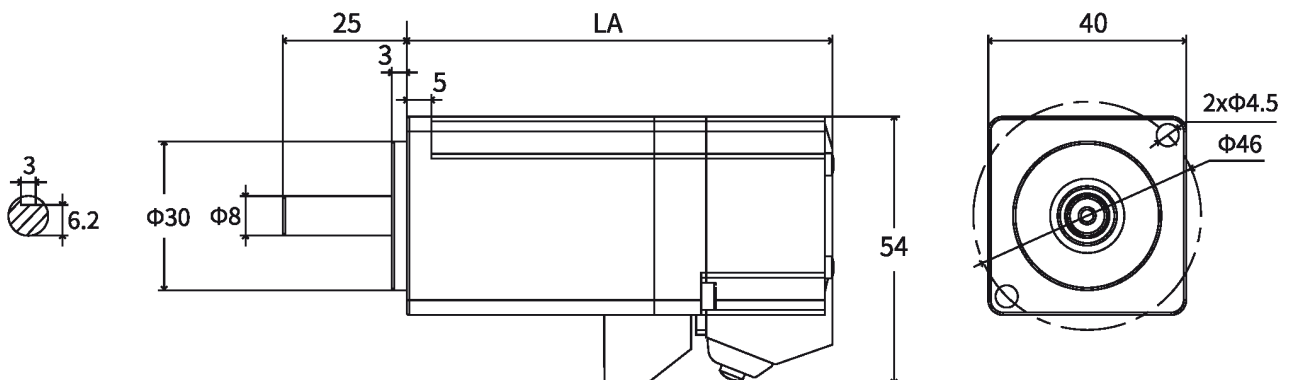
Lichuan 40 Series 5 Pairs of Poles Servo Motors



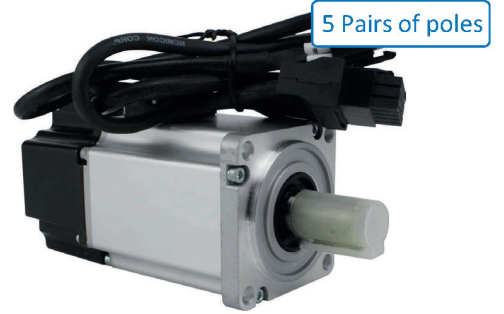
Technical Specifications

Motor model	LCMT-005SLC17□□-40M00130B	LCMT-01SLC17□□-40M00330B
Rated power(KW)	0.05	0.1
Rated voltage(V)	220	220
Rated current (A)	0.8	1.1
Rated speed(rpm)	3000	3000
Holding torque (N.m)	0.16	0.32
Peak torque (N.m)	0.48	0.95
Voltage constant(V/1000r/min)	19	20
Torque coefficient (N.m/A)	0.2	0.29
Rotor inertia (Kg.m ²)	0.035 x 10 ⁻⁴	0.06 x 10 ⁻⁴
Phase Resistance(Ω)	19.7	10.5
Phase Inductance (mH)	41	8.9
Mechanical time-constant (Ms)	2.0	0.85
Weight(Kg)	0.6	0.8
Encoder line number(PPR)	17 Bit incremental / 17 Bit absolute encoder	
Insulation class	Class F	
Safety class	IP65	

Appearance and Installation Dimensions (Unit: mm)



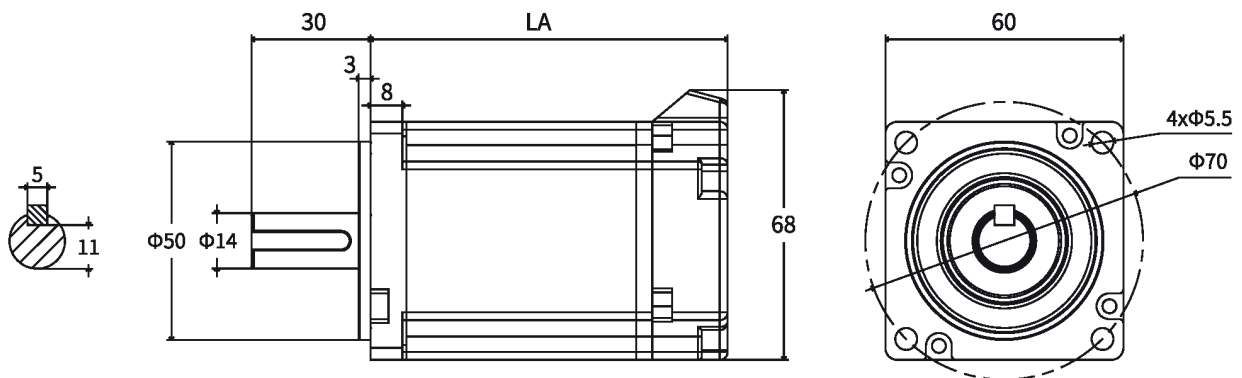
Lichuan 60 Series 5 Pairs of Poles Servo Motors



Technical Specifications

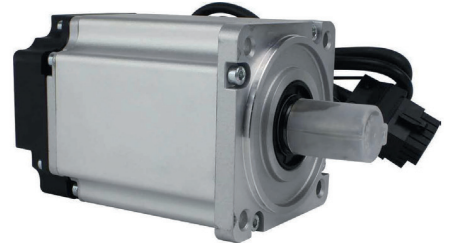
Motor model	LCMT-02SLC17□□-60M00630B	LCMT-04SLC17□□-60M01330B	LCMT-06SLC17□□-60M01930B
Rated power(KW)	0.2	0.4	0.6
Rated voltage(V)	220	220	220
Rated current (A)	1.6	2.5	3.3
Rated speed(rpm)	3000	3000	3000
Holding torque (N.m)	0.637	1.27	1.91
Peak torque (N.m)	1.92	3.81	5.73
Voltage constant(V/1000r/min)	29.3	31.2	34.5
Torque coefficient (N.m/A)	0.4	0.5	0.75
Rotor inertia (Kg.m ²)	0.3 x 10 ⁻⁴	0.52 x 10 ⁻⁴	0.58 x 10 ⁻⁴
Phase Resistance(Ω)	8.9	3.5	3.4
Phase Inductance (mH)	13.5	5.8	6.4
Mechanical time-constant (Ms)	1.52	1.66	1.88
Weight(Kg)	0.72	1.06	1.2
Encoder line number(PPR)	2500 / 17 Bit incremental / 17 Bit absolute encoder		
Insulation class	Class F		
Safety class	IP65		

Appearance and Installation Dimensions (Unit: mm)



Lichuan 80 Series 5 Pairs of Poles Servo Motors

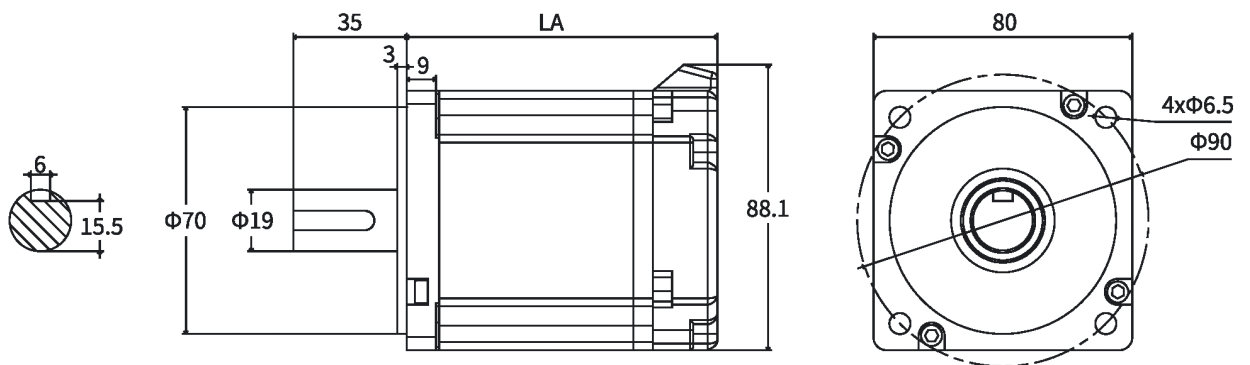
5 Pairs of poles



Technical Specifications

Motor model	LCMT-07SLC17□□-80M02430B	LCMT-10SLC17□□-80M03230B	LCMT-10SLC17□□-80M04025B
Rated power(KW)	0.75	1.0	1.0
Rated voltage(V)	220	220	220
Rated current (A)	4.5	5.8	4.6
Rated speed(rpm)	3000	3000	2500
Holding torque(N.m)	2.39	3.2	4.0
Peak torque(N.m)	7.17	7.96	11.46
Peak current(A)	13.5	15.6	13.8
Voltage constant(V/1000r/min)	32.8	32.5	50.8
Torque coefficient(N.m/A)	0.53	0.55	0.83
Rotor inertia (Kg.m ²)	1.5×10^{-4}	1.55×10^{-4}	2.2×10^{-4}
Phase Resistance(Ω)	1.2	1.17	2.3
Phase Inductance(mH)	4.2	3.9	9.6
Mechanical time-constant (Ms)	3.5	3.33	4.2
Weight(Kg)	2.05	2.15	2.75
Encoder line number(PPR)	2500 / 17 Bit incremental / 17 Bit absolute encoder		
Insulation class	Class F		
Safety class	IP65		

Appearance and Installation Dimensions (Unit: mm)



Integrated Stepper Motor

Electrical Performance Parameters

- Adopt advanced alternating current technology, effectively reduce heat generation of the Motor and driver
- Integrated motor and driver, save wiring labor and installation space;
- Over-voltage, under-voltage, over-current and out of error protection functions;
- Stable speed, small overshoot and tracking error, low heat generation of motor and driver;
- Single/double pulse mode, pulse effective edge is available;
- Pulse, direction and enable signal input port levels: 3.6~24V compatible;
- Serial port RS232 debugging function;
- Optical coupler isolation error signal input, strong anti-interference capacity;
- Pulse number of each round can be set through debugging software or dial (subdivision);
- Built-in microstep subdivision algorithm, realize low subdivision control order and high subdivision operation effects



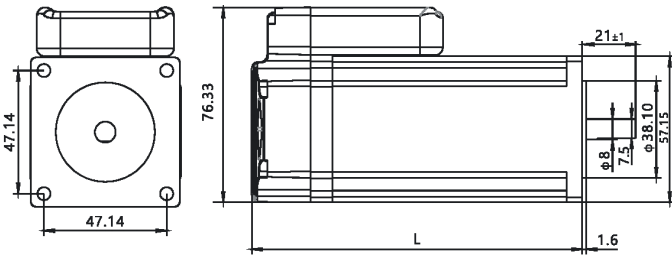
3Phase

Technical Data

Series	Step Angle (°)	Motor Length(mm)	Holding Torque(N.m)	Rated Current(A)	Rotor Inertia (g.cm ²)	Motor Weight (Kg)	Encoder Resolution(PPR)
TSS57-36V-10	1.8	90	1.0	3.0	300	1.2	1000
TSS57-36V-20	1.8	110	2.0	3.5	500	1.6	1000
TSS57-36V-30	1.8	130	3.0	4.0	720	2.0	1000
TSM57-36V-10	1.8	90	1.0	3.0	300	1.2	None
TSM57-36V-20	1.8	110	2.0	3.5	500	1.6	None
TSM57-36V-30	1.8	130	3.0	4.0	720	2.0	None

Above are representative products. Products can be customized!

Shape and installation size (unit:mm)



Shaft Mode of Motor

Model	Shaft Diameter(mm)	Shaft Extension(mm)	Shaft Length(mm)
TSS57-36V-10	φ8	D-cut 0.5 X 15	21
TSS57-36V-20	φ8	D-cut 0.5 X 15	21
TSS57-36V-30	φ8	D-cut 0.5 X 15	21
TSM57-36V-10	φ8	D-cut 0.5 X 15	21
TSM57-36V-20	φ8	D-cut 0.5 X 15	21
TSM57-36V-30	φ8	D-cut 0.5 X 15	21

Microstep Subdivision Settings


Step/Turn	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

Electric Parameters


Class	TSS57/ TSM57			
	Min	Type	Max	Unit
Input voltage	24	36	40	VDC
Drive current	1	-	8	A
Input Pulse Frequency	1	-	200K	HZ
Input signal voltage	3.6	5	24 (connect resistance)	VDC
Continuous on current	4.5A20KHz PWM			
Default Communication Speed	57.61Kbps			
Protection Function	1. Over - current action peak value: 8A±10% 2. Over - voltage Action Value 60V DC 3. Out of Error Alarm Threshold			

Introduction of Lichuan Planetary Reducer Series

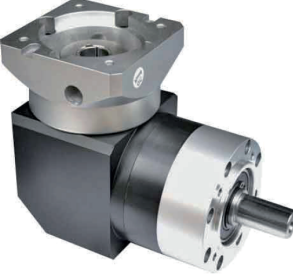
PLE Series Reducer (PLE060 PLE090 PLE120 PLE160 PLE190)

	4 Sizes Available	60mm, 90mm, 120mm, 160mm
	Rated Output Torque	8.5N.m ~ 680N.m
	Deceleration Ratio Single Grade	3, 4, 5, 7, 10
	Double Stage	12, 16, 20, 25, 28, 35, 40, 50, 70, 100
	Class 3	80, 100, 125, 140, 175, 200, 250, 350, 400, 500, 700, 1000
	Feedback Back Lash Single Grade	Precision Back Lash < 3 arc-min Standard Back Lash < 8 arc-min
	Double Stage	Precision Back Lash < 5 arc-min Standard Back Lash < 10 arc-min
	Class 3	Precision Back Lash < 8 arc-min Standard Back Lash < 12 arc-min


PLF Series Reducer (PLF060 PLF090 PLF120 PLF160 PLF190)

	4 Sizes Available	60mm, 90mm, 120mm, 160mm
	Rated Output Torque	8.5N.m ~ 680N.m
	Deceleration Ratio Single Grade	3, 4, 5, 7, 10
	Double Stage	12, 16, 20, 25, 28, 35, 40, 50, 70, 100
	Class 3	80, 100, 125, 140, 175, 200, 250, 350, 400, 500, 700, 1000
	Feedback Back Lash Single Grade	Precision Back Lash < 3 arc-min Standard Back Lash < 8 arc-min
	Double Stage	Precision Back Lash < 5 arc-min Standard Back Lash < 10 arc-min
	Class 3	Precision Back Lash < 8 arc-min Standard Back Lash < 12 arc-min

ZPLE Series Reducer (ZPLE060 ZPLE090 ZPLE120 ZPLE160)

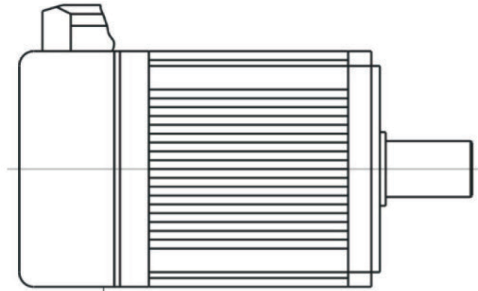
	4 Sizes Available	60mm, 90mm, 120mm, 160mm
	Rated Output Torque	8.5N.m ~ 680N.m
	Deceleration Ratio Single Grade	3, 4, 5, 7, 10
	Double Stage	12, 16, 20, 25, 28, 35, 40, 50, 70, 100
	Class 3	80, 100, 125, 140, 175, 200, 250, 350, 400, 500, 700, 1000
	Feedback Back Lash Single Grade	Precision Back Lash < 3 arc-min Standard Back Lash < 8 arc-min
	Double Stage	Precision Back Lash < 5 arc-min Standard Back Lash < 10 arc-min
	Class 3	Precision Back Lash < 8 arc-min Standard Back Lash < 12 arc-min

ZPLF Series Reducer (ZPLF060 ZPLF090 ZPLF120 ZPLF160)

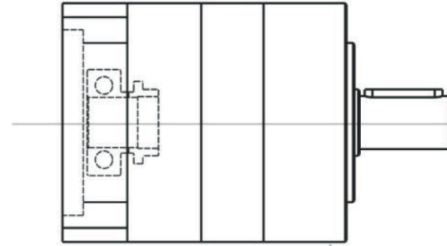
	4 Sizes Available	60mm, 90mm, 120mm, 160mm
	Rated Output Torque	8.5N.m ~ 680N.m
	Deceleration Ratio Single Grade	3, 4, 5, 7, 10
	Double Stage	12, 16, 20, 25, 28, 35, 40, 50, 70, 100
	Class 3	80, 100, 125, 140, 175, 200, 250, 350, 400, 500, 700, 1000
	Feedback Back Lash Single Grade	Precision Back Lash < 3 arc-min Standard Back Lash < 8 arc-min
	Double Stage	Precision Back Lash < 5 arc-min Standard Back Lash < 10 arc-min
	Class 3	Precision Back Lash < 8 arc-min Standard Back Lash < 12 arc-min

Introduction of Lichuan Planetary Reducer Series

PLE Series Reducer (PLE060 PLE090 PLE120 P LE160 PLE190)

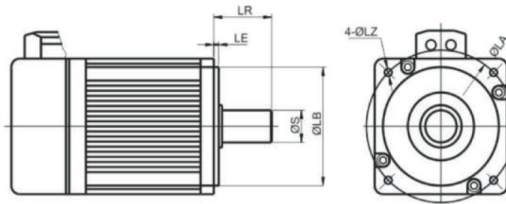


Motor Information



Reducer Information

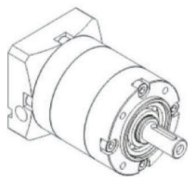
While matching reducer, motor installation dimensions shall be provided $\Phi S * LR / \Phi LB * LE / 4 - \Phi LZ - \Phi LA$ While calibrating the reasonableness of matching of motor and reducer, more detailed parameters shall be provided (such as rated speed, rated torque, max torque and etc.)



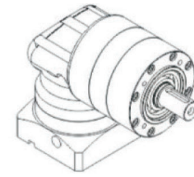
PLE060 - L1 - 5 - S2 - P2 - T/Motor Size or Drawing

<p>Specification of reducer</p> <p>Select from Introduction of Product Series</p>	<p>STAGE(S)</p> <p>L1: Level 1 L2: Level 2 L3: Level 3</p>	<p>Speed ratio</p> <p>Select from Table of Parameters of Reducer Models</p>	<p>Output Shaft Form</p> <p>S2: Single-key Shaft S1: Optical Shaft K: Hallow Single-key Shaft</p>	<p>Accuracy class</p> <p>P2: Standard P1: Precision P0: High-precision</p>	<p>Special Non-standard</p>	<p>Motor Size</p>
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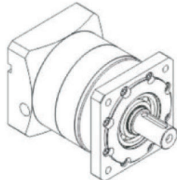
PLE Series Reducer (PLE060 PLE090 PLE120 P LE160 PLE190)



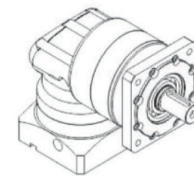
PLE060-L1-5-S2-P2/ $\phi 14 * 30 / \phi 50 * 3/4 - \phi 4.5 - \phi 70$



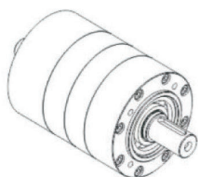
ZPLE090-L1-5-S2-P2/ $\phi 19 * 40 / \phi 70 * 3/4 - \phi 6.5 - \phi 90$



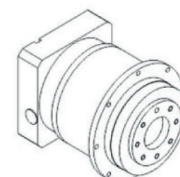
PLF090-L2-50-S1-P1/ $\phi 19 * 40 / \phi 70 * 3/4 - \phi 6.5 - \phi 90$



ZPLF090-L1-5-S1-P/ $\phi 19 * 40 / \phi 70 * 3/4 - \phi 6.5 - \phi 90$



PLS090-L2-50-S2-P1



PLH120-L2-50-S2-P1/ $\phi 22 * 55 / \phi 110 * 3/4 - \phi 9 - \phi 145$

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