

ASDA-B



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ASDA-B

DELTA ASDA-B AC Servo System



AC Servo System



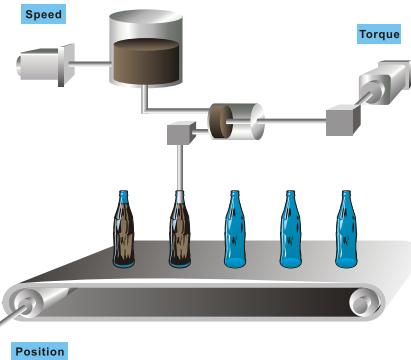
Features

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

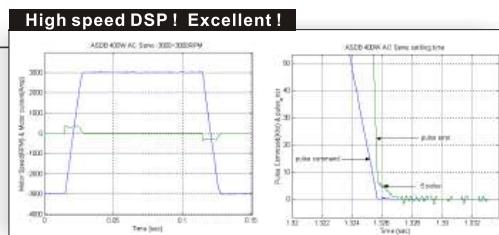
Speed / Torque Limit Operation

- 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

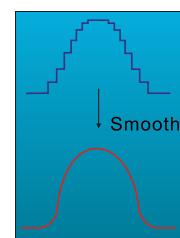


Smoothing Strategy

S-curve Profile for Speed Mode

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

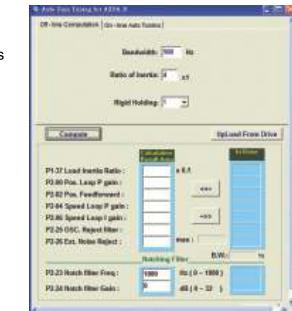
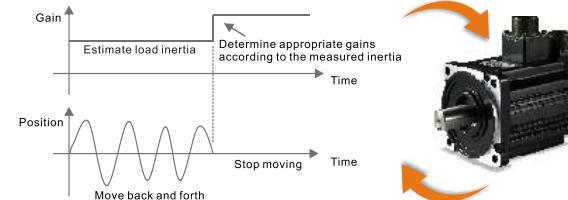
- Using smoothing curves can run the motor more smoothly in response to a sudden operation command. Efficiently improve the machinery performance and extend the life of machinery system.
- When operation commands are suddenly changed, the user can use smoothing curves to achieve continuous and stable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



Tuning Technology

Auto-tuning

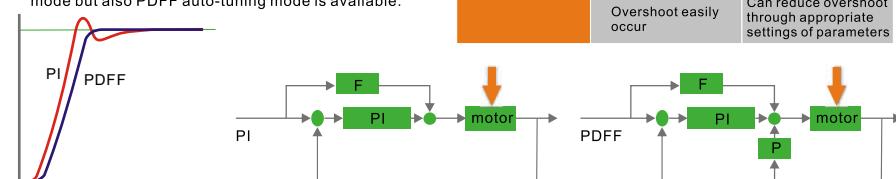
- The servo drive will move back and forth to estimate the load inertia. When the servo drive stop moving back and forth, it can determine the appropriate gains according to the measured inertia. Also, the user can define the responsiveness gains manually.



PI / PDFF Control Structure

PI / PDFF Structure

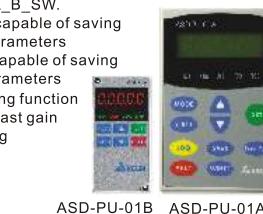
- PI - Proportional - Integral Control
PDFF - Pseudo - Derivative Feedback and Feedforward
- In speed control loop, not only current PI auto-tuning mode but also PDFF auto-tuning mode is available.



User-friendly Interface

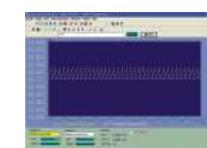
Handheld Digital Keypad

- 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.



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.



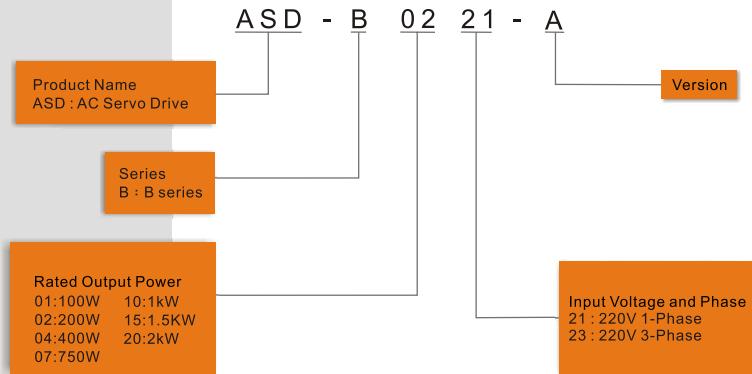
AC Servo System

Model Explanation

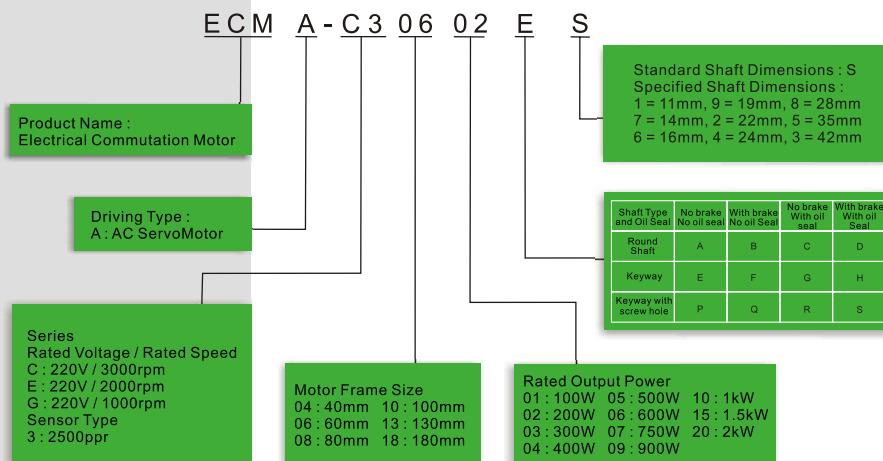


ASDA-B

Servo Drive ASDA-B series



Servo Motor ECMA series



Servo Drive and Servo Motor Combinations

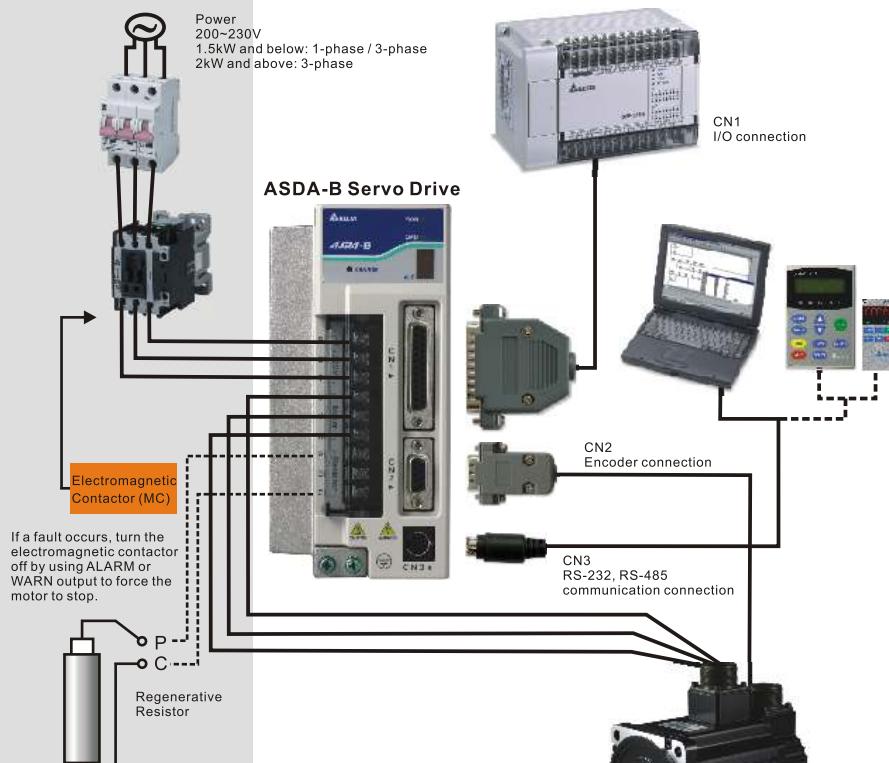
| Servo Drive | | Servo Motor |
|-------------|-------------|--|
| Power | Mode Name | |
| 100W | ASD-B0121-A | ECMA-C30401 □ S(100W) |
| 200W | ASD-B0221-A | ECMA-C30602 □ S(200W) |
| 400W | ASD-B0421-A | ECMA-C30604 □ S(400W) ECMA-C30804 □ 7(400W) ECMA-E31305 □ S(500W) ECMA-G31303 □ S(300W) |
| 750W | 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) |

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 | | Voltage / Frequency | | Three-phase or Single-phase 220VAC | | Three-phase 220VAC | | | |
| Permissible Voltage Range | | 170~252VAC | | 50 / 60 Hz ± 5% | | | | | |
| Permissible Frequency Range | | | | | | | | | |
| Cooling System | | Natural Air Circulation | | Fan Cooling | | | | | |
| Encoder Resolution / Feedback Resolution | | 2500ppr / 1000ppr | | | | | | | |
| Control of Main Circuit | | SVPWM Control | | | | | | | |
| Tuning Modes | | Auto / Manual | | | | | | | |
| Regenerative Resistor | | None | | Built-in | | | | | |
| Position Control Mode | Max. Input Pulse Frequency | | Max. 500KPPS (Line driver) / Max. 200KPPS (Open collector) | | | | | | |
| | Pulse Type | | Pulse + Direction, A phase + B phase, CCW pulse + CW pulse | | | | | | |
| Command Source | | | | External pulse train | | | | | |
| Smoothing Strategy | | Low-pass smoothing filter | | | | | | | |
| Electronic Gear | | Electronic gear N/M multiple , N : 1~32767, M: 1:32767(1/50< N/M <200) | | | | | | | |
| Torque Limit Operation | | Set by parameters | | | | | | | |
| Feed Forward Compensation | | Set by parameters | | | | | | | |
| Speed Control Mode | Analog Input Command | | 0~±10 VDC | | | | | | |
| | Input Resistance | | 10K Ω | | | | | | |
| Time Constant | | 2.2 μs | | | | | | | |
| Speed Control Range *1 | | 1:5000 | | | | | | | |
| Command Source | | External analog signal / Internal parameters | | | | | | | |
| Smoothing Strategy | | Low-pass and S-curve filter | | | | | | | |
| Torque Limit Operation | | Set by parameters | | | | | | | |
| Responsiveness Characteristic | | Maximum 250Hz | | | | | | | |
| Speed Fluctuation Rate *2 | | 0.01% or less at load fluctuation 0 to 100% (at rated speed) | | | | | | | |
| | | 0.01% or less at power fluctuation ±10% (at rated speed) | | | | | | | |
| | | 0.01% or less at ambient temperature fluctuation 0 to 50 °C (at rated rotation speed) | | | | | | | |
| Torque Control Mode | Analog Input Command | | 0~±10 VDC | | | | | | |
| | Input Resistance | | 10K Ω | | | | | | |
| Time Constant | | 2.2 μs | | | | | | | |
| Permissible Time for Overload | | 8 sec. Under 200% rated output | | | | | | | |
| Command Source | | External analog signal / Internal parameters | | | | | | | |
| Smoothing Strategy | | Low-pass smoothing filter | | | | | | | |
| Speed Limit Operation | | Set by parameters | | | | | | | |
| Input | | Servo On, Reset, Gain switching, Low speed CLAMP, Speed/Torque limit enabled, Emergency stop, Forward / Reverse inhibit limit | | | | | | | |
| Digital Input/Output | 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) | | | | | | | | |
| Output | | 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 | | | | | | | |
| Protective Functions | | Overcurrent, Overvoltage, Undervoltage, Motor overheated, Regeneration error, Overload, Overspeed, Excessive deviation, Encoder error, Emergency stop activated, Memory error, Serial communication error | | | | | | | |
| Communication Interface | | RS-232 / RS-485 | | | | | | | |
| Environment | Installation Site | | Indoor location (free from direct sunlight), no corrosive liquid and gas (far away from oil mist, flammable gas, dust) | | | | | | |
| | Altitude | | Altitude 1000m or lower above sea level | | | | | | |
| | Atmospheric pressure | | 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) | | | | | | | |
| Vibration | | 10Hz ≤ F ≤ 57Hz 0.075mm 57Hz < F ≤ 150Hz 1G | | | | | | | |
| IP rating | | IP20 | | | | | | | |
| Power System | | TN / TT System *3 | | | | | | | |
| Approvals | | | | | | | | | |

*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.

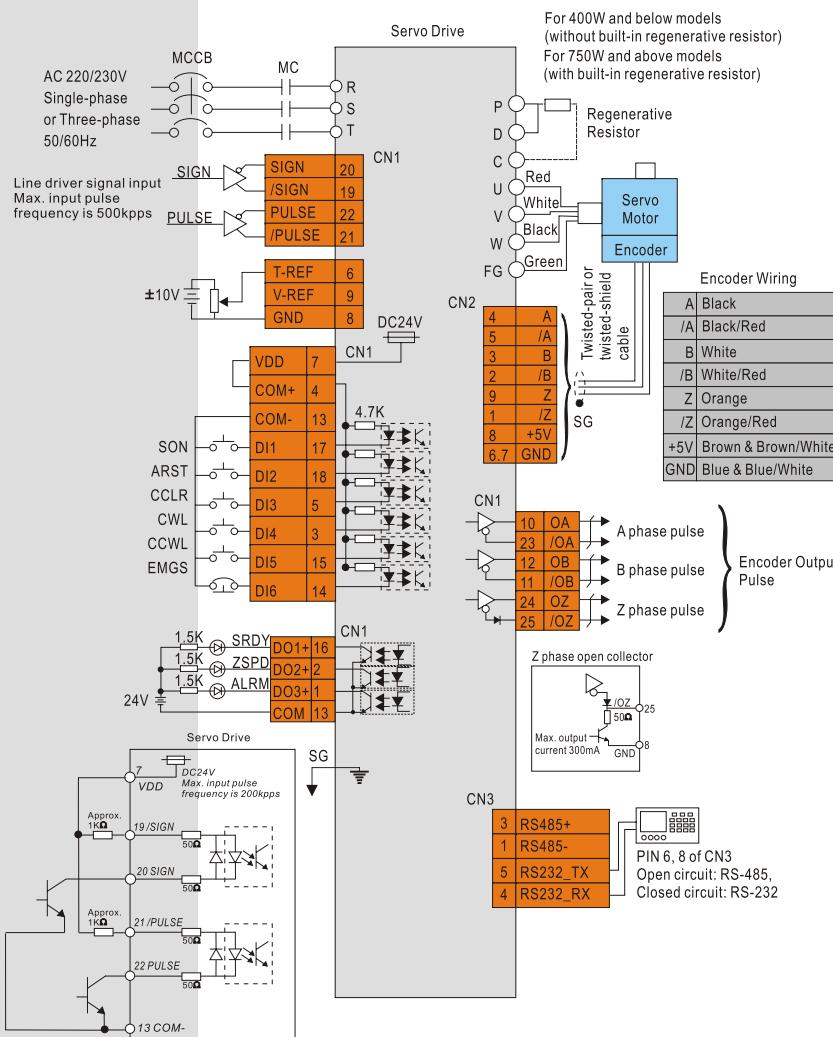
TT system: A power distribution system having one point directly earthed, the exposed conductive parts of the installation being connected to earth independent of the power system.

AC Servo System

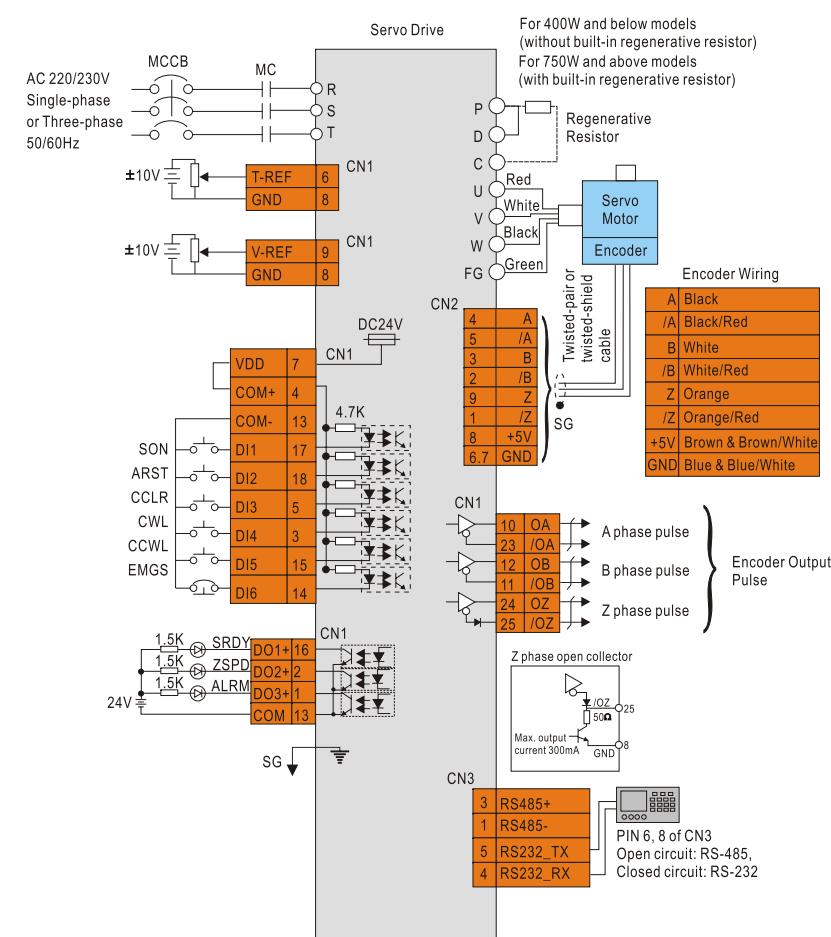
Standard Connection Example



Position(P) Control Mode



Speed(S) Control Mode

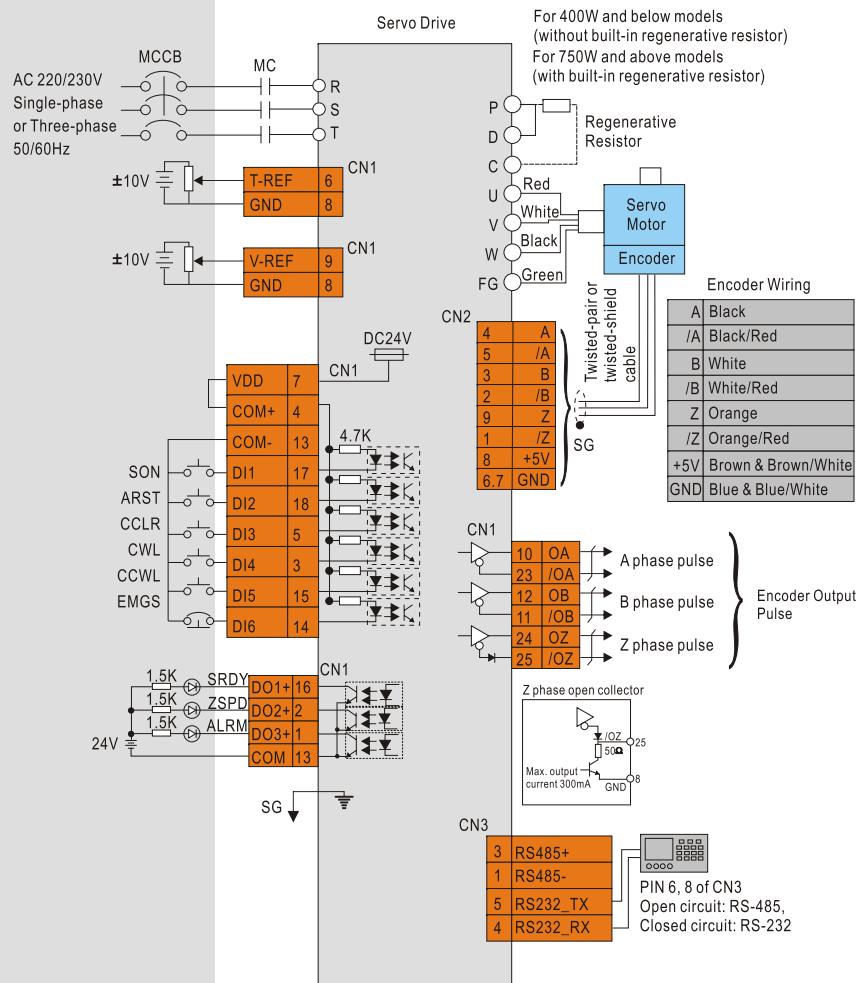


AC Servo System

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 | 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) | 1.0 | 1.55 | 2.6 | 2.6 | 5.1 | 7.3 | 12.05 |
| Maximum current (A) | 3.0 | 4.65 | 7.8 | 7.8 | 15.3 | 21.9 | 36.15 |
| Power rating (kW/s) (without brake) | 27.2 | 22.4 | 57.6 | 24.0 | 50.4 | 38.1 | 90.6 |
| Rotor moment of inertia (Kg.m²) (without brake) | 0.037E-4 | 0.169E-4 | 0.277E-4 | 0.68E-4 | 1.13E-4 | 2.578E-4 | 4.239E-4 |
| Mechanical time constant (ms) (without brake) | 0.85 | 0.80 | 0.53 | 0.74 | 0.63 | 0.74 | 0.61 |
| Torque constant-KT (N.m/A) | 0.32 | 0.41 | 0.49 | 0.49 | 0.47 | 0.43 | 0.53 |
| Voltage constant-KE (mV/rpm) | 12.9 | 16 | 17.4 | 18.5 | 17.2 | 16.8 | 19.2 |
| Armature resistance (Ohm) | 8.95 | 2.79 | 1.55 | 0.93 | 0.42 | 0.20 | 0.13 |
| Armature inductance (mH) | 22.7 | 12.07 | 6.71 | 7.39 | 3.53 | 1.81 | 1.50 |
| Electrical time constant (ms) | 2.54 | 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 secretory | | |
| 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 | 490 | 490 | |
| Max. thrust shaft load (N) | 39.2 | 68 | 68 | 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 | 0.74 |
| 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



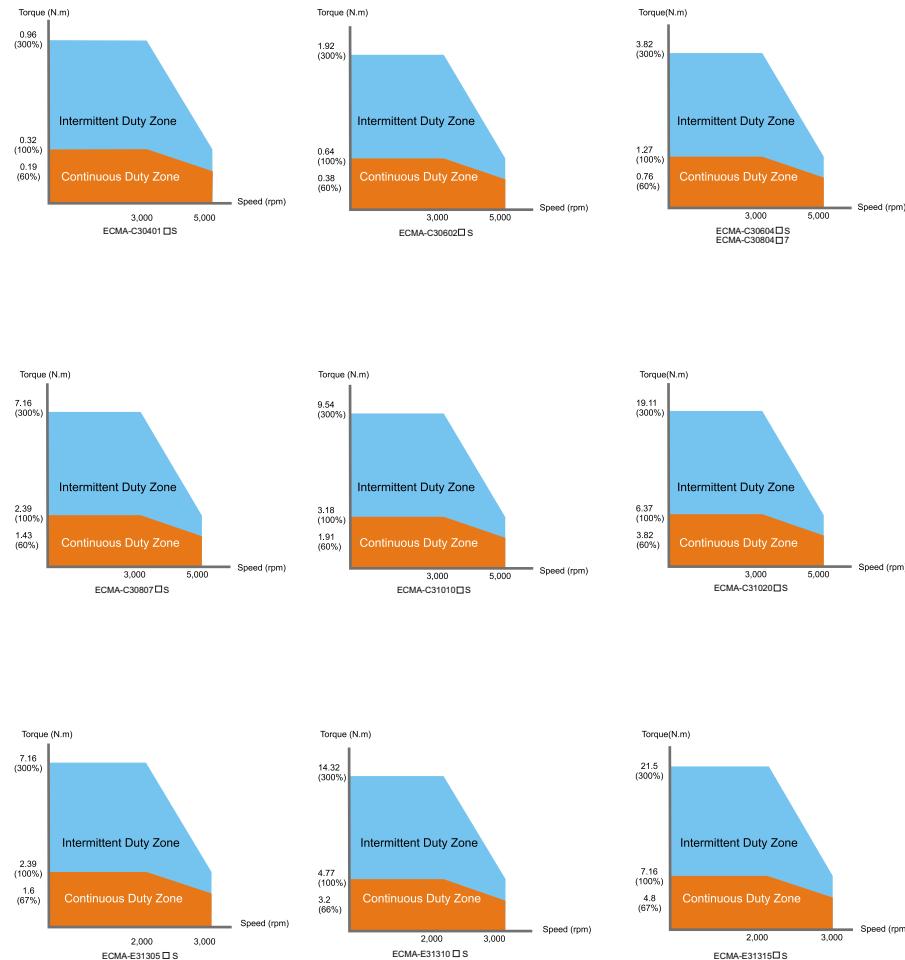
ASPA-B

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 | 59.7 | 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) | 1.89 | 1.50 | 1.11 | 1.10 | 1.62 | 1.82 | 1.38 | 1.06 | |
| Torque constant-KT (N.m/A) | 0.83 | 0.85 | 0.87 | 0.87 | 0.85 | 1.16 | 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 | 0.147 | 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) | 13.04 | 12.87 | 15.31 | 15.86 | 23.87 | 13.55 | 13.50 | 16.07 | |
| 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



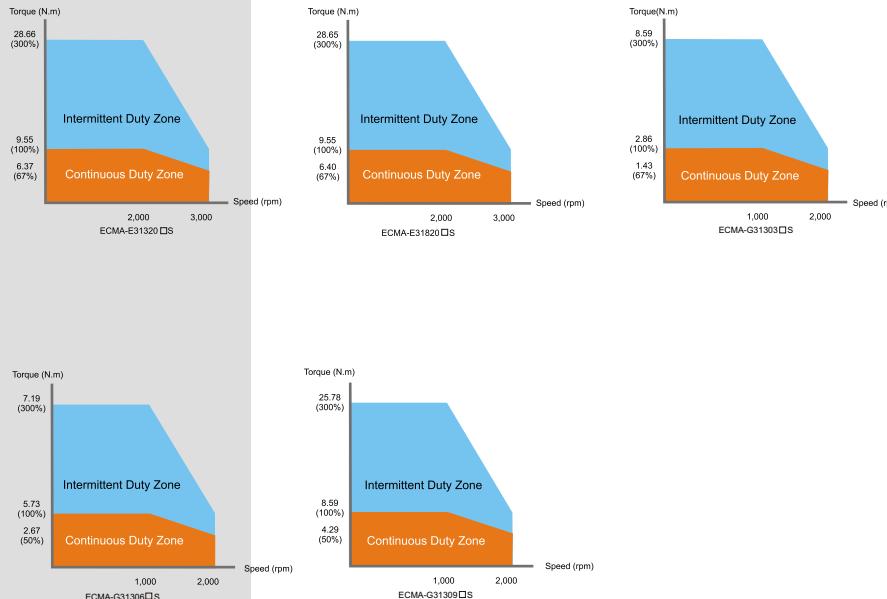
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Accessories

Speed-Torque Curves



Servo Accessories

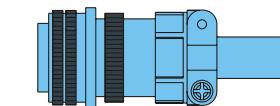
Power Connectors

ASDBCAPW0000



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

ASD-CAPW1000



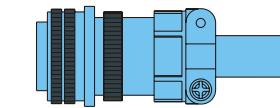
MS 3106A-20-18S

ASDBCAPW0100



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

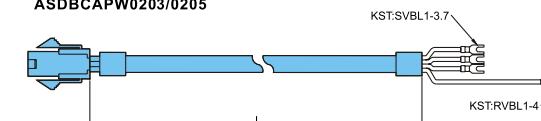
ASD-CAPW2000



MS 3106A-24-11S

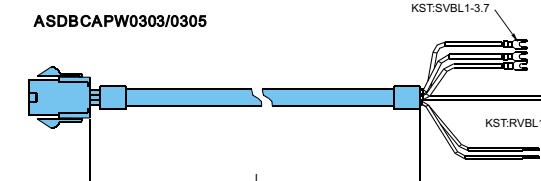
Power Cables

ASDBCAPW0203/0205



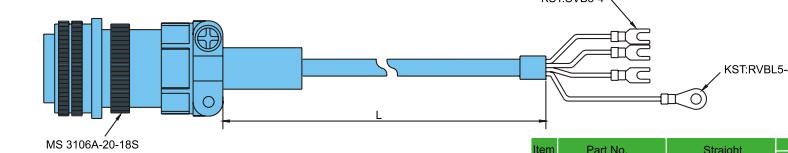
| Title | Part No. | Manufacturer |
|----------|----------------|-------------------|
| Housing | C4201H00-2*2PA | JOWLE |
| Terminal | C4201TOP-2 | JOWLE |
| Item | Part No. | L mm inc |
| 1 | ASDBCAPW0203 | 3000 ± 10 118 ± 2 |
| 2 | ASDBCAPW0205 | 5000 ± 10 197 ± 2 |

ASDBCAPW0303/0305



| Title | Part No. | Manufacturer |
|----------|----------------|-------------------|
| Housing | C4201H00-2*3PA | JOWLE |
| Terminal | C4201TOP-2 | JOWLE |
| 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 ± 50 | 118 ± 2 |
| 2 | ASD-CAPW1205 | 3106A-20-18S | 5000 ± 50 | 197 ± 2 |

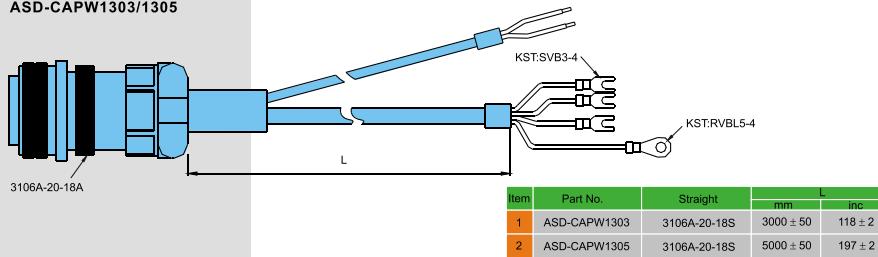
AC Servo System

Accessories

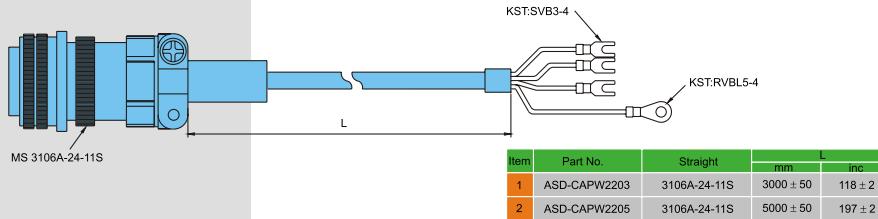
Servo Accessories

Power Cables

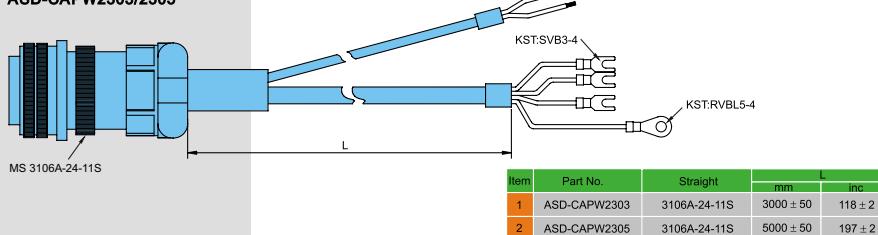
ASD-CAPW1303/1305



ASD-CAPW2203/2205

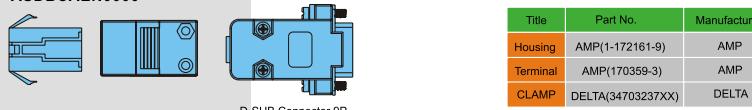


ASD-CAPW2303/2305

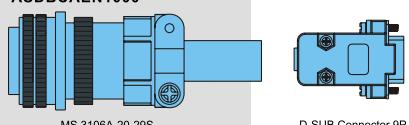


Encoder Connectors

ASDBCAEN0000



ASDBCAEN1000



ASDA-B

Encoder Cables

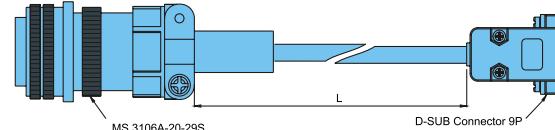
ASDBCAEN0003/0005



| Title | Part No. | Manufacturer |
|----------|-------------------|--------------|
| Housing | AMP(1-172161-9) | AMP |
| Terminal | AMP(170359-3) | AMP |
| CLAMP | DELTA(34703237XX) | DELTA |

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

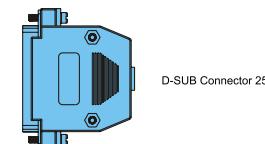
ASDBCAEN1003/1005



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

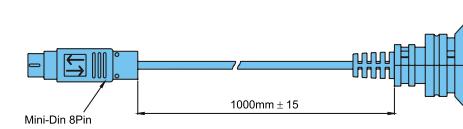
I/O Signal Connector

ASDBCND0025



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

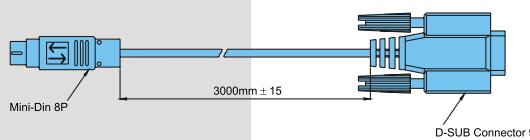
ASDA-B

Accessories

Servo Accessories

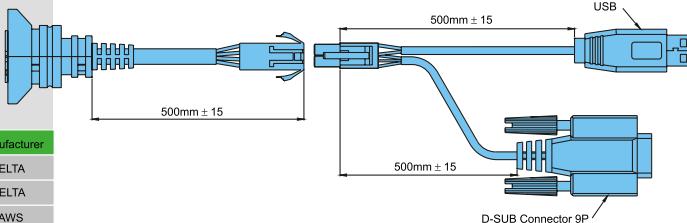
Communication Cables(for PC, connecting a ASDA-B servo drive to a PC)

DVPACAB2A30



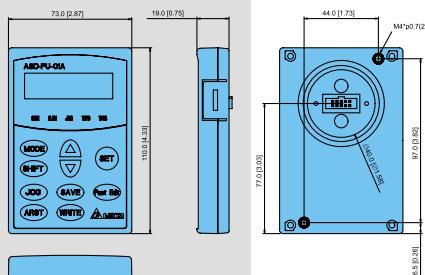
Communication Cables(for Keypad, connecting a PC to a Keypad)

ASDBCACK0001

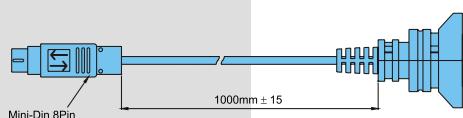
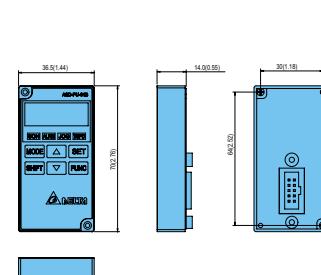


Keypad(including communication cable)

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-C30401□S | | | | |
| 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-C30602□S | | | | |
| 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 Connector ASDBCAEN0000 | | | | | | |

400W Servo Drive and Applicable Servo Motor

| Servo Drive | | ASD-B0421-A | | | | |
|--------------------------------|-----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--|
| Low inertia Servo Motor | | ECMA-C30604□S ECMA-C30804□T | | | | |
| 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 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 |
| Encoder | 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 | | | |

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 |
| Encoder | 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 | | | |

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 |
| Encoder | 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 ASDBCAEN0003 |
| Connector | Power Connector ASDBCAPW0000 | | Power Connector ASDBCAPW0100 | |
| | Encoder Connector ASDBCAEN0000 | | | |

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 |
| Encoder | 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 | | | |

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 |
| Encoder | 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 | | | |

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 |
| Encoder | 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 | | | |



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 | | | |

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 | | | |
|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|----|
| 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 | | | |

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 | |
| 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 | | | |

| Other Accessories (Applicable for ASDA-B series all models) | |
|--|--------------------------|
| Description | Model Name |
| 25Pin I/O signal connector (CN1) | ASDBCND50025 |
| 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 |

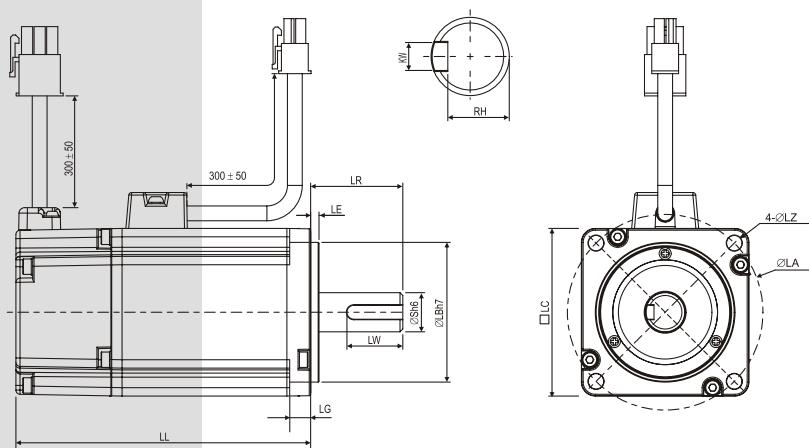
AC Servo System

Dimensions



Dimensions of Servo Motor

Motor Frame Size: 40mm , 60mm , 80mm Models



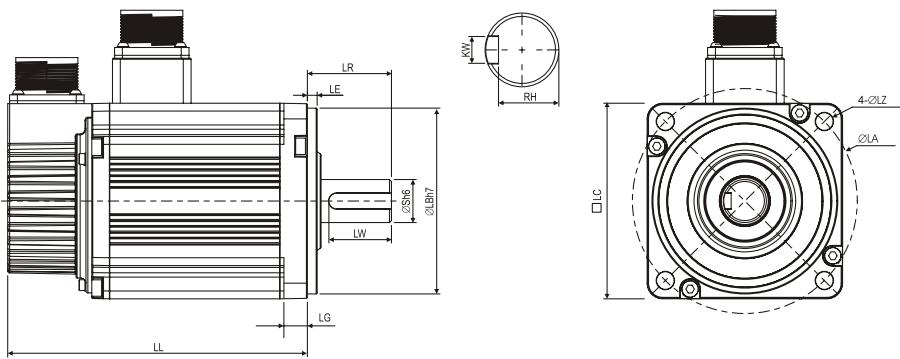
| Model | C30401□S | C30602□S | C30604□S | C30804□T | C30807□S |
|-------------------|----------|----------|----------|----------|----------|
| LC | 40 | 60 | 60 | 80 | 80 |
| LZ | 4.5 | 5.5 | 5.5 | 6.6 | 6.6 |
| LA | 46 | 70 | 70 | 90 | 90 |
| S | 8 | 14 | 14 | 14 | 19 |
| LB | 30 | 50 | 50 | 70 | 70 |
| LL(Without brake) | 100.6 | 105.5 | 130.7 | 112.3 | 138.3 |
| LL(With brake) | - | 141.6 | 166.8 | 152.8 | 178 |
| LR | 25 | 30 | 30 | 30 | 35 |
| LE | 2.5 | 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 |
| KW | 3 | 5 | 5 | 5 | 6 |

*NOTE

1)Dimensions are in millimeters.

2)The boxes (□) in the model names are for optional configurations. (Please refer to Page3 for model explanation)

Motor Frame Size: 100mm , 130mm , 180mm Models



| 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 | 153.5 |
| LL(With brake) | 183.5 | 183.5 | 183.5 | 198 | 192.5 |
| 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 |
| KW | 8 | 8 | 8 | 8 | 8 |

| 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(Without brake) | 147.5 | 167.5 | 199 | 187.5 | 169 |
| LL(With brake) | 183.5 | 202 | 226 | 216 | 203.1 |
| 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 |
| KW | 8 | 8 | 8 | 8 | 10 |

*NOTE

1)Dimensions are in millimeters.

2)The boxes (□) in the model names are for optional configurations. (Please refer to Page3 for model explanation)

AC Servo System

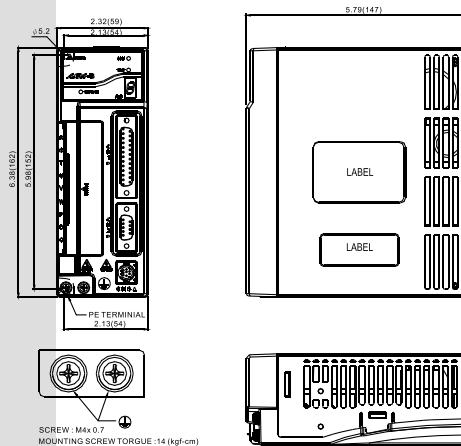


ASDA-B

Dimensions

Dimensions of Servo Drive

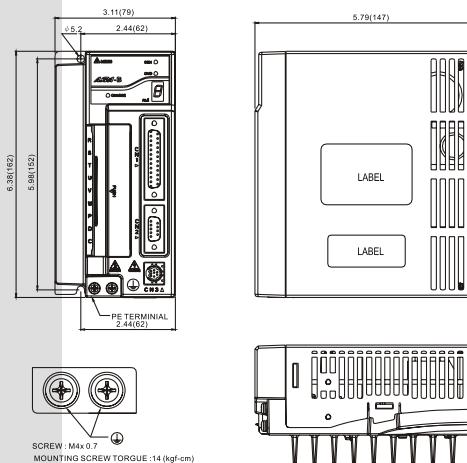
ASD-B0121-A, ASD-B0221-A, ASD-B0421-A (100W to 400W)



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

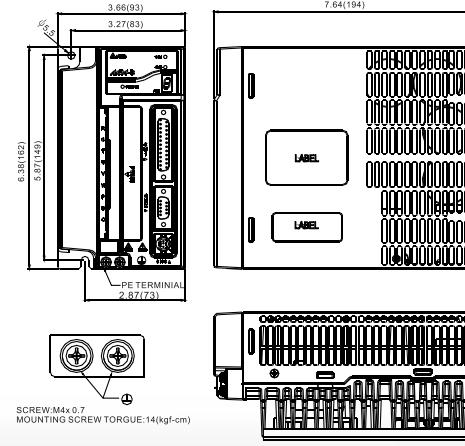
ASD-B0721-A(750W)



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

