*Photo may vary from actual product.

RoHS compliant

Part Number	**MADLN15NE**
Product	**Servo Driver**
Details	**A6NE series RTEX Ultra high-speed Network type (Basic type) without the safety function**
Product name	**MINAS A6 Family Servo Driver**
Features	**50 W to 22 kW, Input power supply for Driver: Voltage DC 24 V/48 V・AC 100 V/200 V/400 V, 23 bit Absolute/Incremental・battery-less Absolute/Incremental encoder, Frequency response 3.2 kHz**

Spec Detail

Item	Specifications
Part Number	MADLN15NE
Details	A6NE series RTEX Ultra high-speed Network type (Basic type) without the safety function
Family Name	MINAS A6
Series	A6NE series
Type	RTEX, Ultra high-speed Network (Basic type)
Frame	A-Frame
Frequency response	3.2 kHz
Control method	Position control, Velocity control, and Torque control
Safety Function	without
Supply voltage	Single/3-phase 200 V
I/F Classification of type	RTEX
Dimensions (W) (Unit: mm)	40
Dimensions (H) (Unit: mm)	150
Dimensions (D) (Unit: mm)	130
Mass (kg)	0.8
Environment	For more details, please refer to the instruction manual.

Basic Specifications

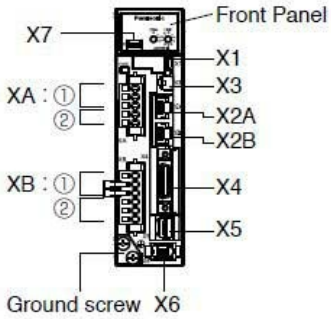
Item	Specifications
Input power: Main circuit	Single/3-phase 200 to 240V +10% -15% 50/60 Hz
Input power: Control circuit	Single phase 200 to 240V +10% -15% 50/60 Hz

Encoder feedback	23-bit (8388608 resolution) absolute encoder, 7-wire serial
About Encoder feedback	* When using it as an incremental system (not using multi-turn data), do not connect the battery for absolute encoder. Parameter Pr. 0.15 must be set to "1" (factory settings).
Parallel I/O connector: Control signal Input	Each 8 input can be assigned by the parameter.
Parallel I/O connector: Control signal Output	Each 3 input can be assigned by the parameter.
Parallel I/O connector: Analog signal Output	2 outputs (Analog monitor: 2 output)
Parallel I/O connector: Pulse signal Output	Line driver output for encoder pulses (A/B phase signal).
Communication function	RTEX, USB
Communication function: USB	USB interface to connect to computers for parameter setting or status monitoring.
Communication function: RTEX	Communication for transmission of a real-time operation command, the parameter setting, or the status monitoring.
Regeneration	No built-in regenerative resistor (external resistor only)
Control mode	Semi-closed control Position control: Profile position control [PP], Cyclic position control [CP] Velocity control: Cyclic velocity control [CV] Torque control: Cyclic torque control [CT] * Switch PP/CP/CV/CT mode according to the RTEX communication command.

Connector specification

X1 : USB connector
X3 : Safety function connector
X2A : RTEX RX connector
X2B : RTEX TX connector
X4 : I/O connector
X5 : Feedback scale connector
X6 : Encoder connector
X7 : For analog monitor signal connection

XA : ①Main power input terminals
②Control power input terminals
XB : ①Terminals for external regenerative resistor
②Terminals for motor connection



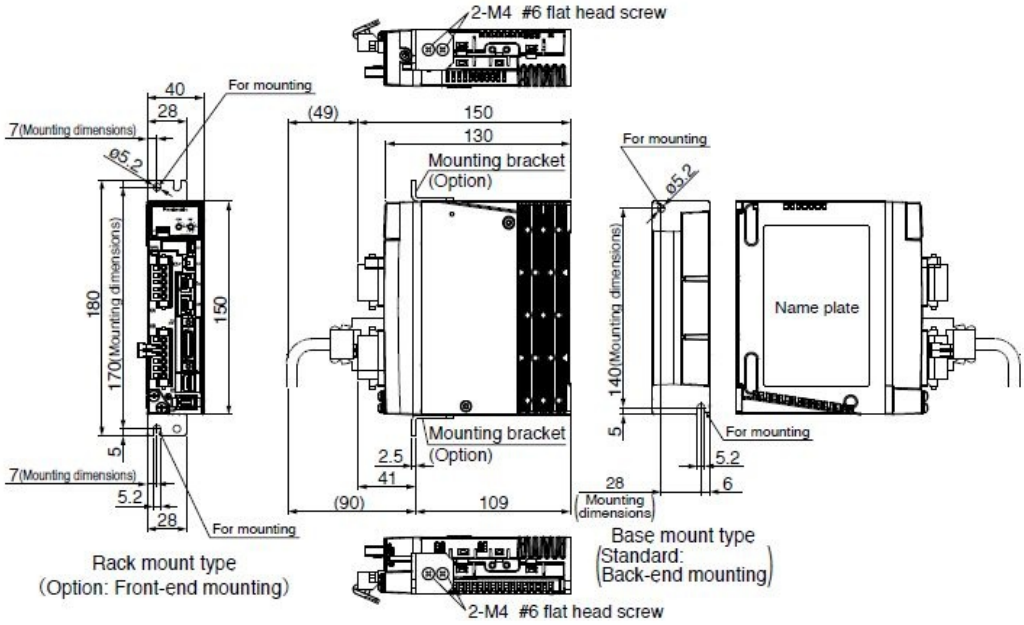
Connector of driver side			Multifunction type	Basic type
Connector XA	S05B-F32SK-GGXR (or equivalent)	J.S.T. Mfg. Co., Ltd.	●	●
Connector XB	S06B-F32SK-GGXR (or equivalent)	J.S.T. Mfg. Co., Ltd.	●	●
Connector X1	UB-M5BR-S14-4S (or equivalent)	J.S.T. Mfg. Co., Ltd.	●	●
Connector X3	CIF-HS08SS-071-TB (or equivalent)	J.S.T. Mfg. Co., Ltd.	●	–
Connector X2A	MOD-WRJ88LY1G-TP+ (or equivalent)	HTK	●	●
Connector X2B	MOD-WRJ88LY1G-TP+ (or equivalent)	HTK	●	●
Connector X4	DF02R026NA2 (or equivalent)	Japan Aviation Electronics Ind.	●	●
Connector X5	MUF-RS10SK-GKX-TB (or equivalent)	J.S.T. Mfg. Co., Ltd.	●	–
Connector X6	3E106-2230 KV (or equivalent)	Sumitomo 3M	●	●
Connector X7	53398-8605 (5pin)	Molex	●	●

<Attached to the driver>

Connector of power and motor side		
Connector XA	05JFAT-SAXGGKK-A	J.S.T. Mfg. Co., Ltd.
Connector XB	06JFAT-SAXGGKK-A	J.S.T. Mfg. Co., Ltd.

* The dimension is for the A6NF Series, but outer dimension is the same as the A6NE Series. Please refer to the catalog for detail dimension.

Dimensions



* The dimension is for the A6NF Series, but outer dimension is the same as the A6NE Series. Please refer to the catalog for detail dimension.

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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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