

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

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A

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EMJ Model Servo Motor

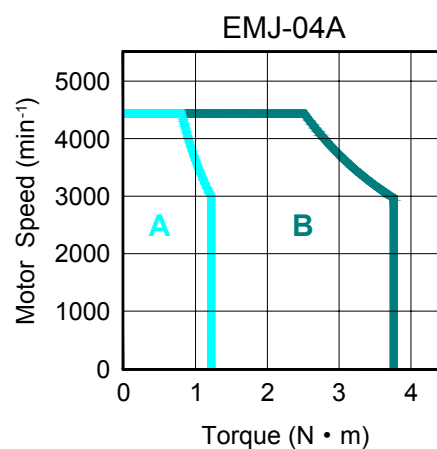
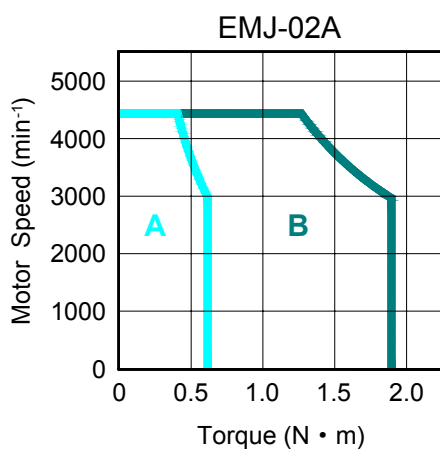
Rated Power		Power Voltage		Encoder		Design Sequence		Shaft End		Optional Parts	
Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.
2	200W	A	200Vac	D	Incremental Encoder: 131072P/R	A	Design Sequence	1	Flat, without keys	1	None
4	400W									2	With Oil Seal
8	750W									2	Flat, with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

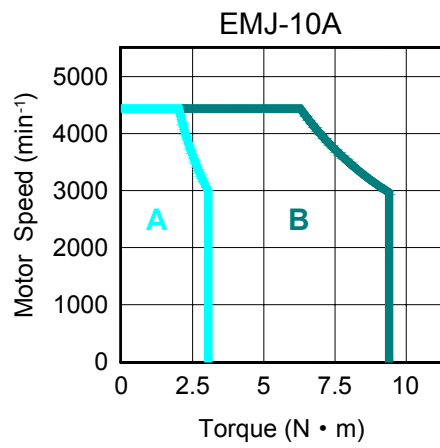
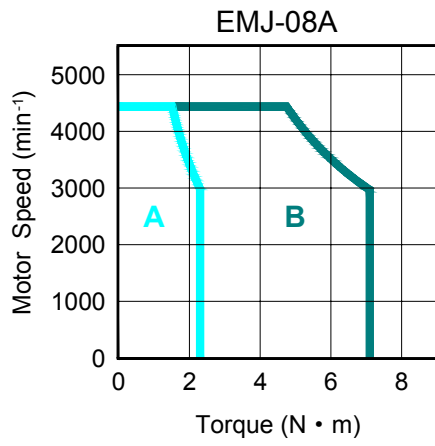
Rated Value and Specification

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 ⁻¹	3000			
Max. speed	min ⁻¹	4500			
Rotator rotated inertia	x10 ⁻⁴ kg/m ²	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 ²			

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

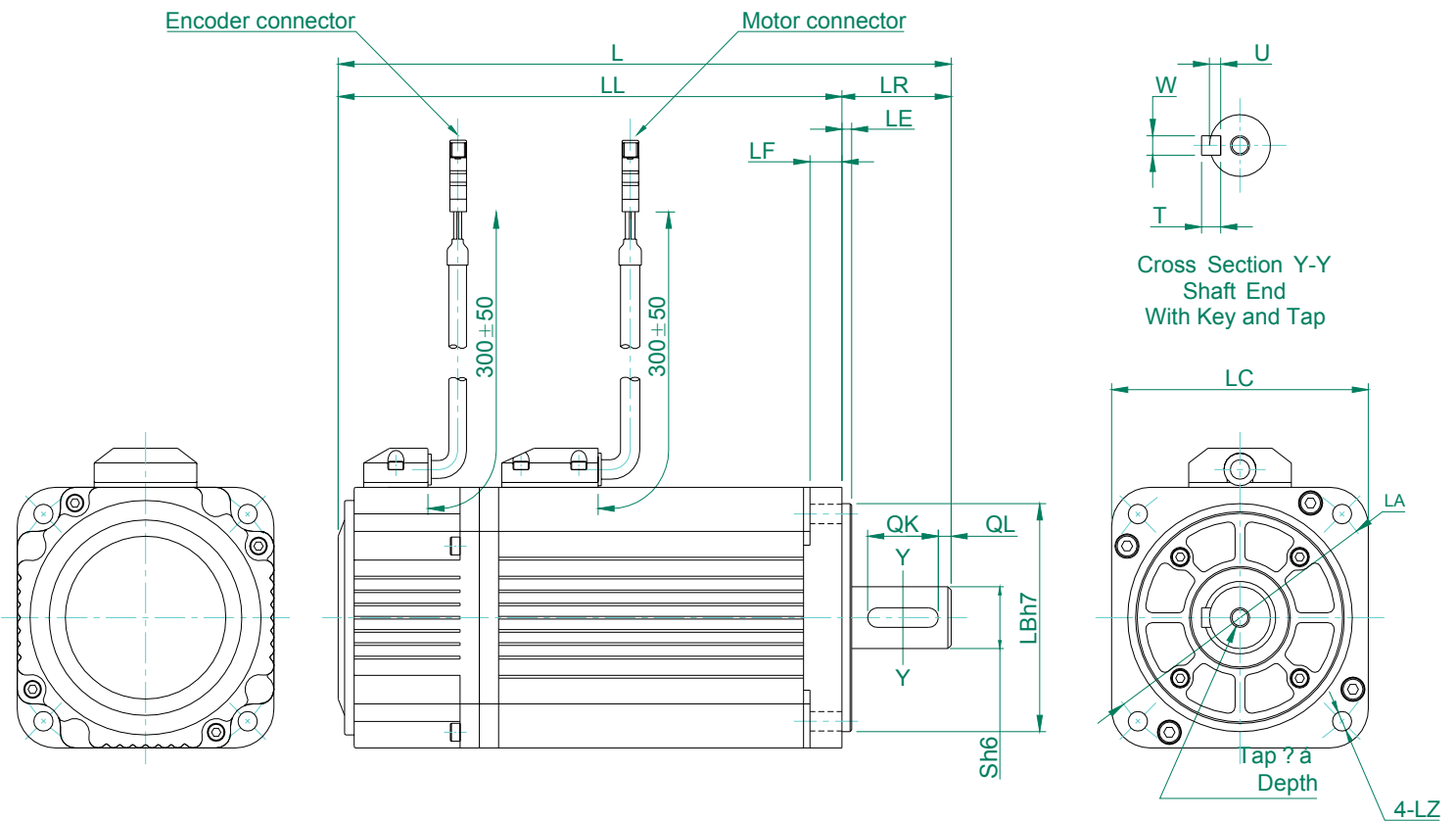
Torque-speed Feature



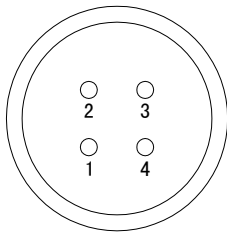


A: Continuous Working Area B: Repeatable Working Area

Dimension



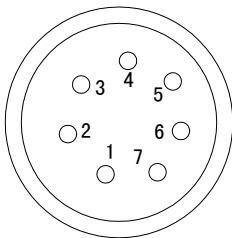
Model EMJ-	L	LL	Flange face							S	Tap×Depth	Key				
			LR	LE	LF	LC	LA	LB	LZ			QK	QL	W	T	U
02A	153	123	30	3	6	60	70	50	5.5	14	M5x10L	16	4	5	5	3
04A	173	143	30	3	6	60	70	50	5.5	14	M5x10L	16	4	5	5	3
08A	191	156	35	3	9	80	90	70	6	19	M6x15L	22	4	6	6	3.5
10A	211	176	35	3	9	80	90	70	6	19	M6x15L	22	4	6	6	3.5



➤ **Motor connector specification**

➤ Plug: CGRSB-4BFMA-SL8001

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

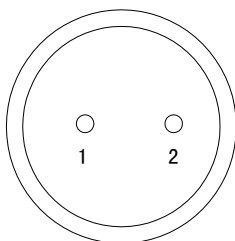


➤ **Encoder connector specification**

➤ 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

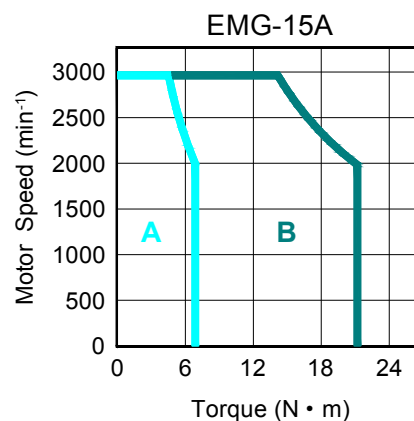
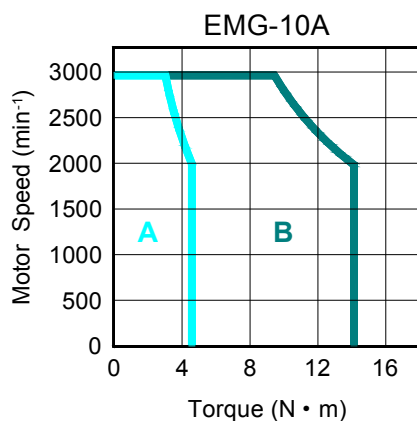
EMG Model Servo Motor	Rated Power		Power Voltage		Encoder		Design Sequence		Shaft End		Optional Parts	
	Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.
	10	1.0KW	A	200Vac	D	Incremental Encoder: 131072P/R	A	Design Sequence	1	Flat, without keys	1	None
	15	1.5KW									2	With Oil Seal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

Rated Value and Specification

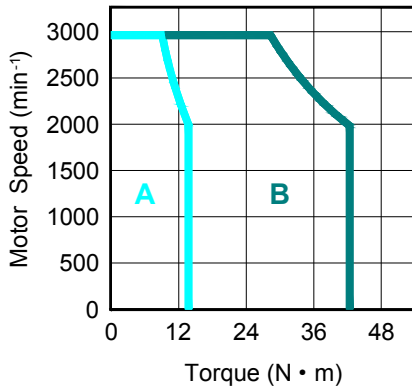
Voltage		200VAC				
Motor type	EMG-	10A	15A	20A	30A	50A
Rated output power	kW	1.0	1.5	2.0	3.0	5.0
Rated torque	N.m	4.78	7.16	9.55	14.3	23.9
Instantaneous peak torque	N.m	14.3	21.5	28.7	43	71.6
Rated current	Arms	6.0	9.0	12.0	18.0	28
Instantaneous peak current	Arms	18.0	27.0	36.0	54.0	84
Rated speed	min ⁻¹	2000				
Max. speed	min ⁻¹	3000				
Rotator rotated inertia	x10 ⁻⁴ kg/m ²	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 ²				

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

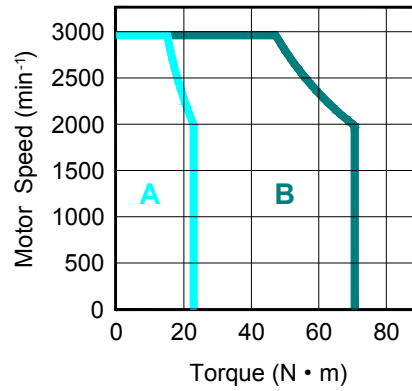
Torque-Speed Feature



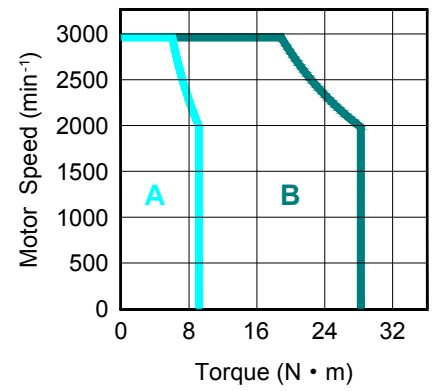
EMG-30A



EMG-50A

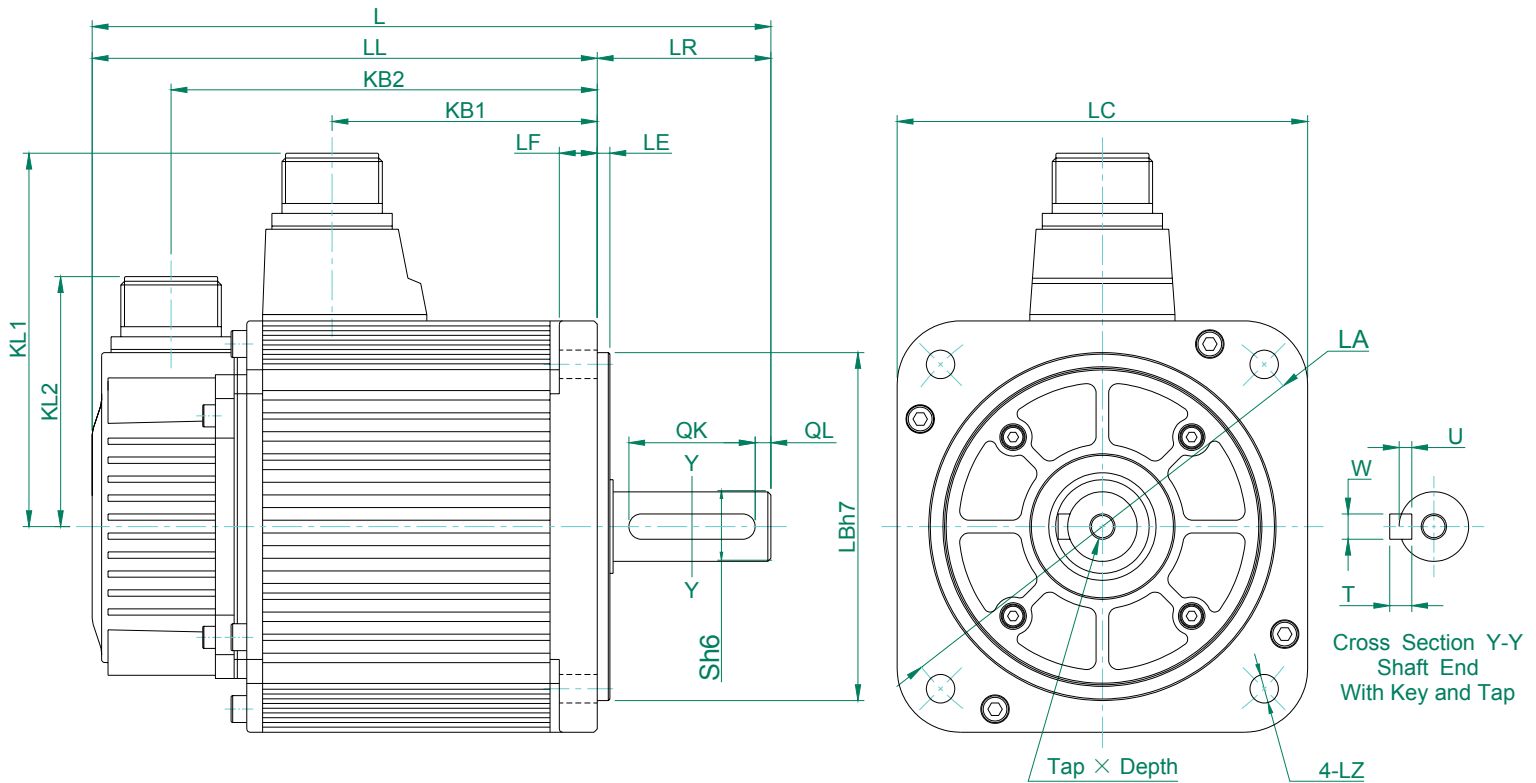


EMG-20A



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

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

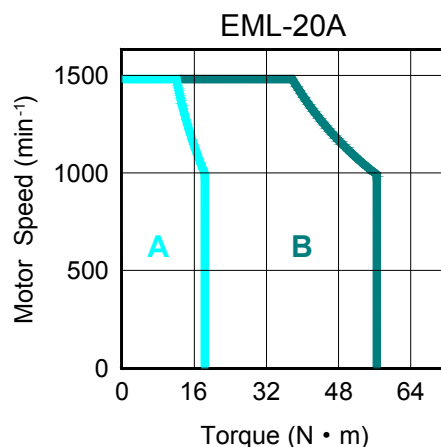
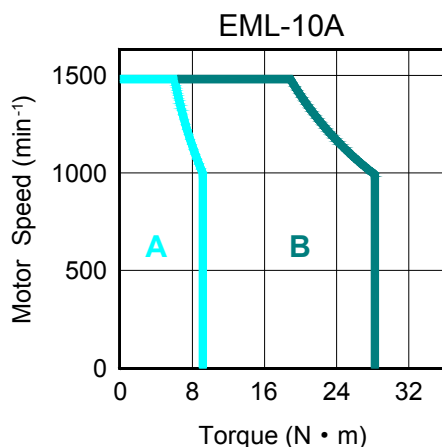
Pin No.	Signal
A	B1
B	B2
C	-

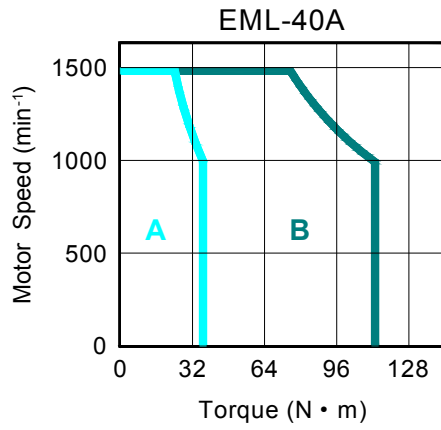
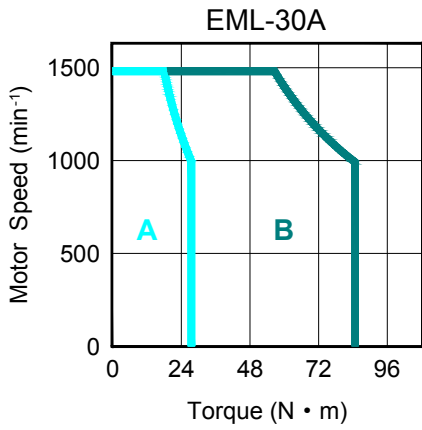
Rated Value and Specification

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 ⁻¹	1000			
The highest rotated speed	min ⁻¹	1500			
Rotator rotated inertia	x10 ⁻⁴ kg /m ²	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 ²			

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

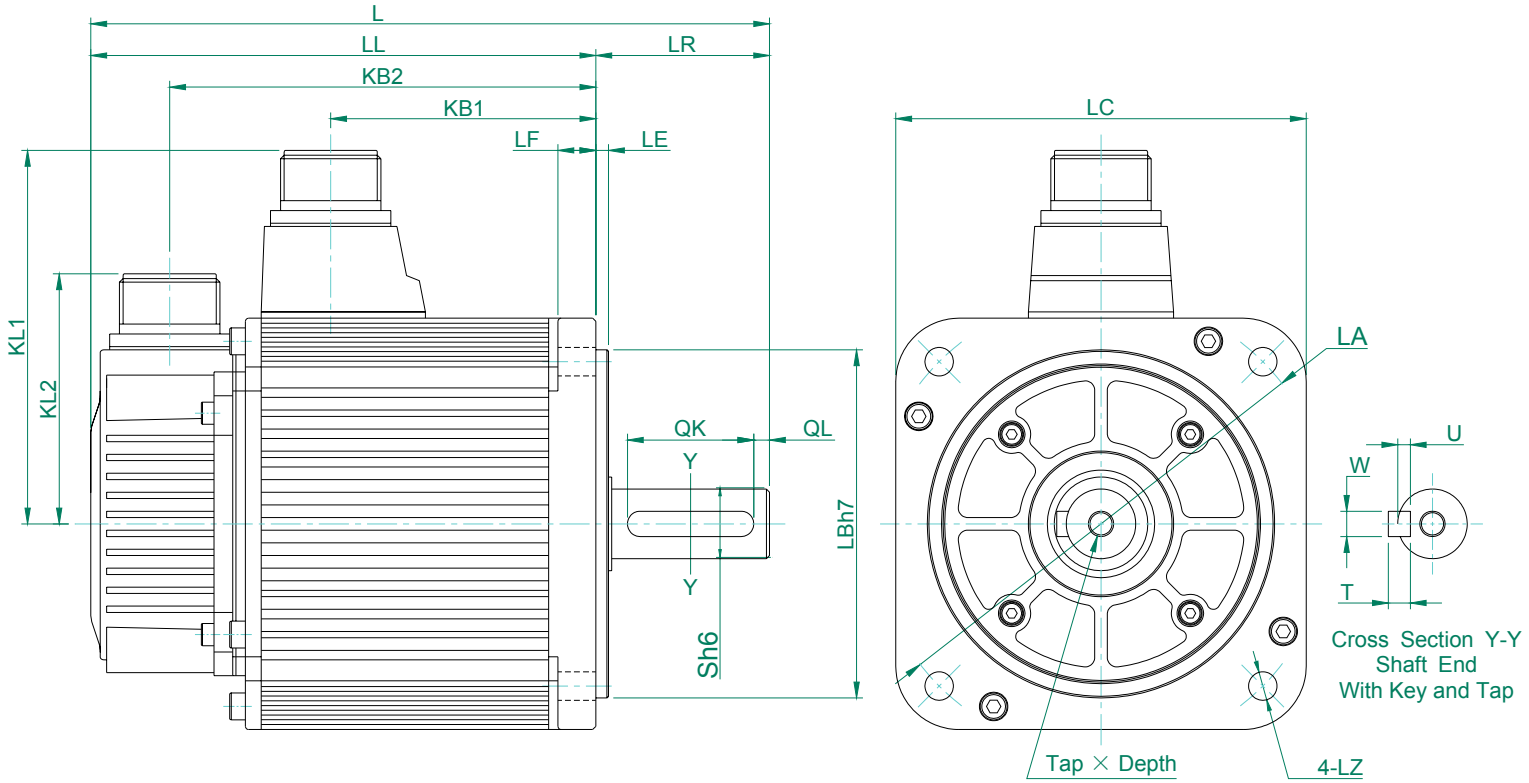
Torque-Speed Feature





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

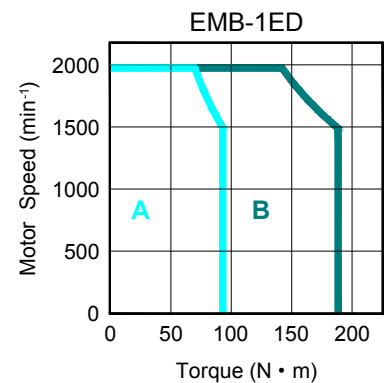
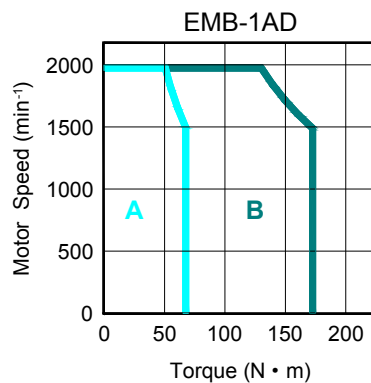
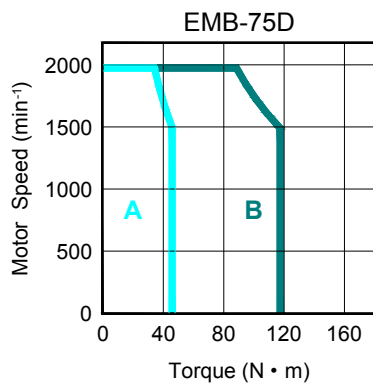
Rated Power		Power Voltage		Encoder		Design Sequence		Shaft End		Optional Parts	
Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.	Sign	Spec.
75	7.5KW	D	400Vac	S	Absolute Encoder: 131072P/R	A	Design Sequence	1	Flat, without keys	1	None
1A	11KW									2	With Oil Seal
1E	15KW							R	Resolver	2	Flat, with keys, with screw thread
		4	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 ⁻¹	1500		
Max. Speed	min ⁻¹	2000		
Rotor Moment of Inertia	x10 ⁻⁴ kgm ²	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 ²		

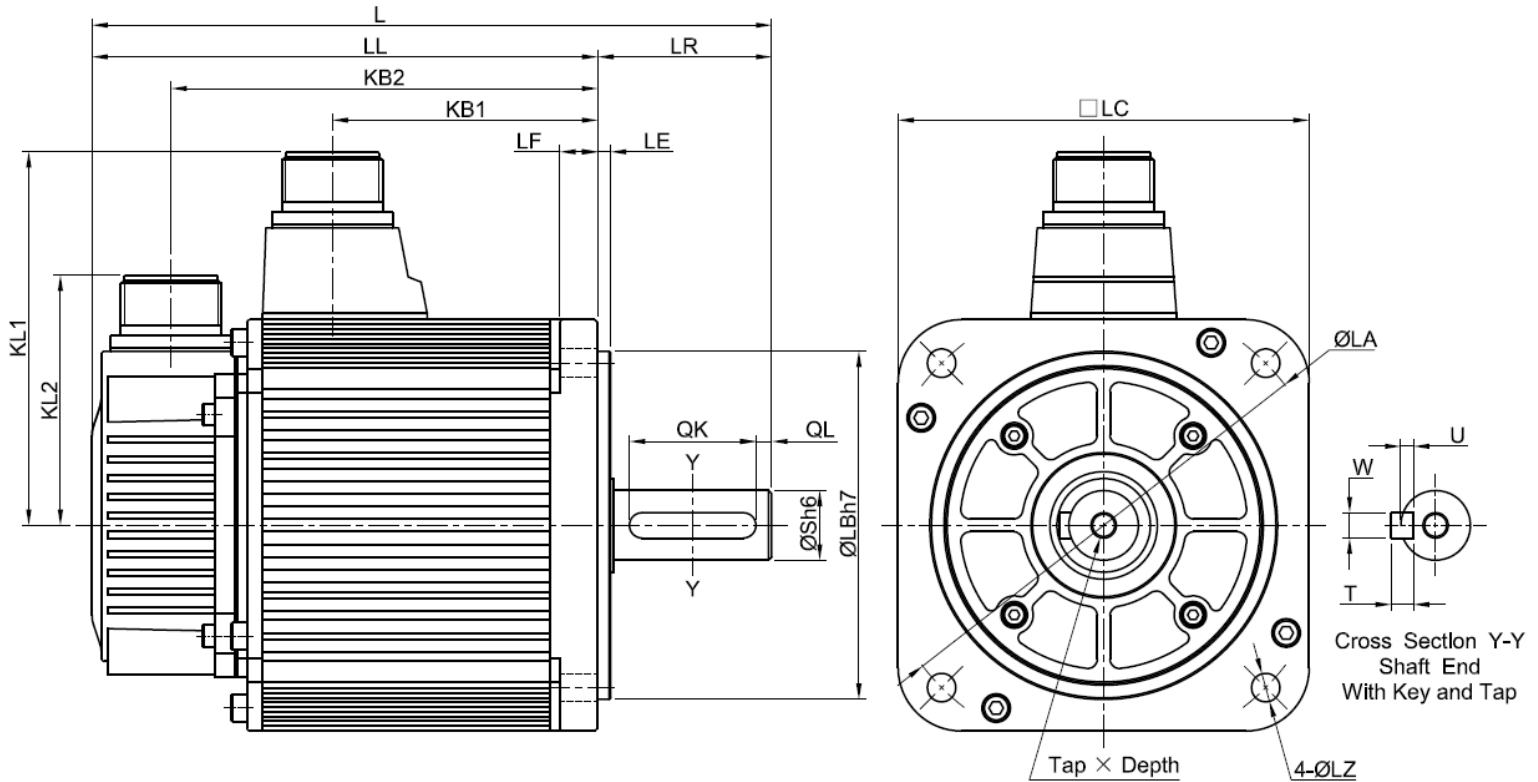
Note: The value in parentheses is for servo motors with holding brakes.

Torque-Speed Feature



A: Continuous Working Area B: Repeatable 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.

