



*Photo may vary from actual product.



Part Number	MGDKTB4A2
Product	Servo Driver
Details	A5 II series Speed, Position, Torque, Full-closed type with the safety function
Product name	MINAS A5 Family Servo Driver
Features	10 W to 7.5 kW, Input power supply for Driver: Voltage DC 24 V/48 V · AC 100 V/200 V/400 V, 20 bit incremental · 17 bit Absolute/Incremental encoder, Frequency response 2.3 kHz

Spec Detail

Item	Specifications
Part Number	MGDKTB4A2
Details	A5 II series Speed, Position, Torque, Full-closed type with the safety function
Family Name	MINAS A5
Series	A5 II series
Type	Speed, Position, Torque, Full-closed type
Frame	G-Frame
Frequency response	2.3 kHz
Control method	Position control, Velocity control, Torque control, and Full-closed control
Safety Function	with
Power device Max. current rating	150A
Current detector current rating	120A
Supply voltage	3-phase 400 V
I/F Classification of type	Analog/Pulse
Dimensions (W) (Unit: mm)	233
Dimensions (H) (Unit: mm)	220
Dimensions (D) (Unit: mm)	334
Mass (kg)	13.5
Environment	For more details, please refer to the instruction manual.

Basic Specifications

Item	Specifications
Input power: Main circuit	3-phase 380 to 480V +10% -15% 50/60 Hz

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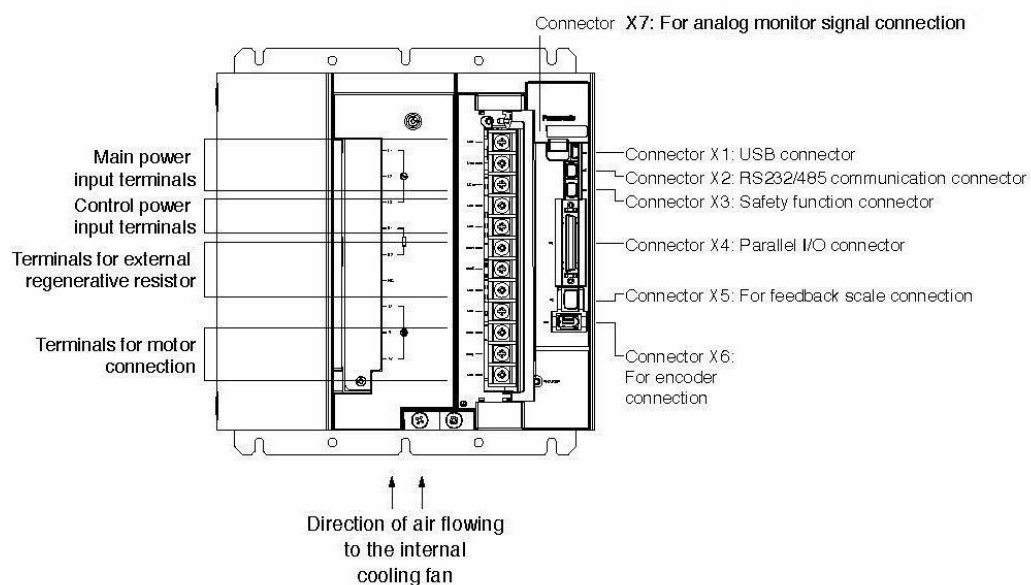
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Input power: Control circuit	DC 24V ± 15%
Encoder feedback	17-bit (131072 resolution) absolute encoder, 7-wire serial 20-bit (1048576 resolution) incremental encoder, 5-wire serial
External scale feedback	A/B phase, homing signal differential input. Serial communication is also supported.
Parallel I/O connector: Control signal Input	General purpose 10 inputs The function of general-purpose input is selected by parameters.
Parallel I/O connector: Control signal Output	General purpose 6 output The function of general-purpose output is selected by parameters.
Parallel I/O connector: Analog signal Input	3 inputs (16-bit A/D : 1 input, 12-bit A/D : 2 inputs)
Parallel I/O connector: Analog signal Output	2 outputs (Analog monitor: 2 output)
Parallel I/O connector: Pulse signal Input	2 inputs (Photo-coupler input, Line receiver input)
Parallel I/O connector: Pulse signal Output	4 outputs (Line driver: 3 output, open collector: 1 output)
Communication function	USB, RS232, RS485
Communication function: USB	USB interface to connect to computers for parameter setting or status monitoring.
Communication function: RS232	1:1 communication
Communication function: RS485	1: n communication (max 31)
Regeneration	No built-in regenerative resistor (external resistor only)
Control mode	Switching among the following 7 mode is enabled, (1) Position control, (2) Speed control, (3) Torque control, (4) Position/speed control, (5) Position/Torque control, (6) Speed/Torque control, (7) Full-closed control

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Connector specification

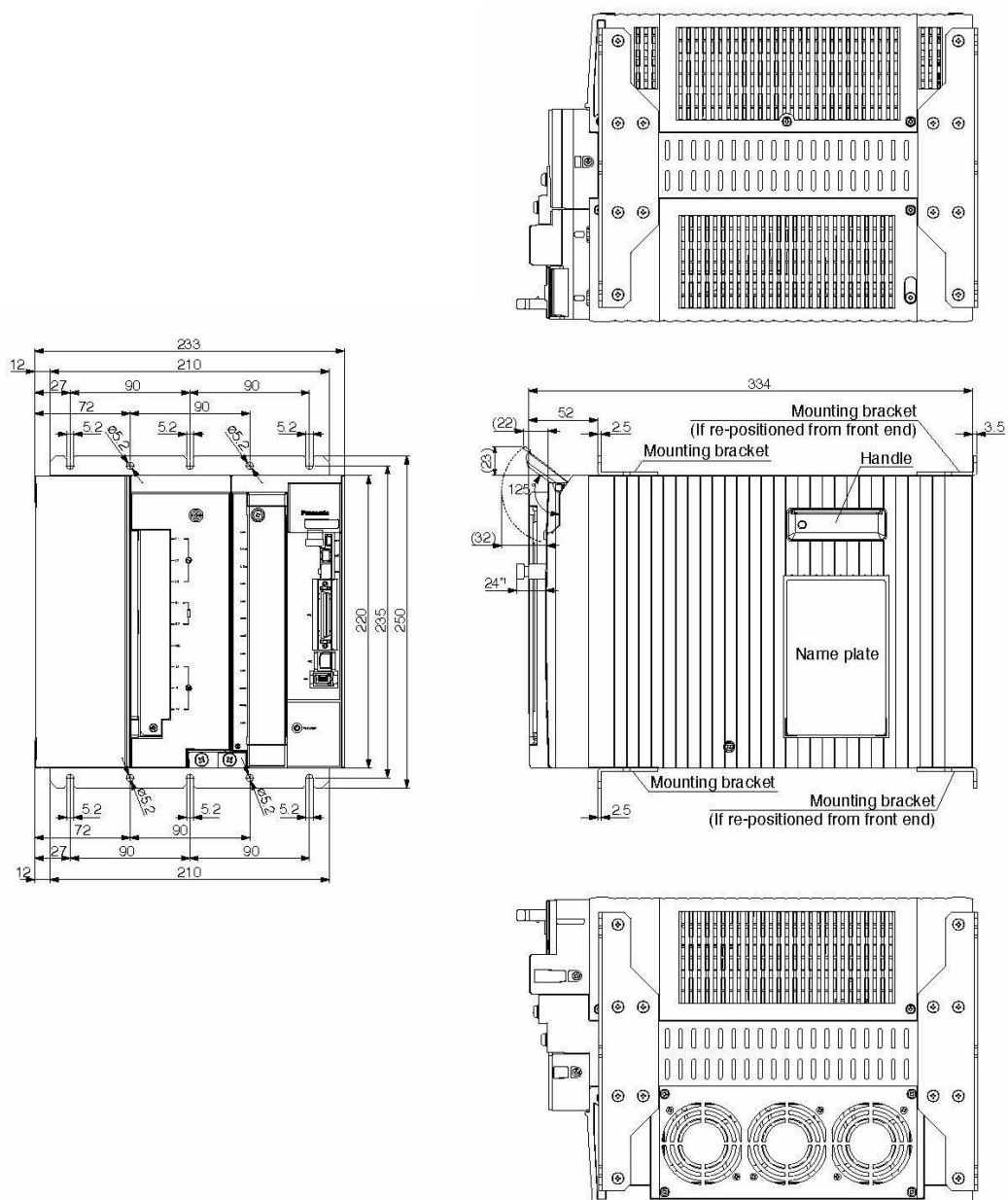


Connector of driver side			A5II, A5	A5IIE, A5E
Connector X1	UB-M5BR-DMP14-4S (or equivalent)	J.S.T. Mfg. Co., Ltd.	●	●
Connector X2	1-2040537-1 (or equivalent)	Tyco Electronics	●	—
Connector X3	2040537-1 (or equivalent)	Tyco Electronics	●	—
Connector X4	10250-52A2PE (or equivalent)	Sumitomo 3M	●	●
Connector X5	MUF-RS10DK-GKXR (or equivalent)	J.S.T. Mfg. Co., Ltd.	●	—
Connector X6	3E106-2230 KV (or equivalent)	Sumitomo 3M	●	●
Connector X7	530140610 (or equivalent)	Japan Molex Inc.	●	●

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Dimensions



*A5 IE, A5E series is out of the lineup. Please refer to the catalogue for detail demension.*The air flow direction of the fan is shown on the external demension or Pin diagram.

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Before Purchasing and Using the Products (Motors for FA & Industrial Application)

Specifications and design of the products displayed on this website are subject to change without notice for the product improvement. (including specification change, manufacturing location change, End Of Sales, End Of Life). Therefore, be sure to request and confirm in advance the most current specifications, which explain the specifications in detail, before the final stage of your design, purchasing or use for any application.

Safety Precautions

- Important Notes on exporting this product or equipment containing this product;
If the end-user or application of this product is related to military affairs or weapons, its export may be controlled by "Foreign Exchange and Foreign Trade Control Law" of Japan where export license will be required before product can be exported from Japan.
- This product is designed and manufactured for use in General Purpose Industrial Equipment and it is not intended to be used in equipment or system that may cause personal injury or death.
- All servicing such as installation, wiring, operation, maintenance and etc., should be performed by qualified personnel only.
- Tighten mounting screws with an adequate torque by taking into consideration strength of the screws and the characteristics of material to which the product will be mounted. Over tightening can damage the screw and/or material; under tightening can result in loosening.
*Example: apply 2.7 N·m – 3.3 N·m torque when tightening steel screw (M5) to steel surface.
- Install safety equipment to prevent serious accidents or loss that is expected in case of failure of this product.
- Consult us before using this product under such special conditions and environments as nuclear energy control, aerospace, transportation, medical equipment, various safety equipments or equipments which require a lesser air contamination.
- We have been making the best effort to ensure the highest quality of our products, however, some applications with exceptionally large external noise disturbance and static electricity, or failure in input power, wiring and components may result in unexpected action. It is highly recommended that you make a fail-safe design and secure the safety in the operative range.
- If the motor shaft is not electrically grounded, it may cause an electrolytic corrosion to the bearing, depending on the condition of the machine and its mounting environment, and may result in the bearing noise. Checking and verification by customer is required.
- Failure of this product depending on its content may generate smoke of about one cigarette. Take this into consideration when the application of the machine is clean room related.
- Please be careful when using the product in an environment with high concentrations of sulfur or sulfuric gases, as sulfuration can lead to disconnection from the chip resistor or a poor contact connection.
- Do not input a supply voltage which significantly exceeds the rated range to the power supply of this product. Failure to heed this caution may lead to damage of the internal parts, causing smoke and/or fire and other troubles.
- The user is responsible for matching between machine and components in terms of configuration, dimensions, life expectancy, characteristics, when installing the machine or changing specification of the machine. The user is also responsible for complying with applicable laws and regulations.
- Manufacturer's warranty will be invalid if the product has been used outside its stated specifications.
- Component parts are subject to minor change to improve performance.
- Read and observe the instruction manual to ensure correct use of the product.

Warranty period

The warranty period is one year from the date of purchase or 18 months from the month of manufacture in our plant.

Warranty information

• Should any defect develop during warranty period under standard service conditions as described in the manual, the company agrees to make repairs free of charge. Even during warranty period, the company makes fee-based repair on product containing:

- [1] Failure or damage due to misuse, improper repair or alteration.
- [2] Failure or damage due to falling, or damage during transportation, after the original delivery
- [3] Defects resulting from neglect of the specification in use of the product.
- [4] Failure or damage due to unregulated voltage and fire, and act of natural disasters such as earthquake, lightning, wind, flood and salt pollution.
- [5] Defects resulting from invasion of foreign materials such as water, oil and metal pieces. Parts exceeding their standard lifetime specified in this document are excluded.

• The company shall not be liable for any indirect, incidental or consequential damage or loss of any nature that may arise in connection with the product

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