MOONS'
moving in better ways

STF

STEPPER MOTOR DRIVES

Field bus control

- Intelligent built-in controller
- Multi-axis field bus control
- Low vibration, Low noise, Low heat
- Small size, High torque, Long life
- Efficient, Accurate, Fast

Industrial Field Bus Control

EtherCAT | PROFINET | EtherNet/IP | CANopen | Modbus | Q Programmer

The STF series are high performance fieldbus control stepper drive which also integrates with built-in motion controller. The drives can be controlled by SCL, Modbus/RTU, CANopen, eSCL, Modbus/TCP, EtherNet/IP, Porfinet or EtherCAT in real time. Motion profiles can also be programmed and stored in drives(Q Program) and then be triggered by fieldbus commands.

Features

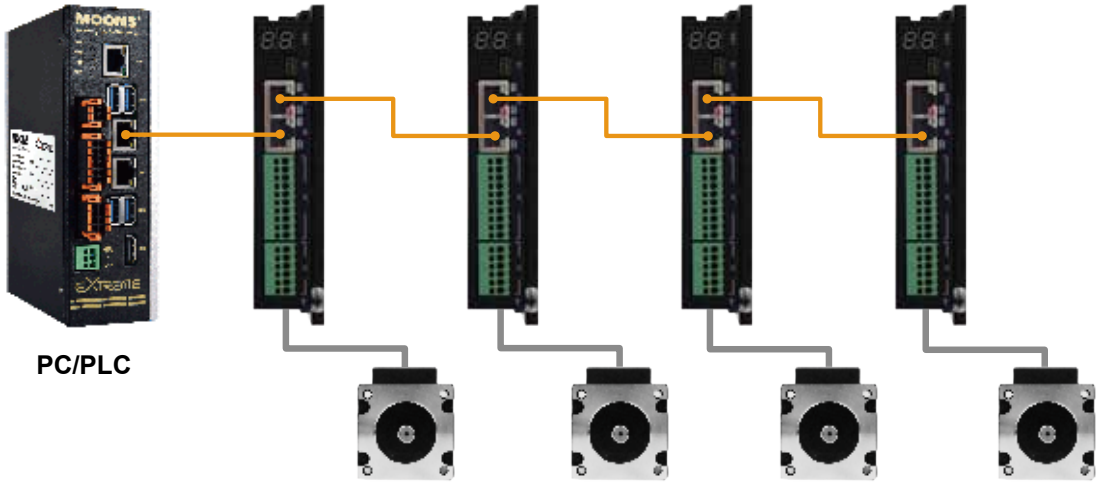
Host Control

- Accepts commands from host PC or PLC
- Real time control
- Multi-axes capable

CANopen 112-axis -max-
Modbus SCL RS-485/422 32-axis -max-
EtherCAT EtherNet/IP PROFINET eSCL

Stand-Alone Programmable

- Stored program execution
- Multi-tasking
- Conditional processing
- Math functions
- Data registers



Safe & Convenient

- Support communication and motor power cables disconnection protection

——***Make equipments safer***

- Support on-line configuration by fieldbus

——***Make operation more convenient***

Abundant and flexible interface

- Up to 8 Digital Inputs, 4 Digital Outputs

——***Support for more feature settings***

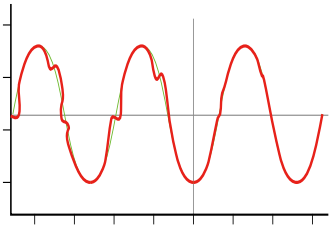
- Dual Port RJ45 Bus Conmmunication Control

——***Support daisy chain connection***

Anti-Resonance

-Provides better motor performance and higher speeds

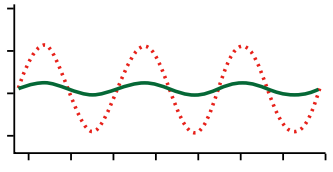
Step motor systems have a natural tendency to resonate at certain speeds. The STF drives automatically calculate the system's natural frequency and apply damping to the control algorithm. This greatly improves midrange stability, allows higher speeds and greater torque utilization, and also improves settling times.



Torque Ripple Smoothing

-Produces smoother motion at low speed running

All step motors have an inherent low speed torque ripple that can affect the motion profile of the motor. By analyzing this torque ripple the system can apply a negative harmonic to counter this effect. This gives the motor much smoother motion at low speed.



Auto Setup & Self Test

At start-up the drive measures motor parameters, including the resistance and inductance, then uses this information to optimize the system performance. The drive can also detect open and short circuits.

Stepper Suite

Software Features

- Friendly User Interface
- Easy setup within just three steps
- Drive setup and configuration
- Servo Tuning and Sampling
- Built-in Q programmer
- Motion testing and monitoring
- Write and save SCL command scripts
- Online help integrated
- Support all products in RSM/SSM/TSM/TXM/RS/SS/SSDC Series and STF Stepper Drive

RS485 Bus Utility

Software Features

- Stream SCL commands from the command line
- Simple interface with powerful capability
- Easy setup with RS-485 for 32 axis network motion control
- Monitoring Status of I/O, drive, alarm and the other nine most useful motion parameters
- Write and save SCL command scripts
- Online help integrated
- Supports all RS-485 drives

CANopen Test Tool

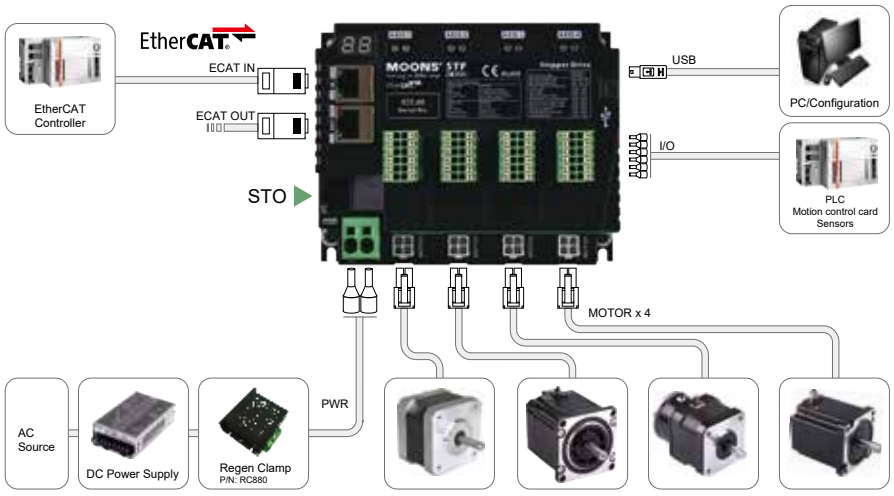
Software Features

- Friendly User Interface
- Multiple operation Mode Support
- Multi-Thread, High Performance
- CAN bus monitor and log function
- Kvaser/PEAK/ZLG adapter support

FREE DOWNLOAD
Our software and user manual can be downloaded from our website:
www.moonsindustries.com

System Configuration

■ STF-4X-ECX, STF-4X-ECX-S EtherCAT Communication type



EtherCAT

- Support EtherCAT command and conforms to CoE (cia402 standard)
- 4 axes in one drive designing can work with different kinds of step motors. High efficient, save space.
- STO (Optional)

Standard Accessories （Included in the package）

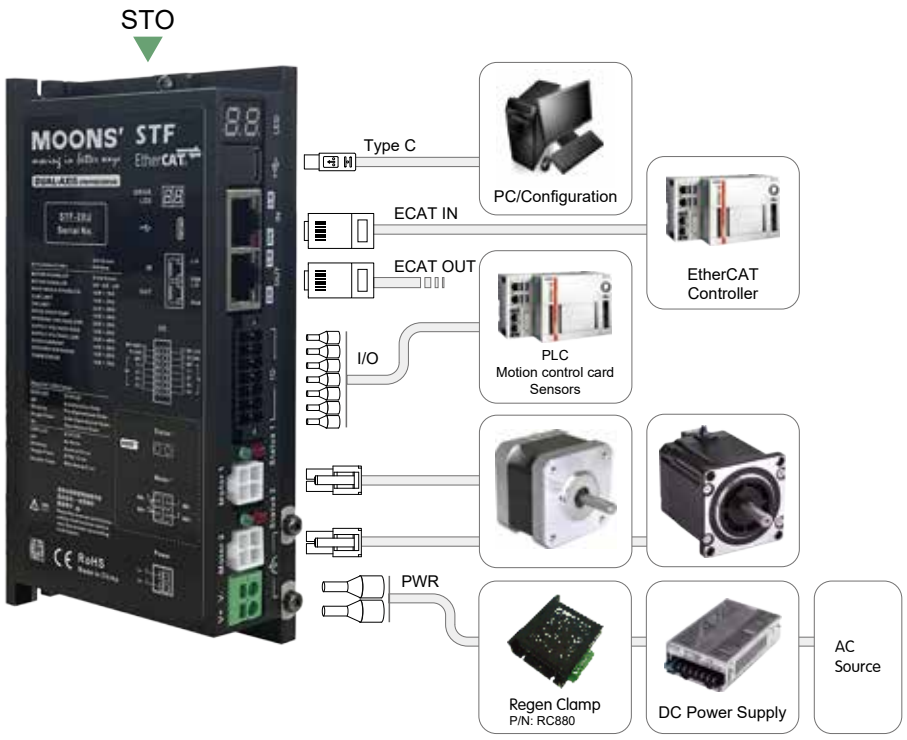
Model	Qty	Catagory	Description
39-01-3048	1*4	Housing	Motor connector housing （J2）
39-00-0038	5*4	Crimp	Motor connector crimp
15EDGKNHB-3.5-12P-14-07A(H)	4	Connector	I/O connector
43025-0600	1	STO Connector Housing	Only for STO type drives
43030-0001	8	STO Connector Crimp	Only for STO type drives

Optional Accessories*

Model	Qty	Catagory	Description
2012 Series	1	Cable	Network Cable
2013 Series	1	Cable	Shielded Network Cable
2620-150	1	Cable	USB mini-B Configuration Cable 1.5m

* Please refer to Page 29 for Optional Accessories

■ STF-2XU-ECX, STF-2XU-ECX-S EtherCAT Communication type



EtherCAT

- Support EtherCAT command and conforms to CoE (cia402 standard)
- 2 axes in one drive designing can work with different kinds of step motors. High efficient, save space.
- STO (Optional)

Standard Accessories （Included in the package）

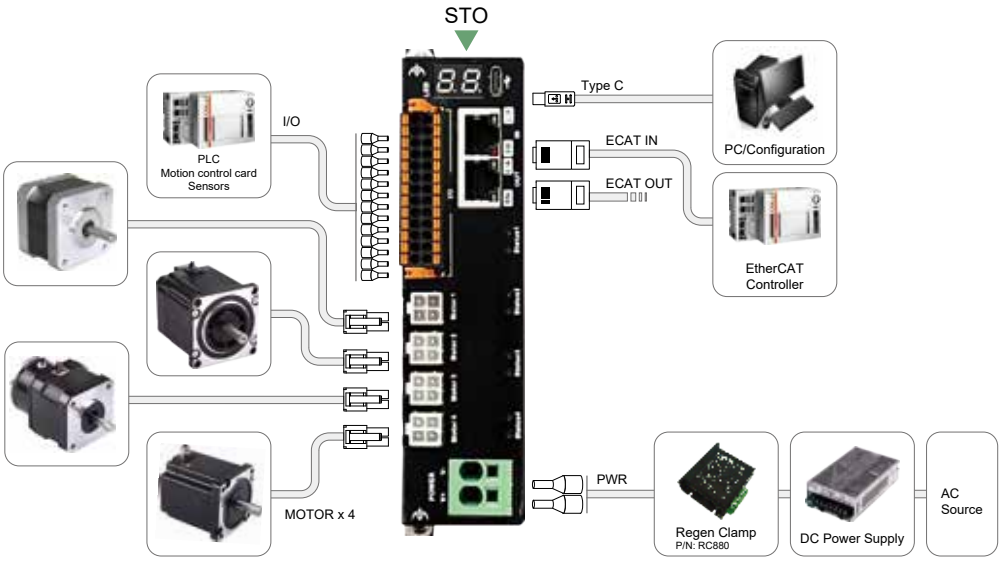
Model	Qty	Catagory	Description
39-01-3048	1*2	Housing	Motor connector housing （J2）
39-00-0038	5*2	Crimp	Motor connector crimp
15EDGKNHG-3.5-14P-13-00A(H)	1	Connector	I/O connector
43025-0600	1	STO Connector Housing	Only for STO type drives
43030-0001	8	STO Connector Crimp	Only for STO type drives

Optional Accessories*

Model	Qty	Catagory	Description
2012 Series	1	Cable	Network Cable
2013 Series	1	Cable	Shielded Network Cable
RC880	1	Regen Clamp	Regen Clamp

* Please refer to Page 29 for Optional Accessories

■ STF-4XU-ECX, STF-4XU-ECX-S EtherCAT Communication type



EtherCAT

- Support EtherCAT command and conforms to CoE (cia402 standard)
- 4 axes in one drive designing can work with different kinds of step motors. High efficient, save space.
- STO (Optional)

Standard Accessories （Included in the package）

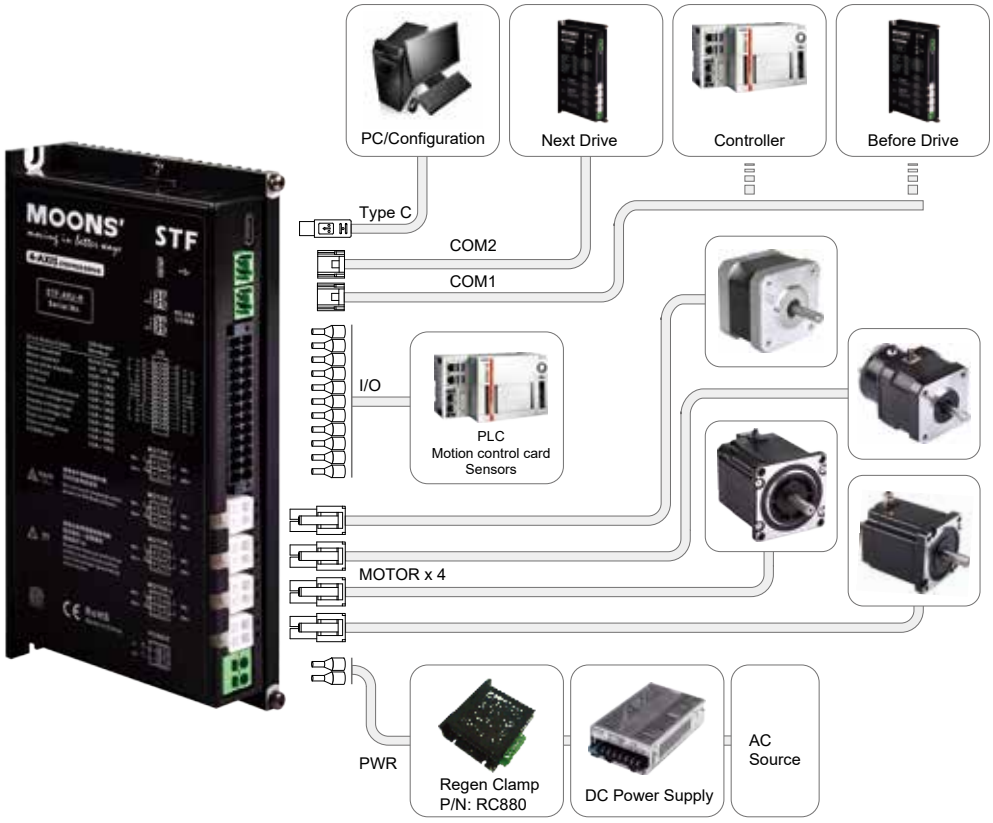
Model	Qty	Catagory	Description
39-01-3048	1*4	Housing	Motor connector housing （J2）
39-00-0038	5*4	Crimp	Motor connector crimp
15EDGKNHG-3.5-26P-13-00A(H)	1	Connector	I/O connector
43025-0600	1	STO Connector Housing	Only for sto type drives
43030-0001	8	STO Connector Crimp	Only for sto type drives

Optional Accessories*

Model	Qty	Catagory	Description
2012 Series	1	Cable	Network Cable
2013 Series	1	Cable	Shielded Network Cable

* Please refer to Page 29 for Optional Accessories

STF-4XU-R RS-485 Communication type



Modbus

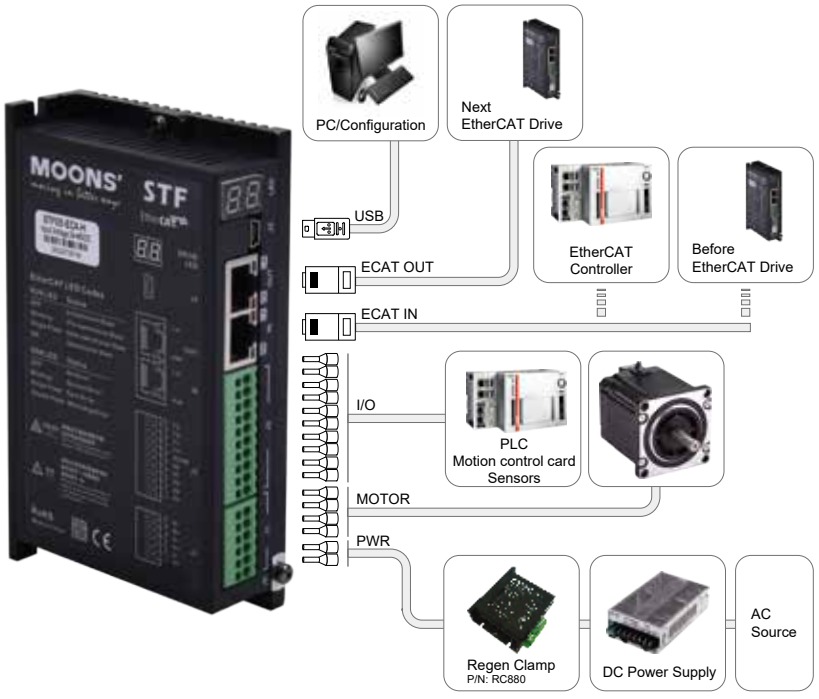
- RS-485, Modbus/RTU protocol
- Stand alone (Q programmer)
- · 4 axes in one drive designing can work with different kinds of step motors. High efficient, save space.

Standard Accessories （Included in the package）

Model	Qty	Catagory	Description
39-01-3048	1*4	Housing	Motor connector housing （J2）
39-00-0038	5*4	Crimp	Motor connector crimp
15EDGKNHG-3.5-26P-13-00A(H)	1	Connector	I/O connector
15EDGKD-2.5-03P-14-00A(H)	2	Connector	RS485 Connector

* Please refer to Page 29 for Optional Accessories

STF-ECX-H, EtherCAT Communication type



EtherCAT

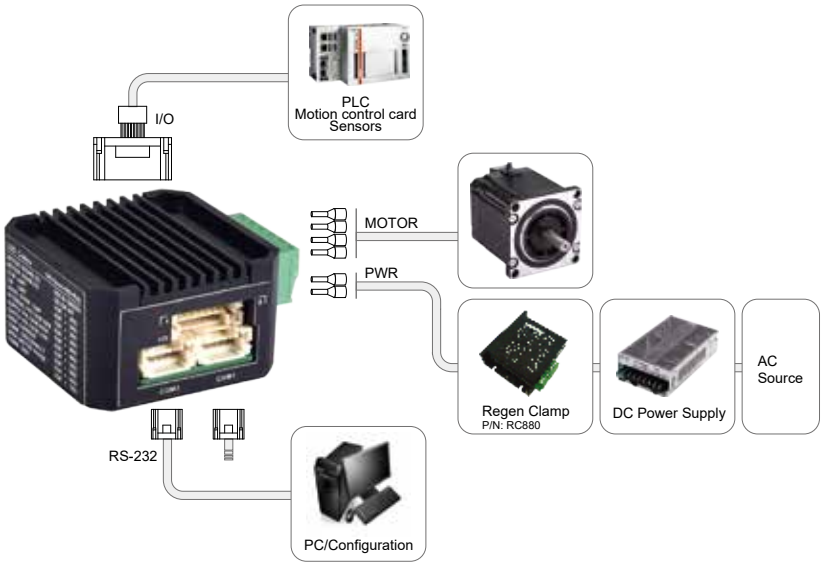
- Support EtherCAT command and conforms to CoE (cia402 standard)
- Stand alone (Q programmer)

Optional Accessories*

Model	Qty	Catagory	Description
2012 Series	1	Cable	Network Cable
2013 Series	1	Cable	Shielded Network Cable
2620-150	1	Cable	USB mini-B Configuration Cable 1.5m
RC880	1	Regen Clamp	Regen Clamp

* Please refer to Page 29 for Optional Accessories

■ STF03-C-mini, CANopen Communication and RS-232 Communication Port



CANopen

- CANopen protocol, CiA301 and CiA402
- Stand alone (Q programmer)

Standard Accessories （Included in the package）

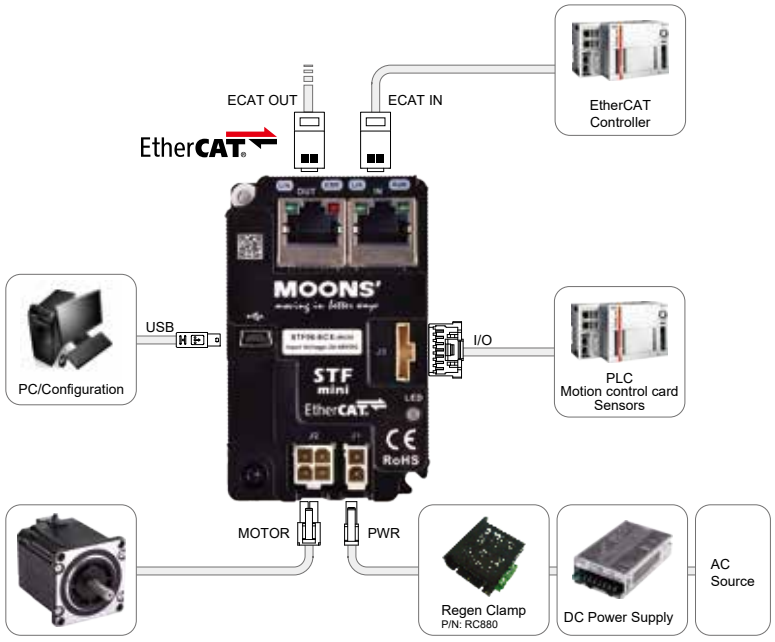
Model	Qty	Catagory	Description
1023-0100	1	Cable	I/O Cable (For STF03-C-mini Series only)
2112-100	1	Cable	CANopen Daisy Chain Extended cable
15EDGRC-3.5-06P-14-00A(H)	8	Connector	Motor and power connector

Optional Accessories*

Model	Qty	Catagory	Description
1023 Series	1	Cable	I/O Cable (For STF03-C-mini Series only)
2112 Series	1	Cable	CANopen Daisy Chain Extended cable
RC880	1	Regen Clamp	Regen Clamp

* Please refer to Page 29 for Optional Accessories

■ STF06-ECX-mini, EtherCAT Communication type



EtherCAT

- Support EtherCAT command and conforms to CoE (cia402 standard)

Standard Accessories （Included in the package）

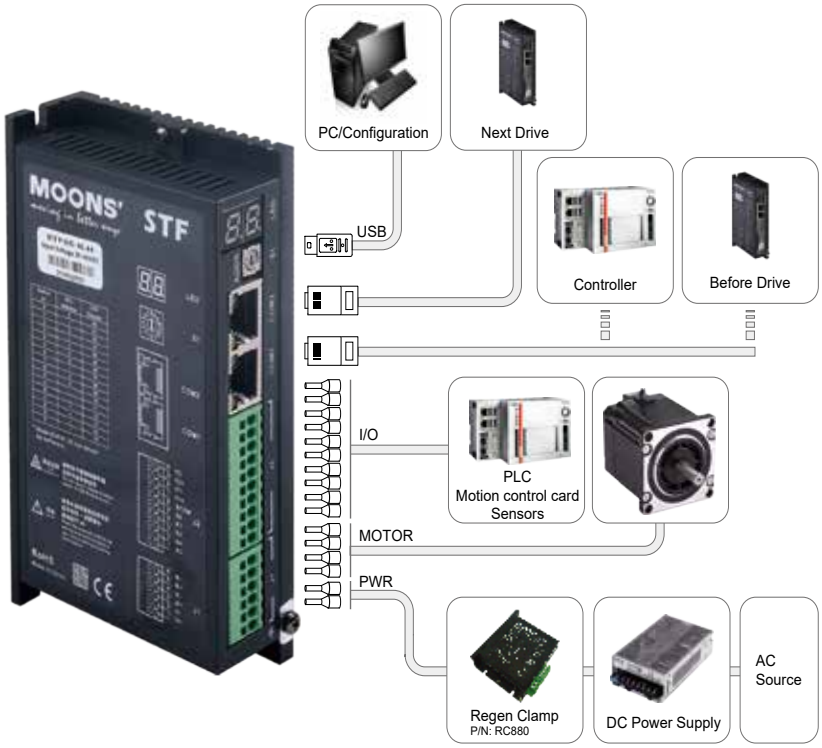
Model	Qty	Catagory	Description
1103-200	1	Cable	2m Power supply cable
2012-030	1	Cable	Network Cable 0.3m
1143-030	1	Cable	0.3m I/O Cable (STF06-ECX-mini only)
39-01-3048	1	Housing	Motor connector housing
39-00-0038	5	Crimp	Motor connector crimp

Optional Accessories*

Model	Qty	Catagory	Description
2012 Series	1	Cable	Network Cable
2013 Series	1	Cable	Shielded Network Cable
2620-150	1	Cable	USB mini-B Configuration Cable 1.5m
RC880	1	Regen Clamp	Regen Clamp

* Please refer to Page 29 for Optional Accessories

STF-R-H, RS-485 Communication type



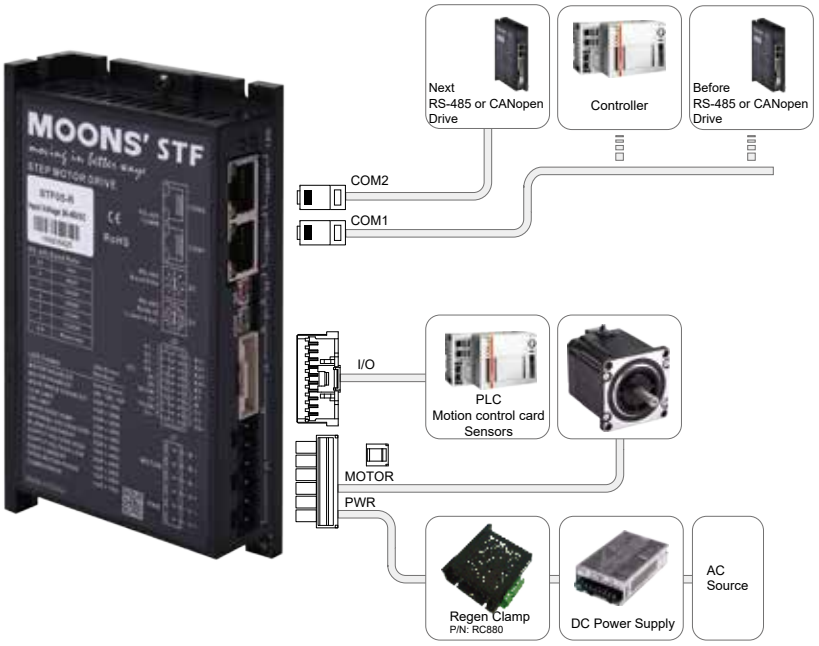
- RS-485, Modbus/RTU protocol
- Stand alone (Q programmer)

Optional Accessories*

Model	Qty	Catagory	Description
2012 Series	1	Cable	Network Cable
2013 Series	1	Cable	Shielded Network Cable
MS-USB-RS-485-01	1	Connector	USB-RS485/422 Adapter
RC880	1	Regen Clamp	Regen Clamp

* Please refer to Page 29 for Optional Accessories

■ STF-R, RS-485 Communication type； STF-C, CANopen Communication type



- Support Modbus/RTU or CANopen CiA301 and CiA402
- Stand alone (Q programmer)

Standard Accessories （Included in the package）

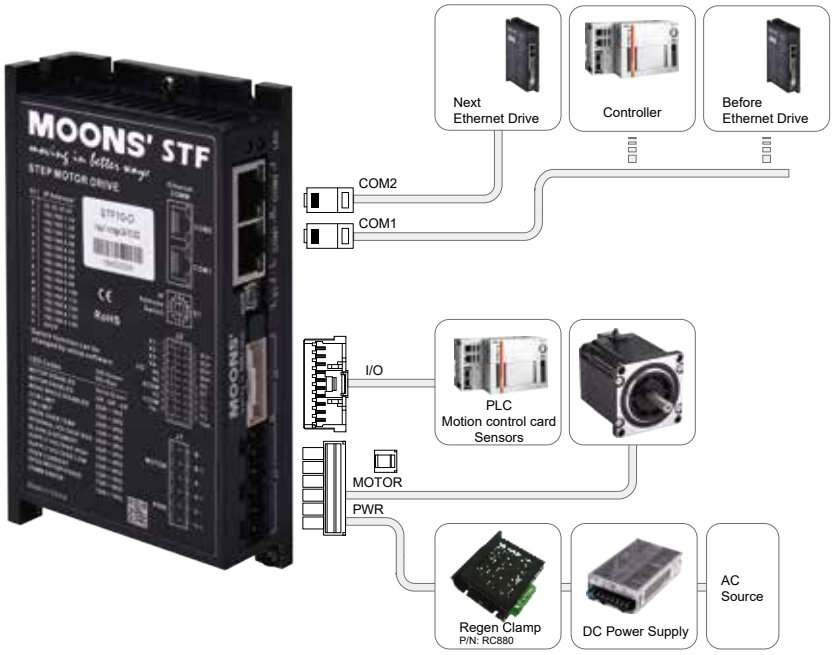
Model	Qty	Catagory	Description
2012-030	1	Cable	Network Cable 0.3m
2EDGK-5.08-06P-13-1000AH	1	Connector	Motor and power connector（STF05/10）
BCP-381-6 BK	1	Connector	Power and motor connector (STF03/06)
501646-2000	1	Housing	I/O connector housing
501648-1000	20	Crimp	I/O connector crimp

Optional Accessories*

Model	Qty	Catagory	Description
1015 Series	1	Cable	I/O cable
2012 Series	1	Cable	Network Cable
2013 Series	1	Cable	Shielded Network Cable
MS-USB-RS-485-01	1	Connector	USB-RS485/422 Adapter
RC880	1	Regen Clamp	Regen Clamp

* Please refer to Page 29 for Optional Accessories

■ STF-D/IP/PN，Ethernet Communication type



EtherNet/IP™

PROFINET®

Modbus

- Ethernet or Modbus/TCP field bus control
- Stand alone (Q programmer)
- eSCL protocol

Standard Accessories （Included in the package）

Model	Qty	Catagory	Description
2012-030	1	Cable	Network Cable 0.3m
2EDGK-5.08-06P-13-1000AH	1	Connector	Power and motor connector (STF05/10)
BCP-381-6 BK	1	Connector	Power and motor connector (STF03/06)
501646-2000	1	Housing	I/O connector housing
501648-1000	20	Crimp	I/O connector crimp

Optional Accessories*

Model	Qty	Catagory	Description
1015 Series	1	Cable	I/O cable
2012 Series	1	Cable	Network Cable
2013 Series	1	Cable	Shielded Network Cable
RC880	1	Regen Clamp	Regen Clamp

* Please refer to Page 29 for Optional Accessories

Numbering System

■ Standard Series

STF 05 - ECX - H - FC

- STF: STF Series
- 05: Output Current (Peak)
  - 03 = 3A
  - 05 = 5A
  - 06 = 6A
  - 10 = 10A
- ECX: Control Mode
  - R = RS-485
  - C = CANopen
  - D = Ethernet
  - IP = EtherNet/IP
  - PN = Profinet
  - ECX = EtherCAT
- H: Special Models
  - Blank = Terminal block
  - H = Push-in I/O connector*1
  - mini = Mini size*2
- FC: Type
  - Blank = Standard type
  - FC = UL type

*1 : STF05/10-ECX-H, SSDC05/10-R-H Only
*2 : STF03-C-mini, STF06-ECX-mini Only

■ Multi-Axis Series

STF 05 - 4X - ECX - S - FC

- STF: STF Series
- 05: Output Current (Peak)
  - 05 = 5A
  - 10 = 10A
- 4X: Type
  - 4X = Horizontal 4 Axes in 1
  - 2XU = Vertical 2 Axes in 1
  - 4XU = Vertical 4 Axes in 1
- ECX: Control Mode
  - ECX = EtherCAT
  - IP = Ethernet IP
  - R = Modbus/RTU
- S: Special Models
  - Blank = Without STO
  - S = With STO
- FC: Type
  - Blank = Standard type
  - FC = UL type

	Model	Current	Voltage	Multi-functional Capability						
				Modbus/RTU	CANopen	Modbus/TCP	EtherNet/IP	EtherCAT	Profinet	Q Program
★	STF05-4X-ECX	0.1-5.0 A ※	24-60 VDC					√		
★	STF10-4X-ECX	0.1-10.0 A ※	24-60 VDC					√		
★	STF05-4X-ECX-S *	0.1-5.0 A ※	24-60 VDC					√		
★	STF10-4X-ECX-S *	0.1-10.0 A ※	24-60 VDC					√		
★	STF05-2XU-ECX	0.1-5.0 A ※	24-60 VDC					√		
★	STF10-2XU-ECX	0.1-10.0 A ※	24-60 VDC					√		
★	STF05-2XU-ECX-S *	0.1-5.0 A ※	24-60 VDC					√		
★	STF10-2XU-ECX-S *	0.1-10.0 A ※	24-60 VDC					√		
★	STF05-4XU-ECX	0.1-5.0 A ※	24-60 VDC					√		
★	STF10-4XU-ECX	0.1-10.0 A ※	24-60 VDC					√		
★	STF05-4XU-ECX-S *	0.1-5.0 A ※	24-60 VDC					√		
★	STF10-4XU-ECX-S *	0.1-10.0 A ※	24-60 VDC					√		
	STF05-4XU-R	0.1-5.0 A ※	24-48 VDC	√						√
★	STF05-ECX-H	0.1-5.0 A	24-48 VDC					√		√
★	STF10-ECX-H	0.1-10.0 A	24-60 VDC					√		√
	STF03-ECX	0.1-3.0 A	12-48 VDC					√		√
	STF06-ECX	0.1-6.0 A	12-48 VDC					√		√
★	STF05-R-H	0.1-5.0 A	24-48 VDC	√						√
★	STF10-R-H	0.1-10.0 A	24-60 VDC	√						√
	STF03-C-mini	0.1-3.0 A	12-48 VDC		√					√
	STF06-ECX-mini	0.1-6.0 A	12-48 VDC					√		√
	STF03-R	0.1-3.0 A	12-48 VDC	√						√
★	STF05-R	0.1-5.0 A	24-48 VDC	√						√
	STF06-R	0.1-6.0 A	12-48 VDC	√						√
★	STF10-R	0.1-10.0 A	24-60 VDC	√						√
	STF03-C	0.1-3.0 A	12-48 VDC		√					√
★	STF05-C	0.1-5.0 A	24-48 VDC		√					√
	STF06-C	0.1-6.0 A	12-48 VDC		√					√
★	STF10-C	0.1-10.0 A	24-60 VDC		√					√
	STF03-D	0.1-3.0 A	12-48 VDC			√				√
★	STF05-D	0.1-5.0 A	24-48 VDC			√				√
	STF06-D	0.1-6.0 A	12-48 VDC			√				√
★	STF10-D	0.1-10.0 A	24-60 VDC			√				√
	STF03-IP	0.1-3.0 A	12-48 VDC			√	√			√
★	STF05-IP	0.1-5.0 A	24-48 VDC			√	√			√
	STF06-IP	0.1-6.0 A	12-48 VDC			√	√			√
★	STF10-IP	0.1-10.0 A	24-60 VDC			√	√			√
★	STF05-PN-01	0.1-5.0 A	24-48 VDC						√	√
★	STF10-PN-01	0.1-10.0 A	24-60 VDC						√	√

※ : STF05-2XU continuous 2*5A; STF10-2X continuous 2*10A. STF05-4X/4XU continuous 4*5A; STF10-4X continuous 4*10A.
★ : UL certified models are detailed in the appendix.
* : STO

Driver Specifications

■ Specifications

Driver	STF03	STF05	STF06	STF10
Input Voltage	12-48VDC	24-48VDC	12-48VDC	24-60VDC※
Output Current	Continuous Current 3A max	Continuous Current 5A max	Continuous Current 6A max	Continuous Current 10A max
Protection	Over-voltage, under-voltage, over-temp, motor/winding shorts (phase-to-phase, phase-to-ground)			
Speed Range	Up to 3000rpm			
Filters	Digital input noise filter, Analog input noise filter, Smoothing filter, PID filter, Notch filter			
Non-Volatile Storage	Configurations are saved in FLASH memory on-board the DSP			
Ambient Temperature	0 to 40°C (32 to 104°F) when mounted to a suitable heatsink			
Ambient Humidity	90% Max., non-condensing			
Mass	0.16kg	0.3kg	0.16kg	0.3kg
Motor	AM Series Stepper Motor			

※：实际电压请参考对应型号硬件手册

■ Technical specifications

☐ Multi-Axis Series

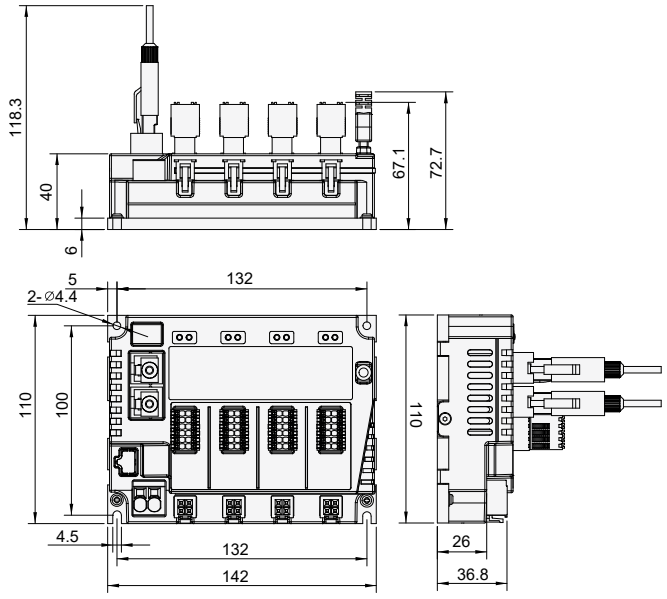
Driver	Type	Digital Inputs	Digital Outputs	STO	Bus Control	PLC(Q programmer)
STF**-4X-ECX	EtherCAT	5DI*4	3DO*4	/	EtherCAT	/
STF**-4X-ECX-S		5DI*4	3DO*4	√	EtherCAT	/
STF**-2XU-ECX		3DI*2	2DO*2	/	EtherCAT	/
STF**-2XU-ECX-S		3DI*2	2DO*2	√	EtherCAT	/
STF**-4XU-ECX		3DI*4	2DO*4	/	EtherCAT	/
STF**-4XU-ECX-S		3DI*4	2DO*4	√	EtherCAT	/
STF**-4XU-R	RS485	3DI*4	2DO*4	/	Modbus/RTU SCL	√

☐ Standard Series

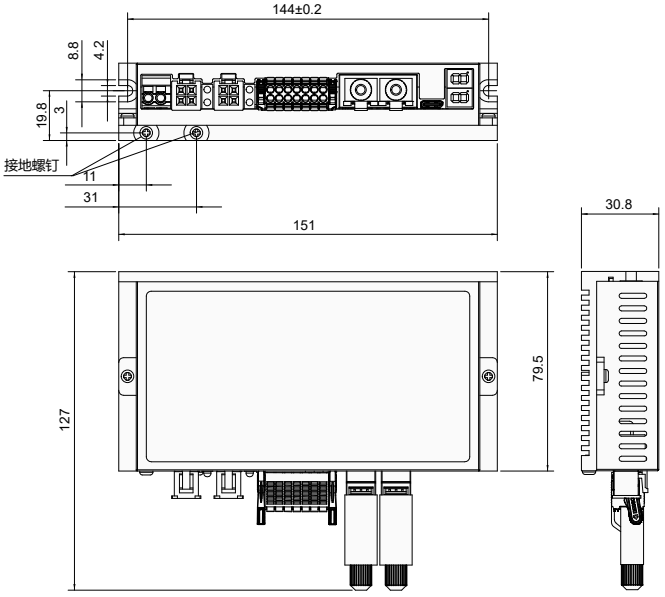
Driver	Type	Digital Inputs	Digital Outputs	Bus Control	PLC(Q programmer)
STF**-ECX	EtherCAT	8DI	4DO	EtherCAT	√
STF**-ECX-H		5DI	2DO	EtherCAT	√
STF**-ECX-mini		5DI	2DO	EtherCAT	√
STF**-R-H	RS485	5DI	2DO	Modbus/RTU	√
STF**-C-mini	CAN	2DI	1DO	CANopen	√
STF**-C		8DI	4DO	CANopen	√
STF**-D	Ethernet	8DI	4DO	Modbus/TCP eSCL	√
STF**-IP	Ethernet	8DI	4DO	Ethernet/IP eSCL	√
STF**-PN	Profinet	8DI	4DO	Profinet eSCL	√

■ Multi-Axis Series

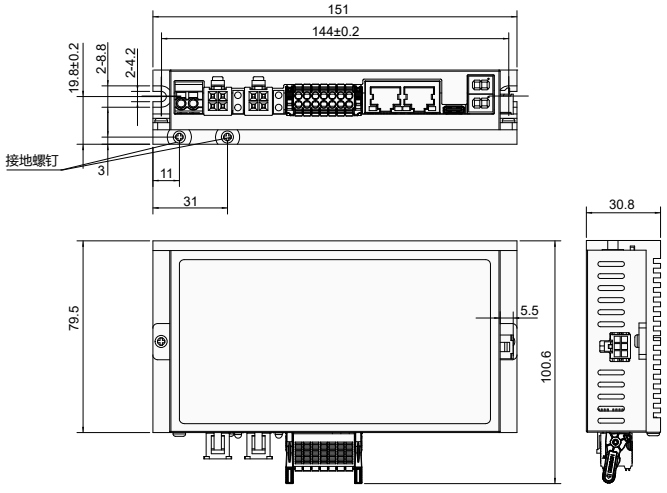
☐ STF05/10-4X-ECX, STF05/10-4X-ECX-S



☐ STF05/10-2XU-ECX



☐ STF05/10-2XU-ECX-S



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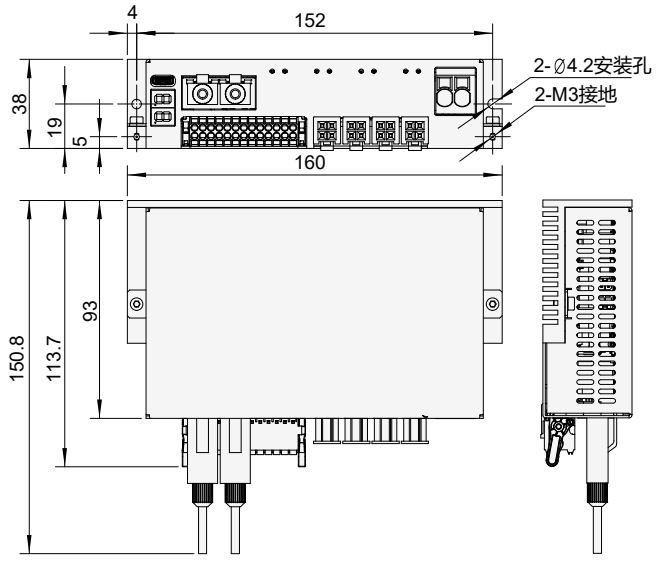

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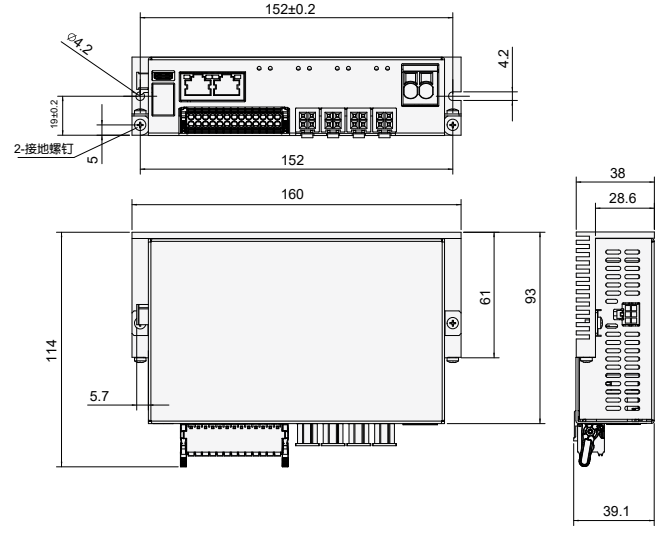

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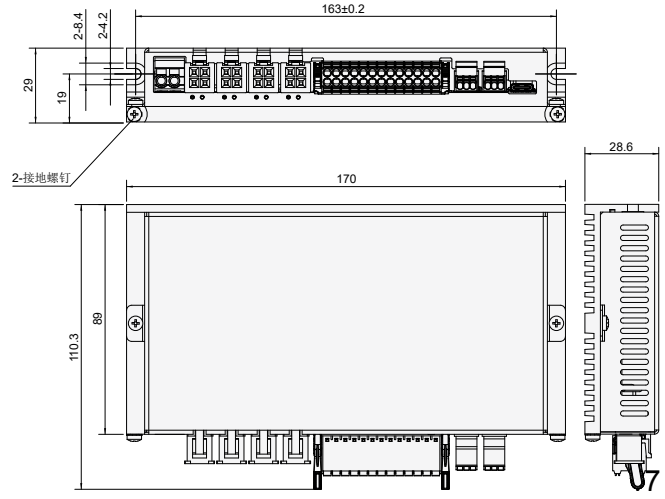
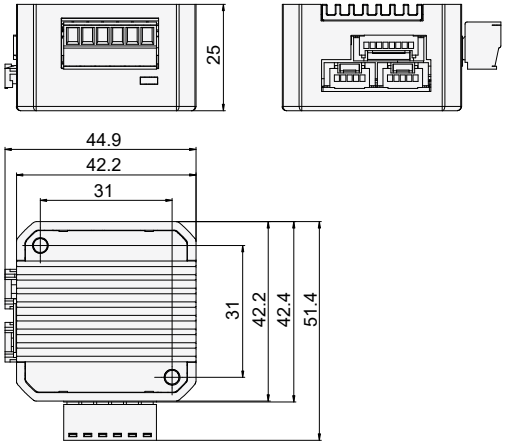
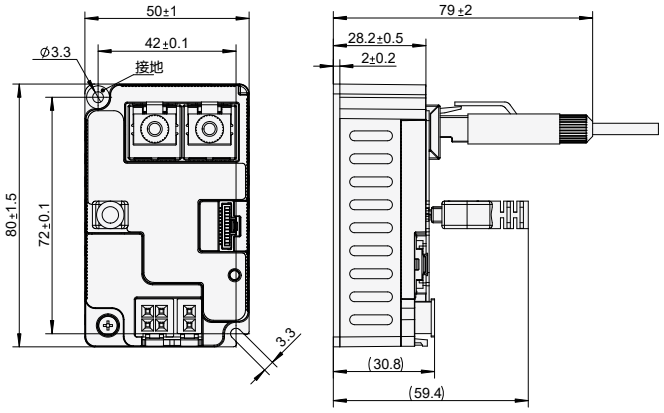


■ Standard Series

☐ STF03-C-mini



☐ STF06-ECX-mini



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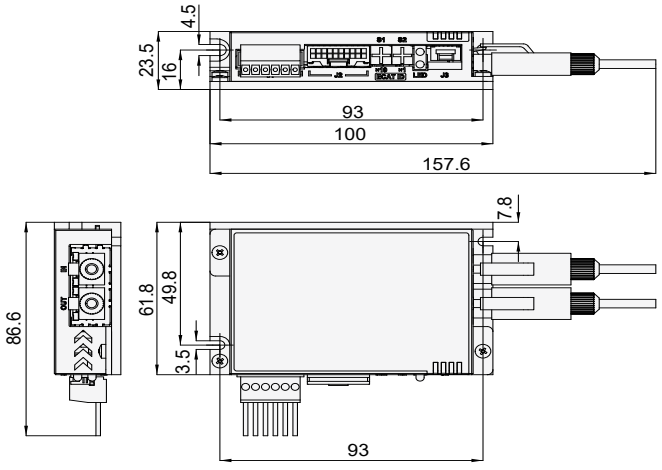

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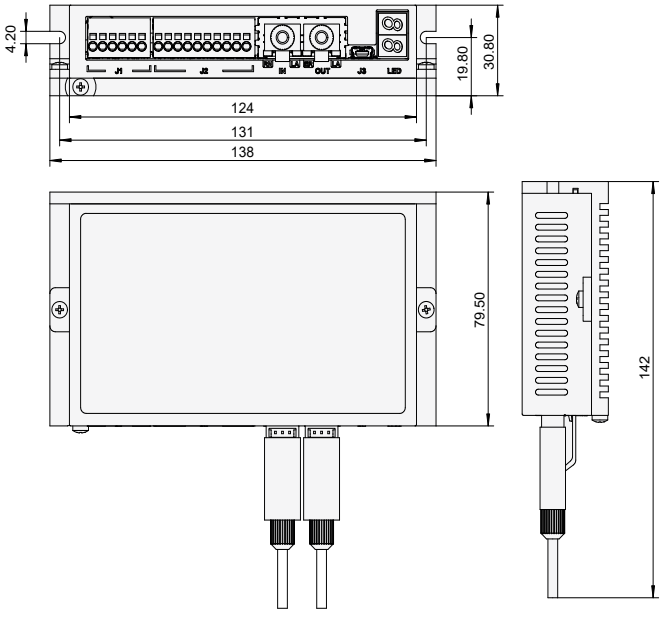
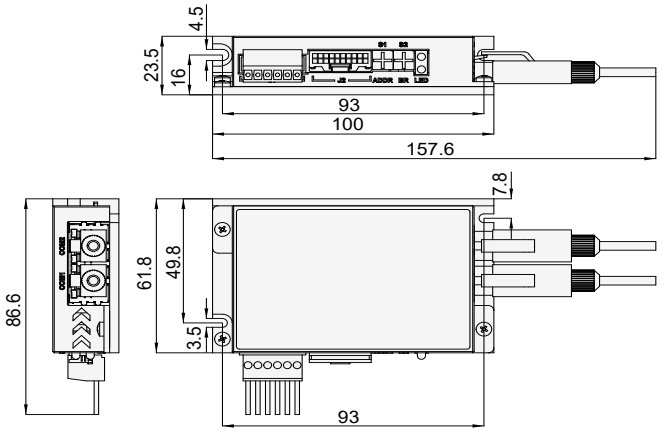


☐ STF03/06-R, STF03/06-C



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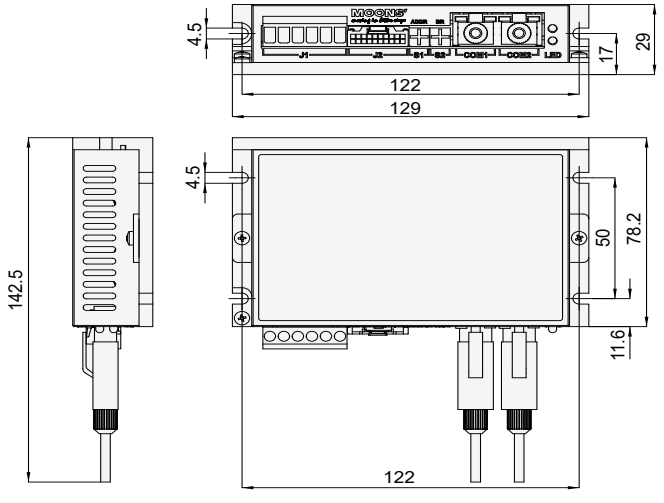

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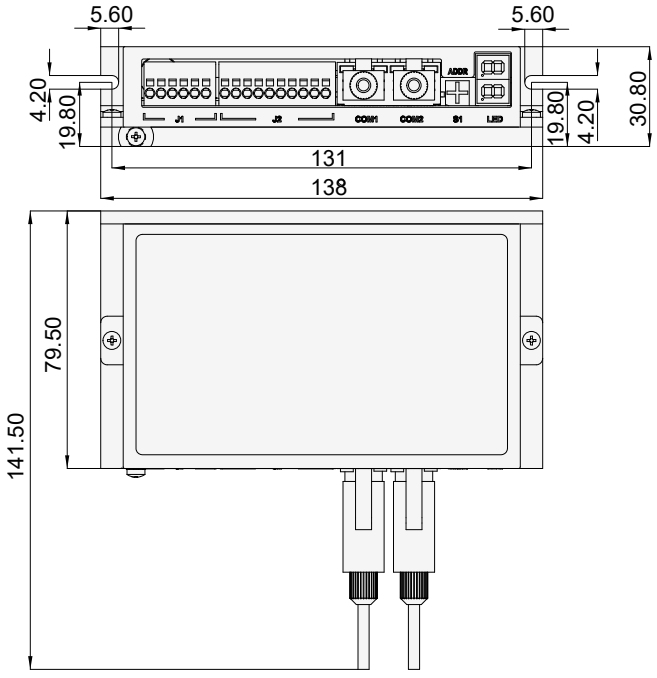
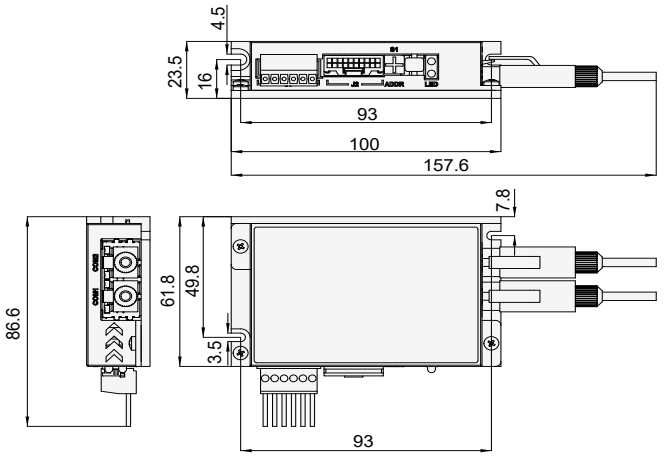
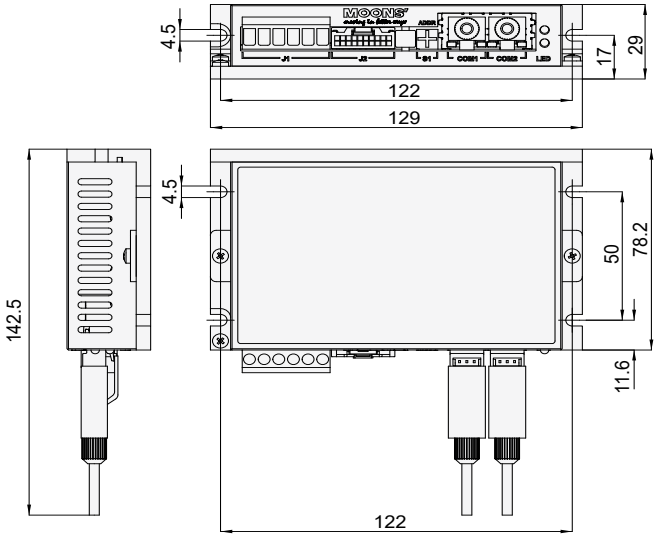


STF03/06-D, STF03/06-IP



STF05/10-D, STF05/10-IP



Recommended Motors

■ AM Series Step Motors

☐ Standard type step motor

Model	Features	Lead Number	Length	Holding Torque	Drive Current Setting Range※	Rotor Inertia	Mass	Mass Dielectric Strength
			mm	N.m	A	g.cm²	Kg	
AM6HY04A0-01N	Single Shaft	4	30	0.0058	0.1~0.4	5.8	0.03	
AM8HY2050-01N	Single Shaft	4	29.5	0.02	0.1~0.4	1.6	0.04	
AM8HY2050-02N	Double Shaft							
AM8HY4043-01N	Single Shaft	4	46.5	0.042	0.1~0.4	4.2	0.09	
AM8HY4043-02N	Double Shaft							
AM11HS1008-07	Single Shaft	4	31	0.072	0.1~1.4	9	0.1	
AM11HS3007-02	Single Shaft	4	40	0.082	0.1~1.4	12	0.15	
AM11HS50A0-01	Single Shaft	4	51	0.2	0.1~1.4	18		
AM14HS10A0-01	Single Shaft	4	27.3	0.14	0.1~1.4	12	0.15	
AM14HS10A0-02	Double Shaft							
AM14HS30A0-01	Single Shaft	4	36	0.23	0.1~1.4	20	0.21	
AM14HS30A0-02	Double Shaft							
AM14HS50A0-01	Single Shaft	4	55.5	0.4	0.1~1.4	35	0.24	
AM14HS50A0-02	Double Shaft							
AM17HD4452-02N	Single Shaft	4	34.3	0.285	0.1~2.1	38	0.23	
AM17HD4452-01N	Double Shaft							
AM17HD2438-02N	Single Shaft	4	39.8	0.46	0.1~2.1	57	0.28	
AM17HD2438-01N	Double Shaft							
AM17HD6426-06N	Single Shaft	4	48.3	0.59	0.1~2.1	82	0.36	
AM17HD6426-05N	Double Shaft							
AM17HDB410-01N	Single Shaft	4	62.8	0.85	0.1~1.9	123	0.6	
AM17HDB410-02N	Double Shaft							
AM17HD445B-01N	Single Shaft	4	36.1	0.34	0.1~2.8	38	0.23	
AM17HD445B-02N	Double Shaft							
AM17HD243B-01N	Single Shaft	4	41.6	0.47	0.1~2.8	57	0.28	
AM17HD243B-02N	Double Shaft							
AM17HD642B-01N	Single Shaft	4	50.1	0.64	0.1~2.8	82	0.36	
AM17HD642B-02N	Double Shaft							
AM17HDB41B-01N	Single Shaft	4	64.6	0.85	0.1~2.8	123	0.6	
AM17HDB41B-02N	Double Shaft							
AM23HS04A0-01	Single Shaft	4	39	0.82	0.1~2.5	105	0.4	
AM23HS04A0-02	Double Shaft							
AM23HS84A0-01	Single Shaft	4	55	1.5	0.1~2.5	215	0.6	
AM23HS84A0-02	Double Shaft							
AM23HSA4A0-01	Single Shaft	4	77	2.3	0.1~2.5	365	1	
AM23HSA4A0-02	Double Shaft							
AM23HS04B0-01	Single Shaft	4	39	0.82	0.1~5.2	105	0.4	
AM23HS04B0-02	Double Shaft							
AM23HS84B0-01	Single Shaft	4	55	1.5	0.1~5.2	215	0.6	
AM23HS84B0-02	Double Shaft							
AM23HSA4B0-01	Single Shaft	4	77	2.3	0.1~5.2	365	1	
AM23HSA4B0-02	Double Shaft							
AM23HS04B0-03	Single Shaft	4	39	0.82	0.1~5.2	105	0.4	
AM23HS04B0-04	Double Shaft							
AM23HS84B0-03	Single Shaft	4	55	1.5	0.1~5.2	215	0.6	
AM23HS84B0-04	Double Shaft							
AM23HSA4B0-03	Single Shaft	4	77	2.3	0.1~5.2	365	1	
AM23HSA4B0-04	Double Shaft							
AM24HS2402-08N	Single Shaft	4	54	1.57	0.1~5.6	450	0.83	
AM24HS2402-11N	Double Shaft							
AM24HS5401-10N	Single Shaft	4	85	3.2	0.1~5.6	900	1.4	
AM24HS5401-24N	Double Shaft							
AM34HD0404-08	Single Shaft	4	66.5	3.7	0.1~8.9	1100	1.6	
AM34HD0404-09	Double Shaft							
AM34HD1404-06	Single Shaft	4	96	6.7	0.1~8.9	1850	2.7	
AM34HD1404-07	Double Shaft							
AM34HD2403-07	Single Shaft	4	125.5	9.4	0.1~7.9	2750	3.8	
AM34HD2403-08	Double Shaft							
AM34HD3402-01	Single Shaft	4	156	11.5	0.1~7.9	4400	5.2	
AM34HD3402-02	Double Shaft							

500VAC / 1Minute

AM34HM0404-S	Single Shaft	4	61	3.7	0.1~8.82	1300	1.6	500VAC / 1Minute
AM34HM0404-D	Double Shaft							
AM34HM1404-S	Single Shaft	4	91	6.4	0.1~8.82	1850	2.7	
AM34HM1404-D	Double Shaft							
AM34HM2403-S	Single Shaft	4	119	9.4	0.1~7.84	2750	3.8	
AM34HM2403-D	Double Shaft							
AM34HM3402-S	Single Shaft	4	147.5	11.5	0.1~7.84	5160	5.2	
AM34HM3402-D	Double Shaft							

※: The current value of the driver is the sinusoidal peak.

☐ With brake type motor

Model	Features	Lead Number	Length	Holding Torque	Drive Current Setting Range※	Rotor Inertia	Mass	Mass Dielectric Strength
			mm	N.m	A	g.cm^2	Kg	
AM17HD4452-BR01	Brake Motor	4+2	60.3	0.285	0.1~2.1	38	0.38	500VAC / 1Minute
AM17HD2438-BR01	Brake Motor	4+2	65.8	0.46	0.1~2.1	57	0.43	
AM17HD6426-BR01	Brake Motor	4+2	74.3	0.59	0.1~2.1	82	0.51	
AM17HDB410-BR01	Brake Motor	4+2	88.8	0.85	0.1~1.9	123	0.75	
AM23HS04B0-BR01	Brake Motor	4+2	80	0.82	0.1~5.2	105	1.5	
AM23HS84B0-BR01	Brake Motor	4+2	96	1.5	0.1~5.2	215	1.5	
AM23HSA4B0-BR01	Brake Motor	4+2	118	2.3	0.1~5.2	365	1.5	
AM24HS2402-BR01	Brake Motor	4+2	95	1.57	0.1~5.6	450	1.03	
AM24HS5401-BR01	Brake Motor	4+2	126	3.2	0.1~5.6	900	1.6	
AM34HD0404-BR01	Brake Motor	4+2	118.5	3.7	0.1~8.9	1100	2.2	
AM34HD1404-BR01	Brake Motor	4+2	148	6.7	0.1~8.9	1850	3.3	
AM34HD2403-BR01	Brake Motor	4+2	177.5	9.4	0.1~7.9	2750	4.4	

※: The current value of the driver is the sinusoidal peak.

☐ Encoder type motor

Model	Features	Lead Number	Length	Holding Torque	Drive Current Setting Range※	Rotor Inertia	Mass	Mass Dielectric Strength
			mm	N.m	A	g.cm^2	Kg	
AM17HD4452-F1000D	External Encoder Motor	4	34.3	0.285	0.1~2.1	38	0.24	500VAC / 1Minute
AM17HD2438-F1000D	External Encoder Motor	4	39.8	0.46	0.1~2.1	57	0.29	
AM17HD6426-F1000D	External Encoder Motor	4	48.3	0.59	0.1~2.1	82	0.37	
AM17HDB410-F1000D	External Encoder Motor	4	62.8	0.85	0.1~1.9	123	0.61	
AM23HS04A0-F1000D	External Encoder Motor	4	39	0.82	0.1~2.5	105	0.41	
AM23HS84A0-F1000D	External Encoder Motor	4	55	1.5	0.1~2.5	215	0.61	
AM23HSA4A0-F1000D	External Encoder Motor	4	77	2.3	0.1~2.5	365	1.01	
AM23HS04B0-F1000D	External Encoder Motor	4	39	0.82	0.1~5.2	105	0.41	
AM23HS84B0-F1000D	External Encoder Motor	4	55	1.4	0.1~5.2	215	0.61	
AM23HSA4B0-F1000D	External Encoder Motor	4	77	2.3	0.1~5.2	365	1.01	
AM24HS2402-F1000D	External Encoder Motor	4	54.0	1.57	0.1~5.6	450	0.84	
AM24HS5401-F1000D	External Encoder Motor	4	85.0	3.2	0.1~5.6	900	1.41	
AM34HD0404-F1000D	External Encoder Motor	4	66.5	3.7	0.1~8.9	1100	1.61	
AM34HD1404-F1000D	External Encoder Motor	4	96.0	6.7	0.1~8.9	1850	2.71	
AM34HD2403-F1000D	External Encoder Motor	4	125.5	9.4	0.1~7.9	2750	3.81	
AM34HD3402-F1000D	External Encoder Motor	4	156	11.5	0.1~7.9	4400	5.21	

※: The current value of the driver is the sinusoidal peak

☐ Gearbox type motor

Model	Features	Lead Number	Length	Holding Torque	Drive Current Setting Range※	Rotor Inertia	Mass	Mass Dielectric Strength
			mm	N.m	A	g.cm²	Kg	
AM17HD4452-PG05	5 speed reducer motor	4	101.8	1.25	0.1~2.1	950	0.55	
AM17HD4452-PG10	10 speed reducer motor	4	101.8	2.5	0.1~2.1	3800	0.55	
AM17HD4452-PG20	20 speed reducer motor	4	114.8	5	0.1~2.1	15200	0.63	
AM17HD2438-PG05	5 speed reducer motor	4	107.3	2	0.1~2.1	1425	0.6	
AM17HD2438-PG10	10 speed reducer motor	4	107.3	4	0.1~2.1	5700	0.6	
AM17HD2438-PG20	20 speed reducer motor	4	120.3	8	0.1~2.1	22800	0.68	
AM17HD6426-PG05	5 speed reducer motor	4	115.8	2.5	0.1~2.1	2050	0.68	
AM17HD6426-PG10	10 speed reducer motor	4	115.8	5	0.1~2.1	8200	0.68	
AM17HD6426-PG20	20 speed reducer motor	4	128.8	10	0.1~2.1	32800	0.76	
AM17HDB410-PG05	5 speed reducer motor	4	130.3	4.25	0.1~1.9	3075	0.92	
AM17HDB410-PG10	10 speed reducer motor	4	130.3	8.5	0.1~1.9	12300	0.92	
AM17HDB410-PG20	20 speed reducer motor	4	143.3	17	0.1~1.9	49200	1	
AM23HS04B0-PG05	5 speed reducer motor	4	112.5	4.1	0.1~5.2	2625	1.23	
AM23HS04B0-PG10	10 speed reducer motor	4	112.5	8.2	0.1~5.2	10500	1.23	
AM23HS04B0-PG20	20 speed reducer motor	4	125.5	16.4	0.1~5.2	42000	1.44	
AM23HS84B0-PG05	5 speed reducer motor	4	128.5	7.5	0.1~5.2	5375	1.43	
AM23HS84B0-PG10	10 speed reducer motor	4	128.5	15	0.1~5.2	21500	1.43	
AM23HS84B0-PG20	20 speed reducer motor	4	141.5	30	0.1~5.2	86000	1.64	500VAC / 1Minute
AM23HSA4B0-PG05	5 speed reducer motor	4	150.5	11.5	0.1~5.2	9125	1.83	
AM23HSA4B0-PG10	10 speed reducer motor	4	150.5	23	0.1~5.2	36500	1.83	
AM23HSA4B0-PG20	20 speed reducer motor	4	163.5	46	0.1~5.2	146000	2.07	
AM24HS2402-PG05	5 speed reducer motor	4	127.5	6	0.1~5.6	11250	1.66	
AM24HS2402-PG10	10 speed reducer motor	4	127.5	12	0.1~5.6	45000	1.66	
AM24HS2402-PG20	20 speed reducer motor	4	140.5	24	0.1~5.6	180000	1.87	
AM24HS5401-PG05	5 speed reducer motor	4	158.5	12.5	0.1~5.6	22500	2.23	
AM24HS5401-PG10	10 speed reducer motor	4	158.5	25	0.1~5.6	90000	2.23	
AM24HS5401-PG20	20 speed reducer motor	4	171.5	50	0.1~5.6	360000	2.44	
AM34HD0404-PG05	5 speed reducer motor	4	170.5	15	0.1~8.9	27500	3.71	
AM34HD0404-PG10	10 speed reducer motor	4	170.5	30	0.1~8.9	110000	3.71	
AM34HD0404-PG20	20 speed reducer motor	4	188.5	60	0.1~8.9	440000	4.21	
AM34HD1404-PG05	5 speed reducer motor	4	200	25	0.1~8.9	46250	4.81	
AM34HD1404-PG10	10 speed reducer motor	4	200	50	0.1~8.9	185000	4.81	
AM34HD1404-PG20	20 speed reducer motor	4	218	100	0.1~8.9	740000	5.31	
AM34HD2403-PG05	5 speed reducer motor	4	229.5	35.5	0.1~7.9	68750	5.91	
AM34HD2403-PG10	10 speed reducer motor	4	229.5	71	0.1~7.9	275000	5.91	
AM34HD2403-PG20	20 speed reducer motor	4	247.5	142	0.1~7.9	1100000	6.41	

※: The current value of the driver is the sinusoidal peak.

☐ F1000D Encode Electrical Specification

Resolution	1000 Line
Supply Current (no load)	5V±10%
Output mode	A/B/Z differential output
Speed Range	3600rpm

A leads B for clockwise shaft rotation, and B leads A for counterclockwise rotation viewed from direction H

Mating Connectors

Housing：NSHR-08V-S (JST)

Crimp：SSHL-003T-P0.2 (JST)

☐ F1000D Cables Specification

Pin	7	5	3	1
Signal	Z+	B+	A+	5V
Pin	8	6	4	2
Signal	Z-	B-	A-	GND

Accessories(Sold Separately)

General encoder Cable

P/N：1144-0100 Length：1m

P/N：1144-0300 Length：3m

P/N：1144-0500 Length：5m

Encoder cable used with MOONS'drive

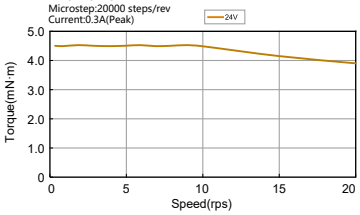
P/N：2140-0100 Length：1m

P/N：2140-0300 Length：3m

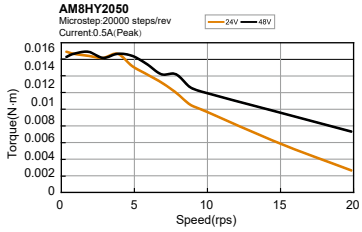
P/N：2140-0500 Length：5m

AM Series Torque Curves

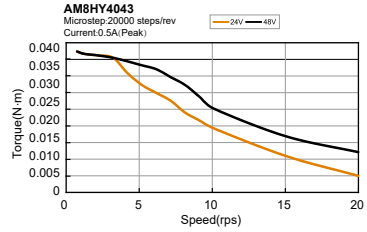
AM6HY04A0
Microstep:20000 steps/rev
Current:0.3A(Peak)



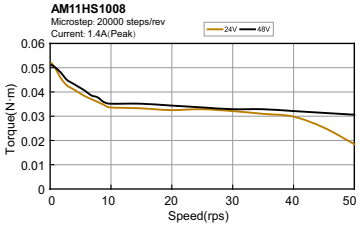
AM8HY2050
Microstep:20000 steps/rev
Current:0.5A(Peak)



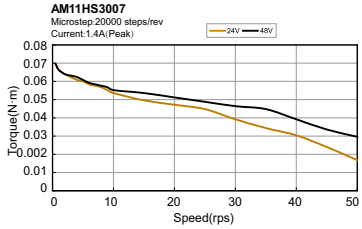
AM8HY4043
Microstep:20000 steps/rev
Current:0.5A(Peak)



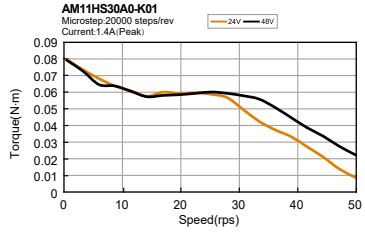
AM11HS1008
Microstep: 20000 steps/rev
Current: 1.4A(Peak)



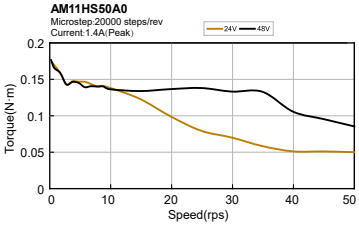
AM11HS3007
Microstep:20000 steps/rev
Current:1.4A(Peak)



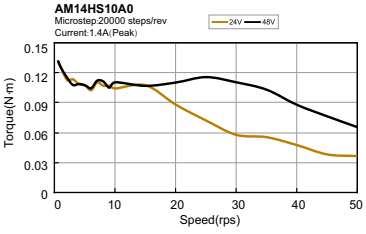
AM11HS30A0-K01
Microstep:20000 steps/rev
Current:1.4A(Peak)



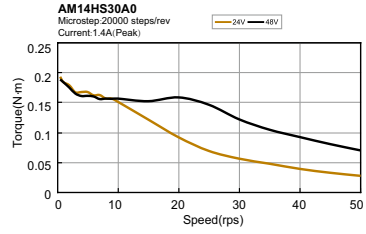
AM11HS50A0
Microstep:20000 steps/rev
Current:1.4A(Peak)



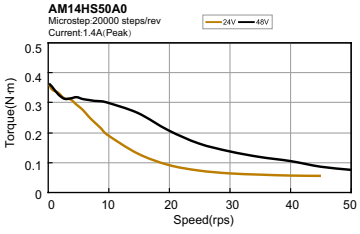
AM14HS10A0
Microstep:20000 steps/rev
Current:1.4A(Peak)



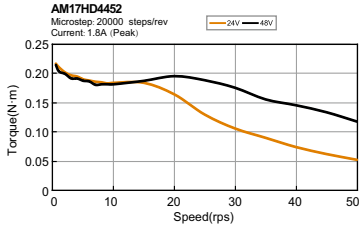
AM14HS30A0
Microstep:20000 steps/rev
Current:1.4A(Peak)



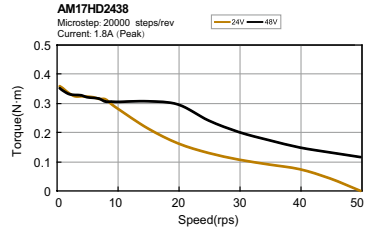
AM14HS50A0
Microstep:20000 steps/rev
Current:1.4A(Peak)



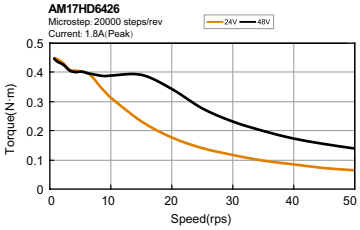
AM17HD4452
Microstep: 20000 steps/rev
Current: 1.8A (Peak)



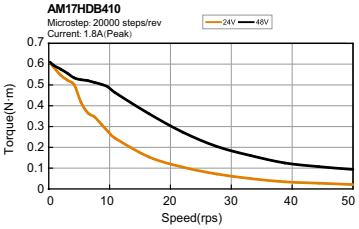
AM17HD2438
Microstep: 20000 steps/rev
Current: 1.8A (Peak)



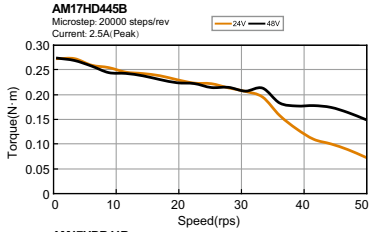
AM17HD6426
Microstep: 20000 steps/rev
Current: 1.8A(Peak)



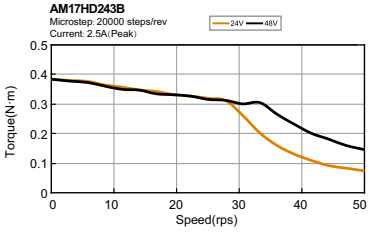
AM17HDB410
Microstep: 20000 steps/rev
Current: 1.8A(Peak)



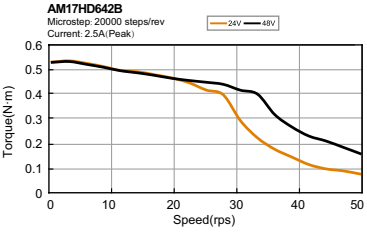
AM17HD445B
Microstep: 20000 steps/rev
Current: 2.5A(Peak)



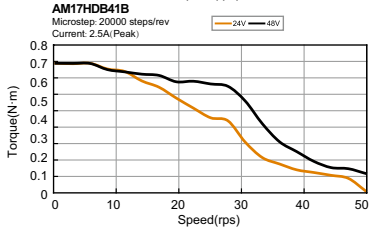
AM17HD243B
Microstep: 20000 steps/rev
Current: 2.5A(Peak)



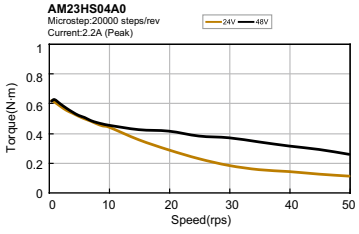
AM17HD642B
Microstep: 20000 steps/rev
Current: 2.5A(Peak)



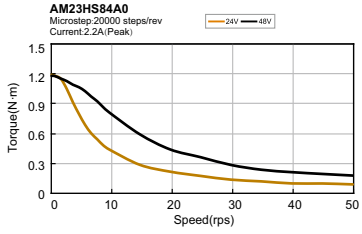
AM17HDB41B
Microstep: 20000 steps/rev
Current: 2.5A(Peak)



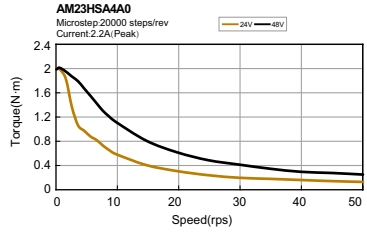
AM23HS04A0
Microstep:20000 steps/rev
Current:2.2A (Peak)



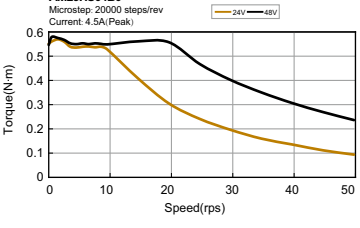
AM23HS84A0
Microstep:20000 steps/rev
Current:2.2A(Peak)



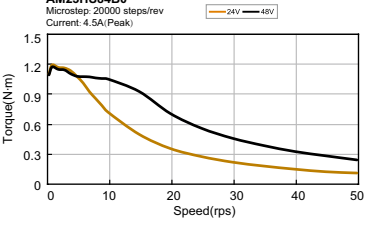
AM23HSA4A0
Microstep:20000 steps/rev
Current:2.2A(Peak)



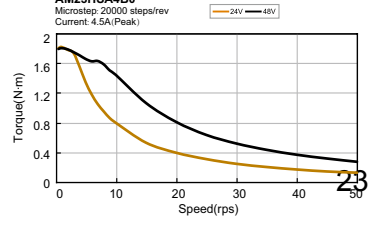
AM23HS04B0
Microstep: 20000 steps/rev
Current: 4.5A(Peak)



AM23HS84B0
Microstep: 20000 steps/rev
Current: 4.5A(Peak)

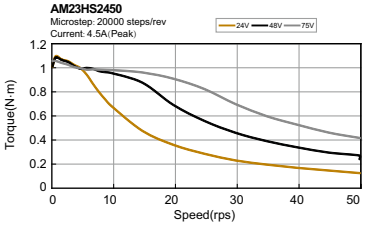


AM23HSA4B0
Microstep: 20000 steps/rev
Current: 4.5A(Peak)



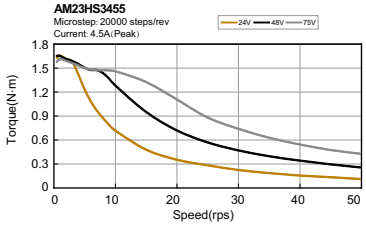
AM23HS2450

Microstep: 20000 steps/rev
Current: 4.5A(Peak)



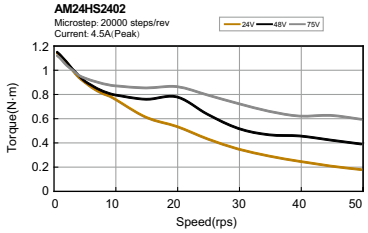
AM23HS3455

Microstep: 20000 steps/rev
Current: 4.5A(Peak)



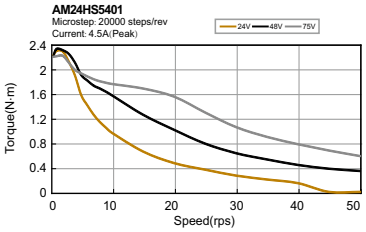
AM24HS2402

Microstep: 20000 steps/rev
Current: 4.5A(Peak)



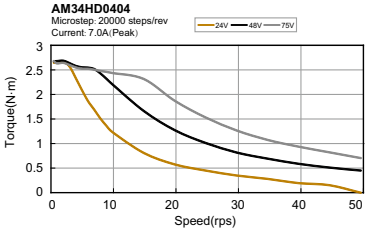
AM24HS5401

Microstep: 20000 steps/rev
Current: 4.5A(Peak)



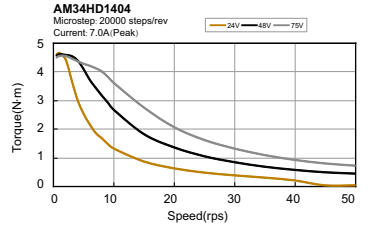
AM34HD0404

Microstep: 20000 steps/rev
Current: 7.0A(Peak)



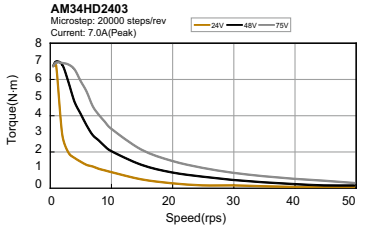
AM34HD1404

Microstep: 20000 steps/rev
Current: 7.0A(Peak)



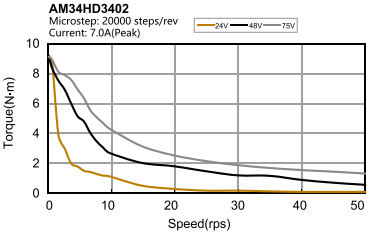
AM34HD2403

Microstep: 20000 steps/rev
Current: 7.0A(Peak)



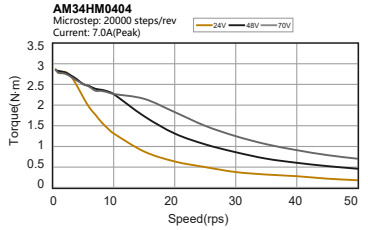
AM34HD3402

Microstep: 20000 steps/rev
Current: 7.0A(Peak)



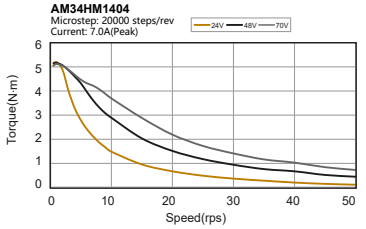
AM34HM0404

Microstep: 20000 steps/rev
Current: 7.0A(Peak)



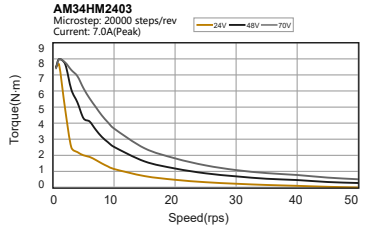
AM34HM1404

Microstep: 20000 steps/rev
Current: 7.0A(Peak)



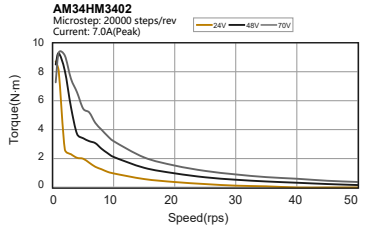
AM34HM2403

Microstep: 20000 steps/rev
Current: 7.0A(Peak)



AM34HM3402

Microstep: 20000 steps/rev
Current: 7.0A(Peak)



■ AW Series Stepper Motors (IP65 Protection Type)

☐ Standard Industrial Protective Stepper Motors

Model	Features	Lead Number	Length	Holding Torque	Drive Current Setting Range※	Rotor Inertia	Mass	Mass Dielectric Strength
			mm	N.m	A	g.cm²	Kg	
AW171NNA	IP65	4	60.7	0.31	0.1~2.1	38	0.38	500VAC / 1Minute
AW173NNA	IP65	4	74.7	0.63	0.1~2.1	82	0.51	
AW174NNA	IP65	4	88.8	0.85	0.1~2.1	123	0.75	
AW231NNA	IP65	4	65.4	0.6	0.1~5.6	135	0.67	
AW232NNA	IP65	4	77.7	1.2	0.1~5.6	260	0.85	
AW233NNA	IP65	4	101.7	2	0.1~5.6	460	1.25	
AW231NNK	IP65	4	65.4	0.6	0.1~5.6	135	0.67	
AW232NNK	IP65	4	77.7	1.2	0.1~5.6	260	0.85	
AW233NNK	IP65	4	101.7	2	0.1~5.6	460	1.25	
AW243NNA	IP65	4	115.5	3.1	0.1~7.0	900	1.7	
AW243NNK	IP65	4	115.5	3.1	0.1~7.0	900	1.7	
AW341NNA	IP65	4	96.4	3.8	0.1~14	1100	2.3	
AW343NNA	IP65	4	125.9	7.2	0.1~14	2260	3.5	
AW345NNA	IP65	4	155.2	10.3	0.1~14	2750	4.5	
AW341NNK	IP65	4	96.4	3.8	0.1~14	1100	2.3	
AW343NNK	IP65	4	125.9	7.2	0.1~14	2260	3.5	
AW345NNK	IP65	4	155.2	10.3	0.1~14	2750	4.5	

※: The current value of the driver is the sinusoidal peak.

☐ Industrial Protective Stepper Motors with Encoder

Model	Features	Lead Number	Length	Holding Torque	Drive Current Setting Range※	Rotor Inertia	Mass	Mass Dielectric Strength
			mm	N.m	A	g.cm²	Kg	
AW171NEA	IP65+Encoder	4+8	58.3	0.31	0.1~2.1	38	0.43	500VAC / 1Minute
AW173NEA	IP65+Encoder	4+8	72.3	0.63	0.1~2.1	82	0.56	
AW174NEA	IP65+Encoder	4+8	86.4	0.85	0.1~2.1	123	0.8	
AW231NEA	IP65+Encoder	4+8	76	0.6	0.1~5.6	135	0.82	
AW232NEA	IP65+Encoder	4+8	88.7	1.2	0.1~5.6	260	1	
AW233NEA	IP65+Encoder	4+8	112.7	2	0.1~5.6	460	1.4	
AW231NEK	IP65+Encoder	4+8	76	0.6	0.1~5.6	135	0.82	
AW232NEK	IP65+Encoder	4+8	88.7	1.2	0.1~5.6	260	1	
AW233NEK	IP65+Encoder	4+8	112.7	2	0.1~5.6	460	1.4	
AW243NEA	IP65+Encoder	4+8	126.5	3.1	0.1~7.0	900	1.9	
AW243NEK	IP65+Encoder	4+8	126.5	3.1	0.1~7.0	900	1.9	
AW341NEA	IP65+Encoder	4+8	106.7	3.8	0.1~14	1100	2.5	
AW343NEA	IP65+Encoder	4+8	136.2	7.2	0.1~14	2260	3.7	
AW345NEA	IP65+Encoder	4+8	165.5	10.3	0.1~14	2750	4.7	
AW341NEK	IP65+Encoder	4+8	106.7	3.8	0.1~14	1100	2.5	
AW343NEK	IP65+Encoder	4+8	136.2	7.2	0.1~14	2260	3.7	
AW345NEK	IP65+Encoder	4+8	165.5	10.3	0.1~14	2750	4.7	

※: The current value of the driver is the sinusoidal peak.

☐ Industrial Protective Stepper Motors with Brake

Model	Features	Lead Number	Length	Holding Torque	Drive Current Setting Range※	Rotor Inertia	Mass	Mass Dielectric Strength
			mm	N.m	A	g.cm²	Kg	
AW171BNA	IP65+Brake	4+3	68.1	0.31	0.1~2.1	38	0.73	500VAC / 1Minute
AW173BNA	IP65+Brake	4+3	82.1	0.63	0.1~2.1	82	0.86	
AW174BNA	IP65+Brake	4+3	96.2	0.85	0.1~2.1	123	1.1	
AW231BNA	IP65+Brake	4+3	76	0.6	0.1~5.6	135	1.12	
AW232BNA	IP65+Brake	4+3	88.7	1.2	0.1~5.6	260	1.3	
AW233BNA	IP65+Brake	4+3	112.7	2	0.1~5.6	460	1.7	
AW231BNK	IP65+Brake	4+3	76	0.6	0.1~5.6	135	1.12	
AW232BNK	IP65+Brake	4+3	88.7	1.2	0.1~5.6	260	1.3	
AW233BNK	IP65+Brake	4+3	112.7	2	0.1~5.6	460	1.7	
AW243BNA	IP65+Brake	4+3	126.5	3.1	0.1~7.0	900	2.2	
AW243BNK	IP65+Brake	4+3	126.5	3.1	0.1~7.0	900	2.2	
AW341BNA	IP65+Brake	4+3	106.7	3.8	0.1~14	1100	2.8	
AW343BNA	IP65+Brake	4+3	136.2	7.2	0.1~14	2260	4	
AW345BNA	IP65+Brake	4+3	165.5	10.3	0.1~14	2750	5	
AW341BNK	IP65+Brake	4+3	106.7	3.8	0.1~14	1100	2.8	
AW343BNK	IP65+Brake	4+3	136.2	7.2	0.1~14	2260	4	
AW345BNK	IP65+Brake	4+3	165.5	10.3	0.1~14	2750	5	

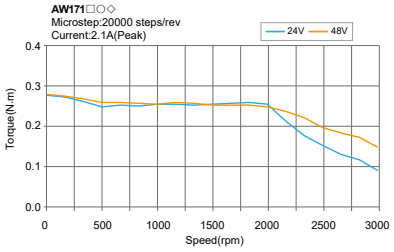
※: The current value of the driver is the sinusoidal peak.

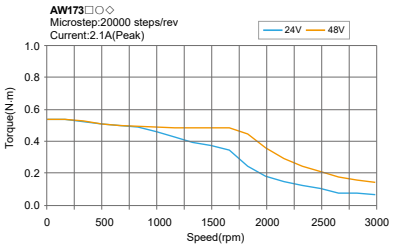
☐ Industrial Protective Stepper Motors with Encoder and Brake

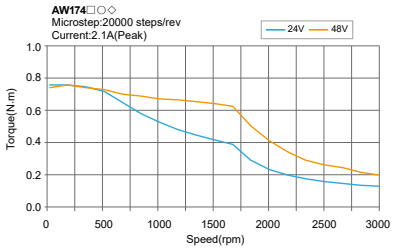
Model	Features	Lead Number	Length	Holding Torque	Drive Current Setting Range※	Rotor Inertia	Mass	Mass Dielectric Strength
			mm	N.m	A	g.cm²	Kg	
AW171BEA	IP65+Encoder+Brake	4+8+3	88.1	0.31	0.1~2.1	38	0.93	500VAC / 1Minute
AW173BEA	IP65+Encoder+Brake	4+8+3	102.1	0.63	0.1~2.1	82	1.06	
AW174BEA	IP65+Encoder+Brake	4+8+3	116.2	0.85	0.1~2.1	123	1.3	
AW231BEA	IP65+Encoder+Brake	4+8+3	92.5	0.6	0.1~5.6	135	1.52	
AW232BEA	IP65+Encoder+Brake	4+8+3	104.8	1.2	0.1~5.6	260	1.7	
AW233BEA	IP65+Encoder+Brake	4+8+3	128.8	2	0.1~5.6	460	2.1	
AW231BEK	IP65+Encoder+Brake	4+8+3	92.5	0.6	0.1~5.6	135	1.52	
AW232BEK	IP65+Encoder+Brake	4+8+3	104.8	1.2	0.1~5.6	260	1.7	
AW233BEK	IP65+Encoder+Brake	4+8+3	128.8	2	0.1~5.6	460	2.1	
AW243BEA	IP65+Encoder+Brake	4+8+3	142.6	3.1	0.1~7.0	900	2.7	
AW243BEK	IP65+Encoder+Brake	4+8+3	142.6	3.1	0.1~7.0	900	2.7	
AW341BEA	IP65+Encoder+Brake	4+8+3	127.8	3.8	0.1~14	1100	3.7	
AW343BEA	IP65+Encoder+Brake	4+8+3	157.3	7.2	0.1~14	2260	4.9	
AW345BEA	IP65+Encoder+Brake	4+8+3	186.6	10.3	0.1~14	2750	5.9	
AW341BEK	IP65+Encoder+Brake	4+8+3	127.8	3.8	0.1~14	1100	3.7	
AW343BEK	IP65+Encoder+Brake	4+8+3	157.3	7.2	0.1~14	2260	4.9	
AW345BEK	IP65+Encoder+Brake	4+8+3	186.6	10.3	0.1~14	2750	5.9	

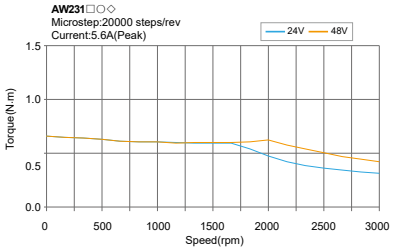
※: The current value of the driver is the sinusoidal peak.

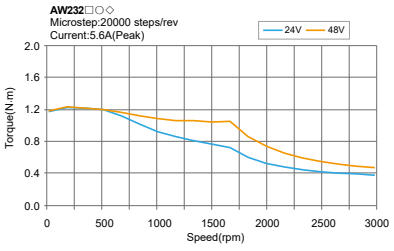
AW Series Torque Curves

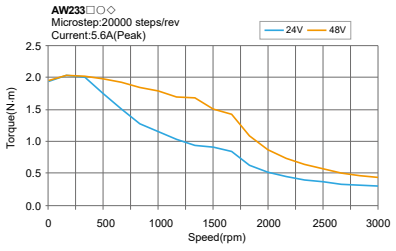


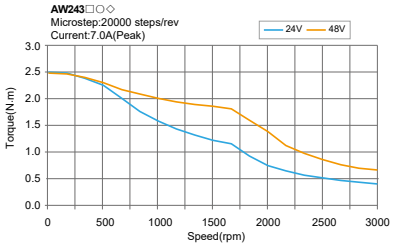


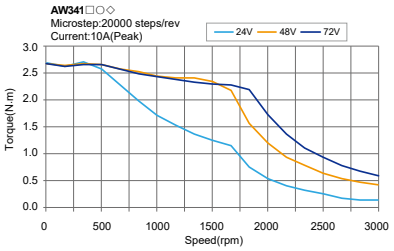


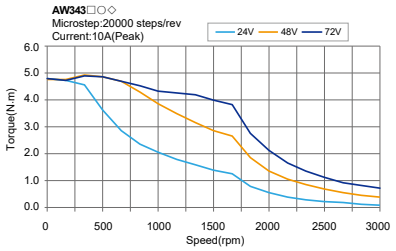


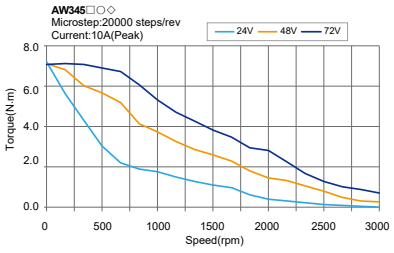










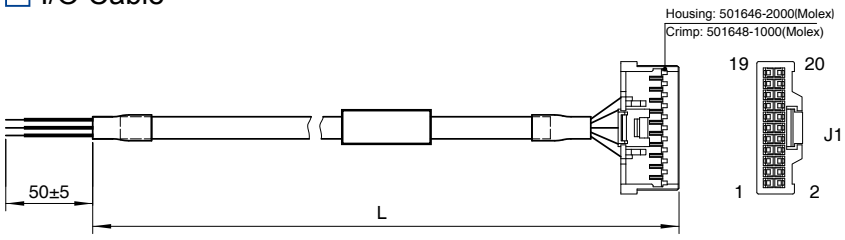


NOTE:
□: Brake Options, B=With Brake, N=No Brake
○: Encoder Options, E=With Encoder, N=No Encoder
◇: Shaft Options, A=Flat, K=Key

• The torque curves listed above are based on measurement data obtained under our laboratory conditions. Data may vary if test conditions change.
• Motors may exhibit significant heat generation under different operating environments and driving configurations. Operate within an ambient temperature range of -20°C to +50°C.
• Ensure the drive's set current remains below the motor's rated current. Additionally, reducing the current under the premise of meeting torque requirements can effectively minimize motor self-heating.

Accessories (Sold Separately)

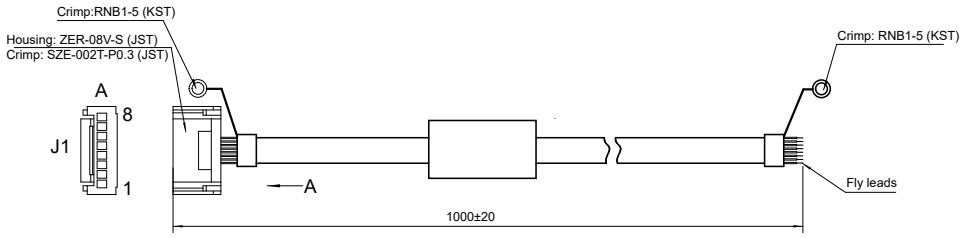
☐ I/O Cable



P/N	Length(L)
1015-030	0.3m
1015-100	1m
1015-200	2m

Pin No.	Assignment	Description	Color	Pin No.	Assignment	Description	Color
1	X1+	X1 Digital Input	Blue/White	11	X7	X7 Digital Input	Yellow
2	X1-		Blue/Black	12	X8	X8 Digital Input	Green
3	X2+	X2 Digital Input	Green/White	13	SHIELD	Shield	-
4	X2-		Green/Black	14	XCOM	X5-X8 Digital Input COM	Red
5	X3+	X3 Digital Input	Yellow/White	15	Y1	Y1Digital Output	Brown
6	X3-		Yellow/Black	16	Y2	Y2 Digital Output	Gray
7	X4+	X4 Digital Input	Orange/White	17	Y3	Y3 Digital Output	White
8	X4-		Orange/Black	18	YCOM	Y1-Y3 Digital Output COM	Black
9	X5	X5 Digital Input	Blue	19	Y4+	Y4 Digital Output	Purple/White
10	X6	X6 Digital Input	Purple	20	Y4-		Purple/Black

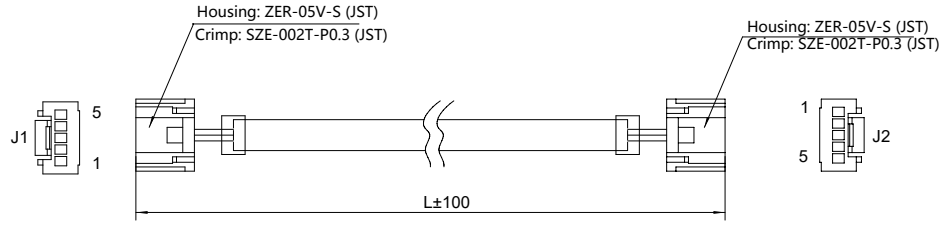
☐ I/O Cable (For STF03-C-mini only)



P/N	Length(L)
1023-0100	1m

Pin No.	Assignment	Color
1	GND	Black
2	+5V	Red
3	Brake-	Orange
4	Brake+	Yellow
5	CCW-	Green
6	CCW+	Blue
7	CW-	Purple
8	CW+	Brown

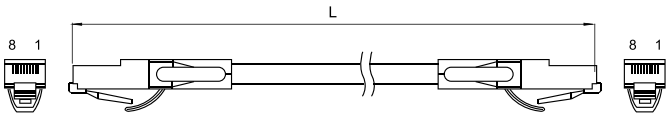
☐ CANopen Daisy Chain Extended cable



P/N	Length(L)
2112-025	0.25m
2112-050	0.5m
2112-100	1m
2112-300	3m

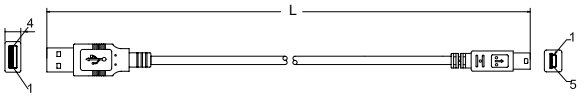
Pin No.（J1）	Color	Pin No.（J2）	Color
1	Black	1	Black
2	Brown	2	Brown
3	Red（CAN_H）	3	Red（CAN_H）
4	Orange（CAN_L）	4	Orange（CAN_L）
5	Yellow（GND）	5	Yellow（GND）

☐ Network Cable



Model	Length(L)	Description
2012-030*	0.3m	Standard type
2012-300	3m	Standard type
2013-030	0.3m	Shielded Type
2013-300	3m	Shielded Type

☐ USB mini-B Configuration Cable



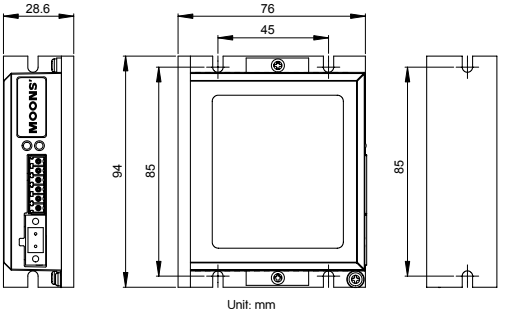
Model	Length(L)
2620-150	1.5m

☐ Regeneration

P/N: RC880

When using a regulated power supply you may encounter a problem with regeneration. The kinetic energy caused by regeneration is transferred back to the power supply. This can trip the over-voltage protection of a switching power supply, causing it to shut down.

MOONS' offers the RC880 "regeneration clamp"to solve this problem. If in doubt, use an RC880 for your first installation. If the "Regen" LED on the RC880 never flashes, you don't need the clamp.



☐ USB Converter

Model: MS-USB-RS485-01
Description: USB-RS485 Converter

Model: MS-USB-CAN-01
Description: USB-CAN Converter

Appendix: UL Model

Model	UL Model	Current	Voltage	Multi-functional Capability						
				Modbus/RTU	CANopen	Modbus/TCP	EtherNet/IP	EtherCAT	Profinet	Q Program
STF05-4X-ECX	STF05-4X-ECX-FC	0.1-5.0 A ※	24-60 VDC					√		
STF10-4X-ECX	STF10-4X-ECX-FC	0.1-10.0 A ※	24-60 VDC					√		
STF05-4X-ECX-S *	STF05-4X-ECX-S-FC *	0.1-5.0 A ※	24-60 VDC					√		
STF10-4X-ECX-S *	STF10-4X-ECX-S-FC *	0.1-10.0 A ※	24-60 VDC					√		
STF05-2XU-ECX	STF05-2XU-ECX-FC	0.1-5.0 A ※	24-60 VDC					√		
STF10-2XU-ECX	STF10-2XU-ECX-FC	0.1-10.0 A ※	24-60 VDC					√		
STF05-2XU-ECX-S *	STF05-2XU-ECX-S-FC *	0.1-5.0 A ※	24-60 VDC					√		
STF10-2XU-ECX-S *	STF10-2XU-ECX-S-FC *	0.1-10.0 A ※	24-60 VDC					√		
STF05-4XU-ECX	STF05-4XU-ECX-FC	0.1-5.0 A ※	24-60 VDC					√		
STF10-4XU-ECX	STF10-4XU-ECX-FC	0.1-10.0 A ※	24-60 VDC					√		
STF05-4XU-ECX-S *	STF05-4XU-ECX-S-FC *	0.1-5.0 A ※	24-60 VDC					√		
STF10-4XU-ECX-S *	STF10-4XU-ECX-S-FC *	0.1-10.0 A ※	24-60 VDC					√		
STF05-ECX-H	STF05-ECX-H-FC	0.1-5.0 A	24-48 VDC					√		√
STF10-ECX-H	STF10-ECX-H-FC	0.1-10.0 A	24-60 VDC					√		√
STF05-R-H	STF05-R-H-FC	0.1-5.0 A	24-48 VDC	√						√
STF10-R-H	STF10-R-H-FC	0.1-10.0 A	24-60 VDC	√						√
STF05-R	STF05-R-FC	0.1-5.0 A	24-48 VDC	√						√
STF10-R	STF10-R-FC	0.1-10.0 A	24-60 VDC	√						√
STF05-C	STF05-C-FC	0.1-5.0 A	24-48 VDC		√					√
STF10-C	STF10-C-FC	0.1-10.0 A	24-60 VDC		√					√
STF05-D	STF05-D-FC	0.1-5.0 A	24-48 VDC			√				√
STF10-D	STF10-D-FC	0.1-10.0 A	24-60 VDC			√				√
STF05-IP	STF05-IP-FC	0.1-5.0 A	24-48 VDC			√	√			√
STF10-IP	STF10-IP-FC	0.1-10.0 A	24-60 VDC			√	√			√
STF05-PN-01	STF05-PN-FC	0.1-5.0 A	24-48 VDC						√	√
STF10-PN-01	STF10-PN-FC	0.1-10.0 A	24-60 VDC						√	√

※：STF05-2XU continuous 2*5A；STF10-2X continuous 2*10A. STF05-4X/4XU continuous 4*5A；STF10-4X continuous 4*10A.
* ：STO Model

Customer Service Center

+86-400-820-9661

MOONS' Headquarter ★

Building 7, Lane 88, Minbei Road, Minhang District, Shanghai, 201107, P.R.China

MOONS' Taicang

No. 18 Yingang Rd, Fuqiao Town, Taicang City Jiangsu Province, 215434, P.R. China

Domestic Office

Beijing
Room 1206, Jing Liang Mansion, No.16 Middle Road of East,3rd Ring, Chaoyang District, Beijing 100022, P.R. China

Qingdao
Room1913,Scientific and Technological Innovation Builing,Floor19, No.171, ShanDong Road,Shibei District,QingDao, Shangdong Province, 266033, P.R. China

Xi'an
Room 1006, Tower D, Wangzuo International City, No.1 Tangyan Road, Xi'an, Shanxi Province, 710065, P.R. China

Wuhan
Room 3001, World Trade Tower, No.686 Jiefang Avenue, Jianghan District, Wuhan, Hubei Province, 430022, P.R. China

Hefei
Room 1521, Building B, CBC Tuoji Plaza, Jinggang Road, Shushan District, Hefei, Anhui Province, 230088, P.R. China

Nanjing
Room 1101-1102, Building 2, New Town Development Center, No.126 Tianyuan Road , Moling Street, Jiangning District, Jiangsu Province, China, 211106, P.R. China

Suzhou
Room 1103-1105, North Building 4, Huizu Plaza, 758 Nanhuan East Rd, Gusu District, Suzhou,Jiangsu Province, 215007, P.R. China

Ningbo
Room 309, Tower B, Taifu Plaza, 565 Jiangjia Road,Jiangdong District, Ningbo, Zhejiang Province, 315040, P.R. China

Chengdu
Room 3907, Maoye Plaza, No.19, Dongyu Street, Jinjiang Distrit, Chengdu Sichuan Province, 610066, P.R. China

Chongqing
Room 2108, South yuanzhu Buliding 20, No.18 Fuquan Rd., Jiangbei District, Chongqing, 400000, P.R. China

Guangzhou
Room 4006, Tower B, China Shine Plaza, 9 Linhe Xi Road, Tianhe District, Guangzhou, Guangdong Province, 510610, P.R. China

Dongguan
Room 1106-1207, Building 5, Linrunzhigu, No.1 RD 5th Rd, Songshan Lake, Dongguan, Guangdong Province, 523000, P.R. China

Shenzhen
Room 3901, Building A, Zhongguan Times Square,No 4168 Liuxian Avenue, Nanshan District, Shenzhen, Guangdong Province, 518000, P.R. China

North America

USA

MOONS' INDUSTRIES (AMERICA), INC. (Chicago)
1113 North Prospect Avenue, Itasca, IL 60143, USA

MOONS' INDUSTRIES (AMERICA), INC. (Boston)
36 Cordage Park Circle, Suite 310 Plymouth, MA 02360, USA

APPLIED MOTION PRODUCTS, INC. (Morgan Hill)
18645 Madrone Parkway. Morgan Hill, CA 95037, USA

LIN ENGINEERING, Inc. (Morgan Hill)
16245 Vineyard Blvd., Morgan Hill, CA 95037, USA

Europe

Italy

MOONS' INDUSTRIES (EUROPE) HEAD QUARTER S.R.L.
Via Torri Bianche n.1 20871 Vimercate(MB) Italy

Germany

AMP & MOONS' AUTOMATION (GERMANY) GMBH
Kaiserhofstr. 15
60313 Frankfurt am Main Germany

Switzerland

TECHNOSOFT SA
Avenue des Alpes 20
CH 2000 Neuchâtel Switzerland

U.K

MOONS' INDUSTRIES (UK), LIMITED
Rooms 4&5, 1st Floor, Greenbank, London Road, Reading, UK. RG1 5AQ

Asia

Singapore

MOONS' INDUSTRIES (SOUTH-EAST ASIA) PTE. LTD.
33 Ubi Avenue 3 #08-23 Vertex Singapore 408868

Japan

MOONS' INDUSTRIES JAPAN CO., LTD.
Room 602, 6F, Shin Yokohama Koushin Building,
2-12-1, Shin-Yokohama, Kohoku-ku, Yokohama, Kanagawa,
Japan 222-0033

India

MOONS' INTELLIGENT MOTION SYSTEM INDIA PVT. LTD.
Room. 908, 9th Floor, Amar Business Park,
Tal. Haveli, Baner, Pune, India 411045

Vietnam

MOONS' VIETNAM MANUFACTURING SITE
Factory C1&D1, Lot IN3-11*A, VSIP Hai Phong Industrial Park in Dinh Vu – Cat Hai Economic Zone, Lap Le Commune, Thuy Nguyen District, Hai Phong City, Vietnam

https://www.moonsindustries.com/
E-mail:ama-info@moons.com.cn
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