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# MOTION Control products



# ALL DIGITAL AC SERVO SYSTEMS

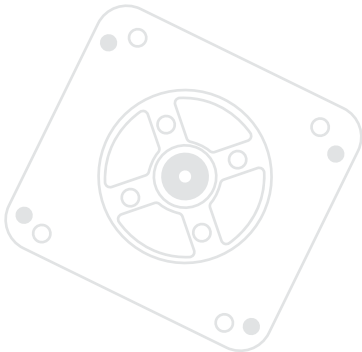
ESTUN AUTOMATION Co., Ltd. is a leading supplier and service provider of high-end automation core components and industrial robots and intelligent manufacturing systems in China.

As one of the influential enterprises in the field of motion control in China, Estun has completed the strategic transformation of its product line of automation core components from AC servo system to motion control system solutions, and its business model is fully sublimated from single axis, single machine and single unit.

Estun has actively explored the "internationalization" development strategy, successively purchased Trio from the UK and controlled M.A.I from Germany. The company invested in Barrett of America, Euclid of Italy and other companies, and established a European RESEARCH and development center in Milan, which initially completed the international layout in brand and technology, laying a solid foundation for the company to implement the development strategy in motion control solutions, intelligent collaborative robots, rehabilitation robots and industry 4.0. At present, Estun Automation has 7 overseas branches in the world, and its business covers more than 60 countries and regions.

In the future, Estun will follow the development trend of the industry, walk out a development road with Estun characteristics, take the motion control system as the first brand in China, take the mission of creating the world brand of Chinese robot, and build Estun into an international enterprise recognized and respected by peers.

A beautiful world, worthy of all our efforts



<b>Motion Control Family</b>	<b>03</b>
<b>Controller Products</b>	<b>04</b>
<b>Servo Drive &amp; Servo Motor</b>	<b>07</b>
<b>Model comparison table</b>	<b>21</b>
<b>Accessories</b>	<b>28</b>

# CONTENTS



# 01 Motion Control Family

Industrial  
Complete  
Automation  
Solution



Information  
Layer



master control system



Border Gateway



MAINTENANCE ELF

Control Layer



MC40x

MC508

Nano

MC6N

MC664

Flex-7

PC-MCAT-2

Motion PLC

IO Module

IO Module

IO Module

IO Module

HMI

Driving  
Layer



DX3 Drive



DX4 Drive



DX5 Drive



ED3L Drive



ED3S Drive

Executive  
Layer



MXM



MXL



EM3A



EM3J



EM3G



EM3L

# 02 Controller Products

Conventional Controllers



	MC403-X	MC404-Z	MC405	MC508	Euro404/Euro408
Processor	ARM11 Cortex-M7	ARM Cortex-M7	ARM11 VFP	800 MHz ARM A9	ARM11 VFP
Memory	4Mb	4Mb	8Mb	12Mb	8Mb
SD Card	16Gb	16Gb	16Gb	16Gb	16Gb
Table	512,000	512,000	512,000	512,000	512,000
VR	4096	4096	4096	16384	4096
Maximum Axes	3 Axes	4 Axes	5 Axes	16 Axes	8 Axes
IO Input	8	16	8	32	16
IO Output	4	8	8	16	8
Servo period	125 $\mu$ s~2ms, Default 1ms	125 $\mu$ s~4ms, Default 1ms	125 $\mu$ s~2ms, Default 1ms	125 $\mu$ s~2ms, Default 1ms	125 $\mu$ s~2ms, Default 1ms
Communciation	RS232/RS485	RS232/RS485	RS232/RS485	RS232/RS485	RS232/RS485
Certifaction	RoHS, UL, CE	RoHS, UL, CE	RoHS, UL, CE	RoHS, UL, CE	RoHS, CE
Programing language	PLCopen+IEC61131-3(ST/SFC/SFC/LD/FBD)+TrioBASIC+C++				
Function	Linear, arc, helical interpolation, electronic cam, flying shear & chasing shear, CNC, Robot control				
Dimension(H x W x D)	122 mm x 135 mm x 35 mm	176.5mm x 115mm x 28mm	122mm x 186mm x 35mm	132mm x 226mm x 35mm	129mm x 25mm x 170mm
Weight	325g	430g	476g	640g	160g

Accessories List

Accessories	Description
P317	CAN, 16-digital output
P318	CAN, 16-digital input
P319	CAN, 16-digital input/ output
P326	CAN, 8-analogue input/ 4-analogue output
P327	CAN, 8 Relay Output
P329	CAN, 16-digital input/16-digital output



## EtherCAT Controller



	Flex-6X-Nano	MC6N-ECAT	MC664	MC664-X	Flex-7 Midi	PC-MCAT-2
Processor	1GHz Arm dual-core	1 GHz Cortex A7 dual-core	Cortex A9 1GHz single-core	Cortex A9 1GHz quad-core	1.8GHz ARM A53Binuclear	I7 (Celeron, I3, 15Optional)
Memory	128Mbyte	128Mbyte	512Mbyte	512Mbyte	2Gbyte	DDR4 8G (Celeron, I3=4G)
SD Card	32G	16G	16G	16G	32G	256G (64、128Optional)
Table	512000	512000	512000	512000	512000	512,000
VR	16384	64384	65536	65536	65536	65536
Maximum Axes	64Axes	64Axes	64Axes	128Axes	128Axes	64Axes
IO Input	–	8	8	8	–	8
IO Output	–	8	8	8	–	8
Servo period	125 μ s	125 μ s	125 μ s	62.5 μ s	62.5 μ s	125 μ s~4ms,default 1ms
Communciation	–	RS232/RS485	RS232/RS485	RS232/RS485	CAN	RS232/RS485
Certifaction	CE、UL、UKCA					
Programing language	PLCopen+IEC61131-3(ST/SFC/SFC/LD/FBD)+TrioBASIC+C++					
Function	Linear, arc, helical interpolation, electronic cam, flying shear & chasing shear, CNC, Robot control					
Dimension (H x W x D)	147 x 17 x 107mm	157 x 40x 120mm	201 x 56 x 155 mm	201 x 56 x 155 mm	147x50x107mm	207mmx49 mmx128 mm
Weight	160g	432g	750g	750g	320g	1240g

## TRIO Accessories list









Flex series IO	Description
P366	EtherCAT coupler
P362	Power module
P367	Thermocouple Module
P368	Thermal resistance module
P371	16-PNP output
P372	16-PNP input
P374	2-Analogue module
P375	Flexslice3 Axes module
P376	16-NPN output
P377	16-NPN input
P378	8-Analogue output
P379	8-Analogue input
P386	32-NPN output
P387	32-NPN input



MS series IO	Description
P001	16 channel NPN type Digital input module
P002	16 channel PNP digital input module
P003	16 channel NPN digital output module
P004	16 channel PNP digital output module
P005	4-channel single ended analog input module can support current and voltage signals
P006	4-channel single ended voltage analog output module
P007	4-channel single ended current type analog output module

## Motion PLC

Model							
Part Numbers		P620, P621	P630, P631	P635, P636	P625, P626, P627	P640, P641, P642	P645, P646, P647
Dimensions (mm)	H / D / W	100 x75 x23	100 x75 x59		100 x75 x23	100 x75 x59	
Commu nications	Ethernet	1port,100Mbit/s	1port,100Mbit/s		2port,100Mbit/s	2port,100Mbit/s	
	EtherCAT	1port,100Mbit/s	1port,100Mbit/s		1port,100Mbit/s	1port,100Mbit/s	
	Serial Port	no	RS232 / RS485		no	RS232 / RS485	
Periperals	Encoder/Stepper	0	0		0	1	1
	Digital Input	0	8NPN	8PNP	0	8NPN	8PNP
	Digital Input or Output	0	8NPN	8PNP	0	8NPN	8PNP
	Registration Input	0	4		0	8	
	Slice interface		YES				
	SD card		YES				
Environ mental	Slice interface	-20 to + 55degC					
	IP rating	IP20					
Progra mming	Languages	IEC61131-3 (LD, ST, FBD, SFC), TrioBASIC			IEC61131-3 (LD, ST, FBD, SFC), TrioBASIC		
	Motion Features	Motion iX (Basic + Standard), PLCopen			Motion iX (Basic + Standard + Advanced),PLCopen		
	Motion Cycle Time	1ms, 2ms, 4ms			500us, 1ms, 2ms, 4ms		
	Maximum Programs/Tasks	48 / 12			64 / 18		
	Flash memory	32 x 16000 values			32 x 16000 values		
	User memory	8Mb			12Mb		
	Table memory	512000 values			512000 values		
	Max VR variables	4096			16384		
	Execution Benchmark (lines/ms)	70			100		
Protocols	Serial Port Protocols	n/a	Modbus RTU		n/a	Modbus RTU	
	Ethernet Protocols	Modbus TCP, PROFINET IO, Ethernet/IP			Modbus TCP, PROFINET IO, Ethernet/IP		
TE-Bus	Maximum number of slices	16					
EtherCAT	EtherCAT nodes	32			96		
	EtherCAT profiles	CoE, FoE			CoE, FoE		
	EtherCAT PDO data	500 bytes			800 bytes at 500us, 1ms / 1000 bytes at 2ms, 4ms		
Axes	EtherCAT axes	4 (default), 8 with FEC code			4 (default), 8 or 16 with FEC code		
	Virtual Axes	up to 8			up to 16		
	Total axes	up to 16			up to 32		
Upgrades	FEC codes	P912 (8ax, 16ax), P751 (Security)			P912 (16ax, 32ax), P750 (Kinematics), P752 (RPS), P751 (Security)		

## HMI



Model	UNIPLAY 7-A	UNIPLAY 10-A	UNIPLAY 15-A
Display	7" 16:9 TFT LCD	10.1" 16:9 TFT LCD	15.6" 16:9 TFT LCD
Resolution	1024 × 600	1024 × 600	1920 × 1080
IP Grade	Front panel conforms to IP65 (installed with a flat panel), the rear shell conforms to IP20		
Panel Cut-out Dimensions	192mm × 138mm	260mm × 202mm	380mm × 245mm
Module Dimension	204mm × 145mm × 33.8mm	273mm × 213mm × 36mm	394mm × 256mm × 36mm
Weight	约580g	约950g	约2250g
Programming Environment	Function	Centralized program ( Controller programming/servo parameter debugging ) /HMI screens stored in Motion Perfect software. No need to program the HMI interface separately with other software.	

# 04 Servo drive & Servo motor

## Single axis servo drive

### ED3L – 04 A E A – FS02



ED3L Servo drive

Rated output power

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
75	7.5kW

Voltage supply

A	200VAC
D	400VAC

Options

E	EtherCAT
M	CANopen,pulse
P	Profinet

Encoder type

A	Serial encoder
C	Linear encoder

Extended function

FS02	Support the STO
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- Note: 1、 Please refer to "Model Comparison Table" for details.  
2、 Only ED3L-04AEC and ED3L-10AEC support linear motors  
3、 The default model does not contain extended functions  
4、 Optional -UL Certified Models in this Series  
5、 400VAC products support a wide voltage range up to 480V

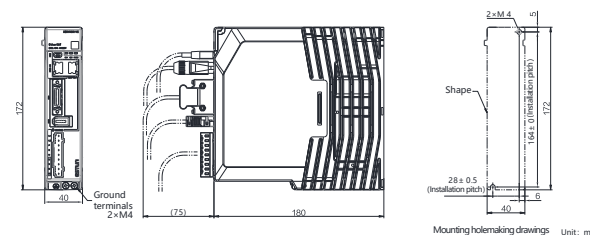
#### 200VAC

Driver model:ED3L-	A5A	01A	02A	04A	08A	10A	15A	20A
Continuous output current[Arms]	0.9	1.1	1.5	2.9	5.1	6.9	9.5	12.6
Maximum output current[Arms]	3.3	4.0	5.8	11.5	19.5	21.0	31.6	42.0
Capacity of main power supply[kVA] (Single phase)	0.2	0.3	0.6	1.2	1.9	2.6	4.0	-
Capacity of main power supply[kVA] (Three-phase)	-	-	-	-	1.6	2.0	3.0	3.5

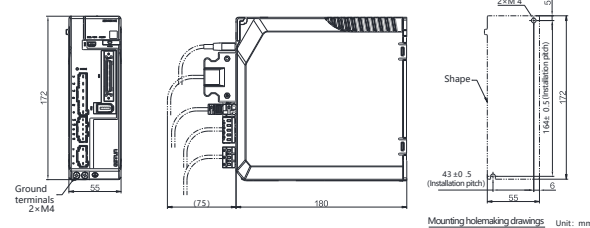
#### 400VAC

Driver model:ED3L-	10D	15D	20D	30D	50D	75D
Continuous output current[Arms]	3.6	5.0	7.1	12.0	17.0	27.3
Maximum output current[Arms]	10.9	16.3	21.2	36.6	53.0	70.0
Capacity of main power supply[kVA] (Three-phase)	1.8	2.8	3.5	5.0	8.2	12.0

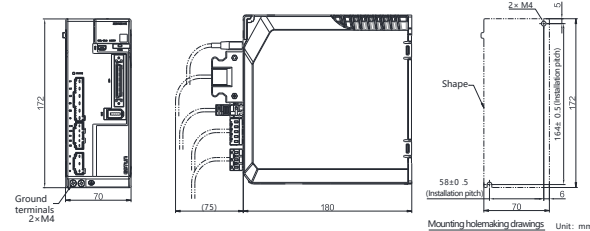
Single axis, 200VAC , Rated power: 50W~400W



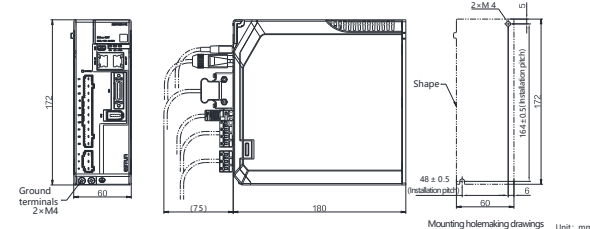
Single axis, 200VAC , Rated power: 750W~1KW



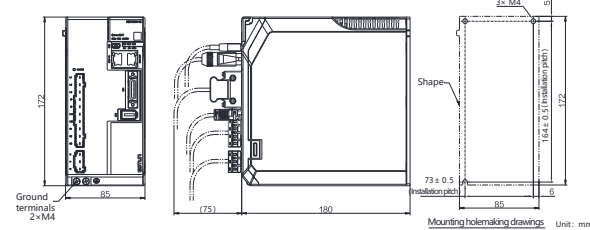
Single axis, 200VAC , Rated power: 1.5kW~2KW



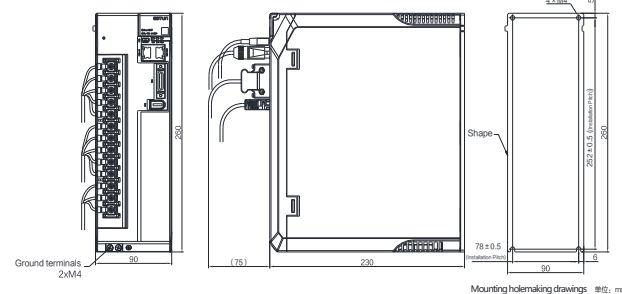
Single axis, 400VAC , Rated power: 1kW~1.5KW



Single axis, 400VAC , Rated power: 2kW~3KW



Single axis, 400VAC , Rated power: 5kW~7.5KW



General specification		Description
Input power	200VAC	Single-phase AC 200V to 240VAC 200V ~ 240V, -15% ~ +10%, 50Hz/60Hz Three-phase AC 200V ~ 240V, -15% ~ +10%, 50Hz/60Hz (Power ≥ 0.75kw)
	400VAC	Three-phase AC 380V ~ 440V, -15% ~ +10%, 50Hz/60Hz
Operation conditions	Work environment	Temperature: When used on a single device: -5°C ~ 55°C; When multiple devices are installed snugly: -5°C ~ 40°C
	Humidity	5% to 95% (with no condensation)
	Storage environment	Temperature: -20°C ~ 85°C
	Humidity	5% to 95% (with no condensation)
	Protection Class	IP20
	Altitude	Below 1000 m
Installation structure	Vibration resistance	Vibration Resistance:4.9m/s <sup>2</sup> ;
	Impact resistance	Shock Resistance:19.6m/s <sup>2</sup>
Performance	Power System	TN System
	Coefficient of speed fluctuation	±0.01% of rated speed max.(For a load fluctuation of 0% to 100%) 0% of rated speed max. (For a load fluctuation of ±10%) ±0.1% of rated speed max. (For a temperature fluctuation of 25°C±25°C)
	Soft start time setting	0 s to 10 s (Can be set separately for acceleration and deceleration.)
USB communication		Conforms to USB2.0 standard (12 Mbps)
Display		5 bit digital tube
Panel operator		4 Buttons
Regenerative braking		50W ~ 400W products without built-in brake resistance Other power products have built-in brake resistance
Protection function		Overcurrent, Overvoltage, Undervoltage, Overload, Regeneration Error, Overspeed, etc.
Utility Functions		Alarm recording, JOG running, load inertia recognition, mechanical analyzer, automatic setting tools, etc

Bus type specifications		Description
Power range		50W~7.5kW
I/O Signals	Input Signals	Allowable voltage range: 24 VDC±20% Number of input points: 5 (Two fixed channels can be used for Touch Probe)
	Output Signals	Operating voltage range: 5 VDC to 30 VDC Number of output points: 3 (1 of them fixed for Servo Alarm)
Communications and Standards		Standard EtherCAT/ProfiNet protocol and rules

Pulse type specifications		Description
Power range		50W~7.5kW
I/O Signals	Encoder pulse division output	A-phase, B-phase, C-phase: line drive output Number of divider pulses: Arbitrary frequency division
	Input Signals	Operating voltage range: 24 VDC±20% Number of input points: 10 (Two fixed channels can be used for Touch Probe)
Torque Control	Output Signals	Operating voltage range: 5 VDC to 30 VDC Number of output points: 4 (1 of them fixed for Servo Alarm)
	External input	DC± 10V (DC± 0V~± 10V: Variable setting range)
Speed control	Built-in set	4 torque contacts
	External input	DC± 10V (DC± 0V~± 10V: Variable setting range)
Position control	Built-in set	Speed 1 to Speed 7
	External input	Choose one of the following input types Symbol + Pulse Column; CCW + CW Pulse Column; 90° Phase Difference 2 Phase Pulse (A Phase + B Phase)
Communications & Standards		32 location contacts

linear drive		Description
Power range		100W~1.0kW
I/O Signals	Input Signals	Allowable voltage range: 24 VDC±20% Number of input points: 5
	Output Signals	Allowable voltage range: 5 VDC to 30 VDC Number of output points: 3 (One of the fixed channels is used for servo alarm)
Encoder	Pulse signal	A, B, Z (Difference)
	Hall signal	5V single-ended signal
Communications & Standards		Standard EtherCAT protocol and rules



# Dual axis servo drive

ED3L

ED3L Servo drive

– 04 04

A-axis output power    B-axis output power

A


Voltage supply

E

Options

A

Encoder type



04 0.4KW

10 1.0KW

A 200VAC

E EtherCAT  
M CANopen,pulse

A Serial encoder

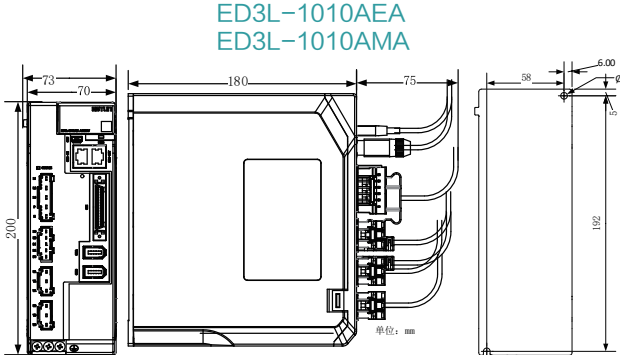
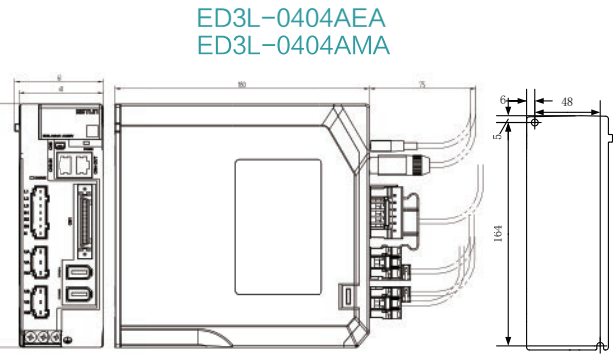
Note:

1、suitable for EM3A, EM3J, EM3G, EM3L servo

2、Optional –UL Certified Models in this Series

3、400VAC products support a wide voltage range up to 480V

Driver model:ED3L–	0404A		1010A	
Continuous output current[Arms]	2.9	2.9	6.9	6.9
Maximum output current[Arms]	11.5	11.5	21.0	21.0
Capacity of main power supply[kVA] (Single phase)	1.9		4.5	
Capacity of main power supply[kVA] (Three-phase)	1.6		3.8	



Item		Specifications	
ED3L–		0404AEA/1010AEA	0404AMA/1010AMA
Input power	Main circuit	Single phase 200 ~ 240VAC +10% ~ -15% (50/60Hz) Three-phase 200 ~ 240VAC +10% ~ -15% (50/60Hz)	
	Control voltage	Single phase 200 ~ 240VAC +10% ~ -15% (50/60Hz)	
	Control mode	SVPWM	

Item			Specifications	
ED3L-			0404AEA/1010AEA	0404AMA/1010AMA
Operation conditions	Service temperature/Storage temperature		Operating temperature: -5~55℃/ storage temperature: -20~85℃	
	Use humidity/store humidity		5%-95%RH(no condensation, no freezing)	
	Resistance to vibration/impact		Vibration resistance:4.9m/s <sup>2</sup> /Impact resistance:19.6m/s <sup>2</sup>	
Installation structure			Installed base	
Speed control	Speed setting instruction	Direction selection	Only the parameter speed control mode is supported	Switch direction through/p-con
		Speed selection	/	Speed 1~7 can be selected
	Function	Soft start setting	0~10s(acceleration and deceleration can be set separately)	
Position control	Command pulse	Species	/	Symbol + pulse train, CCW+CW,90° phase difference 2-phase pulse (A +B)
		Form	/	Uninsulated wire drive approx. (+5V), open collector
		Frequency	/	× 1 frequency doubling: 4Mpps × 2 frequency doubling: 2Mpps × 4 frequency doubling: 1Mpps Open collector: 200kpps Description: Frequency will decrease when duty cycle deviation occurs
	Set position instruction		/	32 position nodes can be set
Input-output signal	Sequential input signal	Channel number	5 channels	10 channels
		Function	Input signal is S-ON (servo enable), P-CON (proportional control), ALM-RST (alarm reset), CLR (position deviation clearance), P-OT (positive drive prohibition), N-OT (reverse drive prohibition), PCL (positive torque limit), NCL (negative torque limit). Except for Touch Probe, other signals can be allocated and the positive and negative logic can be changed.	
	Sequential output signal	Channel number	3 channels	4 channels
		Function	The output signal is: COIN (positioning completion), VCMP (same-speed detection), TGON (motor rotation detection), ALM (servo alarm), S-RDY (servo ready), BK (brake), PGC (encoder C pulse), OT (overrange detection), HOME (zero return completion), REMOTE (REMOTE IO), TCR (torque detection). Except for ALM, all signals can be assigned and the positive and negative logic can be changed.	
Built-in function	Protection function		Over current, over voltage, under voltage, over load, regenerative fault, overspeed, etc	
	Auxiliary function		Alarm recording, JOG operation, load inertia identification, mechanical analyzer, automatic setting tools, etc	
	Communications functions		EtherCAT communication module uses CiA402 protocol	CAN communication port, using CANopen protocol
	Display function		Five digital tubes, five buttons  CHARGE, POWER, SYS, RUN, ERR, L/A OUT, AXIS-A/B	

# EM3A servo motor(50W ~ 1.0kW)

Small capacity | High speed | Low inertia

## EM3A – 04 A L A 2 4 1



Rated output power

A5	0.05kW
01	0.1kW
02	0.2kW
04	0.4kW
08	0.75kW
10	1.0kW

Voltage grade

A	200VAC
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encoder

T	17-bits absolute
L	23-bits absolute

Design order

A	—
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Shaft end

2	Straight, with keys, Threaded
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Optional

2	With oil seal, No brakes
4	With oil seal, With brake

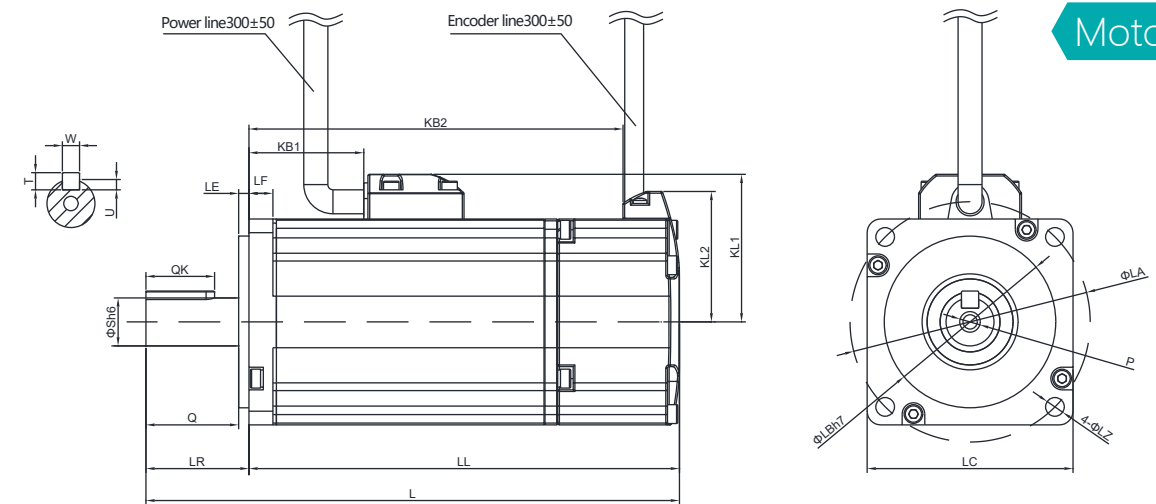
Plug type

1	Standard plug
2	Waterproof plug
3	Direct plug

Note: 1、 Please refer to "Model Comparison Table" for details.  
2、 Motor body heat resistance class: F  
3、 Motor body protection mode: self-cooling, IP65/IP67

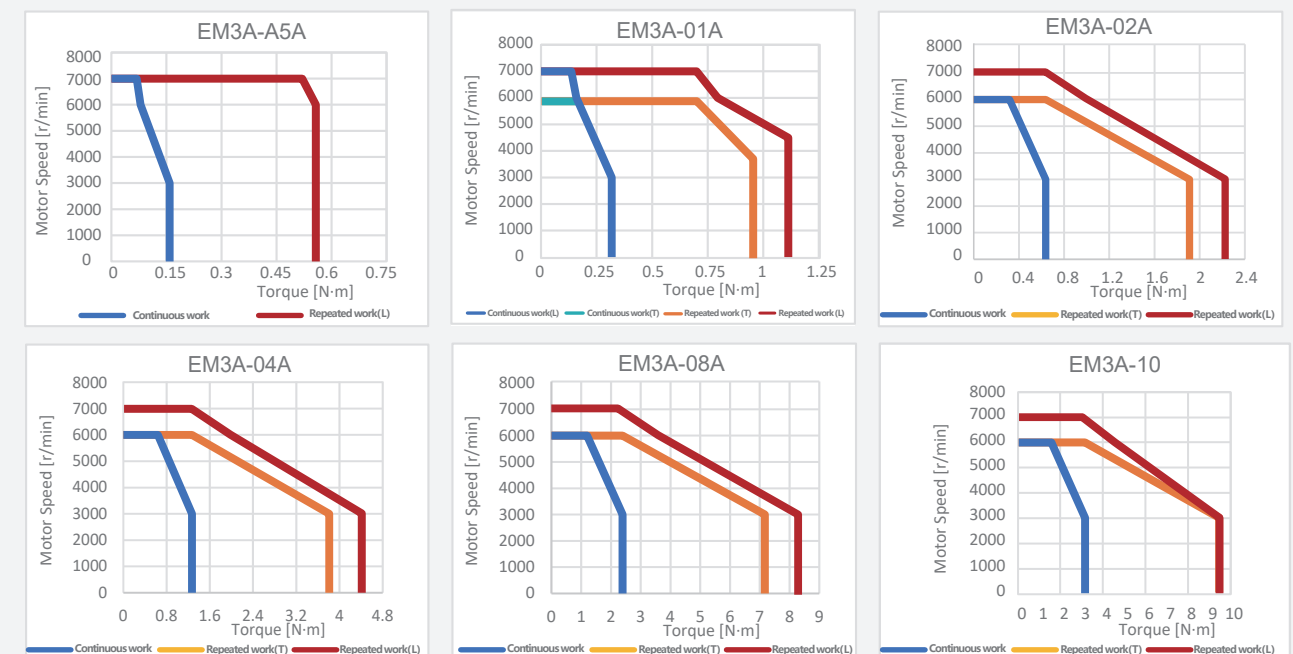
		200VAC											
EM3A-		A5AT	A5AL	01AT	01AL	02AT	02AL	04AT	04AL	08AT	08AL	10AT	10AL
Flange [mm]		40		40		60		60		80		80	
Rated power [kW]		0.05		0.1		0.2		0.4		0.75		1.0	
Rated speed[r/min]		3000		3000		3000		3000		3000		3000	
Maximum speed [r/min]		6000		6000		6000		6000		6000		6000	
Rated torque [N·m]		0.159		0.318		0.637		1.27		2.39		3.18	
Maximum torque [N·m]		0.557		0.954	1.11	1.91	2.23	3.81	4.46	7.17	8.37	9.54	
Rated current [Arms]		0.9		1.1		1.5		2.9		5.1		6.9	
Maximum current [Arms]		3.3		3.5	4.0	4.7	5.8	9.2	11.5	16.1	19.5	21.0	
Motor inertia [10 <sup>-4</sup> kg ·m <sup>2</sup> ]		0.0230(0.0268)		0.0428(0.0465)		0.147(0.179)		0.244(0.276)		0.910(1.07)		1.14(1.30)	
Allowable shaft end load	Radial[N]	78		78		245		245		392		392	
	Axial[N]	54		54		74		74		147		147	
Brake specification	Rated voltage	24VDC		24VDC		24VDC		24VDC		24VDC		24VDC	
	Holding torque[N·m]	≥0.32		≥0.32		≥1.5		≥1.5		≥3.2		≥3.2	
Weight[kg]		0.4(0.6)		0.5(0.7)		0.9(1.3)		1.3(1.7)		2.6(3.2)		3.1(3.8)	

Note: The values in parentheses represent the values of motors with brakes.  
\*Maximum speed 7000" add " \* " stand for on developing.



Power	EM3A-	L	LL	KB1	KB2	KL1	KL2	Flange Dimensions							S	P	key				
								LR	LE	LF	LC	LA	LB	LZ			QK	Q	W	T	U
50W	A5AL	87.5 (121)	62.5 (96)	20(33)	49(82)	33	33	25	2.5	5	40	46	30	4.3	8	M3× 6	14	22	3	3	1.8
100W	01AL	103.5(137)	78.5 (112)	36(49)	65(98)	33	33	25	2.5	5	40	46	30	4.3	8	M3× 6	14	22.5	3	3	1.8
100W	01AT	113.5(147)	88.5(122)	36(49)	75(108)	33	33	25	2.5	5	40	46	30	4.3	8	M3× 6	14	22.5	3	3	1.8
200W	02AL	108 (137)	78 (107)	28(34)	62(91)	43	38	30	3	7	60	70	50	5.5	14	M5× 12	20	27	5	5	3
200W	02AT	126.5(155.5)	96.5(125.5)	43(49)	80 (109)	43	38	30	3	7	60	70	50	5.5	14	M5× 12	20	27	5	5	3
400W	04AL	129 (158)	99 (128)	49(55)	83(112)	43	38	30	3	7	60	70	50	5.5	14	M5× 12	20	27	5	5	3
400W	04AT	147.5(176.5)	117.5(146.5)	49(55)	101(130)	43	38	30	3	7	60	70	50	5.5	14	M5× 12	20	27	5	5	3
750W	08AL	151 (184)	111(144)	59(60)	94(127)	53	48	40	3	8	80	90	70	6.6	19	M6× 12	25	37/35	6	6	3.5
750W	08AT	167.5(200.5)	127.5(160.5)	57(58)	111(144)	53	48	40	3	8	80	90	70	6.6	19	M6× 12	25	37	6	6	3.5
1.0kW	10AL	165 (198)	125(158)	71(72)	108(141)	53	48	40	3	8	80	90	70	6.6	19	M6× 12	25	37	6	6	3.5
1.0kW	10AT	181.5(214.5)	141.5(174.5)	71(72)	125(158)	53	48	40	3	8	80	90	70	6.6	19	M6× 12	25	37	6	6	3.5

Note: The values in parentheses represent the values of motors with brakes.



# EM3A servo motor(1.5kw ~5kW)

Medium capacity | High speed | Low inertia

Motor size

## EM3A – 15 A L B 2 2 4



Rated output power

15	1.5kW
20	2.0kW
30	3.0kW
40	4.0kW
50	5.0kW

Voltage grade

A	200VAC
D	400VAC

encoder

T	17-bits absolute
L	23-bits absolute

Design order

A	-
B	-

Shaft end

2	Straight, with keys, Threaded
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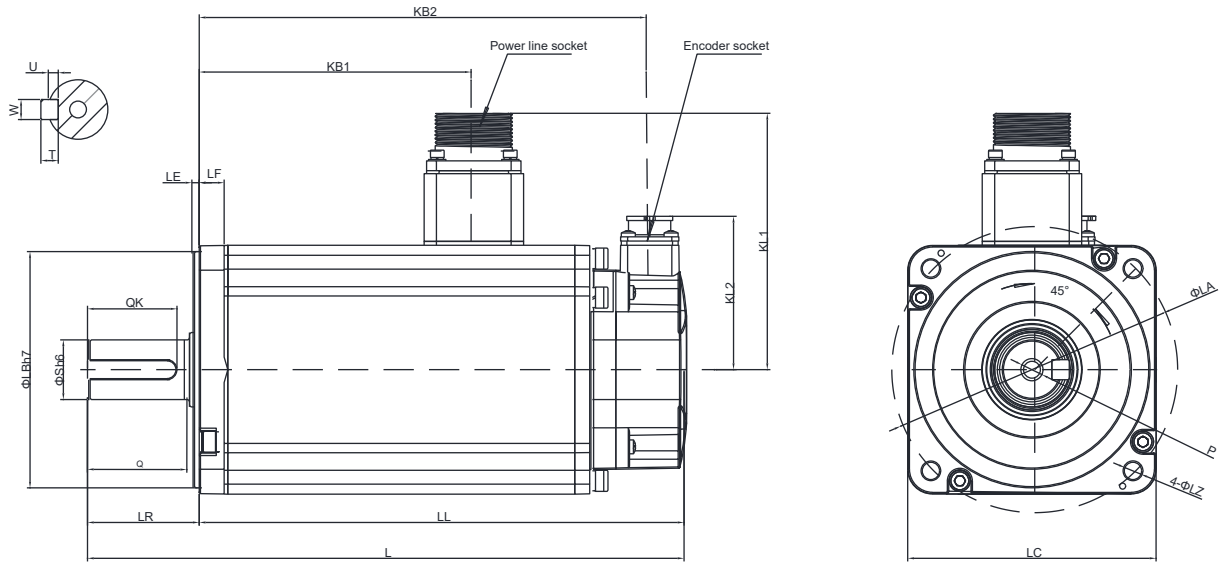
Optional

2	With oil seal, No brakes
4	With oil seal, With brake

Plug type

4	Aviation Plug
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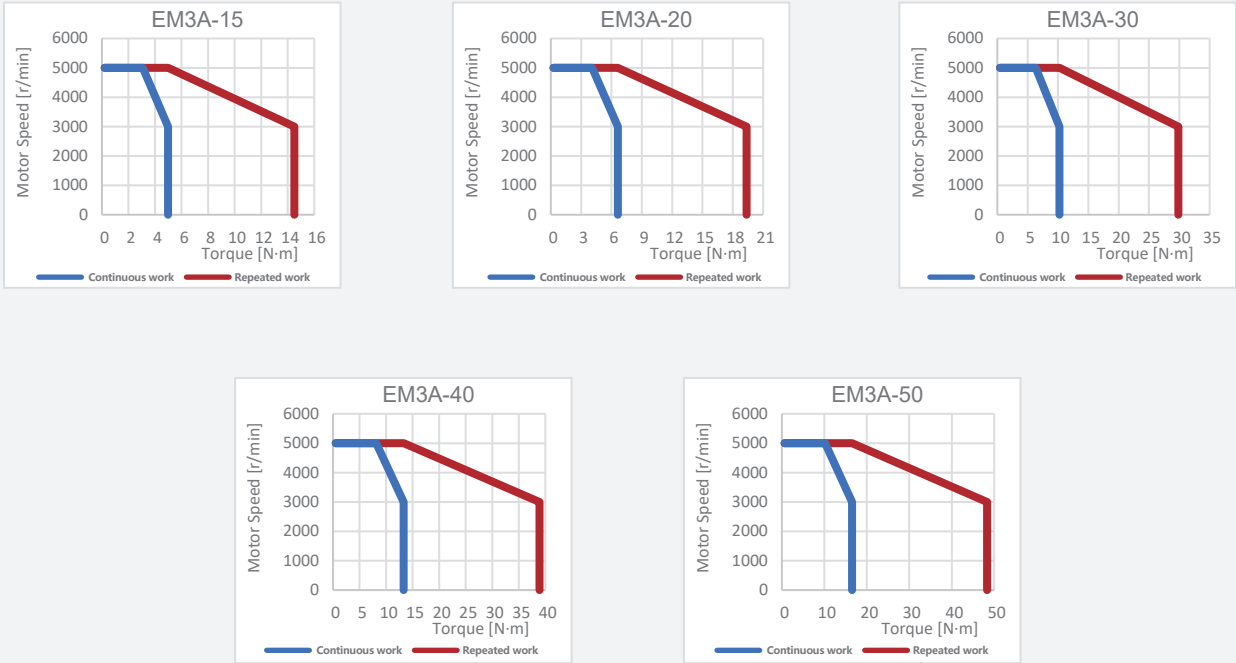
Note:1、 Please refer to "Model Comparison Table" for details.  
2、 Motor body heat resistance class: F  
3、 Motor body protection mode: self-cooling, IP65



Power	EM3A-	L	LL	KB1	KB2	KL1	KL2	Flange Dimensions								S	P	key				
								LR	LE	LF	LC	LA	LB	LZ	QK			Q	W	T	U	
1.5kW	15□	210(240)	165(195)	97(109)	150(180)	102	60	45	3	10	100	115	95	7	24	M8× 16	36	40	8	7	4	
2.0kW	20□	230(260)	185(215)	117(129)	170(200)	102	60	45	3	10	100	115	95	7	24	M8× 16	36	40	8	7	4	
3.0kW	30D	257(289.5)	194(226.5)	161	179(212)	110	60	63	6	12	130	145	110	9	28	M8× 16	54	55	8	7	4	
4.0kW	40D	284(316.5)	221(253.5)	188	206(239)	110	60	63	6	12	130	145	110	9	28	M8× 16	54	55	8	7	4	
5.0kW	50D	324(356.5)	261(293.5)	228	246(279)	110	60	63	6	12	130	145	110	9	28	M8× 16	54	55	8	7	4	

		200VAC		400VAC				
EM3A-		15A	20A	15D	20D	30D	40D	50D
Flange [mm]		100	100	100	100	130	130	130
Rated power [kW]		1.5	2.0	1.5	2.0	3.0	40	5.0
Rated speed[r/min]		3000	3000	3000	3000	3000	3000	3000
Maximum speed [r/min]		5000	5000	5000	5000	5000	5000	5000
Rated torque [N·m]		4.78	6.37	4.78	6.37	9.80	12.8	15.9
Maximum torque [N·m]		14.3	19.1	14.3	19.1	29.4	38.4	47.7
Rated current [Arms]		9.5	12.6	4.9	6.4	10.5	13.0	15.9
Maximum current [Arms]		31.6	42.0	16.3	20.5	33.0	40.0	50.0
Motor inertia [10 <sup>-4</sup> kg · m <sup>2</sup> ]		2.33(3.10)	2.95(3.72)	2.33(3.10)	2.95(3.72)	7.72(9.00)	10.2(11.6)	14.0(15.4)
Allowable shaft end load	Radial[N]	686	686	686	686	980	980	980
	Axial[N]	196	196	196	196	392	392	392
Brake specification	Rated voltage	24VDC	24VDC	24VDC	24VDC	24VDC	24VDC	24VDC
	Holding torque[N·m]	≥8	≥8	≥8	≥8	≥20	≥20	≥20
Weight[kg]		5.1(6.4)	6.1(7.5)	5.1(6.4)	6.1(7.5)	10.0(12.0)	12.0(14.0)	15.5(17.5)

Note: The values in parentheses represent the values of motors with brakes.





# EM3J servo motor (200W ~ 1.0kW)

Small capacity | High speed | Medium inertia

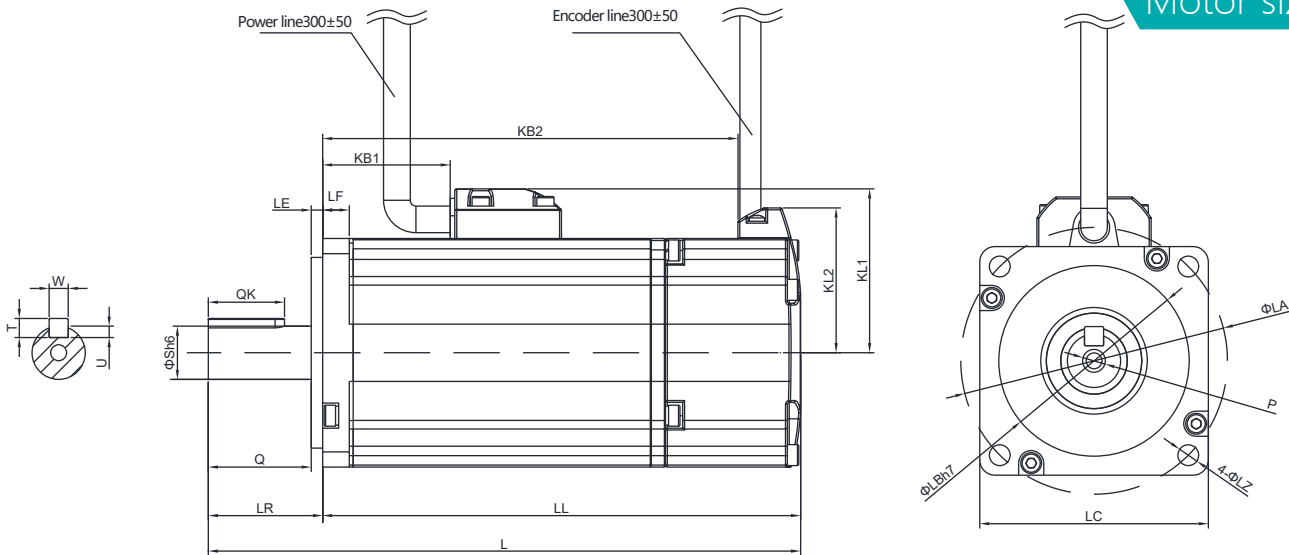
EM3J – 04 A L A 2 4 2

Rated output power Voltage grade encoder Design order Shaft end Optional Plug type



02	0.2kW	A	200VAC	T	17-bits absolute	A	—	2	Straight, with keys, Threaded	2	With oil seal, No brakes	1	Standard plugs
04	0.4kW	D	400VAC	L	23-bits absolute			4	With oil seal, With brake	4	With oil seal, With brake	2	Waterproof plug
08	0.75kW											3	Direct plug
10	1.0kW												

Note: 1、Please refer to "Model Comparison Table" for details.  
2、Heat resistance grade of motor body: F  
3、Motor body protection mode: self-cooling, IP65/IP67



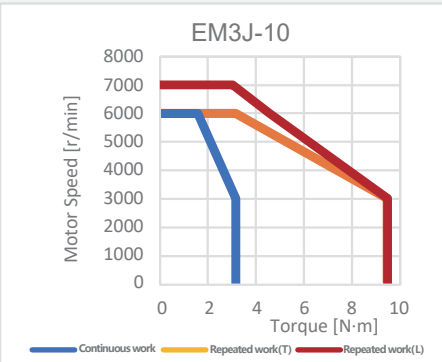
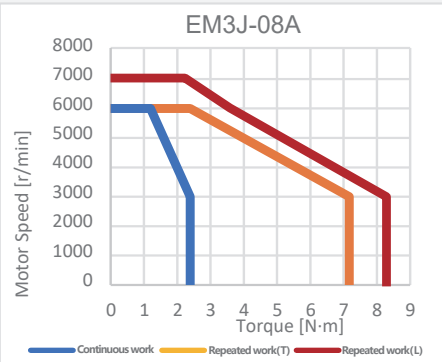
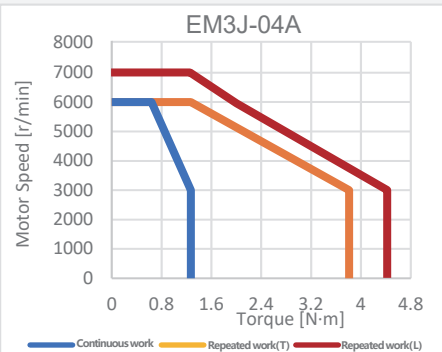
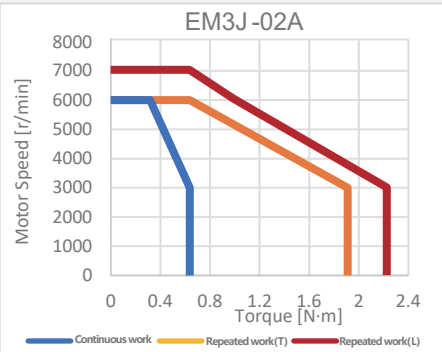
Power	EM3J-	L	LL	KB1	KB2	KL1	KL2	Flange Dimensions								S	P	key				
								LR	LE	LF	LC	LA	LB	LZ	QK			Q	W	T	U	
200W	02AL	108(137)	78(107)	28(34)	62(91)	43	38	30	3	7	60	70	50	5.5	14	M5 × 12	20	27	5	5	3	
200W	02AT	126.5(155.5)	96.5(125.5)	43(49)	80(109)	43	38	30	3	7	60	70	50	5.5	14	M5 × 12	20	27	5	5	3	
400W	04AL	129(158)	99(128)	49(55)	83(112)	43	38	30	3	7	60	70	50	5.5	14	M5 × 12	20	27	5	5	3	
400W	04AT	147.5(176.5)	117.5(146.5)	49(55)	101(130)	43	38	30	3	7	60	70	50	5.5	14	M5 × 12	20	27	5	5	3	
750W	08AL	142(175)	102(135)	48(49)	85(118)	53	48	40	3	8	80	90	70	6.6	19	M6 × 12	25	37	6	6	3.5	
750W	08AT	158.5(191.5)	118.5(151.5)	48(49)	102(135)	53	48	40	3	8	80	90	70	6.6	19	M6 × 12	25	37	6	6	3.5	
1.0kW	10AL	157(190)	117(150)	63(64)	100(133)	53	48	40	3	8	80	90	70	6.6	19	M6 × 12	25	37	6	6	3.5	
1.0kW	10AT	173.5(206.5)	133.5(166.5)	63(64)	117(150)	53	48	40	3	8	80	90	70	6.6	19	M6 × 12	25	37	6	6	3.5	

Note: The values in parentheses represent the values of motors with brakes.

		200VAC							
EM3J-		02AT	02AL	04AT	04AL	08AT	08AL	10AT	10AL
Flange [mm]		60		60		80		80	
Rated power [kW]		0.2		0.4		0.75		1.0	
Rated speed [r/min]		3000		3000		3000		3000	
Maximum speed [r/min]		6000		6000		6000		6000	
Rated torque [N·m]		0.637		1.27		2.39		3.18	
Maximum torque [N·m]		1.91	2.23	3.81	4.46	7.17	8.37	9.54	
Rated current [Arms]		1.5		2.8		5.1		7.1	
Maximum current [Arms]		4.7	5.8	8.8	11.2	16.1	19.5	22.0	
Motor inertia [10 <sup>-4</sup> kg · m <sup>2</sup> ]		0.330(0.360)		0.640(0.680)		1.64(1.79)		2.26(2.41)	
Allowable shaft end load	Radial[N]	245		245		392		392	
	Axial[N]	74		74		147		147	
Brake specification	Rated voltage	24VDC		24VDC		24VDC		24VDC	
	Holding torque[N·m]	≥1.5		≥1.5		≥3.2		≥3.2	
Weight[kg]		0.9(1.3)		1.3(1.7)		2.3(2.9)		3.1(3.8)	

Note: The values in parentheses represent the values of motors with brakes.

\*Maximum speed 7000\* add " \* " stand for on developing.




EM3G servo motor(0.85kW ~ 7.5kW)

Medium capacity | Medium speed | Medium inertia

Motor size

EM3G – 13 A L A 2 2 4



Rated output power

09 0.85kW  
13 1.3kW  
18 1.8kW  
29 2.9kW  
44 4.4kW  
55 5.5kW  
75 7.5kW

Voltage grade

A 200VAC  
D 400VAC

encoder

T 17-bits absolute  
L 23-bits absolute

Design order

A -

Shaft end

2 Straight, with keys, Threaded

Optional

2 With oil seal, No brakes  
4 With oil seal, With brake

Plug type

4 Aviation Plug

Note:1、 Please refer to "Model Comparison Table" for details.  
2、 Motor body heat resistance class: F  
3、 Motor body protection mode: self-cooling, IP65

Technical drawing of the EM3G servo motor. The side view shows dimensions: KB2, KB1, LE, LE, QK, ΦLb7, ΦSh6, LR, LL, L, KL1, KL2, Power line socket, Encoder socket. The front view shows dimensions: LC, 4-ΦLZ, P, ΦLA.

Power	EM3G-	L	LL	KB1	KB2	KL1	KL2	Flange Dimensions								S	P	key			
								LR	LE	LF	LC	LA	LB	LZ	QK			W	T	U	
0.85kW	09□	185(215)	131(161)	94.5	116(146)	112	60	55	6	12	130	145	110	9	22	M6× 20	32	8	7	4	
1.3kW	13□	200(230)	146(176)	109.5	131(161)	112	60	55	6	12	130	145	110	9	22	M6× 20	32	8	7	4	
1.8kW	18□	215(245)	161(191)	124.5	146(176)	112	60	55	6	12	130	145	110	9	22	M6× 20	32	8	7	4	
2.9kW	29D	239(284)	160(205)	135.5(139.8)	145.5(190.2)	142	60	79	3.2	18	180	200	114.3	13.5	35	M12× 25	65	10	8	5	
4.4kW	44D	258(303)	179(224)	154.5(158.8)	164.5(209.2)	142	60	79	3.2	18	180	200	114.3	13.5	35	M12× 25	65	10	8	5	
5.5kW	55D	324(377)	221(264)	186.5(198.8)	196.5(249.2)	142	60	113	3.2	18	180	200	114.3	13.5	42	M16× 32	96	12	10	5	
7.5kW	75D	360(413)	247(300)	222.5(234.8)	232.5(285.2)	142	60	113	3.2	18	180	200	114.3	13.5	42	M16× 32	96	12	10	5	

Note: The values in parentheses represent the values of motors with brakes.

		200VAC			400VAC						
EM3G-		09A	13A	18A	09D	13D	18D	29D	44D	55D	75D
Flange [mm]		130	130	130	130	130	130	180	180	180	180
Rated power [kW]		0.85	1.3	1.8	0.85	1.3	1.8	2.9	4.4	5.5	7.5
Rated speed[r/min]		1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Maximum speed [r/min]		4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
Rated torque [N·m]		5.41	8.28	11.5	5.41	8.28	11.5	18.6	28.4	35.0	48.0
Maximum torque [N·m]		16.2	24.8	31.0	16.2	24.8	31.0	55.8	80.0	105	120
Rated current [Arms]		6.8	9.7	14.5	3.4	5.0	7.1	11.5	16.8	20.3	26.5
Maximum current [Arms]		22.6	29.7	42.0	10.9	15.6	21.2	37.0	49.5	64.0	70.0
Motor inertia [10 <sup>-4</sup> kg·m <sup>2</sup> ]		11.9(12.5)	17.3(17.9)	22.3(22.9)	11.9(12.5)	17.3(17.9)	22.3(22.9)	43.4(49.2)	58.8(64.6)	85.5(91.5)	117(123)
Allowable shaft end load	Radial[N]	490	686	980	490	686	980	1470	1470	1764	1764
	Axial[N]	98	343	392	98	343	392	490	490	588	588
Brake specification	Rated voltage	24VDC	24VDC	24VDC	24VDC	24VDC	24VDC	24VDC	24VDC	24VDC	24VDC
	Holding torque[N·m]	≥20	≥20	≥20	≥20	≥20	≥20	≥44	≥44	≥72	≥72
Weight[kg]		5.6(7.3)	7.0(8.7)	8.3(10.0)	5.6(7.3)	7.0(8.7)	8.3(10.0)	14.6(18.8)	17.6(21.8)	23.2(27.8)	29.0(33.6)

Note: The values in parentheses represent the values of motors with brakes.

Performance graphs for EM3G servo motors. Each graph plots Motor Speed [r/min] (0 to 5000) against Torque [N·m] (0 to 20, 30, 35, 75, 125, 140). Two curves are shown: Continuous work (blue line) and Repeated work (red line). The graphs are for models EM3G-09, EM3G-13, EM3G-18, EM3G-29, EM3G-44, EM3G-55, and EM3G-75.

Note: T represents a 17-bits absolute  
L represents a 23-bits absolute

17

18

# EM3L servo motor(1kW ~ 4kW)

Medium capacity | low speed | High inertia

Motor size

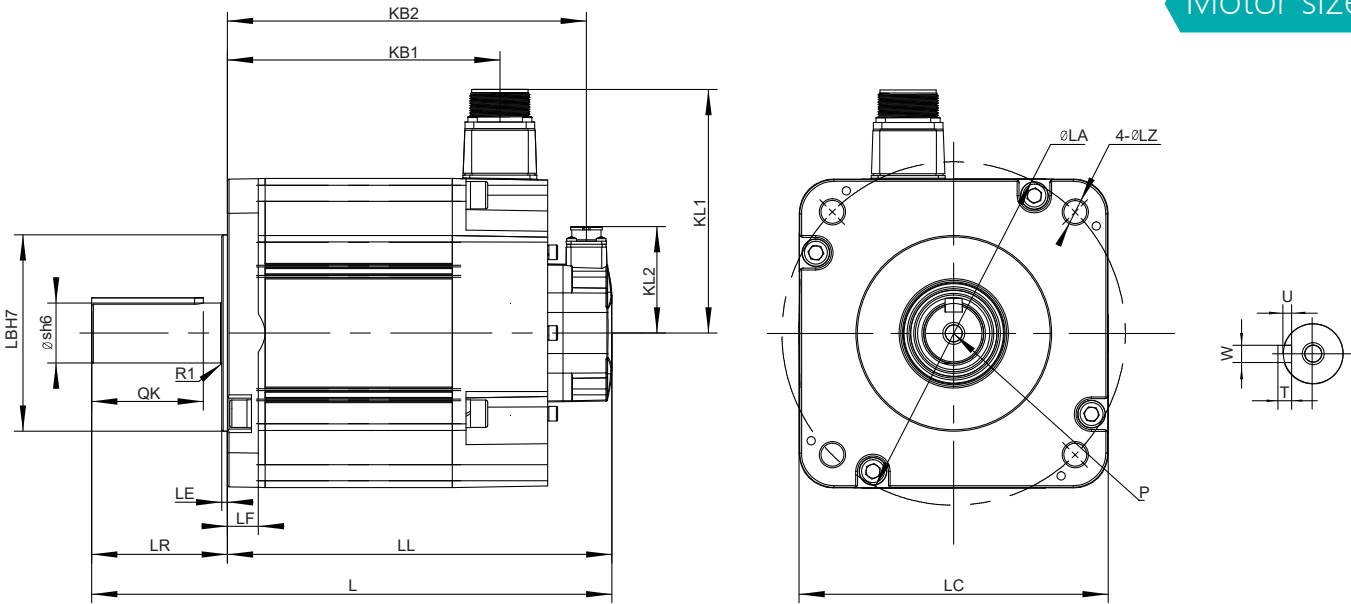
## EM3L – 10 D L A 2 2 4

Rated output power Voltage grade encoder Design order Shaft end Optional Plug type



10	1.0kW	D	400VAC	T	17-bits absolute	A	-	2	Straight, with keys, Threaded	2	With oil seal, No brakes	4	Aviation Plug
20	2.0kW			L	23-bits absolute			4	With oil seal, With brake				
30	3.0kW												
40	4.0kW												

Note:1、 Please refer to "Model Comparison Table" for details.  
2、 Motor body heat resistance class: F  
3、 Motor body protection mode: self-cooling, IP65

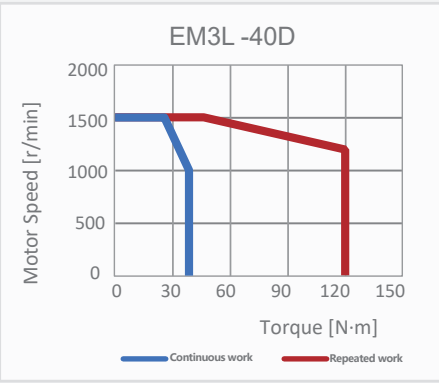
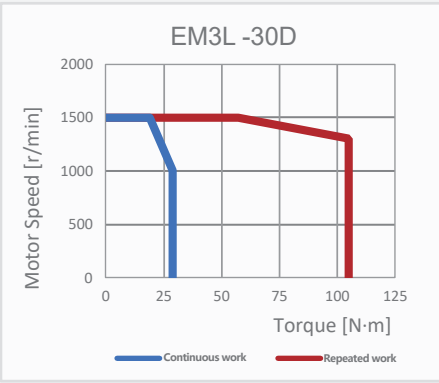
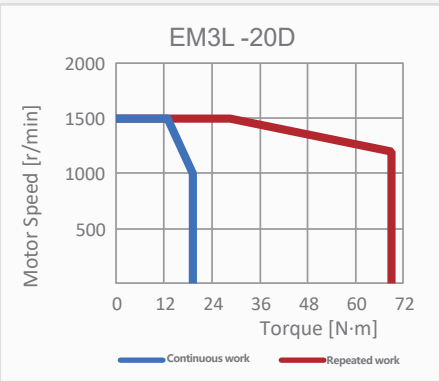
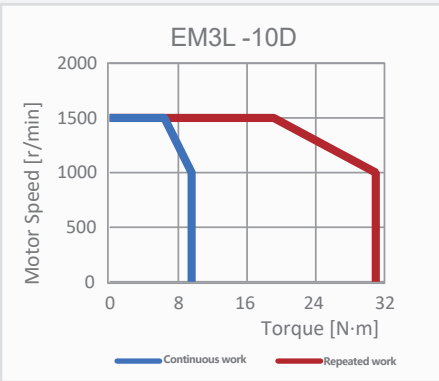


Power	EM3L-	L	LL	KB1	KB2	KL1	KL2	Flange Dimensions								S	P	key			
								LR	LE	LF	LC	LA	LB	LZ	QK			W	T	U	
1.0kW	10D	215(245)	161(191)	124.5(124.5)	146(176)	112	58.5	55	6	12	130	145	110	9	22	M6 × 20	36	8	7	4	
2.0kW	20D	258(303)	179(224)	154.5 ( 158.8)	164(209)	142	62	79	3.2	18	180	200	114.3	13.5	35	M12 × 25	65	10	8	5	
3.0kW	30D	290(343)	211(264)	186.5(198.8)	196(249)	142	62	79	3.2	18	180	200	114.3	13.5	35	M12 × 25	65	10	8	5	
4.0kW	40D	360(413)	247(300)	222.5(234.8)	232(285)	142	62	113	3.2	18	180	200	114.3	13.5	42	M16 × 32	96	12	8	5	

Note: The values in parentheses represent the values of motors with brakes.

400VAC				
EM3L-	10D	20D	30D	40D
Flange [mm]	130	180	180	180
Rated power [kW]	1.0	2.0	3.0	4.0
Rated speed[r/min]	1000	1000	1000	1000
Maximum speed [r/min]	1500	1500	1500	1500
Rated torque [N·m]	9.55	19.1	28.7	38.2
Maximum torque [N·m]	31.0	69.0	105.0	120.0
Rated current [Arms]	3.1	5.2	8.6	10.9
Maximum current [Arms]	10.0	20.2	34.7	34.6
Motor inertia [10 <sup>-4</sup> kg · m <sup>2</sup> ]	22.3(22.9)	58.5(64.6)	85.5(91.5)	116.8(123)
Allowable shaft end load	Radial[N]	980	1470	1764
	Axial[N]	392	490	588
Brake specification	Rated voltage	24VDC	24VDC	24VDC
	Holding torque[N·m]	≥20	≥44	≥72
Weight[kg]		8.3(10.0)	17.6(21.8)	23.2(27.8)
				29.0(33.6)

Note: The values in parentheses represent the values of motors with brakes.





05

Model comparison table

EM3A | Low inertia | 3000 r/min

Swinging plug

Power	Motor model	Brake	Connector	Flange	Trunnion	Drive	Input power	Power cable	Encoder cable			
50W	EM3A-A5ALA221	—	Standard wire	40mm	Φ 8	ED3L-A5A	Single phaseAC 200V~240V	EC3P-N9118—□□	EC3S-A1124—□□ (Including battery)			
	EM3A-A5ALA241	●						EC3P-B9118—□□	EC3S-I1124—□□ (No battery)			
	EM3A-A5ALA222*	—	Waterproof wire					EC3P-N9718—□□	EC3S-A1724—□□ (Including battery)			
	EM3A-A5ALA242	●						EC3P-B9718—□□	EC3S-I1724—□□ (No battery)			
100W	EM3A-01ATA221	—	Standard wire	40mm	Φ 8	Single axis ED3L-01A	Single phaseAC 200V~240V	EC3P-N9118—□□ EC3P-B9118—□□	EC3S-A1124—□□ (Including battery)			
	EM3A-01ATA241	●						EC3P-N8120—□□ EC3P-B8120—□□	EC3S-I1124—□□ (No battery)			
	EM3A-01ATA222*	—	Waterproof wire					EC3P-N9718—□□ EC3P-B9718—□□	EC3S-A1724—□□ (Including battery)			
	EM3A-01ATA242	●						EC3P-N8720—□□ EC3P-B8720—□□	EC3S-I1724—□□ (No battery)			
	EM3A-01ALA221	—	Standard wire			Dual axis ED3L-0404A	Single phase / three phase AC 200V~240V	EC3P-N9118—□□ EC3P-B9118—□□	EC3S-A1124—□□ (Including battery)			
	EM3A-01ALA241	●						EC3P-N8120—□□ EC3P-B8120—□□	EC3S-I1124—□□ (No battery)			
	EM3A-01ALA222*	—	Waterproof wire					EC3P-N9718—□□ EC3P-B9718—□□	EC3S-A1724—□□ (Including battery)			
	EM3A-01ALA242*	●						EC3P-N8720—□□ EC3P-B8720—□□	EC3S-I1724—□□ (No battery)			
	200W	EM3A-02ATA221	—			Standard wire	60mm	Φ 14	Single axis ED3L-02A	Single phaseAC 200V~240V	EC3P-N9118—□□ EC3P-B9118—□□	EC3S-A1124—□□ (Including battery)
		EM3A-02ATA241	●								EC3P-N8120—□□ EC3P-B8120—□□	EC3S-I1124—□□ (No battery)
EM3A-02ATA222*		—	Waterproof wire	EC3P-N9718—□□ EC3P-B9718—□□	EC3S-A1724—□□ (Including battery)							
EM3A-02ATA242*		●		EC3P-N8720—□□ EC3P-B8720—□□	EC3S-I1724—□□ (No battery)							
EM3A-02ALA221		—	Standard wire	Dual axis ED3L-0404A	Single phase / three phase AC 200V~240V	EC3P-N9118—□□ EC3P-B9118—□□			EC3S-A1124—□□ (Including battery)			
EM3A-02ALA241		●				EC3P-N8120—□□ EC3P-B8120—□□			EC3S-I1124—□□ (No battery)			
EM3A-02ALA222*		—	Waterproof wire			EC3P-N9718—□□ EC3P-B9718—□□			EC3S-A1724—□□ (Including battery)			
EM3A-02ALA242*		●				EC3P-N8720—□□ EC3P-B8720—□□			EC3S-I1724—□□ (No battery)			
400W	EM3A-04ATA221	—	Standard wire	60mm	Φ 14	Single axis ED3L-04A	Single phaseAC 200V~240V	EC3P-N9118—□□ EC3P-B9118—□□	EC3S-A1124—□□ (Including battery)			
	EM3A-04ATA241	●						EC3P-N8120—□□ EC3P-B8120—□□	EC3S-I1124—□□ (No battery)			
	EM3A-04ATA222*	—	Waterproof wire					EC3P-N9718—□□ EC3P-B9718—□□	EC3S-A1724—□□ (Including battery)			
	EM3A-04ATA242*	●						EC3P-N8720—□□ EC3P-B8720—□□	EC3S-I1724—□□ (No battery)			
	EM3A-04ALA221	—	Standard wire			Dual axis ED3L-0404A	Single phase / three phase AC 200V~240V	EC3P-N9118—□□ EC3P-B9118—□□	EC3S-A1124—□□ (Including battery)			
	EM3A-04ALA241	●						EC3P-N8120—□□ EC3P-B8120—□□	EC3S-I1124—□□ (No battery)			
	EM3A-04ALA222*	—	Waterproof wire					EC3P-N9718—□□ EC3P-B9718—□□	EC3S-A1724—□□ (Including battery)			
	EM3A-04ALA242*	●						EC3P-N8720—□□ EC3P-B8720—□□	EC3S-I1724—□□ (No battery)			
750W	EM3A-08ATA221	—	Standard wire	80mm	Φ 19	ED3L-08A ED3L-1010A	Single phase / three phase AC 200V~240V	EC3P-N8118—□□	EC3S-A1124—□□ (Including battery)			
	EM3A-08ATA241	●						EC3P-B8118—□□	EC3S-I1124—□□ (No battery)			
	EM3A-08ATA222*	—	Waterproof wire					EC3P-N8718—□□	EC3S-A1724—□□ (Including battery)			
	EM3A-08ATA242*	●						EC3P-B8718—□□	EC3S-I1724—□□ (No battery)			

Power	Motor model	Brake	Connector	Flange	Trunnion	Drive	Input power	Power cable	Encoder cable				
750W	EM3A-08ALA221	—	Standard wire	80mm	Φ 19	ED3L-08A ED3L-1010A	Single phase / three phase AC 200V~240V	EC3P-N8118-□□	EC3S-A1124-□□ (Including battery)				
	EM3A-08ALA241	●						EC3P-B8118-□□	EC3S-I1124-□□ (No battery)				
	EM3A-08ALA222*	—	Waterproof wire					EC3P-N8718-□□	EC3S-A1724-□□ (Including battery)				
	EM3A-08ALA242*	●						EC3P-B8718-□□	EC3S-I1724-□□ (No battery)				
1.0kW	EM3A-10ATA221	—	Standard wire					80mm	Φ 19	ED3L-10A ED3L-1010A	Single phase / three phase AC 200V~240V	EC3P-N8118-□□	EC3S-A1124-□□ (Including battery)
	EM3A-10ATA241	●										EC3P-B8118-□□	EC3S-I1124-□□ (No battery)
	EM3A-10ATA222*	—	Waterproof wire									EC3P-N8718-□□	EC3S-A1724-□□(Including battery)
	EM3A-10ATA242*	●										EC3P-B8718-□□	EC3S-I1724-□□(No battery)
	EM3A-10ALA221	—	Standard wire	80mm	Φ 19	ED3L-10A ED3L-1010A	Single phase / three phase AC 200V~240V					EC3P-N8118-□□	EC3S-A1124-□□ (Including battery)
	EM3A-10ALA241	●										EC3P-B8118-□□	EC3S-I1124-□□ (No battery)
	EM3A-10ALA222*	—	Waterproof wire									EC3P-N8718-□□	EC3S-A1724-□□ (Including battery)
	EM3A-10ALA242*	●										EC3P-B8718-□□	EC3S-I1724-□□ (No battery)

EM3A | Low inertia | 3000 r/min

Aviation plug

Power	Motor model	Brake	Connector	Flange	Trunnion	Drive	Input power	Power cable	Encoder cable
1.5kW	EM3A-15ATB224	—	Aviation Plug	100mm	Φ 24	ED3L-15A	Single phase / three phase AC 200V~240V	EC3P-N9314-□□	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3A-15ATB244	●						EC3P-B9314-□□	
	EM3A-15ALB224	—						EC3P-N9314-□□	
	EM3A-15ALB244	●						EC3P-B9314-□□	
	EM3A-15DTB224	—	Aviation Plug	100mm	Φ 24	ED3L-15D	three phase AC 380V~480V	EC3P-N9314-□□	
	EM3A-15DTB244	●						EC3P-B9314-□□	
	EM3A-15DLB224	—						EC3P-N9314-□□	
	EM3A-15DLB244	●						EC3P-B9314-□□	
2.0kW	EM3A-20ATB224	—	Aviation Plug	100mm	Φ 24	ED3L-20A	three phase AC 200V~240V	EC3P-N9314-□□	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3A-20ATB244	●						EC3P-B9314-□□	
	EM3A-20ALB224	—						EC3P-N9314-□□	
	EM3A-20ALB244	●						EC3P-B9314-□□	
	EM3A-20DTB224	—	Aviation Plug	100mm	Φ 24	ED3L-20D	three phase AC 380V~480V	EC3P-N9314-□□	
	EM3A-20DTB244	●						EC3P-B9314-□□	
	EM3A-20DLB224	—						EC3P-N9314-□□	
	EM3A-20DLB244	●						EC3P-B9314-□□	
3.0kW	EM3A-30DTA224	—	Aviation Plug	130mm	Φ 28	ED3L-30D	three phase AC 380V~480V	EC3P-N9314-□□	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3A-30DTA244	●						EC3P-B9314-□□	
	EM3A-30DLA224	—						EC3P-N9314-□□	
	EM3A-30DLA244	●						EC3P-B9314-□□	
4.0kW	EM3A-40DTA224	—	Aviation Plug	130mm	Φ 28	ED3L-50D	three phase AC 380V~480V	EC3P-N9319-□□	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3A-40DTA244	●						EC3P-B9319-□□	
	EM3A-40DLA224	—						EC3P-N9319-□□	
	EM3A-40DLA244	●						EC3P-B9319-□□	
5.0kW	EM3A-50DTA224	—	Aviation Plug	130mm	Φ 28	ED3L-50D	three phase AC 380V~480V	EC3P-N9319-□□	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3A-50DTA244	●						EC3P-B9319-□□	
	EM3A-50DLA224	—						EC3P-N9319-□□	
	EM3A-50DLA244	●						EC3P-B9319-□□	

EM3A | Low inertia | 3000 r/min

Direct plug

Power	Motor model	Brake	Connector	Flange	Trunnion	Drive	Input power	Power cable		Encoder cable
								Front outlet method	Rear outlet method	
50W	EM3A-A5ALA223	-	Direct plug	40mm	Φ 8	ED3L-A5A	Single phase AC 200V~240V	EC3P-N9520-□□	EC3P-N9620-□□	
	EM3A-A5ALA243	●						EC3P-B9520-□□	EC3P-B9620-□□	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3A-A5ATA223	-						EC3P-N9520-□□	EC3P-N9620-□□	
	EM3A-A5ATA243	●						EC3P-B9520-□□	EC3P-B9620-□□	
100W	EM3A-01ALA223	-	Direct plug	40mm	Φ 8	Single axis ED3L-01A	Single phase AC 200V~240V (ED3LSingle axis)	EC3P-N9520-□□Single axis	EC3P-N9620-□□Single axis	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3A-01ALA243	●						EC3P-N8520-□□Dual axis	EC3P-N8620-□□Dual axis	
	EM3A-01ATA223	-						EC3P-B9520-□□Single axis	EC3P-B9620-□□Single axis	
	EM3A-01ATA243	●						EC3P-B8520-□□Dual axis	EC3P-B8620-□□Dual axis	
200W	EM3A-02ALA223	-	Direct plug	60mm	Φ 14	Dual axis ED3L-0404A	Single phase AC 200V~240V (ED3LSingle axis)	EC3P-N9520-□□Single axis	EC3P-N9620-□□Single axis	
	EM3A-02ALA243	●						EC3P-N8520-□□Dual axis	EC3P-N8620-□□Dual axis	
	EM3A-02ATA223	-						EC3P-B9520-□□Single axis	EC3P-B9620-□□Single axis	
	EM3A-02ATA243	●						EC3P-B8520-□□Dual axis	EC3P-B8620-□□Dual axis	
400W	EM3A-04ALA223	-	Direct plug	60mm	Φ 14	Single axis ED3L-04A	Single phase / three phase AC 200V~240V (ED3LDual axis)	EC3P-N9520-□□Single axis	EC3P-N9620-□□Single axis	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3A-04ALA243	●						EC3P-N8520-□□Dual axis	EC3P-N8620-□□Dual axis	
	EM3A-04ATA223	-						EC3P-B9520-□□Single axis	EC3P-B9620-□□Single axis	
	EM3A-04ATA243	●						EC3P-B8520-□□Dual axis	EC3P-B8620-□□Dual axis	
750W	EM3A-08ALA223	-	Direct plug	80mm	Φ 19	ED3L-08A ED3L-1010A	Single phase / three phase AC 200V~240V	EC3P-N8520-□□	EC3P-N8620-□□	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3A-08ALA243	●						EC3P-B8520-□□	EC3P-B8620-□□	
	EM3A-08ATA223	-						EC3P-N8520-□□	EC3P-N8620-□□	
	EM3A-08ATA243	●						EC3P-B8520-□□	EC3P-B8620-□□	
1.0kW	EM3A-10ALA223	-	Direct plug	80mm	Φ 19	ED3L-10A ED3L-1010A	Single phase / three phase AC 200V~240V	EC3P-N8520-□□	EC3P-N8620-□□	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3A-10ALA243	●						EC3P-B8520-□□	EC3P-B8620-□□	
	EM3A-10ATA223	-						EC3P-N8520-□□	EC3P-N8620-□□	
	EM3A-10ATA243	●						EC3P-B8520-□□	EC3P-B8620-□□	

EM3G | Medium inertia | 1500 r/min

Power	Motor model	Brake	Connector	Flange	Trunnion	Drive	Input power	Power cable	Encoder cable
850W	EM3G-09ATA224	-	Aviation Plug	130mm	Φ22	ED3L-10A ED3L-1010A	Single phase / three phase AC 200V~240V	EC3P-N9314-□□	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3G-09ATA244	●						EC3P-B9314-□□	
	EM3G-09ALA224	-	EC3P-N9314-□□						
	EM3G-09ALA244	●	EC3P-B9314-□□						
	EM3G-09DTA224	-	Aviation Plug			ED3L-10D	three phase AC 380V~440V	EC3P-N9314-□□	
	EM3G-09DTA244	●						EC3P-B9314-□□	
	EM3G-09DLA224	-						EC3P-N9314-□□	
	EM3G-09DLA244	●						EC3P-B9314-□□	
1.3kW	EM3G-13ATA224	-	Aviation Plug	130mm	Φ22	ED3L-15A	Single phase / three phase AC 200V~240V	EC3P-N9314-□□	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3G-13ATA244	●						EC3P-B9314-□□	
	EM3G-13ALA224	-	EC3P-N9314-□□						
	EM3G-13ALA244	●	EC3P-B9314-□□						
	EM3G-13DTA224	-	Aviation Plug			ED3L-15D	three phase AC 380V~440V	EC3P-N9314-□□	
	EM3G-13DTA244	●						EC3P-B9314-□□	
	EM3G-13DLA224	-						EC3P-N9314-□□	
	EM3G-13DLA244	●						EC3P-B9314-□□	
1.8kW	EM3G-18ATA224	-	Aviation Plug	130mm	Φ22	ED3L-20A	three phase AC 200V~240V	EC3P-N9314-□□	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3G-18ATA244	●						EC3P-B9314-□□	
	EM3G-18ALA224	-	EC3P-N9314-□□						
	EM3G-18ALA244	●	EC3P-B9314-□□						
	EM3G-18DTA224	-	Aviation Plug			ED3L-20D	three phase AC 380V~440V	EC3P-N9314-□□	
	EM3G-18DTA244	●						EC3P-B9314-□□	
	EM3G-18DLA224-N	-						EC3P-N9314-□□	
	EM3G-18DLA244-N	●						EC3P-B9314-□□	
2.9kW	EM3G-29DTA224 *	-	Aviation Plug	180mm	Φ35	ED3L-30D	three phase AC 380V~440V	EC3P-N8214-□□	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3G-29DTA244 *	●						EC3P-B8214-□□	
	EM3G-29DLA224-N	-						EC3P-N8214-□□	
	EM3G-29DLA244-N	●						EC3P-B8214-□□	
4.4kW	EM3G-44DTA224 *	-	Aviation Plug	180mm	Φ35	ED3L-50D	three phase AC 380V~440V	EC3P-N9212-□□	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3G-44DTA244 *	●						EC3P-B9212-□□	
	EM3G-44DLA224	-						EC3P-N9212-□□	
	EM3G-44DLA244	●						EC3P-B9212-□□	
5.5kW	EM3G-55DTA224 *	-	Aviation Plug	180mm	Φ42	ED3L-75D	three phase AC 380V~440V	EC3P-N9212-□□	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3G-55DTA244 *	●						EC3P-B9212-□□	
	EM3G-55DLA224	-						EC3P-N9212-□□	
	EM3G-55DLA244	●						EC3P-B9212-□□	
7.5kW	EM3G-75DTA224 *	-	Aviation Plug	180mm	Φ42	ED3L-75D	three phase AC 380V~440V	EC3P-N9211-□□	EC3S-A1924-□□ (Including battery) EC3S-I1924-□□ (No battery)
	EM3G-75DTA244 *	●						EC3P-B9211-□□	
	EM3G-75DLA224	-						EC3P-N9211-□□	
	EM3G-75DLA244	●						EC3P-B9211-□□	

EM3J | Medium inertia | 3000 r/min

EM3J | Medium inertia | 3000 r/min

Direct plug

Power	Motor model	Brake	Connector	Flange	Trunnion	Drive	Input power	Power cable	Encoder cable		
200W	EM3J-02ATA221	—	Standard wire	60mm	Φ14	Single axis ED3L-02A	Single phase  200V~240V	EC3P-N9118-□□ EC3P-B9118-□□ EC3P-N8120-□□ EC3P-B8120-□□	EC3S-A1124-□□ (Including battery)		
	EM3J-02ATA241	●						EC3S-I1124-□□ (No battery)			
	EM3J-02ATA222	—	Waterproof wire					EC3P-N9718-□□ EC3P-B9718-□□ EC3P-N8720-□□ EC3P-B8720-□□	EC3S-A1724-□□ (Including battery)		
	EM3J-02ATA242	●						EC3S-I1724-□□ (No battery)			
	EM3J-02ALA221	—	Standard wire			Dual axis ED3L-0404A		EC3P-N9118-□□ EC3P-B9118-□□ EC3P-N8120-□□ EC3P-B8120-□□	EC3S-A1124-□□ (Including battery)		
	EM3J-02ALA241	●						EC3S-I1124-□□ (No battery)			
	EM3J-02ALA222	—	Waterproof wire					EC3P-N9718-□□ EC3P-B9718-□□ EC3P-N8720-□□ EC3P-B8720-□□	EC3S-A1724-□□ (Including battery)		
	EM3J-02ALA242	●						EC3S-I1724-□□ (No battery)			
400W	EM3J-04ATA221	—	Standard wire	60mm	Φ14	Single axis ED3L-04A	Single phase / three phase AC  200V~240V	EC3P-N9118-□□ EC3P-B9118-□□ EC3P-N8120-□□ EC3P-B8120-□□	EC3S-A1124-□□ (Including battery)		
	EM3J-04ATA241	●						EC3S-I1124-□□ (No battery)			
	EM3J-04ATA222	—	Waterproof wire					EC3P-N9718-□□ EC3P-B9718-□□ EC3P-N8720-□□ EC3P-B8720-□□	EC3S-A1724-□□ (Including battery)		
	EM3J-04ATA242	●						EC3S-I1724-□□ (No battery)			
	EM3J-04ALA221	—	Standard wire			Dual axis ED3L-0404A		EC3P-N9118-□□ EC3P-B9118-□□ EC3P-N8120-□□ EC3P-B8120-□□	EC3S-A1124-□□ (Including battery)		
	EM3J-04ALA241	●						EC3S-I1124-□□ (No battery)			
	EM3J-04ALA222	—	Waterproof wire					EC3P-N9718-□□ EC3P-B9718-□□ EC3P-N8720-□□ EC3P-B8720-□□	EC3S-A1724-□□ (Including battery)		
	EM3J-04ALA242	●						EC3S-I1724-□□ (No battery)			
750W	EM3J-08ATA221	—	Standard wire	80mm	Φ19	ED3L-08A ED3L-1010A	Single phase / three phase AC  200V~240V	EC3P-N8118-□□	EC3S-A1124-□□ (Including battery)		
	EM3J-08ATA241	●						EC3P-B8118-□□	EC3S-I1124-□□ (No battery)		
	EM3J-08ATA222	—	Waterproof wire					EC3P-N8718-□□	EC3S-A1724-□□ (Including battery)		
	EM3J-08ATA242	●						EC3P-B8718-□□	EC3S-I1724-□□ (No battery)		
	EM3J-08ALA221	—	Standard wire			EC3P-N8118-□□		EC3S-A1124-□□ (Including battery)			
	EM3J-08ALA241	●				EC3P-B8118-□□		EC3S-I1124-□□ (No battery)			
	EM3J-08ALA222	—	Waterproof wire			EC3P-N8718-□□		EC3S-A1724-□□ (Including battery)			
	EM3J-08ALA242	●				EC3P-B8718-□□		EC3S-I1724-□□ (No battery)			
1.0kW	EM3J-10ATA221	—	Standard wire	80mm	Φ19	ED3L-10A ED3L-1010A	Single phase / three phase AC  200V~240V	EC3P-N8118-□□	EC3S-A1124-□□ (Including battery)		
	EM3J-10ATA241	●						EC3P-B8118-□□		EC3S-I1124-□□ (No battery)	
	EM3J-10ALA221	—	Standard wire					ED3L-10D ED3L-15D	three phase AC  380V~440V		EC3P-N8118-□□
	EM3J-10ALA241	●								EC3P-B8118-□□	EC3S-I1124-□□ (No battery)
	EM3J-10DTA221 *	—	Standard wire			ED3L-10D ED3L-15D	three phase AC  380V~440V			EC3P-N8118-□□	
	EM3J-10DTA241 *	●								EC3P-B8118-□□	EC3S-I1124-□□ (No battery)
	EM3J-10DLA221 *	—						EC3P-N8118-□□	EC3S-I1124-□□ (No battery)		
	EM3J-10DLA241 *	●						EC3P-B8118-□□			

Power	Motor model	Brake	Connector	Flange	Trunnion	Drive	Input power	Power cable		Encoder cable
								Front outlet method	Rear outlet method	
200W	EM3J-02ALA223	-	Direct plug	60mm	Φ 14	Single axis ED3L-02A	Single phase AC 200V~240V (ED3L Single axis)	EC3P-N9520-□□ Single axis	EC3P-N9620-□□ Single axis	Front outlet method: EC3S-A1522-□□ (Including battery) EC3S-I1522-□□ (No battery)  Rear outlet method: EC3S-A1622-□□ (Including battery) EC3S-I1622-□□ (No battery)
	EM3J-02ALA243	●						EC3P-N8520-□□ Dual axis	EC3P-N8620-□□ Dual axis	
	EM3J-02ATA223	-				Dual axis ED3L-0404A		EC3P-B9520-□□ Single axis	EC3P-B9620-□□ Single axis	
								EC3P-B8520-□□ Dual axis	EC3P-B8620-□□ Dual axis	
400W	EM3J-04ALA223	-	Direct plug	60mm	Φ 14	Single axis ED3L-04A	Single phase AC 200V~240V (ED3L Single axis)	EC3P-N9520-□□ Single axis	EC3P-N9620-□□ Single axis	
	EM3J-04ALA243	●						EC3P-N8520-□□ Dual axis	EC3P-N8620-□□ Dual axis	
	EM3J-04ATA223	-				Dual axis ED3L-0404A		EC3P-B9520-□□ Single axis	EC3P-B9620-□□ Single axis	
								EC3P-B8520-□□ Dual axis	EC3P-B8620-□□ Dual axis	
750W	EM3J-08ALA223	-	Direct plug	80mm	Φ 19	ED3L-08A ED3L-1010A	Single phase /three phase AC 200V~240V	EC3P-N8520-□□	EC3P-N8620-□□	
	EM3J-08ALA243	●						EC3P-B8520-□□	EC3P-B8620-□□	
	EM3J-08ATA223	-						EC3P-N8520-□□	EC3P-N8620-□□	
								EC3P-B8520-□□	EC3P-B8620-□□	
1.0KW	EM3J-10ALA223	-	Direct plug	80mm	Φ 19	ED3L-10A ED3L-1010A	Single phase /three phase AC 200V~240V	EC3P-N8520-□□	EC3P-N8620-□□	
	EM3J-10ALA243	●						EC3P-B8520-□□	EC3P-B8620-□□	
	EM3J-10ATA223	-						EC3P-N8520-□□	EC3P-N8620-□□	
								EC3P-B8520-□□	EC3P-B8620-□□	



# EM3L | High inertia | 1000 r/min

## Aviation plug

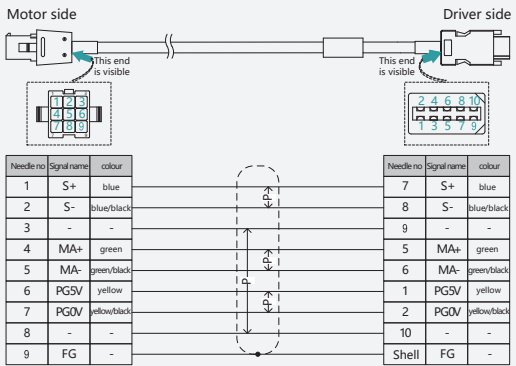
Power	Motor model	Brake	Connector	Flange	Trunnion	Drive	Input power	Power cable	Encoder cable
1kW	EM3L-10DLA224	-	Aviation Plug	130mm	φ22	ED3L-10D	Three phase AC 380V~440V	EC3P-N9314-□□	EC3S-A1924-□□ (Including battery)
	EM3L-10DLA244	●						EC3P-B9314-□□	EC3S-I1924-□□ (No battery)
	EM3L-10DTA224	-	Aviation Plug					EC3P-N9314-□□	EC3S-A1924-□□ (Including battery)
	EM3L-10DTA244	●						EC3P-B9314-□□	EC3S-I1924-□□ (No battery)
2kW	EM3L-20DLA224	-	Aviation Plug	180mm	φ35	ED3L-20D	Three phase AC 380V~440V	EC3P-N9212-□□	EC3S-A1924-□□ (Including battery)
	EM3L-20DLA244	●						EC3P-B9212-□□	EC3S-I1924-□□ (No battery)
	EM3L-20DTA224	-	Aviation Plug					EC3P-N9212-□□	EC3S-A1924-□□ (Including battery)
	EM3L-20DTA244	●						EC3P-B9212-□□	EC3S-I1924-□□ (No battery)
3kW	EM3L-30DLA224	-	Aviation Plug	180mm	φ35	ED3L-30D	Three phase AC 380V~440V	EC3P-N9212-□□	EC3S-A1924-□□ (Including battery)
	EM3L-30DLA244	●						EC3P-B9212-□□	EC3S-I1924-□□ (No battery)
	EM3L-30DTA224	-	Aviation Plug					EC3P-N9212-□□	EC3S-A1924-□□ (Including battery)
	EM3L-30DTA244	●						EC3P-B9212-□□	EC3S-I1924-□□ (No battery)
4kW	EM3L-40DLA224	-	Aviation Plug	180mm	φ42	ED3L-50D	Three phase AC 380V~440V	EC3P-N9211-□□	EC3S-A1924-□□ (Including battery)
	EM3L-40DLA244	●						EC3P-B9211-□□	EC3S-I1924-□□ (No battery)
	EM3L-40DTA224	-	Aviation Plug					EC3P-N9211-□□	EC3S-A1924-□□ (Including battery)
	EM3L-40DTA244	●						EC3P-B9211-□□	EC3S-I1924-□□ (No battery)

- Note:
- 1、“-” Represents a model without brakes, ●Indicates a model with brakes,
  - 2、Encoder cable with battery is selected by default, If there is no absolute demand, You can select the battery free cable model,
  - 3、□□ in the cable model indicates the length.Standard length: 1M5(1.5m), 03(3m), 05(5m), 08(8m), 10(10m), 12(12m), 15(15m), 20(20m), Flexible cables are optional, marked with -Rx. For example, the model of EC3P-N9118-03 flexible cable is EC3P-N9118-RX-03. Optional shielded cable, unmarked with "-SS".
  - Example: EC3P-N9118-03 Shielded cable model: EC3P-N9118-SS-03.
  - 4、The selection of I / O plug is determined by the driver: EtherCAT / PN driver product: 26 pin plug (sm-26J).Pulse driver products :50-pin plug (SM-50J),
  - 5、Optional debugging cable model: USB communication cable MINI USB- double magnetic ring shielding -1M5,
  - 6、Optional communication cable model: DK-HSB-RJ45-CAT5E-XX,
  - 7、“T” encoder add “\*” stand for on developing,
  - 8、“L” encoder , choose suffix with "-N" motor types,

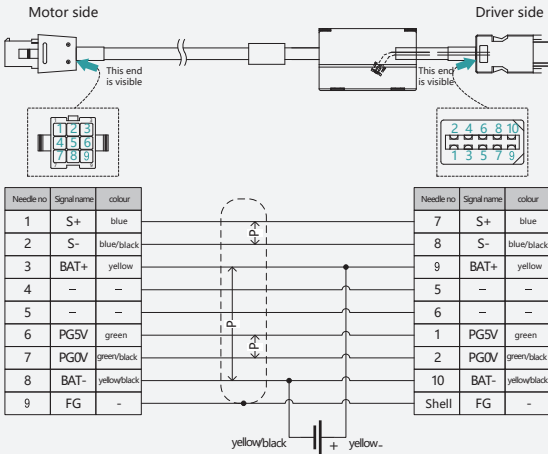
# 06 Accessories

## Encoder cable

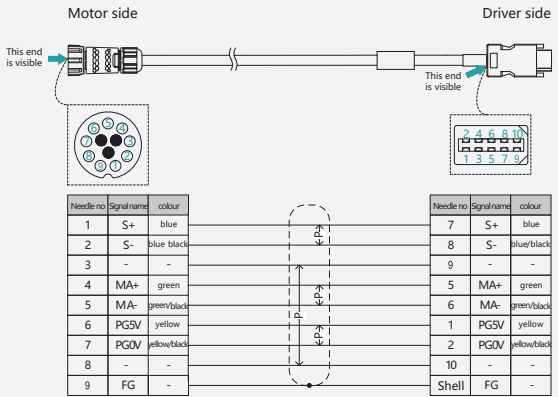
### EC3S-I1124-□□ (Incremental)



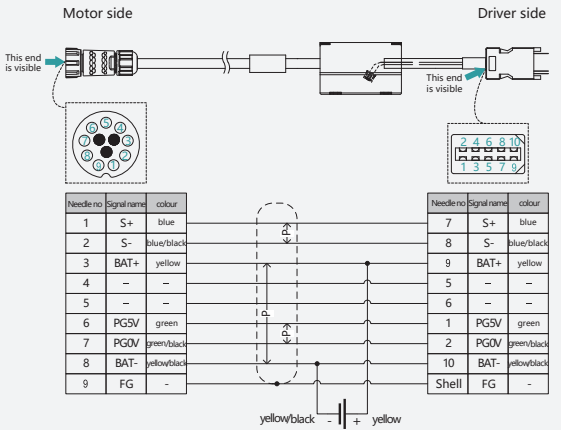
### EC3S-A1124 - □□ (Absolute value)



### EC3S-I1724-□□ (Incremental, IP67 plug)

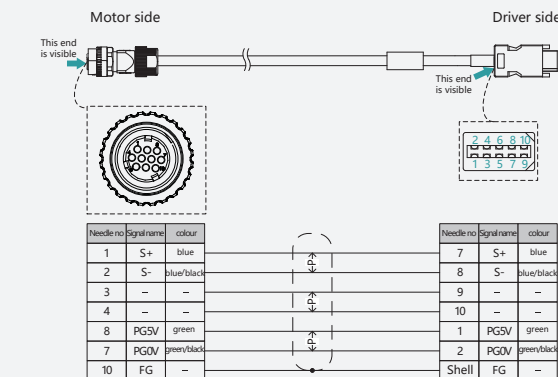


### EC3S-A1724-□□ (Absolute value, IP67 plug)

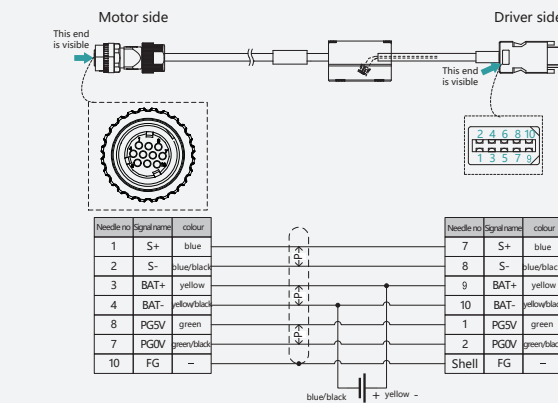


## Power cable

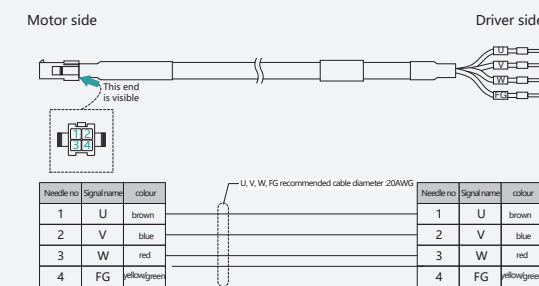
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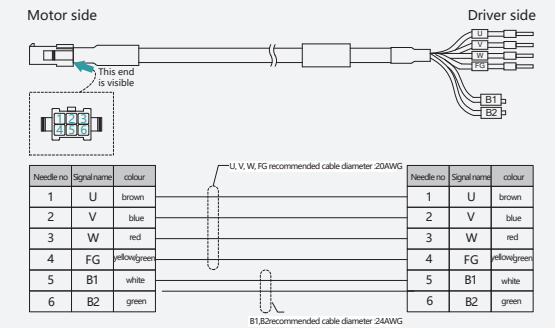
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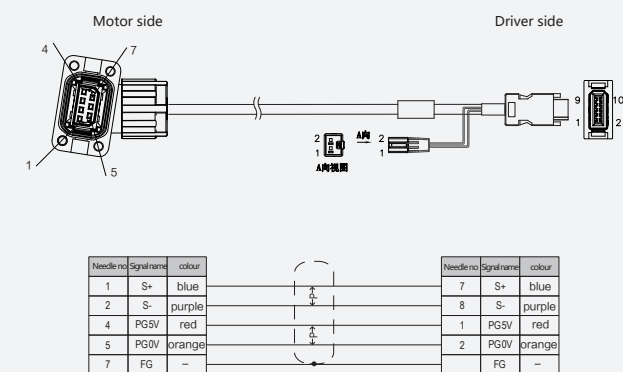
EC3P-N9118-□□ (No brake)



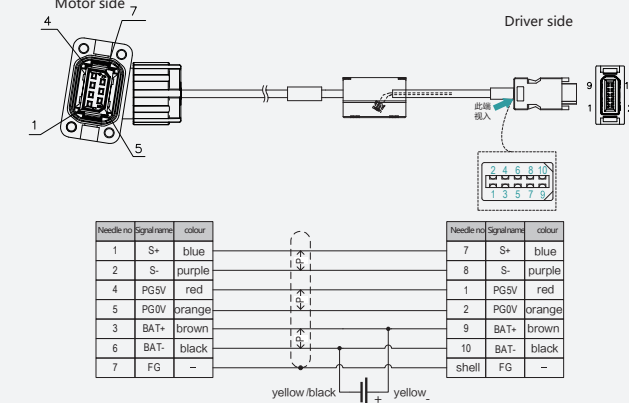
EC3P-B9118-□□ (With brake)



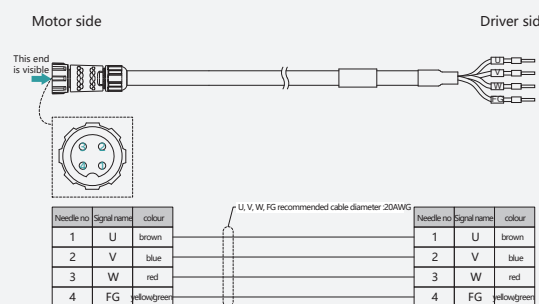
EC3S-I1522-□□ (Incremental, Front outlet method)



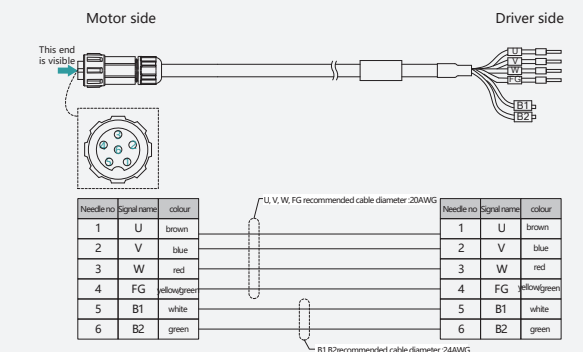
EC3S-A1522-□□ (Absolute value, Front outlet method)



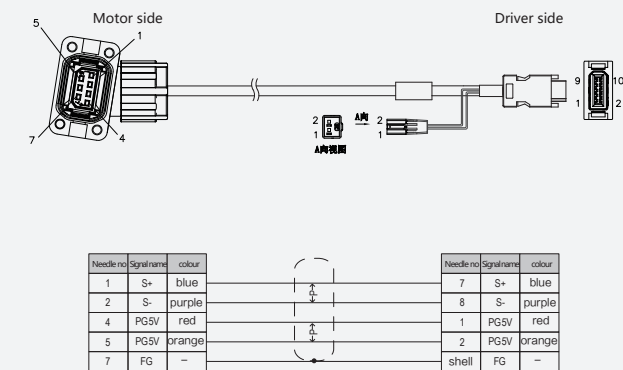
EC3P-N9718-□□ (No brake, IP67 plug)



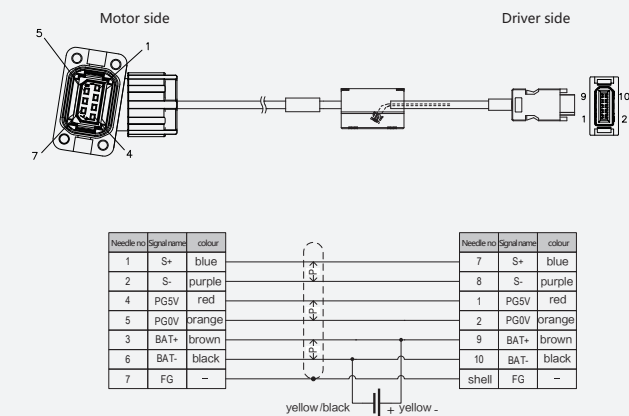
EC3P-B9718-□□ (With brake, IP67 plug)



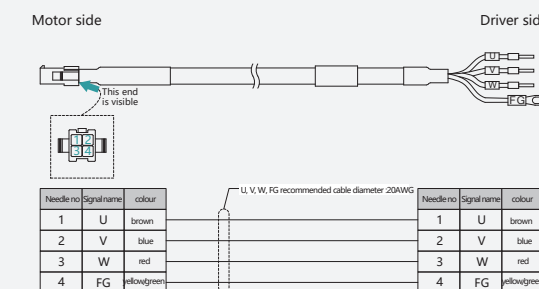
EC3S-I1622-□□ (Incremental, Rear outlet method)



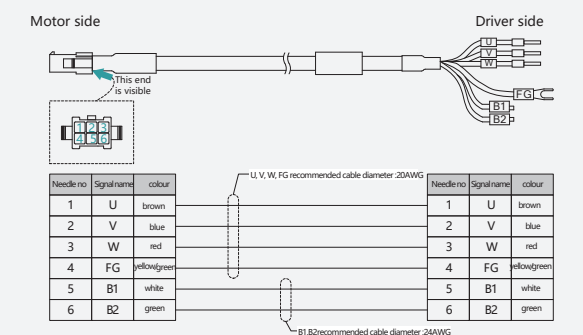
EC3S-A1622-□□ (Absolute value, Rear outlet method)



EC3P-N8118-□□ (No brake)

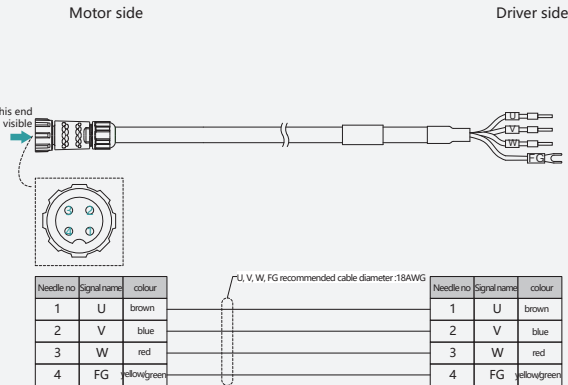


EC3P-B8118-□□ (With brake)

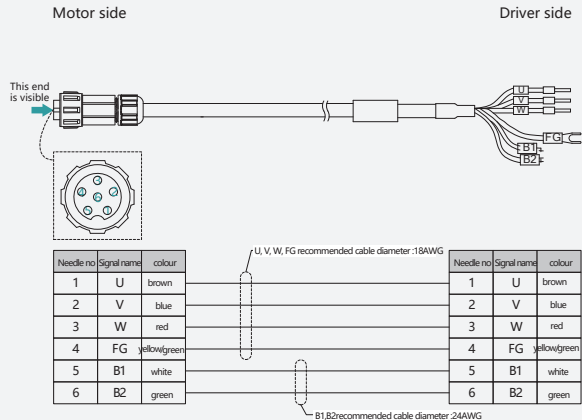


# Power cable

EC3P-N8718-□□ (No brake, IP67 plug)

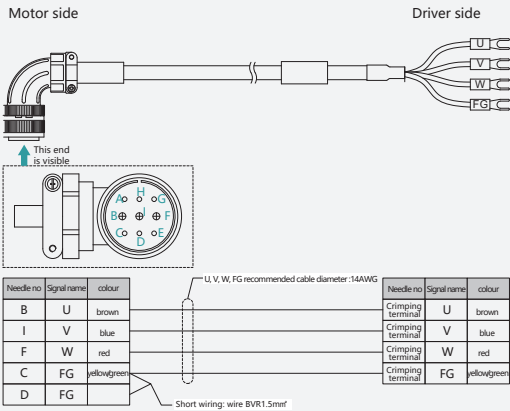


EC3P-B8718-□□ (With brake, IP67 plug)

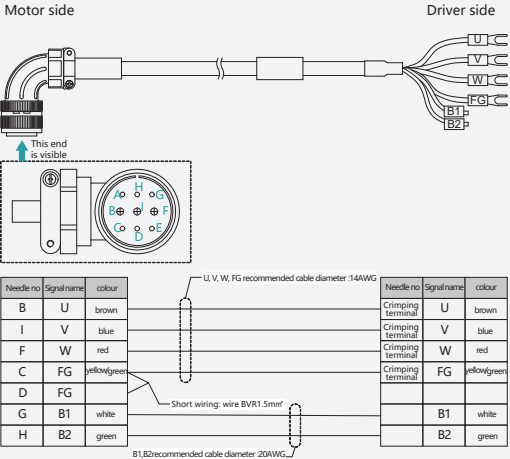


# Power cable

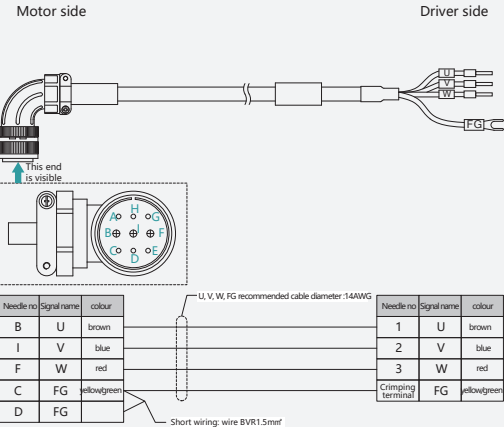
EC3P-N9319-□□ (No brake, IP67 plug)



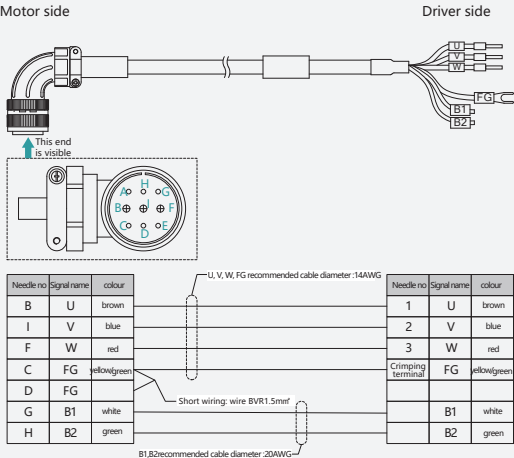
EC3P-B9319-□□ (With brake, IP67 plug)



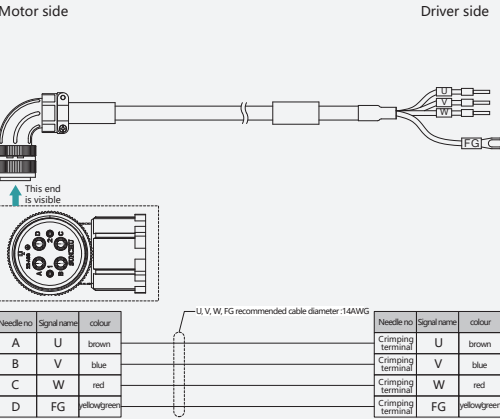
EC3P-N9314-□□ (No brake, IP67 plug)



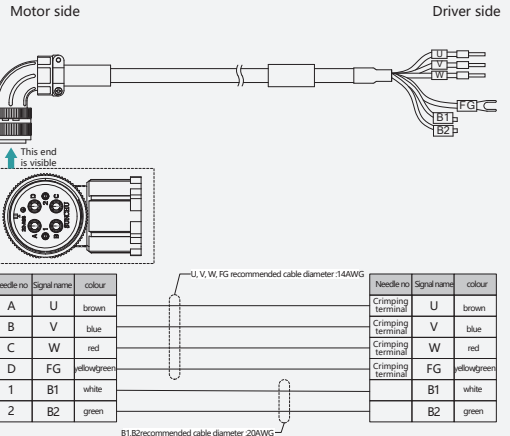
EC3P-B9314-□□ (With brake, IP67 plug)



EC3P-N8214-□□ (No brake, IP67 plug)



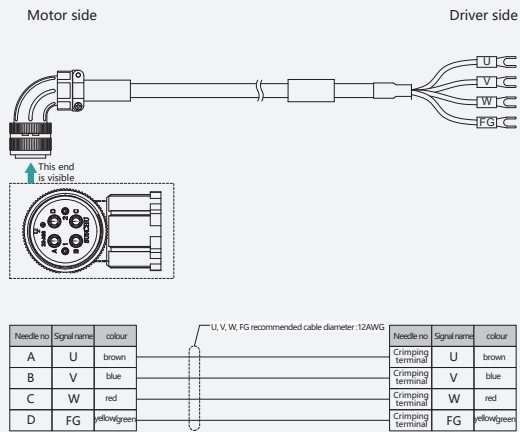
EC3P-B8214-□□ (With brake, IP67 plug)



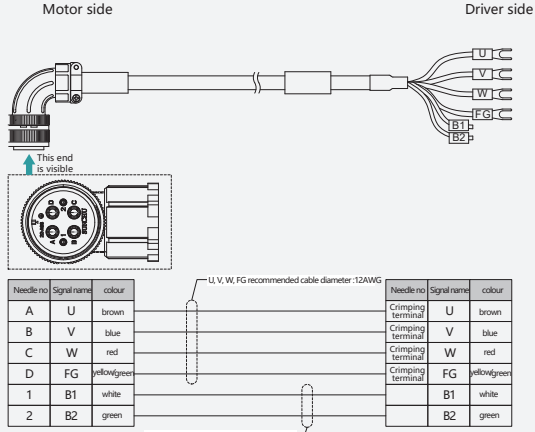


# Power cable

EC3P-N9212-□□ (No brake, IP67 plug)

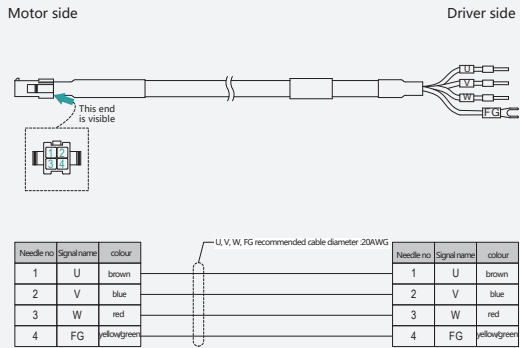


EC3P-B9212-□□ (With brake, IP67 plug)

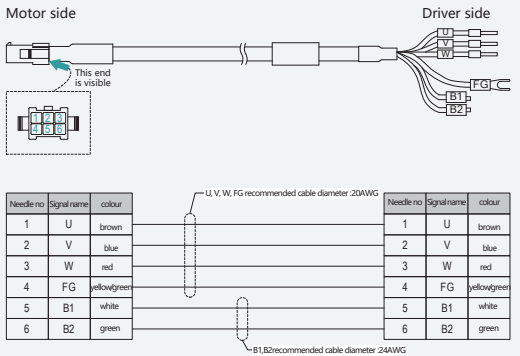


# Power cable

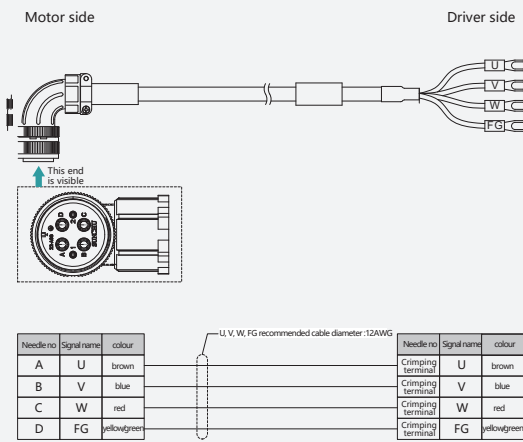
EC3P-N8120-□□ (No brake)



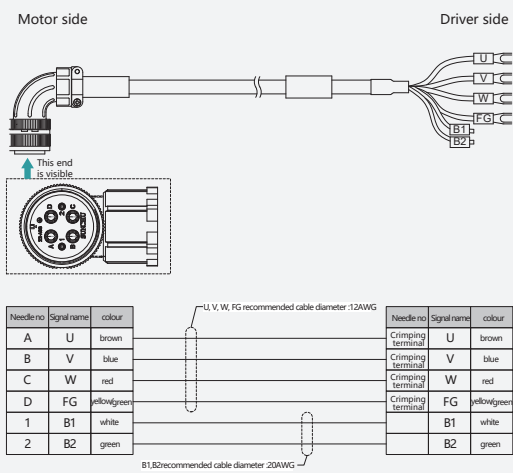
EC3P-B8120-□□ (With brake)



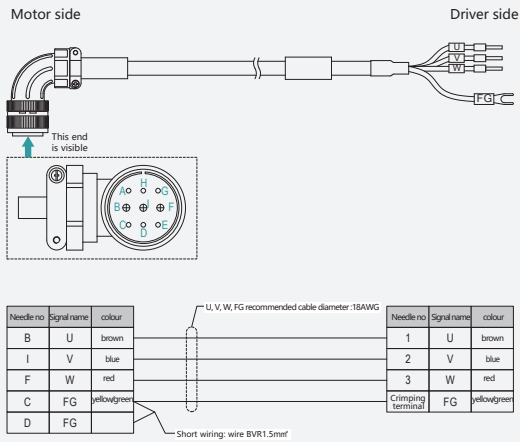
EC3P-N9211-□□ (No brake, IP65 plug)



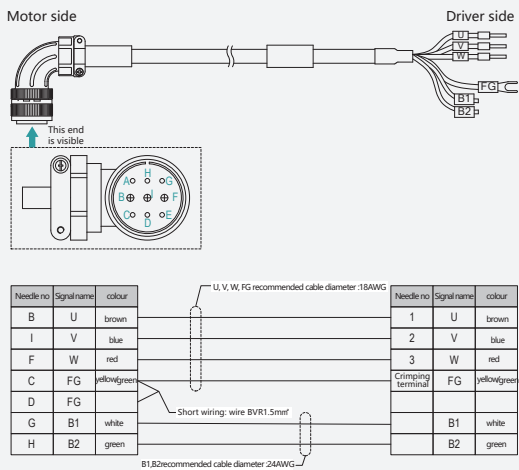
EC3P-B9211-□□ (With brake, IP65 plug)



EC3P-N9318-□□ (No brake, IP67 plug)

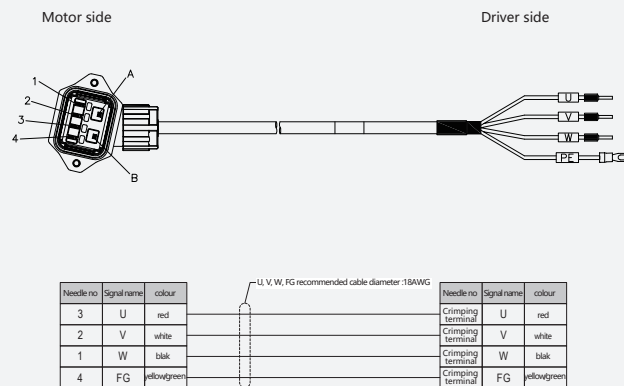


EC3P-B9318-□□ (With brake, IP67 plug)

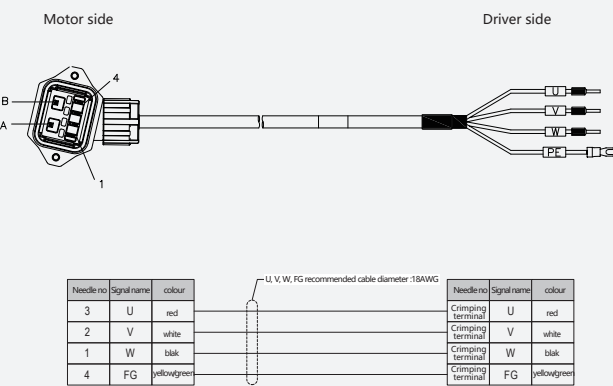


# Power cable

EC3P-N8520-□□ ( No brake, Front outgoing line )

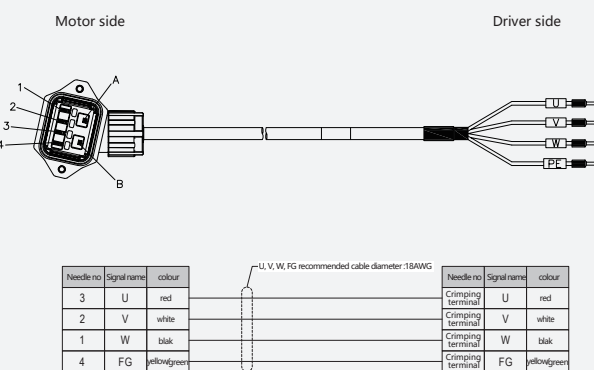


EC3P-N8620-□□ ( No brake, Rear outgoing line )

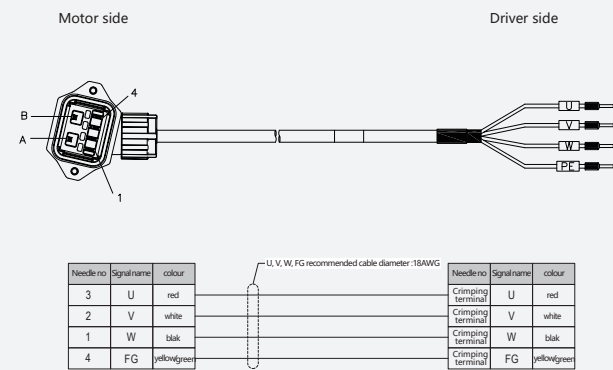


# Power cable

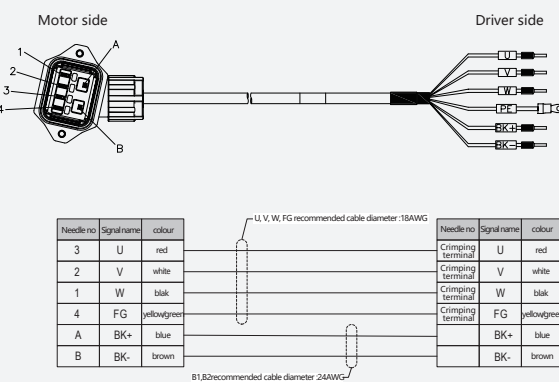
EC3P-N9520-□□ ( No brake, Front outgoing line )



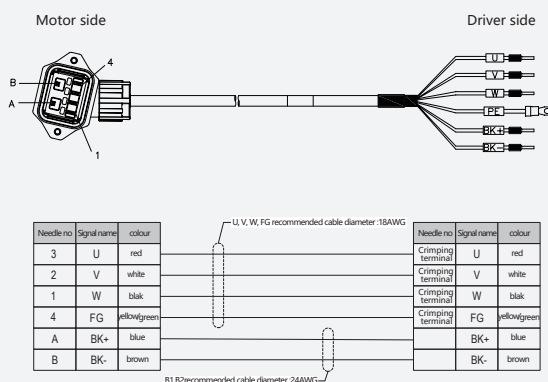
EC3P-N9620-□□ ( No brake, Rear outgoing line )



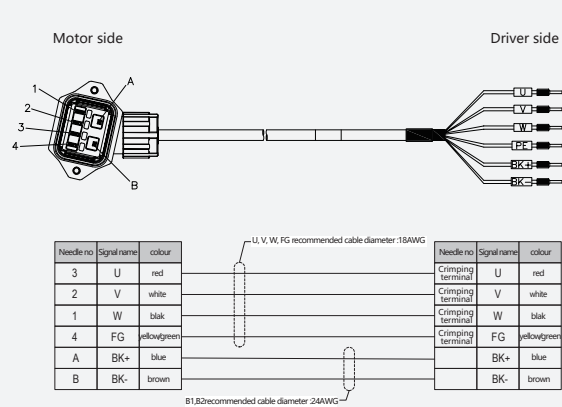
EC3P-B8520-□□ ( With brake, Front outgoing line )



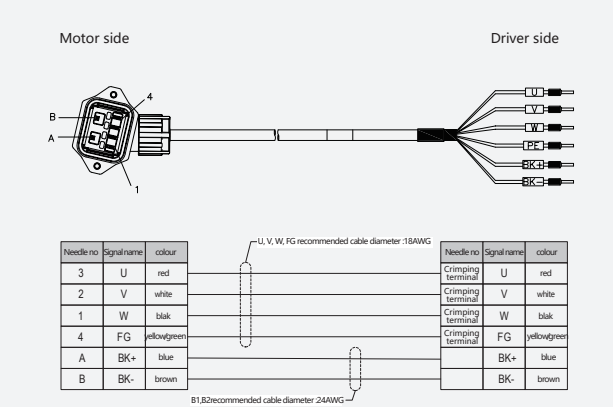
EC3P-B8620-□□ ( With brake, Rear outgoing line )



EC3P-B9520-□□ ( With brake, Front outgoing line )



EC3P-B9620-□□ ( With brake, Rear outgoing line )

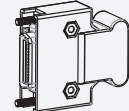
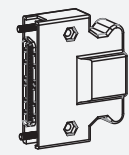
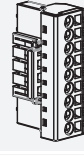

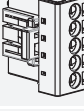
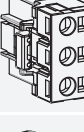
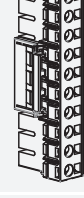
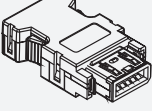


## Peripheral specifications

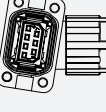
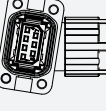
Driver	Main circuit voltage	Built-in regenerative resistor specification	Minimum external regenerative resistance	Minimum current of circuit breaker
ED3L-A5A	Single phase AC 200V~240V	-	45Ω	4A (Single phase)
ED3L-01A	Single phaseAC 200V~240V	-	45Ω	4A (Single phase)
ED3L-02A	Single phaseAC 200V~240V	-	45Ω	4A (Single phase)
ED3L-04A	Single phaseAC 200V~240V	-	45Ω	4A (Single phase)
ED3L-08A	Single phase/three phaseAC 200V~240V	50Ω / 60W	25Ω	10A (Single phase) / 6A (three phase)
ED3L-10A	Single phase/three phaseAC 200V~240V	50Ω / 60W	25Ω	16A (Single phase) / 6A (three phase)
ED3L-15A	Single phase/three phaseAC 200V~240V	40Ω / 80W	25Ω	20A (Single phase) / 16A (three phase)
ED3L-20A	three phaseAC 200V~240V	40Ω / 80W	25Ω	16A (three phase)
ED3L-10D	three phaseAC 380V~440V	100Ω / 80W	65Ω	4A (three phase)
ED3L-15D	three phaseAC 380V~440V	100Ω / 80W	65Ω	6A (three phase)
ED3L-20D	three phaseAC 380V~440V	50Ω / 80W	40Ω	10A (three phase)
ED3L-30D	three phaseAC 380V~440V	50Ω / 80W	40Ω	16A (three phase)
ED3L-50D	three phaseAC 380V~440V	35Ω / 80W	20Ω	20A (three phase)
ED3L-75D	three phaseAC 380V~440V	35Ω / 80W	20Ω	25A (three phase)
ED3L-0404A	Single phase/three phaseAC 200V~240V	50Ω / 60W	45Ω	10A (Single phase) / 6A (three phase)
ED3L-1010A	Single phase/three phaseAC 200V~240V	40Ω / 80W	25Ω	20A (Single phase) / 16A (three phase)

## Other accessories

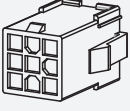
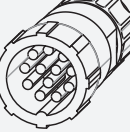
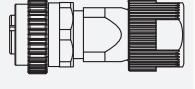
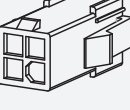
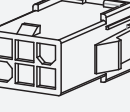
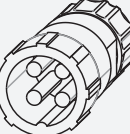
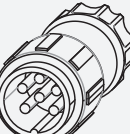


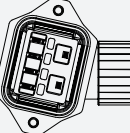
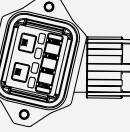
### Servo drive side

Name	Illustration	Involving
IO plug SM-26J		ED3L bus driver (EtherCAT or Profinet)
IO plug SM-50J		ED3L pulse driver
Main circuit terminal Straight type, 9 pin,10A		ED3L driver (200VAC, 0.05kW ~ 0.4kW)
Main circuit terminal Straight type, 6pin,20A		ED3L driver (200VAC, 0.75kW ~ 2kW)
Control loop terminal Straight type, 5pin, 14.5A		ED3L driver (200VAC, 0.75kW ~ 2kW)
Motor power terminal Straight type, 3pin, 20A		ED3L driver (0.75kW ~ 3kW)
Main loop terminal Straight type, 10pin, 32A		ED3L driver (400VAC, 1kW ~ 3kW)
Encoder plug (SM-10P-B)		All drives

### Servo motor side

Name	Illustration	Involving
Encoder plug (Direct plug,7pin, Front outgoing line)		EM3A motor(0.05kW ~ 1.0kW) EM3J motor (0.2kW~ 1.0kW) EC3S- A1522-XX EC3S- I1522-XX
Encoder plug (Direct plug,7pin, Rear outgoing line)		EM3A motor(0.05kW ~ 1.0kW) EM3J motor (0.2kW~ 1.0kW) EC3S- A1622-XX EC3S- I1622-XX

### Servo motor side

Name	Illustration	Involving
Encoder plug (Standard wire)		EM3A motor(0.05kW ~ 1kW) EM3J motor EC3S-I1124-XX EC3S-A1124-XX
Encoder plug (Waterproof wire)		EM3A motor(0.05kW ~ 1kW) EM3J motor EC3S-I1724-XX EC3S-A1724-XX
Encoder plug (Straight type, 10pin,3A)		EM3A motor(1.5kW ~ 5kW) EM3G motor EC3S-A1924-XX EC3S-I1924-XX
Motor power plug (No brake, wire)		EM3A motor(0.05kW ~ 1kW) EM3J motor EC3P-N9118-XX EC3P-N8118-XX
Motor power plug (With brake, wire)		EM3A motor(0.05kW ~ 1kW) EM3J motor EC3P-B9118-XX EC3P-B8118-XX
Motor power plug (No brake, Waterproof wire)		EM3A motor(0.05kW ~ 1kW) EM3J motor EC3P-N9718-XX EC3P-N8718-XX
Motor power plug (With brake, Waterproof wire)		EM3A motor(0.05kW ~ 1kW) EM3J motor EC3P-B9718-XX EC3P-B8718-XX
Motor power plug (Bending type, 9pin,13A+23A)		EM3G motor(0.85kW ~ 1.8kW) EM3A motor(1.5kW~5.0kW) EC3P- □9314-XX EC3P- □9319-XX
Motor power plug (Bending type, 6pin,13A+46A)		EM3G motor(2.9kW ~ 7.5kW) EC3P- □8214-XX EC3P- □9212-XX EC3P- □9211-XX
Motor power plug (Direct plug, 6pin, Front outgoing line)		EM3A motor(0.05kW ~ 1.0kW) EM3J motor (0.2kW~ 1.0kW) EC3P- □8520-XX EC3P- □9520-XX
Motor power plug (Direct plug, 6pin, Rear outgoing line)		EM3A motor(0.05kW ~ 1.0kW) EM3J motor (0.2kW~ 1.0kW) EC3P- □8620-XX EC3P- □9620-XX