



Digitized Automation for a Changing World

Delta Compact Modular Mid-range PLC AS Series



www.deltaww.com



The AS Series Compact Modular Mid-range PLC is a high performance multi-purpose controller designed for all kinds of automated equipment. It features Delta's self-developed 32-bit SoC CPUs for enhanced execution speed (40k steps/ms) and supports up to 32 extension modules or up to 1,024 inputs/outputs. The AS series provides accurate positioning control for up to 8 axes via CANopen motion network and 6 axes via pulse control (200 kHz). It is widely used in diverse automated equipment such as for electronics manufacturing, labeling, food packaging, and textile machines.

The AS Series adopts a rackless design and DIN rail clips for fast vertical module installation. The simple shape and dark gray exterior of the AS series help resist stains and dirt in harsh industrial environments.





High Efficiency Computing

- Advanced CPU performance
- Optimized execution efficiency
- Optimized I/O update rate
- Permanent data backup, no battery required



Accurate Axis Control

- Delta CANopen positioning control
- Simple control instructions
- High-speed pulse positioning control
- High-speed counter



AS500 Motion Control Solution

- AS500 EtherCAT motion control system
- AS500 CANopen motion control system
- Higher scalability in DVP-MC & AS500
- Highly integrated CPU design



AX-3 CODESYS Control Solution

- AX-3 CODESYS control system
- Benefits of CODESYS platform
- Highly integrated CPU design



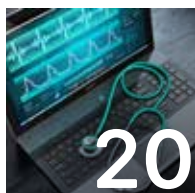
Simple Installation

- Easy installation process
- Convenient grounding protection
- Screwless installation procedure
- Loose-proof clip-type terminal block



AS Series Industrial Network Solution

- EtherNet/IP solution
- Remote I/O solution
- IIoT Applications
- EtherCAT Point-to-Point positioning solution
- Serial communication solution



Programming & Diagnosis

- Modular programming structure
- Convenient editing environment
- Easy hardware configuration and parameter setting
- Complete setting tools
- Multiple password protection



Models and Specifications

- Model name explanation
- CPU
- AS Series I/O modules
- High-density modules and accessories
- Dimensions
- Ordering information

High Efficiency Computing

Delta's self-developed AS100/200/300 Series CPU provides 32-bit high-performance computing and a real-time operation system. As the core of a high-efficiency controller, it helps increase the productivity and adaptability of demanding equipment.



Advanced CPU Performance

■ High Execution Speed

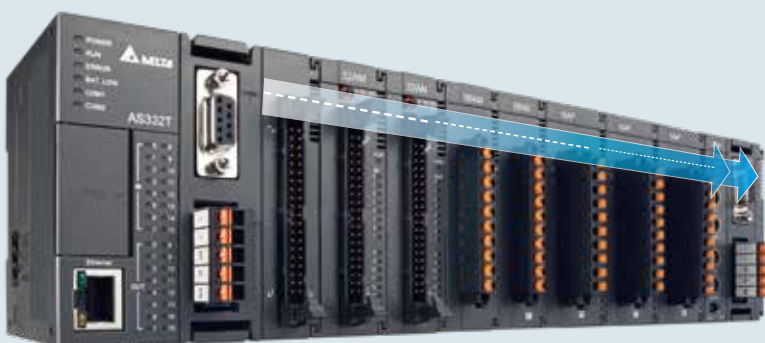
- Max. number of inputs/outputs: 1,024
- Max. extension ability: 32 modules

Basic instruction / Boolean operation

AS100/200/300 series CPU 25 ns

AS500 series CPU 50 ns

AX-3 series CPU 2 ~ 5 ns



Model Name Explanation

CPUs

AS332T-A

AS	3	32		T		-	A	
Series	Model	IO Pts. / Axis Qty.		Output Type / Motion Network			Type	
	3: 300 2: 200 1: 100 5: 500 (Motion)	【100/200/300 CPU】 00: None 18: 18 pts. 20: 20 pts. 24: 24 pts. 28: 28 pts. 32: 32 pts. 48: 48 pts. 64: 64 pts.	【500 CPU】 16: 16 axes 24: 24 axes 32: 32 axes 64: 64 axes	【100/200/300 CPU】 N: None T: NPN P: PNP R: Relay MT: NPN+Diff.	【500 CPU】 C: CANopen, NPN E: EtherCAT, NPN EST: EtherCAT (P2P), NPN		【300/500 CPU】 A: HDC terminal B: EU terminal	【100/200 CPU】 A: Basic

AX-308EA0MA1T

AX-3	08	E	A0	MA1	T
Series	IO Pts. / Axis Qty.	Motion Network	CPU Spec.	SYS Spec.	Output Type
CODESYS	【Logical】 00: None 24: 24 pts. 【Motion】 04: 4 axes 08: 8 axes 16: 16 axes 32: 32 axes 64: 64 axes	E: EtherCAT EL: EtherCAT (P2P) N: None	Ax: Arm based, single core Px: x86 based, single core	(For internal use)	T: NPN P: PNP

Digital I/O Modules

AS08AM10N-A

AS	08	AM	1	0	N	-	A
Series	IO Pts.	Classification	Function		Output type		Type
	08: 8 Pts. 16: 16 Pts. 32: 32 Pts. 64: 64 Pts.	AM: Digital input AN: Digital output AP: Digital input/output	0: No input 1: DC input (24V)	0: No output 1: 0.5 A transistor / 2 A relay output 2: 0.1 A transistor output	N: No output T: NPN P: PNP R: Relay		A: Basic

Analog I/O Modules

AS04AD-A

AS	04	AD	-	A
Series	IO Channels	Classification		Type
	02: 2-channel 04: 4-channel 06: 6-channel 08: 8-channel	AD: Analog input ADH: high speed analog input DA: Analog output XA: Analog input/output		A: Voltage/Current B: Voltage C: Current

Temperature & Load Cell Modules

AS04RTD-A

AS	04	RTD	-	A
Series	IO Channels	Classification		Type
	02: 2-channel 04: 4-channel 06: 6-channel 08: 8-channel	RTD: Platinum resistance thermometer TC: Thermocouple LC: Load cell		A: Basic

Function Cards

AS-F232

AS	-	F	232
Series		Classification	Function
		F: Function card	232: RS-232 422: RS-422 485: RS-485 COPM: CANopen 2AD: 2-channel analog input 2DA: 2-channel analog output EN02: Ethernet PFN02: PROFINET OPC02: OPC UA FTP01: IIoT ECAT: EtherCAT

Positioning & High Speed Counter Modules

AS02PU-A

AS	02	PU	-	A
Series	IO Channels	Classification		Type
	02: 2-channel 04: 4-channel	HC: High-speed counter PU: Pulse-train output		A: Basic

Communication Modules

AS00SCM-A

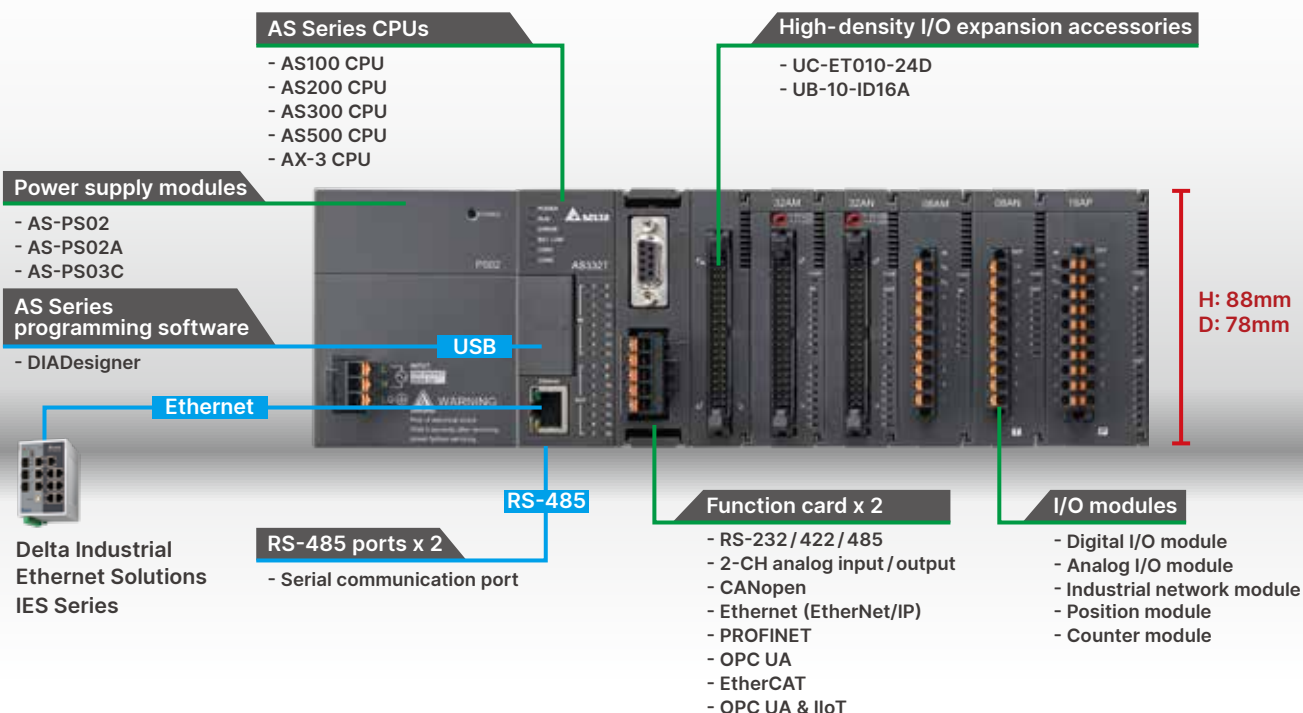
AS	00	SCM	-	A
Series	Function	Classification		Function
	00: Basement 01: Basic 04: 4-CH	SCM: Serial DNET: DeviceNet SIL: IO-Link		A: Basic

Power Supply Modules

AS-PS02

AS	-	PS	02
Series		Classification	Function
		PS: Power supply	02: AC Input (100~240V) 02A: AC Input (100~240V) + DC Output (24V, 0.5A) 03C: AC input (100~240V) + DC output (24V, 3A) + RS-485

Product Models and Specifications



CPUs

AS500 CPUs



AS500 Series CPU Standard Specifications			
Program capacity 20 MB	1 GHz CPU	Expansion modules: 32	
USB/ RS-232 / 485 / Ethernet / CANopen	Micro SD Card	EtherNet/IP, Modbus CANopen	Advanced motion control
Model	Built-in I/O	Incremental Encoder	SSI Absolute Encoder
AS516E-B / AS524C-B AS532EST-B / AS564EST-B	16 DI / 8 DO	2 CHs	1 CH

AS300 CPUs



AS300 Series CPU Standard Specifications (*1: Needs CANopen function card; *2: Not supported by relay output models)				
Program capacity 128k steps	Basic instruction 25 ns	Real I/O capability: 1,024 pts Expansion modules: 32		
USB / RS-485 x 2 / EtherNet	Micro SD Card	Function card x 2	EtherNet/IP Modbus CANopen remote I/O ^(*)	CANopen DS301 Position Control ^(*)
Model	Built-in I/O	High-speed Output ^(*)	High-speed Input	
AS332T-A, AS332P-A	16 DI / 16 DO	6 axes 200 kHz pulse output	6 channels 200 kHz high-speed counters	
AS324MT-A (Differential)	12 DI / 12 DO	2 axes 4 MHz + 4 axes 200 kHz pulse output	2 channels 4 MHz + 4 channels 200 kHz high-speed counters	
AS320T-B / AS320P-B	8 DI / 12 DO	6 axes 200 kHz pulse output	4 channels 200 kHz high-speed counters	
AS300N-A	-	-	-	

CPUs

AS100 New / 200 CPUs



AS100/200 Series CPU Standard Specifications (*1: Not supported by relay output models)			
Program capacity 64k steps	Basic instruction 25 ns	Real I/O capability: 1,024 pts Expansion modules: 32	
USB/RS-485 x 2 / EtherNet/CANopen	Micro SD Card	EtherNet/IP, Modbus CANopen remote I/O	CANopen DS301 Position Control
Model	Built-in I/O	High-speed Output ^(*)	High-speed Input
AS132T-A/AS132P-A/ AS132R-A/AS148T-A/ AS148P-A/AS148R-A/ AS164T-A/AS164P-A/ AS164R-A	AS132: 16DI/16DO AS148: 24DI/24DO AS164: 32DI/32DO	6 axes 200kHz pulse output	4 channels 200 kHz high-speed counters
AS228T-A/AS228P-A/ AS228R-A	16 DI/12 DO	6 axes 200kHz pulse output	4 channels 200 kHz high-speed counters
AS218TX-A/AS218PX-A/ AS218RX-A	8 DI/6 DO 2 AI/2 AO	3 axes 200kHz pulse output	4 channels 200 kHz high-speed counters

AX-3 CPU New



AX-3 Series CPU Standard Specifications			
Program capacity 8 MB ^{(*)1}	Basic instruction 5 ns ^{(*)2}	Expansion modules: 32	
USB/RS-232/485/ Ethernet (1G) ^{(*)3}	Micro SD Card	EtherNet/IP, Modbus	CODESYS solution
Model	Built-in I/O	Encoder	High-speed Input / Output
AX-308EA0MA1T AX-308EA0MA1P AX-316EA0MA1T AX-364ELA0MA1T	16 DI/8 DO	Incremental encoder: 2 CHs SSI absolute encoder: 1 CH	200 kHz pulse output: 4 axes 200 kHz high-speed counters: 6 CHs
AX-304ELA0PA1T AX-304ELA0PA1P AX-324NA0PA1P	16 DI/8 DO	-	200 kHz PWM output: 4 CHs 200 kHz high-speed counters: 6 CHs
AX-300NA0PA1	-	-	-
AX-332EP0MB1T	6 DI/6 DO	Incremental encoder: 1 CH SSI absolute encoder: 1 CH	200 kHz pulse output : 1 axis 200 kHz high-speed counters: 6 CHs

*1 : AX-332EP supports 128 MB

*2 : AX-332EP supports up to 1.6 ns

*3 : AX-332EP supports USB/RS-422/485/Ethernet (1G)

Power Supply Modules

Power Supply Modules Specifications			
AS-PS02 	Input 100 V _{AC} ~ 240 V _{AC}	AS-PS02A 	Input 100 V _{AC} ~ 240 V _{AC}
	24 V _{DC} , 2 A (for internal bus)		24 V _{DC} , 1.5 A (for internal bus) 24 V _{DC} , 0.5 A (for external I/O)
AS-PS03C 	Input 100 V _{AC} ~ 240 V _{AC}		
	24 V _{DC} , 3 A (for external I/O)		
	RS-485 (Modbus)		
	Provides information of power status/abnormal alarm/life prediction		

Product Specifications - AS300/200/100 Series

Model		AS332T-A AS332P-A	AS324MT-A	AS320T-B AS320P-B	AS300N-A	AS228 ^{(*)1} AS132 ^{(*)2} AS148 ^{(*)2} AS164 ^{(*)2}	AS218TX-A AS218PX-A AS218RX-A
Programming Languages		Ladder Diagram (LD), Structured Text (ST), Continuous Function Chart (CFC), Sequential Function Chart (SFC), C Language					
Instruction Processing Speed	LD Instruction	25 ns					
	MOV Instruction	0.15 μs					
	Elementary Arithmetic for Integers	0.92 μs ~ 1.02 μs					
	Elementary Arithmetic for Floating Point	1.69 ~ 1.85 μs					
Program Capacity		128k steps				64k steps	
Memory Capacity	Data (D)	64k words (including 30k user-defined, 30k software configuration and 4k special registers)					
	Extension (FR)	64k words (user parameter storage)					
Function Cards		The CPUs support up to 2 function cards				-	
Max. Extension Modules		32 modules (max. 16 analog modules / 4 communication modules)					
Max. Number of Real Inputs / Outputs		1,024 points (input & output)					
CPU Built-in Inputs / Outputs		16 DI / 16 DO	12 DI / 12 DO	8 DI / 12 DO	-	AS228: 16 DI / 12 DO AS132: 16 DI / 16 DO AS148: 24 DI / 24 DO AS164: 32 DI / 32 DO	8 DI / 6 DO & 2 AI / 2 AO
CPU Built-in Differential Inputs / Outputs		-	4 inputs + 4 outputs	-			
Input / Output Devices	X	1,024 inputs (X0.0 ~ X63.15)					
	Y	1,024 outputs (Y0.0 ~ Y63.15)					
Bit Devices	M	8,192 bits (M0 ~ M8191)					
	S	2,048 bits (S0 ~ S2047)					
Timer	T	512 (T0 ~ T511)					
16-bit Counter	C	512 (C0 ~ C511)					
32-bit Counter	HC	256 (HC0 ~ HC255)					
Pulse Output		Open collector: 6 axes, 200 kHz	Open collector: 4 axes, 200 kHz Differential: 2 axes, 4 MHz	Open collector: 6 axes, 200 kHz	-	Open collector: 6 axes, 200 kHz (not supported in relay output models)	Open collector: 3 axes, 200 kHz (not supported in relay output models)
High-Speed Counter		General: 6 CHs, 200 kHz	General: 4 CHs, 200 kHz Differential: 2 CHs, 4 MHz	General: 4 CHs, 200 kHz	-	General: 4 CHs, 200 kHz	General: 4 CHs, 200 kHz
DO Type		AS332T-A: NPN AS332P-A: PNP	Diff. / NPN	AS320T-B: NPN AS320P-B: PNP	-	AS1xxT-A: NPN AS228T-A: NPN AS1xxP-A: PNP AS228P-A: PNP AS1xxR-A: Relay AS228R-A: Relay	AS218TX-A: NPN AS218PX-A: PNP AS218RX-A: Relay
Built-in Communication Port		USB, Ethernet, RS-485 x 2				USB, Ethernet, RS-485 x2, CANopen	
Communication Protocol		Modbus, Modbus TCP, EtherNet/IP, CANopen (requires a CANopen function card)				Modbus, Modbus TCP, EtherNet/IP, CANopen	
Ethernet Connection Resource		Modbus (Client / Server): 32 / 32 EtherNet/IP (CIP): 32				Modbus (Client / Server): 16 / 16 EtherNet/IP (CIP): 16	
Data Backup (Without Battery)	Program	Flash ROM, rewritable up to 100,000 times					
	Latched Area	MRAM, no rewriting limit					
CANopen DS301	Connectable Slave Stations	Max. 64 points					
	CPDO Data Capacity (Host)	Max. 2,000 bytes (Read & Write)					
	PDO Data Capacity (Slave)	Max. 8 PDO (Read & Write); Max. 8 bytes for each PDO					
Real-time Clock (RTC)		General Lithium button battery (CR1620)					
Self-Diagnosis Function		CPU errors, built-in memory errors, and more					
Rated Input Current	AS-PS02 / AS-PS02A / AS-PS03C	110 V _{AC} ~ 240 V _{AC} (±10%)					
	CPU Extension Modules	24 V _{DC} (±10%)					

*1: AS228: AS228T-A / AS228P-A / AS228R-A

*2: AS132: AS132T-A / AS132P-A / AS132R-A; AS148: AS148T-A / AS148P-A / AS148R-A; AS164: AS164T-A / AS164P-A / AS164R-A

Product Specifications - AS500 Series

Model		AS516E-B	AS532EST-B	AS564EST-B	AS524C-B
Programming Languages		Ladder Diagram (LD), Structured Text (ST)			
Instruction Processing Speed	Boolean Operation	0.05 μ s			
	MOV Instruction	0.11 μ s			
	Elementary Arithmetic for Integers	0.24 μ s			
	Elementary Arithmetic for Floating Point	0.30 μ s			
Program Capacity		20MB			
Data Capacity		20MB			
Max. Extension Modules		32 modules (max. 16 analog modules)			
CPU Built-in Inputs/Outputs		16 DI/8 DO			
CPU Built-in Encoder Interface		Incremental x 2 / SSI absolute x 1			
I/O Devices	I (Input)	128 bytes			
	Q (Output)	128 bytes			
Memory Devices	M (Memory)	128k bytes			
Pulse Output		-			
High-Speed Counter		-			
DO Type		NPN			
Built-in Communication Ports		USB, Ethernet, RS232, RS485, EtherCAT, CANopen			USB, Ethernet x2, RS232, RS485, CAN Motion, CANopen
Communication Protocols		Modbus, Modbus TCP, EtherNet/IP, EtherCAT, CANopen DS301			Modbus, Modbus TCP, EtherNet/IP, CANopen DS301 & DS402
Ethernet Connection Resource		Modbus TCP (Client/Server): 16/16 EtherNet/IP (CIP): 8			
Data Backup (Without Battery)	Program	Flash ROM, rewritable up to 100,000 times			
	Latched Area	MRAM, no rewriting limit			
Motion Network	Protocol	EtherCAT ^{*1}			CANopen (DS402) ^{*1}
	Total Axis (Real + Virtual)	32	64	64	32
	Total Real Axis (Motion + P2P)	16	32	64	24
	Total Real Axis (Motion)	16	4	8	24
	Connectable devices	64	64	96	24
CANopen (DS301)	PDO Data Capacity (Host)	CANopen DS301: Max. 8 PDO (read & write)			
	PDO Data Capacity (Slave)	CANopen DS301: Max. 8 PDO (read & write); Max. 8 bytes for each PDO			
Real-time Clock (RTC)		General Lithium button battery (CR1620)			
Self-Diagnosis Function		CPU errors, built-in memory errors, and more			
Rated Input Current	AS-PS02/ AS-PS02A/ AS-PS03C CPU	110 V _{AC} ~ 240 V _{AC} ($\pm 10\%$)			
	Extension Modules	24 V _{DC} ($\pm 10\%$)			

*1: Delta drives only

Product Specifications - AX-3 Series

Model		AX-300NA	AX-324NA	AX-304EL	AX-364EL
Programming Languages		Ladder Diagram (LD), Structured Text (ST), Continuous Function Chart (CFC), Sequential Function Chart (SFC), Function Block Diagram (FBD), Instruction List (IL)			
Instruction Processing Speed	Boolean Operation	5 ns			
	MOV Instruction	-			
	Elementary Arithmetic for Integers	5 ns			
	Elementary Arithmetic for Floating Point	36 ns			
Program Capacity		8 MB			
Data Capacity		16 MB			
Max. Extension Modules		32 modules (max. 16 analog modules)			
CPU Built-in Inputs / Outputs		-	16 DI / 8 DO		
CPU Built-in Encoder Interface		-			Incremental x 2 / SSI absolute x 1
I / O Devices	I (Input)	8,192 bytes			
	Q (Output)	8,192 bytes			
Memory Devices	M (Memory)	512k bytes			
Pulse Output		-	Open collector: 4 CHs, 200 kHz (PWM)		Open collector: 4 axes, 200 kHz
DO Type		-	NPN / PNP	NPN / PNP	NPN
High-Speed Counter		-	General: 6 CHs, 200 kHz		
Built-in Communication Ports		USB, Ethernet (Switch), RS232, RS485		USB, Ethernet (Switch) ^{*1} , RS232 ^{*2} , RS422 ^{*3} , RS485, EtherCAT	
Communication Protocols		Modbus, Modbus TCP, EtherNet/IP, OPC UA (Server)		Modbus, Modbus TCP, EtherNet/IP, EtherCAT, OPC UA (Server)	
Ethernet Connection Resource		Modbus TCP (Client+Server): 32 EtherNet/IP (CIP): Input=64; Output=64			
Data Backup (Without Battery)	Program	Flash ROM, rewritable up to 100,000 times			
	Latched Area	MRAM, no rewriting limit			
Motion Network	Protocol	-		EtherCAT	
	Total Axis (Real + Virtual)	-	-	8	64 + 4 (PTO)
	Total Real Axis (Motion + P2P)	-	-	4	64 + 4 (PTO)
	Total Real Axis (Motion)	-	-	0	8 + 4 (PTO)
	Connectable devices	-	-	16	96
Real-time Clock (RTC)		General Lithium button battery (CR1620)			
Self-Diagnosis Function		CPU errors, built-in memory errors, and more			
Rated Input Current	AS-PS02 / AS-PS02A / AS-PS03C	110 V _{AC} ~ 240 V _{AC} (±10%)			
	CPU	24 V _{DC} (±10%)			
	Extension Modules				

*1: AX-304EL only supports 1 Ethernet port

*2: Not supported by AX-332EP

*3: Only supported by AX-332EP

Model		AX-308EA	AX-316EA	AX-332EP
Programming Languages		Ladder Diagram (LD), Structured Text (ST), Continuous Function Chart (CFC), Sequential Function Chart (SFC), Function Block Diagram (FBD), Instruction List (IL)		
Instruction Processing Speed	Boolean Operation	5 ns		1.6 ns
	MOV Instruction	-		
	Elementary Arithmetic for Integers	5 ns		1.6 ns
	Elementary Arithmetic for Floating Point	36 ns		1.6 ns
Program Capacity		8 MB		128 MB
Data Capacity		16 MB		256 MB
Max. Extension Modules		32 modules (max. 16 analog modules)		
CPU Built-in Inputs/Outputs		16 DI/8 DO		6 DI/6 DO
CPU Built-in Encoder Interface		Incremental x 2 / SSI absolute x 1		Incremental x 1 / SSI absolute x 1
I/O Devices	I (Input)	8,192 bytes		
	Q (Output)	8,192 bytes		
Memory Devices	M (Memory)	512k bytes		
Pulse Output		Open collector: 4 axes, 200 kHz		Open collector: 1 axis, 200 kHz
DO Type		NPN/PNP	NPN	NPN
High-Speed Counter		General: 6 CHs, 200 kHz		
Built-in Communication Ports		USB, Ethernet (Switch)*1, RS232*2, RS422*3, RS485, EtherCAT		
Communication Protocols		Modbus, Modbus TCP, EtherNet/IP, EtherCAT, OPC UA (Server)		
Ethernet Connection Resource		Modbus TCP (Client+Server): 32 EtherNet/IP (CIP): Input=64; Output=64		
Data Backup (Without Battery)	Program	Flash ROM, rewritable up to 100,000 times		SSD
	Latched Area	MRAM, no rewriting limit		SSD
Motion Network	Protocol	EtherCAT		
	Total Axis (Real + Virtual)	16 + 4 (PTO)	32 + 4 (PTO)	32 + 1 (PTO)
	Total Real Axis (Motion + P2P)	8 + 4 (PTO)	16 + 4 (PTO)	32 + 1 (PTO)
	Total Real Axis (Motion)	8 + 4 (PTO)	16 + 4 (PTO)	16 + 1 (PTO)
	Connectable devices	64	64	256
Real-time Clock (RTC)		General Lithium button battery (CR1620)		Proprietary battery
Self-Diagnosis Function		CPU errors, built-in memory errors, and more		
Rated Input Current	AS-PS02/AS-PS02A/AS-PS03C	110 V _{AC} ~ 240 V _{AC} (±10%)		
	CPU	24 V _{DC} (±10%)		
	Extension Modules			

*1: AX-304EL only supports 1 Ethernet port

*2: Not supported by AX-332EP

*3: Only supported by AX-332EP

Electrical and Environmental Specifications

Item		Specifications
Internal Power Consumption	AS332T-A AS332P-A AS324MT-A AS320T-B AS320P-B	150 mA
	AS300N-A	125 mA
	AS228T-A AS228P-A	150 mA
	AS218TX-A AS218PX-A	180 mA
	AS228R-A	190 mA
	AS218RX-A	200 mA
	AS132T-A AS132P-A	110 mA
	AS132R-A	160 mA
	AS148T-A AS148P-A	125 mA
	AS148R-A	200 mA
	AS164T-A AS164P-A	140 mA
	AS164R-A	240 mA
	AS516E-B AS524C-B AS532EST-B AS564EST-B	333 mA
	AX-308EA0MA1T/P AX-316EA0MA1T AX-364ELA0MA1T	458.3 mA
	AX-300NA0PA1	166.6 mA
	AX-304ELA0PA1T/P AX-324NA0PA1P	208.3 mA
	AX-332EP0MB1T	1,000 mA
	Extension Modules	Digital relay output < 150 mA, other modules < 80 mA
Operating Temperature		-20 ~ 60 °C (AX Series CPU: -20 ~ 55 °C)
Storage Temperature		-40 ~ 80 °C
Operating Humidity		5 ~ 95%, non-condensing
Storage Humidity		5 ~ 95%, non-condensing
Vibration		IEC 61131-2, IEC 60068-2-6 (TEST Fc); 5 Hz ≤ f ≤ 8.4 Hz, constant amplitude 3.5 mm; 8.4 Hz ≤ f ≤ 150 Hz, constant acceleration 1g
Shock		IEC 61131-2, IEC 60068-2-27 (TEST Ea); 15g peak, 11 ms duration, half-sine
Operating Environment		Non-corrosive gas
Installation		Inside of the control panel
Pollution Degree		2
Protection Rating		IP20
Conformal Coating		Yes