

SANMOTION R

AC SERVO SYSTEMS

AC Servo Amplifiers with Built-in Positioning Function

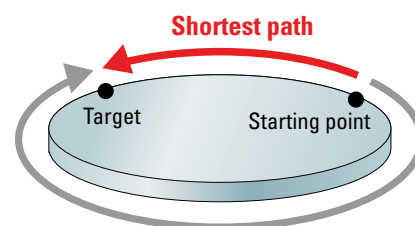
Parallel interface Input: 28 / Output: 17

Serial interface RS-485 **Modbus**



Efficient Positioning Control

- A maximum of 254 points can be set.
- Optimizes rotary table positioning, finding the shortest path to the target destination.
- Continuous motion, speed at each point, S-curve acceleration/deceleration, and servo gain can be set.



Systems Can Be Simplified

- Positioning controllers are not necessary, reducing wiring and saving space.

Lineup

Input voltage	Amplifier capacity	Interface	STO model ⁽¹⁾	Safety model ⁽²⁾	Model no.
100 VAC	10, 20, 30 A	Parallel	Yes	No	RS3E□□A0C◇4
			Yes	Yes	RS3E□□A0C◇E
		Serial	Yes	No	RS3E□□A0F◇4
			Yes	Yes	RS3E□□A0F◇E
200 VAC	10, 20, 30, 50, 75, 100, 150, 300, 600 A	Parallel	Yes	No	RS3A(W)□□A0C◇4
			Yes	Yes	RS3A(W)□□A0C◇E
		Serial	Yes	No	RS3A(W)□□A0F◇4
			Yes	Yes	RS3A(W)□□A0F◇E
400 VAC	25, 50, 100, 150, 300, 800 A	Parallel	Yes	No	RS3C(D)□□A0C◇4
			Yes	Yes	RS3C(D)□□A0C◇E
		Serial	Yes	No	RS3C(D)□□A0F◇4
			Yes	Yes	RS3C(D)□□A0F◇E

(1) Safe Torque Off (STO) is a safety function defined in IEC 61800-5-2:2016 / EN 61800-5-2:2017.

(2) Safety models have STO,⁽¹⁾ SS1 (Safe Stop 1), SS2 (Safe Stop 2), SOS (Safe Operating Stop), SLS (Safely-Limited Speed), SBC (Safe Brake Control), and SSM (Safe Speed Monitor).

Specifications

General Specifications

Control function	Position control	
Control system	IGBT-based, sinusoidal PWM control	
Main circuit power supply	100 VAC input model	Single-phase 100 to 120 VAC (+10, -15%), 50/60 Hz (±3%)
	200 VAC input model	Single-/3-phase 200 to 240 VAC (+10, -15%), 50/60 Hz (±3%)
	400 VAC input model	3-phase 380 to 480 VAC (+10, -15%), 50/60 Hz (±3%)
Control circuit power supply	100 VAC input model	Single-phase 100 to 120 VAC (+10, -15%), 50/60 Hz (±3%)
	200 VAC input model	Single-phase 200 to 240 VAC (+10, -15%), 50/60 Hz (±3%)
	400 VAC input model	24 VDC (±10%)

Positioning Function Specifications

Number of controllable axes	1 axis
Number of points	254 max.
Command range	-2,147,483,648 to +2,147,483,647
Command unit	mm or pulse
Acceleration/deceleration	Linear/S-curve can be switched
Point data setting	Numerical input with a PC or by teaching
Point number setting	Parallel 8 bit, serial 8 bit (binary code)
Torque limit	0 to 799% (With 100% being the rated value. Peak stall torque cannot be exceeded)
Software limit	Available
Operation modes	Homing, manual (Jog, 1 step), and point specification modes
Zone signal	8 zones max.

Interface

Parallel type	Input: 28 / output: 17
Serial type	RS-485 (Protocol: Modbus RTU)

Functional Safety Specifications

Servo amplifier type	IEC 61800-5-2:2016 / EN 61800-5-2:2017	Description	Safety level	
			EN 61508, IEC/EN 62061	ISO 13849-1:2015 EN ISO 13849-1:2015
STO model, Safety model	STO	Safe Torque Off	SIL3, SILCL3	Cat.3 PL=e
Safety model	SS1	Safe Stop 1		
	SS2	Safe Stop 2		
	SOS	Safe Operating Stop		
	SLS	Safely-Limited Speed		
	SBC	Safe Brake Control		
	SSM	Safe Speed Monitor		

Safety Standards

North American standards (UL, cUL)	UL 61800-5-1	
European Directive	Low Voltage Directive	IEC/EN 61800-5-1
	EMC Directive	IEC/EN 61800-3 IEC/EN 61326-3-1 IEC/EN 61000-6-2 EN 61000-6-7
KC Mark (Korea Certification Mark)	KN 61000-6-2, KN 61000-6	