ProNet Series Servo Drive

Features

- The response performance has been improved more than three times than EDB series, which realizes online real time inspecting of load inertia, the gain can be adjusted at any time in order to achieve the best control effect.
- FFT Analysis to control the vibration
- Expansibility: DP-100, AE100 module

Specification Description for S series

ProNet-10 A M A

ProNet Servo Drive

Rated Power		Power voltage		Control Style		Design Sequence	
Sign	Specification	Sign	Specification	Sign	Specification	Sign	Specification
02	200W	**A**	200VAC	**M**	Position, speed, torque control	**A**	17 bits Serial Encoder
04	400W	**D**	400VAC			**B**	Resolver
08	750W						
10	1KW			**E**	Speed, torque &position control (Support Extended Module)		
15	1.5KW						
20	2KW						
30	3KW						
50	5KW						
75	7.5KW						
1A	11KW						
1E	15KW						

Note: 400Vac power supply is only available for power range from 7.5kw to 15kw at present.

Specification Description for E series

ProNet- E 10 A

ProNet Servo Drive

Feedback unit

Sign	Specification
E	2500P/R incremental encoder

Rated Power

Sign	Specification
02	200W
04	400W
08	750W
10	1KW
15	1.5KW
20	2KW
30	3KW
50	5KW

Power voltage

Sign	Specification
A	200VAC

Model Comparison Table for E series

Servo motor					Servo drive
Series			Power	Model	200V
Medium inertia	Small capacity	EMJ 3000min^{-1}	200W	EMJ−02APA	PRONET-E-02A
			400W	EMJ−04APB	PRONET-E-04A
			750W	EMJ−08APA	PRONET-E-08A
			1000	EMJ-10APA	PRONET-E-10A
	Medium capacity	EMG 2000min^{-1}	1.0k	EMG−10APA	PRONET-E-10A
			1.5k	EMG−15APA	PRONET-E-15A
			2.0k	EMG−20APA	PRONET-E-20A
			3.0k	EMG−30APA	PRONET-E-30A
			5.0k	EMG−50APA	PRONET-E-50A
		EML 1000min^{-1}	1.0k	EML−10APA	PRONET-E-10A
			2.0k	EML−20APA	PRONET-E-20A
			3.0k	EML−30APA	PRONET-E-30A
			4.0k	EML−40APA	PRONET-E-50A

Ratings

Servo Drives	PRONET-	02A	04A	08A	10A	15A	20A	30A	50A	75D	1AD	1ED
Servo Motors	EMJ-	02A	04A	08A	10A	-	-	-	-	-	-	-
	EMG-	-	-	-	10A	15A	20A	30A	50A	-	-	-
	EML-	-	-	-	10A	-	20A	30A	40A	-	-	-
	EMB-	-	-	-	-	-	-	-	-	75D	1AD	1ED
Continuous output current [Arms]		1.3	2.7	4.0	6.0	9.0	12.0	18.0	28.0	18.0	28.0	38.0
Max. output current [Arms]		3.9	8.1	12.0	18.0	28.0	42.0	56.0	84.0	56.0	70.0	84.0
Input Power Supply Capacity		0.5	0.9	1.3	1.8	2.5	3.5	4.5	7.5	12.0	18.0	22.0

Specifications

Items			Specifications
Input Power Supply	Main Circuit	200V	Three-phase 200 to 230VAC 50/60Hz (1.0kw-5.0kW)
		400V	Three-phase 380 to 440VAC 50/60Hz (7.5kw-15kW)
	Control Circuit	200V	single-phase 200 to 230VAC 50/60Hz (1.0kw-5.0kW)
		400V	single-phase 380 to 440VAC 50/60Hz (7.5kw-15kW)
Control Method			SVPWM Control
Feedback			Serial encoder:13072P/R
			Resolver
Operating Conditions	Ambient/Storage Temperature		Ambient temperature: 0 to +55℃,Storage Temperature:-20 to +85℃
	Ambient/Storage Humidity		90% RH or less(no condensation)
	Elevation		1000m or less
	Vibration/Impact Resistance		Vibration Resistance:4.9m/s2, Impact Resistance: 19.6m/s2
Configuration			Base-mounted
Performance	Speed Control Range		1:5000
	Speed Regulation	Load Regulation	0 to 100% load:±0.01% max
		Voltage Regulation	Rated voltage±10%: 0%(at rated speed)
		Temperature Regulation	25±25℃:±0.1% max. (at rated speed)
Torque Control	Analog Input	Reference Voltage	±10VDC at rated torque(variable setting range:±1to 10VDC)
			Max. input voltage:±12V
		Input Impedance	About 10MΩ min.
		Circuit Time Constant	10μs

Specifications

Items			Specifications
Speed Control	Analog Input	Reference Voltage	±10VDC at rated torque(variable setting range:±1to 10VDC)
			Max. input voltage:±12V
		Input Impedance	About 10MΩ min.
		Circuit Time Constant	10μs
	Set Speed Reference	Rotation Direction Selection	Switches the direction by /P-CON
		Speed Selection	Speed 1 to 7 selection
	Function	Soft Start Setting	0 to 10s(can be set individually for acceleration and deceleration)
Position Control	Reference Pulse	Type	Sign + pulse train, CCW+CW pulse train, or 90°phase difference 2-phase pulse(phase A + phase B)
		Form	Non-insulated line driver(+5V level),open collector
		Frequency	x1 multiplier:4Mpps
			x2 multiplier:2Mpps
			x4 multiplier:1Mpps
			Open collector:200kpps
			Frequencies drop when the duty cycle have errors
	Set Position Reference	Position Setting	Can set 16 position reference
I/O Signals	Encoder Output Pulses		Phase A, Phase B, Phase C: line driver output
			The number of dividing pulse: Any setting ratio is available
	Sequence Input	Number of Channels	8 channels
		Function	Signal allocations and positive/negative logics can be modified: Servo On(/S-ON),P control(/P-CON),alarm reset(/ALM-RST),clear error pulse(/CLR),forward run prohibited (P-OT),reverse run prohibited(N-OT),forward torque limit(/P-CL),reverse torque limit(/N-CL)
	Sequence Output	Number of Channels	4 channels
		Function	Servo alarm(ALM)Signal allocations and positive/negative logics can be modified: Positioning completion(/COIN),speed agree detection(/V-CMP),motor rotation detection(/TGON),servo ready(/S-RDY),torque limit detection(/CLT),brake interlock(/BK),encoder C pulse(/PGC)
Built-in Function	Dynamic Brake(DB) Functions		Operate during main power OFF, servo alarm, servo OFF or overtravel
	Regenerative Processing Functions		750W to 5.0KW:built-in regenerative resistor;7.5kW to 15kW:External regenerative resistor(optional)
	Protective Functions		Overcurrent, overvoltage, low voltage. overload, regeneration error, overspeed, etc.
	Utility Functions		Alarm trace back, JOG operation, Inertia detections, etc.
	Display Functions		CHARGE(red),POWER(green),7-segment 5-digit LED(Built-in digital operator function)
	Communications		RS485 communication port, use MODBUS protocol. CAN communication port, use CANOpen protocol.

DP100 Module

There are many applications based on profibus communication in industrial automation market. The DP100 module is a PROFIBUS DP module, which can connect the other PROFIBUS products with ESTUN ProNet servo drive and provide profibus project at low cost.

Main Features

- Bus transmitting baud rate automatic identification (9.6 Kbps~12Mbps)
- The on-card power and isolator can match demand of different net regulations
- Distribute module address freely, make data transmitted to any servo drives
- Periodic data (PZD) exchange is available by DPV0 channel
- Reading and writing no-periodic data are available by DPV1 channel
- Support DPV2, isochronous, each servo drive can sampling control isochronously, the isochronous precision can reach 1us.
- The module support motion control-oriented PROFIBUS PROFIDRIVE regulation
- Pass the coherence test and authentication of PROFIBUS