

# Toshiba TOSVERT VF-S15 Manual

70			
71			
72			
73			
74			
75			
76			
77			
78			
79			
(			

Table of Contents

•

Bookmarks

•

### Quick Links

- 1 Diagnostic (Profinet Service)
- 2 Communication Parameters
- 3 The Details of the Parameter Setting
- Download this manual

See also: Function Manual , Instruction Manual



# TOS**TOSHIBA**5/VF-AS3

# **PROFINET Option Function Manual**

1. Read this manual before installing or operating. Keep this manual on hand of the end user, and make use of this manual in maintenance and inspection.

2. All information contained in this manual will be changed without notice. Please contact your Toshiba distributor to confirm the latest information.

# PNE001Z

NOTICE E65820513 **Table of Contents** 

Next Page

### Related Manuals for Toshiba TOSVERT VF-S15

Inverter Toshiba Tosvert VF-S15 Instruction Manual Industrial inverter (394 pages) Inverter Toshiba VF-S15 Instruction Manual For 3-phase induction motors (360 pages) Inverter Toshiba VF-S15 Instruction Manual Industrial inverter for 3-phase induction motors (217 pages) Inverter Toshiba VF-S15 Quick Start Manual Industrial inverter (90 pages) Inverter Toshiba TOSVERT VF-S15 Function Manual (80 pages) Inverter Toshiba TOSVERT VF-S15 Quick Start Manual Industrial inverter (54 pages) Media Converter Toshiba TOSVERT VF-S15 Series Manual (51 pages) Computer Accessories Toshiba TOSVERT VF-S15 series Function Manual Tosvert vf-s15 series cc-link option unit (51 pages) Inverter Toshiba TOSVERT VF-S15 Instruction Manual My function-s (44 pages) Controller Toshiba TOSVERT VF-S15 Instruction Manual Functions for lift application (25 pages) Inverter Toshiba TOSVERT VF-S15 Instruction Manual Pid control (23 pages) Inverter Toshiba TOSVERT VF-S15 Series Instruction Manual Supplementary (15 pages) Inverter Toshiba TOSVERT VF-S15 Instruction Manual Trace function (7 pages) Inverter Toshiba TOSVERT VF-S15 Instruction Manual Traverse control (6 pages) Adapter Toshiba VF-S15 Instruction Manual Option adapter (3 pages) Adapter Toshiba VF-S15 Instruction Manual Option adapter (2 pages)

### Summary of Contents for Toshiba TOSVERT VF-S15

<u>Page 1</u> 1. Read this manual before installing or operating. Keep this manual on hand of the end user, and make use of this manual in maintenance and inspection. 2. All information contained in this manual will be changed without notice. Please contact your Toshiba distributor to confirm the latest information.

#### Page 2: Table Of Contents

#### Page 4: Introduction

This manual describes the supported functions for the "PNE001Z". In conjunction with this manual, the following manuals are supplied by Toshiba, and they are essential both for ensuring a safe, reliable system installation as well as for realizing the full potential of the "PNE001Z":...

#### Page 5: Safety Precautions

E6582051 Safety precautions On the drive 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-S15/AS3 along with this instruction manual for completely understanding the safety precautions and adhere to the contents of these manuals.

<u>Page 6</u> E6582051 General Operation Warning  $\bigvee$  Never disassemble, modify or repair. Doing so could result in electric shock, fire and injury. For repairs, call your sales agency. Disassembly prohibited  $\bigvee$  Do not attach this option to any inverter other than the VF- S15/AS3. Doing so could result in electric shock or fire.

Page 7 E6582051 ■ Wiring Warning ▼ Shut off power when installing and wiring this option. Wait at least 15 minutes and check to make sure that the charge lamp (VF-S15/AS3) is Mandatory no longer lit. ▼ Electrical construction work must be done by a qualified expert. Installation or connection of input power by someone who does not have that expert knowledge may result in fire or electric shock.

<u>Page 8</u> E6582051  $\blacksquare$  Cautions for parameters Warning  $\checkmark$  Do not use application of writing into same parameter more than 100,000 times. The Life of EEPROM is approximately 100,000 times. Frequent writing to the EEPROM Prohibited of inverter will cause a memory corruption. Notes on use Notes  $\checkmark$ ...

#### Page 9: Product Version

Suffix can be checked by the labels on the product and the package. Product label Package label Suffix Suffix When PNE001Z-1 is used, please use following GSDML file and image file. VF-S15 GSDML file GSDML-V2.31-Toshiba-VFS15-20150907.xml Image file GSDML-031A-00E0-VF\_S15.bmp VF-AS3 GSDML file GSDML-V2.31-Toshiba-VFAS3-20150907.xml Image file GSDML-031A-00B2-VF\_AS3.bmp Please use the latest version for GSDML files.

#### Page 10: Overview

E6582051 2. Overview This product is a dual port PROFINET communication module that can be used in a PROFINET Industrial Ethernet. This product also offers an embedded Web server which offers comfortable monitoring and setup directly from a standard web browser. 2.1.

#### Page 11: Profinet

E6582051 2.2. PROFINET This product supports the cyclic command transmission and monitoring by the "PROFIdrive" profile and 3 vender profile. • Telegram1: PROFIdrive • Telegram100: 4 PKW and 2 PZD format. • Telegram101: 4 PKW and 6 PZD format. • Telegram102: 6 PZD format. This product also supports The PROFIdrive parameters channel.

#### Page 12: Led Indicator

E6582051 2.6. LED indicator The LED shows the present status of the network and module. When PROFINET option is mounted to VF-AS3, please attach the LED label for PROFINET option to lower side of communication indicator of VF-AS3. The LED label is included in danger label kit of VF-AS3. SF (Network status) and BF (Module status) are displayed on communication indicator. Page 13 E6582051 []The behavior of BF LED Module Status Color and behavior Meaning The device is powered off Green/Red blinking Power up testing Green flashing In combination with other LEDs : DCP manual identification phase / DCP flash mode Green ON The device is ready and operational Red Single flash No connection to the PROFINET Controller...

Page 14 E6582051 - 11 -...

#### Page 15: Diagnostic (Profinet Service)

CPU1 version, MSB 1 byte Option software version 1 byte Communication network fault 1 byte Internal link fault 2.8. GSDML file As for acquisition of a GSDML file and an image file for VF-S15/AS3, please contact your Toshiba distributor. - 12 -...

#### Page 16: Hardware Setup

E6582051 3. Hardware Setup When using this product with VF-S15, sold separately VF-S15 option adapter (SBP009Z) is required. 3.1. Mounting and removing Warning ▼ The mounting/removing of option must be performed without supplying power(Turn off all input power, wait at least 15 minutes, confirm that the charge lamp of inverter is no longer lit).

<u>Page 17</u> E6582051 4. Hang the hook of option adapter on the control terminal cover. Insert the connector in the direction of arrow Hook 3.1.1.2. Earth wire wiring Grounding terminal of option adapter Recommended tightening torque: 0.5N m Connect attached grounding wire to grounding terminal of inverter. Grounding terminal of inverter 3.1.1.3.

Page 18 E6582051 3.1.2. Mounting of option for VF-AS3 3.1.2.1. Mounting of option 1. Insert option into option slot A of VF-AS3. Option slot A \*Note:Insert the option straightly and slowly along the guide inside option slot A. Follow this instruction, the connecter can become damaged. 3.1.2.2.

#### Page 19: Wiring

E6582051 3.2. Wiring This product is equipped with dual shielded RJ45 connectors. The shielding of RJ45 connectors are connected to the grounding terminal of inverter. When you use this product with VF-S15, please connect the grounding terminal of SBP009Z to grounding terminal of inverter by attached grounding wire.

#### Page 20: Installation Topology

E6582051 3.3. Installation Topology This product support several wiring solutions: Daisy Chain and/or Star topology Ring topology Note: The ring topology can only be used with a Media Redundancy Protocol (MRP) capable managed switch. - 17 -...

#### Page 21: Parameters

E6582051 4. Parameters 4.1. Communication parameters This option doesn't operate if these parameters are not correctly set. 4.1.1. Relation parameters for VF-S15 Communi Default Title Function Description cation No. setting 0: Terminal board 1: Panel keypad (including remote keypad) cmod 0003 Command mode selection 2: RS485 communication...

Page 22 E6582051 4.1.2. Relation parameters for VF-AS3 Communi Default Title Function Description cation No. setting 0: Terminal board 1: Operation panel, Extension panel 2: Embedded Ethernet cmod 0003 Command mode selection 3: RS485 communication (connector 1) 4: RS485 communication (connector 2) 5 : Communication option 0: - 1: Terminal RR...

Page 23 E6582051 4.1.3. Communication parameters for VF-S15/AS3 Communi Default Title Function Description cation No. setting Max 16 characters c081- C081- Device Name 1-16 (\*1) The device name is required if the card uses c096 C096 DHCP to obtain its IP Address. 0.0 - 100.0 sec.

#### Page 24: Communication Parameters For Profinet

E6582051 4.2. Communication parameters for PROFINET The following parameters can be used for cyclic transmission of this product. 4.2.1. Relation parameters for VF-S15 Communi Title Function Description cation No. 0: - 1: fa06 (Communication command 1) 2: fa23 (Communication command 2) 3: fa07 (Frequency command, 0.01Hz) 5: fa50 (Terminal output data) 6: fa51 (FM analog output)

Page 25 E6582051 4.2.2. Relation parameters for VF-AS3 Communi Title Function Description cation No. 0: - 1: fa06 (Communication command 1) 2: fa23 (Communication command 2) 3: fa07 (Frequency command, 0.01Hz) 4: fa33 (Torque command 0.01%) 5: fa50 (Terminal output data) 6: fa51 (Analog output(FM) data from comm.) 7: fa52 (Analog output(AM) data from comm.) 8: f601 (Stall prevention level, %) 9: f441 (Power running torque limit 1...

Page 26 E6582051 4.2.3. Relation common parameters for VF-S15/AS3 Communi Title Function Description cation No. 0[Telegram 1 (PROFIdrive) 1[Telegram 100 (Vender Spec. 1) c152 C152 PROFIdrive Profile monitor 2[Telegram 101 (Vender Spec. 2) 3]Telegram 102 (Vender Spec. 3) c517- C517- The MAC address of the option module. MAC address monitor (\*1) c522 C522...

#### Page 27: The Details Of The Parameter Setting

E6582051 4.3. The details of the parameter setting 4.3.1. Device name (c081-c096) This option module can set the "Device name" of 16 characters. (Device name (c081-c096) is 1 character within one parameter.) The device name is required if the option module uses DHCP to obtain its IP Address. Please set the setting of the device name according to the following rules.

Page 28 E6582051 Assigning IP addresses (c504, c505 - c516) 4.3.2. The address is assigned according to setting of c504 (IP mode). c504 Comments The option uses the address defined in c505-c516. Don't use on this product. The option receives its address from DHCP server. \*Setting device name (c081-c096) is required.

#### Page 29: Profidrive Profile

E6582051 5. PROFIdrive Profile Transmission frame of each Telegram of this product is configured as shown below. PKW: Parameter ID/value PZD: Process Data, cyclically transferred Cyclic Cyclic Cyclic Cyclic Cyclic Cyclic Cyclic PKW1 PKW2 PKW3 PKW4 data1 data2 data3 data4 data5 data6 Cyclic Cyclic...

#### Page 30: Stw Control Word Data

E6582051 5.2. STW Control Word Data This product supports only speed control mode. Value Name Note Transition to "Switched on" condition Normal stop. No Coast Stop All "Coast Stop (OFF2)" commands are withdrawn Coast Stop (OFF 2) Coast stop. No Quick Stop All "Quick Stop (OFF3)"...

#### Page 31: Zsw Status Word Data

E6582051 5.3. ZSW Status Word Data Value Name Note Ready To Switch-on Not Ready To Switch-on Ready To Operate Refer to control word, bit 1. Not Ready To Operate Operation Enabled Inverter follows set point. Operation Disabled Fault Present Inverter is tripped. No Fault Inverter is not tripped.

**Page 32** E6582051 5.3.1. Tolerance Range (ZSW Bit 8) If the setpoint is changed: 1. ZSW Bit 8 is set 0 2. Calculate the tolerance. 3. Start the timer which will time-out based on parameter Tmax. This product checks that the timer (Tmax) has not timed-out and if the actual value is within the tolerance. If both conditions are fulfilled ZSW Bit 8 is set 1 and the timer is stopped.

#### Page 33: State Machine

E6582051 5.4. State Machine ZSW Bit 6 = 1 SWITCH-ON MAINS OFF INHIBIT Power ON STW Bit 0 = 0 A B C D NOT READY TO ZSW Bit 0 = 0 SWITCH-ON from any state STW Bit 3 = 0 STW: xxxx xxxx x110 FAULT ZSW Bit 2 = 0...

Page 34 E6582051 5.4.1. Examples of driving by the State Machine When using the PROFIdrive profile, the frequency reference is set to HSW. The setting value "0x0000" - "0x4000" is equivalent to "0" - "Base frequency (parameter )". When the reverse operation, the frequency reference is set with two's complement of the forward frequency reference.

#### Page 35: Vendor Specification Profile

E6582051 6. Vendor Specification Profile Cyclic transmission of command and monitor is possible for this product by the original profile Select the "Telegram 100", "Telegram 101" or "Telegram 102" as the profile on the configuration. Refer to the PLC configuration tool documents. You will be able to select the command and monitor items from the following table.

Page 36 E6582051 VF-AS3 profile Scanner input c001 - c006 Scanner output c021 - c026 0: No action 0: No action 1: fa06 (Communication command 1) 1: fd01 (Status information 1) 2: fa23 (Communication command 2) 2: fd00 (Output frequency, 0.01Hz) 3: fa07 (Frequency command, 0.01Hz) 3: fd03 (Output current, 0.01%) 4:fa33 (Torque command 0.01%) 4: fd05 (Output voltage, 0.01%)

#### Page 37: Telegram 100: Vendor Specific

E6582051 6.1. Telegram 100: Vendor specific The parameter access via PKW, and the transmission of two commands and monitors via cyclic data are supported by Telegram 100. PLC  $\rightarrow$  INV INV  $\rightarrow$  PLC INV: Inverter PKW: Parameter ID/value PKW1 PKW1(PKE) PKW1(PKE) PKE: Parameter ID (1st and 2nd octet) PKW2...

#### Page 38: Telegram 102: Vendor Specific

E6582051 6.3. Telegram 102: Vendor specific The transmission of six commands and monitors via cyclic data is supported by Telegram 102. PLC  $\rightarrow$  INV INV  $\rightarrow$  PLC INV: Inverter c001 c021 Cyclic data 1 c002 c022 Cyclic data 2 c003 c023 Cyclic data 3 c004...

#### Page 39: How To Use The Pzd1 To 6

E6582051 6.4. How to use the PZD1 to 6 The purposes are adjustment by real time command transmission, and the monitor of an operation state by using cyclic communication of PROFINET. Example 1: Command transmitting When you want to set "0xC400" to parameter fa06, set "1 (fa06)" to parameter c001 c001 And Since 0 and 1 byte of the PZD1 supports the parameter...

#### Page 40: The Overview Of The Vf-S15/As3 Parameter

E6582051 6.5. The overview of the VF-S15/AS3 parameter fa06 (Communication command1) (VF-S15) 6.5.1. Function Note Preset speed operation Preset speed operation is disabled frequencies 1 or preset speed operation Preset speed operation frequencies (1-15) are set by frequencies 2 specifying bits for preset speed operation frequencies 1-4.

Page 41 E6582051 fa06 (Communication command1) (VF-AS3) 6.5.2. Function Note Preset speed switching Preset speed operation is Preset speed switching 0000: Preset speed operation disabled or preset speed OFF(\*1) operation frequencies (1-15) are Preset speed switching 0001-1111: Setting of preset speed set by specifying bits for preset operation frequencies (1-15) speed operation frequencies 1-4.

Page 42 E6582051 fa23 (Communication command 2) (VF-S15) 6.5.3. Function Note (Reserved) Electric power quantity Electric power quantity (fe76, Reset fe77) reset reset (Reserved) (Reserved) (Reserved) (Reserved) (Reserved) Maximum deceleration Normal Enabled forced stop Select acceleration/deceleration Acceleration/decele- 00: Acceleration/deceleration 1 1-4 by combination of two bits. ration selection 1 AD1: acc, dec 01: Acceleration/deceleration 2...

Page 43 E6582051 fa23 (Communication command 2) (VF-AS3) 6.5.4. Function Note Control switching Speed control Torque control Electric power quantity Electric power quantity (fe76, Reset fe77) reset reset (Reserved) Braking request (BC) Normal Forcibly braked Preliminary excitation Normal Enabled (Reserved) Braking answer (BA) Brake applied Brake released Quick deceleration 2...

<u>Page 44</u> E6582051 fa07 (frequency reference from communication option) 6.5.5. Frequency reference is set up by 0.01Hz unit and the hexadecimal number. For example, when "Frequency reference" is set up to 80Hz, since the minimum unit is 0.01Hz, 80 / 0.01 = 8000 = 0x1F40 (Hex.) fa33 (Torque command setting from communication option) 6.5.6.

Page 45 E6582051 f441 Power running torque limit level 1(Only for the VF-AS3) 6.5.9. f443 Regenerative torque limit level 1(Only for the VF-AS3) Torque limit level is set up by 0.01% unit and the hexadecimal number. For example: when "Torque limit level " is set up to "250%", since the minimum unit is 0.01%, 250%=250÷0.01=25000=61A8H f460 Speed control response 1(Only for the VF-AS3) 6.5.10.

Page 46 E6582051 fd01 (Inverter operating status 1 (real time)) (VF-S15) 6.5.12. Function Note Failure FL No output Under in progress - Trip status includes rtry and Failure Not tripped Tripped the trip retention status are also regarded as tripped statuses. Alarm No alarm Alarm

issued Under voltage (moff) Normal...

Page 47 E6582051 fd01 (Inverter operating status 1 (real time)) (VF-AS3) 6.5.13. Function Note Failure FL No output Under in progress - Trip status includes rtry and Failure Not tripped Tripped the trip retention status are also regarded as tripped statuses. Alarm No alarm Alarm issued Under voltage (moff) Normal...

<u>Page 48</u> E6582051 fd00 (Output frequency (real time)) 6.5.14. The current output frequency is read into 0.01Hz of units and by the hexadecimal number. For example, when the output frequency is 80Hz, 0x1F40 (hexadecimal number) are read. Since the minimum unit is 0.01%, 0x1F40 (Hex.) = 8000(Dec.) \* 0.01 = 80 (Hz) Also about the following parameters, these are the same as this.

Page 49 E6582051 fe35, fe36, fe37 (Monitoring of the analog input VIA, VIB, VIC) (VF-S15) 6.5.16. VIA terminal board monitor: "Communication Number fe35" VIB terminal board monitor: "Communication Number fe36" VIC terminal board monitor: "Communication Number fe37" These monitors can also be used as A/D converters irrespective of the drive's control. VIA / VIC terminal board monitor is capable of reading the data from external devices in a range of 0.01 to 100.00% (unsigned data: 0x0000 to 0x2710).

Page 50 E6582051 fc91 (Alarm code)(VF-S15) 6.5.20. Function Panel display c flicking Overcurrent alarm Normal Alarming I flicking Inverter over load alarm Normal Alarming I flicking Motor over load alarm Normal Alarming h flicking Over heat alarm Normal Alarming p flicking Over voltage alarm Normal Alarming Main circuit under voltage alarm...

Page 51 E6582051 fd06 (Input TB Status) (VF-S15) 6.5.22. TB Name Function (Parameter) Input terminal function selection 1 (f111) Input terminal function selection 2 (f112) Input terminal function selection 3 (f113) Input terminal function selection 4 (f114) Input terminal function selection 5 (f115) Input terminal function selection 6 (f116) VIB\*1 Input terminal function selection 7 (f117)

Page 52 E6582051 fd07 (Output TB Status) (VF-S15) 6.5.24. TB Name Function (Parameter) RY-RC Output terminal function selection 1A (f130) OFF Output TB Function select 2A (f131) Output TB Function select 3 (f132) 3 - 15 (Undefined) - Note: The bit described "Undefined" is unstable. Do not use the bit for the judgment. fd07 (Output TB Status) (VF-AS3) 6.5.25.

#### Page 53: Access To The Profidrive Parameter

E6582051 6.6. Access to the PROFIdrive parameter In the cyclic PROFINET communication, the parameter data is transferred via Telegram 100 or 101. If the requirement is not executed, the cause is distinguished by octet 7 and 8. (Parameter ID/value) Process data (cyclically) PZD1 PZD2 Octet 1 Octet 2 Octet 3 Octet 4 Octet 5 Octet 6 Octet 7 Octet 8...

#### Page 54: Profidrive Parameter (Pnu)

E6582051 6.7. PROFIdrive parameter (PNU) data type Note PNU 915, IND 0 = the inverter parameter c001 Array [6] PNU 915, IND 1 = the inverter parameter c002 Unsigned16 PNU 915, IND 2 = the inverter parameter c003 PNU 915, IND 3 = the inverter parameter c004 PNU 915, IND 4 = the inverter parameter c005 PNU 915, IND 5 = the inverter parameter c006 PNU 916, IND 0 = the inverter parameter c021...

**Page 55** E6582051 6.7.1. Examples of reading the PROFIdrive parameter 6.7.1.1. Example 1. Reading the PNU 922 (Telegram) AK = 1 (Request parameter value) SPM = 0 PNU = 922 (0x039A) Requirement [][] Response (Value: 0x0065 = Telegram101) [][] 6.7.1.2. Example 2. Reading the PNU 964, IND 0 AK = 6 (Request parameter value (array)) SPM = 0 PNU = 964 (0x03C4)

#### Page 56: Access To Inverter Parameter

E6582051 6.8. Access to inverter parameter When access to inverter parameter, set "1" to the PNU. The communication number of the inverter parameter is set to the sub index IND. Refer to the inverter instruction manual about the communication number and unit. Notes When you use this method for parameter writing, the value is written to the EEPROM.

**Page 57** E6582051 6.8.1.3. Example3. Reading the status monitor parameter (fe02 (The operation frequency)) AK = 6 (Request parameter value (array)) SPM = 0 PNU = 1 IND = 0xFE02 (fe02 communication number) Requirement [][] [][] Response (Value: 0x03E8 (= 1000)]

-> 10.00Hz)) [[[]...

#### Page 58: Profidrive Acyclic Parameter Access

E6582051 7. PROFIdrive acyclic parameter access In this product, inverter parameters and PROFIdrive parameters are accessible by acyclic communications in addition to the cyclic communication via Telegram 100 or101. Notes When you use acyclic parameter access, the value is written to the EEPROM. 7.1.

#### Page 59: Example2. Read The Inverter Parameter

E6582051 7.2. Example2. Read the inverter parameter When access to inverter parameter, set "0x03E8" (1000) to the PNU, and set the communication No. of inverter parameter to IND. fd04 7.2.1. Request Format (Read the value of (Input voltage)) Field Description Value Request Header (Byte 1) Request Reference...

#### Page 60: Example3. Change The Inverter Parameter

E6582051 7.3. Example3. Change the inverter parameter When access to inverter parameter, set "0x03E8" (1000) to the PNU, and set the communication No. of inverter parameter to IND. \* This procedure changes the value of inverter' EEPROM. f130 7.3.1. Request Format (Set 7 to inverter parameter Field Description Value...

#### Page 61: Code Table For Acyclic Communication

E6582051 7.4. Code Table for acyclic communication Request ID 0x01: Request the value 0x02: Change the value Response ID 0x01: Positive response for Request the value 0x02: Positive response for Change the value 0x81: Negative response for Request the value 0x82: Negative response for Change the value Axis 0x01: (Fixed for this product)

#### Page 62: Modbus Tcp

E6582051 Modbus TCP 8.1. Header format Byte Description Comments Transaction high order Same transaction ID is returned from Modbus TCP server. identifier Fixed at 0 if it is not required. low order high order Protocol This identifier always equals 0. identifier low order high order...

#### Page 63: 03 (0X03) Read Holding Registers" Function

E6582051 8.4. "03 (0x03) Read Holding Registers" function This Modbus request is used to read a value continuously from contiguous inverter parameters. Communication number of inverter parameter is set in hexadecimal. However, in the case of continuous reading, communication number is rounded up at 0xA. For example, if you read inverter parameter continuously from the parameter f109 (Communication No.

#### Page 64: 06 (0X06) Write Single Register" Function

E6582051 8.5. "06 (0x06) Write Single Register" function This Modbus request is used to write the value to the inverter parameter. Request format: Byte Meaning Function Code = 06h Communication No. of Parameter Hi Communication No. of Parameter Lo Write Data Hi Write Data Lo Response format: Byte...

#### Page 65: 16 (0X10) Write Multiple Registers" Function

E6582051 8.6. "16 (0x10) Write Multiple Registers" function This Modbus request is used to write a value continuously to contiguous inverter parameter. Communication number of inverter parameter is set in hexadecimal. However, in the case of continuous writing, communication number is rounded up at 0xA. For example, if you write inverter parameter continuously from the parameter f109 (Communication No.

#### Page 66: 43 (0X2B) Read Device Identification" Function

3 for Basic. 6 for Regular or Extended Obj 0 Id 🛛 Vendor Name Obj 0 length 9-15 Obj 0 value "TOSHIBA" Obj 1 Id 🗋 ProductCode Obj 1 length 18-30 Obj 1 value "VFS15-2004PM" Obj 2 Id 🗋 Version...

Page 67 3 for Basic. 6 for Regular or Extended Obj 0 Id 🛛 Vendor Name Obj 0 length 9-15 Obj 0 value "TOSHIBA" Obj 1 Id 🗋 ProductCode Obj 1 length 18-24 Obj 1 value "PNE001Z" Obj 2 Id 🗍 Version...

#### Page 68: Web Server

E6582051 9. Web server The option has Web server function. Writing and reading the inverter parameter and monitoring the drive's status can be done by using this function through network. This chapter describes the Web server function. 9.1. Access to the Web server In order to access the Web server, please use the version 8.0 and 11.0 of Internet Explorer.

Page 69 E6582051 When you enter the correct user name and password, Home page of web server will be shown. From the Home page, you can access to 3 main menus: Home Main menu Sub menu Monitoring Drive Monitor Drive parameters Network Setup Network Parameters Administration Diagnostics...

#### Page 70: Web Pages Structure

E6582051 9.2. Web pages structure Each main menu, "Monitoring", "Network Setup" and "Diagnostics" contains each own sub menu. Sub menus are displayed on the left side of main menu page. 9.3. Drive Monitor (Main menu: Monitoring) The state of the inverter can be confirmed on this page. - 67 -...

<u>Page 71</u> E6582051 Notes: There are problems of display on the Drive Monitor in PNE001Z (no suffix). These problems are corrected in PNE001Z-1. (a)  $\bigcirc$  (a)  $\bigcirc$  (b)  $\bigcirc$  (c)  $\circ$  (c)  $\circ$  (c)  $\circ$  (c)  $\circ$  (c)  $\circ$  (c)  $\circ$  (c) (

#### Page 72: Drive Parameters (Main Menu: Monitoring)

E6582051 9.4. Drive parameters (Main menu: Monitoring) The parameters of the inverter can be confirmed / set on this page. The left column is used to select a modify group (or list) of parameters. The right column displays the parameters, its Modbus address and its current value. Start the monitor [Set the parameters When you modify the inverter parameter from the Web server, please press the set button, and input the...

#### Page 73: Network Parameters (Main Menu: Network Setup)

E6582051 []Set the parameters value Input the write value to popup window. 9.5. Network parameters (Main menu: Network Setup) The network parameters of the inverter can be confirmed / changed on this page. When you modify the network parameters from the Web server, please press the "Password" button, and input the "Web write password".

#### Page 74: Administration (Main Menu: Network Setup)

E6582051 9.6. Administration (Main menu: Network Setup) The "web read password" and "web write password" of the Web server can be modify on this page. Press the "Password" button, and enter the "Web write password". After that, press the Enter key. Enter the new password, and press the "Save"...

#### Page 75: Tcp/Ip Statistics (Main Menu: Diagnostics)

E6582051 9.7. TCP/IP statistics (Main menu: Diagnostics) You can check TCP/IP status on this page. 9.8. Modbus statistics (Main menu: Diagnostics) You can check Modbus status on this page. - 72 -...

#### Page 76: Activation Of Java7

E6582051 9.9. Activation of Java7 When you use PNE001Z-1, these procedures are unnecessary. To observe the Web server, the version of Java must be at least 1.7.67 in the bits version of your internet browser. If the version 1.8.25 or other 1.8 version are already installed on your computer, you can install the 1.7.67 too.

Page 77 E6582051 9.9.2. Delete temporary files If you had started a web server in the JAVA8, you will need to delete the temporary file with the following procedure. "OK" to validate and close this window. - 74 -...

Page 78 E6582051 9.9.3. Launch Web server after activation Launch the Web server and enter your username and password. After the loading of Java application, you will see bellow window. Please select "Execute". After that, you will see a new window, please select "Authorize the execution of the application with the requested version (1.7.67)"...

## This manual is also suitable for:

Tosvert vf-as3