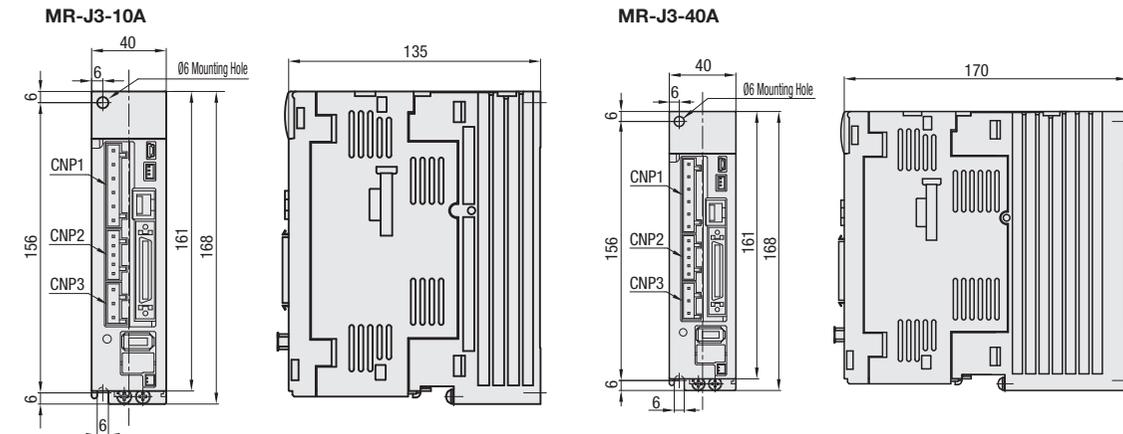


Mitsubishi Electric AC Servo MELSERVO-J3 Series

Driver Basic Specifications

| Servo Amplifier Model | | MR-J3-10A/MR-J3-40A |
|---|---------------------------------|---|
| Main Circuit Power Supply | Voltage / Frequency | Three-phase / Single-phase AC200 ~ 230V / 50, 60Hz |
| | Allowable Voltage Fluctuation | Three-phase AC200 ~ 230V: Three-phase AC170 ~ 253V Single-phase AC200 ~ 230V: Single-phase AC170 ~ 253V |
| | Allowable Frequency Fluctuation | within $\pm 5\%$ |
| Control Circuit Power Supply | Voltage / Frequency | Single-phase AC200 ~ 230V / 50, 60Hz |
| | Allowable Voltage Fluctuation | Single-phase AC170 ~ 253V |
| | Allowable Frequency Fluctuation | within $\pm 5\%$ |
| Interface Power Supply | | DC24V $\pm 10\%$ (Required Current Capacity: 300mA) |
| Regenerative Resistor Allowable Dissipation Power | Amplifier Built-in Resistor | 10A: None 40A: 10W |
| Control Method | | Sine Wave PWM Control / Current Control Type |
| Dynamic Brake | | Built-in |
| Protection Functions | | Over current cutoff, regenerative overvoltage cutoff, overload cutoff (electronic thermal protection), servo motor overheat protection, encoder error / regenerative error protection, low voltage / instantaneous power failure, over speed / excessive error protection |
| Position Control Mode | Maximum Input Pulse Frequency | 1Mpps (Differential Receiver), 200kpps (Open Collector) |
| | Position Feedback Pulse | Encoder Resolution: 262144p/rev |
| | Command Pulse Multiplication | Electronic Gear A/B ratio A=1~1048576, B=1~1048576 1/10<A/B<2000 |
| | Positioning Completion Setting | 0 ~ $\pm 10,000$ pulse (Command Pulse Unit) |
| | Excess Error | ± 3 revolutions |
| Velocity Control Mode | Torque Limit | Parameter Setting or External Analog Input Setting (DC 0 ~ +10V/Max. Torque) |
| | Velocity Control Range | Analog Velocity Commands 1:2000, Internal Velocity Commands 1:5000 |
| | Analog Velocity Command Input | DC 0 ~ ± 10 V/Rated Rotational Velocity |
| | Velocity Fluctuation Rate | $\pm 0.01\%$ or Less (Load Fluctuation 0 ~ 100%) 0% (Power Supply Fluctuation $\pm 10\%$) $\pm 0.2\%$ or Less (Ambient Temperature 25°C ± 10 °C) Only by Analog Velocity Commands |
| | Torque Limit | Parameter Setting or External Analog Input Setting (DC 0 ~ +10V/Max. Torque) |
| Torque Control Mode | Analog Torque Command Input | DC 0 ~ ± 8 V/Max. Torque (Input Impedance 10 ~ 12k Ω) |
| | Velocity Limit | Parameter Setting or External Analog Input Setting (DC 0 ~ +10V/Rated Rotational Velocity) |
| | Structure | Self-cooling, Open (IP00) |
| Environment | Operating Temperature | 0 ~ 55°C (No Freezing), Storage: -20 ~ 65°C (No Freezing) |
| | Operating Humidity | 90%RH or Less (No Condensation), Storage: 90%RH or Less (No Condensation) |
| | Ambience | Indoors (Avoid direct sunlight), no corrosive gas, flammable gases, oil mist and dust |
| | Altitude | 1,000m or Less above sea level |
| | Vibration | 5.9m/s ² or Less |
| Mass | | 10A:0.8kg 40A:1.0kg |

External Dimension Diagram



Setup Software is discontinued.

Oriental Motor α -Step AR26AK

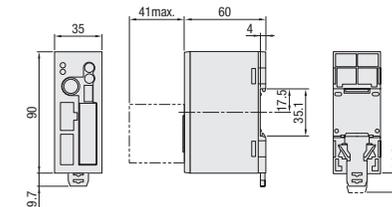
Driver Basic Specifications (During positioning operation)

| | | |
|--------------------------------------|-----------------------|---|
| Input Power Supply | | DC24V $\pm 10\%$ |
| Velocity / Position Control Commands | | Pulse Input |
| Maximum Input Pulse Frequency | | When the host controller is a line driver output: 500 kHz (When pulse duty is 50%) When the host controller is an open-collector output: 250 kHz (When pulse duty is 50%)*1 |
| Protection Functions | | When an alarm is generated, the ALM output is turned OFF, and the motor stops. (Uniquely, in the case of an abnormal operation data alarm, the motor current is not cut off, and therefore operation continues.) (Overheat protection, Overload, Overspeed, Command pulse error, Overvoltage protection, Undervoltage, Excessive position deviation during current ON, Excessive position deviation during current OFF, Abnormal operation data, Electronic gear setting error, Sensor error during operation, Initial sensor error, Initial rotor rotation error, Motor combination error, EEPROM error) |
| Input Signal | | Photo Coupler Input - Input resistance when input is 5 VDC: 200 Ω ; input resistance when input is 24 VDC: 2.7 k Ω (CW pulse input / pulse input (+5 V/line driver), CW pulse input / pulse input (+24 V) CCW pulse input / rotational direction input (+5 V/line driver), CCW pulse input / rotational direction input (+24 V)) - Input resistance when input is 5~24 VDC: 3.0 k Ω (Current ON, Deviation counter clear / Alarm reset, Current control mode ON, Resolution switch, Return to electrical home operation, Position reset, Excitation OFF) |
| Output Signal | | - Photo Coupler / Open-collector output: external use conditions: 30 VDC maximum, 15 mA or less [Alarm, Warning, Positioning completion, Operation preparation completion, Torque limitation, Timing signal (open collector)] - Line driver output: equivalent to 26C31 [A-phase pulse output (line driver), B-phase pulse output (line driver), Timing signal (line driver)] |
| Operating Environment | Operating Temperature | 0~+50°C (No Freezing) |
| | Operating Humidity | 85% or below (No Condensation) |
| | Ambience | No corrosive gases or dust. No direct contact with water or oil. |

*1 Applicable when the separately-sold general-purpose cable (CC36D1-1) is used.

*2 Because the main body of the product is covered by a resin cover, insulation resistance and withstand voltage are not given.

External Dimension Diagram



Oriental Motor α -Step AR46AA (MA) / AR66AA (MA)

Driver Basic Specifications (During positioning operation)

| | | |
|--------------------------------------|-----------------------|---|
| Input Power Supply | | Single-phase AC100-115V -15~+10% 50/60Hz |
| Velocity / Position Control Commands | | Pulse Input |
| Maximum Input Pulse Frequency | | When the host controller is a line driver output: 500 kHz (When pulse duty is 50%) When the host controller is an open-collector output: 250 kHz (When pulse duty is 50%)*1 |
| Protection Functions | | When an alarm is generated, the ALM output is turned OFF, and the motor stops. (Uniquely, in the case of an abnormal operation data alarm, the motor current is not cut off, and therefore operation continues.) (Overheat protection, Overload, Overspeed, Command pulse error, Regeneration unit overheat, Overvoltage protection, Main power supply error, Undervoltage, Excessive position deviation during current ON, Excessive position deviation during current OFF, Overcurrent protection, Drive circuit error, Abnormal operation data, Electronic gear setting error, Sensor error during operation, Initial sensor error, Initial rotor rotation error, Motor combination error, EEPROM error) |
| Input Signal | | Photo Coupler Input - Input resistance when input is 5 VDC: 200 Ω ; input resistance when input is 24 VDC: 2.7 k Ω (CW pulse input / pulse input (+5 V/line driver), CW pulse input / pulse input (+24 V) CCW pulse input / rotational direction input (+5 V/line driver), CCW pulse input / rotational direction input (+24 V)) - Input resistance when input is 5~24 VDC: 3.0 k Ω (Current ON, Deviation counter clear / Alarm reset, Current control mode ON, Resolution switch, Return to electrical home operation, Position reset, Excitation OFF) |
| Output Signal | | - Photo Coupler / Open-collector output: external use conditions: 30 VDC maximum, 15 mA or less [Alarm, Warning, Positioning completion, Operation preparation completion, Torque limitation, Timing signal (open collector)] - Line driver output: equivalent to 26C31 [A-phase pulse output (line driver), B-phase pulse output (line driver), Timing signal (line driver)] |
| Insulation Resistance | | 100M Ω minimum when measured by DC500V megger between the following places. - Protective ground terminal - power supply terminal - Signal I/O terminal - power supply terminal |
| Dielectric Strength Voltage | | Sufficient to withstand the following for one minute: - Protective ground terminal - power supply terminal: 1.5 kVAC, 50 Hz or 60 Hz - Signal I/O terminal - power supply terminal: 1.8 kVAC, 50 Hz or 60 Hz |
| Operating Environment | Operating Temperature | 0~+50°C (No Freezing) |
| | Operating Humidity | 85% or below (No Condensation) |
| | Ambience | No corrosive gases or dust. No direct contact with water or oil. |

*1 Applicable when the separately-sold general-purpose cable (CC36D1-1) is used.

*2 When mounted on a heat sink equivalent to or greater than a 200 x 200 x 2 mm aluminum plate

External Dimension Diagram

