

02

SERVO DRIVE



Specification Description

ProNet - 10 A E G - EC

ProNet Servo Drive	Rated Power	Power Voltage	Control Style	Encoder Interface	Extended Module
Sign	Spec.	Sign	Spec.	Sign	Spec.
A5: 0.05kW 01: 0.1kW 02: 0.2kW 04: 0.4kW 08: 0.75kW 10: 1.0kW 15: 1.5kW 20: 2.0kW 30: 3.0kW 50: 5.0kW 70: 7.0kW 75: 7.5kW 1A: 11kW 1E: 15kW 2B: 22kW	A: 200VAC D: 400VAC	M: Speed control, Torque control, Position Control CANopen E: Support Extended Bus Function	G: 17 Bits/20 Bits/23 Bits Serial Encoder (self-adaption)	-EC: EtherCAT BUS None: M control Style	

Ratings

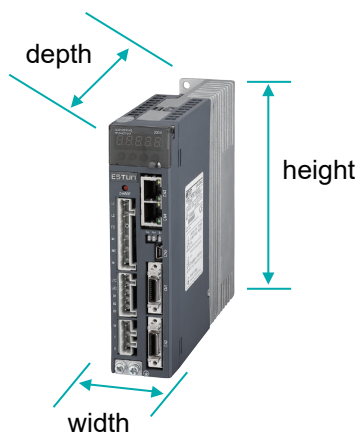
Servo drive Model: ProNet-	A5A	01A	02A	04A	08A	10A	15A	20A	30A	50A	10D	15D	20D	30D	50D	70D	75D	1AD	1ED	2BD
Applicable Servomotor :EM3A-	—	—	02A	04A	08A	10A	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Applicable Servomotor : EMJ-	A5A	01A	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Applicable Servomotor : EMG-	—	—	—	—	—	10A	15A	20A	30A	50A	10D	15D	20D	30D	50D	—	—	—	—	—
Applicable Servomotor : EML-	—	—	—	—	—	10A	—	20A	30A	40A	10D	—	20D	30D	40D	—	—	—	—	—
Applicable Servomotor : EMB-	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75D	75D	1AD	1ED	2BD
Continuous Output Current [Arms]	1.0	1.1	1.4	2.8	4.0	6.0	9.0	12.0	18.0	28.0	3.2	5.0	6.4	9.0	15.0	18.0	18.0	28.0	38.0	55.0
Max. Output Current [Arms]	3.0	3.3	4.2	8.4	12.0	21.0	28.0	42.0	46.0	64.0	9.6	15.0	19.2	27.0	45.0	48.0	48.0	65.0	100.0	128.0
Main Input Power Supply Capacity [kVA]	0.2	0.3	0.5	0.9	1.3	1.8	2.5	3.5	4.5	7.5	1.8	2.8	3.5	5.0	8.2	12.0	12.0	18.0	22.0	32.0
DC24V Power Supply Capacity [W]	—	—	—	—	—	—	—	—	—	—	30.0	30.0	30.0	45.0	45.0	45.0	—	—	—	—

Specification

Items			Specification
Input Power Supply	Main Circuit	200V	Single-Phase 200~230VAC (0.05kW~0.4kW) Three-phase 200~230VAC (0.75kW~5.0kW)
		400V	Three-phase 380~440VAC (1kW~5.0kW)
	Control Circuit	200V	Single-Phase 200~230VAC (0.05kW~5kW)
		400V	24VDC (1kW~5.0kW)
	Control Method		
Feedback			17bit Absolute encoder: 131072P/R 20bit Incremental encoder: 1048576 P/R 23bit Absolute encoder: 8388608P/R Resolver
Operating Conditions	Ambient/Storage Temperature		Ambient temperature: 0~+55°C Storage temperature: -25~+85°C
	Ambient/Storage Humidity		5%~95% RH (no condensation)
	Elevation		1000m or less
	Vibration/Shock Resistance		Vibration Resistance: 4.9m/s ² Impact Resistance: 19.6m/s ²
Configuration			Base-mounted
Performance	Speed Control Range		1:5000
	Speed Regulation	Load Regulation	0~100% load: ±0.01% or less (at rated speed)
		Voltage Regulation	Rated voltage ±10%: 0% (at rated speed)
		Temperature Regulation	25±25°C: ±0.1% or less (at rated speed)
Torque Control	Analog Reference Input	Reference Voltage	±10VDC at rated torque (Variable setting range: ±0~10VDC) Max. input voltage: ±12V
		Input Impedance	About 10MΩ or above
		Circuit Time Constant	10μs
Speed Control	Analog Input	Reference Voltage	±10VDC at rated speed (Variable setting range: ±0~10VDC) Max. input voltage: ±12V
		Input Impedance	About 10MΩ or above
		Circuit Time Constant	10μs
	Speed Selection	Rotation Direction Selection	With /P-CON signal
		Speed Selection	Speed 1 to 7
Function	Soft Start Setting	0~10s (Can be set individually for acceleration and deceleration)	
Position Control	Pulse Reference	Type	Sign + pulse train; CCW + CW pulse train; 90° phase difference 2-phase (phase A + phase B)
		Form	Non-insulated line driver (about + 5V), open collector
		Frequency	×1 multiplier: 4Mpps ×2 multiplier: 2Mpps ×4 multiplier: 1Mpps Open collector: 200Kpps Frequencies drop when the duty ratio error occurs
	Position Reference	Position Setting	16 position nodes can be set

Items		Specifications	
I/O Signals	Encoder Dividing Pulses Output	Phase-A, phase-B, phase-C: line driver output Number of dividing pulses: Any setting ratio is available	
	Sequence Input	Number of channels	Standard: 8 channels EC BUS: 5 channels
		Function	Signal allocations and positive/negative logic modifications: Servo ON (/S-ON), P control (/P-CON), alarm reset (/ALM-RST), position error clear (/CLR), forward run prohibited (P-OT), reverse run prohibited (N-OT), forward current limit (/P-CL), reverse current limit (/N-CL) and so on.
	Sequence Output	Number of channels	Standard: 4 channels EC BUS: 3 channels
		Function	Signal allocations and positive/negative logic modifications: Positioning completion (/COIN), speed coincidence (/V-CMP), servomotor rotation detection (/TGON), servo ready (/S-RDY), torque limit output (/CLT), brake interlock output (/BK), encoder C pulse (/PGC) and Over travel signal (/OT).
	Regenerative Processing Functions		0.75kW~7.5kW: built-in regenerative resistor; 11kW~22kW: external regenerative resistor
Protection Functions		Overcurrent, overvoltage, low voltage, overload, regeneration error, overspeed, etc	
Utility Functions		Alarm trace back, JOG operation, load inertia detection, etc	
Display Functions		CHARGE (Red), POWER (Green), 7-segment LEDs × 5 (Built-in digital panel operator)	
Communication Functions		RS-485 communication port, MODBUS protocol; CAN communication port, CANopen protocol; EtherCAT communication module, CiA402 protocol	

Servo Drive Size



Power	200V	400V
(kW)	W×H×D (mm)	W×H×D (mm)
0.05	40X160X180	—
0.1	40X160X180	—
0.2	40X160X180	—
0.4	40X160X180	—
0.75	84X186X180	—
1.0	84X186X180	100X186X180
1.5	100X186X180	100X186X180
2.0	100X186X180	100X186X180
3.0	125X271X205	125X271X205
5.0	125X271X205	125X271X205
7.0	—	125X271X205
7.5	—	186x462x168
11	—	186x462x168
15	—	186x462x168
22	—	186x462x168