



# ProNet Series

All Digital AC Servo Systems



**ESTUN**  
*Drive your success*

## Company Profile

---

As China No.1 Servo brand, Estun Automation is devoted to R&D, manufacturing and sales of high-end products in the realm of motion control. Estun Automation has a completely self-owned IPR technology of AC servo systems which are widely applied in CNC machines, textile machines, packaging machines, printing machines, wood processing machines and other automatization production lines. Till now, Estun Automation has an established long-term strategic partnership with many prestigious and professional sales agents and has become the first cooperation option for many machine manufacturers at home and abroad.

Servo Drive Workshop, fulfilling 6-sigma field management.



**04**

**ProNet Series All Digital AC Servo Systems**

**06**

**ProNet Series Servo Drive**

**10**

**EMJ Series Servo Motor**

**14**

**EMG Series Servo Motor**

**18**

**EML Series Servo Motor**

**22**

**EMB Series Servo Motor**

**27**

**Mounting Dimension of Drive**

**29**

**Typical Connection Example**

*Small golf land in office building*



# ProNet

## Series All Digital AC Servo System

### Excellent Performance

- The ProNet series servo drives added functions of current forward-feedback control, acceleration forward-feedback control, speed viewer and inertia viewer which, in turn, enable the ProNet series servo drive to improve response performance more than three times than previous products. What is more, it is available to on-line real time workload inertia check and adjustment of gain at any time to achieve the best control effect.
- The ProNet series servo drive is able to match 17 bits serial encoder which in turn enhances position precision and low speed stability & responsiveness performance.



### Simple & Convenient Setting

The ProNet series servo drive completely pursues the simplicity of utilization to automatically determine mechanical characteristic and set needed servo gain. Besides, it achieves 'on-line automatically adjustment function'. Automatic adjustment of servo system to meet mechanical characteristic enables less debugging time and simpler operation. Even for the first time to use it, it can finish the best optimized setting in a short time.

### Expansibility

- The ProNet series servo drive is designed with expansion module interface. At present, Profibus-DP bus communication module is available. In future, it will also support single axis control and assistant PLC expansion module etc.
- In order to make the servo system flexible to use for users, the ProNet series servo drive take the lead in providing expansibility, soft and open design. It can be expanded with various communication and feedback interface through selective modules.

## Abundant Communication Functions



The ProNet series servo drives provide RS485 and CAN communication interface. Besides, it is able to support MODBUS, CANopen, Ethercat and PROFIBUS communication protocol.

## Model Comparison Table

Servo motor				Servo drive			
Series		Power	Model	200V	400V		
Medium inertia	Small capacity	EMJ 3000min <sup>-1</sup>	200W	EMJ-02A□A	PRONET-02A□A		
			400W	EMJ-04A□A	PRONET-04A□A		
			750W	EMJ-08A□A	PRONET-08A□A		
			1000	EMJ-10A□A	PRONET-10A□A		
	Medium capacity	EMG 2000min <sup>-1</sup>	1.0k	EMG-10A□A	PRONET-10A□A		
			1.5k	EMG-15A□A	PRONET-15A□A		
			2.0k	EMG-20A□A	PRONET-20A□A		
			3.0k	EMG-30A□A	PRONET-30A□A		
			5.0k	EMG-50A□A	PRONET-50A□A		
			EML 1000min <sup>-1</sup>	1.0k	EML-10A□A	PRONET-10A□A	
				2.0k	EML-20A□A	PRONET-20A□A	
				3.0k	EML-30A□A	PRONET-30A□A	
	4.0k	EML-40A□A		PRONET-50A□A			
	Large capacity	EMB 1500min <sup>-1</sup>	7.5k	EMB-75D□A		PRONET-75D□A	
			11kW	EMB-1AD□A		PRONET-1AD□A	
			15kW	EMB-1ED□A		PRONET-1ED□A	

# 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

## ProNet-10

## A

## M

## A

ProNet  
Servo Drive

Rated Power

Power voltage

Control Style

Design Sequence

Sign	Specification	Sign	Specification	Sign	Specification	Sign	Specification
<b>02</b>	200W	<b>A</b>	200VAC	<b>M</b>	Position, speed, torque control	<b>A</b>	17 bits Serial Encoder
<b>04</b>	400W	<b>D</b>	400VAC			<b>B</b>	Resolver
<b>08</b>	750W						
<b>10</b>	1KW			<b>E</b>	Speed, torque &position control (Support Extended Module)		
<b>15</b>	1.5KW						
<b>20</b>	2KW						
<b>30</b>	3KW						
<b>50</b>	5KW						
<b>75</b>	7.5KW						
<b>1A</b>	11KW						
<b>1E</b>	15KW						

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

## 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°C, Storage Temperature:-20 to +85°C
	Ambient/Storage Humidity		90% RH or less(no condensation)
	Elevation		1000m or less
	Vibration/Impact Resistance		Vibration Resistance:4.9m/s <sup>2</sup> , Impact Resistance: 19.6m/s <sup>2</sup>
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°C:±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 3 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
	Encoder Output Pulses		Phase A, Phase B, Phase C: line driver output The number of dividing pulse: Any setting ratio is available
I/O Signals	Sequence Input	Number of Channels	B 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

# EMJ

## Series Servo Motor

### Features

- Medium inertia
- Peak torque up to 300% of rated torque
- Various models (200w~1000w, with brake, etc.,)
- Run at speed of up to 4500r/min
- Equipped with 17-bit incremental/absolute encoder

### Applications

- SMM(surface mounting machine)
- PCB puncher machine
- Robot arm
- Handing machine
- Foodstuff processing machine
- Textile machine



### Model Specification Description

**EMJ-08**

**A**

**D**

**A**

**1**

**1**

EMJ Model Servo Motor

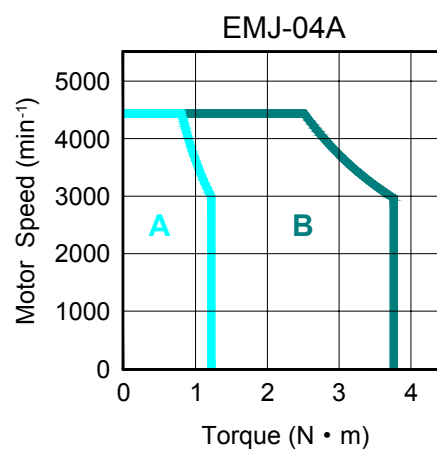
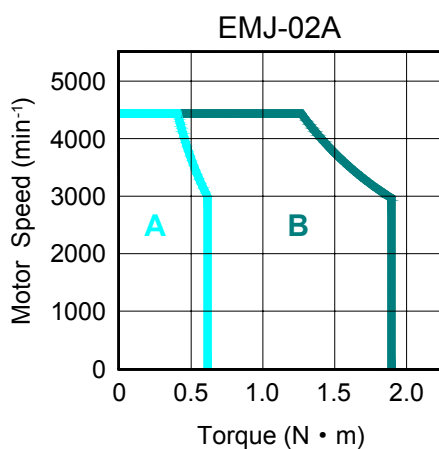
Rated Power		Power Voltage		Encoder		Design Sequence		Shaft End		Optional Parts	
Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.
<b>2</b>	200W	<b>A</b>	200Vac	<b>D</b>	Incremental Encoder: 131072P/R	<b>A</b>	Design Sequence	<b>1</b>	Flat, without keys	<b>1</b>	None
<b>4</b>	400W									<b>2</b>	With Oil Seal
<b>8</b>	750W									<b>2</b>	Flat, with keys, with screw thread
<b>10</b>	1000W	<b>4</b>	With oil seal, with brake (DC24V)								

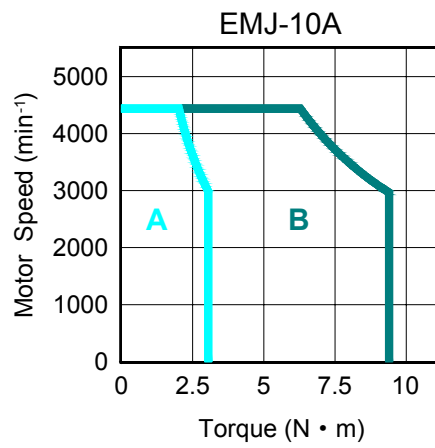
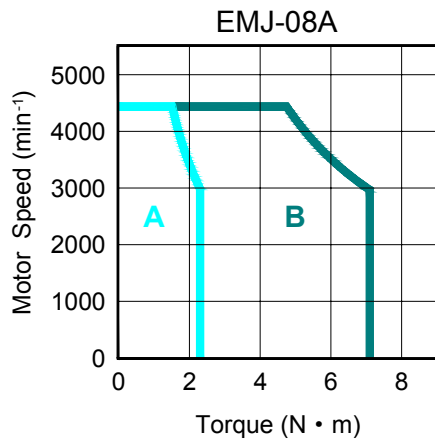
## Rated Value and Specification

Voltage		200VAC			
Servo motor type	EMJ-	02A	04A	08A	10A
Rated output power	W	200	400	750	1000
Rated torque	N.m	0.64	1.27	2.40	3.18
Instantaneous peak torque	N.m	1.92	3.82	7.16	9.55
Rated current	Arms	1.3	2.7	4.0	5.3
Instantaneous peak current	Arms	3.9	8.1	12.0	15.9
Rated speed	min <sup>-1</sup>	3000			
Max. speed	min <sup>-1</sup>	4500			
Rotator rotated inertia	x10 <sup>-4</sup> kg/m <sup>2</sup>	0.19(0.23)	0.31(0.35)	1.35(1.47)	1.74(1.87)
Brake rated voltage		DC24V ± 10%			
Brake rated power	W	7.2		11.5	
Brake holding torque	N.M	1.3		3.2	
Encoder	Standard	17 bit Incremental Encoder: 131072P/R			
	Optional	17 bit Absolute Encoder: 131072P/R; Resolver			
Heat endurance level		F			
Environment temperature		0 to +40°C (Non-iced)			
Environment humidity		20 to 80% RH (No dew)			
Protection method		All-closed, self-cool, IP65 (Except output shaft and connector)			
Anti-vibration performance		49m/s <sup>2</sup>			

(Note): The values in parentheses are for servo motors with holding brakes.

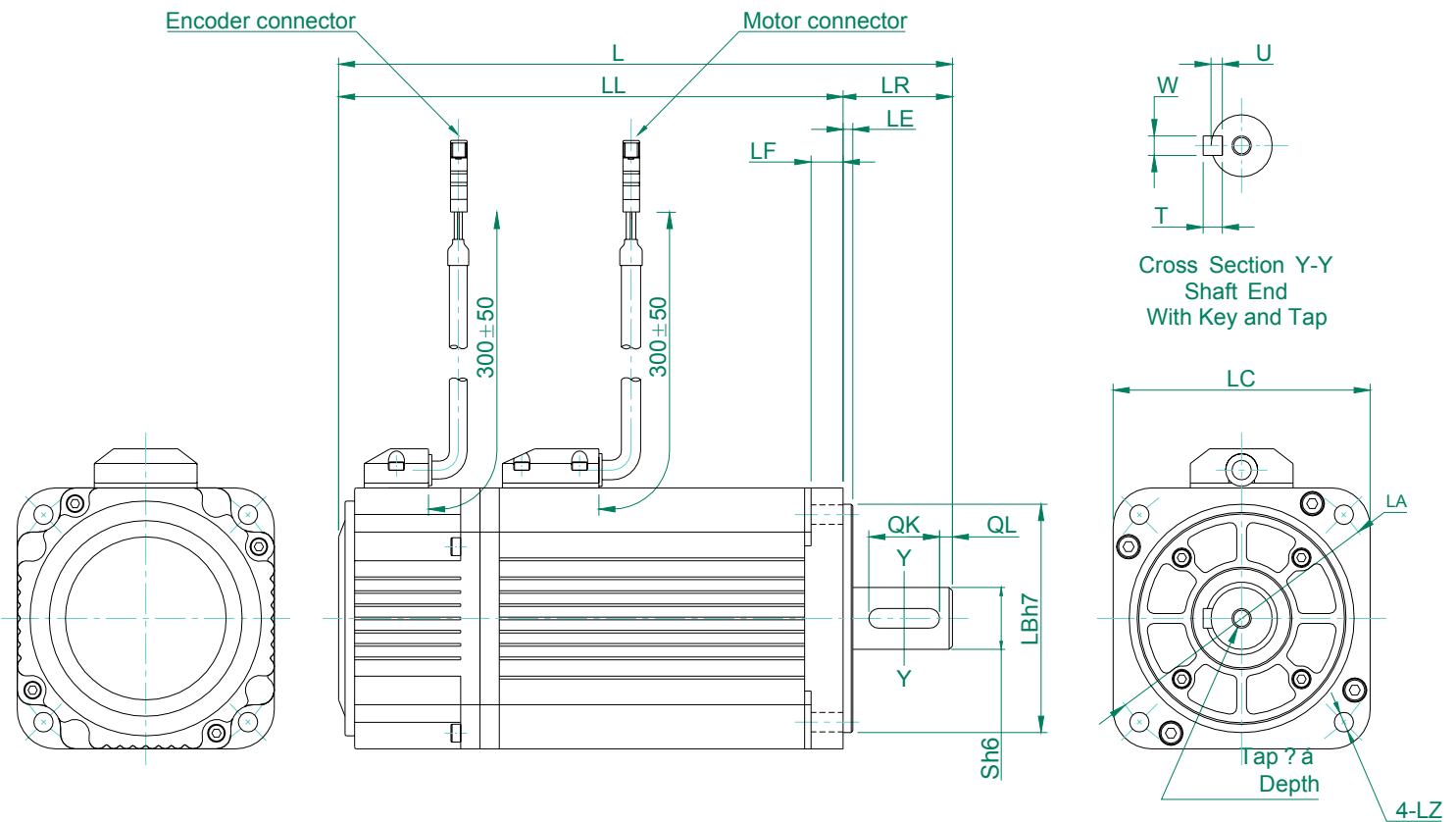
## Torque-speed Feature



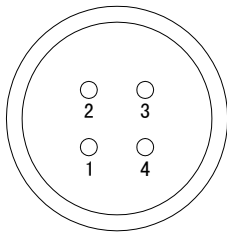


A: Continuous Working Area B: Repeatable Working Area

## Dimension



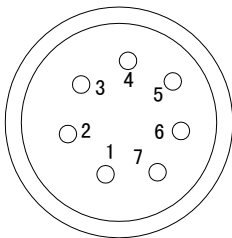
Model EMJ-	L	LL	Flange face							S	Tap×Depth	Key				
			LR	LE	LF	LC	LA	LB	LZ			QK	QL	W	T	U
02A	153	123	30	3	6	60	70	50	5.5	14	M5x10L	16	4	5	5	3
04A	173	143	30	3	6	60	70	50	5.5	14	M5x10L	16	4	5	5	3
08A	191	156	35	3	9	80	90	70	6	19	M6x15L	22	4	6	6	3.5
10A	211	176	35	3	9	80	90	70	6	19	M6x15L	22	4	6	6	3.5



➤ **Motor connector specification**

➤ Plug: CGRSB-4BFMA-SL8001

Pin No.	Signal	Color
1	U	Red
2	V	Blue
3	W	White
4	FG	Green/yellow

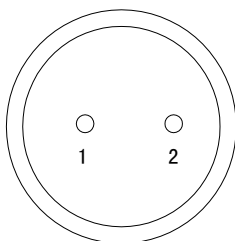


➤ **Encoder connector specification**

➤ Plug: CGRSD-7BFMA-SL8001

Pin No.	Signal	Color
1	S+	Blue
2	S-	Blue/Black
*3	BAT+	Brown
*4	BAT-	Brown/Black
5	PG5V	Red
6	PG0V	Black
7	FG	Shield

\*Note: There are no BAT+,BAT- signal in incremental encoder



➤ **Brake Connector Specifications**

➤ Plug: CGRSB-2BFMA-SL8001

Pin No.	Signal	Color
1	B1	Blue
2	B2	White

# EMG

## Series Servo Motor

### Features

- Be used to drive the feed shaft of various machine
- Various products (1.0KW ~5.0KW, with brake etc.)
- Equipped with 17-bit incremental/absolute encoder. Optional mounted resolver.
- Standard configuration is IP65

### Applications

- Machine tools
- Handling machine
- Foodstuff processing machine
- Textile machine



### Model Specification Description

**EMG-10 A D A 1 1**

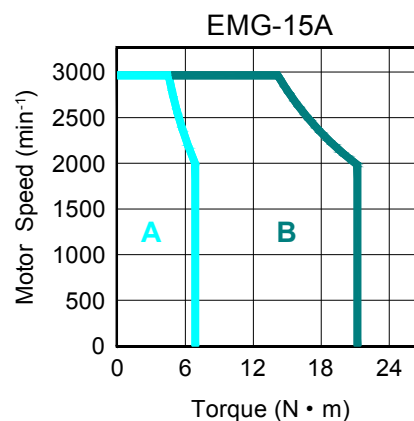
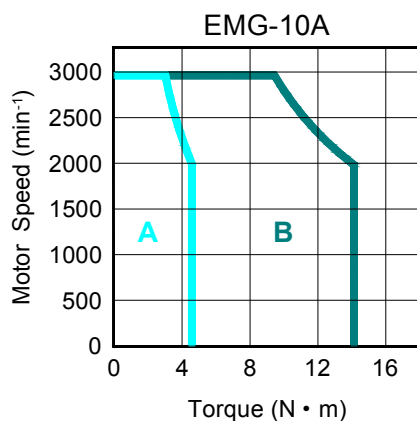
EMG Model Servo Motor	Rated Power		Power Voltage		Encoder		Design Sequence		Shaft End		Optional Parts	
	Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.
	<b>10</b>	1.0KW	<b>A</b>	200Vac	<b>D</b>	Incremental Encoder: 131072P/R	<b>A</b>	Design Sequence	<b>1</b>	Flat, without keys	<b>1</b>	None
	<b>15</b>	1.5KW									<b>2</b>	With Oil Seal
	<b>20</b>	2.0KW			<b>S</b>	Absolute Encoder: 131072P/R			<b>2</b>	Flat, with keys, with screw thread	<b>3</b>	With brake (DC24V)
	<b>30</b>	3.0KW					<b>4</b>	With oil seal, with brake (DC24V)				
	<b>50</b>	5.0KW			<b>R</b>	Resolver						

## Rated Value and Specification

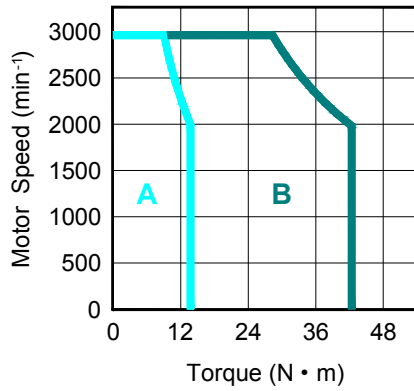
Voltage		200VAC				
Motor type	EMG-	10A	15A	20A	30A	50A
Rated output power	kW	1.0	1.5	2.0	3.0	5.0
Rated torque	N.m	4.78	7.16	9.55	14.3	23.9
Instantaneous peak torque	N.m	14.3	21.5	28.7	43	71.6
Rated current	Arms	6.0	9.0	12.0	18.0	28
Instantaneous peak current	Arms	18.0	27.0	36.0	54.0	84
Rated speed	min <sup>-1</sup>	2000				
Max. speed	min <sup>-1</sup>	3000				
Rotator rotated inertia	x10 <sup>-4</sup> kg/m <sup>2</sup>	10(10.6)	14.5(15.1)	19.0(19.6)	41.3(44.5)	65.7(68.9)
Brake rated voltage		DC24V ± 10%				
Brake rated power	W	19			35	
Brake holding torque	N.M	10			40	
Feedback unit	Standard	17 bit Incremental Encoder: 131072P/R				
	Optional	17 bit Absolute Encoder: 131072P/R; Resolver				
Heat-endurance level		F				
Environment humidity temperature		0 to +40°C (Non-iced)				
Environment humidity		20 to 80% RH (No dew)				
Protection method		All-closed, Self-cool, IP65 (Except output shaft and connector)				
Anti-vibration performance		24.5m/s <sup>2</sup>				

(Note): The values in parentheses are for servo motors with holding brakes.

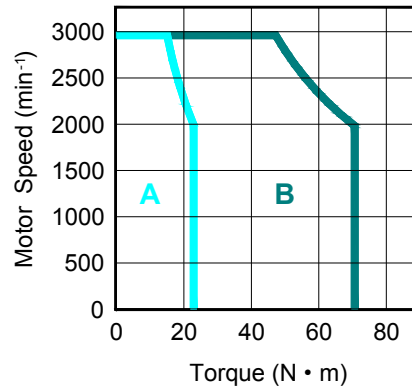
## Torque-Speed Feature



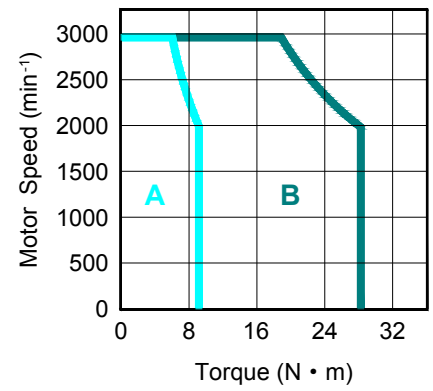
EMG-30A



EMG-50A

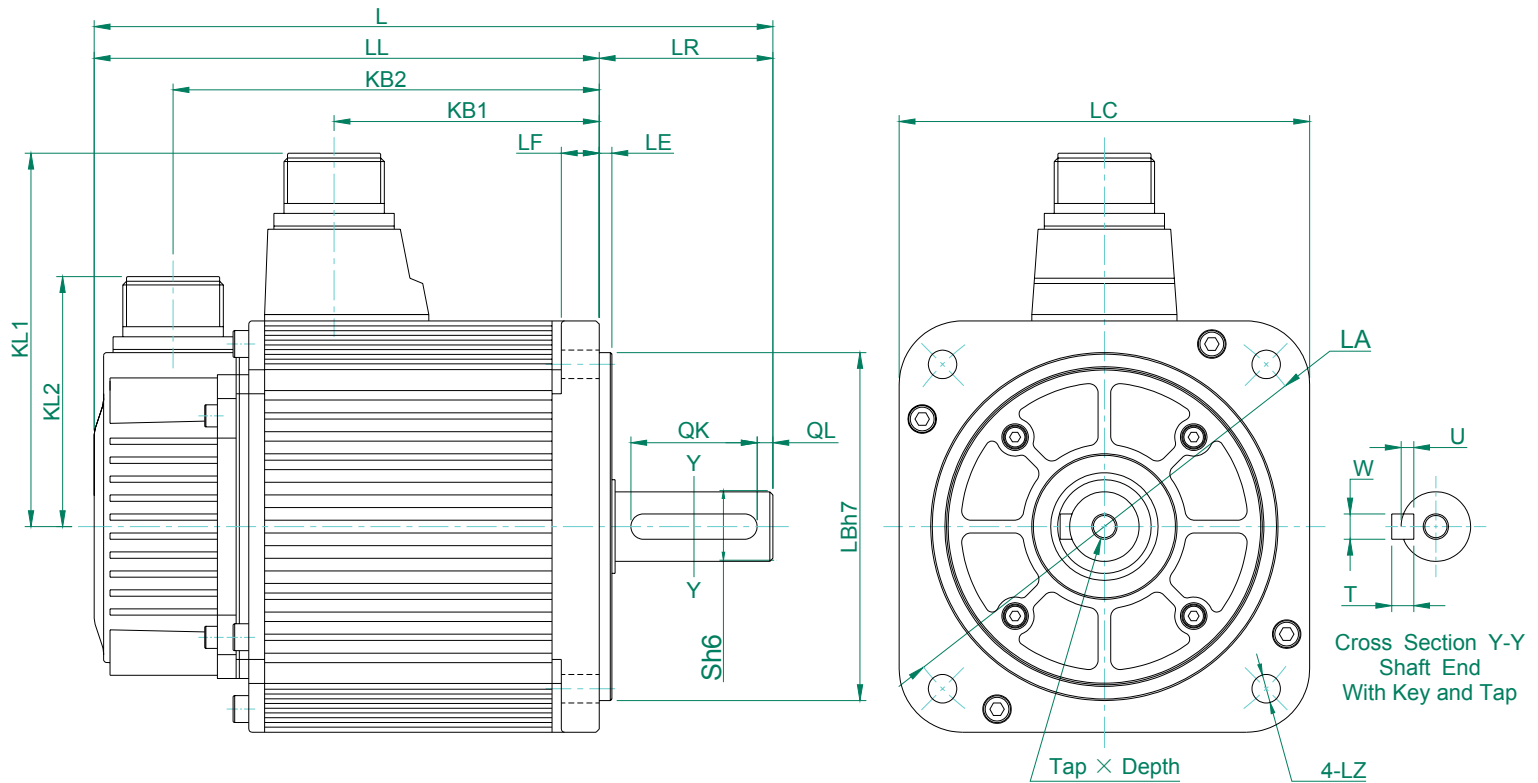


EMG-20A



Continuous Working Area A:  
Repeatability Working Area B

## Dimension



Model EMG-	L	LL	KB1	KB2	KL1	KL2	Flange face						S	Tap×Depth	Key					
							LR	LE	LF	LC	LA	LB			LZ	QK	QL	W	T	U
10A	215	160	84	135	118	79	55	4	12	130	145	110	9	22	M6x20L	40	5	8	7	4
15A	240	185	109	160	118	79	55	4	12	130	145	110	9	22	M6x20L	40	5	8	7	4
20A	265	210	134	185	118	79	55	4	12	130	145	110	9	22	M6x20L	40	5	8	7	4
30A	307	228	143	203	140	79	79	3.2	18	180	200	114.3	13.5	35	M8x16L	55	6	10	8	5
50A	347	268	183	243	140	79	79	3.2	18	180	200	114.3	13.5	35	M8x16L	55	6	10	8	5





➤ **Motor connector specification**

- Plug: MS3108B20-4S(LC=130), MS3108B22-22S(LC=180)
- Receptacle: MS3102A20-4P(LC=130),MS3102A22-22P(LC=180)

- Cable Clamp: MS3057-12A

Pin No.	Signal
A	U
B	V
C	W
D	FG



➤ **Encoder connector specification**

- Plug: MS3108B20-29S
- Receptacle: MS3102A20-29P
- Cable Clamp: MS3057-12A

**Incremental/Absolute encoder**

Pin No.	Signal	Color
K	S+	Blue
L	S -	Blue/Black
*T	BAT+	Brown
*S	B AT-	Brown/Black
H	PG5V	Red
G	PG0V	Black
J	FG	Shield

**Resolver**

Pin No.	Signal	Color
K	SIN+	Yellow
L	SIN-	Blue
T	COS+	Red
S	COS-	Black
H	R1	Red/White
G	R2	Yellow/White
J	FG	Shield

\*Note: There are no BAT+,BAT- signal in incremental encoder

➤ **Brake Connector Specifications**



- Plug: MS3106A10SL-3S
- Receptacle: MS3102A10SL-3P
- Cable Clamp: MS3057-4A

Pin No.	Signal
A	B1
B	B2
C	-

# EML

## Series Servo Motor

### Features

- Be used to drive the feed shaft of various machine
- Various products(1.0KW ~4.0KW, with brake etc.)
- Equipped with 17-bit incremental/absolute encoder
- Standard configuration is IP65

### Applications

- Machine tools
- Handling machine
- Foodstuff processing machine
- Textile machine



### Model Specification Description

**EML-10      A      D      A      1      1**

EML Model Servo Motor

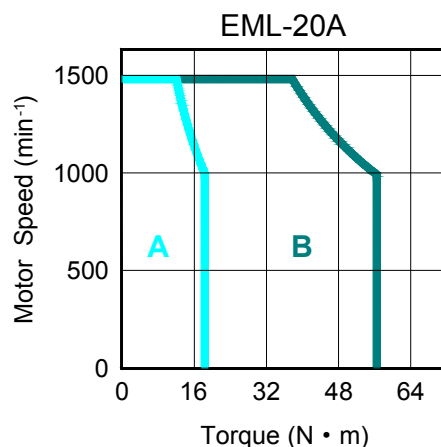
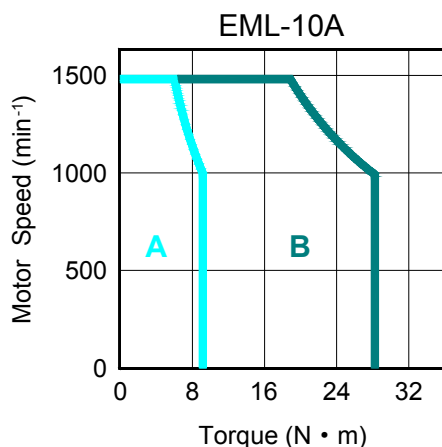
Rated Power		Power Voltage		Encoder		Design Sequence		Shaft End		Optional Parts	
Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.
<b>10</b>	1.0KW	<b>A</b>	200Vac	<b>D</b>	Incremental Encoder: 131072P/R	<b>A</b>	Design Sequence	<b>1</b>	Flat, without keys	<b>1</b>	None
<b>15</b>	1.5KW									<b>2</b>	With Oil Seal
<b>20</b>	2.0KW									<b>3</b>	With brake (DC24V)
<b>30</b>	3.0KW			<b>S</b>	Absolute Encoder: 131072P/R			<b>2</b>	Flat, with keys, with screw thread	<b>4</b>	With oil seal, with brake (DC24V)
<b>40</b>	4.0KW										

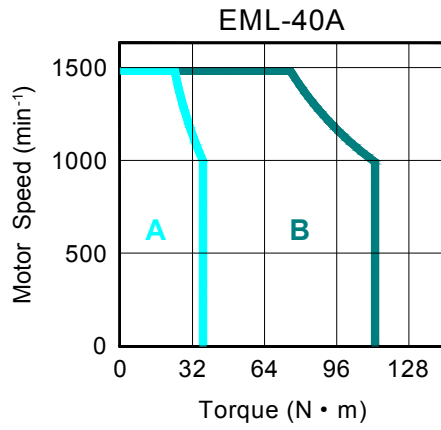
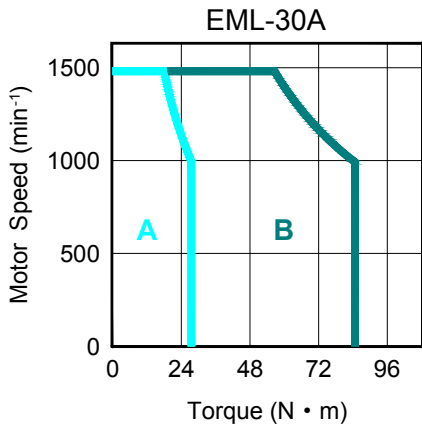
## Rated Value and Specification

Voltage		200VAC			
Servo motor type	EML -	10A	20A	30A	40A
Rated output power	kW	1.0	2.0	3.0	4.0
Rated torque	N.m	9.55	19.1	28.7	38.2
Instantaneous peak torque	N.m	28.7	57.3	86.0	114.6
Rated current	Arms	6.0	12.0	18.0	24.0
Instantaneous peak current	Arms	18.0	36.0	54.0	72.0
Rated rotated speed	min <sup>-1</sup>	1000			
The highest rotated speed	min <sup>-1</sup>	1500			
Rotator rotated inertia	x10 <sup>-4</sup> kg /m <sup>2</sup>	19(19.6 )	53.5(56.7)	77.8(81.0)	102.2(105.4)
Brake rated voltage		DC24V±10%			
Brake rated power	W	7.2		11.5	
Brake holding torque	N.M	1.3		3.2	
Feedback unit	Standard	17 bit Incremental Encoder: 131072P/R			
	Optional	17 bit Absolute Encoder: 131072P/R; Resolver			
Heat endurance level		F			
Environment temperature		0 to + 40 C (Non-iced)			
Environment humidity		20 to 80% RH (No dew)			
Protection method		All-closed , self-cool , IP65 (Except output shaft and connector)			
Anti-vibration performance		24.5m /s <sup>2</sup>			

(Note): The values in parentheses are for servo motors with holding brakes.

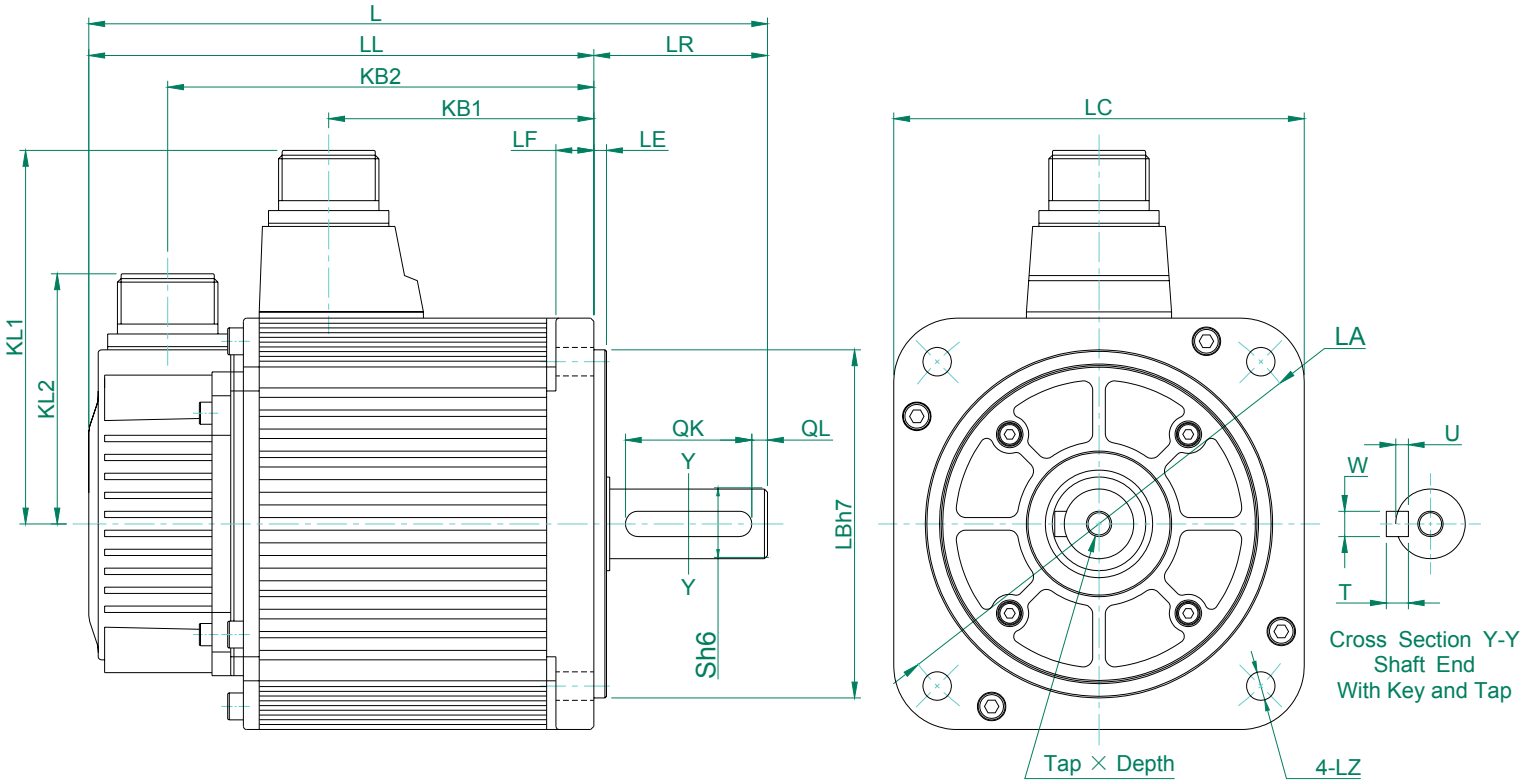
## Torque-Speed Feature





**Dimension**

A: Continuous Working Area    B: Repeatable Working Area



Model EML-	L	LL	KB1	KB2	KL1	KL2	Flange face						S	Tap×De pth	key					
							LR	LE	LF	LC	LA	LB			LZ	QK	QL	W	T	U
10A	265	210	134	185	118	79	55	4	12	130	145	110	9	22	M6x20 L	40	5	8	7	4
20A	332	253	168	228	140	79	79	3.2	18	180	200	114	13.5	35	M8x16 L	55	6	10	8	5
30A	372	293	208	268	140	79	79	3.2	18	180	200	114	13.5	35	M8x16 L	55	6	10	8	5
40A	412	333	248	308	140	79	79	3.2	18	180	200	114	13.5	35	M8x16 L	55	6	10	8	5



➤ **Motor connector specification**

- Plug: MS3108B20-4S(LC=130), MS3108B22-22S(LC=180)
- Receptacle: MS3102A20-4P (LC=130),MS3102A22-22P(LC=180)
- Cable Clamp: MS3057-12A

Pin No.	Signal
A	U phase
B	V phase
C	W phase
D	FG



➤ **Encoder connector specification**

- Plug: MS3108B20-29S
- Receptacle: MS3102A20-29P
- Cable Clamp: MS3057-12A

**Incremental/Absolute encoder**

**Resolver**

Pin No.	Signal	Color	Pin No.	Signal	Color
K	S+	Blue	K	SIN+	Yellow
L	S -	Blue/Black	L	SIN-	Blue
*T	BAT+	Brown	T	COS+	Red
*S	B AT-	Brown/Black	S	COS-	Black
H	PG5V	Red	H	R1	Red/White
G	PG0V	Black	G	R2	Yellow/White
J	FG	Shield	J	FG	Shield

\*Note: There are no BAT+,BAT- signal in incremental encoder



➤ **Brake Connector Specifications**

- Plug: MS3106A10SL-3S
- Receptacle: MS3102A10SL-3P
- Cable Clamp: MS3057-4A

Pin No.	Signal
A	B1
B	B2
C	-

# EMB

## Series Servo Motor

### Features

- Power supply voltage: 400V
- Driving of feed shafts for various machine
- Various products (7.5KW~15KW, with brake etc.)
- Mounted 17 bits absolute encoder, optional mounted resolver

### Applications

- Machine tools
- Handling machine
- Foodstuff processing machine
- Textile machine



### Model Specification Description

# EMB- 1E      D      S      A      1      1

EML Model Servo Motor

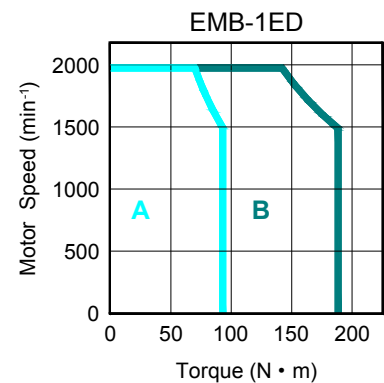
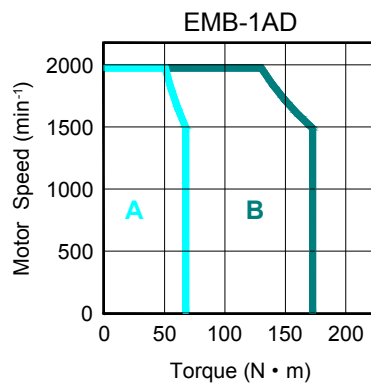
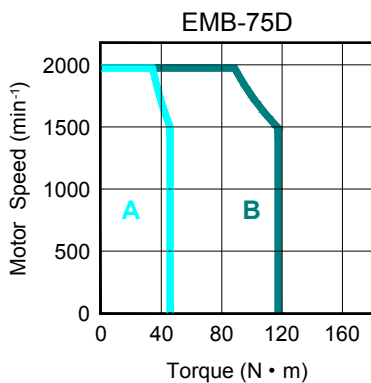
Rated Power		Power Voltage		Encoder		Design Sequence		Shaft End		Optional Parts	
Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.
<b>75</b>	7.5KW	<b>D</b>	400Vac	<b>S</b>	Absolute Encoder: 131072P/R	<b>A</b>	Design Sequence	<b>1</b>	Flat, without keys	<b>1</b>	None
<b>1A</b>	11KW									<b>2</b>	With Oil Seal
<b>1E</b>	15KW							<b>2</b>	Flat, with keys, with screw thread	<b>3</b>	With brake (DC24V)
										<b>4</b>	With oil seal, with brake (DC24V)

## Rated Value and Specification

voltage		400VAC		
Servo motor Model	EMB-	75D□A	1AD□A	1ED□A
Rated output power	kW	7.5	11.0	15.0
Rated torque	Nm	47.8	70.0	95.5
Instantaneous Peak Torque	Nm	119.4	175	191
Rated Current	Arms	18.0	28.0	38.0
Instantaneous Max. Current	Arms	56.0	70.0	84.0
Rated Speed	min <sup>-1</sup>	1500		
Max. Speed	min <sup>-1</sup>	2000		
Rotor Moment of Inertia	x10 <sup>-4</sup> kgm <sup>2</sup>	186.2(193.6)	217.6(278.9)	338.8(346.1)
Brake voltage		DC24V ± 10%		
Brake power	W	90		
Brake holding torque	N.M	100		
Feedback unit	standard	17-bit absolute encoder: 131072P/R		
	option	Resolver		
Brake rated voltage		DC24V±10%		
Brake rated power	W	90		
Brake holding torque	N.m	100		
Insulation Class		F		
Ambient Temperature		0 to +40°C (non freezing)		
Ambient Humidity		20 to 80% RH (non condensing)		
Enclosure		Totally enclosed, self-cooled, IP55 (except for shaft opening and connectors)		
Vibration		24.5m/s <sup>2</sup>		

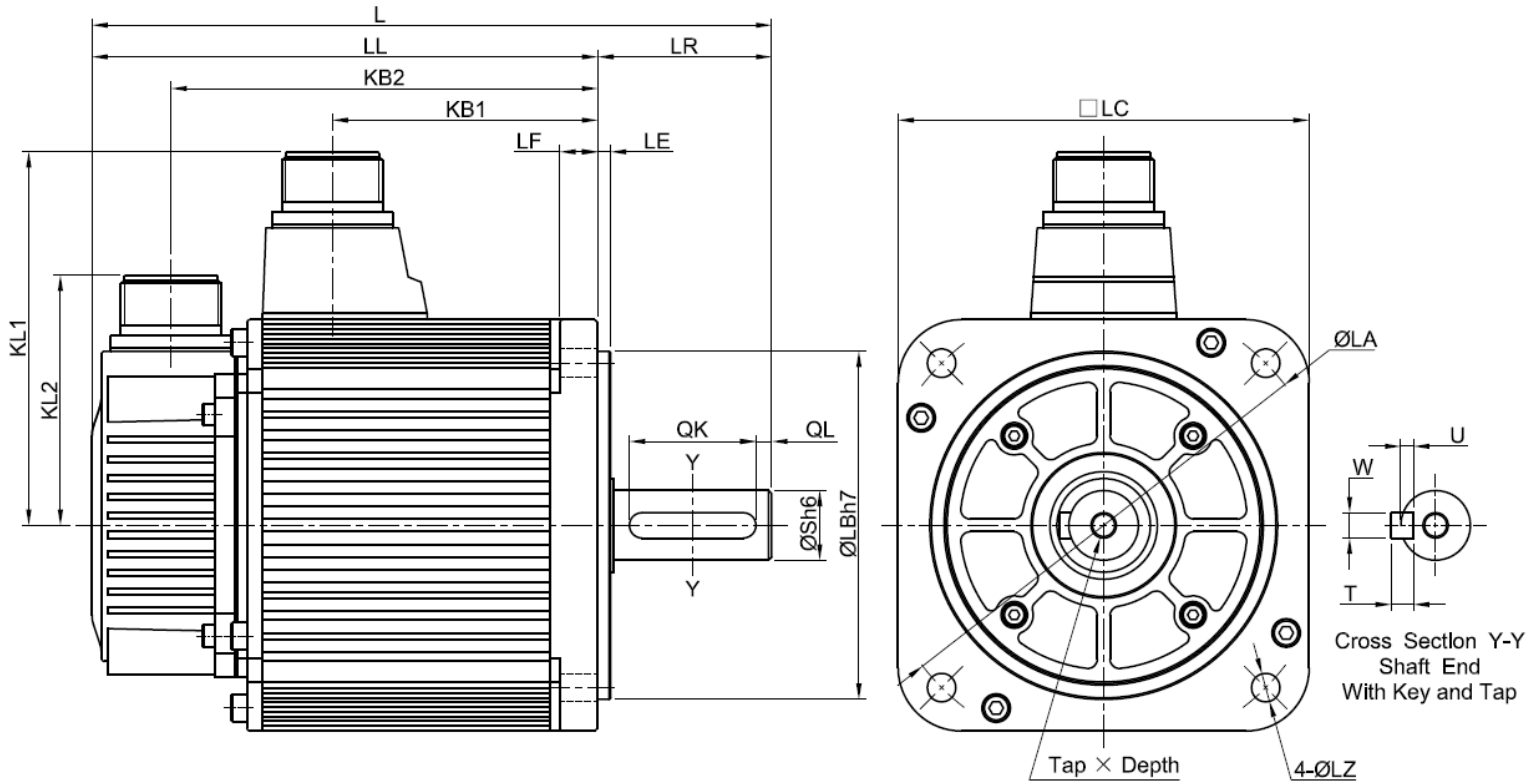
Note: The value in parentheses is for servo motors with holding brakes.

## Torque-Speed Feature



A: Continuous Working Area    B: Repeatably Working Area

## Dimension



Model EMB-	L	LL	KB1	KB2	KL1	Flange side						S	Tap×Depth	key					
						LR	LE	LF	LC	LA	LB			LZ	QK	QL	W	T	U
75D	530	414	366	302	184	116	4	18	220	235	200	13.5	42	M16×32L	90	6	12	8	5
1AD	580	464	416	352	184	116	4	18	220	235	200	13.5	42	M16×32L	90	6	12	8	5
1ED	615	499	451	387	184	116	4	18	220	235	200	13.5	55	M20×40L	90	6	12	10	6



### ➤ Motor connector specification

- Plug: MS3108B20-4S(LC=130), MS3108B22-22S(LC=180)
- Receptacle: MS3102A20-4P (LC=130), MS3102A22-22P(LC=180)
- Cable Clamp: MS3057-12A

Pin No.	Signal
A	U phase
B	V phase
C	W phase
D	FG



### ➤ Brake Connector Specifications

- Plug: MS3106A10SL-3S
- Receptacle: MS3102A10SL-3P
- Cable Clamp: MS3057-4A

Pin No.	Signal
A	B1
B	B2
C	-





- **Encoder connector specification**
- Plug: MS3108B20-29S
- Receptacle: MS3102A20-29P
- Cable Clamp: MS3057-12A

### Incremental/Absolute encoder

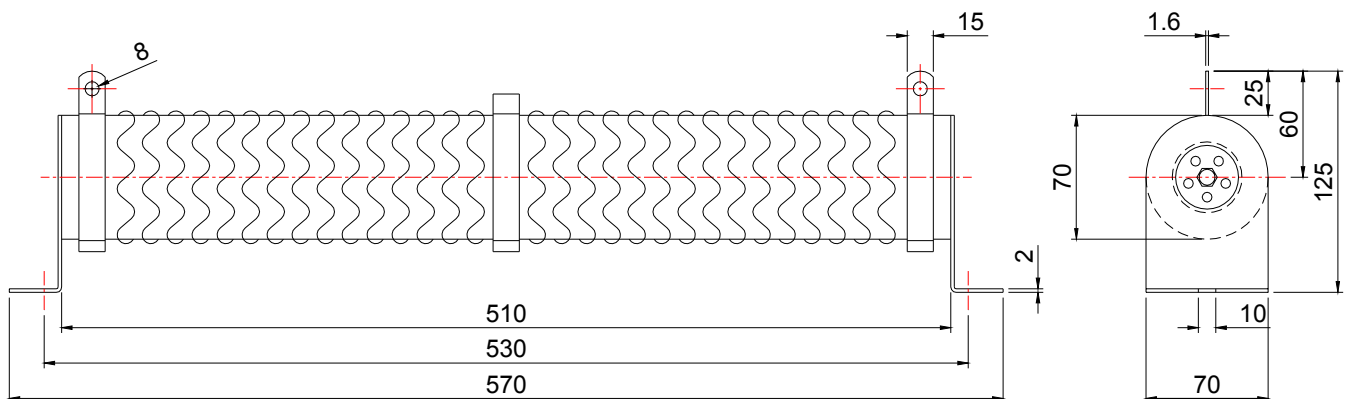
Pin No.	Signal	Color
K	S+	Blue
L	S -	Blue/Black
T	BAT+	Brown
S	B AT-	Brown/Black
H	PG5V	Red
G	PG0V	Black
J	FG	Shield

### Resolver

Pin No.	Signal	Color
K	SIN+	Yellow
L	SIN-	Blue
T	COS+	Red
S	COS-	Black
H	R1	Red/White
G	R2	Yellow/White
J	FG	Shield

## Regenerative Resistor

Externally mount the regenerative resistor for 7.5KW to 15KW Servo Drives.

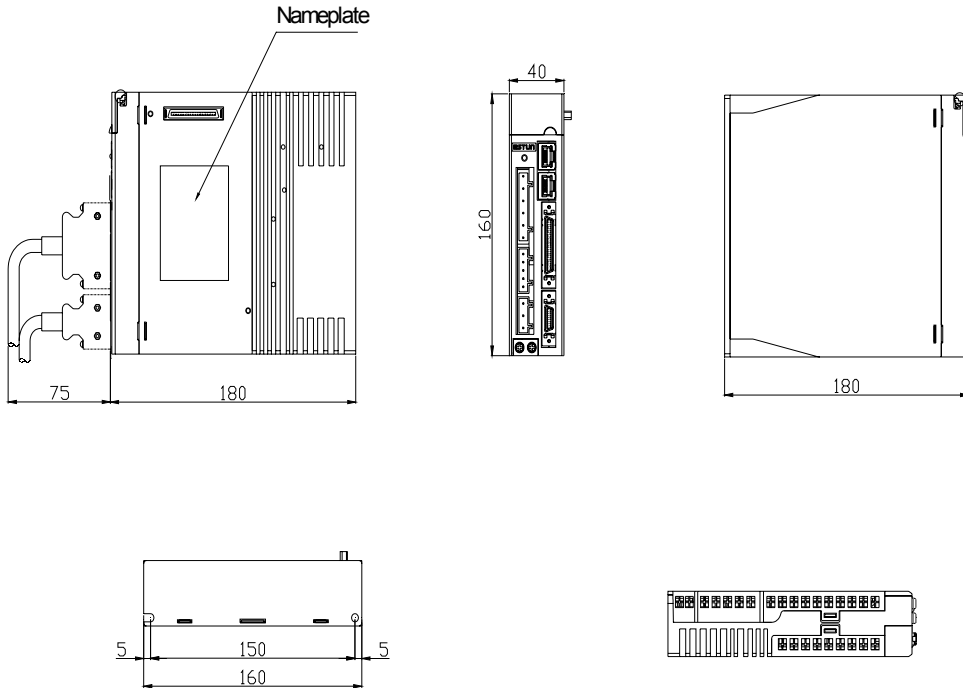


## ProNet

### Servo Drives External Dimensions

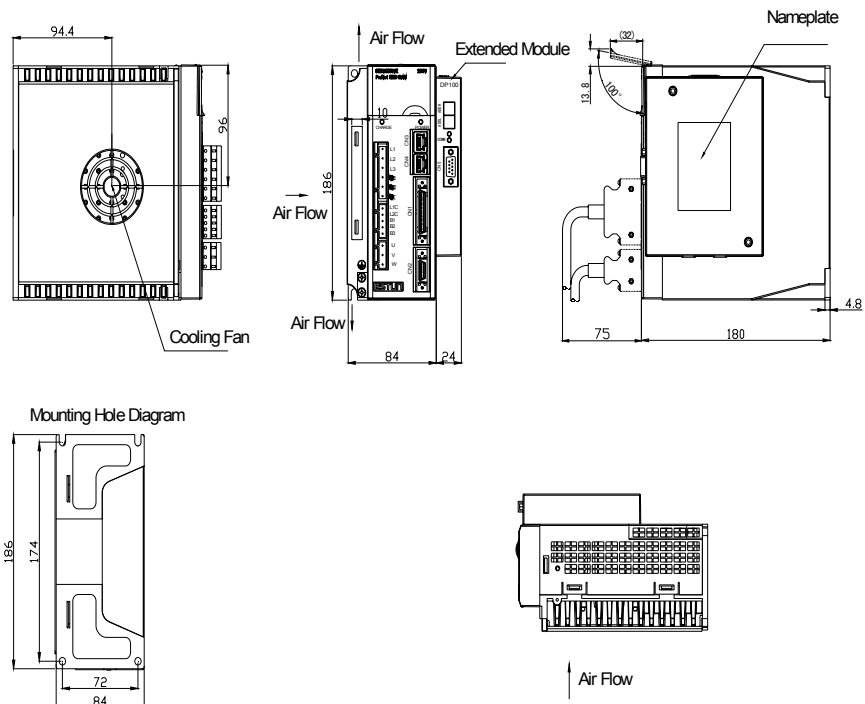
#### ProNet-02/04A

Unit: mm

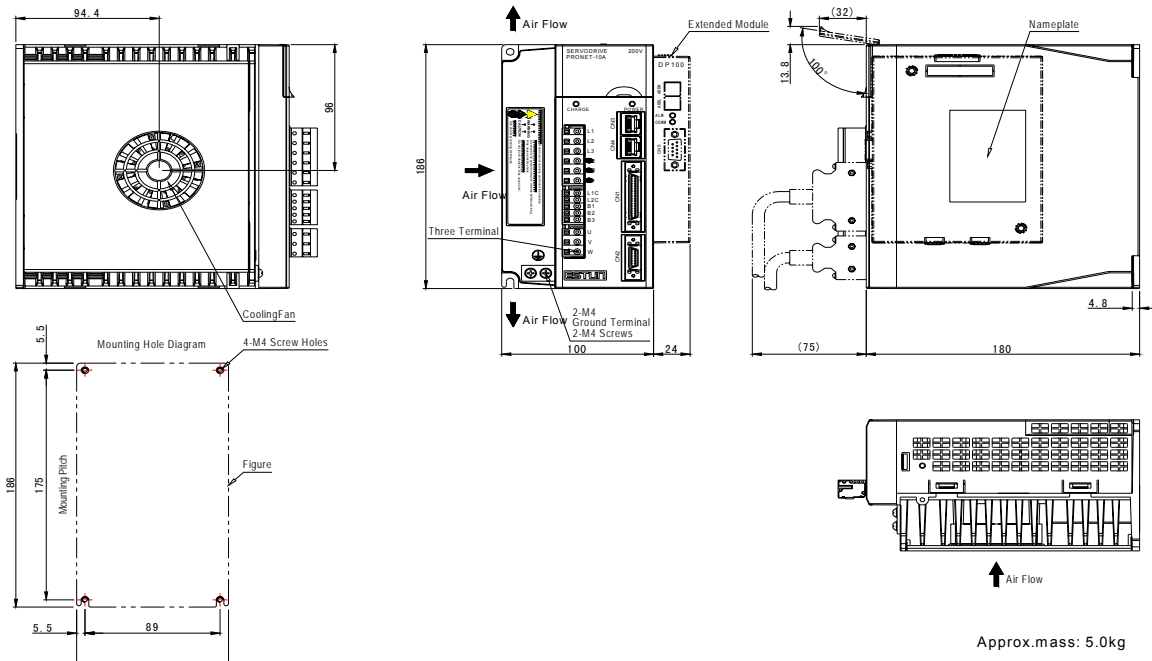


#### ProNet-08/10A

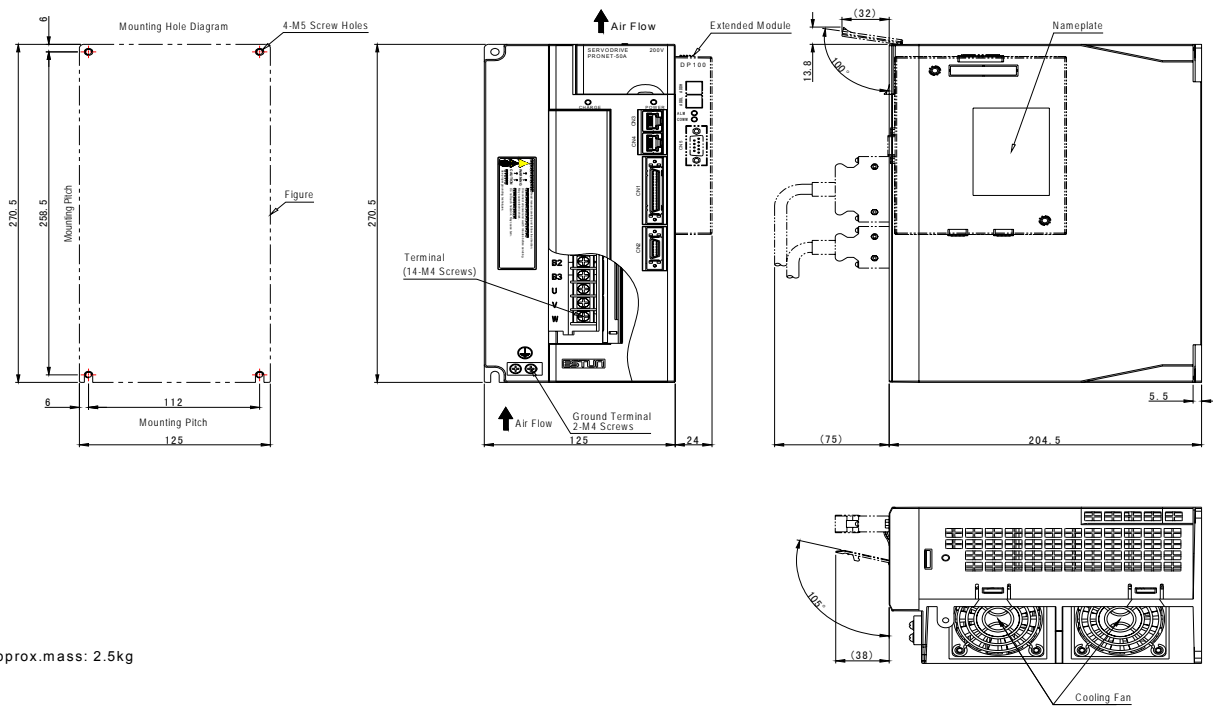
Unit: mm



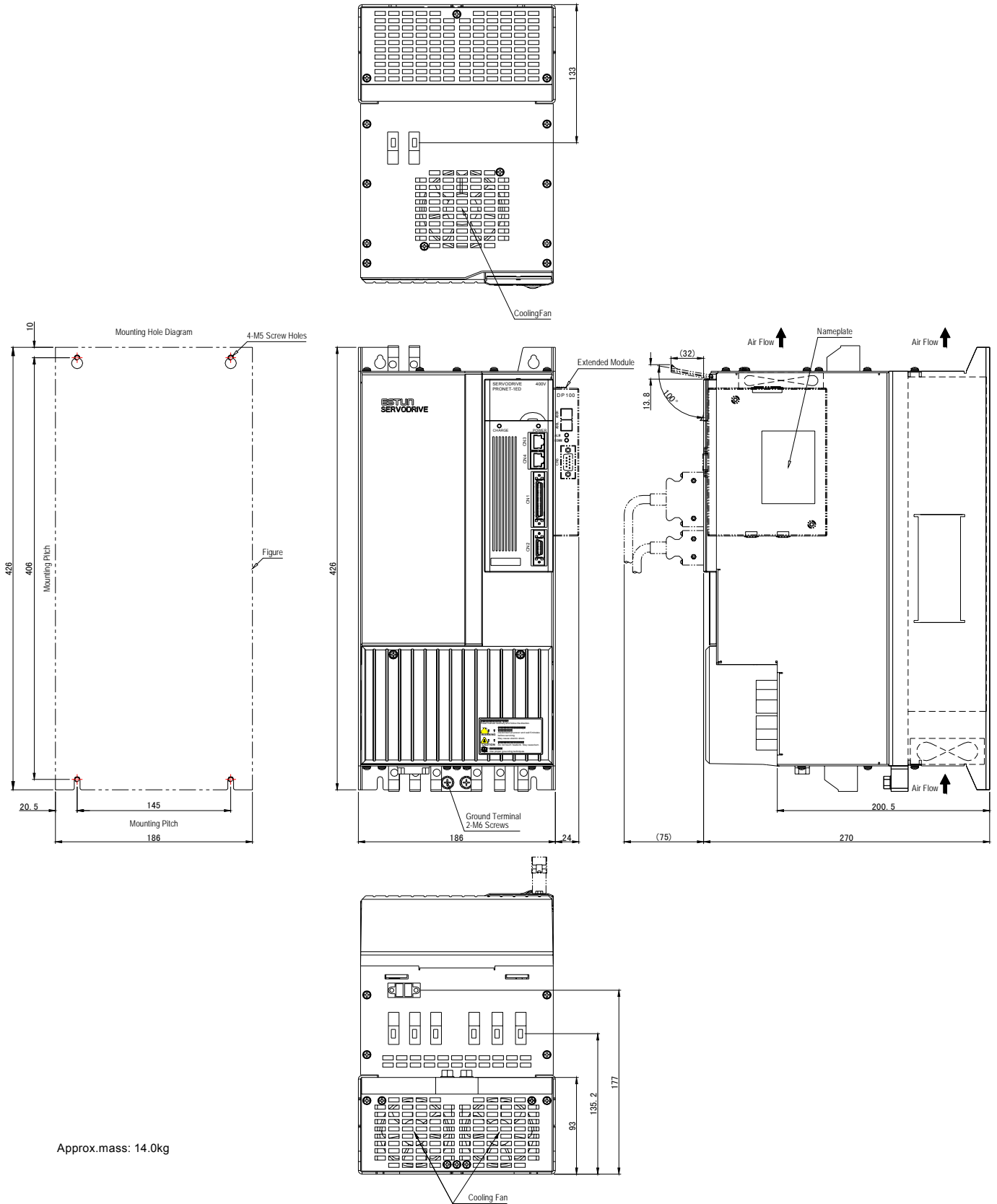
## ProNet-15A



## ProNet-20A/30A/50A



## ProNet-75D/1AD/1ED

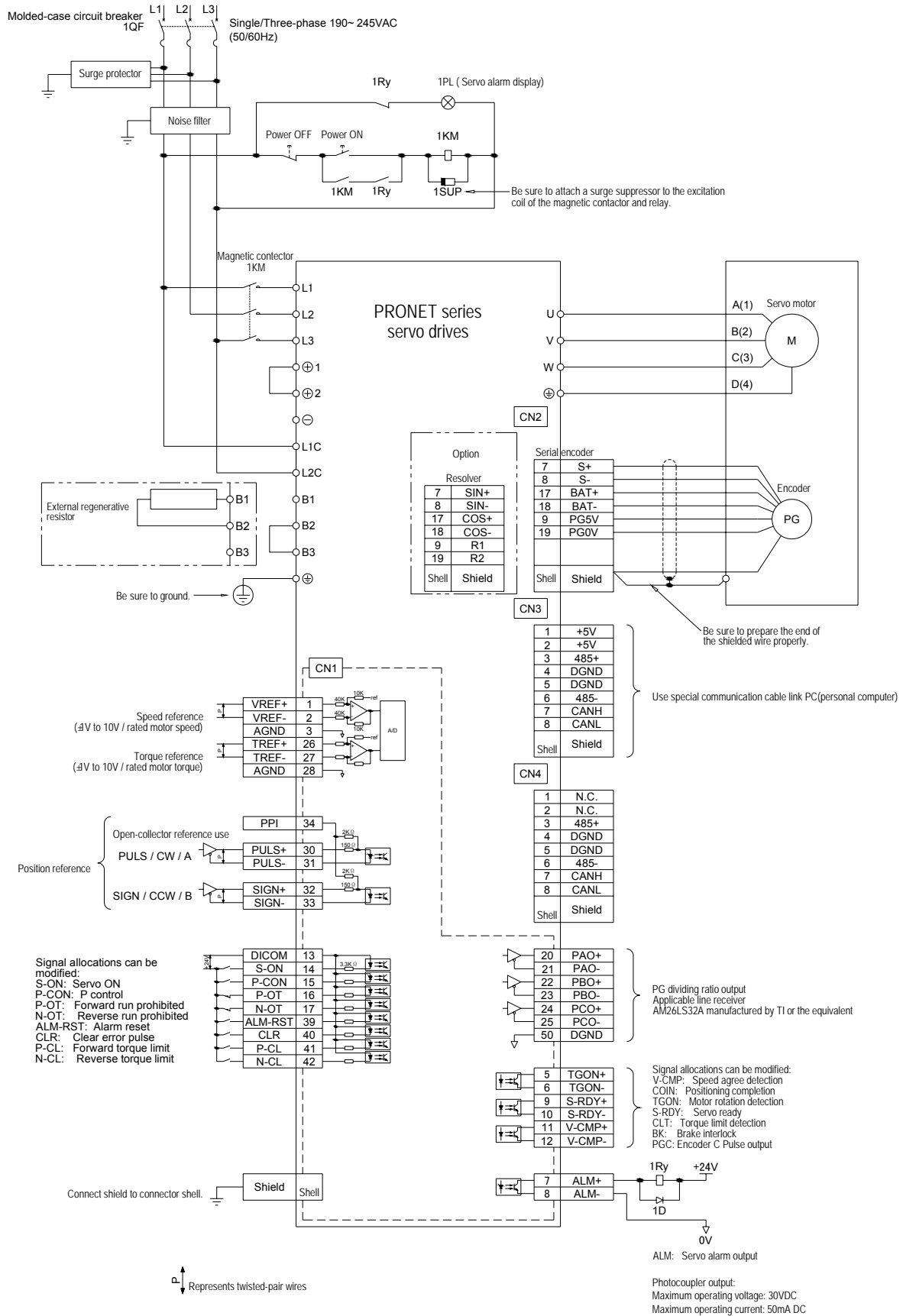


Approx.mass: 14.0kg

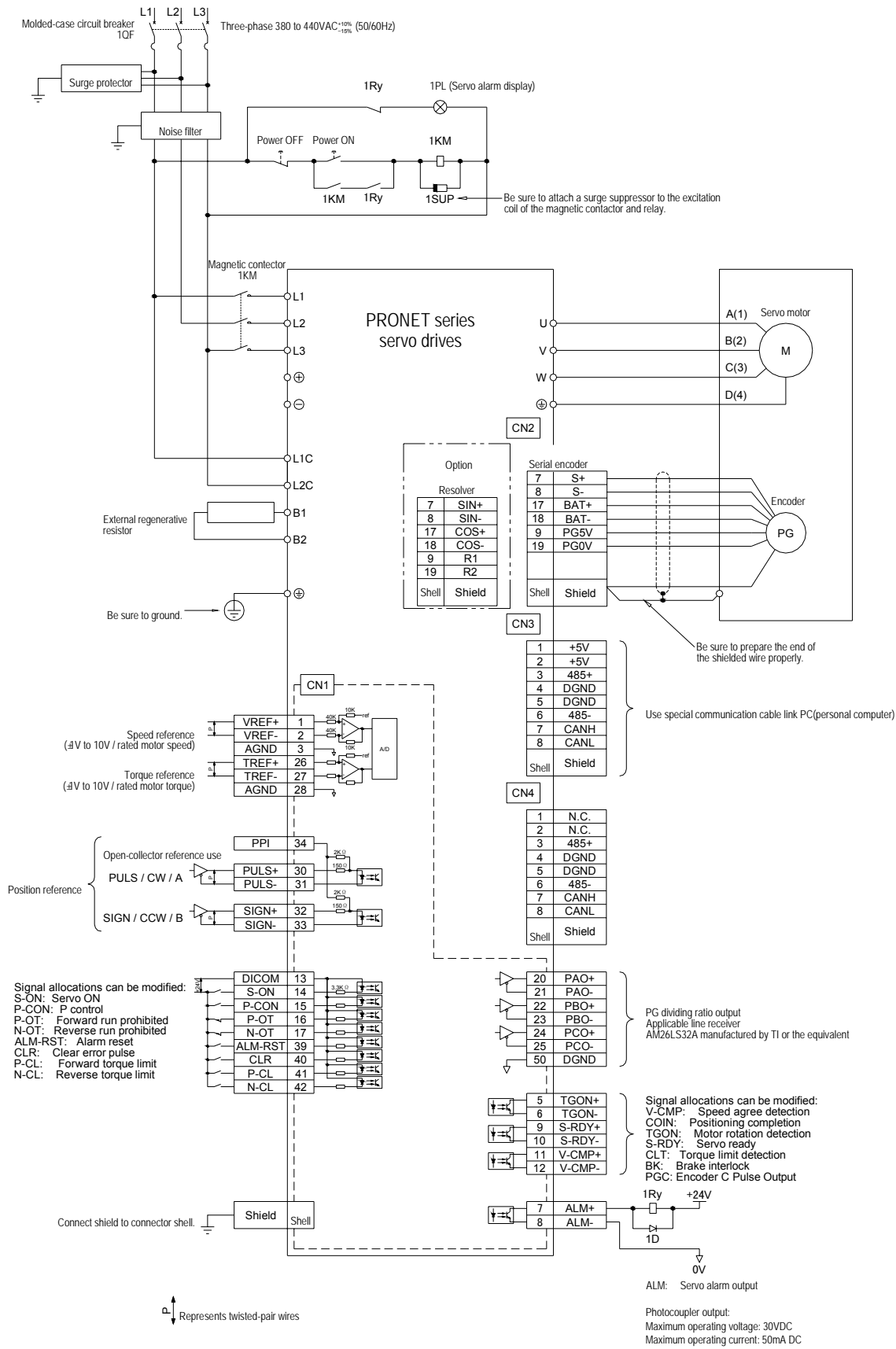
# ProNet

## Typical Connection Example

### Three-phase 200VAC (ProNet-10A to 50A)



# Three-phase 400VAC (ProNet-75D to 1ED)



# Vision

---

*Enjoy your life from Automation!*

## Estun's Brochures and Technical Guidance

- ES2009-C Estun Sales Agent Training Course
- ES2009-D Estun Servo Parameter Adjustment Guidance
- ES2009-E Second Electronic Gear
- ES2009-F Speed Forward-Feedback Function
- ES2010-C Estun Servo Motor Selection Principle
- ES2011-A Estun Outline
- ES2011-B Motor Outline
- ES2011-A EDB/EDC Series Product Brochure
- ES2011-B ProNet Series Product Brochure**

The logo for ESTUN, featuring the word "ESTUN" in a bold, stylized, grey font. The letters are blocky and have a slight shadow effect, giving it a three-dimensional appearance. The logo is centered on the page.

---

### **Estun Automation Technology Co., Ltd.**

Add.: 155 Jiangjun Road, Jiangning Development Zone,  
Nanjing 211100, P.R.China

Tel: +86-25-52785915 Fax: +86-25-52785576

Website: <http://www.estun.cn>

Email: [export@estun.com](mailto:export@estun.com)