

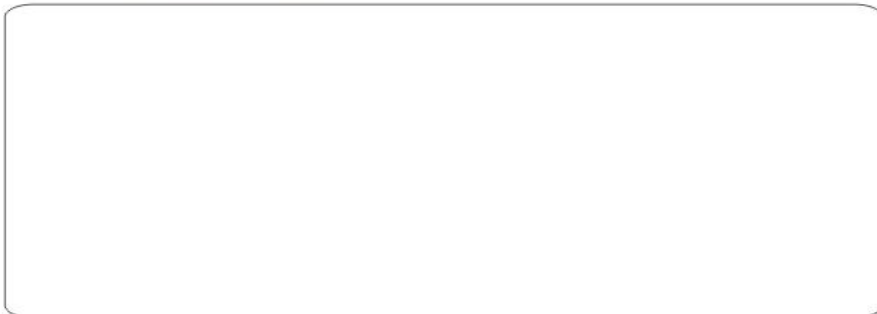
Department and the points of sales:

Malaysia	Kuala Lumpur	Philippines	Manila
Thailand	Bangkok	Lebanon	Beirut
Israel	Tel Aviv	Turkey	Istanbul
Vietnam	Ho Chi Minh City	Egypt	Cairo
India	Ahmedabad	Chile	Santiago
Russia	Moscow	Iran	Teheran
Brazil	St. Paul	South Africa	

Manufacture • sales

TECORP TECHNOLOGY

Sales & Service Address:



ADD: 3F-3, No. 12 Lane 609, Sec 5, ChungHsin Rd., Sanchung City, Taipei
 Hsien 24159, Taiwan(R.O.C)
 TEL: +886-2-2999-1466
 FAX: +886-2-2999-2691
 WEB: www.tecorp-group.com.tw

EPS SERIES AC SERVO SYSTEM

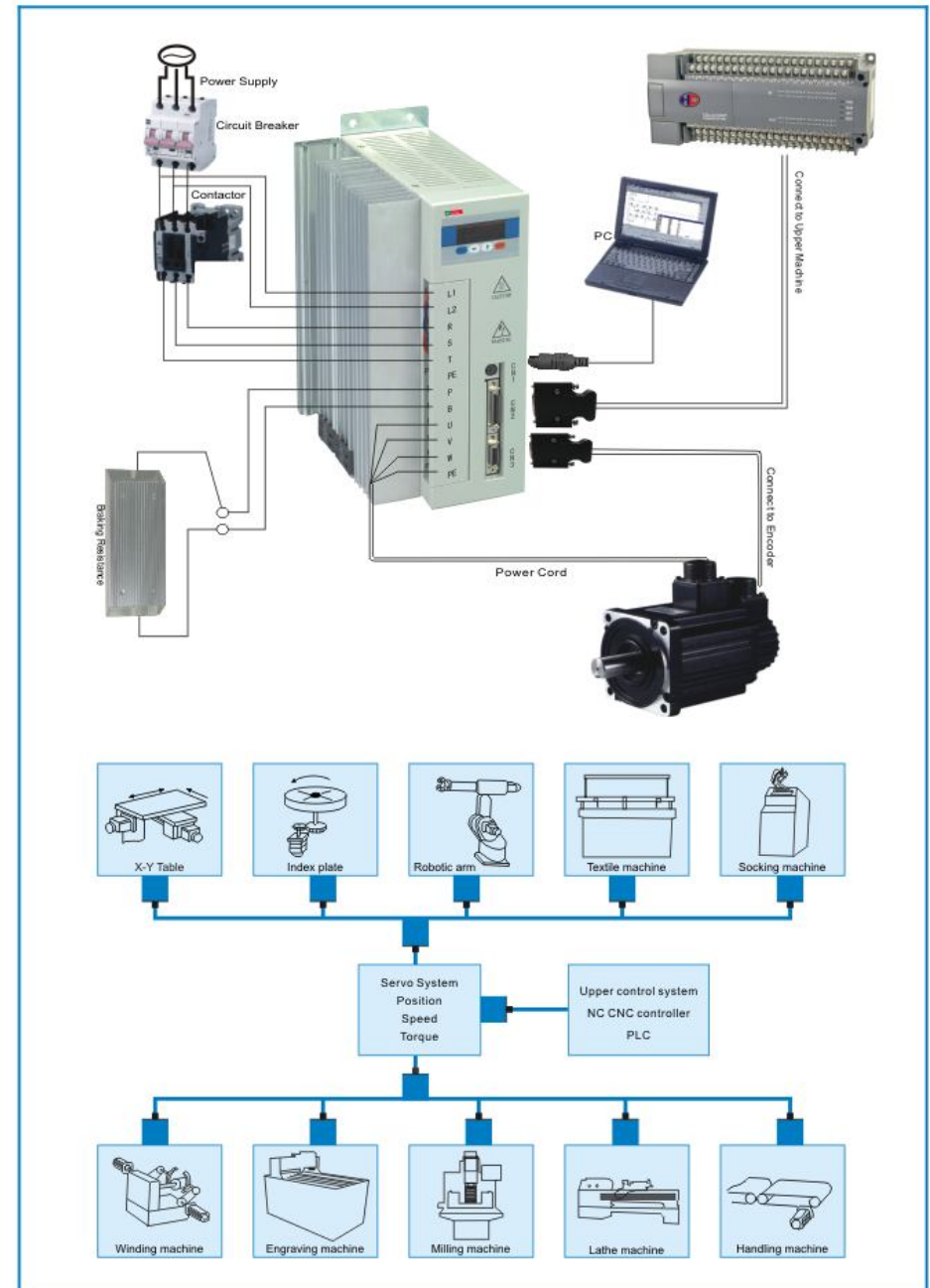


TECORP TECHNOLOGY
 www.tecorp-group.com.tw

Introduction

In factory automation field, Tecorp Company goes forward to digitization trend, integrated system and accuracy function in order to agree with various requirements at customer side.

This company has their own engineers with maintenance and service, which has always been promoting the latest products & technique for over ten years. In China, the company sets up more than 10 sales & service points in Guangzhou Center. We have the maintenance ability and complete sale network to obtain good appreciation from customers. We wish to create better efficiency and wonderful view in the future.

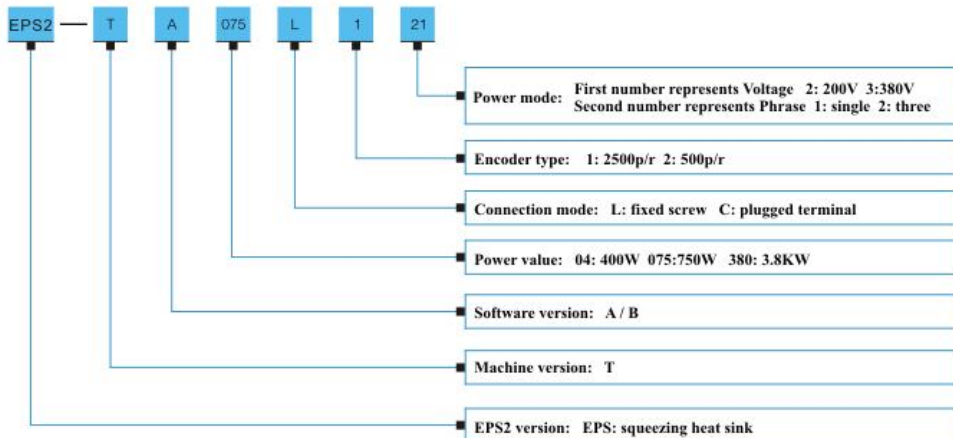


EPS2 series has 0.2KW ~ 7.5KW range of power in the wide application of lathe, milling, textile, processing machine, printing machine and packaging machine and conveying machine, etc.

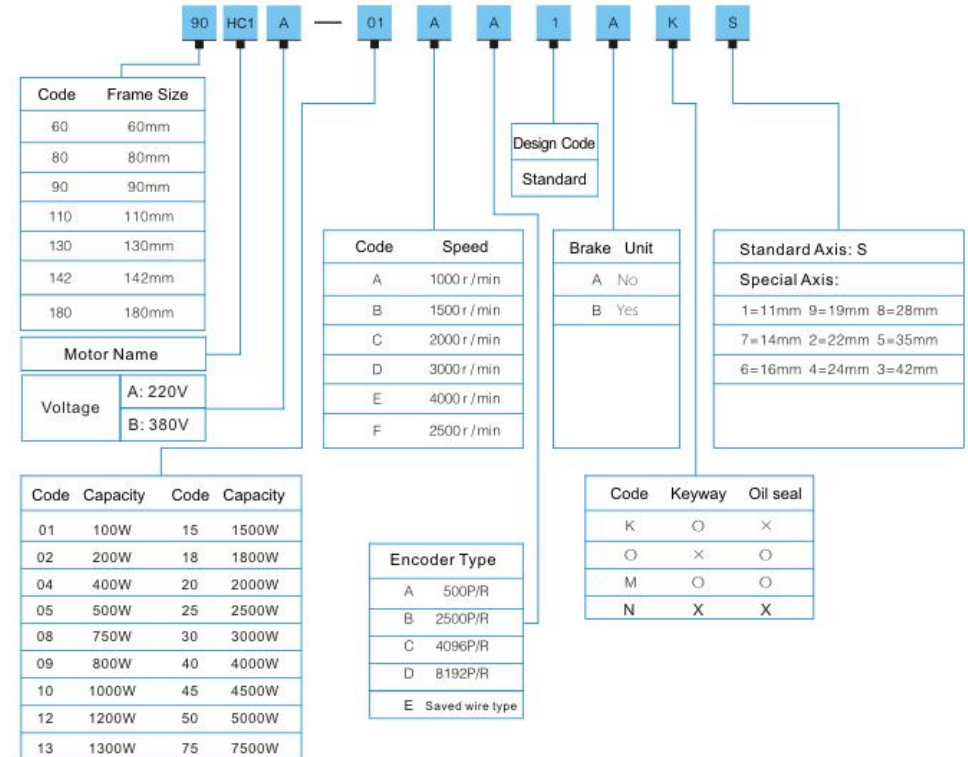
Features

- 1.Substantial array circuits
- 2.The latest IPM module
- 3.Simple operation with 4 buttons
- 4.Display 24-status on the monitor function
- 5.RS 485 and RS232 communication Modbus port
- 6.Control modes of pulse position, analog speed and torque.
- 7.Positioning magnification command (Electronic gear input / output)
- 8.Concise outline and compact structure

Servo Drive Description



1: Model code explanation



2. Model Code Description

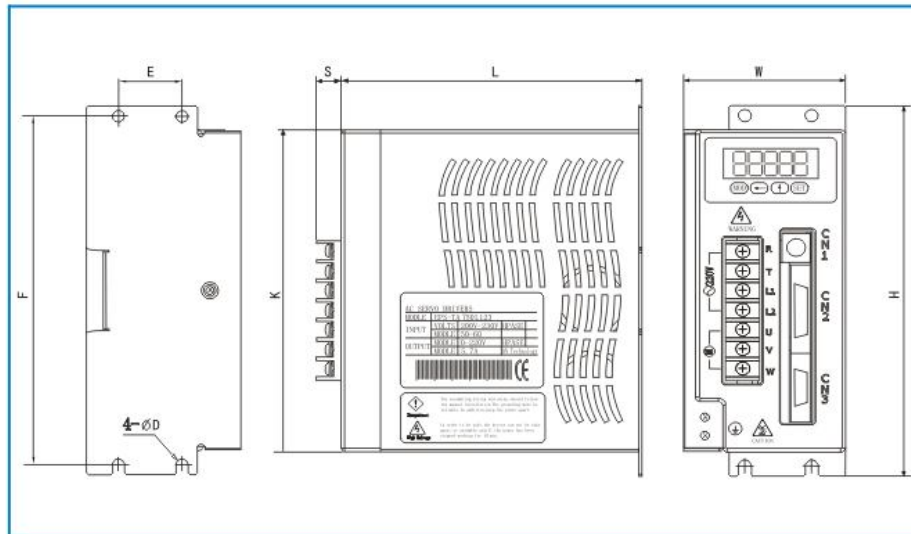
For example:

If you want 130 mm of frame size, 220 V of power, 1000 W of capacity, 2000 rpm of rated speed, with a braking unit and key way & oil seal, and also the encoder installed in increment 2500 P/R,

the model code will be 130HC1A-10CB1BMS

2500P/R without a braking unit

Voltage	KW	L	W	H	S	K	E	F	D
220V	0.2~0.75KW	139.5	75.1	183	11.5	159	31	173	6
	1.0~2.0KW	191.7	96	190	10.5	162	30	176	6
	2.5~5.5KW	201.9	117.1	277	0	242	50	261	6
380V	1.0~2.5KW	202	100.5	197.4	0	170	30	183.4	6
	3.0~7.5KW	201	117.1	277	0	242	50	261	6



Model:EPS2 -TA__L121/L123	020	040	075	100	120	150	200	270	300	400	450	500	550													
Power	Power Voltage/Frequency													AC 220V 50/60Hz												
	Rated Voltage													-15% ~ +10%												

Model:EPS2 -TA__L143	100	120	150	200	270	300	370	400	450	500	550	750												
Power	Power Voltage/Frequency												AC 380V 50/60Hz											
	Rated Voltage												-15% ~ +10%											
Cooling mode													Nature cooling/ Fan cooling											
Encoder resolution													2500PPR/10000PPR											
Main circuit mode													SVPWM											
Operation mode													Manual/Simple/Automatic											
Position Mode	Max ratio of input pulse												Differential mode: 500KPPS One way mode: 200KPPS											
	Pulse command mode												Pulse + Direct; A phase + B phase; CCW pulse + CW pulse											
	Command control mode												External pulse control/Internal control											
	Electronic gear ratio												Setting range: 1/100 ≤ G ≤ 100											
	Torque limit												By parameter setting											
Speed Mode	Feedback compensation												By parameter setting											
	Voltage												-10 ~ +10VDC											
	Input impedance												10KΩ											
	Time constant												2.2μs											
	Speed control range												1:3000											
	Command control range												External analog command control/Internal register control											
	Torque limit												By parameter setting or analog input											
	Bandwidth												≥300HZ											
	Speed calibration ratio												Rated change of external load (0 ~ 100%) Max: 0.02% Power + 10% of variation Max: 0.03% Environmental temperature: 0 ~ 50°C Max: 0.03%											
	Torque Mode	Voltage												-10 ~ +10VDC										
Input impedance												10KΩ												
Time constant												2.2μs												
Overload acceptable time												1: 5000												
Command control mode												External analog command control/Internal register control												
Command smooth mode												Low passed smooth filter												
Speed limit												By parameter setting or analog output												
Digital Input/output	Analog digital monitor												By parameter setting to monitor signal											
	input												Servo enable, Alarm clear, Setting bias counter to zero, Command pulse prohibition, CCW drive prohibition, Control mode, Zero speed clamping											
	output												A, B, Z differential output Getting servo ready, Servo run, Zero speed detection, Speed arrival, Position arrival, Torque limit, Servo alarm output, Brake control output, Positioning pulse output											
Protection function													Over current, Over voltage, Lack load, Over heat, Over load, Z pulse loss, EEPOM parameter wrong, Over process											
Communication interface													RS-232/RS-485											
Condition	Temperature in usage/storage												0 ~ 55°C/-20°C ~ 85°C											
	Humidity in usage/storage												Less than 90%RH (without dew)											
	Impact load												Less than 0.5G (4.9m/s ²), 10 ~ 60Hz (non-continuity)											

Servo Drive & Servo Motor Correspondence Form 1

EPS2 Series Drive for the Motor (220V)

Drive Code	Motor Code	Capacity (kw)	Speed (rpm)	Torque (N.M)
EPS2-TA020L121	60HC1A-02DB1AKS	0.2	3000	0.64
EPS2-TA040L121	60HC1A-04DB1AKS	0.4	3000	1.27
	80HC1A-05DB1AKS	0.4	3000	1.59
	90HC1A-05DB1AMS	0.5	3000	1.91
	110HC1A-04CB1AKS	0.4	2000	1.59
	130HC1A-06AB1AMS	0.6	1000	5.73
EPS2-TA075L121	80HC1A-08DB1AKS	0.8	3000	2.37
	80HC1A-08CB1AKS	0.8	2000	3.5
	90HC1A-08DB1AKS	0.8	3000	2.37
	90HC1A-08CB1AKS	0.8	2000	3.5
	110HC1A-09CB1AMS	0.9	2000	3.8
EPS2-TA100L123	80HC1A-10DB1AKS	1.0	3000	3.18
	90HC1A-10DB1AKS	1.0	3000	3.18
	130HC1A-10DB1AMS	1.0	3000	3.18
	130HC1A-10CB1AMS	1.0	2000	4.8
	130HC1A-10BB1AMS	1.0	1500	6.37
	130HC1A-10AB1AMS	1.0	1000	9.55
EPS2-TA120L123	110HC1A-12DB1AMS	1.2	3000	3.8
	110HC1A-12CB1AMS	1.2	2000	5.7
	130HC1A-12CB1AMS	1.2	2000	5.7
EPS2-TA150L123	110HC1A-15DB1AMS	1.5	3000	4.8
	130HC1A-15CB1AMS	1.5	2000	7.16
	130HC1A-15BB1AMS	1.5	1500	9.55
	130HC1A-15AB1AMS	1.5	1000	14.33
	110HC1A-18DB1AMS	1.8	3000	5.7
EPS2-TA200L123	130HC1A-20CB1AMS	2.0	2000	9.55
	130HC1A-20BB1AMS	2.0	1500	14.33
	180HC1A-20CB1AMS	2.0	2000	9.55
	180HC1A-20BB1AMS	2.0	1500	14.33
	80HC1A-27BB1AMS	2.7	1500	17.2
EPS2-TA300L123	130HC1A-30DB1AMS	3.0	3000	9.55
	130HC1A-30CB1AMS	3.0	2000	14.33
	180HC1A-30CB1AMS	3.0	2000	14.33
	180HC1A-30BB1AMS	3.0	1500	19.1
	180HC1A-30AB1AMS	3.0	1000	28.6
EPS2-TA400L123	180HC1A-37AB1AMS	3.7	1000	35
	130HC1A-40DB1AMS	4.0	3000	12.7
	180HC1A-40CB1AMS	4.0	2000	19.1
	180HC1A-40BB1AMS	4.0	1500	25.5
EPS2-TA450L123	130HC1A-45DB1AMS	4.5	3000	14.33
	180HC1A-45CB1AMS	4.5	2000	21.5
	180HC1A-45BB1AMS	4.5	1500	28.6
EPS2-TA500L123	180HC1A-50CB1AMS	5	2000	23.8
EPS2-TA550L123	180HC1A-55BB1AMS	5.5	1500	35

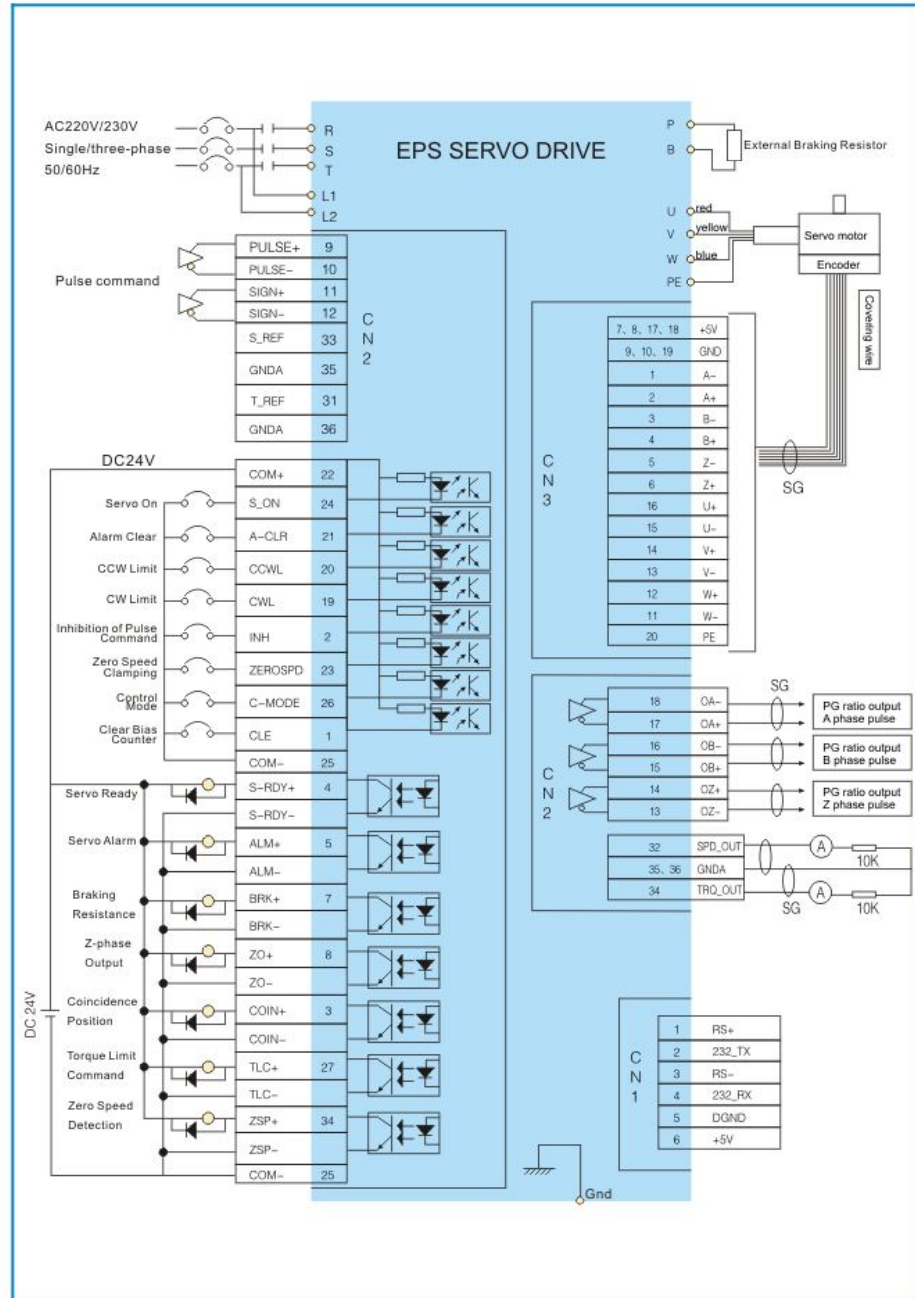
Servo Drive & Servo Motor Correspondence Form 2

EPS2 Series Drive for the Motor (380V)

Drive Code	Motor Code	Capacity (kw)	Speed (rpm)	Torque (N.M)
EPS2-TA100L143	110HC1B-09CB1AMS	0.9	2000	3.8
	130HC1B-10DB1AMS	1.0	3000	3.18
	130HC1B-10CB1AMS	1.0	2000	4.8
	130HC1B-10BB1AMS	1.0	1500	6.37
	130HC1B-10AB1AMS	1.0	1000	9.55
EPS2-TA120L143	110HC1B-12DB1AMS	1.2	3000	3.8
	110HC1B-12CB1AMS	1.2	2000	5.7
	130HC1B-12CB1AMS	1.2	2000	5.7
EPS2-TA150L143	110HC1B-15DB1AMS	1.5	3000	4.8
	130HC1B-15CB1AMS	1.5	2000	7.16
	130HC1B-15BB1AMS	1.5	1500	9.55
EPS2-TA200L143	130HC1B-15AB1AMS	1.5	1000	14.33
	110HC1B-18DB1AMS	1.8	3000	5.7
	130HC1B-20CB1AMS	2.0	2000	9.55
	130HC1B-20BB1AMS	2.0	1500	14.33
EPS2-TA270L143	180HC1B-20CB1AMS	2.0	2000	9.55
	180HC1B-20BB1AMS	2.0	1500	14.33
	180HC1B-27BB1AMS	2.7	1500	17.2
	130HC1B-30DB1AMS	3.0	3000	9.55
EPS2-TA300L143	130HC1B-30CB1AMS	3.0	2000	14.33
	180HC1B-30CB1AMS	3.0	2000	14.33
	180HC1B-30BB1AMS	3.0	1500	19.1
	180HC1B-30AB1AMS	3.0	1000	28.6
EPS2-TA370L143	180HC1B-37AB1AMS	3.7	1000	35
EPS2-TA400L143	130HC1B-40DB1AMS	4.0	3000	12.7
	180HC1B-40CB1AMS	4.0	2000	19.1
	180HC1B-40BB1AMS	4.0	1500	25.5
EPS2-TA450L143	130HC1B-45DB1AMS	4.5	3000	14.33
	180HC1B-45CB1AMS	4.5	2000	21.5
	180HC1B-45BB1AMS	4.5	1500	28.6
EPS2-TA500L143	180HC1B-50CB1AMS	5	2000	23.8
EPS2-TA550L143	180HC1B-55BB1AMS	5.5	1500	35
EPS2-TA750L143	180HC1B-75BB1AMS	5.5	1500	47.7

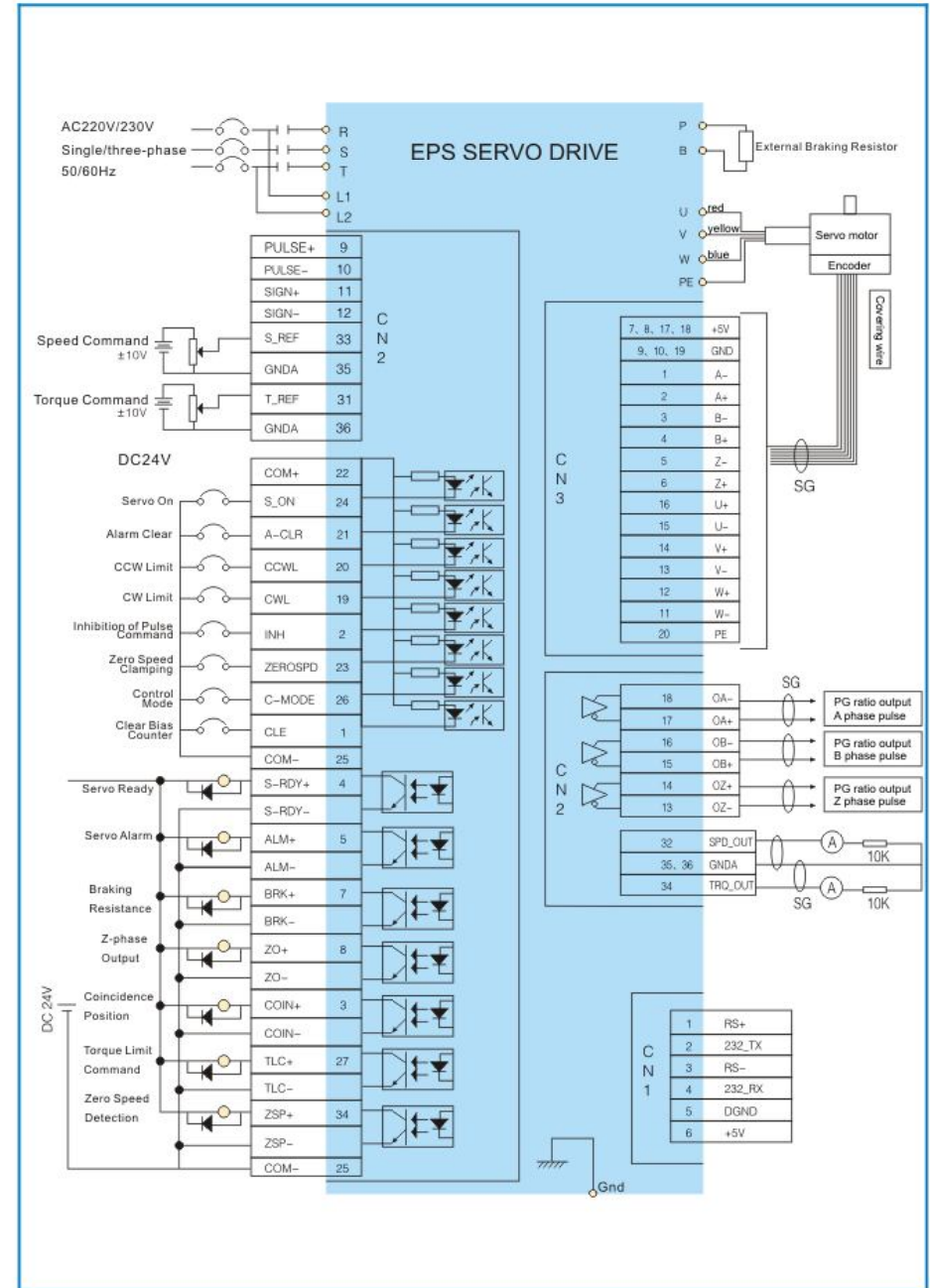
Wiring Circuit Diagram

Position control mode



Wiring Circuit Diagram

Speed / Torque control mode



Servo Motor Description

1. Excellent Stability: the servo motor is chosen from materials of high-performance, high-magnet and high-temperature.
2. Perfect Energy-saving: the servo motor which adopts design of magnetic circuit with finite analysis has high capacity and effectiveness.
3. Long Lifetime and Low Noise: the servo motor which has a novel structure enlarges the measure of area, prolongs the life and lowers the noise.
4. High Accuracy and Quick Response: the servo motor which is chosen of photo-electric encoder with high resolution has itself reaching to 0.036 degree or above.

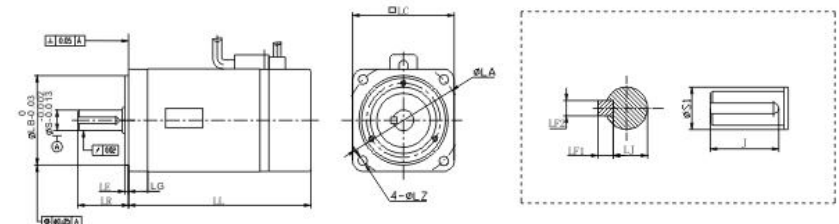


Motor Structure and Conditions

1. Structure: complete seal and auto cooling.
2. Installation: frame method
3. Working mode: S1 continuity
4. Isolation: F level
5. Isolation pressure: AC 1500V at one minute
6. Isolation resistance: DC 50V and more than 50M ohm
7. Vibration: less than 2.5G
8. Altitude: less than 1000M
9. Working conditions: 0 ~ 40°C and less than 90% RH (non-dew)
10. Storage conditions: -20°C ~ 80°C and less than RH (non-dew)

220V Servo Motor

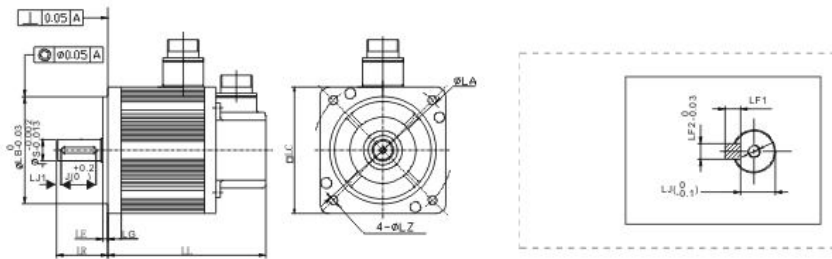
Model	60 Frame		80 Frame			90 Frame				
	60HC1A-02DB1AKS	60HC1A-04DB1AKS	80HC1A-05DB1AKS	80HC1A-08DB1AKS	80HC1A-10DB1AKS	90HC1A-05DB1AKS	90HC1A-08DB1AKS	90HC1A-08CB1AKS	90HC1A-10DB1AKS	
Rated capacity	200	400	500	750	1000	500	750	750	1000	
Rated Torque	0.64	1.27	1.59	2.37	3.18	1.59	2.37	3.5	3.18	
Rated current	2	2.8	2.3	4	4.5	2.3	4	4.5	4.5	
Rated speed	3000	3000	3000	3000	3000	3000	3000	2000	3000	
Immediate max torque	1.92	3.81	4.8	7.2	9.6	4.8	7.2	10.5	9.6	
Immediate max current	3.8	6.7	6.9	11.4	13.6	6.9	11.4	13.5	13.6	
Rotor inertia	0.21x 10 ⁻⁴	0.27x 10 ⁻⁴	1.08x 10 ⁻⁴	1.4 x 10 ⁻⁴	1.63x 10 ⁻⁴	2.5x 10 ⁻⁴	3.0x 10 ⁻⁴	3.5x 10 ⁻⁴	1.63x 10 ⁻⁴	
Torque constant	0.455	0.455	0.66	0.8	0.74	0.66	0.7	0.92	0.74	
Encoder	2500									
Usage temperature	0 - 40 (°C)									
Storage temperature	≤90%RH (non-dew)									
Vibration resistance	2.5G									
IP level	Ip65 (except Axis and connection)									
LL	121	131	145	160	170	154	152	162	162	
+Brake	164	174	183	198	208	191	189	199	199	
LR	10		35			35				
LE	3		3			3				
LG	10		18.5			12				
Axis head size	S	14		19			16			
	LJ1	0		3			3			
	LJ	11		15.5			13			
	J	20		25			20			
	LF1	5		6			5			
Frame size	LA	70		90			100			
	LB	50		70			80			
	LC	60		80			90			
	LZ	6		6.5			6			



Servo Motor Specification and Size

220V Servo Motor

Model	130 Frame Size								
	130HC1A-15BB1AMS	130HC1A-15AB1AMS	130HC1A-20CB1AMS	130HC1A-20BB1AMS	130HC1A-30DB1AMS	130HC1A-30CB1AMS	130HC1A-40DB1AMS	130HC1A-45DB1AMS	
Rated capacity	1500	1500	2000	2000	3000	3000	4000	4500	
Rated Torque	9.55	14.33	9.55	12.7	9.55	14.33	12.7	14.3	
Rated current	6.5	6.5	7.5	7.5	11.5	11.5	15	17	
Rated speed	1500	1000	2000	1500	3000	2000	3000	3000	
Immediate max torque	28.7	42.99	28.7	38	28.7	34.3	38.11	34.3	
Immediate max current	19.8	19.5	22.8	22.8	34.5	28.8	45.8	34.3	
Rotor inertia	1.94×10^{-3}	2.77×10^{-3}	1.94×10^{-3}	1.94×10^{-3}	1.85×10^{-3}	2.52×10^{-3}	1.94×10^{-3}	2.77×10^{-3}	
Torque constant	1.67	1.5	1.28	1.67	1.0	0.88	1.0	0.88	
Encoder	2500								
Usage temperature	0 ~ 40 (°C)								
Storage temperature	≤90%RH (non-dew)								
Vibration resistance	2.5G								
IP level	Ip65 (except Axis and connection)								
LL	223	273	223	273	223	273	273	273	
+Brake	281	331	281	331	281	331	331	331	
LR	57								
LE	5								
LG	14								
Axis head size	S	22							
	LJ1	5							
	LJ	18.5							
	J	36.5							
	LF1	6							
	LF2	6							
Frame size	LA	145							
	LB	110							
	LC	130							
	LZ	9							



Servo Motor Specification and Size

380V Servo Motor

Model	130 Frame Size										
	130HC1B-10AB1AMS	130HC1B-10CB1AMS	130HC1B-10BB1AMS	130HC1B-10AB1AMS	130HC1B-12CB1AMS	130HC1B-15DB1AMS	130HC1B-15CB1AMS	130HC1B-15BB1AMS	130HC1B-15AB1AMS		
Rated capacity	1000	1000	1000	1000	1200	1500	1500	1500	1500		
Rated Torque	3.18	4.77	6.37	9.55	5.73	4.77	7.16	9.55	14.33		
Rated current	2.3	2.3	2.3	2.3	2.7	3.4	3.4	3.4	3.4		
Rated speed	3000	2000	1500	1000	2000	3000	2000	1500	1000		
Immediate max torque	9.6	14.3	19.1	27.2	17.2	14.3	21.5	28.7	42.99		
Immediate max current	6.9	9.9	9.9	6.9	8.1	10.2	10.2	10.2	10.2		
Rotor inertia	0.85×10^{-3}	0.85×10^{-3}	0.85×10^{-3}	1.94×10^{-3}	1.94×10^{-3}	1.94×10^{-3}	1.94×10^{-3}	1.94×10^{-3}	2.77×10^{-3}		
Torque constant	1.67	2.5	3.3	5	2.4	1.6	2.4	3.2	5		
Encoder	2500										
Usage temperature	0 ~ 40 (°C)										
Storage temperature	≤90%RH (non-dew)										
Vibration resistance	2.5G										
IP level	Ip65 (except Axis and connection)										
LL	168	168	189	223	189	168	203	223	273		
+Brake	226	226	247	281	247	226	261	281	331		
LR	57										
LE	5										
LG	14										
Axis head size	S	22									
	LJ1	5									
	LJ	18.5									
	J	36.5									
	LF1	6									
	LF2	6									
Frame size	LA	145									
	LB	110									
	LC	130									
	LZ	9									

