

All-in-One Closed Loop Stepping Motor α STEP-One ASX Series

For details on this product please refer to our website, contact technical support or your nearest Oriental Motor sales office.
www.orientalmotor.com

The **ASX** Series is an all-in-one closed loop α STEP motor. The α STEP controller and drive have been combined with the motor and feedback device, creating this all-in-one solution.

α STEP technology prevents the motor from losing synchronism even when subjected to abrupt load fluctuation or acceleration.

Features

● Incorporating Our Unique Closed Loop Control

For details, refer to "AR Series, Features" on page A-24.

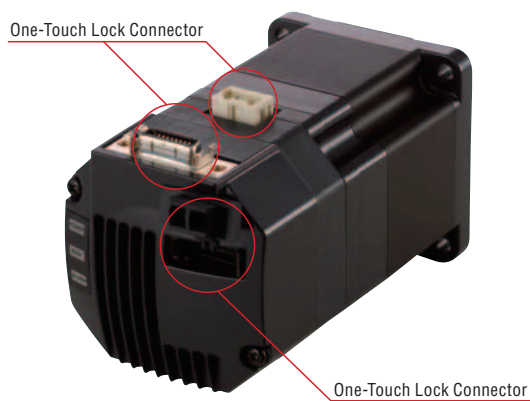
● Driver and Controller Integrated with Motor

The driver and controller are compactly built into the motor, effectively saving space in the equipment due to little installation and wiring space required.

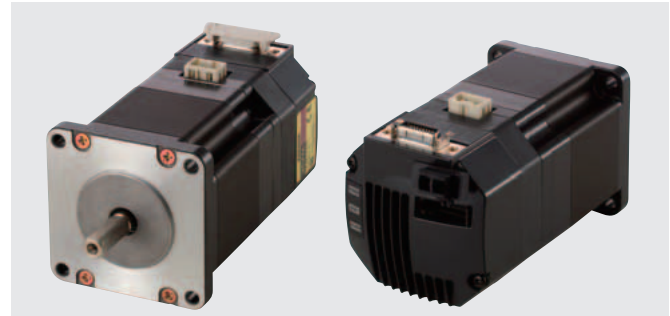
No cables are required to connect the motor, driver and controller. Problems caused by electrical noise can also be expected to decrease.

● Use of One-Touch Lock Connectors

One-touch lock connectors are used to connect the motor cables, making wiring easy even in tight spaces.



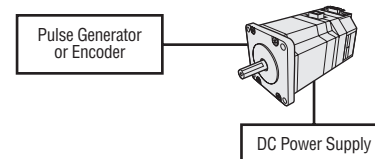
● For detailed product safety standard information including standards, file number and certification body, please visit www.orientalmotor.com.



● Selectable from Three Control Methods

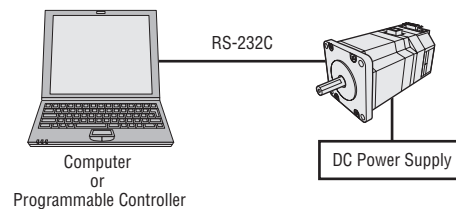
◇ Pulse Input Mode

Operated with an external pulse signal like the conventional stepping motor system.



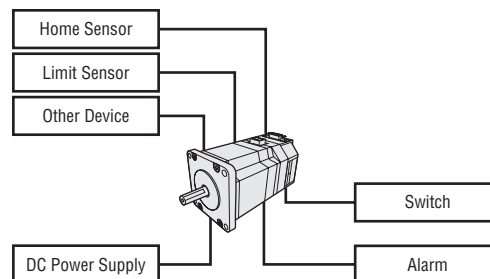
◇ RS-232C Communication Control Mode

The simplest configuration, operating based on direct commands sent from the computer.



◇ I/O Control Mode (Sequence Operation Mode)

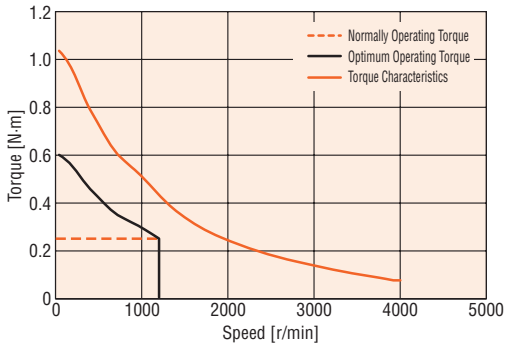
The internally recorded program is operated through I/O control.



● Automatic Generation of Optimum Motion Profile (The Fastest Positioning Operation)

Calculates the acceleration/deceleration rate from the motor's torque characteristics. The motor is used at maximum performance and the operating pattern calculated using this method is the optimal operating pattern. Positioning operations in shorter intervals are possible.

- Load information, such as inertia and friction, is required for automatic generation of optimal operating patterns.
- If the load is unknown, it can be estimated using the load estimation function.



● Immediate Motion Creator (Setting Software)

◇ Direct Command Operation

The motor rotates by entering the values necessary for operation, such as speed and position and then by pressing the start button. Program reading/writing is also accomplished with one button.

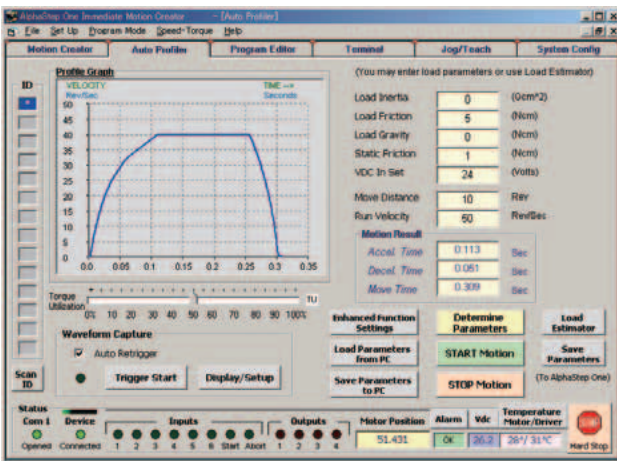


◇ Programming Editor

In addition to command entry from the keyboard, drag-and-drop programming is also possible.

◇ Waveform Monitoring

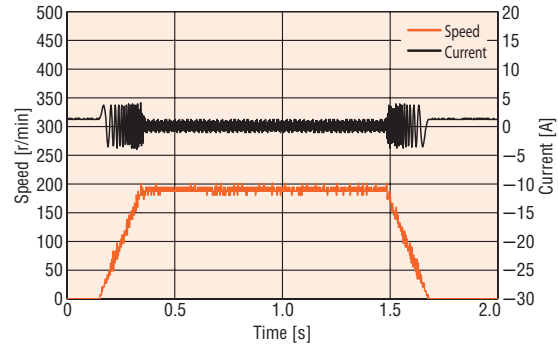
Automatically generated operating patterns and operating conditions can be monitored.



- The setting software is not compatible with Microsoft® Windows Vista®.

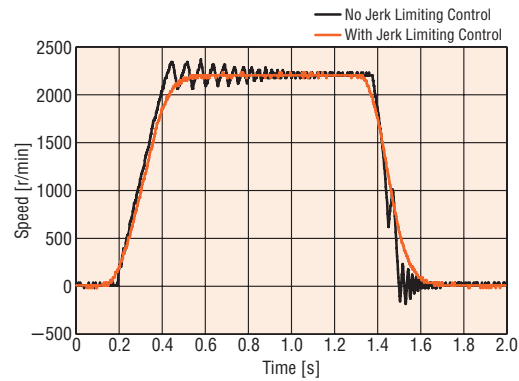
● Automatic Current Control (Low Heat Generation)

The current at constant speeds, which do not require the same amount of torque as during acceleration and deceleration, is automatically adjusted. Loss and generated heat are reduced.



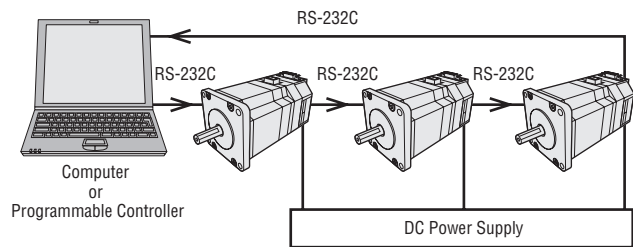
● Jerk Limiting Control (Low Vibration)

The acceleration/deceleration pattern using a jerk limiting control function allows you to reduce vibration.



● Multi-Axis Control (Daisy Chain)

In RS-232C communication control mode, up to 36 units can be daisy chained via RS-232C communication cable.



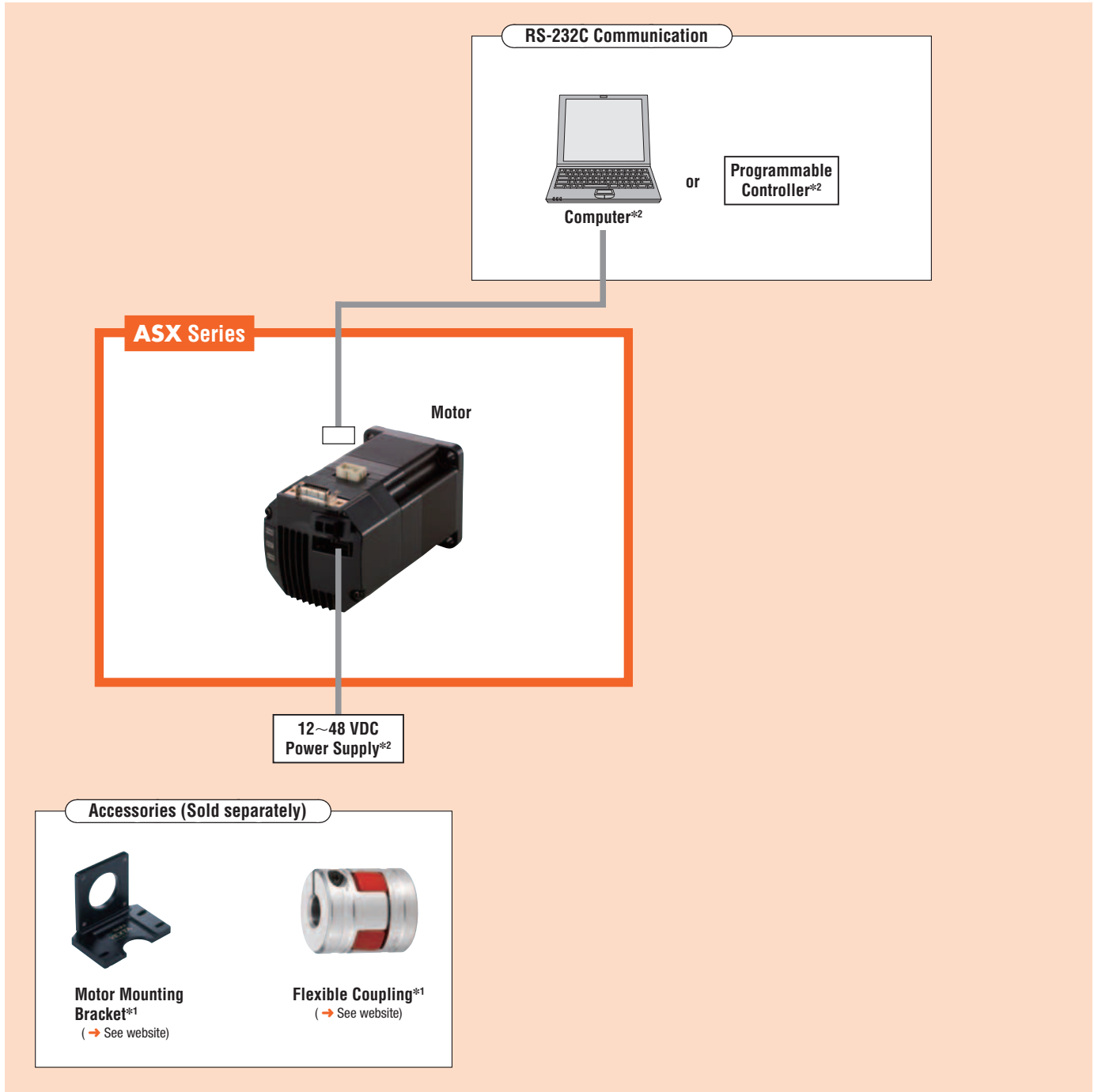
● Distance Options

You can set travel amounts in mm, inch, revolution, degree in addition to pulses.

Introduction	
AR	DC Input Motor & Driver
AS	0.36° / Geared
RK	0.72° / Geared
UMK	0.9° / 1.8° / Geared
ASX	DC Input Motor & Driver
CRK	0.36° / Geared
CMK	0.36° / 0.72° / Geared
RBK	0.9° / 1.8° / Geared
PK	0.36°
PK	0.72°
PK	Motor Only
PK	0.9°
PK/PV	1.8°
PK	Geared
	Controllers SCX10 EMP400 /SG8030J
	Accessories

System Configuration

An example operated by an I/O control mode or RS-232C communication control mode.



Example of System Configuration

ASX Series	Sold Separately	
	Motor Mounting Bracket	Flexible Coupling
ASX66A-2	PAL2P-5A	MCS300808

● The system configuration shown above is an example. Other combinations are available

*1 For accessory details on these products please either refer to our website, contact technical support or your nearest Oriental Motor sales office. www.orientalmotor.com

*2 Not supplied

Product Line

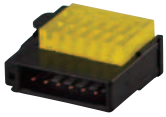
Basic Package

Model
ASX66A-1

The following items are included in each product.
 Motor, Power Connector, Wire Insert Tool, Communication Connector



Power Connector



Communication Connector



Wire Insert Tool

For details (specifications, characteristics, dimensions and others) on these products please refer either to our website, contact technical support or your nearest Oriental Motor sales office.
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Developer's Package

Model
ASX66A-2

The following items are included in each product.
 Motor, Power Connector, Wire Insert Tool, Communication Connector, Communication Cable, I/O Cable Immediate Motion Creator (Setting Software), Manual



Communication Cable



I/O Cable



Immediate Motion Creator (Setting Software)

Introduction
DC Input Motor & Driver
0.36° / Geared / Geared / Geared / Geared
AR / AS / RK / UMK
DC Input Motor & Driver
0.36° / Geared / Geared / Geared / Geared / Geared / Geared / Geared
AR / ASX / CRK / CMK / RBK
Motor Only
0.36° / 0.72° / 0.9° / 1.8°
PK / PK / PK / PK / PK / PV
Geared
PK
Controllers
SCX10 / EMP400 / SG8030J
Accessories