TOSHIBA

Toshiba DEV002Z Instruction Manual

Devicenet option

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Bookmarks

Quick Links
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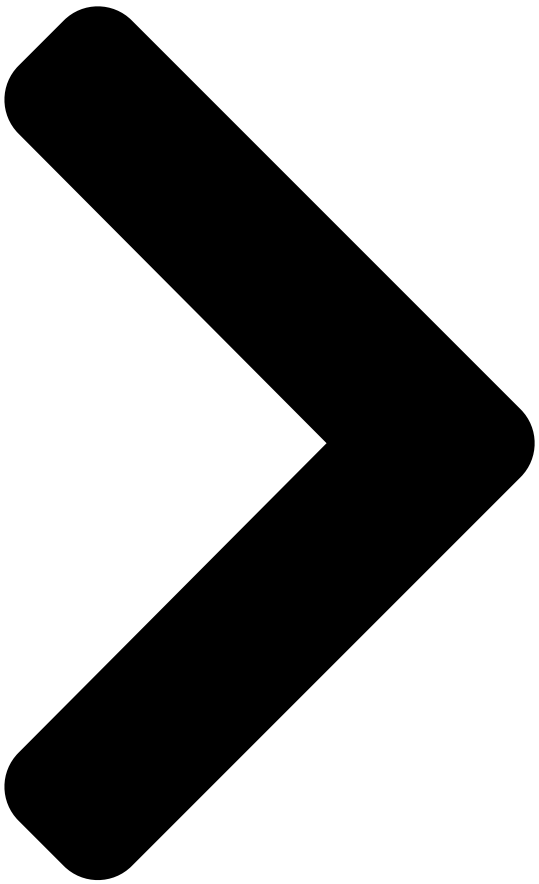

TOSHIBA

TOSVERT VF-AS1/PS1

Make sure that this instruction manual is delivered to the end user
1.
of
the DeviceNet option for the VF-AS1/PS1.
Read this manual before installing or operating the
2.
for the VF-AS1/PS1.
* The data given in this manual are subject to change without notice.
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Option Instruction Manual

DEV0022-1

NOTICE

And keep it in a safe place for reference.

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E6581295⑥

DeviceNet option

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Related Manuals for Toshiba DEV002Z

Network Card Toshiba DEV002Z Installation And Operation Manual

Asd optional devicenet module (56 pages)

Inverter Toshiba TOSVERT VF-AS1 Instruction Manual

High-performance inverter (328 pages)

Inverter Toshiba TOSVERT VF-AS1 Instruction Manual

(326 pages)

Inverter TOSHIBA TOSVERT VF-AS1 Instruction Manual

The new high-performance inverter tosvert (313 pages)

Inverter Toshiba VF-PS1 Instruction Manual

Variable torque inverter (307 pages)

Inverter Toshiba TOSVERT VF-AS1 Series Function Manual

Ethernet/ip option unit (49 pages)

Inverter Toshiba TOSVERT VF-AS1 Function Manual

(33 pages)

Control Systems Toshiba TOSVERT VF-PS1 Instruction Manual

Pid control (31 pages)

Inverter Toshiba TOSVERT VF-PS1 Series Function Manual

(27 pages)

Inverter Toshiba TOSVERT VF-AS1 Instruction Manual

Manual for cc-link option - ccl001z (20 pages)

Inverter Toshiba TOSVERT VF-AS1 Instruction Manual

(18 pages)

Inverter Toshiba TOSVERT VF-AS1 Instruction Manual

Heatsink outside mounting kit (14 pages)

Inverter Toshiba TOSVERT VF-AS1 Brochure & Specs

Transistor inverter (13 pages)

Inverter Toshiba TOSVERT VF-AS1 Instruction Manual

Light-load high-speed operation (11 pages)

Power Supply Toshiba TOSVERT VF-AS1 Instruction Manual

Commercial power supply backup and commercial power supply/inverter switching (10 pages)

Inverter Toshiba TOSVERT VF-AS1 Manual

Current and speed control gain adjustment method (7 pages)

Summary of Contents for Toshiba DEV002Z

Page 1 Read this manual before installing or operating the And keep it in a safe place for reference. for the VF-AS1/PS1. * The data given in this manual are subject to change without notice. © Toshiba Schneider Inverter Corporation 2005 All rights reserved. NOTICE DeviceNet option...

Page 2: Safety Precautions

Safety precautions On the inverter and in its instruction manual, important information is contained for preventing injuries to users and damages to assets and for proper use of the device. Read the instruction manual attached to VF-AS1/PS1 along with this instruction manual

for completely understanding the safety precautions and adhere to the contents of these manuals.

Page 3

▼ When the inverter is energized, never detach the this option from the VF-AS1/PS1. Doing so could result in electric shock. ▼ Don't place or insert any kind of object into the DEV002Z (electrical wire cuttings, rods, wires). Doing so could result in electric shock or fire.

Page 4: Notes On Use

■ Wiring ▼ Shut off power when installing and wiring this option. Wait at least 15 minutes and check to make sure that the charge lamp (VF-AS1/PS1) is Mandatory no longer lit. ▼ Tighten the screws on the terminal block to the specified torque (Refer to Section 4.1). If the screws are not tightened to the specified torque, it may lead to fire.

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DeviceNet connection. Besides this instruction manual, the “DEV002Z Function Manual” is required to develop software communicating with VF-AS1/PS1. In such a case, please get in touch with our branch offices or sales offices.

Page 6: Table Of Contents

1. OVERVIEW ...6 2. EXTERIOR FEATURES...7 2.1. DeviceNet connector...7 2.2. DeviceNet indicator ...8 3. INSTALLING THE DEV002Z...9 4. CONNECTING TO THE NETWORK ...10 4.1. Installation method ...10 4.2. Network Grounding ...11 4.3. Setting a MAC ID number and a network baud rate ...12 5.

Page 7: Overview

E6581295® 1. Overview The DEV002Z interface allows the VF-AS1/PS1 inverter to be connected into a DeviceNet network. DeviceNet supports a maximum of 64 nodes, allowing for the Master unit and the configuration tool a maximum of 62 devices can be connected to the network.

Page 8: Exterior Features

2. Exterior features The external view of this option and the name of each part are shown below: DeviceNet indicator (Refer to Section 2.2) ▼ Do not change the switch setting when the power is on. It could lead to electric shocks, or the option might breaks down or get Prohibited damaged.

Page 9: Devicenet Indicator

- The DEV002Z has not completed the Dup_MAC_ID test yet. - The DEV002Z may not be powered. The DEV002Z is operating in a normal condition and the DEV002Z is on-line with connections in the established state. The DEV002Z is operating in a normal condition and the DEV002Z is on-line with no connections in the established state.

Page 10: Installing The Dev002Z

3. Installing the DEV002Z Install the DeviceNet * When this option is used together with the IO card option, attach this option to the front panel side. (1) Turn off input power of VF-AS1/PS1 and wait for at least 15 minutes and then check that the CHARGE lamp on VF-AS1/PS1 is no longer lit.

Page 11: Connecting To The Network

4. Connecting to the network 4.1. Installation method (1) Attach DeviceNet cable to DeviceNet connector. (Refer to Section 2.1). (Be careful not to short-circuit adjacent terminals on DeviceNet connector). <Recommended cable> Thin branch cables: DeviceNet-specific thin cable. <Tightening torque> 0.5 - 0.6 N·m Recommended screwdriver: Small flat-blade screwdriver (blade thickness: 0.6mm, blade length: 3.5mm or less) (2) Please set the terminating resistance if needed.

Page 12: Network Grounding

4.2. Network Grounding Please note the following points regarding the grounding of a DeviceNet network. - Do not connect the G/E terminal to a power ground or any other potential noise-producing ground connection (such as a drive’s “E” terminal). Connect to a close, clean ground to provide RF termination of the DeviceNet cable.

Page 13: Setting A Mac Id Number And A Network Baud Rate

4.3. Setting a MAC ID number and a network baud rate Configure MAC ID and network baud rate by the dip switch on the DeviceNet Baud rate • MAC ID configuration The MAC ID must be unique and not match any other device on the network. OFF OFF OFF OFF OFF OFF OFF OFF OFF OFF OFF OFF OFF OFF OFF OFF...

Page 14: Communications-Related Parameters

5. Communications-related parameters On the network, the VF-AS1/PS1 (including the DEV002Z) serves as a slave device. Using the parameters listed below, set the slave device on the network and its mode of operation. These settings can also be made by the use of configuration tools and the EDS file. The EDS file can be downloaded from the following web site.

Page 15: F851: Communication Loss Action Setting (Network Breaks)

5.1. f851: Communication Loss Action Setting (Network breaks) This parameter sets up the VF-AS1/PS1 response to a loss of communications with the DeviceNet network. 0: Stop and Communication release The inverter decelerates the motor to a stop and gives an alarm (the leftmost LED flashes).

Page 16: F830: Assembly Object Setting

5.3. f830: Assembly Object Setting The Input/Output Instance of DEV002Z is set up by this parameter. The DEV002Z supports both the standard DeviceNet AC Drive profile Instances 20/70, 21/71 and user defined Instances 100/150, 101/151, 102/152. * For an explanation of f830 = 0 (Instance 20/70), 1 (Instance 21/71), 3 (Instance 101/151) and 4 (Instance 102/152), refer to the function manual (E6581281).

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Data composition of output instance 100 Byte Specifications Preset speed #1* Preset speed #2* Preset speed #3* Preset speed #4* Motor #1/#2 (THR2 selection) PI control Acceleration/ Deceleration #1/#2 selection (AD2 selection) DC braking JOG run* Forward run/ Reverse run Run/Stop Coast stop Emergency stop...

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Data composition of output instance 150 Byte Specifications Fault FL Fault Alarm (Reserved) Motor #1/#2 (THR2 selection) PI control Acceleration/ Deceleration #1/#2 selection (AD2 selection) DC braking JOG run Forward run/ Reverse run Run/Stop Coasting (ST off) Emergency stop Ready for operation ST=ON Ready for operation 7 **...

Page 19: Devicenet Local/Remote Operation

6. DeviceNet Local/Remote Operation The example below shows how to configure the VF-AS1/PS1 for local / remote operation. <Terminal function> F terminal ... Operating command R terminal... DeviceNet/Local (Terminal in this example) switching RR/S4 terminal... Operation frequency command <Wiring> Variable resistor for adjustment Operation command <Parameter setting>...

Page 20: Specifications

Vibration 5.9m/s {0.6G} or less (10 - 55Hz) DEV002Z has been self-tested and found to comply with ODVA Conformance Test Software Version A-17. 8. Warranty Any part of the inverter that proves defective will be repaired free of charge under the following conditions: 1.

This manual is also suitable for:

Tosvert vf-as1Tosvert vf-ps1