MITSUBISHI General-Purpose AC Servo MELSERIO-J4

Conversion unit for SSCNET of MR-J2S-B MR-J4-T20

Installation Guide

		С
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Rating plate The following

nows an example of rating plate for explanation of each iter

Country of origin

.		5 F
MODEL MR-J4-T20	SER. A33001001	Serial number Model
IP00 MA	N. :IB(NA)0300204	IP rating, Manual number
KCC-REI-MEK-TC350A13 MITSUBISH ELECTRIC CORPORAT	53G51 TON DATE: 2013-03	KC certification number Year and month of manufacture

1. About the installation guide

1.1 MELSERVO MR-J4 relevant manuals

This installation guide explains how to mount MR-J4-T20.

If you have any questions about the operation of the equipment described in this guide, contact your local sales office. In addition, when you mount a protective device, specific technical skills which are not detailed in the guide will be required

1.2 Purpose of this guide

This installation guide explains for engineers of machinery manufacturers and machine operators. For detailed information of the products, refer to "MR-J4-_B_-RJ020 MR-J4-T20 Servo Amplifier Instruction Manual".

2. About safety

This chapter explains safety of users and machine operators. Please read the chapter carefully before mounting the equipment. In this installation guide, the specific warnings and cautions levels are classified as follows

Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.
Indicates that incorrect handling may cause hazardous conditions, resulting in medium or slight injury to personnel or may cause physical damage.

2.1 Professional enginee Only professional engineers should mount MR-J4-T20.

Unity processional engineers are persons who have taken proper engineering training. Here, professional engineers are persons who have taken proper engineering training. Please note if you can take proper engineering training at your local Mitsubishi Electric office. Contact your local sales office for schedules and locations.

2.2 Correct use

Ways use MR-J4-T20 within specifications (voltage, temperature, etc. Refer to chapter 7 of this installation guide for Always Use INF-04-120 millin opposite the equipment is used in any other way or if modifications are made to the device, even in the context of mounting and installation.

2.2.1 Selection of peripheral equipment and wire For selection example of MCCB, fuse, and wires for servo amplifiers on which MR-J4-T20 is mounted, refer to "MR-J4-B_-RJQ20 MR-J4-T20 Servo Amplifier Instruction Manual". MR-J4-T20 has a part for grounding on the frame (FG). Fix the metal part FG of MR-J4-T20 with a screw to ground.

2.2.2 EU compliance

2.2.2 E0 Comparison of the EMC requirent

) ENC requirement Servo amplifiers on which MR-J4-T20 is mounted comply with category C3 in accordance with IEC/EN 61800-3. As for I/O wires (max. length 10 m) and encoder cables (max. length 50 m), use shielded wires and ground the shields. Use an EMC filter and surge protector on the primary side. The following shows recommended products. EMC filter: Soshin Electric IHF3000-LVI series Surge protector: Okaya Electric Industries RSPD-250-U4 series - MR-J4 Series are not intended to be used on a low-voltage public network which supplies domestic premises; - radio frequency interference is expected if used on such a network. The installer shall provide a guide for Installation and use, including recommended mitigation devices.

- (2) For Declaration of Conformity (DoC) Hereby, MITSUBISHI ELECTRIC EUROPE B.V., declares that the servo amplifiers are in compliance with the necessary requirements and standards (2004/108/EC and 2006/95/EC). For the copy of Declaration of Conformity, contact your local sales office.

2.2.3 South Korea compliance This product complies with the Radio Wave Law (KC mark). However, some applications are being processed. For the situation of compliance, contact your local sales office. Please note the following to use the product. 이 기기는 업무용 (A급) 전자파적합기기로서 판 매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으 로 합니다.

VF3 ore 2 = 140 = 2 140. (The product is for business use (Class A) and meets the electromagnetic compatibility requirements. The seller and the user must note the above point, and use the product in a place except for home. In addition, use an EMC filter, surge protector, ferrite core and line noise filter on the primary side for inputs. Use a line noise filter for outputs of 200 V class and 100 V class servo amplifiers. Use a ferrite core and line noise filter for outputs of 400 V class server amplifiers. Use a distance greater than 30 m between the product and third party sensitive radio communications for an MR-J4-22KB_.)

2.2.4 Compliance with global standards MR-J4-T20 complies with the following global standards

Unit CE KC

MR-J4-T20 0 0

2.3 General cautions for safety protection and protective measures Observe the following items to ensure proper use of the servo amplifiers on which MR-J4-T20 is mounted.

(1) Only qualified personnel and professional engineers should perform system installation

- (2) When mounting, installing, and using the servo amplifiers, always observe standards and directives applicable in the country.
- (3) The servo amplifiers fulfill the requirements to conducted emissions at the main connections in the frequency range from 150 kHz to 30 MHz. (Bases for the evaluation: Product standard IEC/EN 61800, adjustable speed electrical power drive systems, Part 3: EMC)

2.4 Disposal

Disposal of unusable or irreparable devices should always occur in accordance with the applicable country-specific waste disposal regulations. (Example: European Waste 16 02 14)

3. Mounting/dismounting



Note. For the MR-J4-500B-RJ020 servo amplifier, the clearance between the left side and wal will be 25 mm or more

4. Electrical Installation and configuration diagram

40 mm

The following shows a representative configuration example. For 3-phase 230 V AC input



5. Maintenance and service

is chapter explain	s servo amplifiers mounted MR-J4-T20.
	To avoid an electric shock, only qualified personnel should attempt inspections. For repair and and a subscription of the state of t
· · · · · · · · · · · · · · · ·	Darts replacement, contact vour local sales office.

~	Do not perform insulation resistance test on the servo amplifier. Otherwise, it may cause a
CAUTION	malfunction.
<u>~</u> >	Do not diagonamble and/or repair the aquipment on quatemer side

E 1	Increation items		
5. I	Inspection terms		

- It is recommended that the following points periodically be checked.
- (1) Check for loose terminal screws of the servo amplifier. Retighten any loose screws.
- (2) Check servo motor bearings, brake section, etc. for unusual noise.
- (3) Check the cables and the like for scratches or cracks. Perform periodic inspection according to operating
- (4) Check that the connectors are securely connected to the servo motor
- (5) Check that the wires are not coming out from the connector.
- (6) Check for dust accumulation on the servo amplifier.
- (7) Check for unusual noise generated from the servo amplifier.
- (8) Check the servo motor shaft and coupling for connection
- 5.2 Parts having service lives
- MR-J4-T20 has no parts for replacement

6. Transportation and storage

 Transport the products correctly according to their mass.
 Stacking in excess of the limited number of product packages is not allowed CAUTION Install the equipment in a load-bearing place in accordance with "MR-J4-B_-RJ020 MR-J4-T20 Servo Amplifier Instruction Manual". Do not get on or put heavy load on the equipment.

When you keep or use it, please fulfill the following environment ss 3K3 (IEC/EN 6 to 65 Class 1K4 (IEC/EN 607 torage (Note) pient humid 5% to 90 %RH to 57 Hz with constant deviation of 0.075 mm tant acceleration of 9.8 m/s² to IEC/EN 61800-5-1 (Test Fc of IEC st values 7 Hz to 150 Hz with lass 1M2 (IEC/EN 60721 Pollution dec 2 IP20 (IEC/EN 60529)/IP00 for MR-J4-T20 only P rating Operation Altitude

7. Technical data



7.1 MR-J4-T20

Note In requ







- [Warranty]
 1. Warranty period and coverage
- We will repair any failure or offect hereinafter referred to as "failure" in our FA equipment hereinafter referred to as the "Product" arisen during warranty period at no charge due to causes for which we are responsible through the distributor fr which you purchased the Product or our service provider. However, we will charge the actual cost of dispatching our engir for an on-site repair work on request by customer in Japan or overseas countries. We are not responsible for any on-site eadjustment and/or trial run that may be required after a defective unit are repaired or replace

erm] The term of warranty for Product is twelve (12) months after your purchase or delivery of the you or eighteen (18) months from the date of manufacture whichever comes first ("Warranty repaired Product cannot exceed beyond the original warranty period before any repair work. m of warranty for Product is twelve (12) months after your purchase or delivery of the Product to a place designated by eichteen (18) months from the date of manufacture whichever comes first ("Warranty Period"). Warranty period for

Tructurins] You are requested to conduct an initial failure diagnosis by yourself, as a general rule. It can also be carried out by us or our service company upon your request and the actual cost will be charged. However, it will not be charged if we are responsible for the cause of the failure. This limited warranty applies only when the condition, method, environment, etc. of use are in compliance with the terms and conditions and instructions that are set forth in the instruction manual and user manual for the Product and the caution label

Conditions and instructions that are set form in the instruction memory and user memory user in affixed to the Product. Even during the term of warranty, the repair cost will be charged on you in the following cases. (i) a failure cause by your improper storing or handling, carelessness or negligence, etc., and a failure cau

problem (iii) a failure caused by any alteration, etc. to the Product made on your side without our approval (iii) a failure which may be regarded as avoidable, if your equipment in which the Product Is incorporated is equipped with a safety device required by applicable laws and has any function or structure considered to be indispensable according to a common sense in the industry

- (iv) a failure which may be regarded as avoidable if consumable parts designated in the instruction manual, etc. are duly maintained and
- any replacement of consumable parts (battery, fan, smoothing capacitor, etc.)
- (v) any representation consumable parts (datter), tan, smoothing capacitor, etc.) (vi) a failure caused by external factors such as inveltable accidents, including without limitation fire and abnormal fluctuation of voltage, and acts of God, including without limitation earthquake, lighthing and natural disasters (vii) a failure generated by an unforesceable cause with a scientific technology that was not available at the time of the shipment of the Product from our company (viii) any other failures which we are not responsible for or which you acknowledge we are not responsible for

Term of warranty after the stop of production

I erm of warranty after the stop of production We may accept the repair at charge for another seven (7) years after the production of the product is discontinued. The announcement of the stop of production for each model can be seen in our Sales and Service, etc. Please note that the Product (including its space parts) cannot be ordered after its stop of production.

- Preserve in overseas countries Service in overseas countries Our regional FA Center in overseas countries will accept the repair work of the Product. However, the terms and conditions of the repair work may differ depending on each FA Center. Please ask your local FA center for details.

Application and use of the Product For the use of our General-Purpose AC Servo, its applications should be those that may not result in a serious damage even if any failure or maltinction occurs in General-Purpose AC Servo, and a backup or fail-sale function should operate on an if any failure or maltinction occurs in General-Purpose AC Servo, and a backup or fail-sale function should operate on an Our General-Purpose AC Servo is designed and manufactured as a general purpose product for use at general industries. Therefore, applications substantially influential on the public interest for such as atomic power plants and other power plants of electric power companies, and also which require a special quality assurance system, including applications for railway companies and government or public offices are not recommended, and we assume no responsibility for any failure caused by these applications when used. In addition, applications safety machines, etc. are not recommended, and we assume no responsibility for any safety machines, etc. are not recommended, and we assume no responsibility for any failure caused by these applications when used. We will review the acceptability of the abovementioned applications, if you agree not to require a specific quality for a specific application. Please contact us for consultations, if you agree not to require a specific quality for a specific application. Please contact us for consultation.

Whether under or after the term of warranty, we assume no responsibility of any damages arisen from causes for which we are not responsible, any losses of opportunity and/or profit incurred by you due to a failure of the Product, any damages, secondary damages or company, any damages to products other than the Product, and also compensation for accuses how our company, any damages to products other than the Product, and also compensation for any replacement work, readjustment, start-up test run dicta site of the Product and also compensation for any replacement work.

Change of Product specifications ons listed in our catalogs, manuals or technical documents may be changed without notice Application and use of the Product