MOTEC®

Product Family

2-Phase Stepper System

Catalogue





MOTEC(China) Group consists with four high-tech companies and ten regional sales&marketing companies dedicated to four major industrial fields as below

1、MOTEC DC/AC intelligent stepper system and intelligent servo sysytem

1.1 MOTEC AC intelligent servo driver is an innovated product which integrated traditional servo driver, montion controller and PLC. It allow users to build up reliable motion control system easily with its integrated LadderLogic programing function. All MOTEC AC intelligent servo drivers are CE and ROHS compliant.

1.2 MOTEC DC intelligent servo system provides wide range motor selection from 12.5VDC to 180VD(brush motor and brushless motor) with up to 200A working current.

All the drivers are CE and ROHS compliant and various of communication buses are available.

1.3. 2-Phase/3-Phase stepper system has standard and intelligent models for customer's choice.MOTEC steppers products have been widely used in many industries including military applications.

1.4. MOTEC coreless servo system provide wide range motors for customer's choice from 4w to 250w (brush motor and mrushless motro). With its 80Khz chopping freqgency, MOTEC corless servo driver can achieve excellent performances working with Maxon or Fauhaber coreless motors. MOTEC intelligent coreless servo driver is available with integrated motion controller and communication bus features.

1.5. MOTEC can design and manufacture customized servo&stepper system for customers from various industrial where general servo and stepper systems cannot meet customer's requirements, ie servo and stepper driver for laser cutting machine and engraving machine, customized designed stepper and servo system for medical and military industrial, which require high level protection features. MOTEC has achieved a IP portfolio of various of invention patents, utility models and software copyrights over the years.

1.6. EM servo electric cylinder is MOTEC's patent products devleoped by its mechatronics R&D team and it has been widely used in aviation,military and civilian industries with its high reliability, high perfromances and value for money features. EM60, EM80, EM110 and EM150 are modeles designed for civilian applications.

2. MOTEC planetary gearbox has been servicing customer for nearly 10 years and tens of thousands of them have been used in differernt applications working with MOTEC stepper and servo products and proved its reliability and performances.

3. MOTEC multi-chanel CNC and standalone motion controller/card, with its excellent high response feature, have been sucessfully applied in various of industries across China and the world.

4. MOTEC cartesian robot is another masterpiece product developed by MOTEC R&D team. Currently MOTEC cartesian robot products has a sale volume of approximately 100 per annum.

MOTEC is a high-tech company with professional staff working in its motion control, stepper and servo driver, mechanical R&D teams. MOTEC takes its customers and employees as its valuable treasure and MOTEC believes the real value of the company is to achieve customers satisfactory and its employee's satisfactory as well.

The final goal of MOTEC is to become a True Value Implementer in motion control industrial in China, and the world.

MOTEC Group (China)

Intelligent Stepper System

MOTEC® 2-Phease Stepper System

2 ▶
- MOTEC® 2-Phase Stepper System Introduction
- MOTEC® 2-Phase Stepper System Model Nomenclature
- MOTEC® 2-Phase Stepper System Features

Standard 2-Phase Stepper Drivers

8 ▶
- SD253
- SD266
- SD2118
- SD2228



Intelligent 2-Phase Stepper Drivers

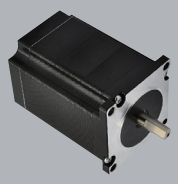
16 ▶
- SD253B
- SD266B

(With Internal PLC function)



2-Phase Stepper Motor Specifications

24 ▶
- 20 Series
- 28 Series
- 35 Series
- 39 Series
- 42 Series
- 57 Series
- 86 Series
- 110 Series



2-Phase Stepper Motor Dimensions

26 ▶
- MOTEC® 2-Phase Stepper Motor Dimensions

MOTEC® Product Familiy Members

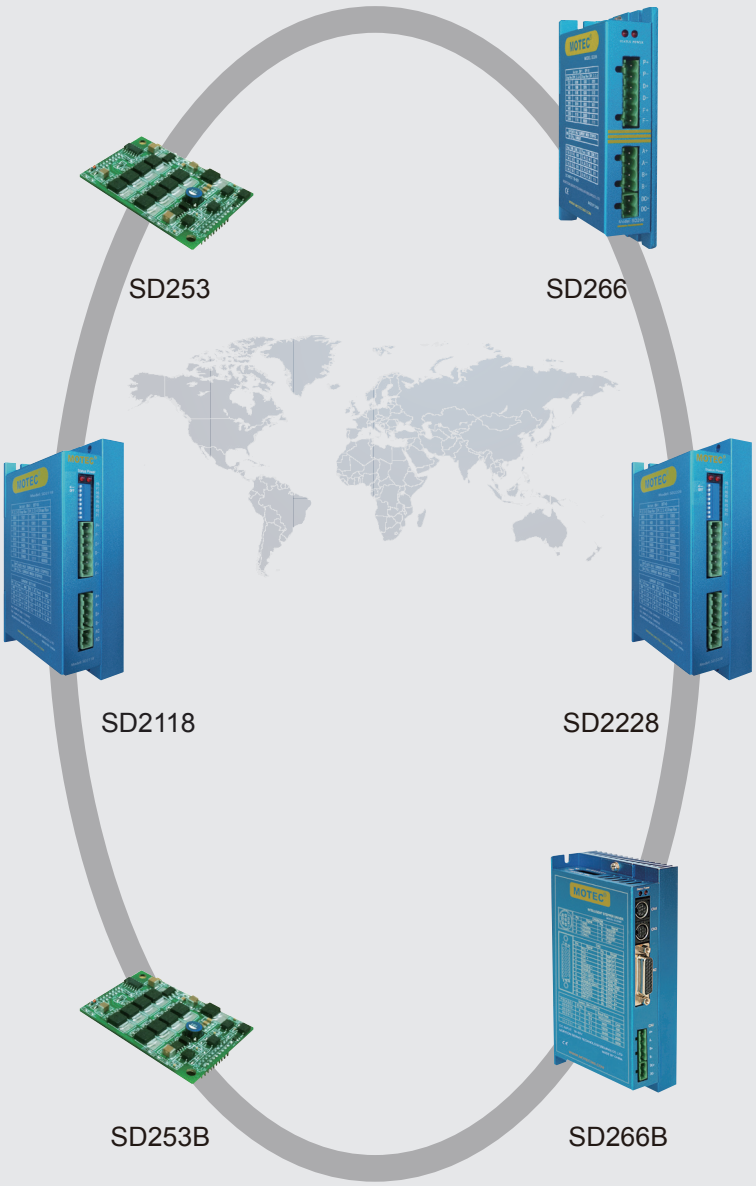
32 ▶

MOTEC®

Features

- Standard 2-Phase Stepper Driver
- Intelligent 2-Phase Stepper Driver
- Sine wave control
- Support Velocity Generating
- Max microstep 60000P/R
- Microstep adjustable 200～60000
- PLC function within Intelligent driver
- Support Ladder Diagram Programming
- I/O Ports
- Speed Control via Analog Input
- Support Network Mode
- Support Modbus
- RS232/RS485/CAN Bus
- CANOPEN Protocal
- Custom Design&Manufacturing Available

Stepper Driver Family



2-Phase Stepper System



MOTEC® 2-Phase stepper system was indepently delveoped by MOTEC R&D team ultilzing latest patent technologies. MOTEC® 2-Phase stepper drivers are sine wave stepper drivers featuring low working noise, high torque at high speed, high start-up frequency, high reliability, low resonance etc. MOTEC® 2-Phase intelligent stepper driver is a rennovative product featuring integrated stepper driver, motion controller (velocity generating) , local I/O and optional PLC functions. It can be easily controlled by PC, Touch Panel, PLC or third party controllers via various communication mode. MOTEC® 2-Phase intelligent stepper system is a value for money product which can help customers to build low cost motion control systems under distributed control system concept. Below is the model list of MOTEC® 2-Phase stepper system.

Model	Voltage	Max Current	Pulse/Direction and CW/CCW	Network Control	PLC Mode
SD253	18~48VDC	3A	✓	×	×
SD266	18~60VDC	6A	✓	×	×
SD2118	40~150VDC/30~110VAC	8A	✓	×	×
SD2228	210~360VDC/150~260VAC	8A	✓	×	×
SD253B	18~48VDC	3A	✓	✓	✓
SD266B	18~60VDC	6A	✓	✓	✓

MOTEC® 2-Phase stepper motors are made with NdFeB magnetic material which can inrease the output torque of significantly, especially when stepper motors are running at high speed. Benefit from its high voltage hybrid drivers using servo drive technologies, MOTEC® 2-Phase stepper system has been proved to be a reliable and high performance stepper system.

Custom designed stepper driver&motor can be ordered from MOTEC(China) with specific requirements such as high IP rating products, stepper system that can work under extremly harsh environments, stepper driver with special control functions etc.

MOTEC® 2-Phase Stepper System Application Examples:

- Laser printing, scanning, coordinate measure machine, which need high synchronizing performance
- Welding machine, cutting machine and medical equipement, which need low speed performance
- Microstep control application, which needs high torque at low speed
- Grabbing, handling application, which need high troque at static status
- Network control applications such as 4D/5D cinemas, stage lighting etc



MOTEC® 2-Phase Hybrid Stepper Driver and Motor

MOTEC® 2-Phase Hybrid Stepper Driver Model Nomenclature

SD2	6	6	B	AC	P
Driver Series	Max Voltage	Max Current	Driver Type	Communications	PLC Function
SD2: 2-Phase Stepper Driver	5:48VDC 6:60VDC 11:110VAC 22:220VAC	3:3A 6:6A 8:8A	Default:Standard B:Intelligent C:Custom Designed	AC:RS232/RS485/CAN (MOTECIAN Protocal) AO:RS232/RS485/CAN (CANOPEN Protocal)	P: With PLC Function Default: No PLC Function

MOTEC® 2-Phase Hybrid Stepper Motor Model Nomenclature

SM2	6	20	L	B	CXX
Motor Series	Motor Size	Motor Torque	Voltage Rating	Options	Custom Code
SM2: 2-Phase Stepper Motor	2:20/28mm 3:35/39mm 4:42mm 6:57mm 9:86mm A:110mm	Motor Size below 42: Torque=Value*0.01, ie 02=0.015N.m, 04=0.04N.m, 43=0.43N.m Motor Size 57～86: Torque=Value*0.1, ie 10=1.0N.m, 85=8.5N.m, A2=12N.m 110 size motor: Torque=Value*1, ie 11:11N.m, 21:21N.m, 28:28N.m	L:48VDC H:325VDC	Defualt:Nil E:Encoder B:With Brake D:Double Shaft EB:With Encoder&Brake C:Cable with connector	

Note: 1、For motor size below 39mm, No motor brake, cable with connectors, encoder are available.
2、For 42mm size motor, EB is not available.
3、Standard cable is 4-wires cable. Step angle is 1.8 degree

MOTEC® 2-Phase Intelligent Stepper Driver Features

An Integration of Stepper Driver, Montion Controller and PLC

- **Internal Motion Controller**

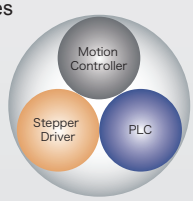
  MOTEC® 2-Phase Intelligent Stepper Driver comes with internal motion controller. Users can use MOTEC® MotionStudio software to setup driver parameters including velocity generating, which can improve system efficiency and reduce system costs.

- **Network Control**

  MOTEC® 2-Phase Intelligent Stepper Driver supports network control via various of communications&Buses and the max units can be controller under one network is 110, which can significantly improve system efficiency under distributed control concept.

- **Internal PLC Function**

  MOTEC® 2-Phase Intelligent Stepper Driver comes with 8 optoelectronic isolated DI and 3 optoelectronic isolated DO, 1 Analog Input, allowing users to build up motion control application in combination with logic controls. MOTEC® provide powerful configuration software MotionPainter supporting ladder diagram programming.



Intelligent Stepper Driver

2-Phase Stepper System

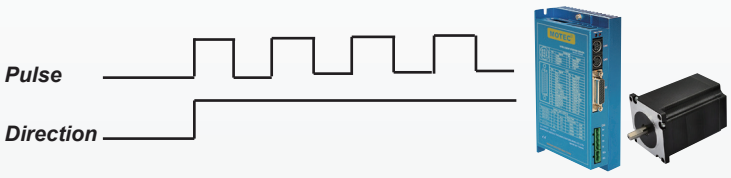


Control Modes

MOTEC® 2-Phase Intelligent Stepper system provides 4 control modes for customer's choice.

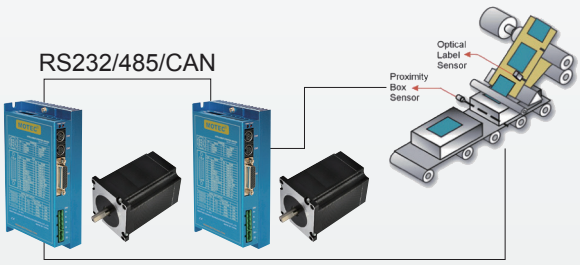
Pulse/Direction and CW/CCW Control Mode

MOTEC® 2-Phase Intelligent Stepper driver supports traditional Plulse/Direction and CW /CCW signals.



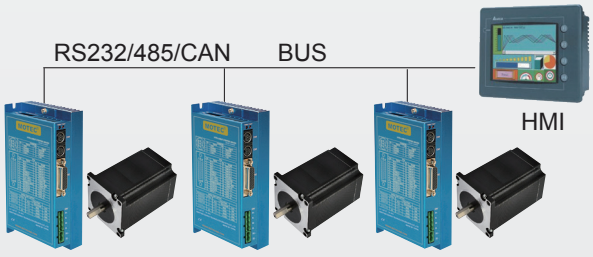
Standalone Control Mode

Under Standalone Control Mode, users can programe their motion control and logic control application using MotionPainter software then download into MOTEC 2-Phase Intelligent Stepper Drivers for standalone running. The application software can be triggered by I/O ports and run inside MOTEC 2-Phase Intelligent Stepper Drivers. Users can ultilize local Input and ouput signals to start/stop the operating program or activate a subprogram in the system.



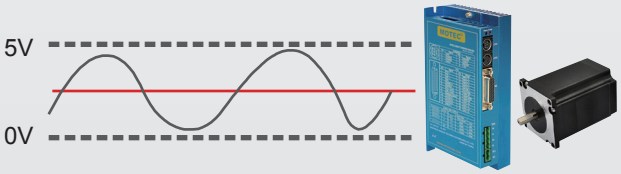
Network Control Mode

MOTEC® 2-Phase Intelligent Stepper driver supports RS232 /RS485/CAN Bus network, custom defined protocals, Modbus, Canopen protocals etc. and can be controlled by PC/HMI/PLC or other controllers in a network under multiple points working mode, which enable users to build up and expand multi-axis motion control applications easily.

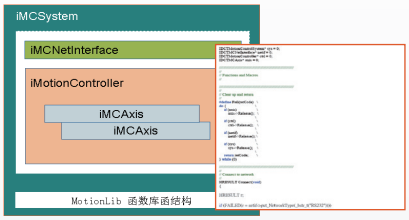


Analog Control Mode

Analog control mode enable users to replace servo motor with 2-Phase stepper motor in speed control applications when torque and speed are acceptable to lower the hardware costs. Dead zone voltage can be set through configuration software. Direction signal is DIR+/DIR-.
Standard input voltage is 0 ~ 5V and ±10V product is available for ordering.



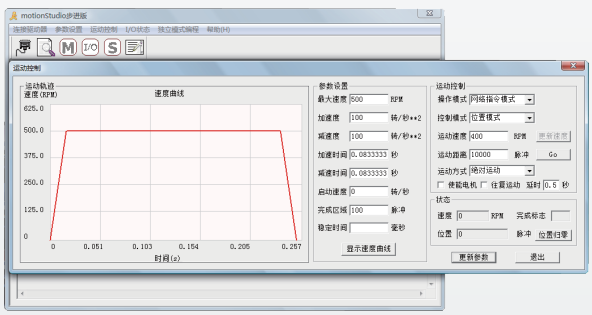
Library



MotionLib provides affluent library functions to MOTEC® 2-Phase Intelligent Stepper System users for their host control station programming when PC is used as host controller. Users can easily develop their application using DLL libraries to control mutliple 2-Phase stepper motors.

Configuration Software

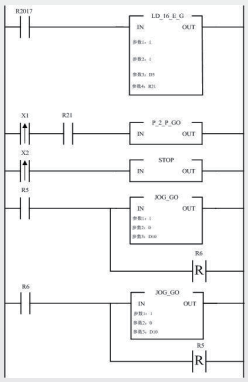
MotionStudio is a PC based configuration software which can do real time stepper motor control, stepper driver parameter setting, testing, debugging, aquiring data from stepper motor driver, graphic data analysis etc.





Internal PLC Function

```
LD_16_E_G  1   D2  D3
P_2_P      1   1   D6
LD_R       X1
P_2_P_GO
LD_R       X2
STOP
LD         X3
JOG_GO     1   0   D10
LD         X4
JOG_GO     1   1   D11
```



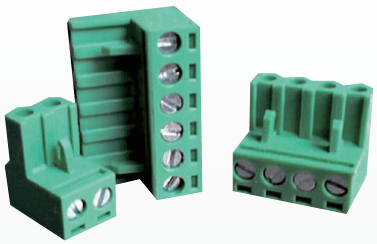
MOTEC® 2-Phase intelligent stepper driver integrated with PLC functions, which allows users to build up their own logic control programes using Ladder Diagram in the programing software MotionPainter provided by MOTEC. There are ambudant RELAY and REGISTER resources enable users to build up motion control appliactions flexibly without extra motion controller.The benefit from this innovation is not only the saved hardware costs but also the improved system reliability and maintainability.

2-Phase Stepper System



Easy Installation

All connectors of MOTEC® 2-Phase stepper system are easy plug in connectors which is very convenient and easy for installation, no bonding required.



Adjustable Microsteps

Different with traditional stepper drivers which use DIP switches to set up microstep settings (normally a series of fixed values), MOTEC® 2-Phase intelligent stepper system can set up its microstep setting from its configuration software and the microsteps can be set as any value between 200 and 60000.

Auto Half-Current Function

Auto Half-Current Function is available for all MOTEC 2-Phase stepper drovers, which means motor current will automaticaly reduce to 50% of rated current to reduce heat production from the motor and the driver when time of no pulse input reaches 300 millisecond. For intelliegent stepper driver this function can be turned on and off from configuration software Motionstudio. For standard stepper driver the function can be turn on and off with its DIP switches.

Holding Current Adjustable

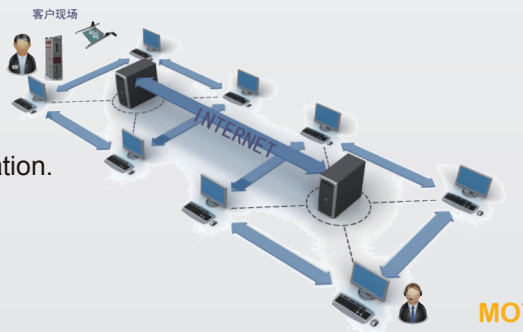
For the purpose of reducing heat producing from motors, the holding current of stepper motors driven by MOTEC 2-Phase intelligent stepper driver can be adjusted between 1% and 100%.

Remote Services

Remote technical support is avalaible for MOTEC customers using 2-Phase Intelligent Stepper Drivers. MOTEC engineers from our customer service centre can check the paramters and operating status of your stepper drivers as long as they are connected with a PC and the PC is connected with Internet. Remote services allow our technical support team to help our customers find out the causes of their problems quickly and efficiently resulting short downtime and low maintainence&repairing costs. In some accasions, remote repairing can be done as well.

Sevices available

- Remote operation guidance.
- Remote troublesooting, diagnosis and optimization.
- Remote equipment status monitorning.
- Remote system upgrade.
- Remoe training and consulting.



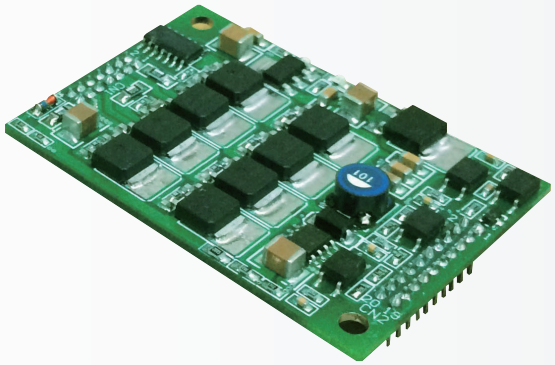
MOTEC
Customer Service Centre

MOTEC®
Product Family

SD253

Features

- Max Microsteps 60000
- Pulse /Direction Control
- Full Sine Control
- Auto-Half Current
- Low- Speed Stability
- High Torque at High Speed

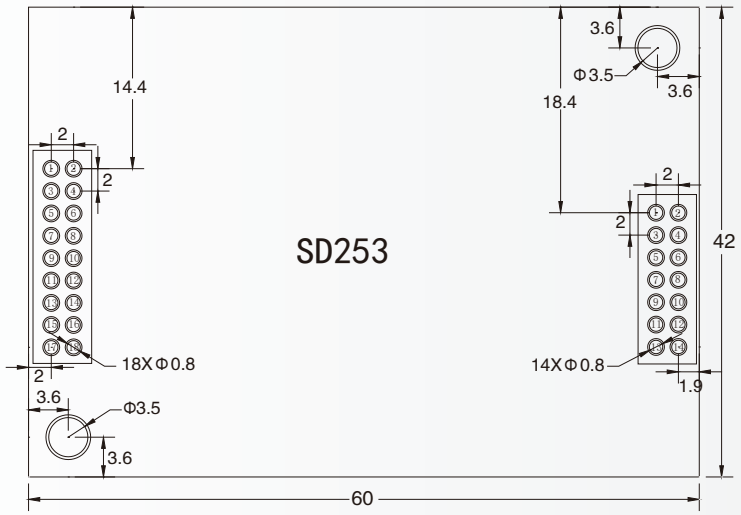


Model	Outpurt Current	Input Voltage（DC）
SD253	3A（Peak Value）	18~48VDC

Features

- Low noise benefit from full microstep smoothing technologies.
- Max input response frequency：140KHZ.
- Position memory function. SD253 can memorize the position of stepper motor when power is off. When power is resumed SD253 can drive the motor to the memorized position when power was cut off.
- Two LED lights. Power light will turn on when there is input voltage. Status light will flash when there is an alert. The number of the flash times indicates alert code.
- Output Current：0 ～ 3A(Peak). Any value in between.
- Microsteps：400 ～ 60000(pulse/turn). Any value in between.
- SD253 can be connected with PC via USB and output current and microsteps can be adjusted from configuration software.

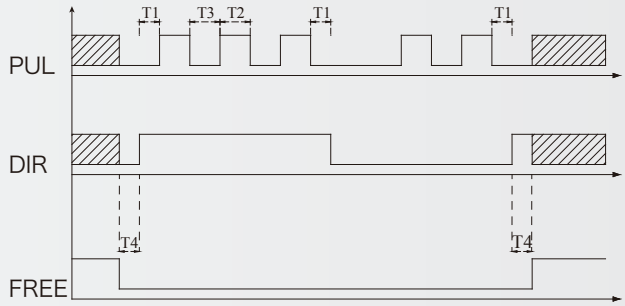
SD253 Dimensions:（Unit:mm）



2-Phase Stepper Drive (Standard)



SD253 Pulse & time sequential Diagram



Notes:

1.HIGH LEVEL indicates opticalcoupler is connected, LOW LEVEL indiates disconnected

2.Voltage of HIGH LEVEL needs to be higher than 3.2V and minimal 5mA current, voltage of LOW LEVEL needs o be lower than 1V

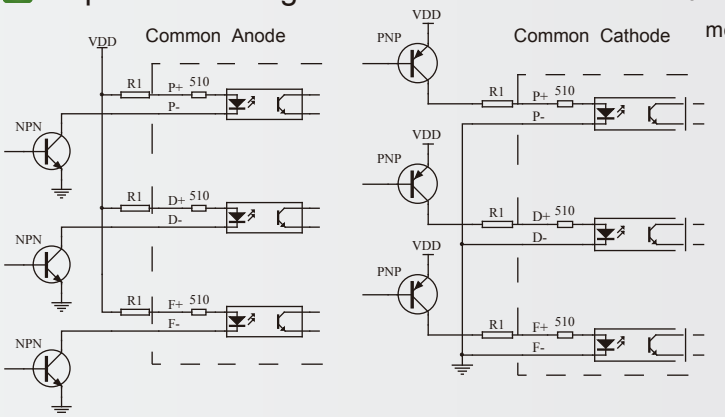
3.T1 needs to be longger than 5us, indicates direction signal needs to be built up before pulse signals appear and disappear after pluse signals disappear

4.T2 indicates width of effective high level signal, minimal 2us

5.T3 indicates width of ineffective high level signal, minimal 2us

6.T4 incates the time from release status to enables status beofre motor can start moving. Minimum 20us

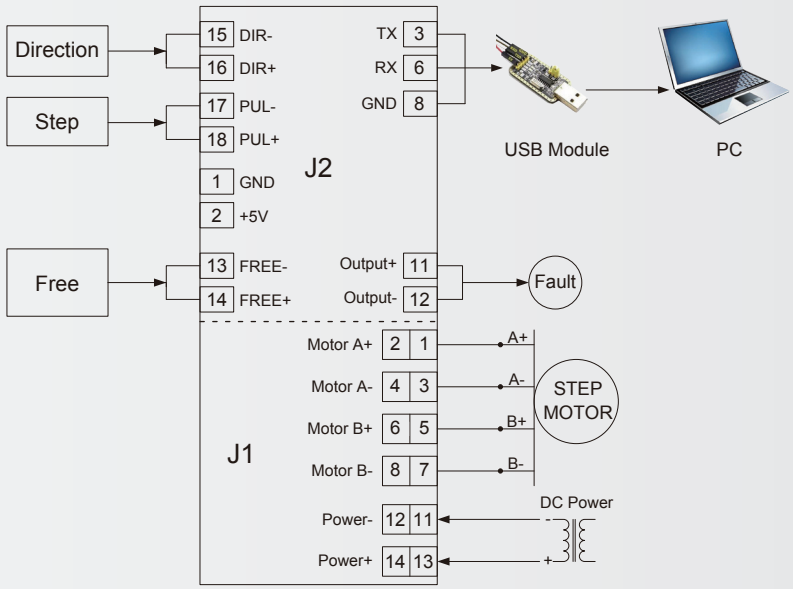
Input Circuit diagram



Different R1 are required for different DC voltage working conditions

VDD Voltage	5V	12V	24V
R1Value	short	1K/0.25W	2K/0.25W

SD253 External Pins Functions



J1 Pin	Signal
1, 2	A+
3, 4	A-
5, 6	B+
7, 8	B-
9, 10	RESERVED
11, 12	DC-
13, 14	DC+

Signal	J2 Pin		Signal
GND	1	2	+5V
USB_TX	3	4	RESERVED
RESERVED	5	6	USB_RX
RESERVED	7	8	GND
RESERVED	9	10	RESERVED
OUTPUT+	11	12	OUTPUT-
FREE-	13	14	FREE+
DIR-	15	16	DIR+
PUL-	17	18	PUL+

J1 is a 2.0mm spacing（14 pins）double line straight pin connector; J2 is a 2.0mm spacing（18 pins）double line straight pin connector.

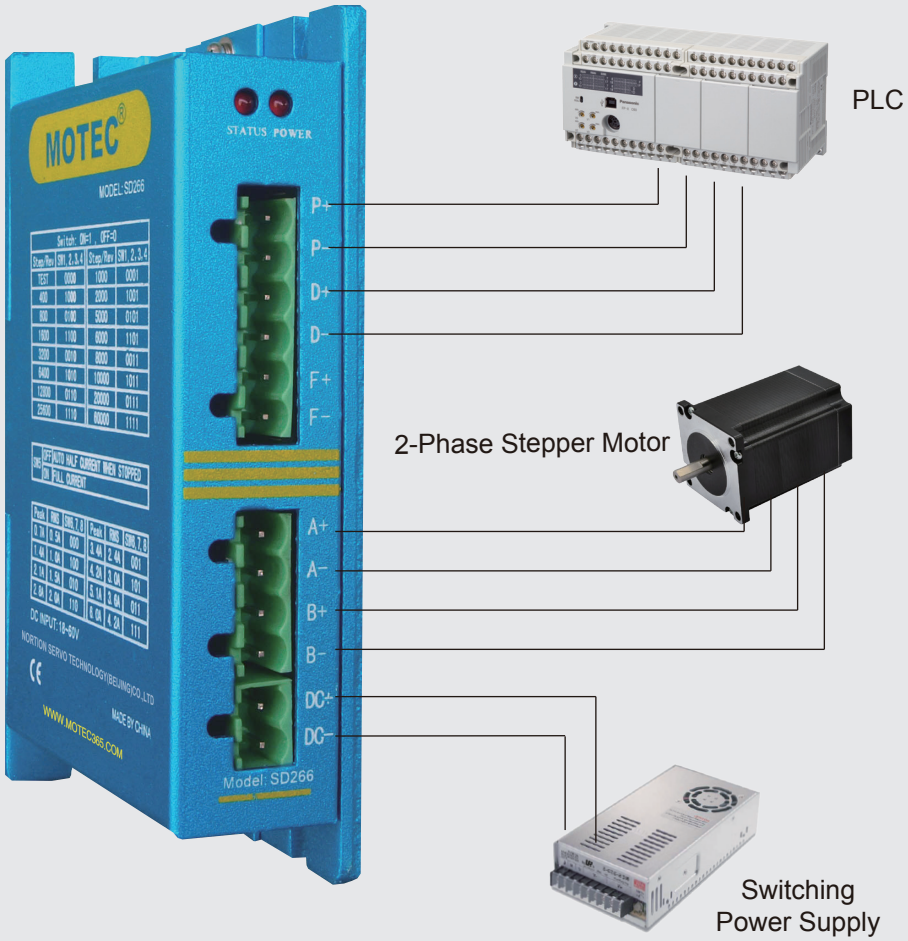
RESERVED is reserved and not allowed for any connection. OUTPUT is optoelectronic isolated secondary output.

MOTEC®

SD266

Features

- Max Microsteps 60000
- Pulse/Direction Control
- Full Sine Control
- Auto-Half Current
- Low-Speed Stability
- High Torque at High Speed
- Self Diagnose
- Position Memorizing



Switch 1- 4 on SD266 DIP switches are for microstep setting, ON=1, OFF=0.

P1、2、3、4	0000	1000	0100	1100	0010	1010	0110	1110
Steps	TEST	400	800	1600	3200	6400	12800	25600
P1、2、3、4	0001	1001	0101	1101	0011	1011	0111	1111
Steps	1000	2000	5000	6000	8000	10000	20000	60000

Note: TEST mode is on when P1, P2, P3, P4 are all OFF. Under test mode, stepper motor driver can drive motor running at low speed without input pulse as a testing method.

Switch 6 - 8 on SD266 DIP switches are for output phase current setting, ON=1, OFF=0.

P6、7、8	000	100	010	110	001	101	011	111
Peak Current	0.7	1.4	2.1	2.8	3.4	4.2	5.1	6.0
Effective Current	0.5	1.0	1.5	2.0	2.4	3.0	3.6	4.2

Auto half-current setting:

Switch 5 of SD266 DIP switches are for auto half-current setting. Half current function is ON when P5 is OFF and auto half-current function is OFF when P5 is ON.

2-Phase Stepper Drive (Standard)



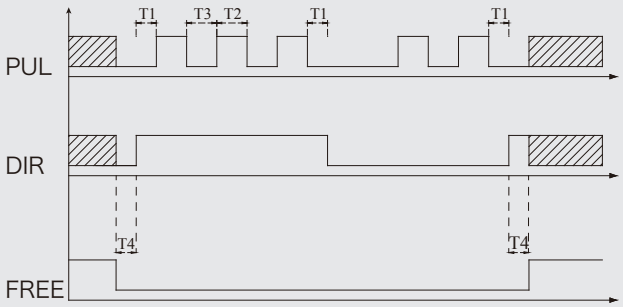
General Introductions

SD266 2-Phase hybrid stepper driver is designed for MOTEC SM2 series 20~85 (Flange Size) 2-Phase hybrid stepper motors with 8V~60VDC input voltage and 6.0A max phase current. SD266 is a stepper driver suitable for pulse/direction and CW/CCW control signal. SD266 is made with high quanlity components resulting high reliability and stability. SD266 is a cost effective stepper driver products using MOTEC patent technologies featuring low heat production, low speed (as low as1rpm) stability, relatively high torque at high speed etc.

Functions

- SD266 Terminals: A-,A+,B-,B+ for motor power supply (to stepper motor)
  DC+,DC- for DC power supply to SD266, 18-60VDC
  P+/P- for pluse signal, D+/D- for direction signal
  F+/F- for release signal, which allow user to release stepper motor when it is running.
- SD266 Position Memorizing Function: SD266 can memorize the position of stepper motor when power is off. When power is resumed SD266 can drive the motor to the memorized position when power was cut off.
- SD266 Self Testing Function: TEST mode is on when P1, P2, P3, P4 are all OFF. Under test mode, SD266 can drive steppper motor running at low speed without input pulse as a testing method.

SD266 Pulse & time sequential Diagram



Notes:

1.HIGH LEVEL indicates opticalcoupler is connected, LOW LEVEL indiates disconnected

2.Voltage of HIGH LEVEL needs to be higher than 3.2V and minimal 5mA current, voltage of LOW LEVEL needs o be lower than 1V

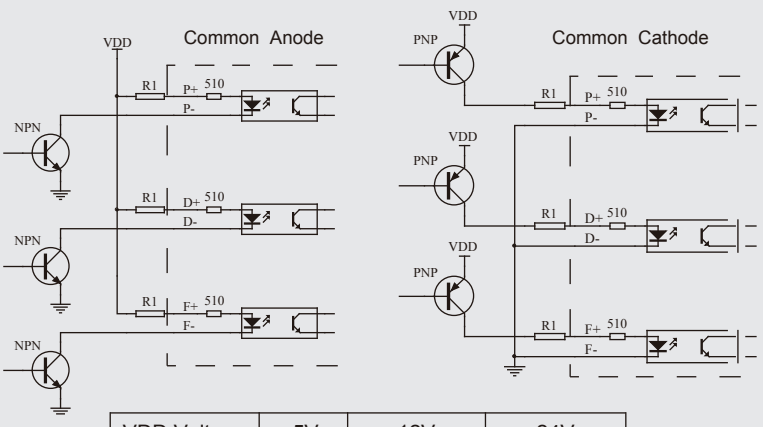
3.T1 needs to be longger than 5us, indicates direction signal needs to be built up before pulse signals appear and disappear after pluse signals disappear

4.T2 indicates width of effective high level signal, minimal 2us

5.T3 indicates width of ineffective high level signal, minimal 2us

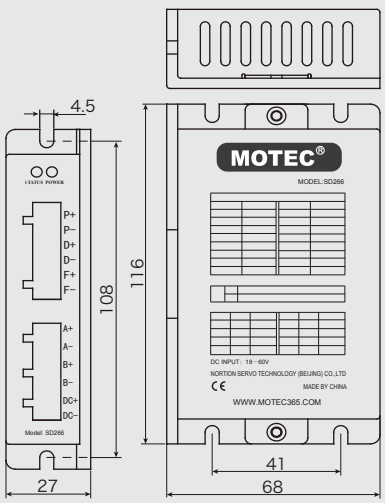
6.T4 incates the time from release status to enables status beofre motor can start moving. Minimum 20us

Terminal Circuit Diagram



VDD Voltage	5V	12V	24V
R1 Value	short	1K/0.25W	2K/0.25W

Different R1 are required for different DC voltage working conditions



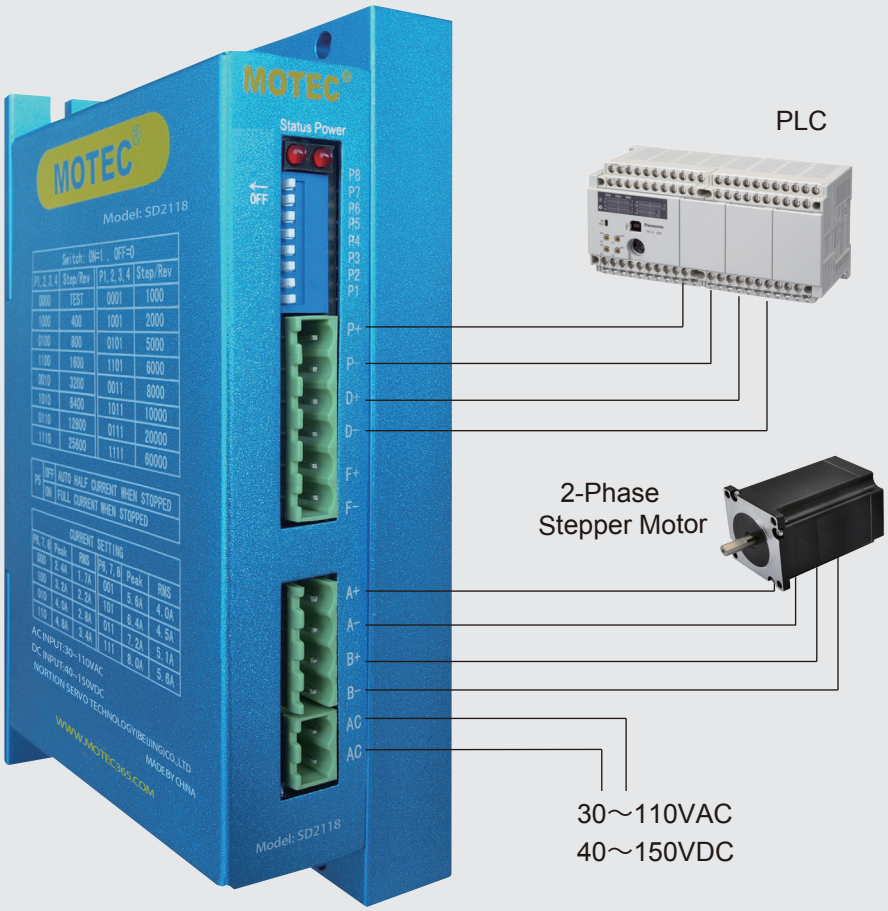
SD266 Dimensions Unit: mm

MOTEC®

SD2118

Features

- Max Microsteps 60000
- Pulse /Direction Control
- Full Sine Control
- Auto-Half Current
- Low- Speed Stability
- High Torque at High Speed
- Self Testing
- Position Memorizing



Switch 1- 4 on SD2118 DIP switches are for microstep setting, ON=1, OFF=0.

P1、2、3、4	0000	1000	0100	1100	0010	1010	0110	1110
Microsteps	TEST	400	800	1600	3200	6400	12800	25600
P1、2、3、4	0001	1001	0101	1101	0011	1011	0111	1111
Microsteps	1000	2000	5000	6000	8000	10000	20000	60000

Note: TEST mode is on when P1, P2, P3, P4 are all OFF. Under test mode, stepper motor driver can drive motor running at low speed without input pulse as a testing method.

Switch 6 - 8 on SD2118 DIP switches are for output phase current setting, ON=1, OFF=0.

P6、7、8	000	100	010	110	001	101	011	111
Peak Current	2.4	3.2	4.0	4.8	5.6	6.4	7.2	8.0
Effective Current	1.7	2.2	2.8	3.4	4.0	4.5	5.1	5.6

Auto half-current setting:

Switch 5 of SD2118 DIP switches are for auto half-current setting. Half current function is valid when P5 is OFF and auto half-current function is invalid when P5 is ON.

2-Phase Stepper Drive (Standard)



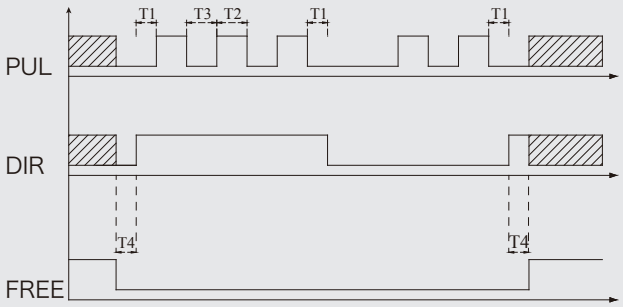
General Introductions

SD2118 2-Phase hybrid stepper driver is designed for MOTEC SM2 series 85~110(Flange Size) 2-Phase hybrid stepper Motors with 30~110VAC or 40~150VDC input voltage and 8.0A max phase current. SD2118 is a stepper driver suitable for pulse/direction and CW/CCW control signals. SD2118 is made with high quanlity components resulting high reliability and stability. SD2118 is a cost effective 2-Phase stepper driver using MOTEC patent technologies featuring low heat production, low speed (as low as1rpm) stability, relatively high torque at high speed etc.

Functions

- SD2118 Terminals: A-,A+,B-,B+ for motor power supply (to stepper motor)
  L, N are power supply to SD2118, 30-110VAC or 40-150VDC
  P+/P- for pluse signal, D+/D- for direction signal
  F+/F- for release signal, which allow user to release stepper motor when it is running.
- SD2188Position Memorizing Function: SD266 can memorize the position of stepper motor when power is off. When power is resumed SD266 can drive the motor to the memorized position when power was cut off.
- SD2188 Self Testing Function: TEST mode is on when P1, P2, P3, P4 are all OFF. Under test mode, SD266 can drive steppper motor running at low speed without input pulse as a testing method.

SD2118 Pulse & time sequential Diagram



Notes:

1.HIGH LEVEL indicates opticalcoupler is connected, LOW LEVEL indiates disconnected

2.Voltage of HIGH LEVEL needs to be higher than 3.2V and minimal 5mA current, voltage of LOW LEVEL needs o be lower than 1V

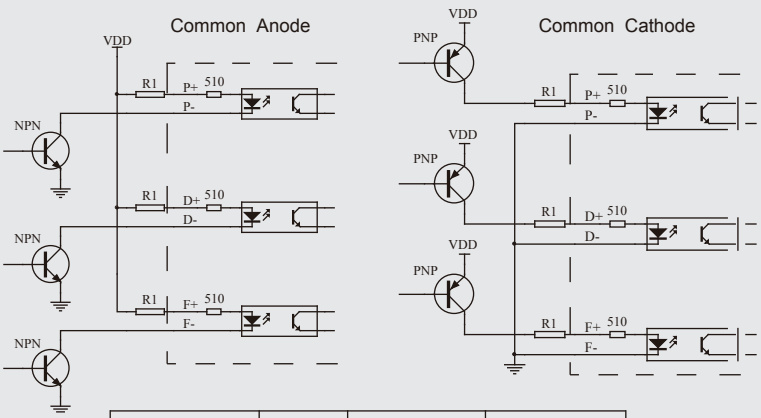
3.T1 needs to be longger than 5us, indicates direction signal needs to be built up before pulse signals appear and disappear after pluse signals disappear

4.T2 indicates width of effective high level signal, minimal 2us

5.T3 indicates width of ineffective high level signal, minimal 2us

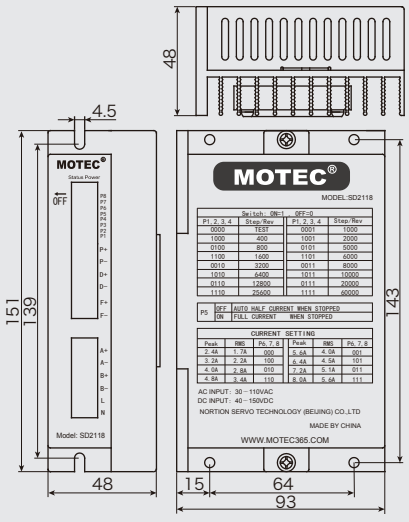
6.T4 incates the time from release status to enables status beofre motor can start moving. Minimum 20us

Input Circuit diagram



VDD Voltage	5V	12V	24V
R1 Value	short	1K/0.25W	2K/0.25W

Different R1 are required for different DC voltage working conditions



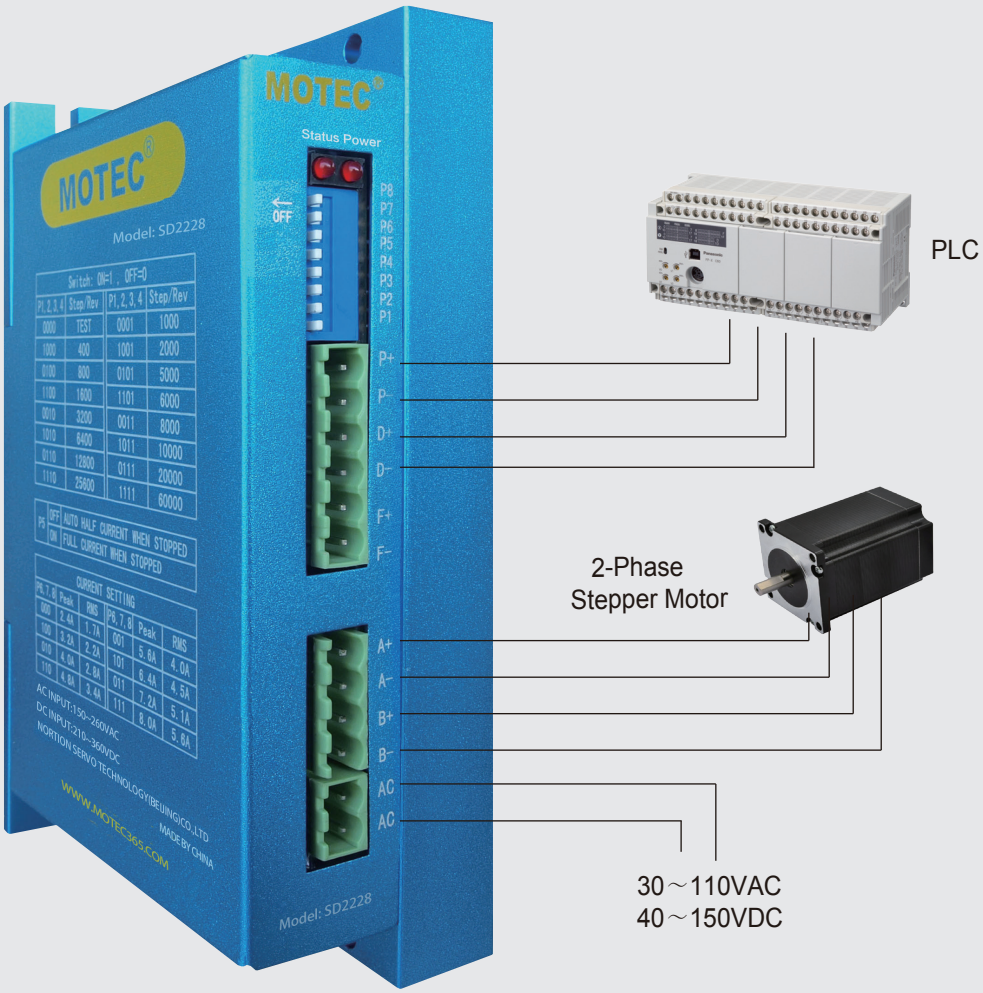
SD2118 Dimensions Unit: mm

MOTEC®

SD2228

Features

- Max Microsteps 60000
- Pulse /Direction Control
- Full Sine Control
- Auto-Half Current
- Low- Speed Stability
- High Torque at High Speed
- Self Testing
- Position Memorizing
- DC 210V-360V Input
- AC 150-260V Input



Switch 1- 4 on SD2228 DIP switches are for microstep setting, ON=1, OFF=0.

P1、2、3、4	0000	1000	0100	1100	0010	1010	0110	1110
Microsteps	TEST	400	800	1600	3200	6400	12800	25600
P1、2、3、4	0001	1001	0101	1101	0011	1011	0111	1111
Microsteps	1000	2000	5000	6000	8000	10000	20000	60000

Note: TEST mode is on when P1, P2, P3, P4 are all OFF. Under test mode, stepper motor driver can drive motor running at low speed without input pulse as a testing method.

Switch 6 - 8 on SD2228 DIP switches are for output phase current setting, ON=1, OFF=0.

P6、7、8	000	100	010	110	001	101	011	111
Peak Current	2.4	3.2	4.0	4.8	5.6	6.4	7.2	8.0
Effective Current	1.7	2.2	2.8	3.4	4.0	4.5	5.1	5.6

Auto half-current setting:

Switch 5 of SD2228 DIP switches are for auto half-current setting. Half current function is valid when P5 is OFF and auto half-current function is invalid when P5 is ON.

2-Phase Stepper Drive (Standard)



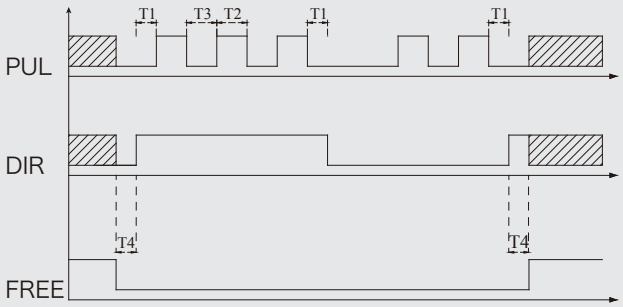
General Introductions

SD2228 2-Phase hybrid stepper driver is designed for MOTEC SM2 series 85~110(Flange Size) 2-Phase hybrid stepper Motors with 150~260VAC or 210~360VDC input voltage and 8.0A max phase current. SD2228 is a stepper driver suitable for pulse/direction and CW/CCW control signals. SD2228 is made with high quanlity components resulting high reliability&stability. SD2228 is a cost effective stepper driver products using MOTEC patent technologies featuring low heat production, low speed (as low as1rpm) stability, relatively high torque at high speed etc.

Functions

- SD2228 Terminals: A-,A+,B-,B+ for motor power supply (to stepper motor)
  L, N are power supply to SD2228, 30-110VAC or 40-150VDC
  P+/P- for pluse signal, D+/D- for direction signal
  F+/F- for release signal, which allow user to release stepper motor when it is running.
- SD2228Position Memorizing Function: SD266 can memorize the position of stepper motor when power is off. When power is resumed SD266 can drive the motor to the memorized position when power was cut off.
- SD2228 Self Testing Function: TEST mode is on when P1, P2, P3, P4 are all OFF. Under test mode, SD266 can drive steppper motor running at low speed without input pulse as a testing method.

SD2228 Pulse & time sequential Diagram



Notes:

1.HIGH LEVEL indicates opticalcoupler is connected, LOW LEVEL indiates disconnected

2.Voltage of HIGH LEVEL needs to be higher than 3.2V and minimal 5mA current, voltage of LOW LEVEL needs o be lower than 1V

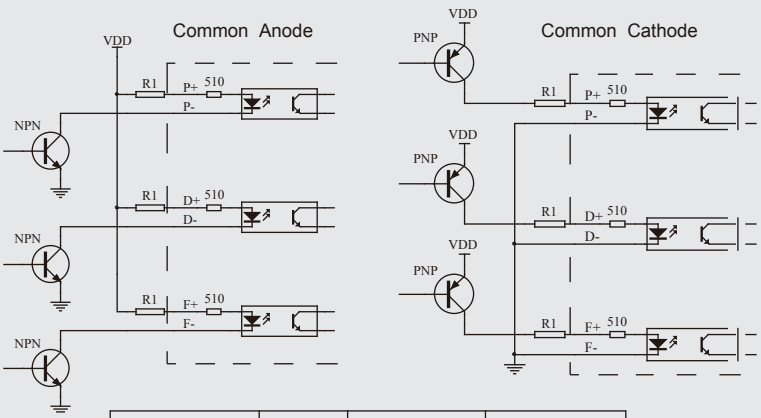
3.T1 needs to be longger than 5us, indicates direction signal needs to be built up before pulse signals appear and disappear after pluse signals disappear

4.T2 indicates width of effective high level signal, minimal 2us

5.T3 indicates width of ineffective high level signal, minimal 2us

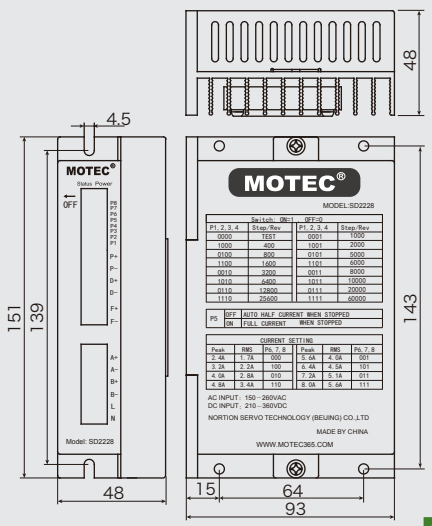
6.T4 incates the time from release status to enables status beofre motor can start moving. Minimum 20us

Input Circuit diagram



VDD Voltage	5V	12V	24V
R1 Value	short	1K/0.25W	2K/0.25W

Different R1 are required for different DC voltage working conditions

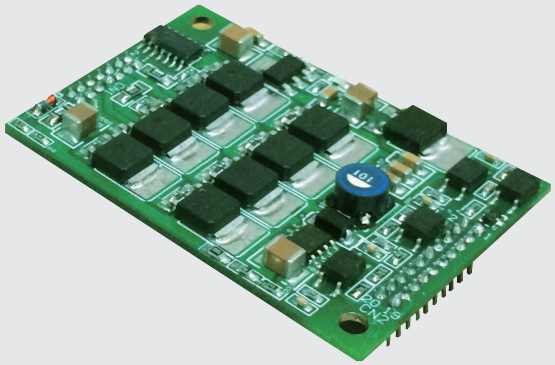


SD2228 Dimensions Unit: mm

SD253B

Features

- RS232 Port
- RS485 Port
- CAN Bus
- 3 DI
- 1 DO
- MODBUS
- CANOPEN
- Network Mode
- Continuing Microsteps

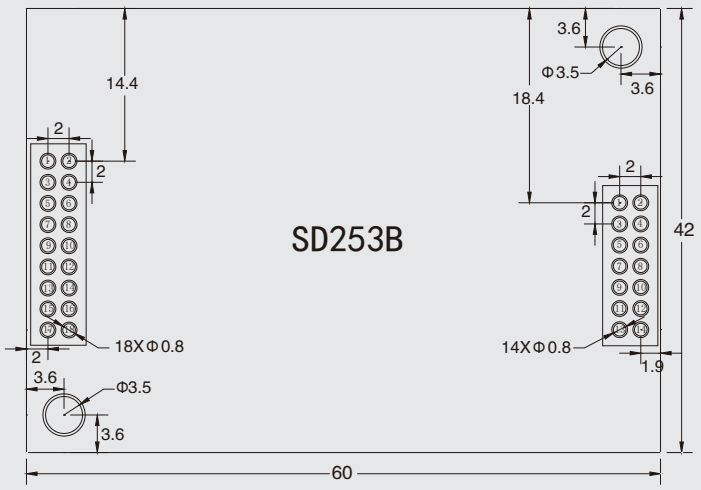


Model	Output Current	Input Current (DC)
SD253B	3A(Peak Value)	18~48VDC

Features

- Low noise benefit from full microstep smoothing technologies.
- Max input response frequency：140KHZ.
- Position memory function. SD253B can memorize the position of stepper motor when power is off. When power is resumed SD253B will drive the motor to the memorized position when power was cut off.
- Two LED lights. Power light will turn on when there is input voltage. Status light will flash when there is an alert. Number of the flash times indicates alert code.
- Output Current：0～3A（Peak）any value in between.
- Microsteps：400～60000（pulse/turn），any value in between.
- SD253B can be connected with PC via USB and output current and microsteps can be adjusted from configuration software.
- SD253B can work under pulse/direction and network control mode. Users can use Motionstudio to set up driver settings and control motor operation.
- SB253B support RS232/485, CAN Bus and can work under network control mode through MODBUS protocals.

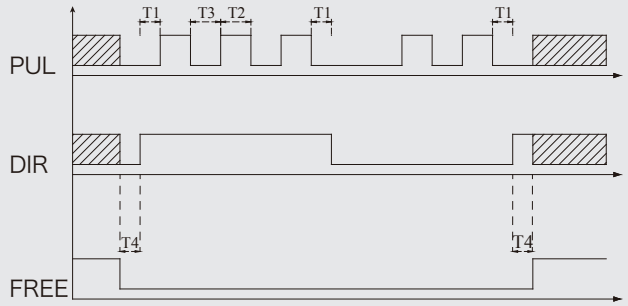
SD253B Dimensions:（Unit:mm）



Intelligent Stepper Driver



SD253B Pulse & time sequential Diagram



Notes:

1.HIGH LEVEL indicates opticalcoupler is connected, LOW LEVEL indiates disconnected

2.Voltage of HIGH LEVEL needs to be higher than 3.2V and minimal 5mA current, voltage of LOW LEVEL needs o be lower than 1V

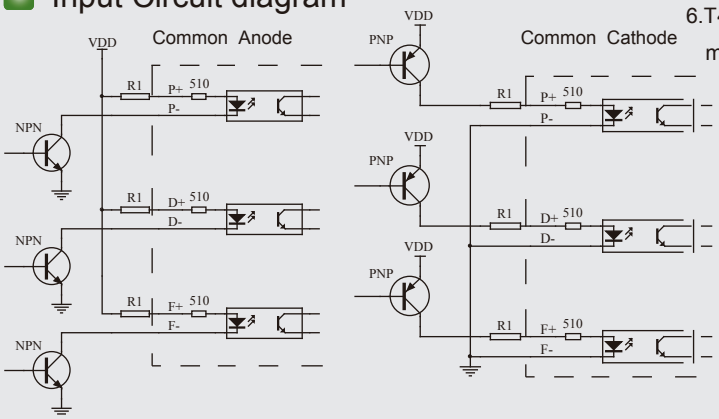
3.T1 needs to be longger than 5us, indicates direction signal needs to be built up before pulse signals appear and disappear after pluse signals disappear

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5.T3 indicates width of ineffective high level signal, minimal 2us

6.T4 incates the time from release status to enables status beofre motor can start moving. Minimum 20us

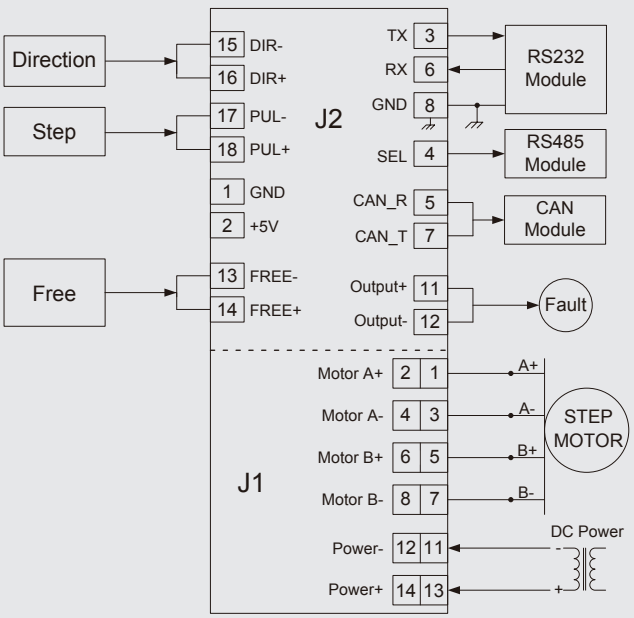
Input Circuit diagram



VDD Voltage	5V	12V	24V
R1 Value	short	1K/0.25W	2K/0.25W

Different R1 are required for different DC voltage working conditions

SD253B External Pins Functions



J1 Pin	Signal
1, 2	A+
3, 4	A-
5, 6	B+
7, 8	B-
9, 10	RESERVED
11, 12	DC-
13, 14	DC+

Signal	J2 Pin		Signal
GND	1	2	+5V
TX	3	4	SEL
CAN_R	5	6	RX
CAN_T	7	8	GND
RESERVED	9	10	RESERVED
OUTPUT+	11	12	OUTPUT-
FREE-	13	14	FREE+
DIR-	15	16	DIR+
PUL-	17	18	PUL+

J1 is a 2.0mm spacing（14 pins）double line straight pin connector. J2 is a 2.0mm spacing（18 pins）double line straight pin connector.

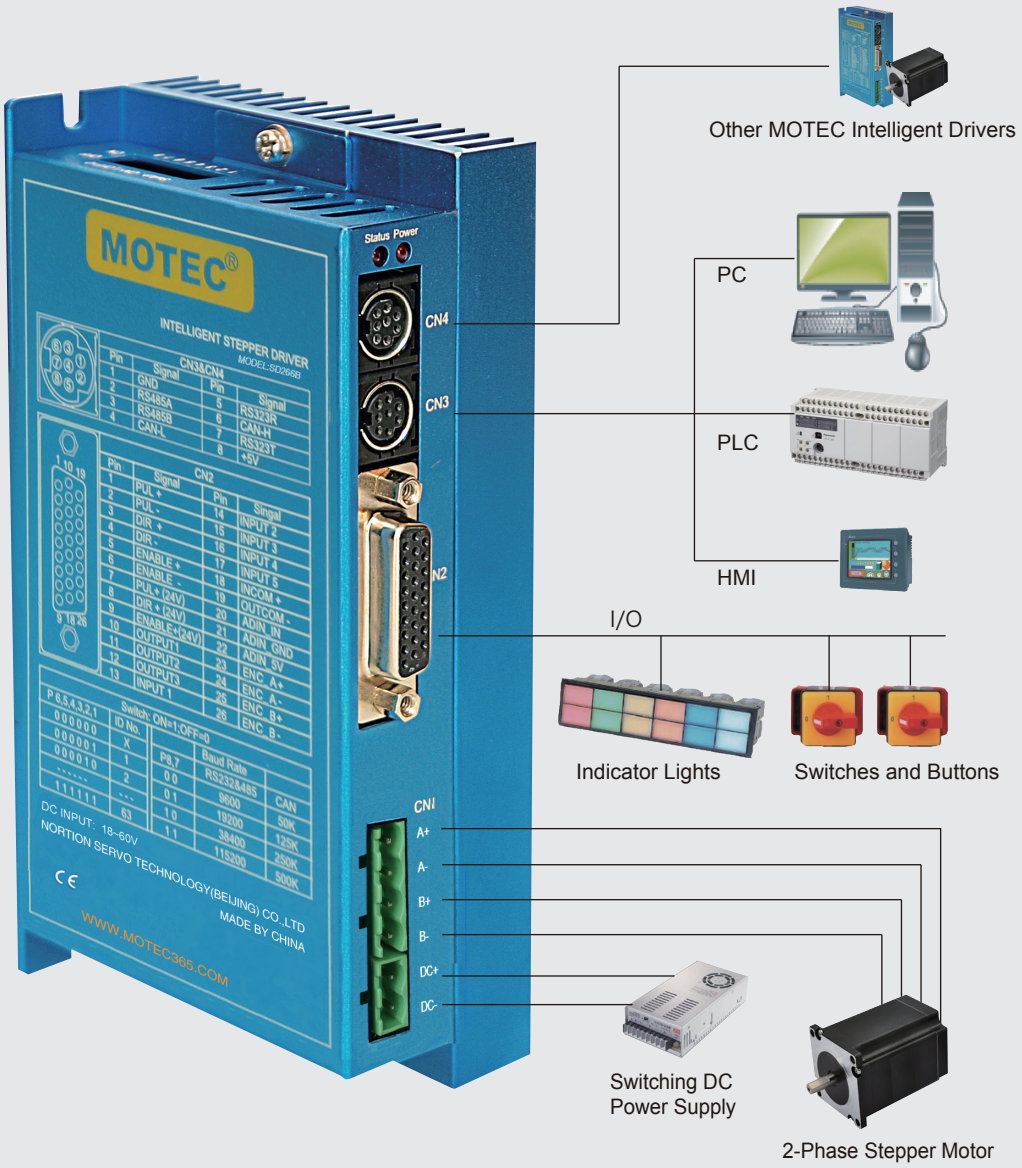
RESERVED is reserved and not allowed for any connection. OUTPUT is optoelectronic isolated secondary output.

MOTEC®

SD266B

Features

- RS232 Port
- RS485 Port
- CAN Bus
- 8 DI
- 3 DO
- 1 Analog Input
- MODBUS
- CANOPEN
- Network Mode
- Continuing Microsteps
- Internal PLC
- Ladder Diagram
- Full SINE Control
- HMI connectable
- Powerful Software
- Libraries
- Encoder Input



- Microstep setting and ouput current setting of D266B to be set up through configuration software MotionStudio
- Encoder input is available(A、B Orthogonal signal)
- PPR of encoder can be set without limit
- Counting direction of encoder can be auto detected.
- Alarm code 4 will be generated when motor roatating direction is not in line with encoder rotating direction. SD266B will automatically correct counting direction when power is resumed.

Intelligent Stepper Driver



General Introduction

SD266B 2-Phase intelligent hybrid stepper driver is designed for MOTEC SM2 series 20~85 (Flange Size) 2-Phase hybrid stepper Motors with 18V~60VDC input voltage and 6.0A max phase current. SD266B is an intelligent stepper driver integrated motion controller, PLC with stepper driver. SD266B has its local I/O and various network options. Users can build up cost effective multi-points motion control applications using SB266B or simply programe a single axis application and download into SB266B and let it run by itself.

Features and Functions

- An integration of Stepper Drive, Motion Controller and PLC
- Support RS232、RS485 and CAN Bus newtork. All suitable for multi-points motion control application.
  - RS232: Max 8 units
  - RS485: Max 32 units
  - CAN Bus:Max 110 units
- Support MODBUS and CANOPEN protocals
- 8 optoelectronic isolated DI, 3 optoelectronic isolated DO, 1 analog input
- Standalone Mode (without any external controller)
  - Users programe motion control application using MotionPainter software and download into SB266B
  - User appliactions can be triggered by external I/O and SB266B can also output necessary signal so that it can work with other equipments in coordination.
  - Internal PLC. Programe using Ladder Diagram.
- MotionLib libraries and Instruction Set are available for host controller programing.
- Four control modes: Pulse/Direction and CW/CCW Mode, Analog Control Mode, Network Mode and Standalone Mode.

Control Modes

- Pulse/Direction and CW/CWWControl Mode

  SD266B can be used as a traditional stepper motor working with Pulse/Direction and CW/CWW control signals.

- Analog Control Mode

  SD266B has one analog input port allowing it to work in speed control mode and the working speed is controlled by the analog input signal. Benefit from its internal velocity generation function, stepper motors will not stall when speed setting point (as per the analog input signal) changes during its operation.

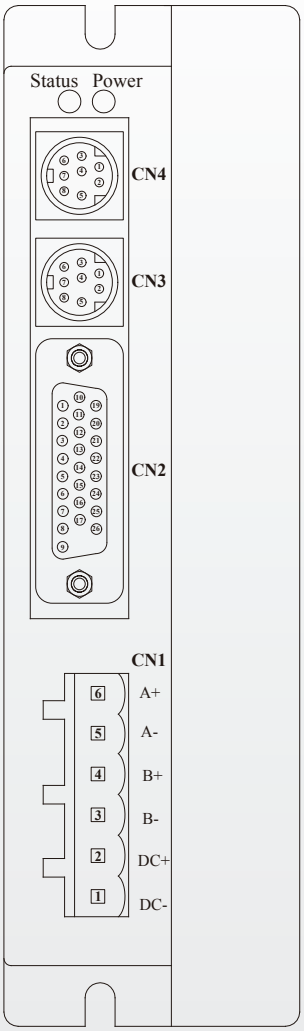
- Network Control Mode

  SD266B support RS232/RS485/CAN Bus and compatiable with MODBUS and CANOPEN standard protocals allowing external controller to control driver&motor through network instructions and access real-time driver and motor working status.

- Standalone Control Mode

  Under standalone control mode, SB266B can work alone without any external controller. Users can programe applications on PC and dowload them into SB266B and let them run independently.User can ultilize I/O ports to start/stop the operation. SB266B can also output necessary signals working with other equipments.

Connectors



- Status light will flash when there is faulty. Power light shall keep on when power on.
- CN3 and CN4 are communication (BUS) connectors. When multiple SD266B are working in a network, CN3 and CN4 have the same Pin Defination as below, one as Bus input and another one as bus output.

Pin	Signal	Pin	Signal
1	GND	5	RS232R
2	RS485A	6	CANH
3	RS485B	7	RS232T
4	CANL	8	+5V

- CN is I/O port, including 8 photoelectric isolated DI, 3 photoelectric isolated DO, 1 Analog input, pulse/directin control signals, motor enable etc. Details as below and right.

I/O No.	Network Mode	Standalone Mode	Pulse/Direction Mode	Analog Mode
Input 1	☑ General Input ☑ Clear Faulty ☑ Start Homing	☑ General Input ☑ Clear Faulty ☑ Start Homing	☑ General Input ☑ Clear Faulty ☑ Start Homing	☑ General Input ☑ Clear Faulty ☑ Start Homing
Input 2	☑ General Input ☑ Positive Limit	☑ General Input ☑ Positive Limit	Positive Limit	Positive Limit
Input 3	☑ General Input ☑ Negative Limit	☑ General Input ☑ Negative Limit	Negative Limit	Negative Limit
Input 4	General Input	General Input	Positive Jog	Positive Jog
Input 5	General Input	General Input	Negative Jog	Negative Jog
Input 6	General Input	General Input	Pulse Signal	ZEROSPD*
Input 7	General Input	General Input	Direction Signal	Direction Signal
Input 8	General Input	Enable Motor	Enable Motor	Enable Motor
Analog Input	General Input	General Input	General Input	Analog Input
Output 1	☑ General Output ☑ Fault Signal	☑ General Output ☑ Fault Signal	☑ General Output ☑ Fault Signal	☑ General Output ☑ Faulty Signal
Output 2	General Output	General Output	Position Reached	Speed Reached
Output 3	☑ General Output ☑ Brake Output	☑ General Output ☑ Brake Output	☑ General Output ☑ Brake Output	☑ General Output ☑ Brake Output
Input A+	Encoder A+Input	Encoder A+Input	Encoder A+Input	Encoder A+Input
Input A−	Encoder A−Input	Encoder A−Input	Encoder A−Input	Encoder A−Input
Input B+	Encoder B+Input	Encoder B+Input	Encoder B+Input	Encoder B+Input
Input B−	Encoder B−Input	Encoder B−Input	Encoder B−Input	Encoder B−Input

Note:
(1) For SD266B;
(2) General Input and output can be used as programable ports
(3) General Input can be set as Start Homing、Positive Limit、Negative Limit, Positive Jog and Negative Jog.
(4) General Output 3# can be set as brake output, which needs brake module hardware(optional)
(5) Analog input shall be 0VDC～+5VDC Signal
(6) Input 1、2、3、4、5、8 are photoelectric isolated inputs
(7) Input 6、7 are photoelectric isolated high speed inputs
(8) Where there are multiple options indicates functions can be set from software
(9) Under Quadrature Pulse mode, Input 7# is pulse input, the rest I/O functions is same as Pulse/Direction Mode

* speed zero clamp input

DIP Switches

Different with SD266, the 8 bits DIP switch of SD266B is not for microsteps and output current setting (For SD266B, the two setting need to be done through PC using Motionstudio） and it is used for network ID and communication baud rate setting. Details as below



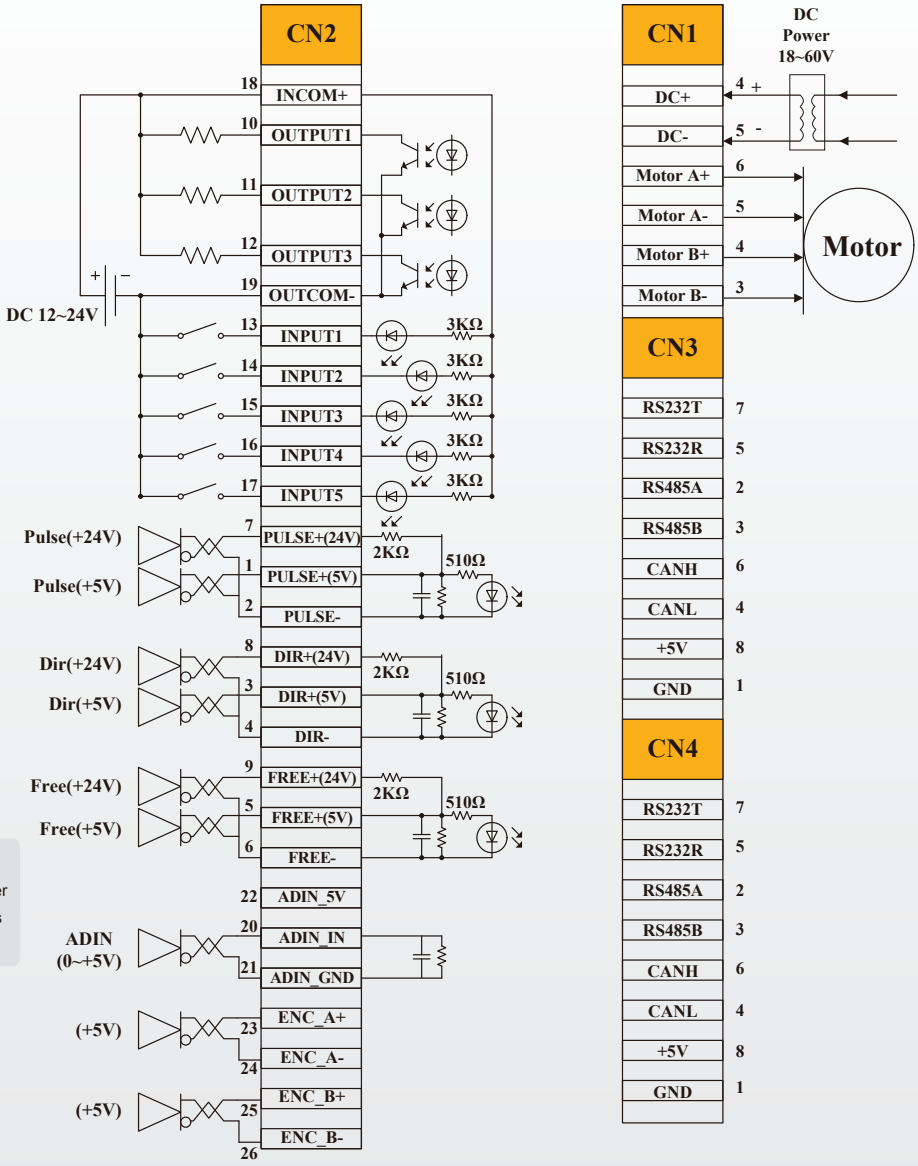
Switch : ON=1,OFF=0

P 6,5,4,3,2,1	ID No.	Baud Rate		
0 0 0 0 0 0	TEST	P 8,7	RS232 & RS485	CAN
0 0 0 0 0 1	1	0 0	9600	50K
0 0 0 0 1 0	2	0 1	19200	125K
... ...	...	1 0	38400	250K
1 1 1 1 1 1	63	1 1	115200	500K

Intelligent Stepper Driver



Connector Circuits



22 is a 5V output for customers who intend to use SD266B under Analog Control mode but there's no external 5V supply available

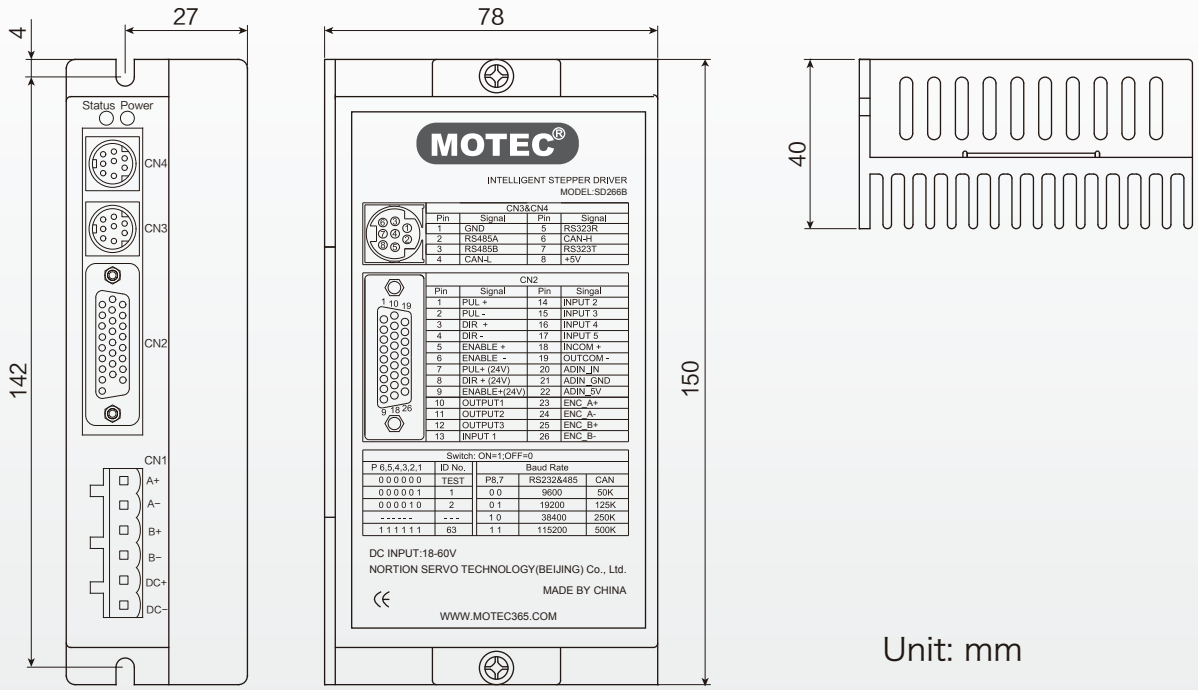
Softwares

MotionStudio is a PC based configuration software which can do real time stepper motor control, stepper driver parameter setting, testing, debugging, aquiring data from stepper motor driver, graphic data analysis etc. MotionPainter is a PC based programming software.Users can easily build up applications benefit from MotionPainter's graphic user interface and then download application program into MOTEC intelliegent stepper motor driver for standalone running. MotionPainter is a powerful software in which users can conveniently program, save, compile,download, upload, running etc.

Please visit our website www.motec365.com and download latest Motionstudio and user's guide.

Any quesstion please contact MOTEC customer service centre or your local MOTEC distributors.

SD266B Mechanical Specifications



Unit: mm

Internal PLC

Different with traditional stepper drivers which can only be used as motor driver without any logic control and arithmetical operation capabilities, where an external controller is necessary to complete complicated motion control calculation, SD266B can work alone without any external controller benefit from its internal motion controller and PLC functions. Traditional PLC + Driver solutions also have issues like interferences, lack of high speed pulse input port, low data transfering efficency, complicated cables etc. SD266B resolved these issues by integrating motion controller and PLC together with stepper motor driver. Users can program and download application into SD266B and let it run under standalone mode.

Intelligent Stepper Driver

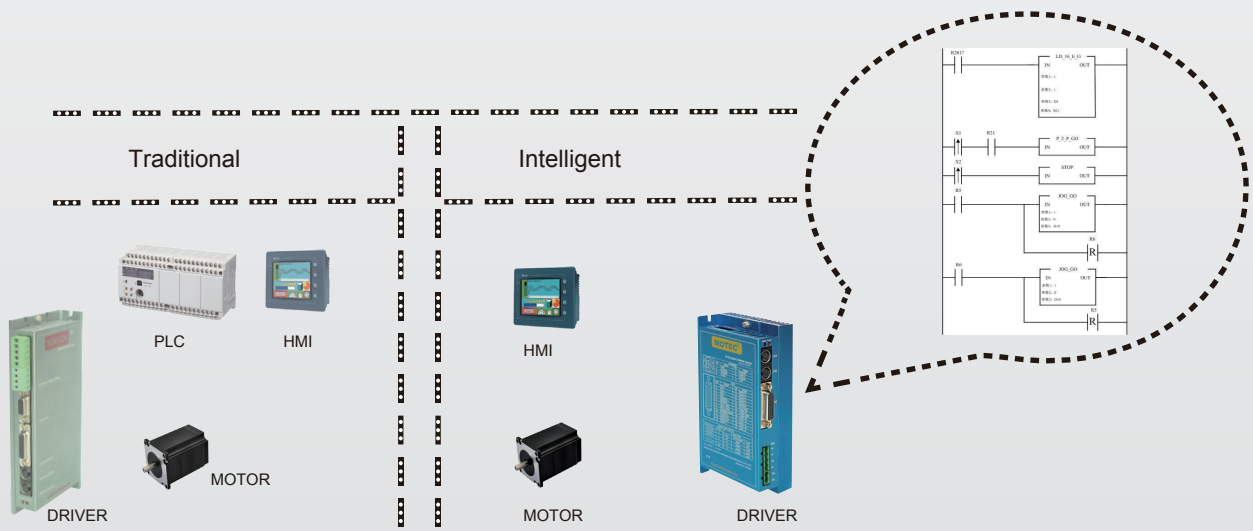


Internal Rescources

- 8 opto-isolated input, 3 opto-isolated output, 1 analog input. I/O expansion through network is available.
- 2048 internal auxiliary relays in total. 2016 general relays and 32 relays with special functions.
- 256 internal stautus relays
- 32 16bits general count down timer. 32 mark relays indicating timer reachs zero.
- 32 16 bits counting down counter. 32 mark relays incidating counter reachs zero.
- 512 16 bits data register in total. 500 general data registers and 12 data register with speical functions. Two consecutive 16bits register can be used as one 32 bits regeister.

Instructions Sets

- Basic logic instructions inlcuding load, and, or, not, output, reset, negate,null, edn etc .
- Stack instructions lincluding block and, block or, stack management etc.
- Edge instructions including load, and, or, not, nand, nor instructions to rising edge and falling edge.
- Programing control instructions including call & retrun of subprogram, program jump, load&clear timer and counter counting, program and subprogram labeling, save&load internal paramters etc.
- 16 bits and 32 bits integer operations including add, minus, multiply, divide, assignment, jump, shift, compare etc.
- Floating point operations including comparing, arithmetic, assignment of 32 bits single precision floating point numbers and conversion between binary floating point numbers and decimal floating numbers.
- Motion control instructions: Motion control instructions can be convinently utilized through internal PLC functions of SD266B including point to point motion, speed control, analog control, homing, jog, start, stop, enable, switching between different modes etc.



2-Phase Stepper Motors

MOTEC® 2-Phase Stepper Motors

MOTEC® 2-Phase hybrid stepping motors can be used in various of industrial appliactions benefit from its features inlcuding high defination precision, low noise, high reliability, smooth operation , high start-up frequency, high torque output at high speed etc. Traditional 5-Phase stepper motors can provide better performances comparing to traditional 2-Phase stepper motor however the manufacuring cost of motor and driver are much higher than the latter. Benefit from its rennovation of increased magnetic pole numbers, improved tooth design and layout, increased rotor diameter, reduced air gap and ultilzing servo driver technologies etc, the performances of MOTEC® stepper motors have been significantly improved and can be used to replace traditional 5-Phase stepper motors with very competitive cost.

The angle per step of MOTEC® 2 Phase stepper motors is 1.8°

<table>
<tr><th rowspan="2">Motor Model</th><th colspan="5">Options</th><th rowspan="2">Options for customization</th></tr>
<tr><th>D-Double Shaft</th><th>B-with brake</th><th>E-with encoder</th><th>EB-with encoder&brake</th><th>C-Cable</th></tr>
<tr><td>SM2-202L</td><td rowspan="27">YES</td><td rowspan="8">Not Available</td><td rowspan="8">Not Available</td><td rowspan="13">Not Available</td><td rowspan="8">Not Available</td><td rowspan="27">Angle per step 1.2°,
IP65 protection ranking,
Speical shaft end design,
Shaft diamter customization available for some models,
low working temperature,
for more options please contact MOTEC customer service team.</td></tr>
<tr><td>SM2-204L</td></tr>
<tr><td>SM2-206L</td></tr>
<tr><td>SM2-212L</td></tr>
<tr><td>SM2-310L</td></tr>
<tr><td>SM2-314L</td></tr>
<tr><td>SM2-322L</td></tr>
<tr><td>SM2-328L</td></tr>
<tr><td>SM2-430L</td><td rowspan="19">YES</td><td rowspan="19">Yes
Standard Encoder is 1000ppr Encoder</td><td rowspan="19">YES
Cable with Connectors</td></tr>
<tr><td>SM2-440L</td></tr>
<tr><td>SM2-450L</td></tr>
<tr><td>SM2-608L</td></tr>
<tr><td>SM2-612L</td></tr>
<tr><td>SM2-617L</td></tr>
<tr><td>SM2-620L</td></tr>
<tr><td>SM2-622L</td></tr>
<tr><td>SM2-630L</td></tr>
<tr><td>SM2-930L</td></tr>
<tr><td>SM2-945L</td></tr>
<tr><td>SM2-982L</td></tr>
<tr><td>SM2-9A2L</td></tr>
<tr><td>SM2-985H</td></tr>
<tr><td>SM2-9A0H</td></tr>
<tr><td>SM2-A08H</td></tr>
<tr><td>SM2-A12H</td></tr>
<tr><td>SM2-A20H</td></tr>
<tr><td>SM2-A28H</td></tr>
</table>

Note :Customized designed 2-Phase can be ordered from MOTEC depending on the technical requirements and required quantities, ie motors with extremly low working terperature or motors with specified flange size etc.

MOTEC® 2-Phase Stepper Motor

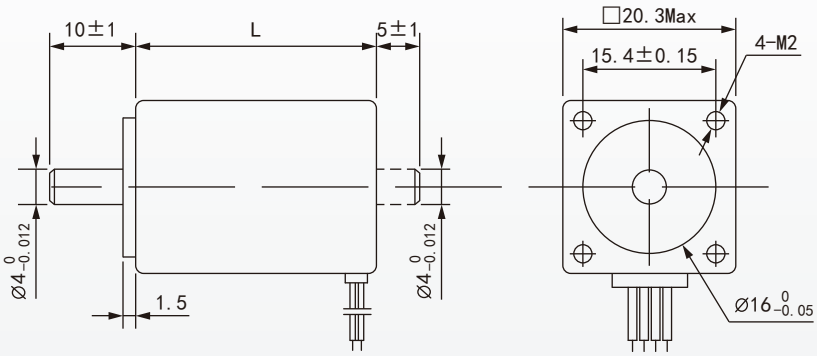


MOTEC® 2-Phase Hybrid Stepper Motor Specs

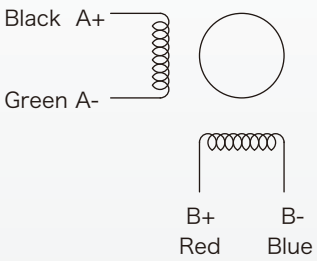
Motor Model	Flange (mm)	Holding Torque (N.m)	Rate Current (A)	Moment of Inertia (g.cm²)	Mass (Kg)	Motor Length L(mm)	Shaft Diameter (mm)	Length of key (mm)	Flat/Key (mm)	Matching Driver
SM2-202L	20	0.015	0.2	1.8	0.05	28	4(Shaft)	10	—	SD253/253B/266/266B
SM2-204L	20	0.04	0.6	3.5	0.08	38	4(Shaft)	10	—	SD253/253B/266/266B
SM2-206L	28	0.06	0.67	9	0.11	32	5(Shaft)	20	—	SD253/253B/266/266B
SM2-212L	28	0.12	0.67	18	0.2	51	5(Shaft)	20	—	SD253/253B/266/266B
SM2-310L	35	0.1	0.5	10	0.14	28	5(Shaft)	24	—	SD253/253B/266/266B
SM2-314L	35	0.14	1	14	0.18	36	5(Shaft)	24	—	SD253/253B/266/266B
SM2-322L	39	0.22	0.6	20	0.18	34	5(Shaft)	24	—	SD253/253B/266/266B
SM2-328L	39	0.28	0.3	36	0.25	44	5(Shaft)	24	—	SD253/253B/266/266B
SM2-430L	42	0.3	1.2	35	0.24	35	5(Flat)	24	15	SD253/253B/266/266B
SM2-440L	42	0.4	1.8	54	0.3	41	5(Flat)	24	15	SD253/253B/266/266B
SM2-450L	42	0.5	1.8	77	0.36	49	5(Flat)	24	15	SD253/253B/266/266B
SM2-608L	57	0.8	2.0	180	0.52	45	6.35(Flat)	20.6	15	SD253/253B/266/266B
SM2-612L	57	1.2	2.0	280	0.72	56	8(Flat)	20.6	15	SD253/253B/266/266B
SM2-617L	57	1.7	2.0	350	0.86	65	8(Flat)	20.6	15	SD253/253B/266/266B
SM2-620L	57	2.0	2.0	480	1.06	76	8(Flat)	20.6	15	SD253/253B/266/266B
SM2-622L	57	2.2	3.0	480	1.21	80	8(Flat)	20.6	15	SD253/253B/266/266B
SM2-630L	57	3.0	5.0	720	1.4	101	8(Flat)	20.6	15	SD266/266B
SM2-930L	86	3.0	4.5	1100	1.6	60	14(Key)	37	5*5*25	SD2118
SM2-945L	86	4.5	4.5	1400	2.1	80	14(Key)	37	5*5*25	SD2118
SM2-982L	86	8.2	4.5	3600	3.6	115	14(Key)	37	5*5*25	SD2118
SM2-9A2L	86	12.0	4.5	5400	5.0	155	14(Key)	37	5*5*25	SD2118
SM2-985H	86	8.5	6.0	2800	3.8	118	14(Key)	37	5*5*25	SD2118
SM2-9A0H	86	10.0	5.5	3600	5.0	156	14(Key)	37	5*5*25	SD2118
SM2-A08H	110	8.0	6.0	5000	5.0	99	19(Key)	37	6*6*25	SD2228
SM2-A12H	110	12.0	5.5	8000	6.5	115	19(Key)	37	6*6*25	SD2228
SM2-A20H	110	20.0	6.0	10000	8.4	150	19(Key)	37	6*6*25	SD2228
SM2-A28H	110	28.0	6.0	16200	11.7	201	19(Key)	37	6*6*25	SD2228

Motor Dimensions

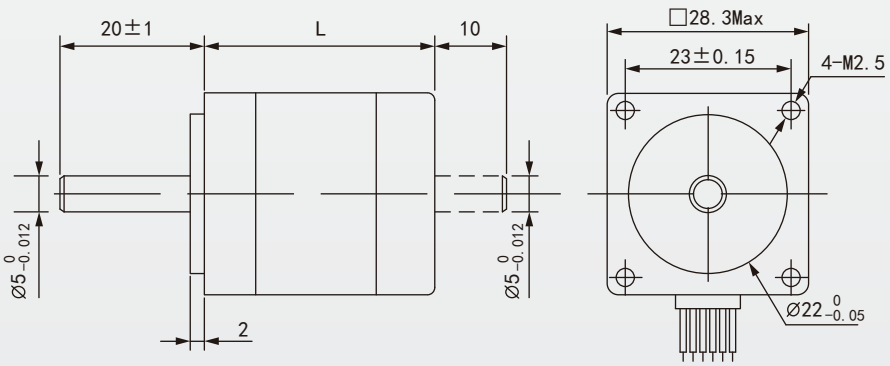
MOTEC® 20 Size Stepper Motor Dimensions(Unit:mm)



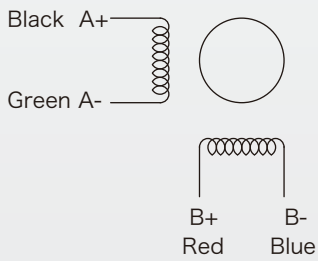
Model	SM2-202L	SM2-204L
Length (L)	28	38



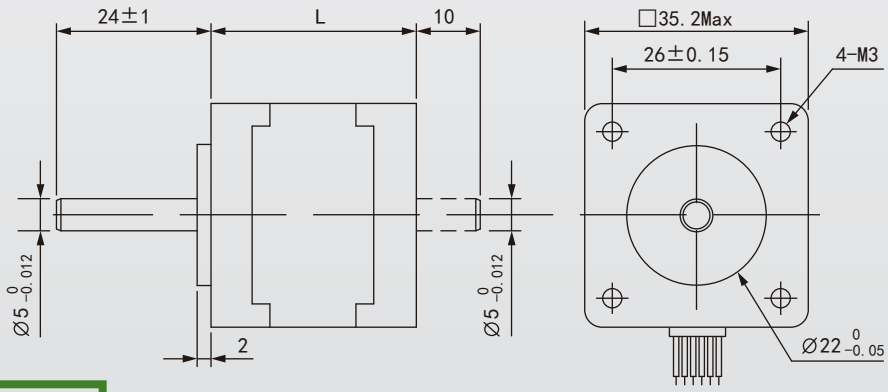
MOTEC® 28 Size Stepper Motor Dimensions(Unit:mm)



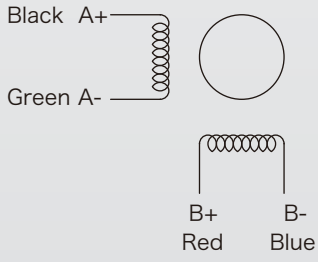
Model	SM2-206L	SM2-212L
Length (L)	32	51



MOTEC® 35 Size Stepper Motor Dimensions(Unit:mm)



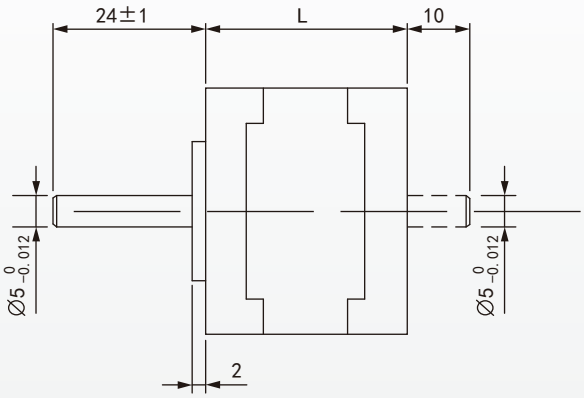
Model	SM2-310L	SM2-314L
Length (L)	28	36



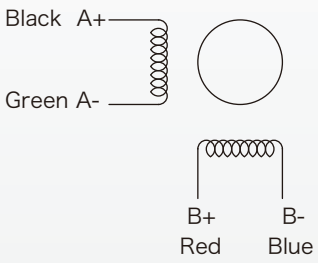
MOTEC® 2-Phase Stepper Motor



MOTEC® 39 Size Stepper Motor Dimensions(Unit:mm)

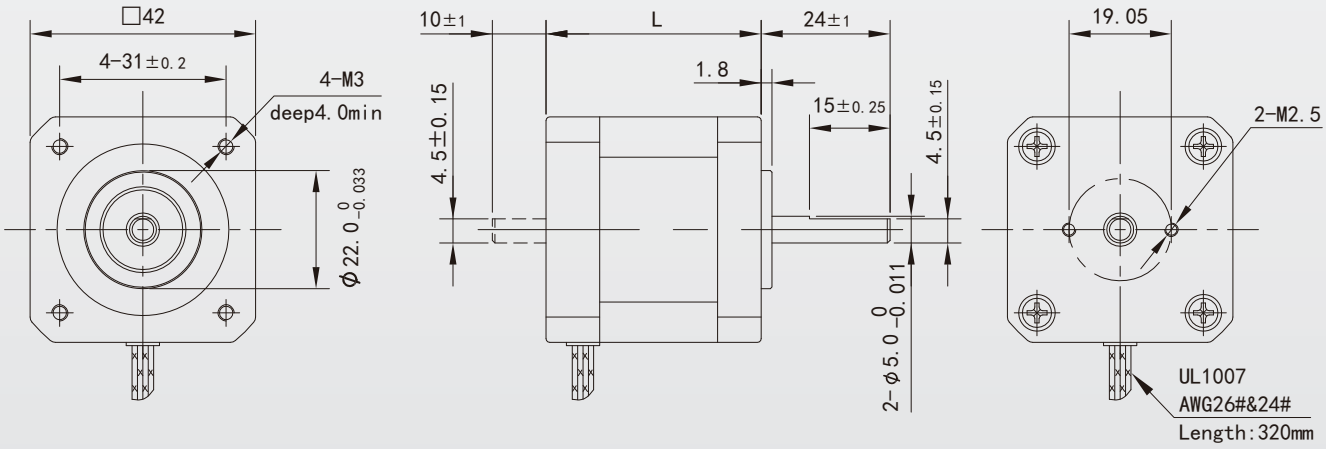


Model	SM2-322L	SM2-328L
Length (L)	34	44



MOTEC® 42 Size Stepper Motor Dimensions(Unit:mm)

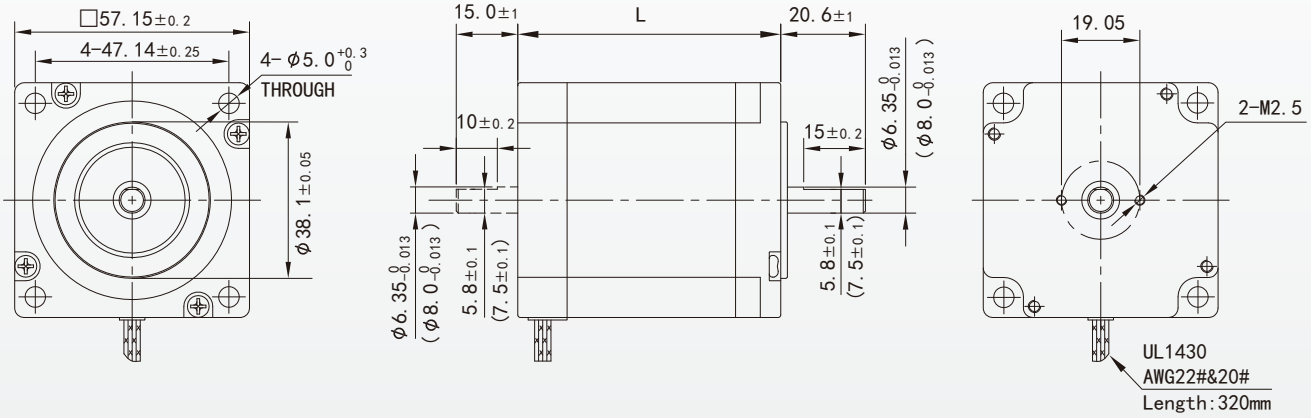
Model	SM2-430L	SM2-440L	SM2-450L
Length (L)	35	41	49



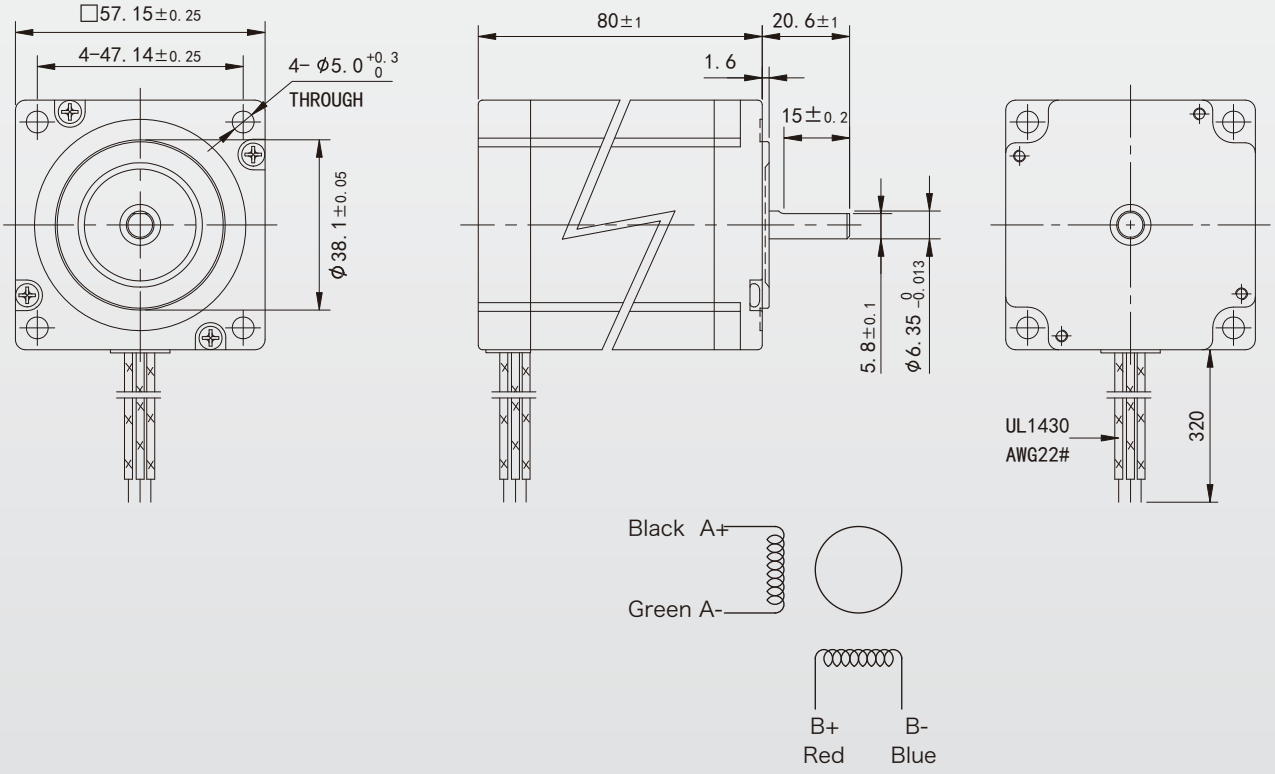
Motor Dimensions

MOTEC® 57 Size Stepper Motor Dimensions(Unit:mm)

Model	SM2-608L	SM2-612L	SM2-617L	SM2-620L
Length (L)	45	56	65	76



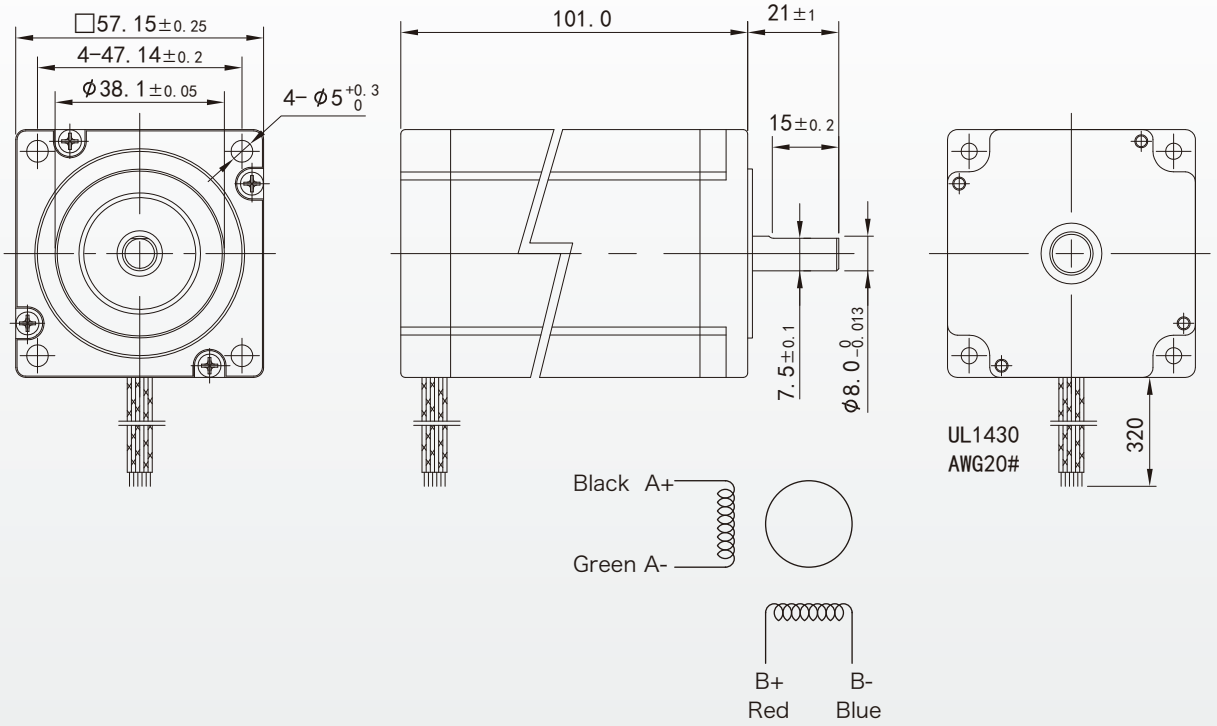
SM2-622L



MOTEC® 2-Phase Stepper Motor

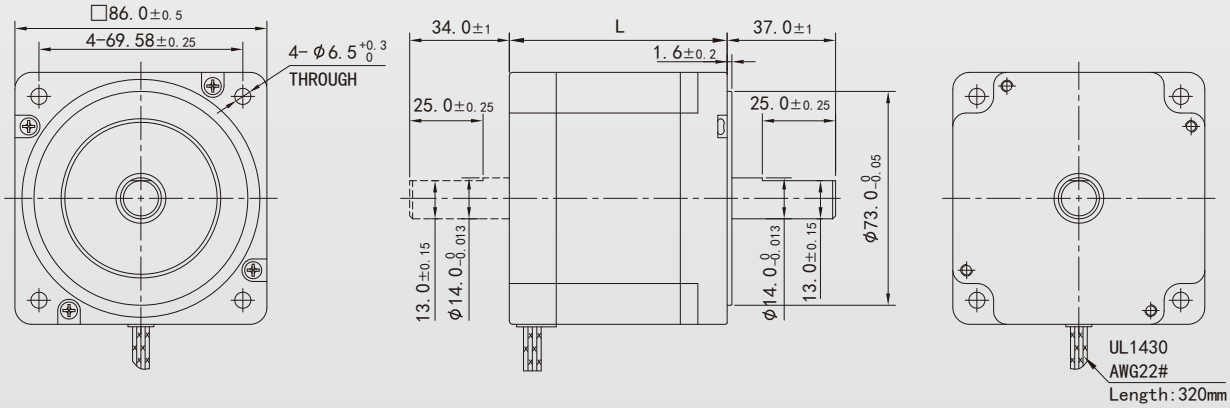


SM2-630L



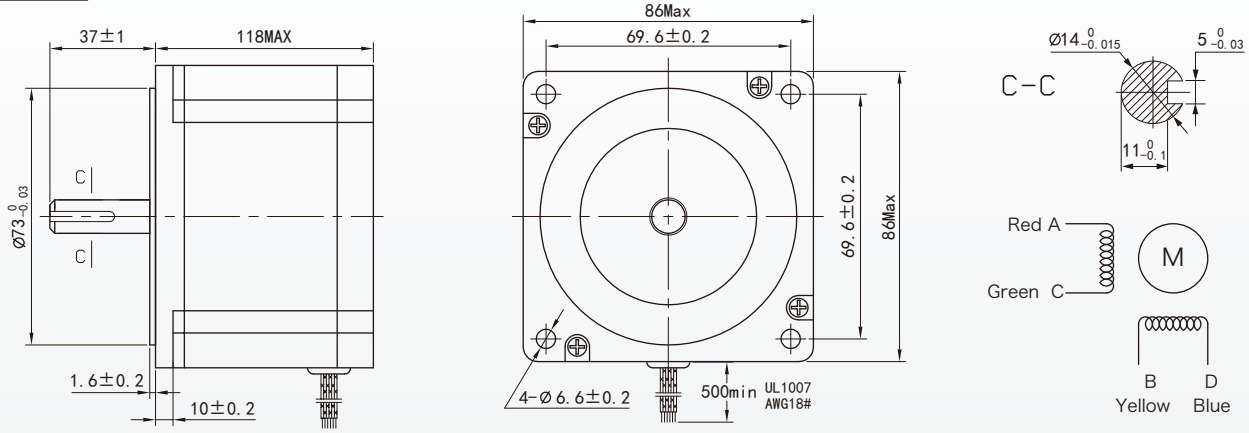
MOTEC® 86 Size Stepper Motor Dimensions(Unit:mm)

Model	SM2-930L	SM2-945L	SM2-982L	SM2-9A2L
Length (L)	60	80	115	155

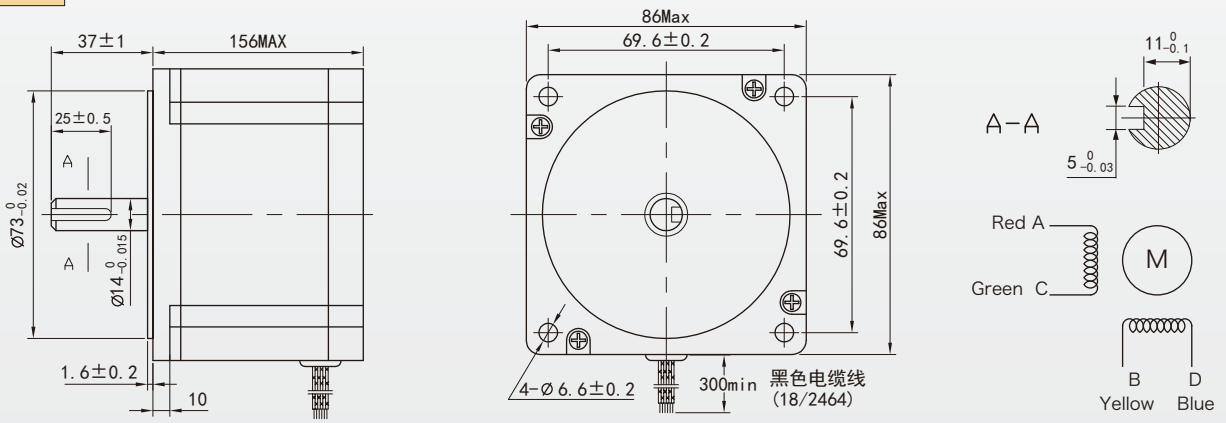


Motor Dimensions

SM2-985H

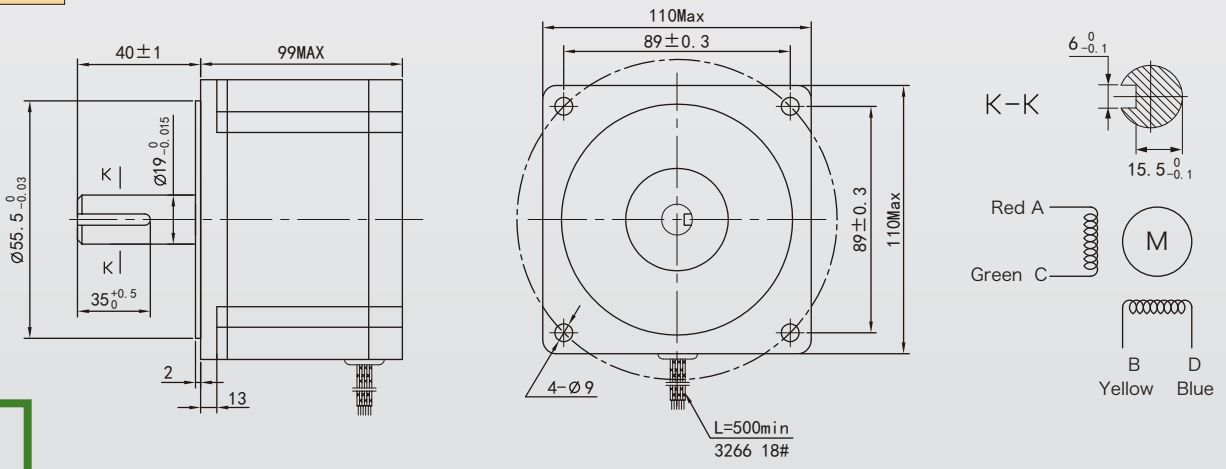


SM2-9A0H



MOTEC® 110 Size Stepper Motor Dimensions(Unit:mm)

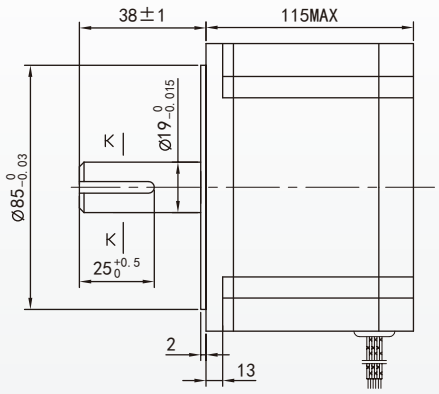
SM2-A08H

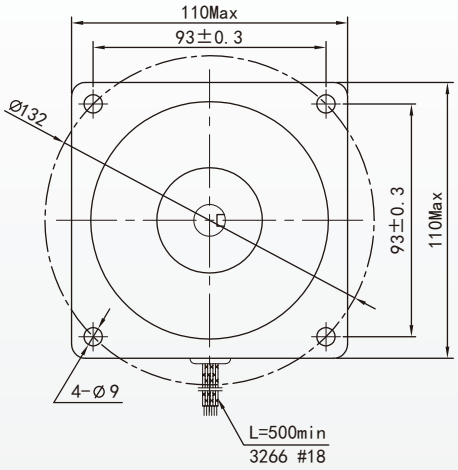


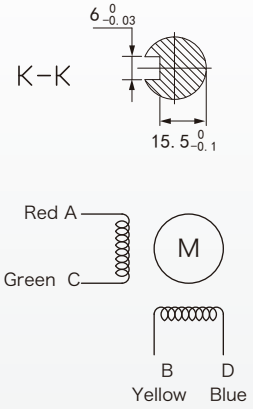
MOTEC® 2-Phase Stepper Motor



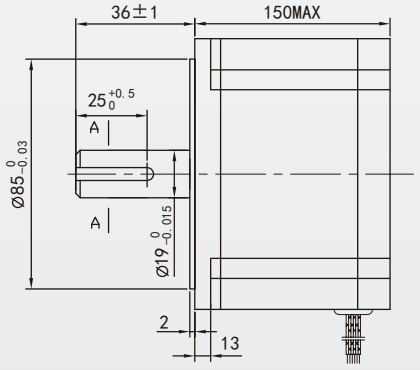
SM2-A12H

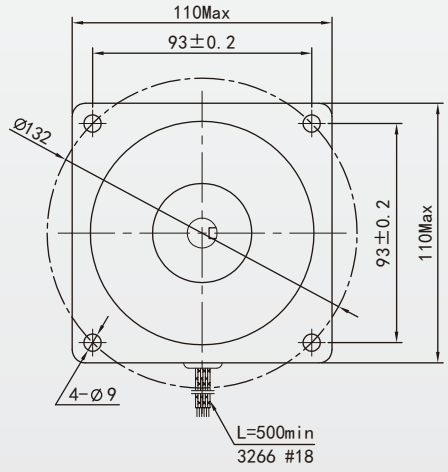


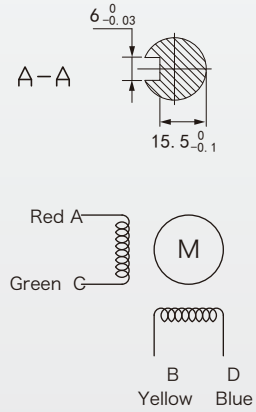




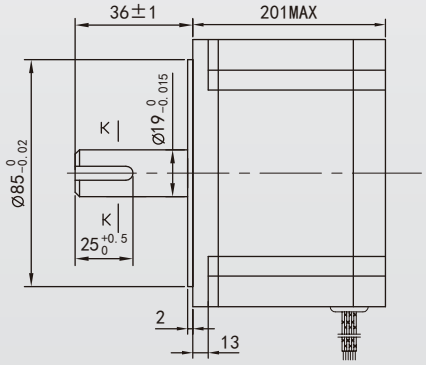
SM2-A20H

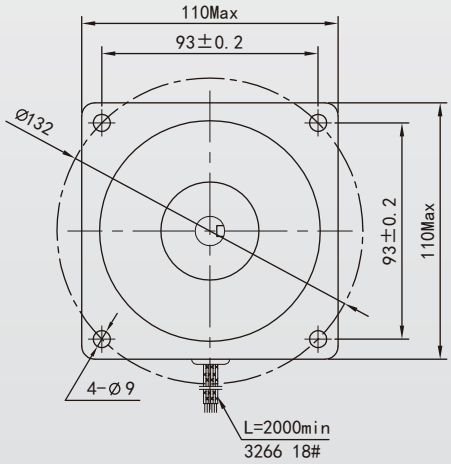


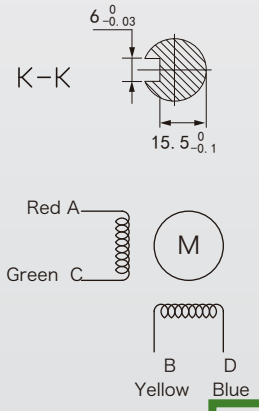




SM2-A28H







MOTEC®

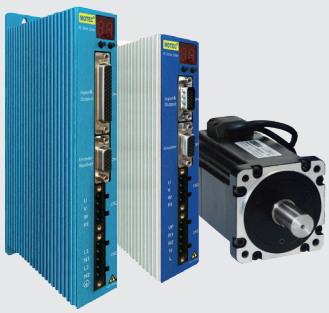
Product Family

- Stepper System
- AC Servo System
- Electric Cylinder
- Servo Wheel System
- 5+ Axis CNC
- Planetary Gearbox

MOTEC® Stepper System



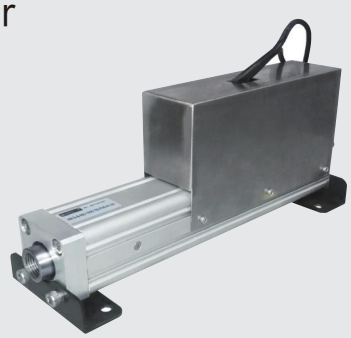
MOTEC® Stepper system comes with standard models and intelligent models for customer's choice. The maximum resolution of standard stepper system is up to 60000P/R which can be setup with a 8-position dip switch and two power supply options are available, which is 18~80VDC and150~260VAC.Intelligent stepper drivers are equiped with RS232/RS485/CAN communication ports and I/O ports as well and compatiable with MODBUS & CANOPEN protocals.MOTEC intelligent steppers can be confirgured to work in network model and each of the drivers can have its own pre-programmed software running simutaneously and velocity generation can be setu up each respectively.



MOTEC® β AC Servo System

MOTEC® β Series AC Servo System have three types for customer's choice including Full Function Model,Standard Model and High Performance Model, which features high power density and compact size.MOTEC® β Series AC Servo System covers power range from 50W to 3KW and compatiable with MOTEC®servo motors, Panasonic servo motors, Tamagawa servo motors. MOTEC® β Series AC Servo system features integrated PLC function, CAN bus compatiable and servo motors support 2500PPR encoder, 23 bit single turn/multi-turn absolute encoder and resolver.

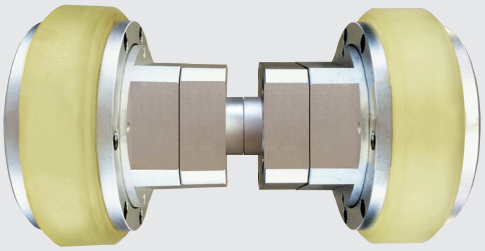
MOTEC® Electric Servo Cylinder



MOTEC® Electric Servo Cylinder is an intergration of servo motor and lead screw and it converts servo motors precise rotary motion to precise liner motion. MOTEC electric servo cylinder features high transmission efficiency,high resolution high reliability and safety, easy for maintenance, very low noise and long product life etc and it has been widely used in many industries including robots, labrotary equipments, welding machines, aviation testing equipments multi-axis simulator, valve control, CNC and multidimensional cinema etc.

MOTEC® Product Family





MOTEC® Servo Wheel System

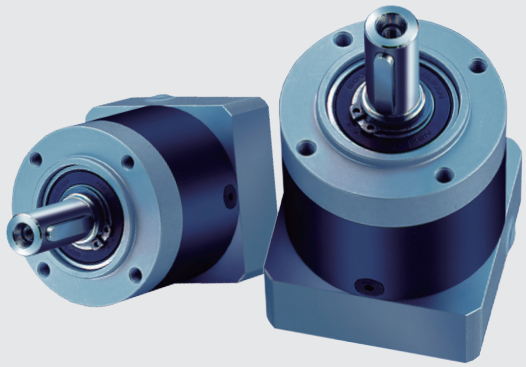
MOTEC® Servo Wheel is an innovated products developed by MOTEC (China) with its own IP. It is a cutting edge product which is an integration of servo driver, motion controller and a creative mechelectric design, which is a idea for intelligent warehouse, AGV and robot applications with value for money features.MOTEC Servo Wheel System is equipped with custom-designed MOTEC® high performance servo drivers to achieve its best performance and reliability.

MOTEC® 5+ Axis CNC

MOTEC® 5+ axis CNC is an extremly powerful and open CNC system which can control eight axis simutaneously either in single chanel mode or multi-channel mode. It supports pluse/direction control mode, network control mode(compatiable with various of bus&protocals) with integrated PLC function. It comes with powerful program software with which users can use standard G code and M function to build up their own application easily. Users can even order custom designed user-interface software from MOTEC though the standard one is a user-friendly graphic interface. The system features very short interpolation period, visiable PID setting function, electronic CAM etc.

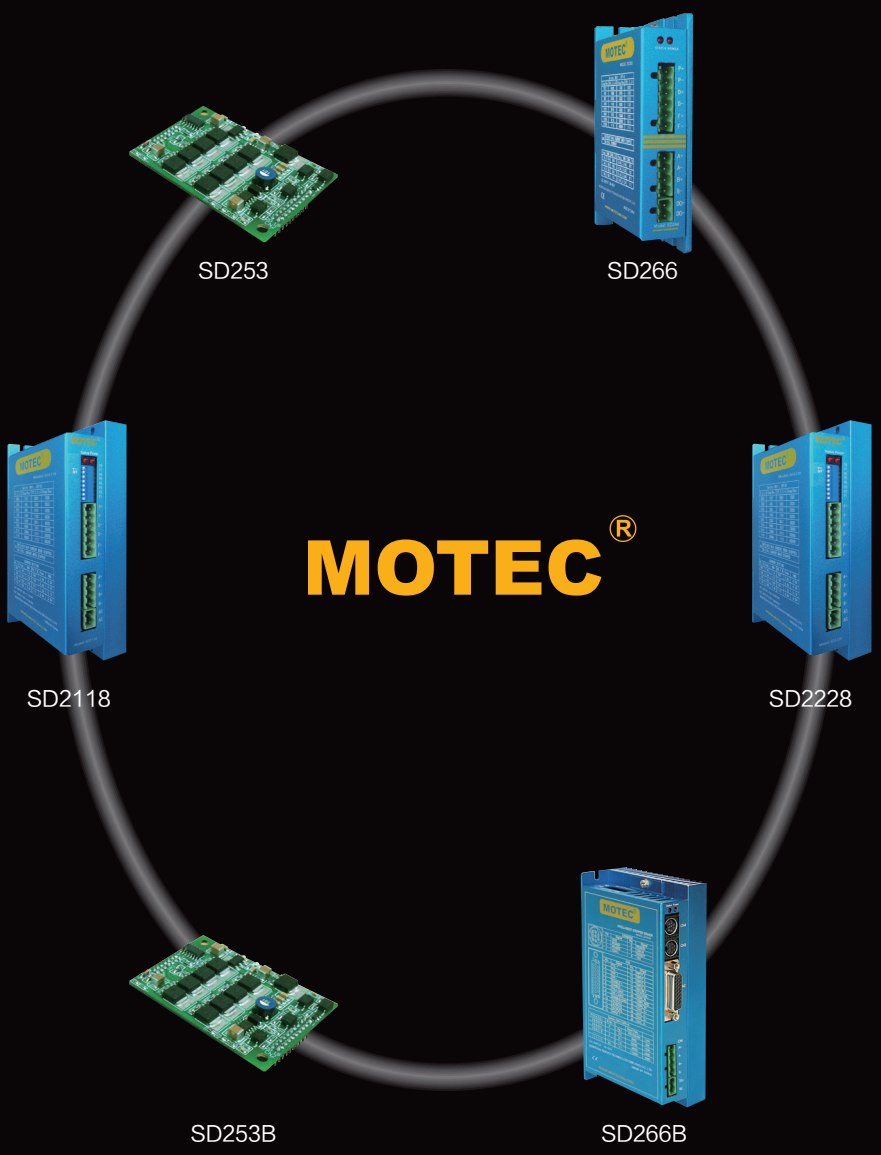


MOTEC® Planetary Gearbox



Planetary Gearbox is widely used high precision device designed to increase outport torque and reduce equivalent moment of inertia by reducing rotating speed with high efficiency(over 96%). MOTEC has developed hundres of models under four series over the decades and tens of thousands MOTEC gearbox have been used in various industriesincluding aviation,CNC,welding, cutting, packing, printing. MOTEC planetary gearbox has economy and high precision models for customer's choice. Custom designed planetary gearbox is also available ie higher or lower woking temperature, special flange size, key input, double shafts,anchorbolt installtion, higher resolution etc.

MOTEC® 2-PHASE STEPPER SYSTEM CATALOGUE



NORTION

Nortion Servo Technology (Beijing) Co.,Ltd.

Address: 11B, No.17 Huan Ke Zhong Lu, Tongzhou District
Beijing, P.R.C. 101102

A MOTEC Group Company

Wechat Users Please Scan for More Information

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Specifications are subject to change without prior notice.