

## YASKAWA ELECTRIC CORPORATION

### MECHATROLINK-III $\Sigma$ -V series AC Servo Drives

#### Features

- Superlative Performance  
The best amplifier response in the industry slashes settling time. Standard use of high-resolution encoder has enabled high-precision positioning and fine processing.
- Simple Start-up  
New Tuning-less Function  
—Get up and running quickly after hooking up the motor  
New Advanced Autotuning  
—Realize optimal machine performance  
New “One-parameter” Tuning  
—Get the most from your machine
- Outstanding Expandability  
Extensive variety of motors from 50W to 5kW. Support for linear servomotors, direct drive servomotors and linear sliders.  
Wide selection of option module will be released in the future.  
Type: SGD $\Sigma$ -□□□□2□□ (□: dependent on a spec.)



$\Sigma$ -V

#### Specifications

Item	Specifications	
Performance	Speed Frequency Characteristics: 1.6kHz (load condition: load moment of inertia JL=Motor moment of inertia Jm)	
	Torque control tolerance (repeatability): $\pm 1\%$	
MECHATROLINK Communications	Performance	Position control, speed control, and torque control through MECHATROLINK-III communications
	Command Input	MECHATROLINK commands (for sequence, motion, data setting/reference, monitor, adjustment, and other commands.)
Applicable servo motor capacity	50W to 5kW	
Encoder resolution	20-bit (incremental/absolute encoder), 13-bit (only for incremental encoder of SGMJV servomotors)	
Input Signals	Number of channels	7ch. Signal allocations and positive/negative logics can be modified.
	Function	Forward run prohibited, Reverse run prohibited, Forward torque limit, Reverse torque limit, External latch signal, Homing deceleration switch signal
Output Signals	Number of channels	3ch. Signal allocations and positive/negative logics can be modified.
	Function	Positioning completion, Speed coincidence detection, Servomotor rotation detection, Servo ready, Torque limit detection, Speed limit detection, Break interlock, Warning, NEAR
Protective Functions	Overcurrent, Overvoltage, Low voltage, Overload, Regeneration error, Over speed, etc.	
Option Module Functions	Serial encoder communication input for fully-closed loop control	
Compliant Standards	UL*, CE marking (EMC directive, low voltage directive)*, Safety*, RoHS	
Safety Functions	EN954 category 3 Stop category 0, IEC61508 SIL 2 Input : Power module base block signal. Output : Safety circuit status monitor	

\*: Planning

#### MECHATROLINK specifications

	M-III
Profile	Standard servo
Data size	32byte, 48byte
Transmission cycle	0.125ms to 4ms

#### Contact Information

Please access [YASKAWA website \(Please click. Then you can access.\)](#)

YASKAWA has sales and after-sales service all around the world.

America: U.S.A., Brazil, Canada, Mexico

Asia Pacific: China, Korea, Taiwan, Singapore, India

Europe: Germany, Sweden, Israel, Italy, France, Spain, Finland, Netherlands, Slovenia, Czech republic, Turkey