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ASDA-B

DELTA ASDA-B AC Servo System



AC Servo System



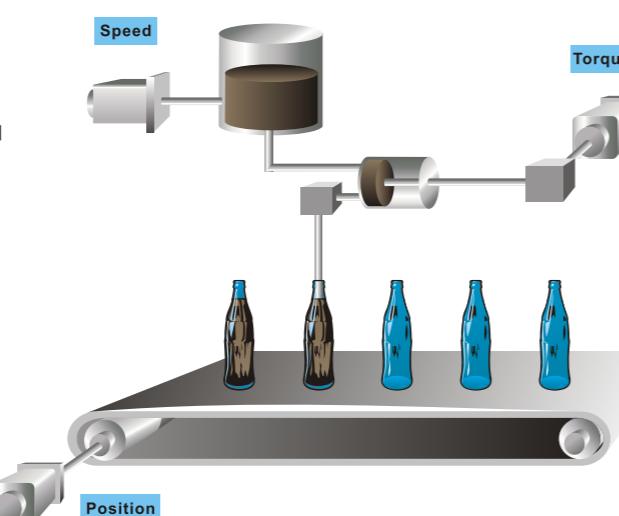
Features

ASDA-B

Operation (All-in-One)

Position/Speed/Torque Modes

- ◆ Position : External pulse command
- ◆ Speed : External analog command, 3 groups of internal speed parameters
- ◆ Torque : External analog command, 3 groups of internal torque parameters



Three kinds of Dual Modes

- ◆ Position / Speed
- ◆ Speed / Torque
- ◆ Position / Torque

Speed / Torque Limit Operation

- ◆ Speed Limit : In Torque mode, speed limit operation is achieved via external analog command or internal parameters
- ◆ Torque Limit : In Position/Speed mode, torque limit operation is achieved via external analog command or internal parameters

Excellent Performance

- ◆ Motor settling time below 2ms
- ◆ Speed Responsiveness Characteristic: 250Hz
- ◆ 14ms accel. time from running without load -3000 rpm to 3000 rpm

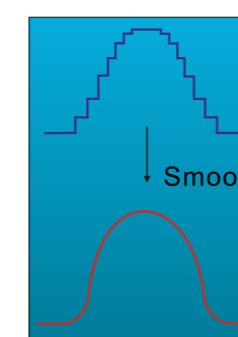


Smoothing Strategy

S-curve Profile for Speed Mode

In Speed mode, smoothing curves are provided for stability improvement with higher accuracy.

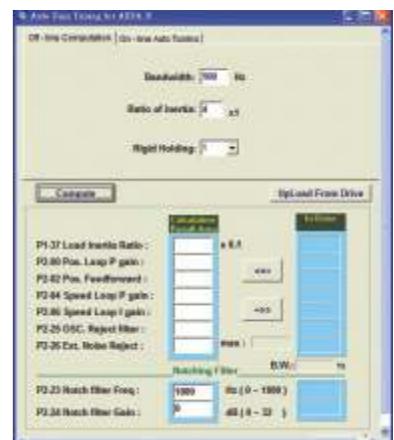
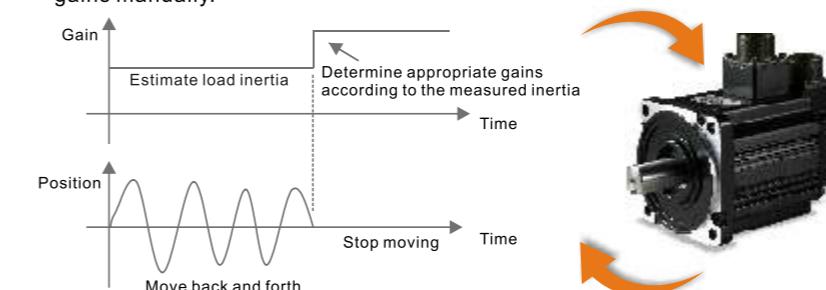
- ◆ Using smoothing curves can run the motor more smoothly in response to a sudden operation command. Efficiently improve the machinery performance and extend the life of machinery system.
- ◆ When operation commands are suddenly changed, the user can use smoothing curves to achieve continuous and stable performance no matter the motor is accelerating or decelerating.



Tuning Technology

Auto-tuning

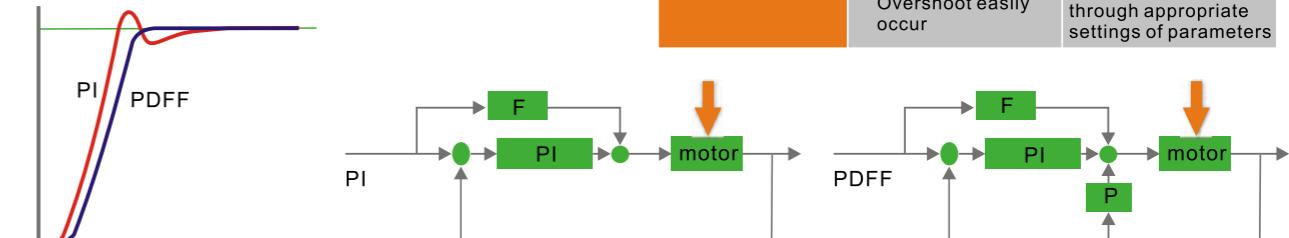
- ◆ The servo drive will move back and forth to estimate the load inertia. When the servo drive stop moving back and forth, it can determine the appropriate gains according to the measured inertia. Also, the user can define the responsiveness gains manually.



PI / PDFF Control Structure

PI / PDFF Structure

- PI - Proportional - Integral Control
 PDFF - Pseudo - Derivative Feedback and Feedforward
- ◆ In speed control loop, not only current PI auto-tuning mode but also PDFF auto-tuning mode is available.



	PI	PDFF
System Parameters	2	3
Characteristics	Less parameters but easy to adjust	More parameters and more flexible
	Overshoot easily occur	Can reduce overshoot through appropriate settings of parameters

User-friendly Interface

Handheld Digital Keypad

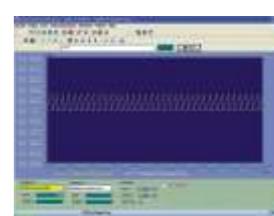
- ◆ Provide powerful auxiliary functions, very convenient to use and helpful for operation, e.g. JOG, ARST, etc.
- ◆ Internal memory blocks, able to upload and download parameters rapidly between servo drive and PC via ASDA_B_SW.
 - ASD-PU-01A capable of saving 25 groups of parameters
 - ASD-PU-01B capable of saving 4 groups of parameters
- ◆ Built-in auto-tuning function offers quick and fast gain adjustment during operation.



ASD-PU-01B ASD-PU-01A

ASDA_B_SW Window based Software

- ◆ Multilingual display interface provides fast communication and useful editing environment.
- ◆ Built-in 2 channels real-time digital oscilloscope function (single-point sampling time is 0.5ms). Capable of viewing and displaying various signals.
- ◆ Status monitor / DI, DO signals can be controlled via serial communication.



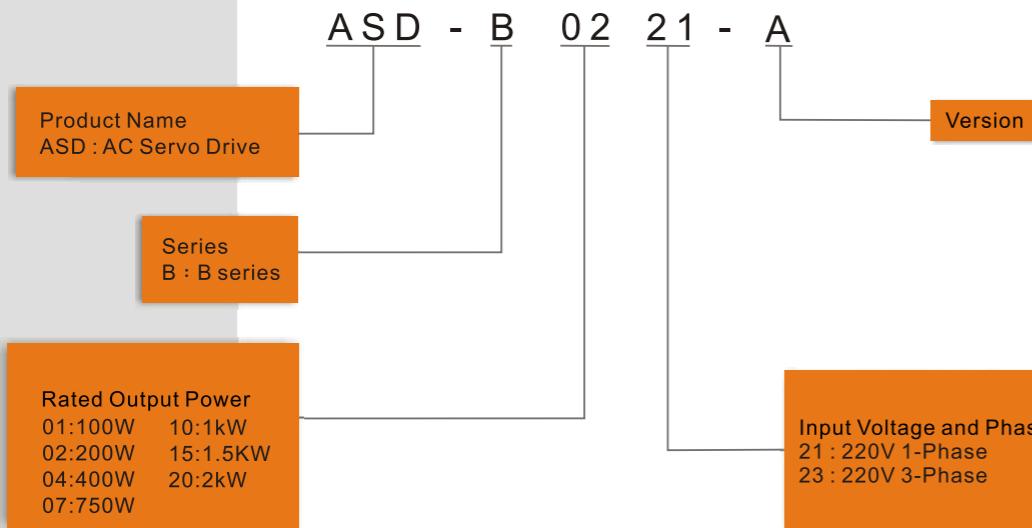


AC Servo System

ASDA-B

Model Explanation

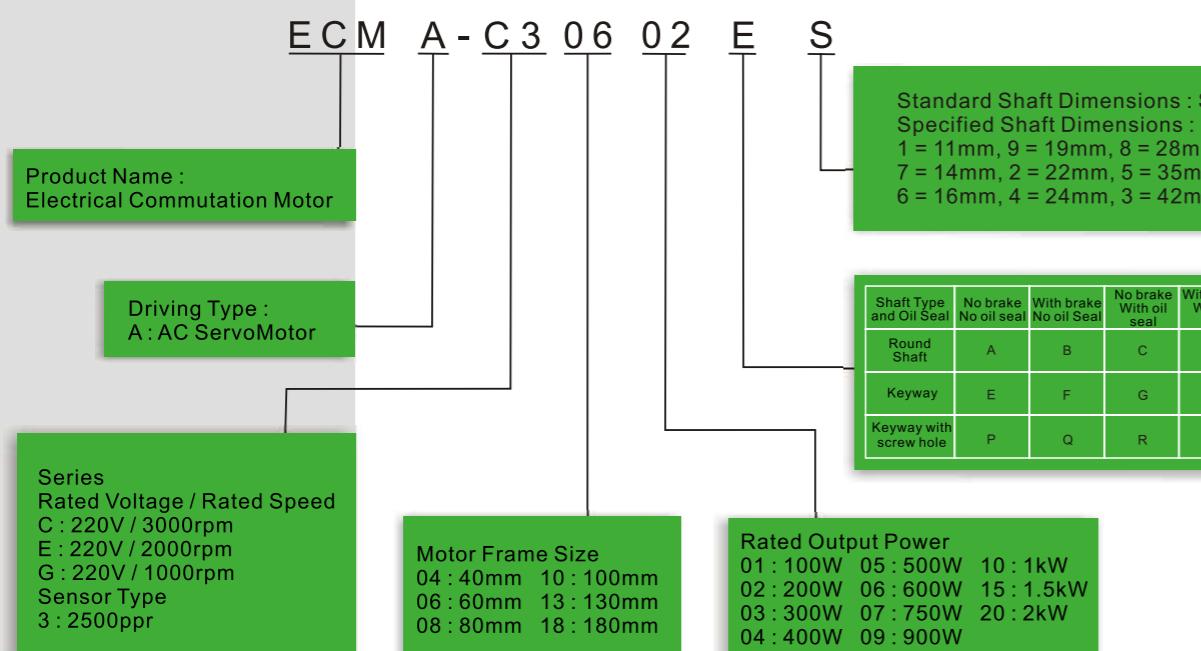
Servo Drive ASDA-B series



Servo Drive and Servo Motor Combinations

Servo Drive		Servo Motor
Power	Mode Name	
100W	ASD-B0121-A	ECMA-C30401 □ S(100W)
200W	ASD-B0221-A	ECMA-C30602 □ S(200W)
400W	ASD-B0421-A	ECMA-C30604 □ S(400W) ECMA-C30804 □ 7(400W) ECMA-E31305 □ S(500W) ECMA-G31303 □ S(300W)
750W	ASD-B0721-A	ECMA-C30807 □ S(750W) ECMA-G31306 □ S(600W)
1000W	ASD-B1021-A	ECMA-C31010 □ S(1000W) ECMA-E31310 □ S(1000W) ECMA-G31309 □ S(900W)
1500W	ASD-B1521-A	ECMA-E31315 □ S(1500W)
2000W	ASD-B2023-A	ECMA-C31020 □ S(2000W) ECMA-E31320 □ S(2000W) ECMA-E31820 □ S(2000W)

Servo Motor ECMA series



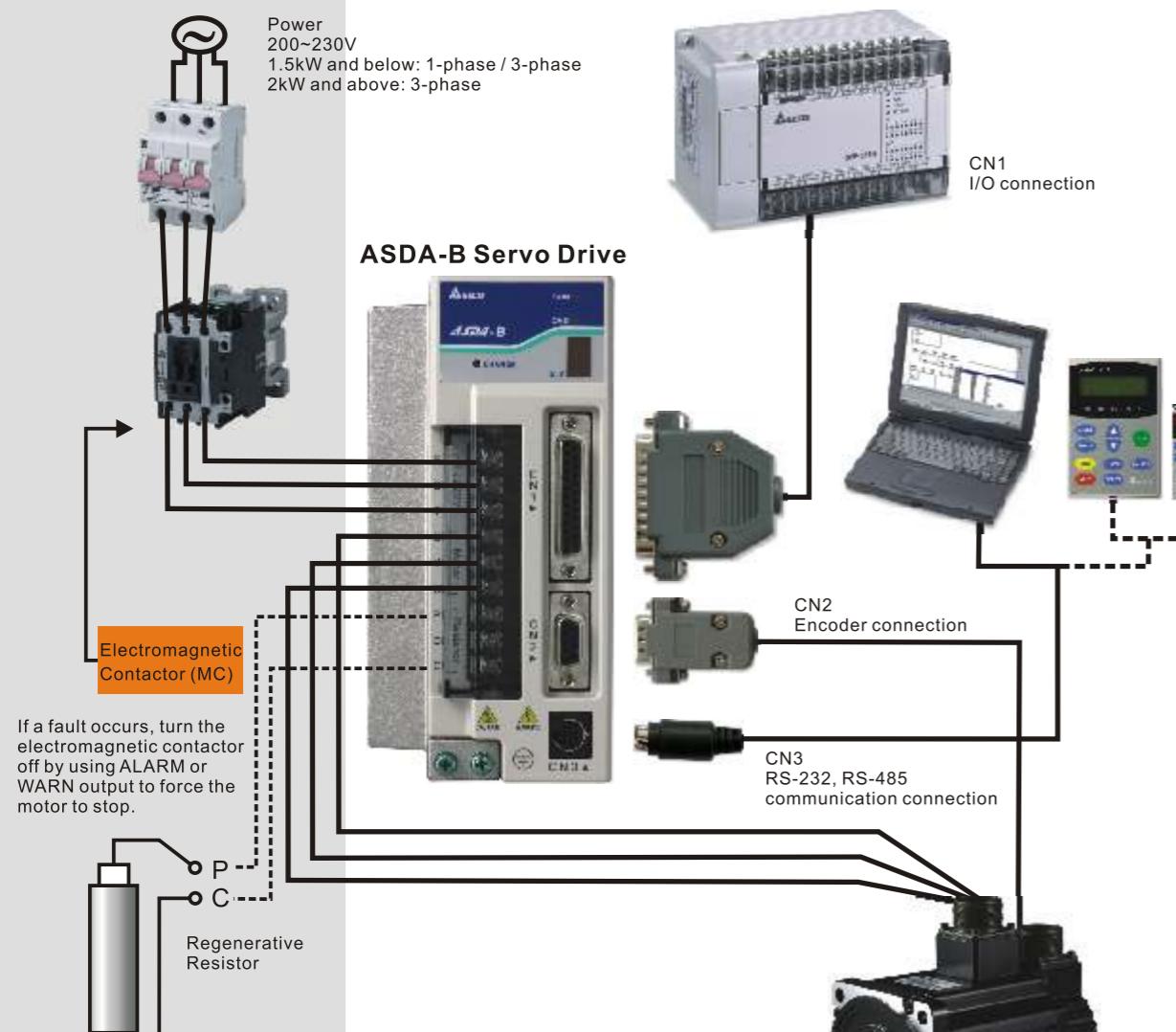
Note : The boxes (□) at the ends of the model names are for shaft type or options (keyway, brake and oil seal).

AC Servo System

Configuration



System Configuration



Servo Drive Specifications (ASDA-B Series)

Mode : ASDA-B Series		01	02	04	07	10	15	20		
Power supply		Three-phase or Single-phase 220VAC				Three-phase 220VAC				
Permissible Voltage Range		Three-phase or Single-phase 200~230VAC, -15%~10%				Three-phase 200~230VAC, -15%~10%				
Permissible Frequency Range		50 / 60 Hz ± 5%								
Cooling System		Natural Air Circulation				Fan Cooling				
Encoder Resolution / Feedback Resolution		2500ppr / 1000ppr								
Control of Main Circuit		SVPWM (Space Vector Pulse Width Modulation) Control								
Tuning Modes		Auto / Manual								
Regenerative Resistor		None				Built-in				
Max. Input Pulse Frequency		Max. 500KPPS (Line driver) / Max. 200KPPS (Open collector)								
Pulse Type		Pulse + Direction, A phase + B phase, CCW pulse + CW pulse								
Position Control Mode		External pulse train								
Command Source		Low-pass smoothing filter								
Smoothing Strategy		Electronic gear N/M multiple , N: 1~32767, M: 1:32767(1/50<N/M<200)								
Electronic Gear		Set by parameters								
Torque Limit Operation		Set by parameters								
Feed Forward Compensation										
Speed Control Mode	Analog Input Command	Voltage Range	0~±10 VDC							
		Input Resistance	10K Ω							
		Time Constant	2.2 μs							
	Speed Control Range *1		1:5000							
Torque Control Mode	Command Source	External analog signal / Internal parameters								
	Smoothing Strategy	Low-pass and S-curve filter								
	Torque Limit Operation	Set by parameters								
	Frequency Response Characteristic		Maximum 250Hz							
Digital Input/Output	Speed Accuracy *2 (at rated rotation speed)	0.01% or less at load fluctuation 0 to 100%								
	Command Source	0.01% or less at power fluctuation ±10%								
	Smoothing Strategy	0.01% or less at ambient temperature fluctuation 0 to 50 °C								
	Torque Limit Operation	0.01% or less at load fluctuation 0 to 100%								
Protective Functions	Analog Input Command	Voltage Range	0~±10 VDC							
		Input Resistance	10K Ω							
		Time Constant	2.2 μs							
	Permissible Time for Overload		8 sec. Under 200% rated output							
Communication Interface	Command Source	External analog signal / Internal parameters								
	Smoothing Strategy	Low-pass smoothing filter								
	Speed Limit Operation	Set by parameters								
	Servo On, Reset, Gain switching, Low speed CLAMP, Speed/Torque limit enabled, Emergency stop, Forward / Reverse inhibit limit									
Environment	Internal parameter selection, Torque limit activation, Speed limit activation, Control mode selection (Position / Speed mode selection, Speed / Torque mode selection, Position / Torque mode selection)									
	Encoder signal output (A, B, Z phase Line Driver / Z phase Open Collector)									
	Servo ready, Servo On, Zero speed, Speed reached, Positioning completed, Reached torques limits, Servo alarm output (Servo fault), Electromagnetic brake, Output Overload Warning, Servo Warming Output									
	Overcurrent, Overvoltage, Undervoltage, Motor overheated, Regeneration error, Overload, Overspeed, Excessive deviation, Encoder error, Emergency stop activated, Memory error, Serial communication error									
Indoor location (free from direct sunlight), no corrosive liquid and gas (far away from oil mist, flammable gas, dust)		RS-232 / RS-485								
Altitude 1000m or lower above sea level		Indoor location (free from direct sunlight), no corrosive liquid and gas (far away from oil mist, flammable gas, dust)								
86kPa to 106kPa		Altitude 1000m or lower above sea level								
0°C to 45°C (If operating temperature is above specified range, forced cooling will be required)		86kPa to 106kPa								
Operating Temperature		0°C to 45°C (If operating temperature is above specified range, forced cooling will be required)								
Storage Temperature		-20°C to 65°C								
Humidity 0 to 90% (non-condensing)		-20°C to 65°C								
Vibration 10Hz ≤ F ≤ 57Hz 0.075mm		0 to 90% (non-condensing)								
IP rating IP20		10Hz ≤ F ≤ 57Hz 0.075mm								
Power System TN / TT System *3		57Hz < F ≤ 150Hz 1G								
Approvals CE, UL, CSA		57Hz < F ≤ 150Hz 1G								

*1 Rated rotation speed: When full load, speed ratio is defined as the minimum speed (the motor will not pause).

*2 When command is rated rotation speed, the speed fluctuation rate is defined as: (Empty load rotation speed / Full load rotation speed) / Rated rotation speed

*3 TN system: A power distribution system having one point directly earthed, the exposed conductive parts of the installation being connected to that point by protective earth conductor.

TT system: A power distribution system having one point directly earthed, the exposed conductive parts of the installation being connected to earth independent of the power system.

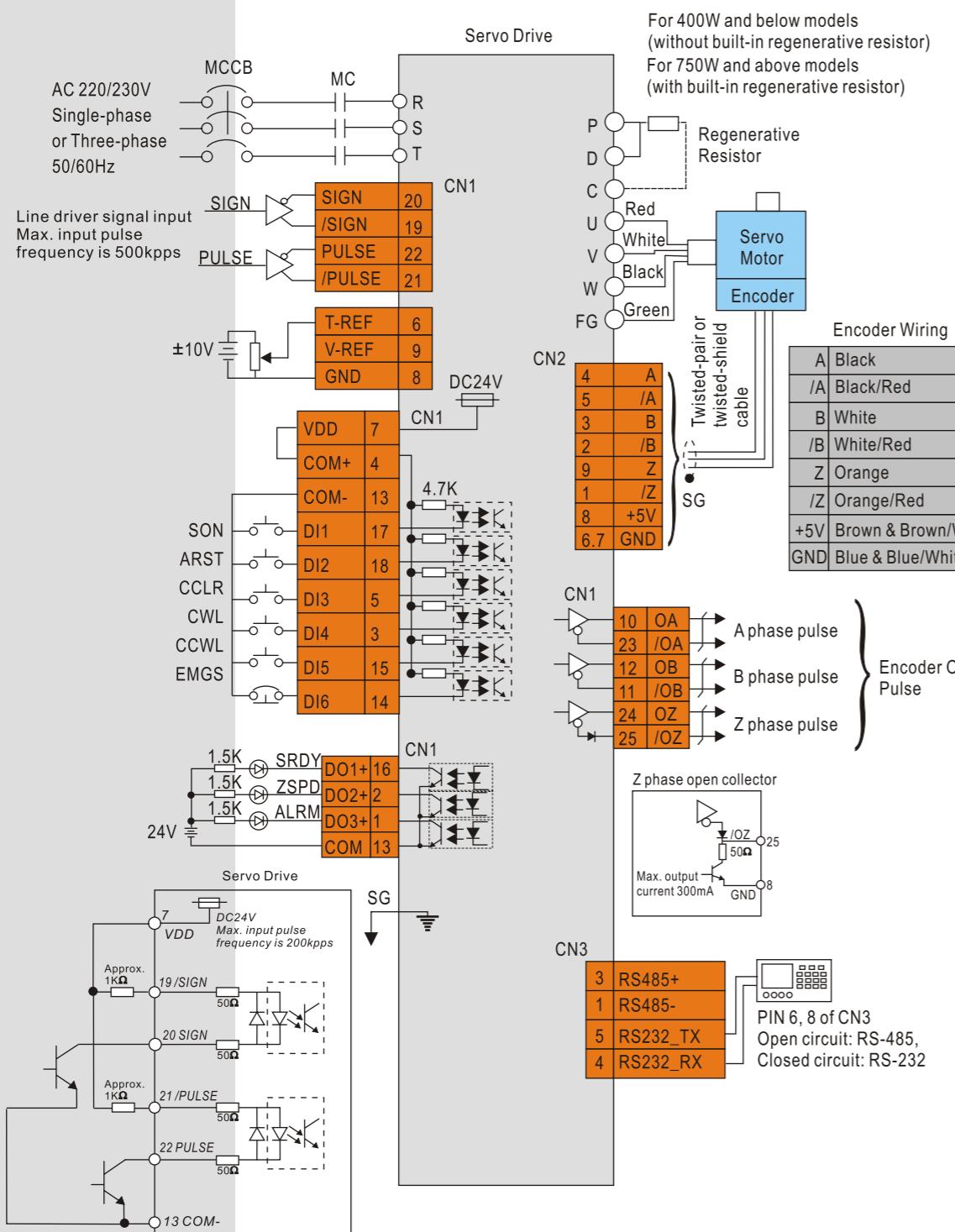


AC Servo System

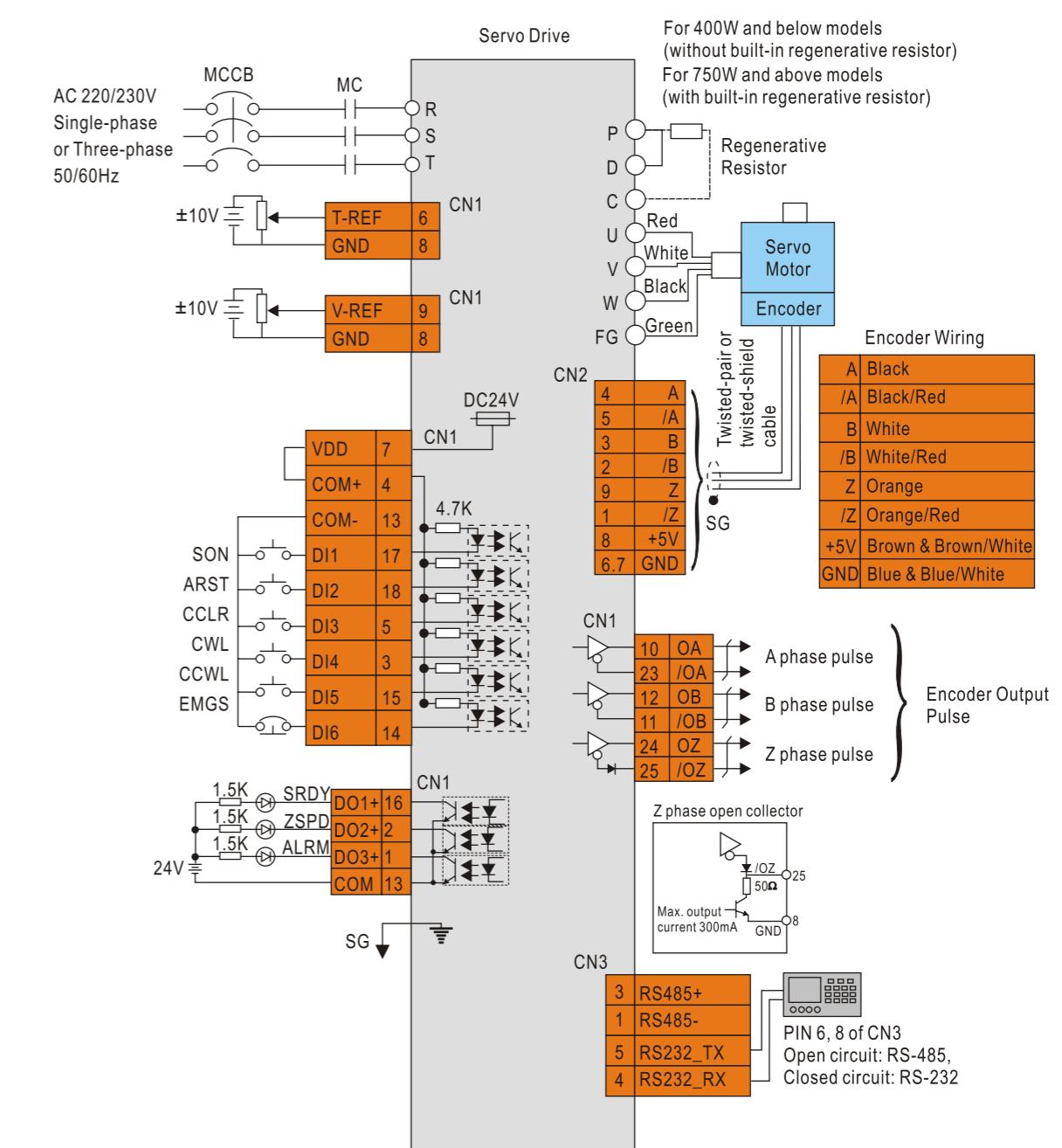
Standard Connection Example

ASPA-B

Position(P) Control Mode



Speed(S) Control Mode



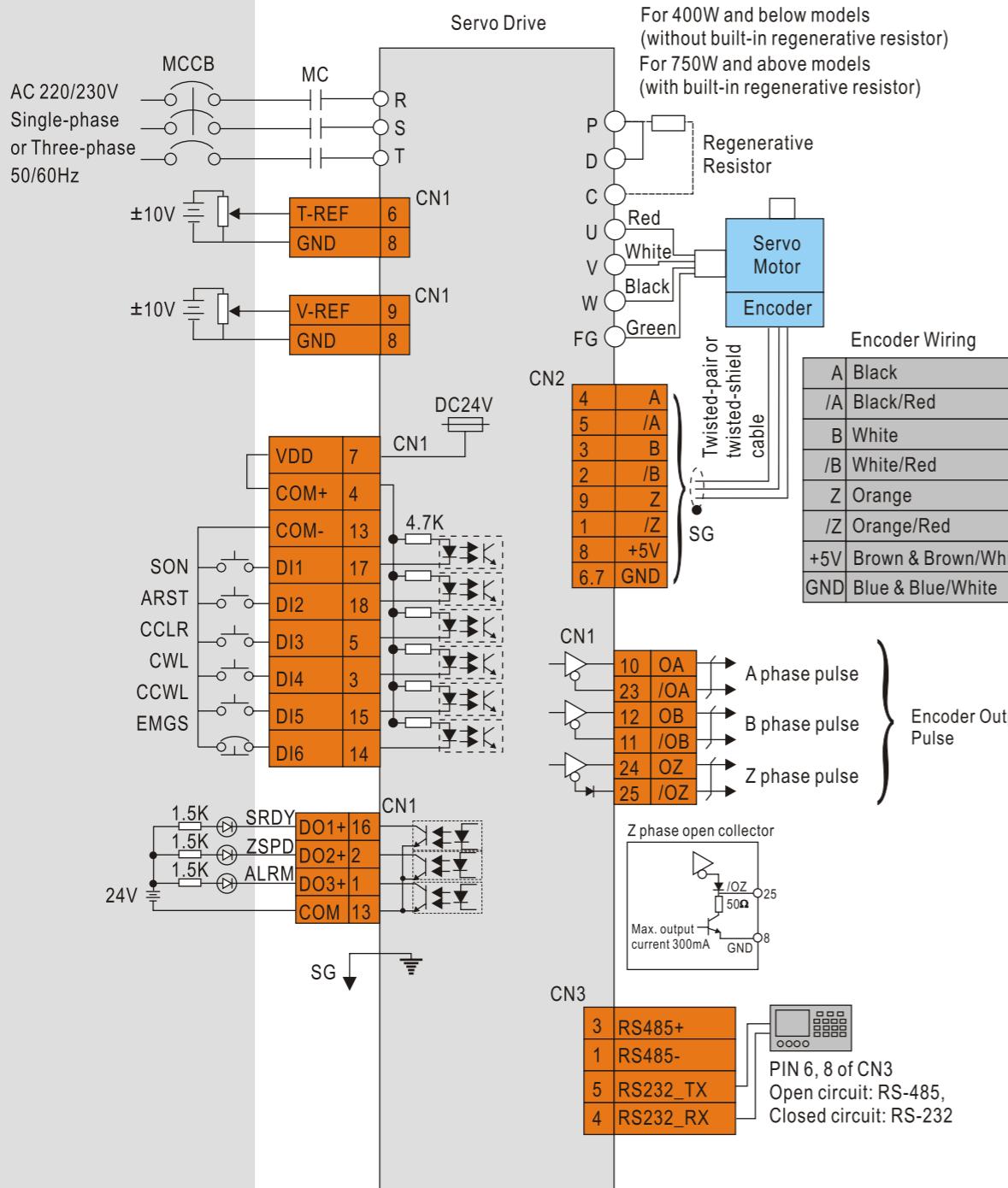
AC Servo System



ASPA-B

Standard Connection Example

Torque(T) Control Mode



Servo Motor Specifications

Low Inertia Servo Motor

Model: ECMA Series	C304	C306		C308		C310	
	01	02	04	04	07	10	20
Rated output power (kW)	0.1	0.2	0.4	0.4	0.75	1.0	2.0
Rated torque (N.m)	0.32	0.64	1.27	1.27	2.39	3.18	6.37
Maximum torque (N.m)	0.96	1.92	3.82	3.82	7.16	9.54	19.11
Rated speed (rpm)					3000		
Maximum speed (rpm)					5000		
Rated current (A)	0.9	1.55	2.6	2.6	5.1	7.3	12.05
Maximum current (A)	2.7	4.60	7.8	7.8	15.3	21.9	36.15
Power rating (kW/s) (without brake)	27.7	22.4	57.6	24.0	50.4	38.1	90.6
Rotor moment of inertia (Kg.m²) (without brake)	0.037E-4	0.177E-4	0.277E-4	0.68E-4	1.13E-4	2.65E-4	4.45E-4
Mechanical time constant (ms) (without brake)	0.75	0.80	0.53	0.74	0.63	0.74	0.61
Torque constant-KT (N.m/A)	0.36	0.41	0.49	0.49	0.47	0.44	0.53
Voltage constant-KE (mV/rpm)	13.6	16	17.4	18.5	17.2	16.8	19.2
Armature resistance (Ohm)	9.3	2.79	1.55	0.93	0.42	0.20	0.13
Armature inductance (mH)	24	12.07	6.71	7.39	3.53	1.81	1.50
Electrical time constant (ms)	2.58	4.3	4.3	7.96	8.37	9.3	11.4
Insulation class	Class A (UL), Class B (CE)						
Insulation resistance	100MΩ, DC 500V						
Insulation strength	AC 1500 V, 60 seconds						
Weight (kg) (without brake)	0.5	1.2	1.6	2.1	3.0	4.3	6.2
Weight (kg) (with brake)	-	1.5	2.0	2.9	3.8	4.7	7.2
Max. radial shaft load (N)	78.4	196	196	245	245	490	490
Max. thrust shaft load (N)	39.2	68	68	98	98	98	98
Power rating (kW/s) (with brake)	-	21.3	53.8	22.1	48.4	30.4	82
Rotor moment of inertia (Kg.m²) (with brake)	-	0.192E-4	0.30E-4	0.73E-4	1.18E-4	3.33E-4	4.953E-4
Mechanical time constant (ms) (with brake)	-	0.85	0.57	0.78	0.65	0.93	0.66
Brake holding torque [Nt-m (min)]	-	1.3	1.3	2.5	2.5	12	12
Brake power consumption (at 20 °C) [W]	-	7.2	7.2	8.5	8.5	19.4	19.4
Brake release time [ms (Max)]	-	10	10	10	10	10	10
Brake pull-in time [ms (Max)]	-	70	70	70	70	70	70
Vibration grade (um)	15						
Operating temperature	0 to 40°C(32 to 104°F)						
Storage temperature	-10 to 80°C(-14 to 176°F)						
Operating humidity	20~90%RH (non-condensing)						
Storage humidity	20~90%RH (non-condensing)						
Vibration capacity	2.5G						
IP rating	IP65 (using waterproof connectors and shaft seal installation (or using oil seal models))						
Approvals							



AC Servo System

Standard Connection Example

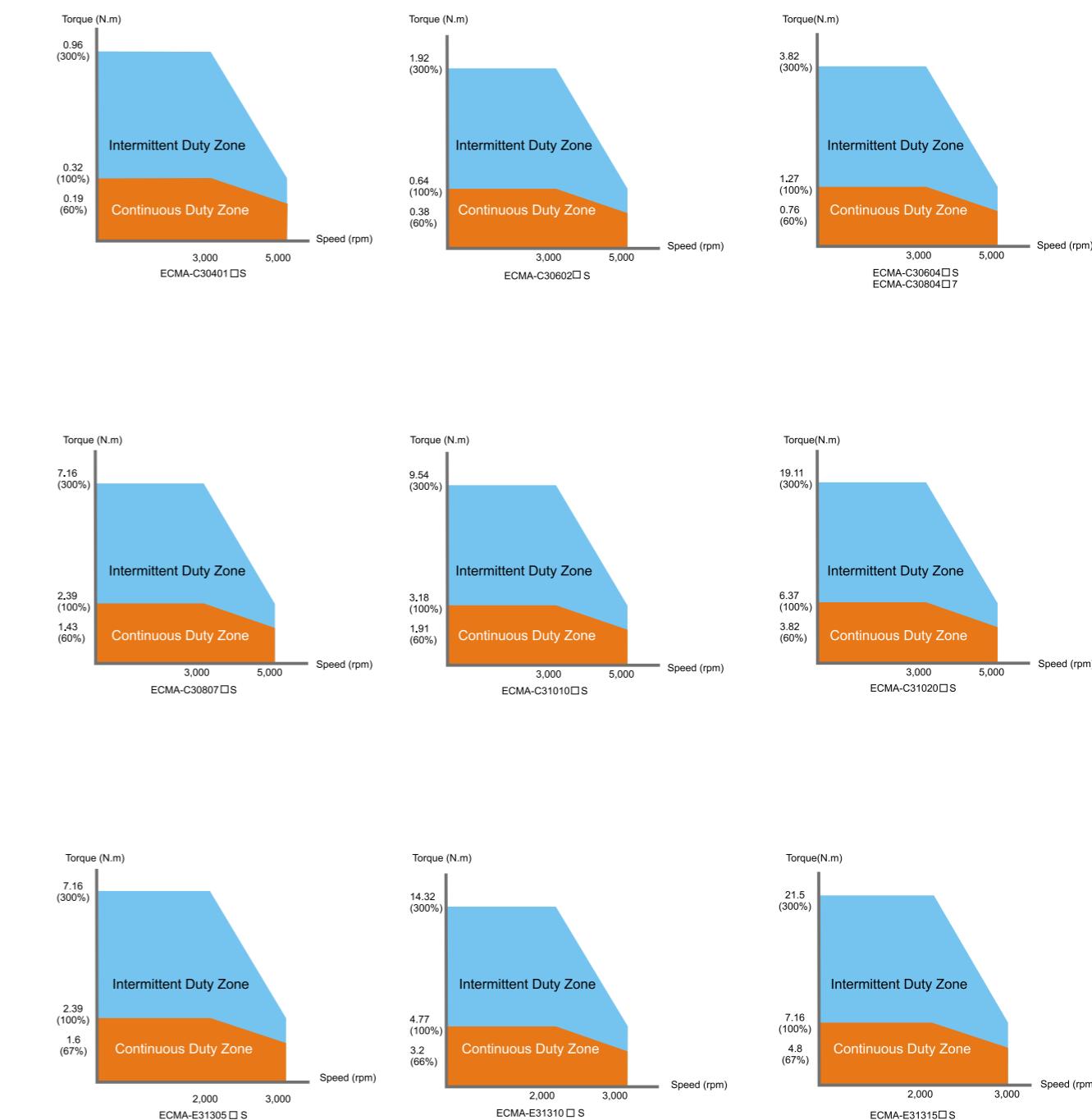
ASDA-B

Servo Motor Specifications

Medium / High Inertia Servo Motor

Model: ECMA Series	E313				E318		G313	
	05	10	15	20	20	03	06	09
Rated output power (kW)	0.5	1.0	1.5	2.0	2.0	0.3	0.6	0.9
Rated torque (N.m)	2.39	4.77	7.16	9.55	9.55	2.86	5.73	8.59
Maximum torque (N.m)	7.16	14.3	21.48	28.65	28.65	8.59	17.19	21.48
Rated speed (rpm)	2000				1000			
Maximum speed (rpm)	3000				2000			
Rated current (A)	2.9	5.6	8.3	11.01	11.22	2.5	4.8	7.5
Maximum current (A)	8.7	16.8	24.9	33.03	33.66	7.5	14.4	22.5
Power rating (kW/s) (without brake)	7	27.1	45.9	62.5	26.3	10.0	39.0	66.0
Rotor moment of inertia (Kg.m ²) (without brake)	8.17E-4	8.41E-4	11.18E-4	14.59E-4	34.68E-4	8.17E-4	8.41E-4	11.18E-4
Mechanical time constant (ms) (without brake)	1.91	1.51	1.10	0.96	1.62	1.82	1.40	1.06
Torque constant-KT (N.m/A)	0.83	0.85	0.87	0.87	0.85	1.15	1.19	1.15
Voltage constant-KE (mV/rpm)	30.9	31.9	31.8	31.8	31.4	42.5	43.8	41.6
Armature resistance (Ohm)	0.57	0.47	0.26	0.174	0.119	1.06	0.82	0.43
Armature inductance (mH)	7.39	5.99	4.01	2.76	2.84	14.29	11.12	6.97
Electrical time constant (ms)	12.96	12.88	15.31	15.86	23.87	13.55	13.50	16.06
Insulation class	Class A (UL), Class B (CE)							
Insulation resistance	100MΩ , DC 500V							
Insulation strength	AC 1500 V, 60 secretary							
Weight (kg) (without brake)	6.8	7	7.5	7.8	13.5	6.8	7	7.5
Weight (kg) (with brake)	8.2	8.4	8.9	9.2	17.5	8.2	8.4	8.9
Max. radial shaft load (N)	490	490	490	490	1176	490	490	490
Max. thrust shaft load (N)	98	98	98	98	490	98	98	98
Power rating (kW/s) (with brake)	6.4	24.9	43.1	59.7	24.1	9.2	35.9	62.1
Rotor moment of inertia (Kg.m ²) (with brake)	8.94E-4	9.14E-4	11.90E-4	15.88E-4	37.86E-4	8.94E-4	9.14E-4	11.9E-4
Mechanical time constant (ms) (with brake)	2.07	1.64	1.19	1.05	1.77	2.0	1.51	1.13
Brake holding torque [Nt·m (min)]	16.5	16.5	16.5	16.5	25	16.5	16.5	16.5
Brake power consumption (at 20 °C) [W]	21.0	21.0	21.0	21.0	31.1	21.0	21.0	21.0
Brake release time [ms (Max)]	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Brake pull-in time [ms (Max)]	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Vibration grade (um)	15							
Operating temperature	0 to 40°C(32 to 104°F)							
Storage temperature	-10 to 80°C(-14 to 176°F)							
Operating humidity	20~90%RH (non-condensing)							
Storage humidity	20~90%RH (non-condensing)							
Vibration capacity	2.5G							
IP rating	IP65 (using waterproof connectors and shaft seal installation (or using oil seal models))							
Approvals	 							

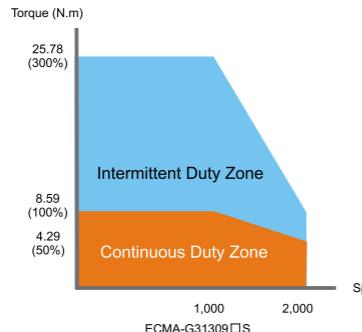
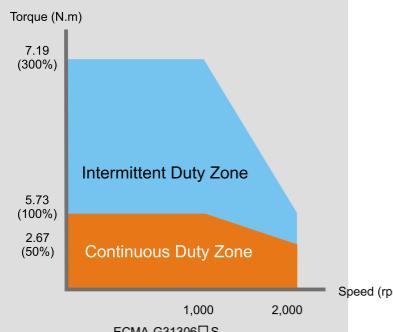
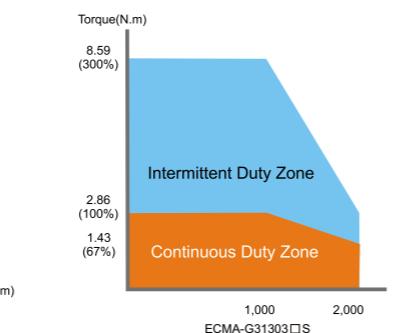
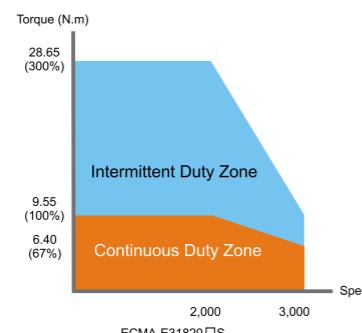
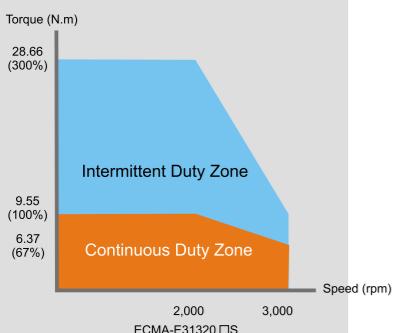
Speed-Torque Curves



AC Servo System



Speed-Torque Curves



Accessories

Servo Accessories

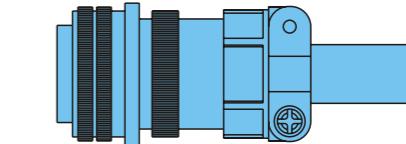
Power Connectors

ASDBCAPW0000



Title	Part No.	Manufacturer
Housing	C4201H00-2*2PA	JOWLE
Terminal	C4201TOP-2	JOWLE

ASD-CAPW1000



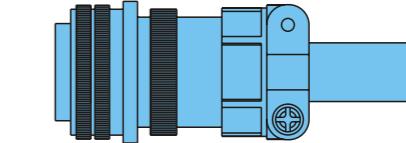
MS 3106A-20-18S

ASDBCAPW0100



Title	Part No.	Manufacturer
Housing	C4201H00-2*3PA	JOWLE
Terminal	C4201TOP-2	JOWLE

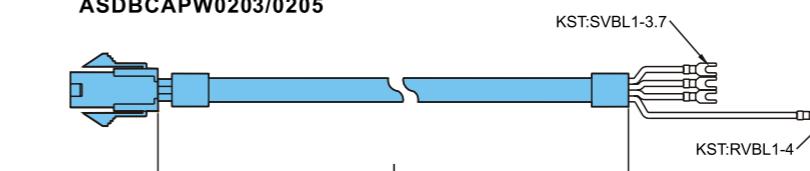
ASD-CAPW2000



MS 3106A-24-11S

Power Cables

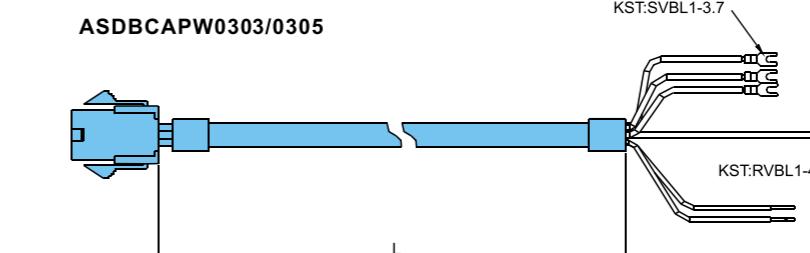
ASDBCAPW0203/0205



Title	Part No.	Manufacturer
Housing	C4201H00-2*2PA	JOWLE
Terminal	C4201TOP-2	JOWLE

Title	Part No.	Manufacturer
Item	Part No.	L
		mm inc
1	ASDBCAPW0203	3000 ± 10 118 ± 2
2	ASDBCAPW0205	5000 ± 10 197 ± 2

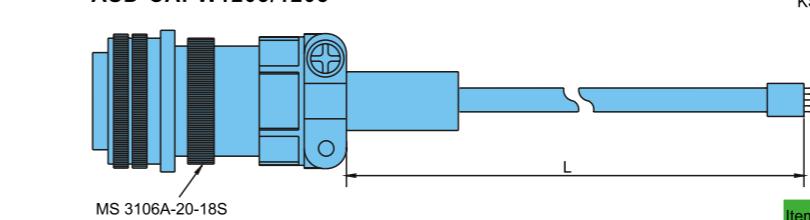
ASDBCAPW0303/0305



Title	Part No.	Manufacturer
Housing	C4201H00-2*3PA	JOWLE
Terminal	C4201TOP-2	JOWLE

Title	Part No.	L
Item	Part No.	L
		mm inc
1	ASDBCAPW0303	3000 ± 10 118 ± 2
2	ASDBCAPW0305	5000 ± 10 197 ± 2

ASD-CAPW1203/1205



Item	Part No.	Straight	L
		mm	inc
1	ASD-CAPW1203	3106A-20-18S	3000 ± 10 118 ± 2
2	ASD-CAPW1205	3106A-20-18S	5000 ± 10 197 ± 2

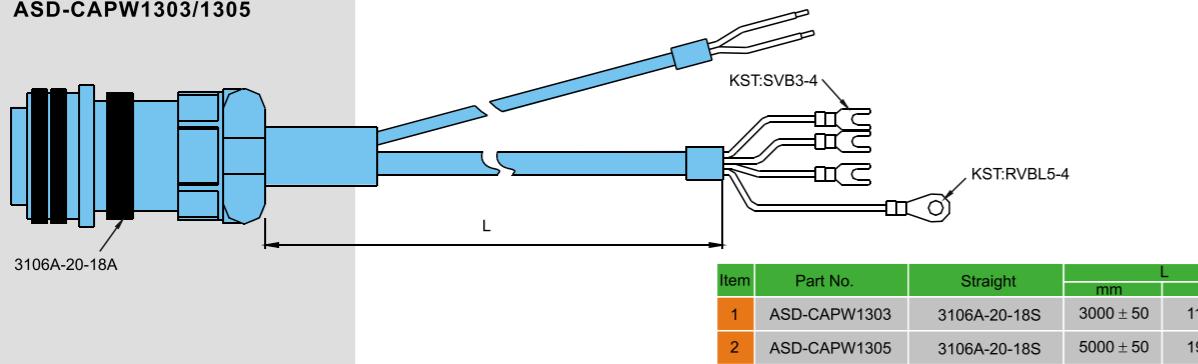
AC Servo System

Accessories

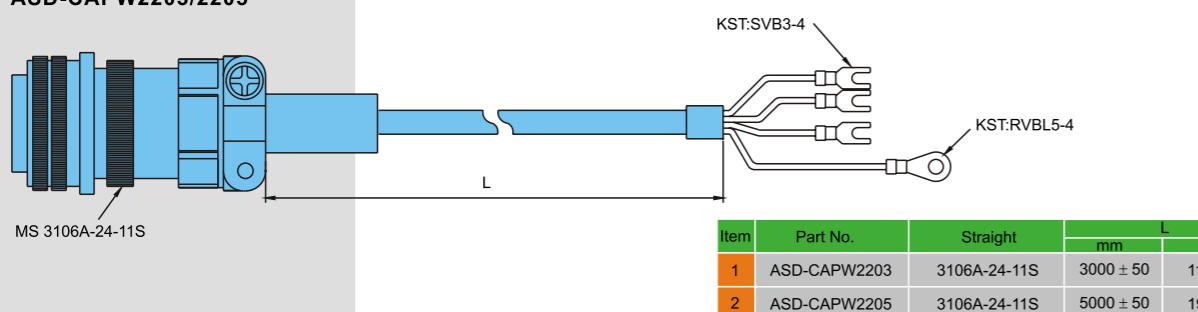
Servo Accessories

Power Cables

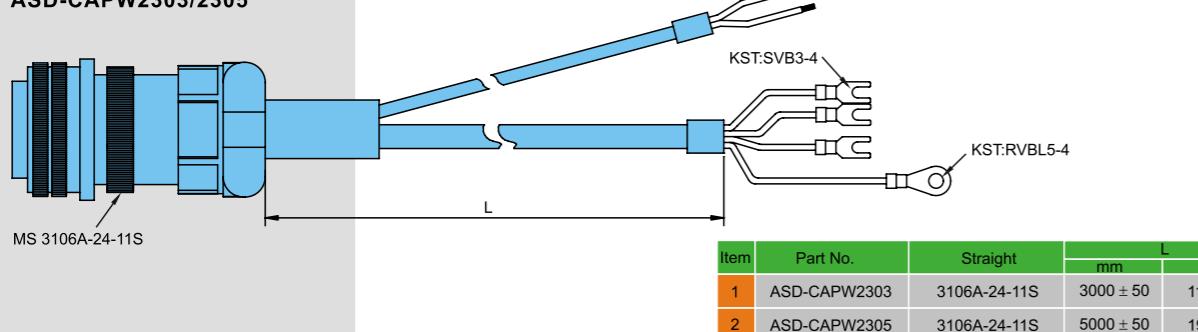
ASD-CAPW1303/1305



ASD-CAPW2203/2205

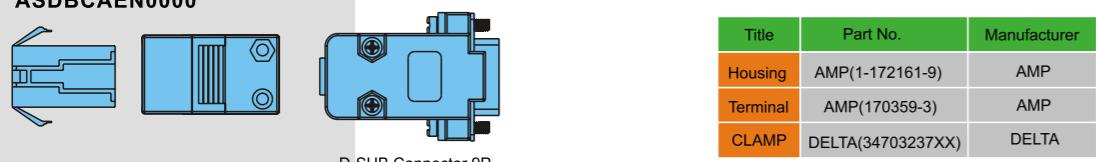


ASD-CAPW2303/2305

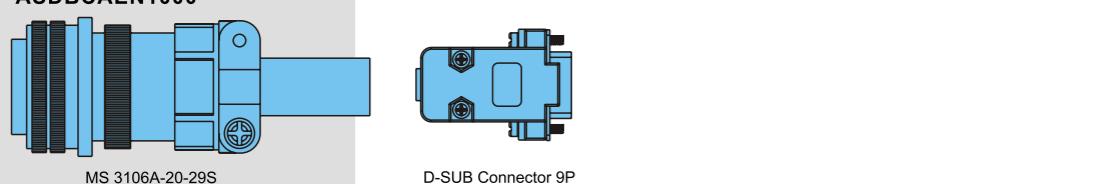


Encoder Connectors

ASDBCAEN0000



ASDBCAEN1000



Encoder Cables

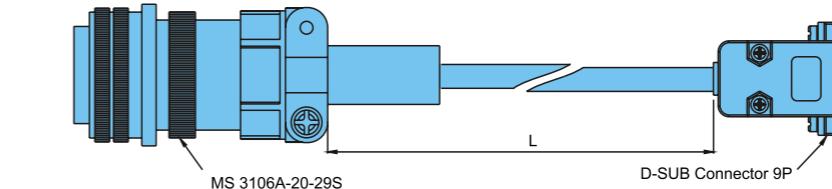
ASDBCAEN0003/0005



Title	Part No.	Manufacturer
Housing	AMP(1-172161-9)	AMP
Terminal	AMP(170359-3)	AMP
CLAMP	DELTA(3470323XX)	DELTA

Item	Part No.	L
		mm inc
1	ASDBCAEN0003	3000 ± 50 118 ± 2
2	ASDBCAEN0005	5000 ± 50 197 ± 2

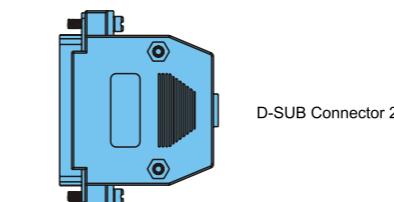
ASDBCAEN1003/1005



Item	Part No.	Straight	L
		mm	inc
1	ASDBCAEN1003	3106A-20-29S	3000 ± 50 118 ± 2
2	ASDBCAEN1005	3106A-20-29S	5000 ± 50 197 ± 2

I/O Signal Connector

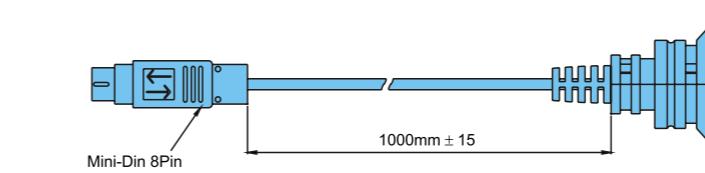
ASDBCNDSD0025



Communication Cables

(for Keypad, connecting a ASDA-B servo drive to a Keypad)

ASDBCADK0001



Title	Part No.	Manufacturer
BoxHeader	3071420300	DELTA
Cover	3140311100	DELTA
Housing	254I-K-14PD	JAWS
Terminal	254I-T-G	JAWS

AC Servo System



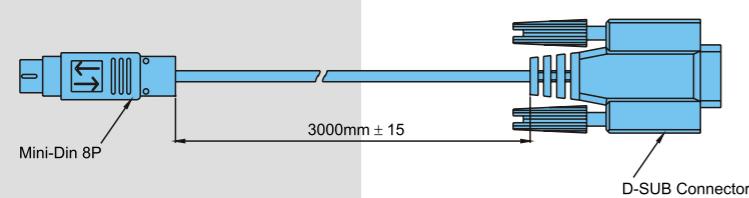
ASDA-B

Accessories

Servo Accessories

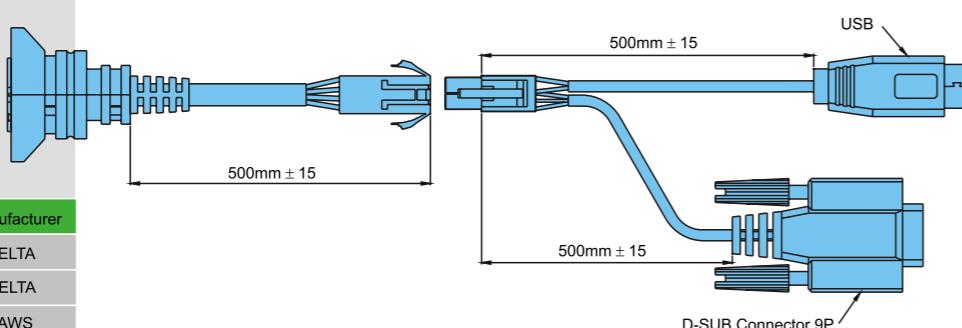
Communication Cables(for PC, connecting a ASDA-B servo drive to a PC)

DVPACAB2A30



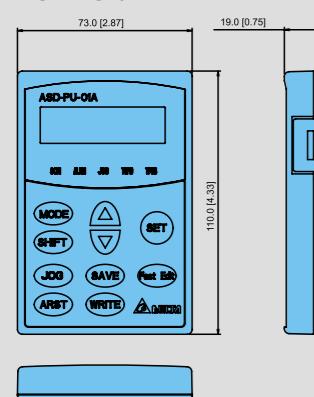
Communication Cables(for Keypad, connecting a PC to a Keypad)

ASDBCACK0001

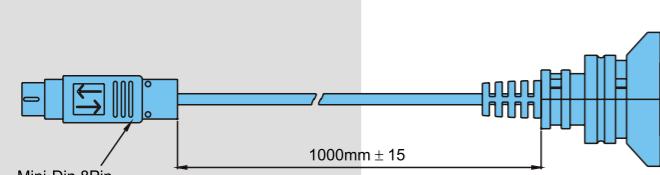
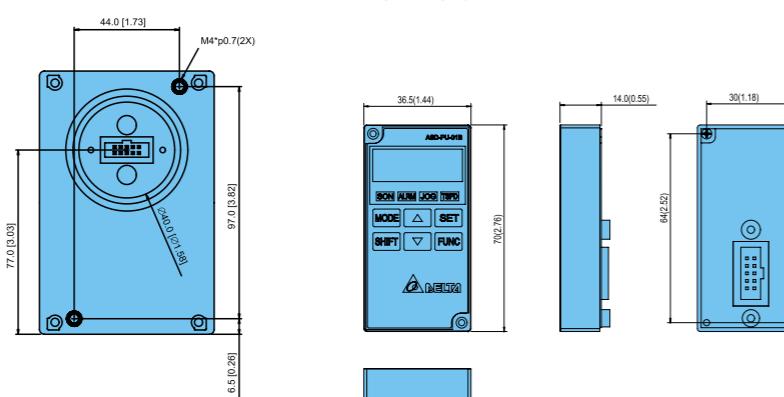


Keypad(including communication cable)

ASD-PU-01A



ASD-PU-01B



Title	Part No.	Manufacturer
BoxHeader	3071420300	DELTA
Cover	3140311100	DELTA
Housing	254I-K-14PD	JAWS
Terminal	254I-T-G	JAWS

Servo Drive, Servo Motor and Accessories Combinations

100W Servo Drive and Applicable Servo Motor

Servo Drive		ASD-B0121-A				
Low inertia Servo Motor		ECMA-C30401S				
Cable	Connector	Without Brake		With Brake		
		3M	5M	3M	5M	
		Motor Power Cable ASDBCAPW0203	Motor Power Cable ASDBCAPW0205	-	-	
Encoder Cable ASDBCAEN0003		Encoder Cable ASDBCAEN0005	-	-	-	
Power Connector ASDBCAPW0000		Encoder Connector ASDBCAEN0000				

200W Servo Drive and Applicable Servo Motor

Servo Drive		ASD-B0221-A				
Low inertia Servo Motor		ECMA-C30602S				
Cable	Connector	Without Brake		With Brake		
		3M	5M	3M	5M	
		Motor Power Cable ASDBCAPW0203	Motor Power Cable ASDBCAPW0205	Motor Power Cable ASDBCAPW0303	Motor Power Cable ASDBCAPW0305	
Encoder Cable ASDBCAEN0003		Encoder Cable ASDBCAEN0005	Encoder Cable ASDBCAEN0003	Encoder Cable ASDBCAEN0005	Encoder Cable ASDBCAEN0005	
Power Connector ASDBCAPW0000		Power Connector ASDBCAPW0100				
Encoder Connector ASDBCAEN0000						

400W Servo Drive and Applicable Servo Motor

Servo Drive		ASD-B0421-A				
Low inertia Servo Motor		ECMA-C30604S ECMA-C30804T				
Cable	Connector	Without Brake		With Brake		
		3M	5M	3M	5M	
		Motor Power Cable ASDBCAPW0203	Motor Power Cable ASDBCAPW0205	Motor Power Cable ASDBCAPW0303	Motor Power Cable ASDBCAPW0305	
Encoder Cable ASDBCAEN0003		Encoder Cable ASDBCAEN0005	Encoder Cable ASDBCAEN0003	Encoder Cable ASDBCAEN0005	Encoder Cable ASDBCAEN0005	
Power Connector ASDBCAPW0000		Power Connector ASDBCAPW0100				
Encoder Connector ASDBCAEN0000						



AC Servo System

Accessories

ASDA-B

Servo Drive, Servo Motor and Accessories Combinations

400W Servo Drive and Applicable Servo Motor

Servo Drive	ASD-B0421-A			
Medium inertia Servo Motor	ECMA-E31305-S			
Cable	Without Brake		With Brake	
	3M	5M	3M	5M
	Motor Power Cable ASD-CAPW1203	Motor Power Cable ASD-CAPW1205	Motor Power Cable ASD-CAPW1303	Motor Power Cable ASD-CAPW1305
Connector	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005
	Power Connector ASD-CAPW1000			
	Encoder Connector ASDBCAEN1000			

750W Servo Drive and Applicable Servo Motor

Servo Drive	ASD-B0721-A			
High inertia Servo Motor	ECMA-G31306-S			
Cable	Without Brake		With Brake	
	3M	5M	3M	5M
	Motor Power Cable ASD-CAPW1203	Motor Power Cable ASD-CAPW1205	Motor Power Cable ASD-CAPW1303	Motor Power Cable ASD-CAPW1305
Connector	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005
	Power Connector ASD-CAPW1000			
	Encoder Connector ASDBCAEN1000			

400W Servo Drive and Applicable Servo Motor

Servo Drive	ASD-B0421-A			
High inertia Servo Motor	ECMA-G31303-S			
Cable	Without Brake		With Brake	
	3M	5M	3M	5M
	Motor Power Cable ASD-CAPW1203	Motor Power Cable ASD-CAPW1205	Motor Power Cable ASD-CAPW1303	Motor Power Cable ASD-CAPW1305
Connector	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005
	Power Connector ASD-CAPW1000			
	Encoder Connector ASDBCAEN1000			

1kW Servo Drive and Applicable Servo Motor

Servo Drive	ASD-B1021-A			
Low inertia Servo Motor	ECMA-C31010-S			
Cable	Without Brake		With Brake	
	3M	5M	3M	5M
	Motor Power Cable ASD-CAPW1203	Motor Power Cable ASD-CAPW1205	Motor Power Cable ASD-CAPW1303	Motor Power Cable ASD-CAPW1305
Connector	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005
	Power Connector ASD-CAPW1000			
	Encoder Connector ASDBCAEN1000			

750W Servo Drive and Applicable Servo Motor

Servo Drive	ASD-B0721-A			
Low inertia Servo Motor	ECMA-C30807-S			
Cable	Without Brake		With Brake	
	3M	5M	3M	5M
	Motor Power Cable ASDBCAPW0203	Motor Power Cable ASDBCAPW0205	Motor Power Cable ASDBCAPW0303	Motor Power Cable ASDBCAPW0305
Connector	Encoder Cable ASDBCAEN0003	Encoder Cable ASDBCAEN0005	Encoder Cable ASDBCAEN0003	Encoder Cable ASDBCAEN0003
	Power Connector ASDBCAPW0000		Power Connector ASDBCAPW0100	
	Encoder Connector ASDBCAEN0000			

1kW Servo Drive and Applicable Servo Motor

Servo Drive	ASD-B1021-A			
Medium inertia Servo Motor	ECMA-E31310-S			
Cable	Without Brake		With Brake	
	3M	5M	3M	5M
	Motor Power Cable ASD-CAPW1203	Motor Power Cable ASD-CAPW1205	Motor Power Cable ASD-CAPW1303	Motor Power Cable ASD-CAPW1305
Connector	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005
	Power Connector ASD-CAPW1000			
	Encoder Connector ASDBCAEN1000			



Accessories

ASDA-B

Servo Drive, Servo Motor and Accessories Combinations

1kW Servo Drive and Applicable Servo Motor

Servo Drive	ASD-B1021-A			
High inertia Servo Motor	ECMA-G31309S			
Cable	Without Brake		With Brake	
	3M	5M	3M	5M
	Motor Power Cable ASD-CAPW1203	Motor Power Cable ASD-CAPW1205	Motor Power Cable ASD-CAPW1303	Motor Power Cable ASD-CAPW1305
	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005
Connector	Power Connector ASD-CAPW1000			
	Encoder Connector ASDBCAEN1000			

2kW Servo Drive and Applicable Servo Motor

Servo Drive	ASD-B2023-A			
Medium inertia Servo Motor	ECMA-E31320S			
Cable	Without Brake		With Brake	
	3M	5M	3M	5M
	Motor Power Cable ASD-CAPW1203	Motor Power Cable ASD-CAPW1205	Motor Power Cable ASD-CAPW1303	Motor Power Cable ASD-CAPW1305
	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005
Connector	Power Connector ASD-CAPW1000			
	Encoder Connector ASDBCAEN1000			

1.5kW Servo Drive and Applicable Servo Motor

Servo Drive	ASD-B1521-A			
Medium inertia Servo Motor	ECMA-E31315S			
Cable	Without Brake		With Brake	
	3M	5M	3M	5M
	Motor Power Cable ASD-CAPW1203	Motor Power Cable ASD-CAPW1205	Motor Power Cable ASD-CAPW1303	Motor Power Cable ASD-CAPW1305
	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005
Connector	Power Connector ASD-CAPW1000			
	Encoder Connector ASDBCAEN1000			

2kW Servo Drive and Applicable Servo Motor

Servo Drive	ASD-B2023-A			
Medium inertia Servo Motor	ECMA-E31820S			
Cable	Without Brake		With Brake	
	3M	5M	3M	5M
	Motor Power Cable ASD-CAPW2203	Motor Power Cable ASD-CAPW2205	Motor Power Cable ASD-CAPW2303	Motor Power Cable ASD-CAPW2305
	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005
Connector	Power Connector ASD-CAPW2000			
	Encoder Connector ASDBCAEN1000			

2kW Servo Drive and Applicable Servo Motor

Servo Drive	ASD-B2023-A			
Low inertia Servo Motor	ECMA-C31020S			
Cable	Without Brake		With Brake	
	3M	5M	3M	5M
	Motor Power Cable ASD-CAPW1203	Motor Power Cable ASD-CAPW1205	Motor Power Cable ASD-CAPW1303	Motor Power Cable ASD-CAPW1305
	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005	Encoder Cable ASDBCAEN1003	Encoder Cable ASDBCAEN1005
Connector	Power Connector ASD-CAPW1000			
	Encoder Connector ASDBCAEN1000			

Other Accessories (Applicable for ASDA-B series all models)	
Description	Model Name
25Pin I/O signal connector (CN1)	ASDBCND0025
Communication cable, for Keypad, connecting a ASDA-B servo drive to a Keypad	ASDBCADK0001
Communication cable, for PC, connecting a ASDA-B servo drive to a PC	DVPACAB2A30
Communication cable, for Keypad, connecting a PC to a Keypad	ASDBCACK0001
Keypad	ASD-PU-01A ASD-PU-01B

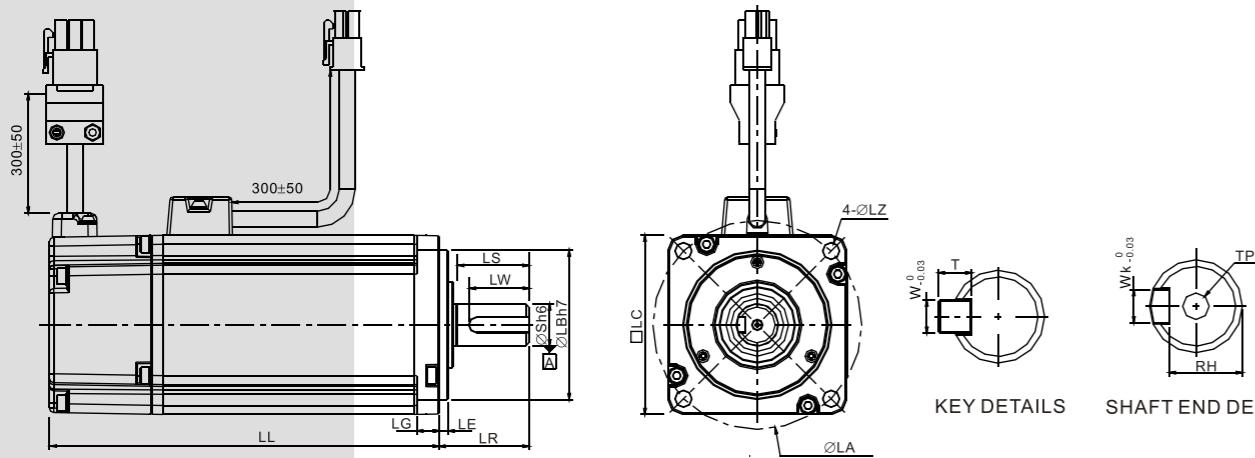


AC Servo System

Dimensions

Dimensions of Servo Motor

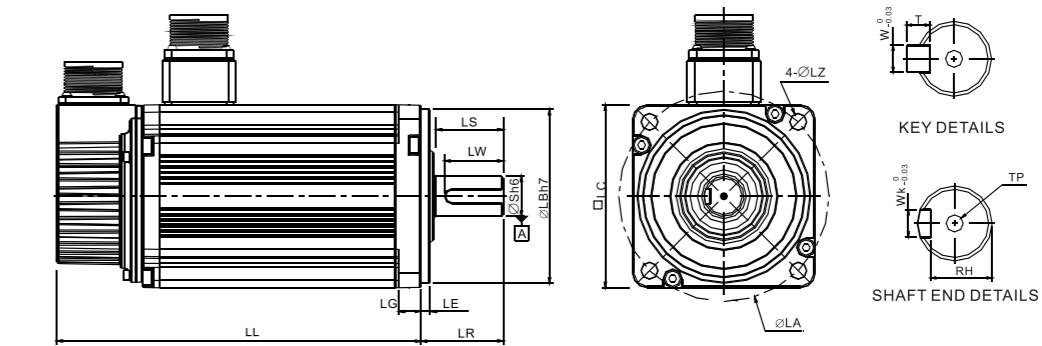
ECMA Series Motor Frame Size: 80mm and below Models (Units: mm)



Model	C30401□S	C30602□S	C30604□S	C30804□T	C30807□S
LC	40	60	60	80	80
LZ	4.5	5.5	5.5	6.6	6.6
LA	46	70	70	90	90
S	8	14	14	14	19
LB	30	50	50	70	70
LL (w/o brake)	100.6	105.5	130.7	112.3	138.3
LL (with brake)	136.6	141.6	166.8	152.8	178
LS (w/o oilseal)	20	27	27	27	32
LS (with oilseal)	20	24	24	24.5	29.5
LR	25	30	30	30	35
LE	3	3	3	3	3
LG	5	7.5	7.5	8	8
LW	16	20	20	20	25
RH	6.2	11	11	11	15.5
WK	3	5	5	5	6
W	3	5	5	5	6
T	3	5	5	5	6
TP	M3xP0.5 Depth:8mm	M4xP0.7 Depth:15mm	M4xP0.7 Depth:15mm	M4xP0.7 Depth:15mm	M6xP1 Depth:20mm

Note:
 1.The boxes (□) in the model names are for optional configurations (brake, shaft type and oil seal).
 2.The dimensions of "TP" are the special specifications. If necessary, please contact your distributor.

ECMA Series Motor Frame Size: 100mm and above Models (Units: mm)



Model	G31303□S	E31305□S	G31306□S	G31309□S	C31010□S
LC	130	130	130	130	100
LZ	9	9	9	9	9
LA	145	145	145	145	115
S	22	22	22	22	22
LB	110	110	110	110	95
LL (without brake)	147.5	147.5	147.5	163.5	153.25
LL (with brake)	183.5	183.5	183.5	198	192.5
LS	47	47	47	47	37
LR	55	55	55	55	45
LE	6	6	6	6	5
LG	11.5	11.5	11.5	11.5	12
LW	36	36	36	36	32
RH	18	18	18	18	18
WK	8	8	8	8	8
W	8	8	8	8	8
T	7	7	7	7	7
TP	M3xP0.5 Depth:8mm	M4xP0.7 Depth:15mm	M4xP0.7 Depth:15mm	M4xP0.7 Depth:15mm	M6xP1 Depth:20mm

Model	E31310□S	E31315□S	C31020□S	E31320□S	E31820□S
LC	130	130	100	130	180
LZ	9	9	9	9	13.5
LA	145	145	115	145	200
S	22	22	22	22	35
LB	110	110	95	110	114.3
LL (w/o brake)	147.5	167.5	199	187.5	169
LL (with brake)	183.5	202	226	216	203.1
LS	47	47	37	47	73
LR	55	55	45	55	79
LE	6	6	5	6	4
LG	11.5	11.5	12	11.5	20
LW	36	36	32	36	63
RH	18	18	18	18	30
WK	8	8	8	8	10
W	8	8	8	8	10
T	7	7	7	7	8
TP	M3xP0.5 Depth:8mm	M4xP0.7 Depth:15mm	M4xP0.7 Depth:15mm	M4xP0.7 Depth:15mm	M6xP1 Depth:20mm

Note:
 1.The boxes (□) in the model names are for optional configurations (brake, shaft type and oil seal).
 2.The dimensions of "TP" are the special specifications. If necessary, please contact your distributor.

AC Servo System

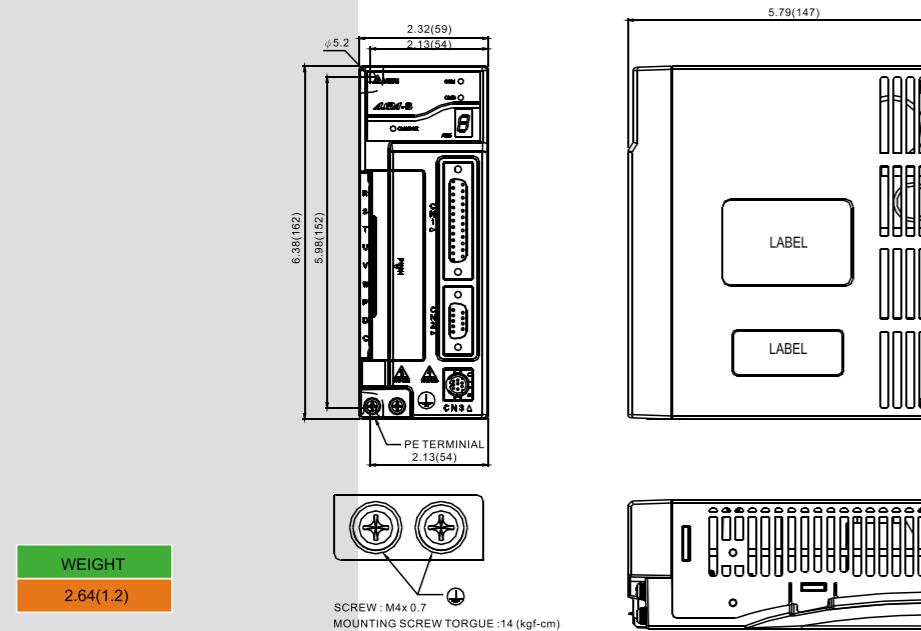


ASDA-B

Dimensions

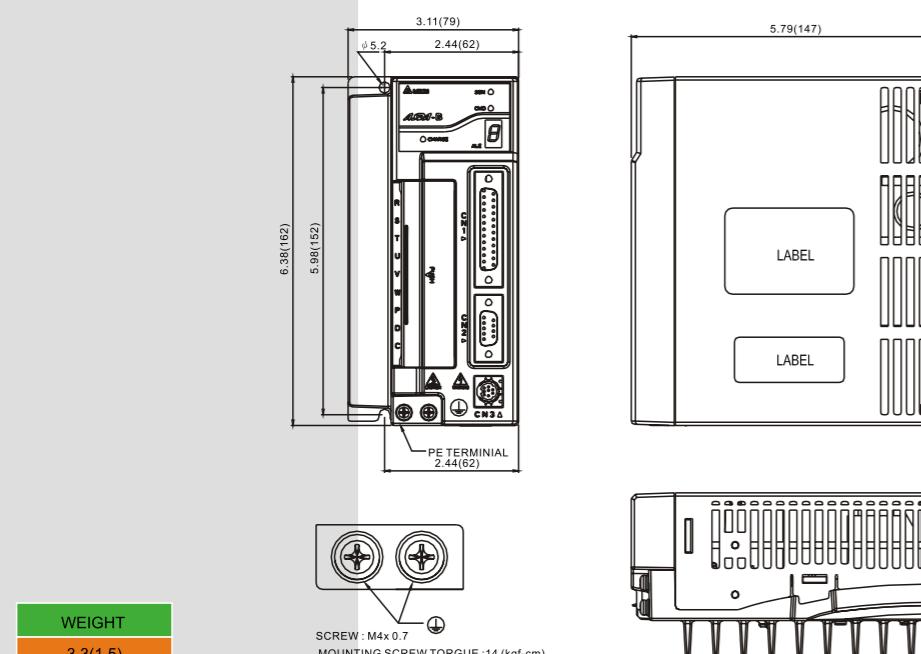
Dimensions of Servo Drive

ASD-B0121-A, ASD-B0221-A, ASD-B0421-A (100W to 400W)



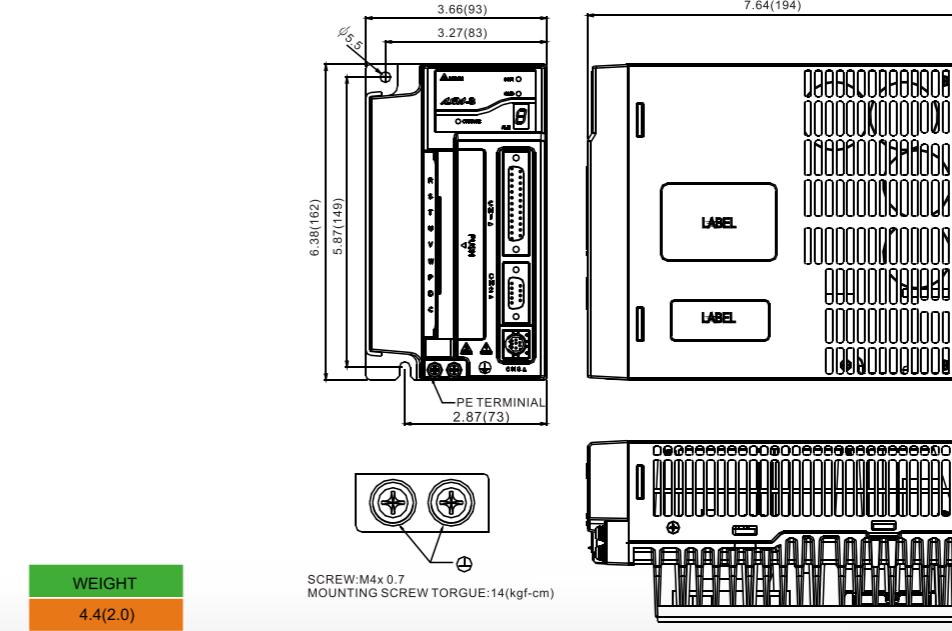
NOTE 1)Dimensions are in millimeters and (inches). Weights are in pounds and (kilograms).
2)We reserve the right to change the dimensions and weights without prior notice

ASD-B0721-A(750W)



NOTE 1)Dimensions are in millimeters and (inches). Weights are in pounds and (kilograms).
2)We reserve the right to change the dimensions and weights without prior notice

ASD-B1021-A, ASD-B1521-A, ASD-B2023-A (1kW to 2kW)



NOTE 1)Dimensions are in millimeters and (inches). Weights are in pounds and (kilograms).
2)We reserve the right to change the dimensions and weights without prior notice

