Hitachi Inverter

Option Board used for SJ-P1/SH1 SERIES

P1-CO (CANopen Interface Option)

USER'S MANUAL

Thank you for purchase of Hitachi inverter.
This manual explains how to use "P1-CO (CANopen Interface Option) ".
Reading through this instruction manual carefully and apply these knowledge into practise to installation, maintenance, and inspection.
After reading this manual, keep it handy for future reference.
Make sure to deliver this manual to the end user.

Contents

After reading this manual, keep it at handy for future reference.

NT939 X

HITACHI

SAFETY PRECAUTIONS

- Request –

Thank you for purchase of “P1-CO（CANopen Interface Option)”.

This instruction manual explains about treatment and maintenance of “P1-CO”. Before using the product, carefully read this manual with the instruction manual of inverter, and keeps it handy for quick reference of operator and maintenance inspector. Before installing, operating, maintenance and inspection read this manual carefully and follow the instructions exactly.

Always keep various kinds of specifications mentioned in this manual and use exactly. And make sure to prevent trouble by correct inspection and maintenance. Make sure to reach this manual to the end user.

- About treatment of this manual –

(1)Please consent that mentioned items of this manual may be change without permission.

(2)Keep this manual carefully not to lose because it can not be reissued

(3)All right reserved

(4)Please contact the Hitachi inverter dealer from whom you purchased the unit, if you have some doubts about spelling mistakes, omitted word etc.

(5)Please agree that there is no responsibility for effects resulted, in spite of contents above mentioned.

- Reference–

Once P1-CO is connected to SJ-P1/SH1 seires, CANopen master is able to read and write all parameters, which will be stored in the EDS files. You can briefly set the parameters of SJ-P1/SH1(*1）by using CANopen setter.

Regarding the basic information and the instruction manual of CANopen interface option, please refer to Hitachi Industral Equipment (NANJING) Coporation.

*1Following SJ-P1/SH1 seires are here in after refered to as SJ-P1 for short.

Revision History

No.	Revised contents	Date	Draft No.
1.	English version	2017/6	NT939 X

Any revision of wrong spelling, missing words or added instruction will not be revealed additionally in this table.

SAFTY PRECAUTIONS

Carefully read this manual and all of the warning labels attached to the inverter before installing, operating, maintaining, inspecting it. Safety precautions are classified into “Warning” and “Caution” in thismanual.

! WARNING : Indicates a potentially hazardous situation which, if not avoided, can result in serious injury or death

! CAUTION :Indicates a potentially hazardous situation which, if not avoided, can result in minor to moderate injury, or serous damage to the product

The situation described in ! CAUTION may, if not avoided, lead to serious results. Important safety measures are described in CAUTION (as well as WARNING) so be sure observe them.
Notes are described in this manual in “(Note)”. Carefully read the contents and follow them exactly.

! CAUTION

In all the illustrations in this manual, covers and safely device are occasionally removed to describe the details. When the product is operated, make sure that the covers and safety devices are placed as they were specified originally and operate it according to the instruction manual.

⚠ WARNING

Wiring:

Wiring work shall be carried out by electrical experts.

Otherwise, there is a danger of electric shock, fire and/or damage of product.

Implement wiring after checking that the power supply is off.

Implement wiring after checking that the power supply is off.

Operating:

Be sure not to touch the surface or the terminal of option board while energizing.

Otherwise, there is a danger of electric shock and/or fire.

Be sure not to remove the Canopen option printed board while operating.

Otherwise, there is a danger of electric shock and/or fire.

Maintenance, Inspection and Part Replacement:

Wait at least 10 minutes after turning off the input power supply before performing maintenance and inspection.

(Make sure the “POW” LED display on the inverter is off and DC voltage between P-N terminals is less than 45V)

Otherwise, there is a danger of electric shock.

Make sure that only qualified persons will perform maintenance, inspection, and part replacement

(Before starting the work, remove metallic objects from your person (wristwatch, bracelet, etc.).

Be sure to use tools protected with insulation.)

Otherwise, there is a danger of electric shock and/or injury.

Note:

Never modify the unit.

Otherwise, there is a danger of electric shock and/or injury.

⚠ CAUTION

Installation:

Be sure not to let the foreign matter enter such as wire clippings, spatter from welding, metal shaving, dust etc.

Otherwise, there is a danger of fire.

Be sure to fix inverter to option printed board with an attached fixed screw.

Otherwise, there is a danger of connecting error.

Be sure to fasten the screws connecting signal wire in side of option printed board. Check for any loosening of screw.

Otherwise, there is a danger of connecting error.

Wiring:

Be sure to fasten the screws not to loose.

Otherwise, there is a danger of connecting error.

Operation:

Check rotary direction, abnormal motor noise and vibrations during operating.

Otherwise, there is a danger of injury to personnel and/or machine breakage

1.1 INSPECTION UPON UNPACKING

Make sure to treat the product carefully not to give shock and vibration while unpacking. Check that the product is the one you ordered, and that there is no defect and no damage during transportation.

(Contents of packing)

1. P1- CO (CANopen Interface option):1
2. Instruction manual: 1
3. CANopen connector：1
4. Terminal resister（120Ω）：1

If you discover any problems, contact the Hitachi inverter dealer from whom you purchased the unit immediately.

1.2 INQUIRY OF THE PRODUCT AND WARRANTY FOR THE PRODUCT

1.2.1 Request upon inquiring

If inquiry of breakage, question, damage etc. is needed, please tell the following information to the supplier you ordered.

(1)Type（P1-CO）
(2)Manufacturing number（the contents of the nameplate on PCB board, P1-CO ***（manufacturing date and *** are different））
(3)Date of purchasing
(4)Contents of inquiry

- Damage parts and its condition etc.
- Question parts and their contents etc.

In order to shorten impossible working time, standing spare unit is recommended.

1.2.2 Warranty of the product

This product is guaranteed one year after the purchase. But, the next case is toll repair, even if within warranty period.

(1) In case caused by operating mistake, and incorrect repair and modification.
(2) Trouble caused by reasons except the shipped product.
(3) In case of using in range over the value of specifications.
(4) In case caused by natural calamity, disaster, and secondary disaster.

Warranty mentioned here means warranty for shipped product itself. Damage caused by trouble of shipped product is not guaranteed.

Toll repair

Any inspection and replacement after the expiration of warranty period (one-year) shall be charged to the purchaser.And also any inspection and replacement which are not covered in warranty mentioned above, even if it is within warranty period, it shall be charged to the purchaser. If you require the replacement, please contact the Hitachi inverter dealer from whom you purchased the unit.

1.3 Product information

P1-CO is used as the CANopen option board for SJ-P1 series. It is installed on and powered by the extended slots on the inverter, which is connected through 5 pins connector to the external CAN bus. The maximum frequency for CAN is 1Mbit/s. The working status can be indicated by two LED lights.The specifications are as below:

No.	Item	Contents
1	Type	P1-CO option
2	Power supply	Powered through the inverter interface option Voltage：4.87-5.71VDC(Typical Value 5VDC) 3.23-3.57VDC（ Typical Value 3.3VDC）
3	LED lights	A red LED and a green LED
4	Node ID	Set through the 7 figures on DIP switch within a range of 1-127（0：default）
5	Baud rate	Set through the 3 figures on DIP switch within a range of 10Kbps-1Mbps
6	Extensions	L(98mm)×W(67mm)×H(20mm)
7	Weight	41g
8	Function	The CANopen option board is installed on the inverter and controlled by a master controller, thus the SJ-P1 inverter can be easily controlled
9	Ambient temperature	-10～50℃
10	Storage temperature	-10～60℃（the temporary temperature during transportation）
11	Application	Below an altitude of 1000m, indoor（corrosive gas free and dust free）
12	Vibration	5.9m/s2（0.6G）,10～55Hz

Table 1.1 Product Specifications

1.4 Appearance and name of parts

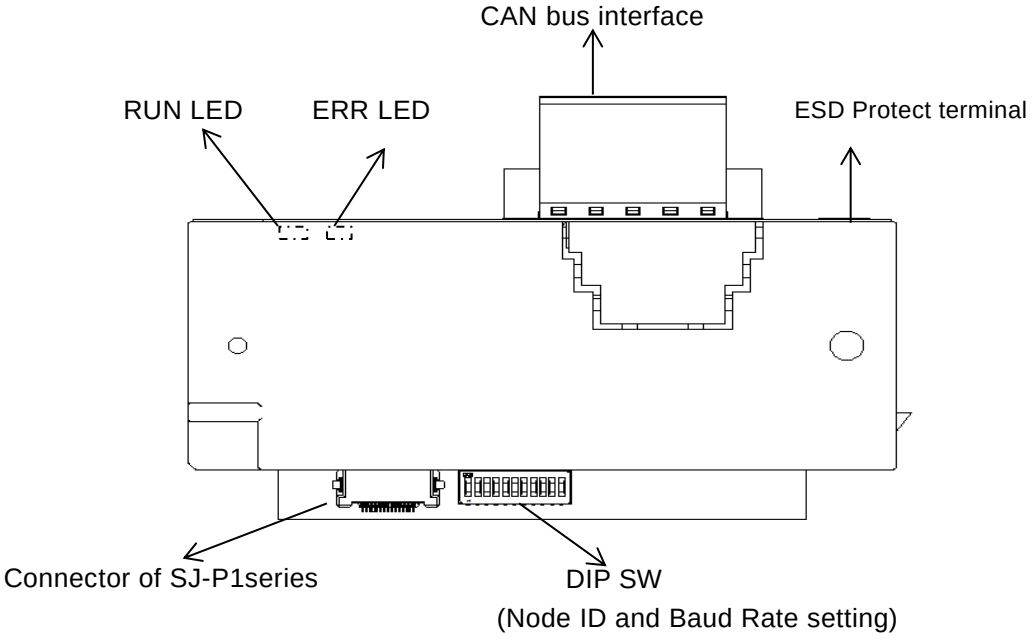


Figure 1.1 Appearance of P1-CO

2.1 Mounting method of option

Take off the cover on option port 1, port 2 or port 3, align the screw holes on the option board with the holes on the inverter, push tight the wire ends on the back and screw up. In order to avoid bad connection of the wire ends, please fix them with the surplus screws as showed below:

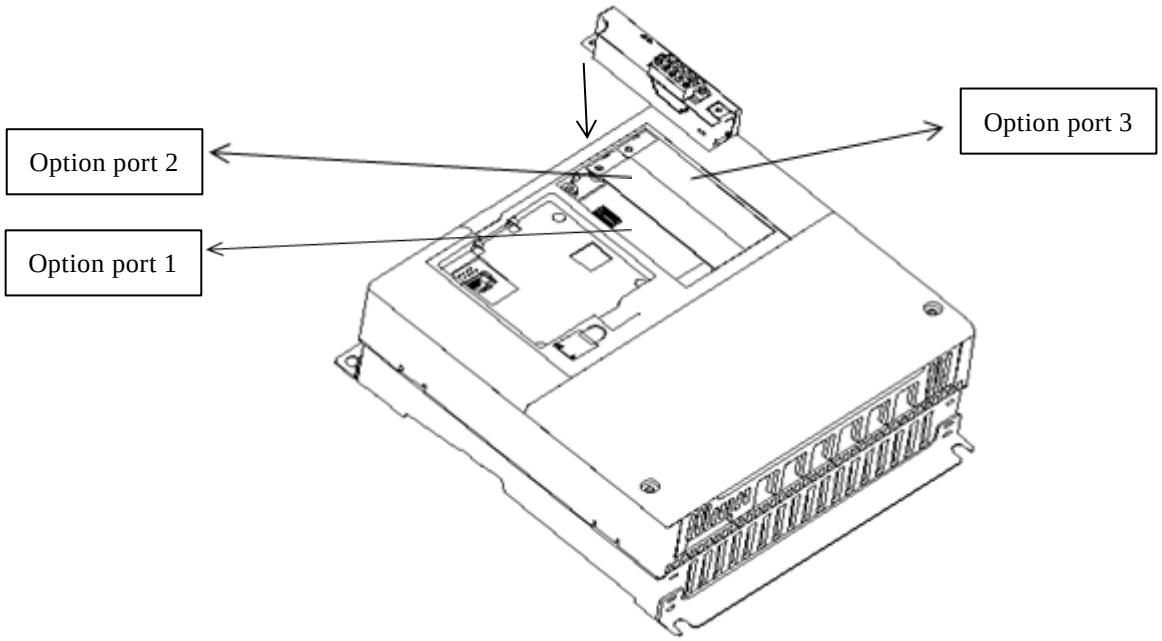


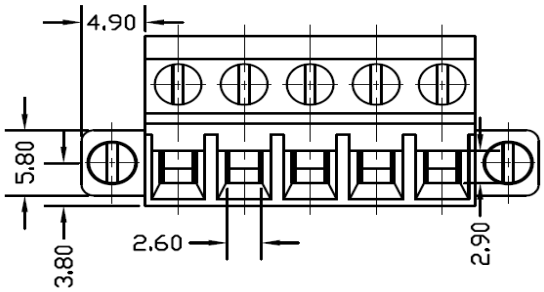
Figure 2.1 Installation of Option Board

2.2 Restrictions of use

SJ-P1 series has three option ports as showed on figure 2.1. Option port 3 is not available when P1-SF is operating, and option port 2 is not available when P1-FB is operating.

3.1 Connection for CANopen connector

The P1-CO can be connected to the CAN bus through the pluggable 5 pins connector which is packed together in the product.



Unit：mm

Pin No	Name	Description
1	GND	Grounded
2	CANL	CAN-L
3	SHLD	CAN shield
4	CANH	CAN-H
5	V+	CAN external power supply（optional）

Figure 3.1 Connector Specifications

3.2 Communication cable for CANopen

The CANopen Network distance is closely related to the baud rate and communication cable. The relationship between the maximum bus length and baud rate is showed as below：

Baud rate（bps）	1M	800K	500K	250K	125K	50K	20K	10K
Maximum Bus length(m)	25	50	100	250	500	1000	2500	5000

Table 3.2 Relationship between Baud Rate and Bus Length

4.1 Setting methods of Baud rate and Node ID

The ten figures on the DIP switch of P1-CO are used to set CANopen baud rate and Node ID. The 3 figures of DR segment are used to set CANopen baud rate and the 7 figures of Node ID segment are used to set Node ID. The DIP switch is showed as figure 4.1.

ON: 1 OFF: 0

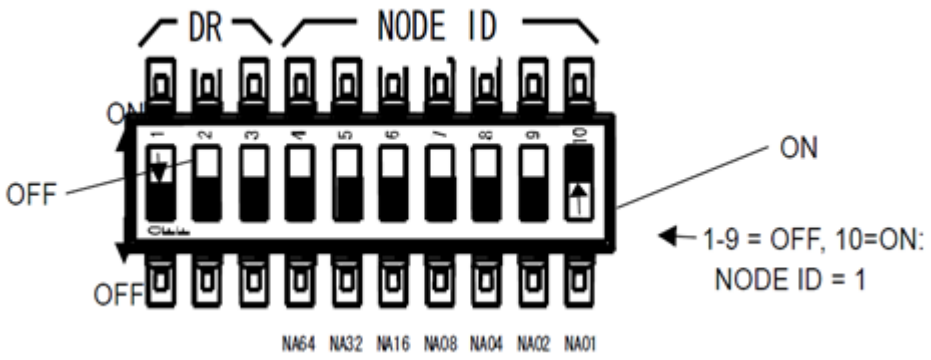


Figure 4.1 DIP Switch

*Setting method of CANopen baud rate

Select the CANopen baud rate through the 3 DIP switches as below: :

Baud rate	Switch 1	Switch 2	Switch 3
1MB	OFF	OFF	OFF
800KB	OFF	OFF	ON
500KB	OFF	ON	OFF
250KB	OFF	ON	ON
125KB	ON	OFF	OFF
50KB	ON	OFF	ON
25KB	ON	ON	OFF
10KB	ON	ON	ON

Table 4.1 CANopen Baud Rate

*Setting method of Node ID

The address range of Node ID is from 1 to 127. “0” means reserved address, which is not allowed to be used. If “0” is set, the P1-CO won’t be operated.

Node ID = SW4*64 + SW5*32 + SW6*16 + SW7*8 + SW8*4 + SW9*2 + SW10*1

Note：1 ON: 1 OFF:0
2 SWX = Switch

4.2 LED Status Lights

CANopen have two LED status lights: RUN and ERR.

ERR LED light is red, which indicates errors such as CAN physical layers and communication interruptions. It's showed as below:

No	ERR LED	Status	Description
1	OFF	No error	The inverter is operating normally
2	Single flash	Error warning	The value of at least one error counter excelled the alarm value .(mostly BUS error)
3	Double flash	Communication abort	Communication aborts occuretd(The Node Guarding or the Heartbeat is abort.)
4	Thriple flash	Sync error	The Sync Messages is not received within the set period (whether OD 0x1006 is set or not)
5	Always red	BUS off	CAN Bus off

Table 4.2 ERR LED

RUN light is green, which indicates the state of Module control services . It's showed as below:

No	RUN LED	Status	Description
1	Single flash	Stopped	-
2	Blinking	Pre-Operational	-
3	Always green	Operational	-

Table 4.3 RUN LED

Notes：The LED status is showed as below：

LED status	Details
LED ON	Always on
LED OFF	Always off
LED blinking	iso-phase on and off with a frequency of approximately 2.5Hz: On for approximately 200ms and off for approximately 200ms.
LED single flash	One short flash (approximately 200ms) followed by a long off phase (approximately 1000ms).
LED double flash	A sequence of two short flashes (approximately 200ms), separated by an off phase (approximately 200ms).The sequence is finished by a long off phase (approximately 1000ms).
LED thriple flash	A sequence of three short flashes separated by an off phase. The sequence is finished by a long off phase

Table 4.4 Description of LED Status

4.3 Setting of the Inverter

Following table describes setting items related to SJ-PI/SH1 series Inverter with connected P1-CO.
*Please set the below parameters before using P1-CO.

No	Function name	Codes	Ranges	Defaut	Set value	Notes
1	The main instruction selection, 1st motor	AA101	01(Ai1 input terminal)/02(Ai2 input terminal)/03(Ai3 input terminal)/07(parameter setting)/08(RS485)/12(pulse string input: the entire machine)/14(program function)/15(PID operation)	07	07	
2	Run-command input source selection, 1st-motor	AA111	00 (Terminal [FW]/[RV]) /01 (3-wire) /02 (RUN key on keypad) /03 (Setting by RS485) /04 (Option-1) /05 (Option-2) /06 (Option-3)	02	03	
3	Input terminal selection [1]	CA-11	Refer to the instruction manual（input terminal function lists）	028	032	Used for #6040h
4	Input terminal [1]a/b(NO/NC)	CA-31	00(always on)/01（always off）	00	00	Used for #6040h
5	Control mode, 1st motor	AA121	00～12	00	According the motor settings	
6	IM motor poles selection, 1st motor	Hb103	2～48(poles)	4	According the motor settings	
7	SM(PMM) motor Poles selection, 1st motor	Hd103	2～48(poles)	*different between each model		

Table 4.5 Parameter Setting

5.1 Software Characteristics

P1-CO board supports the following 7 kinds of protocols：

- Heartbeat protocol is supported, which is used to report the status of slaves
- NodeGuard protocol is supported, the master can control the status of each node
- SDO protocol is used in accelerated transferring system, which transfers 1 function code and 2 bytes each time
- Four TPDO and four RPDO are supported
- Emergency objects is supported
- Synchronization object is supported
- CiA402 protocol is supported

5.2 Working Principles

CANopen is an top layer communication protocol based on Controller Area Network (CAN). The communication objects is defined as COB-ID(CAN identifiers), which is consist of Node-ID and function codes. The application data is defined in the object dictionary, each object has the mapped primary index (16 bit) and a sub-index (8 bit). If the value of sub-index is 0, it means that there is no sub-index. Communication objects are grouped into the following 3 areas：

Index	Profile Area
1000-1FFF	Communication Profile Area
2000-5FFF	Manufacturer Specific Profile Area(Inverter's parameter area)
6000-9FFF	Device Profile Area

Table 5.1 Parameter Group

All the objects can be visited through SDO protocol. Some data can be visited periodically through preset PDO.There is no need to respond when PDO directly visits the object dictionary (maximum data size is 8 bytes), which highly promotes the transferring efficiency and speed.

5.3 Communication Object COB-ID

CANopen provides multiple communication objects and each has specific characteristics（refer to CANopen standard protocol）. You can choose the most suitable one for different applications. This opition board adopts pre-defined COB-ID with the following principles：

1） NMT object：0x000
2） SYNC object：0x080
3） SDO object
Sending SDO——0x600+Node-Id
Receiving SDO——0x580+Node-Id
4） PDO object：
RPDO1 ——0x200+Node-Id
RPDO2 ——0x300+Node-Id
RPDO3 ——0x400+Node-Id
RPDO4 ——0x500+Node-Id
TPDO1 ——0x180+Node-Id
TPDO2 ——0x280+Node-Id
TPDO3 ——0x380+Node-Id
TPDO4 ——0x480+Node-Id
5） EMCY object：0x80+Node-Id

*Node-Id：equipment ID（station address），set by DIP switch

*Communication object COB-ID is assigned in fixed form, which can not be revised

5.4 SDO (Service Data Object)

Handshake protocol is needed when using the SDO communication to transfer data.The parameter data is read and written through object address (main index and subindex). The model for the SDO communication is the Client/Sever model, so each request should be responded. CANopen Interface Option uploads and downloads inverter parameters using Object Dictionary 1200h, which is showed as below:

Sub-Index	Type	Meaning	Notes
0	UNSIGNED8	Number of supported entries in the record	default: 2
1	UNSIGNED32	COB-ID Client → Server(Receive ID)	
2	UNSIGNED32	COB-ID Server → Client(Transmit ID)	

Table 5.2 SDO Object

This protocol is used to implement the abort SDO Transfer Service. The abort code is standard code of CANopen specifications, which is showed as below:

Abort code	Description
0504 0001h	Client/server command specifier not valid or unknown.
0601 0002h	Attempt to write a read only object.
0602 0000h	Object does not exist in the object dictionary.
0607 0010h	Data type does not match, length of service parameter does not match
0609 0011h	Sub-index does not exist.
0609 0030h	Value range of parameter exceeded (only for write access)
0800 0000h	general error
0800 0020h	Data cannot be transferred or stored to the application.
0604 0041	Object cannot be mapped to the pdo
0604 0042	The number and length of the object to be mapped would exceed PDO length

Table 5.3 SDO Abort Code

5.5 PDO (Process Data Object)

The real-time data transfer is using the PDOs. There are two kinds of PDO transmission modes. One is synchronization (SYNC); the other is asynchronization message (Remotely Request, Event Driven, and Timer Driven). The PDOs is supportive of 4 TPDO and 4RPDO.The PDOs has Transmit-PDOs (maximum data size is 8 bytes) and Receive-PDOs (maximum data size is 8 bytes). These data type and these mapping are defined by the Object Dictionary. Each PDO consists of two parts: the communication parameters and mapping parameters.

Index	Type	Object
1400h	20h	1st receive PDO communication parameter
1401h	20h	2nd receive PDO communication parameter
1402h	20h	3rd receive PDO communication parameter
1403h	20h	4th receive PDO communication parameter
1600h	21h	1st receive PDO mapping parameter
1601h	21h	2nd receive PDO mapping parameter
Index	Type	Object
1602h	21h	3rd receive PDO mapping parameter
1603h	21h	4th receive PDO mapping parameter

1800h	20h	1st transmit PDO communication parameter
1801h	20h	2nd transmit PDO communication parameter
1802	20h	3rd transmit PDO communication parameter
1803h	20h	4th transmit PDO communication parameter
1A00h	21h	1st transmit PDO mapping parameter
1A01h	21h	2nd transmit PDO mapping parameter
1A02h	21h	3rd transmit PDO mapping parameter
1A03h	21h	4th transmit PDO mapping parameter

Table 5.4 PDO Object

Data type “20h” is a record, which defines the PDO communication parameter, and it is of the following format:

Sub-Index	Type	Meaning
0h	UNSIGNED8	Number of supported entries in the record
1h	UNSIGNED32	COB-ID
2h	UNSIGNED8	transmit type

Table 5.5 PDO Communication Parameter

Data type “21h” is a record, which defines the PDO mapping parameter and it is of the following format:

Sub-Index	Type	Meaning
0h	UNSIGNED8	Number of supported entries in the record
1h-8h	UNSIGNED32	Structure：mapped object index（16bits），sub-index（8 bits）and object data length（8 bits）. For example “20010010h” defines object “2001h”, sub-index “0h”, and data length of16 bits (=word).

Table 5.6 PDO Mapping Parameter

The sequence of PDO mapping objects is from 1 bit to 8 bits.

5.6 About CANopen Control Message

5.6.1 NMT message

Only NMT-Master node can send NMT message， the message format is showed as figure 5.7. COB-ID is assigned in fixed form as “0x00”. Data0 means the common word occupies 1 byte as showed in figure 5.8. Data1 means the CANopen network address occupies 1 byte. When the data1 is “0”, the node sends broadcasting message which is effecting to all the equipment in the network.

For example, to set Node ID 2 as operational state, the command should be “0x000 0x01 0x02”，

COB-ID	RTR	Data0	Data1
0x000	0	Command word	Node ID

Figure 5.7 Format of NMT message

Command	Descriptions
0x01	Start Remote Node
0x02	Stop Remote Node
0x80	Enter Pre-operational State
0x81	Reset Node
0x82	Reset Communication

Figure 5.8 Command of NMT message

5.6.2 NodeGuarding message

The network management service allows the network master to control the communication status of each node, which is especially meaningful when there is no data transmission through each node.

The objects at Index 0x100C and 0x100D indicate the configured guard time and the life time factor respectively. The life time factor multiplied with the guard time jointly decides the heartbeat interval.

NMT master sends romote frame to nodes, which can be showed as figure 5.9.

COB-ID	RTR
0x700+Node-ID	1

Figure 5.9 NodeGuarding main node message

The response message from nodes to NMT master can be showed as figure 5.10. The status word occupies one bite as showed on figure 5.11.

COB-ID	RTR	Data0
0x700+Node-ID	0	Status word

Figure 5.10 NodeGuarding master messages

Data bit	Description
Bit7	Set 0 as 1 during each alternation
Bit6-bit0	Status 4：stop 5：operational 137：pre-operational

Figure 5.11 NodeGuarding response message

5.6.3 Heartbeat message

With node monitoring according to the heartbeat principle, a node automatically transmits its communication state at regular intervals as evidence of its communication ability. The heartbeat control message can be showed as figure 5.12. The status word for “bit 7” is set as “0”, the set of “bit6-bit0”is the same as that of NodeGuarding as showed in figure 5.11.

The interval between two heartbeat messages ("heartbeat interval") is configured via the object dictionary entry [1017]. One node can not support both NodeGuarding and Heartbeat at the same time.

COB-ID	RTR	Data0
0x700+Node-ID	0	Status word

5.12 Heartbeat master messages

5.6.4 Emergency message

Emergency message 8 bytes formate is show as figure 5.13.

Emergency Error Code	Error Register	Manufacture Error code
0～1	2	3～7

5.13 Emergency message

Emergency Error Code：according to the protocol DS301, code“0x8130”represents that communication error occurs, code “0xFF00” represents manufacurer error occurs.

Error reigister: value difined by object dictionary 1001H, “bit0” represents error occurs, “bit4”represents communication error, “bit7” represents manufacurer error occurs.

Manufacturer error code: this code occurs when the inverter trips. Specify “**” for inverter trip code E0**. For example, when overcurrent E001 occurs, manufacurer error is specified as “01”, emergency messages is shown as:”00 FF 81 01 00 00 00 00”.

5.7 Device Control

CANopen interface option can use "Velocity Mode" DSP_402 V2.0 drive control profile.

5.7.1 Object Dictionary for Standardized Device Profile Area

CANopen interface option supports following objects:

Index	Meaning	Type	Notes
6007h	abort_connection_option_code	Integer16	
6040h	control word	Unsigned16	
6041h	status word	Unsigned16	
6042h	vl_target_velocity	Integer16	
6043h	vl_velocity_demand	Integer16	
6044h	vl_control_effort	Integer16	
6046h	vl_velocity_min_max_amount	Unsigned32	
6048h	vl_velocity_acceleration	Ramp	
6049h	vl_velocity_deceleration	Ramp	
6060h	modes_of_operation	Integer8	
6061h	modes_of_operation_display	Integer8	

Table 5.14 Object Dictionary

5.7.2 abort_connection_option_code (Index:6007h)

The content of this object selects the inverter to be performed when the connection to the network is lost, the action show in tale 5.15.

value	Action
0	No action
1	No action/fault
2	Disable voltage-(FRS)
3	Quick stop
-1	Manufacturer specific: Enable inverter command ”A111 = 00 ”
-2	Manufacturer specific: Enable inverter command ”A111 = 01”
-3	Manufacturer specific: Enable inverter command”A111 = 02”

Table 5.15 abort connection option code

5.7.3 Control word（Index:6040h）

The control word is used to send control commands to the inverter. (HOST-> Inverter)

BIT	Description
0	Switch on
1	Enable Voltage
2	Quick stop
3	Enable Operation
7	Fault Reset(raising edge)
8	Halt
14	Move forward
15	Move reverse

Table 5.16 control word

5.7.4 Status word（Index:6041h）

The status word indicates the current state of the inverter:

BIT	Description
0	Ready to switch on
1	Switched on
2	Operation enabled
3	Fault
4	Voltage enabled
5	Quick stop
6	Switch on disabled
7	Warning
9	Remote
10	Target reached
11	Internal Limit Active
14	Moving forwards
15	Moving backwards

Table 5.17 Status word

5.7.5 Vl_target_velocity (Index: 6042h)

The vl_target_velocity is the required velocity of the system.

Access: R/W

(Unit: min^{-1} Minimum unit: 1dig= $1min^{-1}$)

Setting range：0-24000[rpm]

5.7.6 Vl_velocity_demand (Index: 6043h)

The vl_velocity_demand is the instantaneous velocity provided by ramp function,

Scaled to the unit of the vl target velocity.

Access: Read only

(Unit: min-1 Minimum unit: 1dig= 1min-1)

5.7.7 Vl-velocity-effort (Index: 6044h)

The vl velocity effort is the velocity at the motor spindle or load,

scaled to the unit of the vl target velocity.

Access: Read only (Unit: min-1 Minimum unit: 1dig= 1min-1

5.7.8 Vl_velocity_min_max_amount (Index: 6046h)

The vl_velocity_min_max_amount index is composed of the vl velocity min(Sub-index1) amount and vl velocity max(sub-index2) amount sub-index. (32bit length)

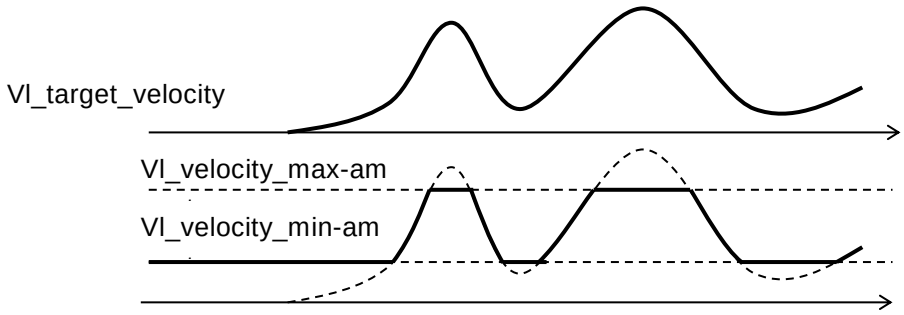
Sub-index1 = 1st frequency minimum limiter

Sub-index2 = 1st frequency maximum limiter

Access: R/W

(Unit: min-1 Minimum unit: 1dig= 1min-1)

Setting range：1-24000[rpm]



5.7.9 Vl_velocity_acceleration (Index: 6048h)

The vl_velocity_acceleration index specifies the slope of acceleration ramp. (32bit length)

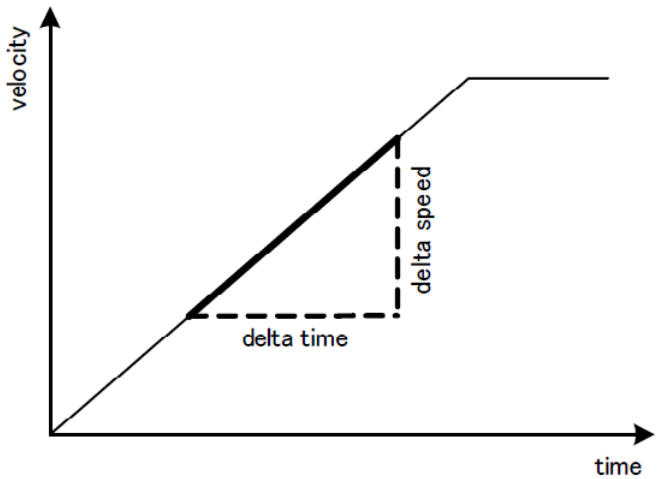
It is generated as the quotient of the delta speed (Sub-index1) and delta time (sub-index2) subindex.

Sub-index1 = delta speed (unit: min-1 Minimum unit: 1dig= 1min-1)

Sub-index2 = delta time (unit: sec Minimum unit: 1dig= 1sec)

vl_velocity_acceleration = delta-speed / delta-time

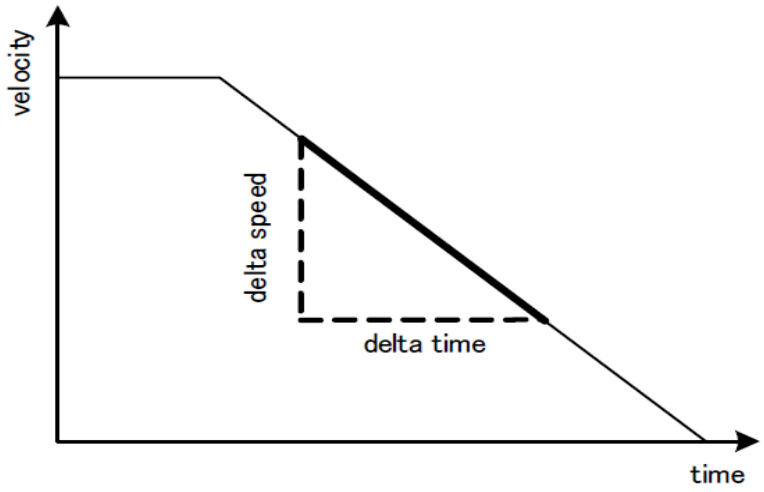
Access: R/W Setting range：0.01- 3600.00[s]



5.7.10 vl_velocity_deceleration (Index: 6049h)

The vl_velocity_deceleration index specifies the slope of deceleration ramp. (32bit length)
It is generated as the quotient of the delta speed (Sub-index1) and delta time (sub-index2) subindex.
Sub-index1 = delta speed (unit: min-1 Minimum unit: 1dig= 1min-1)
Sub-index2 = delta time (unit: sec Minimum unit: 1dig= 1sec)
vl_velocity_acceleration = delta-speed / delta-time

Access: R/W Setting range：0.01- 3600.00[s]



5.7.11 Modes_of_operation (Index: 6060h/6061h)

The actual mode is reflected in the modes of operation display (index 6061h), and not in the mode of operation(index 6060h). But CANopen Interface Option support only Velocity Mode.

5.7.12 State Machine

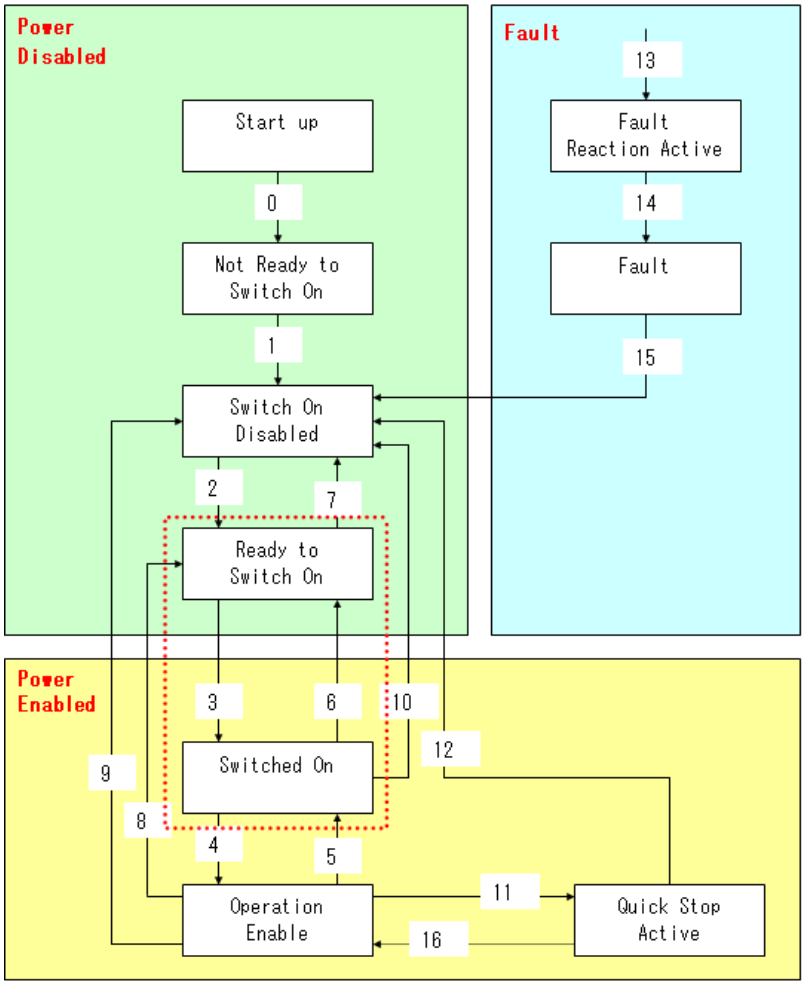


Figure 5.1 State machine

Command bit of Control word	Bit7 Fault Reset	Bit3 Enable Operation	Bit2 Quick Stop	Bit1 Disable Voltage	Bit0 Switch on	Transition
Shutdown	0	×	1	1	0	2,6,8
Switch On	0	×	1	1	1	3
Disable Voltage	0	×	×	0	×	7,9,10,
Quick Stop	0	×	0	1	×	7,10,11
Disable Operation	0	0	1	1	1	5
Enable Operation	0	1	1	1	1	4,16
Fault Reset	0→1	×	×	×	×	15

'x' means that any value is allowed.

Bitmapping of Status word

Inverter	Bit6 Switch On Disable	Bit5 Quick Stop	Bit3 Fault	Bit2 Operation Enable	Bit1 Switch On	Bit0 Ready to Switch On
Not Ready to Switch On	0	×	0	0	0	0
Switch On Disabled	1	×	0	0	0	0
Ready to Switch On	0	1	0	0	0	1
Switched On	0	1	0	0	1	1
Operation Enabled	0	1	0	1	1	1
Fault	0	×	1	1	1	1
Fault Reaction Active	0	×	1	1	1	1
Quick Stop	0	0	0	1	1	1

5.7.13 Device Profile Area

Index	Sub-Index	Object name	Data type
6007h		abort-connection-option-code	INTEGER16
6040h		control word	UNSIGNED16
6041h		status word	UNSIGNED16
6042h		Vl_target_velocity	INTEGER16
6043h		Vl_velocity_demand	INTEGER16
6044h		vl_control_effort	INTEGER16
6046h		vl_velocity_min_max_amount	STRUCT
	0	Number of entries(=2)	INTEGER8
	1	Vl_velocity_min_amount	UNSIGNED32
	2	Vl_velocity_max_amount	UNSIGNED32
6048h		vl_velocity_acceleration	STRUCT
	0	Number of entries(=2)	INTEGER8
	1	delta-speed	UNSIGNED32
	2	delta-time	UNSIGNED16
6049h		vl_velocity_deceleration	STRUCT
	0	Number of entries(=2)	INTEGER8
	1	delta-speed	UNSIGNED32
	2	delta-time	UNSIGNED16
6060h		modes_of_operation	INTEGER8
6061h		modes_of_operation_display	INTEGER8

5.7.14 Communication Object

Index	Sub-Index	Object	Data Format
1000h		Device type(=0x00010192)	UNSIGNED32
1001h		Error register	UNSIGNED8
1003h		Pre-defined Error Field	UNSIGNED32
1005h		COB-ID of sync PDO	UNSIGNED32

Index	Sub-Index	Object	Data Format
1006h		Communication cycle period	UNSIGNED32
1007h		SYNC windows length	UNSIGNED32
1008h		Manufacturer device name(=”P1-CO”)	VISIBLE-STRING
1009h		manufacturer hardware version	VISIBLE-STRING
100Ah		Software version	VISIBLE-STRING
100ch		Guard Time	UNSIGNED16
100dh		Life Time Factor	UNSIGNED8
1014h		COB-ID EMCY	UNSIGNED32
1016h		Consumer Heartbeat Time(=1)	IDENTITY
	0	Number of entries	UNSIGNED8
	1	Consumer Heartbeat Time	UNSIGNED32
1017h		Producer Heartbeat Time	INTEGER16
1018h		Identity Object	IDENTITY
	0	Number of entries（=3）	UNSIGNED8
	1	Vendor id(=0x15f)	UNSIGNED32
	2	Product code	UNSIGNED32
	3	Revision number	UNSIGNED32
1200h		Server SDO	SDO-PARAMETER
	0	Number of entries(=2)	UNSIGNED32
	1	COB-ID Client to Server(=NodeID+0x00000600)	UNSIGNED32
	2	COB-ID Server to Client(=NodeID+0x00000580)	UNSIGNED32
1400h		1st receive PDO Parameter	PDO CommPar
	0	Number of entries(=4)	UNSIGNED8
	1	COB-ID (=NodeID+0x00000200)	UNSIGNED32
	2	Transmission type(=254)	UNSIGNED8
1401h		2th receive PDO Parameter	PDO CommPar
	0	Number of entries(=4)	UNSIGNED8
	1	COB-ID(=NodeID+0x00000300)	UNSIGNED32
	2	Transmission type (=254)	UNSIGNED8
1402h		3st receive PDO Parameter	PDO CommPar
	0	Number of entries(=4)	UNSIGNED8
	1	COB-ID (=NodeID+0x00000400)	UNSIGNED32
	2	Transmission type(=254)	UNSIGNED8
1403h		4th receive PDO Parameter	PDO CommPar
	0	Number of entries(=4)	UNSIGNED8
	1	COB-ID(=NodeID+0x00000500)	UNSIGNED32
	2	Transmission type (=254)	UNSIGNED8
1800h		1th Transmit PDO Parameter	PDO CommPar
	0	Number of entries (=4)	UNSIGNED8
	1	COB-ID (=NodeID+0x00000180)	UNSIGNED32
	2	Transmission type (=254)	UNSIGNED8
1801h		2th Transmit PDO Parameter	PDO CommPar

Index	Sub-Index	Object	Data Format
	0	Number of entries (=2)	UNSIGNED8
	1	COB-ID (NodeID+0x00000280)	UNSIGNED32
	2	Transmission type (=254)	UNSIGNED8
1802h		3th Transmit PDO Parameter	PDO CommPar
	0	Number of entries (=2)	UNSIGNED8
	1	COB-ID (NodeID+0x00000380)	UNSIGNED32
	2	Transmission type (=254)	UNSIGNED8
1803h		2th Transmit PDO Parameter	PDO CommPar
	0	Number of entries (=2)	UNSIGNED8
	1	COB-ID (NodeID+0x00000480)	UNSIGNED32
	2	Transmission type (=254)	UNSIGNED8
1A00h		1th Transmit PDO Mapping	PDO MAPPING
	0	Number of entries (=9)	UNSIGNED8
	1	Mapping 1 (=0x60410010)	UNSIGNED32
	2	Mapping 2 (=0x60440010)	UNSIGNED32
	3	Mapping 3	UNSIGNED32
	4	Mapping 4	UNSIGNED32
	5	Mapping 5	UNSIGNED32
	6	Mapping 6	UNSIGNED32
	7	Mapping 7	UNSIGNED32
	8	Mapping 8	UNSIGNED32
1A01h		2th Transmit PDO Mapping	PDO MAPPING
	0	Number of entries (=9)	UNSIGNED8
	1	Mapping 1	UNSIGNED32
	2	Mapping 2	UNSIGNED32
	3	Mapping 3	UNSIGNED32
	4	Mapping 4	UNSIGNED32
	5	Mapping 5	UNSIGNED32
	6	Mapping 6	UNSIGNED32
	7	Mapping 7	UNSIGNED32
	8	Mapping 8	UNSIGNED32
1A02h		3th Transmit PDO Mapping	PDO MAPPING
	0	Number of entries (=9)	UNSIGNED8
	1	Mapping 1	UNSIGNED32
	2	Mapping 2	UNSIGNED32
	3	Mapping 3	UNSIGNED32
	4	Mapping 4	UNSIGNED32
	5	Mapping 5	UNSIGNED32
	6	Mapping 6	UNSIGNED32
	7	Mapping 7	UNSIGNED32
	8	Mapping 8	UNSIGNED32
1A03h		4th Transmit PDO Mapping	PDO MAPPING
	0	Number of entries (=9)	UNSIGNED8
	1	Mapping 1	UNSIGNED32

Index	Sub-Index	Object	Data Format
	2	Mapping 2	UNSIGNED32
	3	Mapping 3	UNSIGNED32
	4	Mapping 4	UNSIGNED32
	5	Mapping 5	UNSIGNED32
	6	Mapping 6	UNSIGNED32
	7	Mapping 7	UNSIGNED32
	8	Mapping 8	UNSIGNED32
1600h		1th Receive PDO Mapping	PDO MAPPING
	0	Number of entries (=9)	UNSIGNED8
	1	Mapping 1 (=0x60400010)	UNSIGNED32
	2	Mapping 2 (=0x60420010)	UNSIGNED32
	3	Mapping 3	UNSIGNED32
	4	Mapping 4	UNSIGNED32
	5	Mapping 5	UNSIGNED32
	6	Mapping 6	UNSIGNED32
	7	Mapping 7	UNSIGNED32
	8	Mapping 8	UNSIGNED32
1601h		2th Receive PDO Mapping	PDO MAPPING
	0	Number of entries (=9)	UNSIGNED8
	1	Mapping 1	UNSIGNED32
	2	Mapping 2	UNSIGNED32
	3	Mapping 3	UNSIGNED32
	4	Mapping 4	UNSIGNED32
	5	Mapping 5	UNSIGNED32
	6	Mapping 6	UNSIGNED32
	7	Mapping 7	UNSIGNED32
	8	Mapping 8	UNSIGNED32
1602h		3th Receive PDO Mapping	PDO MAPPING
	0	Number of entries (=9)	UNSIGNED8
	1	Mapping 1	UNSIGNED32
	2	Mapping 2	UNSIGNED32
	3	Mapping 3	UNSIGNED32
	4	Mapping 4	UNSIGNED32
	5	Mapping 5	UNSIGNED32
	6	Mapping 6	UNSIGNED32
	7	Mapping 7	UNSIGNED32
	8	Mapping 8	UNSIGNED32
1603h		4th Receive PDO Mapping	PDO MAPPING
	0	Number of entries (=9)	UNSIGNED8
	1	Mapping 1	UNSIGNED32
	2	Mapping 2	UNSIGNED32
	3	Mapping 3	UNSIGNED32
	4	Mapping 4	UNSIGNED32
	5	Mapping 5	UNSIGNED32

Index	Sub-Index	Object	Data Format
	6	Mapping 6	UNSIGNED32
	7	Mapping 7	UNSIGNED32
	8	Mapping 8	UNSIGNED32

6. Simple diagnosis & Fault Reset

6.1 RUN LED and ERR LED display errors

Check whether the baud rates are the same and whether the addresses of each node are different. Inspect whether the DIP switch is on the right position, whether the master baud rate and the address are set correctly.

Inspect whether the terminal resistors are only connected to the bus terminations. Power off all the equipment and measure the resistance value between CANH and CANL, the normal value range should between 50 and 60Ω. Inspect whether CANH and CANL is inversely connected.

6.2 The inverter error occurs

You can set the control word 6040h as 0x80 to reset the inverter. Besides, you can also use digital operator to reset the inverter.

7. Profile Manufacture Objects

Each parameter defined by factory set object dictionary includes maximum value, minimum value and scale factor. For example, the range of parameter Ab110 is "0---59000", which means "0.00—590.00Hz".

All the subindex of object dictionary in the following table is “0”. For further information, please refer to the inverter user’s guide.

Index	Sub-index	Code	Name	size
2001	0	dA-01	Output frequency monitor	2
2002	0	dA-02	Output current monitor	2
2003	0	dA-03	Rotation direction monitor	2
2004	0	dA-04	Frequency reference monitor	2
2005	0	dA-06	Output frequency scale monitor	4
2006	0	dA-15	Torque reference monitor	2
2007	0	dA-16	Torque limit monitor	2
2008	0	dA-17	Torque monitor	2
2009	0	dA-18	Output Voltage monitor	2
200B	0	dA-30	Input power monitor	2
200C	0	dA-32	Accumulated input power monitor	4
200D	0	dA-34	Output power monitor	2
200E	0	dA-36	Accumulated output power monitor	4
200F	0	dA-40	DC voltage monitor	2
2010	0	dA-41	Braking resistor load factor monitor	2
2011	0	dA-42	Electronic thermal load factor monitor (MTR)	2
2012	0	dA-43	Electronic thermal load factor monitor (CTL)	2
2013	0	dA-45	Safety Torque Off (STO)monitor	2
2014	0	dA-51	Input terminal monitor	2
2015	0	dA-54	Output terminal monitor	2
2016	0	dA-60	Analogue input/output status monitor *(1)	2
2017	0	dA-61	Analogue input [Ai1] monitor	2
2018	0	dA-62	Analogue input [Ai2] monitor	2
2019	0	dA-63	Analogue input [Ai3] monitor	2
201A	0	dA-70	Pulse train input monitor (main)	2
201E	0	db-01	Programme download monitor	2
201F	0	db-02	Programme No. monitor	2
2020	0	db-03	Programme counter (Task-1)	2
2021	0	db-04	Programme counter (Task-2)	2
2022	0	db-05	Programme counter (Task-3)	2
2023	0	db-06	Programme counter (Task-4)	2
2024	0	db-07	Programme counter (Task-5)	2
2025	0	db-08	User monitor 0	4
2026	0	db-10	User monitor 1	4
2027	0	db-12	User monitor 2	4
2028	0	db-14	User monitor 3	4

Index	Sub-index	Code	Name	size
2029	0	db-16	User monitor 4	4
202A	0	db-18	Analogue output monitor YA0	2
202B	0	db-19	Analogue output monitor YA1	2
202C	0	db-20	Analogue output monitor YA2	2
202D	0	db-30	PID1 feedback data 1 monitor	4
202E	0	db-32	PID1 feedback data 2 monitor	4
202F	0	db-36	PID2 feedback data monitor	4
2030	0	db-42	PID1 target value monitor	4
2031	0	db-44	PID1 feedback data monitor	4
2032	0	db-50	PID1 output monitor	2
2033	0	db-51	PID1 deviation monitor	2
2034	0	db-55	PID2 Output monitor	2
2035	0	db-56	PID2 deviation monitor	2
2036	0	db-61	Actual PID P-Gain monitor	2
2037	0	db-62	Actual PID I-Gain monitor	2
2038	0	db-63	Actual PID D-Gain monitor	2
2039	0	db-64	PID feed forward monitor	2
203A	0	dC-01	Inverter duty monitor	2
203B	0	dC-02	Rated current monitor	2
203C	0	dC-07	Main speed reference monitor	2
203D	0	dC-08	Sub speed reference monitor	2
203E	0	dC-10	RUN command reference monitor	2
203F	0	dC-15	Heat sink temperature monitor	2
2040	0	dC-16	Lifespan assessment monitor	2
2041	0	dC-20	Start-up counter monitor	2
2042	0	dC-21	Power‐up counter monitor	2
2043	0	dC-22	Accumulated RUN time monitor	4
2044	0	dC-24	Accumulated Power-on time monitor	4
2045	0	dC-26	Accumulated cooling-fan operation time monitor	4
2046	0	dC-37	icon 2 LIM detail monitor	2
2047	0	dC-38	icon 2 ALT detail monitor	2
2048	0	dC-39	icon 2 RETRY detail monitor	2
2049	0	dC-40	icon 2 NRDY detail monitor	2
204A	0	dC-45	IM/SM monitor	2
204B	0	dC-50	Firmware ver. Monitor	2
2054	0	dE-01	trip count monitor	2
2055	0	dE-11-1	trip factor monitor,trip 1st	2
2056	0	dE-11-2	frequency monitor,trip 1st	4
2057	0	dE-11-3	output current monitor,trip 1st	2
2058	0	dE-11-4	PN voltage(DC) monitor,trip 1st	2
2059	0	dE-11-5	INV status monitor,trip 1st	2
205A	0	dE-11-6	LAD status monitor,trip 1st	2
205B	0	dE-11-7	INV control mode monitor,trip 1st	2
205C	0	dE-11-8	limit status monitor,trip 1st	2

Index	Sub-index	Code	Name	size
205D	0	dE-11-9	unusual status monitor,trip 1st	2
205E	0	dE-11-10	accumulated running time monitor,trip 1st	4
205F	0	dE-11-11	accumulated power-on time monitor,trip 1st	4
2060	0	dE-11-12	absolte time(year,month) monitor,trip 1st	2
2061	0	dE-11-13	absolte time(day,week) monitor,trip 1st	2
2062	0	dE-11-14	absolte time(hour,minute) monitor,trip 1st	2
2063	0	dE-12-1	trip factor monitor,trip 2nd	2
2064	0	dE-12-2	frequency monitor,trip 2nd	4
2065	0	dE-12-3	output current monitor,trip 2nd	2
2066	0	dE-12-4	PN voltage(DC) monitor,trip 2nd	2
2067	0	dE-12-5	INV status monitor,trip 2nd	2
2068	0	dE-12-6	LAD status monitor,trip 2nd	2
2069	0	dE-12-7	INV control mode monitor,trip 2nd	2
206A	0	dE-12-8	limit status monitor,trip 2nd	2
206B	0	dE-12-9	unusual status monitor,trip 2nd	2
206C	0	dE-12-10	accumulated running time monitor,trip 2nd	4
206D	0	dE-12-11	accumulated power-on time monitor,trip 2nd	4
206E	0	dE-12-12	absolte time(year,month) monitor,trip 2nd	2
206F	0	dE-12-13	absolte time(day,week) monitor,trip 2nd	2
2070	0	dE-12-14	absolte time(hour,minute) monitor,trip 2nd	2
2071	0	dE-13-1	trip factor monitor,trip 3rd	2
2072	0	dE-13-2	frequency monitor,trip 3rd	4
2073	0	dE-13-3	output current monitor,trip 3rd	2
2074	0	dE-13-4	PN voltage(DC) monitor,trip 3rd	2
2075	0	dE-13-5	INV status monitor,trip 3rd	2
2076	0	dE-13-6	LAD status monitor,trip 3rd	2
2077	0	dE-13-7	INV control mode monitor,trip 3rd	2
2078	0	dE-13-8	limit status monitor,trip 3rd	2
2079	0	dE-13-9	unusual status monitor,trip 3rd	2
207A	0	dE-13-10	accumulated running time monitor,trip 3rd	4
207B	0	dE-13-11	accumulated power-on time monitor,trip 3rd	4
207C	0	dE-13-12	absolte time(year,month) monitor,trip 3rd	2

Index	Sub-index	Code	Name	size
207D	0	dE-13-13	absolte time(day,week) monitor,trip 3rd	2
207E	0	dE-13-14	absolte time(hour,minute) monitor,trip 3rd	2
207F	0	dE-14-1	trip factor monitor,trip 4th	2
2080	0	dE-14-2	frequency monitor,trip 4th	4
2081	0	dE-14-3	output current monitor,trip 4th	2
2082	0	dE-14-4	PN voltage(DC) monitor,trip 4th	2
2083	0	dE-14-5	INV status monitor,trip 4th	2
2084	0	dE-14-6	LAD status monitor,trip 4th	2
2085	0	dE-14-7	INV control mode monitor,trip 4th	2
2086	0	dE-14-8	limit status monitor,trip 4th	2
2087	0	dE-14-9	unusual status monitor,trip 4th	2
2088	0	dE-14-10	accumulated running time monitor,trip 4th	4
2089	0	dE-14-11	accumulated power-on time monitor,trip 4th	4
208A	0	dE-14-12	absolte time(year,month) monitor,trip 4th	2
208B	0	dE-14-13	absolte time(day,week) monitor,trip 4th	2
208C	0	dE-14-14	absolte time(hour,minute) monitor,trip 4th	2
208D	0	dE-15-1	trip factor monitor,trip 5th	2
208E	0	dE-15-2	frequency monitor,trip 5th	4
208F	0	dE-15-3	output current monitor,trip 5th	2
2090	0	dE-15-4	PN voltage(DC) monitor,trip 5th	2
2091	0	dE-15-5	INV status monitor,trip 5th	2
2092	0	dE-15-6	LAD status monitor,trip 5th	2
2093	0	dE-15-7	INV control mode monitor,trip 5th	2
2094	0	dE-15-8	limit status monitor,trip 5th	2
2095	0	dE-15-9	unusual status monitor,trip 5th	2
2096	0	dE-15-10	accumulated running time monitor,trip 5th	4
2097	0	dE-15-11	accumulated power-on time monitor,trip 5th	4
2098	0	dE-15-12	absolte time(year,month) monitor,trip 5th	2
2099	0	dE-15-13	absolte time(day,week) monitor,trip 5th	2
209A	0	dE-15-14	absolte time(hour,minute) monitor,trip 5th	2
209B	0	dE-16-1	trip factor monitor,trip 6th	2
209C	0	dE-16-2	frequency monitor,trip 6th	4
209D	0	dE-16-3	output current monitor,trip 6th	2
209E	0	dE-16-4	PN voltage(DC) monitor,trip 6th	2

Index	Sub-index	Code	Name	size
209F	0	dE-16-5	INV status monitor,trip 6th	2
20A0	0	dE-16-6	LAD status monitor,trip 6th	2
20A1	0	dE-16-7	INV control mode monitor,trip 6th	2
20A2	0	dE-16-8	limit status monitor,trip 6th	2
20A3	0	dE-16-9	unusual status monitor,trip 6th	2
20A4	0	dE-16-10	accumulated running time monitor,trip 6th	4
20A5	0	dE-16-11	accumulated power-on time monitor,trip 6th	4
20A6	0	dE-16-12	absolte time(year,month) monitor,trip 6th	2
20A7	0	dE-16-13	absolte time(day,week) monitor,trip 6th	2
20A8	0	dE-16-14	absolte time(hour,minute) monitor,trip 6th	2
20A9	0	dE-17-1	trip factor monitor,trip 7th	2
20AA	0	dE-17-2	frequency monitor,trip 7th	4
20AB	0	dE-17-3	output current monitor,trip 7th	2
20AC	0	dE-17-4	PN voltage(DC) monitor,trip 7th	2
20AD	0	dE-17-5	INV status monitor,trip 7th	2
20AE	0	dE-17-6	LAD status monitor,trip 7th	2
20AF	0	dE-17-7	INV control mode monitor,trip 7th	2
20B0	0	dE-17-8	limit status monitor,trip 7th	2
20B1	0	dE-17-9	unusual status monitor,trip 7th	2
20B2	0	dE-17-10	accumulated running time monitor,trip 7th	4
20B3	0	dE-17-11	accumulated power-on time monitor,trip 7th	4
20B4	0	dE-17-12	absolte time(year,month) monitor,trip 7th	2
20B5	0	dE-17-13	absolte time(day,week) monitor,trip 7th	2
20B6	0	dE-17-14	absolte time(hour,minute) monitor,trip 7th	2
20B7	0	dE-18-1	trip factor monitor,trip 8th	2
20B8	0	dE-18-2	frequency monitor,trip 8th	4
20B9	0	dE-18-3	output current monitor,trip 8th	2
20BA	0	dE-18-4	PN voltage(DC) monitor,trip 8th	2
20BB	0	dE-18-5	INV status monitor,trip 8th	2
20BC	0	dE-18-6	LAD status monitor,trip 8th	2
20BD	0	dE-18-7	INV control mode monitor,trip 8th	2
20BE	0	dE-18-8	limit status monitor,trip 8th	2
20BF	0	dE-18-9	unusual status monitor,trip 8th	2
20C0	0	dE-18-10	accumulated running time monitor,trip 8th	4

Index	Sub-index	Code	Name	size
20C1	0	dE-18-11	accumulated power-on time monitor,trip 8th	4
20C2	0	dE-18-12	absolte time(year,month) monitor,trip 8th	2
20C3	0	dE-18-13	absolte time(day,week) monitor,trip 8th	2
20C4	0	dE-18-14	absolte time(hour,minute) monitor,trip 8th	2
20C5	0	dE-19-1	trip factor monitor,trip 9th	2
20C6	0	dE-19-2	frequency monitor,trip 9th	4
20C7	0	dE-19-3	output current monitor,trip 9th	2
20C8	0	dE-19-4	PN voltage(DC) monitor,trip 9th	2
20C9	0	dE-19-5	INV status monitor,trip 9th	2
20CA	0	dE-19-6	LAD status monitor,trip 9th	2
20CB	0	dE-19-7	INV control mode monitor,trip 9th	2
20CC	0	dE-19-8	limit status monitor,trip 9th	2
20CD	0	dE-19-9	unusual status monitor,trip 9th	2
20CE	0	dE-19-10	accumulated running time monitor,trip 9th	4
20CF	0	dE-19-11	accumulated power-on time monitor,trip 9th	4
20D0	0	dE-19-12	absolte time(year,month) monitor,trip 9th	2
20D1	0	dE-19-13	absolte time(day,week) monitor,trip 9th	2
20D2	0	dE-19-14	absolte time(hour,minute) monitor,trip 9th	2
20D3	0	dE-20-1	trip factor monitor,trip 10th	2
20D4	0	dE-20-2	frequency monitor,trip 10th	4
20D5	0	dE-20-3	output current monitor,trip 10th	2
20D6	0	dE-20-4	PN voltage(DC) monitor,trip 10th	2
20D7	0	dE-20-5	INV status monitor,trip 10th	2
20D8	0	dE-20-6	LAD status monitor,trip 10th	2
20D9	0	dE-20-7	INV control mode monitor,trip 10th	2
20DA	0	dE-20-8	limit status monitor,trip 10th	2
20DB	0	dE-20-9	unusual status monitor,trip 10th	2
20DC	0	dE-20-10	accumulated running time monitor,trip 10th	4
20DD	0	dE-20-11	accumulated power-on time monitor,trip 10th	4
20DE	0	dE-20-12	absolte time(year,month) monitor,trip 10th	2
20DF	0	dE-20-13	absolte time(day,week) monitor,trip 10th	2
20E0	0	dE-20-14	absolte time(hour,minute) monitor,trip 10th	2

Index	Sub-index	Code	Name	size
20E1	0	dE-50	warning monitor	2
20E5	0	FA-01	Main speed reference monitor	2
20E6	0	FA-02	Sub-speed reference monitor	2
20E7	0	FA-10	Acceleration time monitor	4
20E8	0	FA-12	Deceleration time monitor	4
20E9	0	FA-15	Torque reference monitor	2
20EA	0	FA-16	Torque bias reference monitor	2
20EB	0	FA-30	PID1 target value 1	4
20EC	0	FA-32	PID1 target value 2	4
20ED	0	FA-36	PID2 target value	4
20EE	0	AA101	Main speed reference selection, 1st-motor	2
20EF	0	AA102	Sub speed reference selection, 1st-motor	2
20F0	0	AA104	Sub speed setting,1st-motor	2
20F1	0	AA105	Math operator selection for speed reference,1st-motor	2
20F2	0	AA106	Frequency to be added, 1st-motor	4
20F3	0	AA111	RUN command reference selection,1st-motor	2
20F4	0	AA-12	RUN key rotation direction , 1st-motor	2
20F5	0	AA-13	STOP key, 1st-motor	2
20F6	0	AA114	RUN direction restriction selection,1st-motor	2
20F7	0	AA115	STOP mode selection, 1st-motor	2
20F8	0	AA121	Control mode 1st-motor	2
20F9	0	AA201	Main speed reference selection,2nd-motor	2
20FA	0	AA202	Sub speed reference selection,2nd-motor	2
20FB	0	AA204	Sub speed setting, 2nd-motor	2
20FC	0	AA205	Math operator selection for Speed reference, 2nd-motor	2
20FD	0	AA206	Frequency to be added, 2nd-motor	4
20FE	0	AA211	RUN-command selection, 2nd-motor	2
20FF	0	AA214	RUN-command direction restriction selection, 2st-motor	2
2100	0	AA215	STOP mode selection, 2st-motor	2
2101	0	AA221	Control mode, 2nd-motor	2
2102	0	Ab-01	Frequency scaling conversion factor	2
2103	0	Ab-03	Multispeed operation selection	2
2104	0	Ab110	Multispeed-0, 1st-motor	2
2105	0	Ab-11	Multispeed-1, 1st-motor	2
2106	0	Ab-12	Multispeed-2, 1st-motor	2
2107	0	Ab-13	Multispeed-3, 1st-motor	2

Index	Sub-index	Code	Name	size
2108	0	Ab-14	Multispeed-4, 1st-motor	2
2109	0	Ab-15	Multispeed-5, 1st-motor	2
210A	0	Ab-16	Multispeed-6, 1st-motor	2
210B	0	Ab-17	Multispeed-7, 1st-motor	2
210C	0	Ab-18	Multispeed-8, 1st-motor	2
210D	0	Ab-19	Multispeed-9, 1st-motor	2
210E	0	Ab-20	Multispeed-10,1st-motor	2
210F	0	Ab-21	Multispeed-11,1st-motor	2
2110	0	Ab-22	Multispeed-12,1st-motor	2
2111	0	Ab-23	Multispeed-13,1st-motor	2
2112	0	Ab-24	Multispeed-14,1st-motor	2
2113	0	Ab-25	Multispeed-15,1st-motor	2
2114	0	Ab210	Multispeed-0, 2nd-motor	2
2115	0	AC-01	Acceleration/Deceleration Time input selection	2
2116	0	AC-02	Acceleration/Deceleration selection	2
2117	0	AC-03	Acceleration curve selection	2
2118	0	AC-04	Deceleration curve selection	2
2119	0	AC-05	Acceleration curve constant (S, U Reverse U-curve)	2
211A	0	AC-06	Deceleration curve constant (S, U Reverse U-curve)	2
211B	0	AC-08	Curvature EL-S-curve acceleration 1 (start)	2
211C	0	AC-09	Curvature EL-S-curve acceleration 2 (end)	2
211D	0	AC-10	Curvature EL-S-curve deceleration 1 (start)	2
211E	0	AC-11	Curvature EL-S-curve deceleration 2 (end)	2
211F	0	AC115	Select method to switch to Acc2/Decel2 profile, 1st-motor	2
2120	0	AC116	Acc1 to Acc2 frequency transition point, 1st-motor	2
2121	0	AC117	Decel1 to Decel2 frequency transition point, 1st-motor	2
2122	0	AC120	Acceleration time 1,1st-motor	4
2123	0	AC122	Deceleration time 1,1st-motor	4
2124	0	AC124	Acceleration time 2,1st-motor	4
2125	0	AC126	Deceleration time 2,1st-motor	4
2126	0	AC-30	Acc. time for Multispeed-1	4
2127	0	AC-32	Decel. time for Multispeed-1	4
2128	0	AC-34	Acc. time for Multispeed-2	4
2129	0	AC-36	Decel. time for Multispeed-2	4
212A	0	AC-38	Acc. time for Multispeed-3	4
212B	0	AC-40	Decel. time for Multispeed-3	4

Index	Sub-index	Code	Name	size
212C	0	AC-42	Acc. time for Multispeed-4	4
212D	0	AC-44	Decel. time for Multispeed-4	4
212E	0	AC-46	Acc. time for Multispeed-5	4
212F	0	AC-48	Decel. time for Multispeed-5	4
2130	0	AC-50	Acc. time for Multispeed-6	4
2131	0	AC-52	Decel. time for Multispeed-6	4
2132	0	AC-54	Acc. time for Multispeed-7	4
2133	0	AC-56	Decel. time for Multispeed-7	4
2134	0	AC-58	Acc. time for Multispeed-8	4
2135	0	AC-60	Decel. time for Multispeed-8	4
2136	0	AC-62	Acc. time for Multispeed-9	4
2137	0	AC-64	Decel. time for Multispeed-9	4
2138	0	AC-66	Acc. time for Multispeed-10	4
2139	0	AC-68	Decel. time for Multispeed-10	4
213A	0	AC-70	Acc. time for Multispeed-11	4
213B	0	AC-72	Decel. time for Multispeed-11	4
213C	0	AC-74	Acc. time for Multispeed-12	4
213D	0	AC-76	Decel. time for Multispeed-12	4
213E	0	AC-78	Acc. time for Multispeed-13	4
213F	0	AC-80	Decel. time for Multispeed-13	4
2140	0	AC-82	Acc. time for Multispeed-14	4
2141	0	AC-84	Decel. time for Multispeed-14	4
2142	0	AC-86	Acc. time for Multispeed-15	4
2143	0	AC-88	Decel. time for Multispeed-15	4
2144	0	AC215	Select method to switch to Acc2/Decel2 Profile, 2nd-motor	2
2145	0	AC216	Acc1 to Acc2 frequency transition point, 2nd-motor	2
2146	0	AC217	Decel1 to Decel2 frequency transition point, 2nd-motor	2
2147	0	AC220	Acceleration time 1, 2nd-motor	4
2148	0	AC222	Deceleration time 1, 2nd-motor	4
2149	0	AC224	Acceleration time 2, 2nd-motor	4
214A	0	AC226	Deceleration time 2, 2nd-motor	4
214B	0	Ad-01	Torque reference input selection	2
214C	0	Ad-02	Torque reference setting	2
214D	0	Ad-03	Polarity selection for torque reference	2
214E	0	Ad-04	Switching time of torque control speed	2
214F	0	Ad-11	Torque bias input selection	2
2150	0	Ad-12	Torque bias setting	2
2151	0	Ad-13	Polarity selection for torque bias	2
2152	0	Ad-14	Torque bias enable terminal	2
2153	0	Ad-41	Speed limit for torque control (at Forward rotation)	2

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2154	0	Ad-42	Speed limit for torque control (at Reverse rotation)	2
2155	0	AF101	DC braking enable,1st-motor	2
2156	0	AF103	DC braking frequency, 1st-motor	2
2157	0	AF104	DC braking delay time, 1st-motor	2
2158	0	AF105	DC braking force while stopping, 1st-motor	2
2159	0	AF106	DC braking active time at stop, 1st-motor	2
215A	0	AF107	DC braking trigger selection, 1st-motor	2
215B	0	AF108	DC braking force while starting, 1st-motor	2
215C	0	AF109	DC braking active time at start, 1st-motor	2
215D	0	AF130	Brake control enable,1st-motor	2
215E	0	AF131	Brake wait time for release, 1st-motor (Forward)	2
215F	0	AF132	Brake wait time for Acc., 1st-motor (Forward)	2
2160	0	AF133	Brake wait time for Stop, 1st-motor (Forward)	2
2161	0	AF134	Brake wait time for confirmation, 1st-motor(Forward)	2
2162	0	AF135	Brake release frequency,1st-motor (Forward)	2
2163	0	AF136	Brake release current, 1st-motor (Forward)	2
2164	0	AF137	Brake frequency,1st-motor (Forward)	2
2165	0	AF138	Brake wait time for release, 1st-motor (Reverse)	2
2166	0	AF139	Brake wait time for Acc. ,1st-motor (Reverse side)	2
2167	0	AF140	Brake wait time for Stop, 1st-motor (Reverse)	2
2168	0	AF141	Brake wait time for confirmation, 1st-motor(Reverse)	2
2169	0	AF142	Brake release frequency,1st-motor (Reverse)	2
216A	0	AF143	Brake release current, 1st-motor (Reverse)	2
216B	0	AF144	Brake frequency,1st-motor (Reverse)	2
216C	0	AF201	DC braking enable, 2nd-motor	2
216D	0	AF203	DC braking frequency, 2nd-motor	2
216E	0	AF204	DC braking delay time, 2nd-motor	2

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216F	0	AF205	DC braking force while stopping, 2nd-motor	2
2170	0	AF206	DC braking active time at stop, 2nd-motor	2
2171	0	AF207	DC braking trigger selection, 2nd-motor	2
2172	0	AF208	DC braking force while starting, 2nd-motor	2
2173	0	AF209	DC braking active time at start, 2nd-motor	2
2174	0	AF230	Brake control enable, 2nd-motor	2
2175	0	AF231	Brake wait time for release, 2nd-motor(Forward)	2
2176	0	AF232	Brake wait time for Acc., 2nd-motor(Forward)	2
2177	0	AF233	Brake wait time for Stop, 2nd-motor(Forward)	2
2178	0	AF234	Brake wait time for confirmation, 2nd-motor(Forward)	2
2179	0	AF235	Brake release frequency, 2nd-motor(Forward)	2
217A	0	AF236	Brake release current, 2nd-motor (Forward)	2
217B	0	AF237	Brake frequency, 2nd-motor (Forward)	2
217C	0	AF238	Brake wait time for release, 2nd-motor(Reverse)	2
217D	0	AF239	Brake wait time for Acc., 2nd-motor (Reverse)	2
217E	0	AF240	Brake wait time for Stop, 2nd-motor(Reverse)	2
217F	0	AF241	Brake wait time for confirmation, 2nd-motor(Reverse)	2
2180	0	AF242	Brake release frequency, 2nd-motor (Reverse)	2
2181	0	AF243	Brake release current, 2nd-motor (Reverse)	2
2182	0	AF244	Braking frequency, 2nd-motor (Reverse side)	2
2183	0	AG101	Jump frequency 1, 1st-motor	2
2184	0	AG102	Jump frequency amplitude 1,1st-motor	2
2185	0	AG103	Jump frequency 2, 1st-motor	2
2186	0	AG104	Jump frequency amplitude 2,1st-motor	2
2187	0	AG105	Jump frequency 3, 1st-motor	2

Index	Sub-index	Code	Name	size
2188	0	AG106	Jump frequency amplitude 3,1st-motor	2
2189	0	AG110	Frequency of acceleration dwell,1st-motor	2
218A	0	AG111	Time of acceleration dwell,1st-motor	2
218B	0	AG112	Frequency of deceleration dwell,1st-motor	2
218C	0	AG113	Time of deceleration dwell,1st-motor	2
218D	0	AG-20	Jogging frequency	2
218E	0	AG-21	Jogging stop Selection	2
218F	0	AG201	Jump frequency 1, 2nd-motor	2
2190	0	AG202	Jump frequency amplitude 1, 2nd-motor	2
2191	0	AG203	Jump frequency 2, 2nd-motor	2
2192	0	AG204	Jump frequency amplitude 2, 2nd-motor	2
2193	0	AG205	Jump frequency 3, 2nd-motor	2
2194	0	AG206	Jump frequency amplitude 3, 2nd-motor	2
2195	0	AG210	Frequency of acceleration dwell,2nd-motor	2
2196	0	AG211	Time of acceleration dwell, 2nd-motor	2
2197	0	AG212	Frequency of deceleration dwell,2nd-motor	2
2198	0	AG213	Time of deceleration dwell, 2nd-motor	2
2199	0	AH-01	PID1 enable	2
219A	0	AH-02	Reverse PID1 deviation	2
219B	0	AH-03	PID1 unit selection	2
219C	0	AH-04	PID1 scaling (0%)	2
219D	0	AH-05	PID1 scaling (100%)	2
219E	0	AH-06	PID1 scaling (decimal point)	2
219F	0	AH-07	Target value 1 reference selection for PID1	2
21A0	0	AH-10	PID1 target value-1	4
21A1	0	AH-12	PID1 Multistage target value 1	4
21A2	0	AH-14	PID1 Multistage target value 2	4
21A3	0	AH-16	PID1 Multistage target value 3	4
21A4	0	AH-18	PID1 Multistage target value 4	4
21A5	0	AH-20	PID1 Multistage target value 5	4
21A6	0	AH-22	PID1 Multistage target value 6	4
21A7	0	AH-24	PID1 Multistage target value 7	4
21A8	0	AH-26	PID1 Multistage target value 8	4
21A9	0	AH-28	PID1 Multistage target value 9	4
21AA	0	AH-30	PID1 Multistage target value 10	4
21AB	0	AH-32	PID1 Multistage target value 11	4

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21AC	0	AH-34	PID1 Multistage target value 12	4
21AD	0	AH-36	PID1 Multistage target value 13	4
21AE	0	AH-38	PID1 Multistage target value 14	4
21AF	0	AH-40	PID1 Multistage target value 15	4
21B0	0	AH-42	Target value 2 reference selection for PID1	2
21B1	0	AH-44	PID1 target value-2	4
21B2	0	AH-50	Math operator selection of PID1 target value 1	2
21B3	0	AH-51	Feedback data 1 reference selection for PID1	2
21B4	0	AH-52	Feedback data 2 reference selection for PID1	2
21B5	0	AH-54	Math operator selection of PID1feedback data	2
21B6	0	AH-60	PID1 gain change method selection	2
21B7	0	AH-61	PID1 proportional gain 1	2
21B8	0	AH-62	PID1 integral time constant 1	2
21B9	0	AH-63	PID1 derivative gain 1	2
21BA	0	AH-64	PID1 proportional gain 2	2
21BB	0	AH-65	PID1 integral time constant 2	2
21BC	0	AH-66	PID1 derivative gain 2	2
21BD	0	AH-67	PID1 gain change time	2
21BE	0	AH-70	PID1 feed forward selection	2
21BF	0	AH-71	PID1 output variable Range	2
21C0	0	AH-72	PID1 excessive deviation level	2
21C1	0	AH-73	PID1 Feedback compare singal turn-off level	2
21C2	0	AH-74	PID1 Feedback compare singal turn-on level	2
21C3	0	AH-75	PID soft start function enable	2
21C4	0	AH-76	PID soft start target level	2
21C5	0	AH-78	Acceleration time for PID soft start	2
21C6	0	AH-80	PID soft start time	2
21C7	0	AH-85	PID sleep trigger selection	2
21C8	0	AH-86	PID sleep start level	2
21C9	0	AH-87	PID sleep active time	4
21CA	0	AH-93	PID wake-up trigger selection	2
21CB	0	AH-94	PID wake-up start level	2
21CC	0	AH-95	PID wake-up start time	2
21CD	0	AH-96	PID wake-upstart deviation value	2
21CE	0	AJ-01	PID2 Enable	2
21CF	0	AJ-02	Reverse PID2 deviation	2
21D0	0	AJ-03	PID2 unit selection	2
21D1	0	AJ-04	PID2 scaling (0%)	2

Index	Sub-index	Code	Name	size
21D2	0	AJ-05	PID2 scaling (100%)	2
21D3	0	AJ-06	PID2 scaling (decimal point)	2
21D4	0	AJ-07	Input source selection of Set-point for PID2	2
21D5	0	AJ-10	Set-point setting for PID2	4
21D6	0	AJ-12	Feedback data reference selection for PID2	2
21D7	0	AJ-13	PID2 proportional gain	2
21D8	0	AJ-14	PID2 integral time constant	2
21D9	0	AJ-15	PID2 derivative gain	2
21DA	0	AJ-16	PID2 output range	2
21DB	0	AJ-17	PID2 deviation over level	2
21DC	0	AJ-18	PID2 Feedback compare singal turn-off level	2
21DD	0	AJ-19	PID2 Feedback compare singal turn-on level	2
21DE	0	bA102	Frequency upper limit, 1st-motor	2
21DF	0	bA103	Frequency lower limit, 1st-motor	2
21E0	0	bA110	Torque limit selection, 1st-motor	2
21E1	0	bA111	Torque limiting parameter selection, 1st-motor	2
21E2	0	bA112	Torque limit (1)(forward-driving in 4-quadrant mode), 1st-motor	2
21E3	0	bA113	Torque limit (2)(reverse-regenerating in 4-quadrant mode), 1st-motor	2
21E4	0	bA114	Torque limit (3)(reverse-driving in 4-quadrant mode), 1st-motor	2
21E5	0	bA115	Torque limit (4)(forward-regenerating in 4-quadrant mode), 1st-motor	2
21E6	0	bA116	Torque limit LADSTOP enable, 1st-motor	2
21E7	0	bA120	Overcurrent suppression enable, 1st-motor	2
21E8	0	bA121	Overcurrent suppression level, 1st-motor	2
21E9	0	bA122	Overload restriction 1 enable, 1st-motor	2
21EA	0	bA123	Overload restriction 1 level, 1st-motor	2
21EB	0	bA124	Overload restriction 1 deceleration time, 1st-motor	4
21EC	0	bA126	Overload restriction 2 enable, 1st-motor	2
21ED	0	bA127	Overload restriction 2 level, 1st-motor	2
21EE	0	bA128	Overload restriction 2 deceleration time, 1st-motor	4

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21EF	0	bA-30	Selection of deceleration/stop in the event of a power loss	2
21F0	0	bA-31	DC voltage trigger level during power loss	2
21F1	0	bA-32	Over voltage threshold during power loss	2
21F2	0	bA-34	Deceleration time during power loss	4
21F3	0	bA-36	Initial output frequency decrease during power loss	2
21F4	0	bA-37	Proportional gain for operation at power loss	2
21F5	0	bA-38	Integral time for operation at power loss	2
21F6	0	bA140	Over voltage suppression enable, 1st-motor	2
21F7	0	bA141	Over voltage suppression level, 1st-motor	2
21F8	0	bA142	Over voltage suppression action time,1st-motor	4
21F9	0	bA144	DC bus constant control proportional gain, 1st-motor	2
21FA	0	bA145	DC bus constant control integral gain, 1st-motor	2
21FB	0	bA146	Over-excitation function selection(V/f) , 1st-motor	2
21FC	0	bA147	Time constant of over-excitation output filter (V/f) ,1st-motor	2
21FD	0	bA148	Over-excitation voltage gain (V/f) ,1st-motor	2
21FE	0	bA149	Over-excitation control level setting(V/f) , 1st-motor	2
21FF	0	bA-60	Dynamic braking usage ratio	2
2200	0	bA-61	Dynamic braking control	2
2201	0	bA-62	Dynamic braking activation level	2
2202	0	bA-63	Dynamic braking resistor value	2
2203	0	bA-70	Cooling fan control method selection	2
2204	0	bA-71	Cooling fan accumulation running time monitor clearance selection	2
2205	0	bA202	Frequency upper limit, 2nd motor	2
2206	0	bA203	Frequency lower limit, 2nd motor	2
2207	0	bA210	Torque limit selection, 2nd motor	2
2208	0	bA211	Torque limit LADSTOP enable, 2nd motor	2
2209	0	bA212	Torque limit (1) (forward-driving in 4-quadrant mode), 2nd motor	2

Index	Sub-index	Code	Name	size
220A	0	bA213	Torque limit (2) (reverse-regenerating in 4-quadrant mode), 2nd motor	2
220B	0	bA214	Torque limit (3) (reverse-driving in 4-quadrant mode), 2nd motor	2
220C	0	bA215	Torque limit (4) (forward-regenerating in 4-quadrant mode), 2nd motor	2
220D	0	bA216	Torque limit LADSTOP enable, 2nd motor	2
220E	0	bA220	Overcurrent suppression enable, 2nd motor	2
220F	0	bA221	Overcurrent suppression level, 2nd-motor	2
2210	0	bA222	Overload restriction 1 selection, 2nd-motor	2
2211	0	bA223	Overload restriction 1 level, 2nd-motor	2
2212	0	bA224	Overload restriction 1 active time,2nd-motor	4
2213	0	bA226	Overload restriction 2 selection, 2nd-motor	2
2214	0	bA227	Overload restriction 2 level, 2nd-motor	2
2215	0	bA228	Overload restriction 2 active time,2nd-motor	4
2216	0	bA240	Overvoltage suppression enable,2nd-motor	2
2217	0	bA241	Overvoltage suppression level, 2nd-motor	2
2218	0	bA242	Overvoltage suppression action time,2nd-motor	4
2219	0	bA244	Overvoltage suppression proportional gain,2nd-motor	2
221A	0	bA245	Overvoltage suppression integral time,2nd-motor	2
221B	0	bA246	Over-excitation function selection,2nd-motor	2
221C	0	bA247	Time constant of over-excitation output filter (V/f) , 2nd-motor	2
221D	0	bA248	Over-excitation voltage gain, 2nd-motor	2
221E	0	bA249	Over-excitation control level setting,2nd-motor	2
221F	0	bb101	Carrier frequency setting, 1st-motor	2

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2220	0	bb103	Automatic carrier reduction selection, 1st-motor	2
2221	0	bb-20	Retry count after power loss event	2
2222	0	bb-21	Retry count after under voltage event	2
2223	0	bb-22	Retry count after overcurrent event	2
2224	0	bb-23	Retry count after overvoltage event	2
2225	0	bb-24	Selection of retry mode for power loss / under voltage	2
2226	0	bb-25	Allowable under voltage power failure time	2
2227	0	bb-26	Retry wait time before motor restart	2
2228	0	bb-27	Instantaneous power failure /under -voltagetrip alarm enable	2
2229	0	bb-28	Selection of restart mode at overcurrent	2
222A	0	bb-29	wait time of restart at over-current	2
222B	0	bb-30	Selection of restart mode at over -voltage	2
222C	0	bb-31	Wait time of restart at overvoltage	2
222D	0	bb-40	Restart mode after free-run (FRS) release	2
222E	0	bb-41	Restart mode after restart (RS) release	2
222F	0	bb-42	Restart frequency threshold	2
2230	0	bb-43	Restart level of Active frequency matching	2
2231	0	bb-44	Restart constant(Speed) of Active Frequency matching	2
2232	0	bb-45	Restart constant(Voltage) of Active Frequency matching	2
2233	0	bb-46	OC-supress level of Active frequency matching	2
2234	0	bb-47	Restart speed selection of Active frequency matching	2
2235	0	bb160	Overcurrent detection level, 1st-motor	2
2236	0	bb-61	Power supply overvoltage selection	2
2237	0	bb-62	Selection of power supply overvoltage level	2
2238	0	bb-65	Input phase loss enable	2
2239	0	bb-66	Output phase loss enable	2
223A	0	bb-67	Output phase loss detection sensitivity	2
223B	0	bb-70	Thermistor error level	2
223C	0	bb201	Carrier frequency setting, 2nd-motor	2

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223D	0	bb203	Automatic carrier reduction selection, 2nd-motor	2
223E	0	bb260	Overcurrent detection level,2nd-motor	2
223F	0	bC110	Electronic thermal level, 1st-motor	2
2240	0	bC111	Electronic thermal characteristic selection, 1st-motor	2
2241	0	bC112	Electronic thermal subtraction function enable, 1st-motor	2
2242	0	bC113	Electronic thermal subtraction time, 1st-motor	2
2243	0	bC114	Saved electronic thermal count at power-off, 1st-motor	2
2244	0	bC120	Free setting, electronic thermal frequency (1), 1st-motor	2
2245	0	bC121	Free electronic thermal current (1), 1st-motor	2
2246	0	bC122	Free electronic thermal frequency (2), 1st-motor	2
2247	0	bC123	Free electronic thermal current (2), 1st-motor	2
2248	0	bC124	Free electronic thermal frequency (3), 1st-motor	2
2249	0	bC125	Free electronic thermal current (3), 1st-motor	2
224A	0	bC210	Electronic thermal level setting, 2nd-motor	2
224B	0	bC211	Electronic thermal characteristic selection, 2nd-motor	2
224C	0	bC212	Electronic thermal subtraction function selection, 2nd-motor	2
224D	0	bC213	Electronic thermal subtraction function enable, 2nd-motor	2
224E	0	bC220	Free setting, electronic thermal frequency (1), 2nd-motor	2
224F	0	bC221	Free electronic thermal current(1), 2nd-motor	2
2250	0	bC222	Free setting, electronic thermal frequency (2), 2nd-motor	2
2251	0	bC223	Free electronic thermal current(2), 2nd-motor	2
2252	0	bC224	Free electronic thermal frequency (3), 2nd-motor	2
2253	0	bC225	Free electronic thermal current(3), 2nd-motor	2
2254	0	bd-01	STO input display selection	2

Index	Sub-index	Code	Name	size
2255	0	bd-02	STO input change time	2
2256	0	bd-03	Display selection at STO input change time	2
2257	0	bd-04	Action selection after STO input change time	2
2258	0	CA-01	Input terminal [1] function	2
2259	0	CA-02	Input terminal [2] function	2
225A	0	CA-03	Input terminal [3] function	2
225B	0	CA-04	Input terminal [4] function	2
225C	0	CA-05	Input terminal [5] function	2
225D	0	CA-06	Input terminal [6] function	2
225E	0	CA-07	Input terminal [7] function	2
225F	0	CA-08	Input terminal [8] function	2
2260	0	CA-09	Input terminal [9] function	2
2261	0	CA-10	Input terminal [A] function	2
2262	0	CA-11	Input terminal [B] function	2
2263	0	CA-21	Input terminal [1] active state	2
2264	0	CA-22	Input terminal [2] active state	2
2265	0	CA-23	Input terminal [3] active state	2
2266	0	CA-24	Input terminal [4] active state	2
2267	0	CA-25	Input terminal [5] active state	2
2268	0	CA-26	Input terminal [6] active state	2
2269	0	CA-27	Input terminal [7] active state	2
226A	0	CA-28	Input terminal [8] active state	2
226B	0	CA-29	Input terminal [9] active state	2
226C	0	CA-30	Input terminal [A] active state	2
226D	0	CA-31	Input terminal [B] active state	2
226E	0	CA-41	Input terminal [1] response time	2
226F	0	CA-42	Input terminal [2] response time	2
2270	0	CA-43	Input terminal [3] response time	2
2271	0	CA-44	Input terminal [4] response time	2
2272	0	CA-45	Input terminal [5] response time	2
2273	0	CA-46	Input terminal [6] response time	2
2274	0	CA-47	Input terminal [7] response time	2
2275	0	CA-48	Input terminal [8] response time	2
2276	0	CA-49	Input terminal [9] response time	2
2277	0	CA-50	Input terminal [A] response time	2
2278	0	CA-51	Input terminal [B] response time	2
2279	0	CA-55	Multistage input settlement Time	2
227A	0	CA-60	FUP/FDN overwrite target selection	2
227B	0	CA-61	FUP/FDN data save enable	2
227C	0	CA-62	UDC terminal mode selection	2
227D	0	CA-64	Acceleration time for FUP/FDN function	4
227E	0	CA-66	Deceleration time for FUP/FDN	4

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			function	
227F	0	CA-70	Speed command selection when [F-OP] active	2
2280	0	CA-71	RUN command source selection at [F-OP] is active	2
2281	0	CA-72	Reset mode Selection	2
2282	0	CA-90	Pluse train detection object selection	2
2283	0	CA-91	Mode selection of pluse train input	2
2284	0	CA-92	Pluse train frequency Scale	2
2285	0	CA-93	Pluse train frequency scale Filter time constant	2
2286	0	CA-94	Pluse train frequency Bias value	2
2287	0	CA-95	Pluse train frequency High Limit	2
2288	0	CA-96	Pluse train frequency detection Lower Limit	2
2289	0	Cb-01	Filter Time constant of Teminal[Ai1]	2
228A	0	Cb-03	Start value of Teminal[Ai1]	2
228B	0	Cb-04	End value of Teminal[Ai1]	2
228C	0	Cb-05	Start rate of Teminal[Ai1]	2
228D	0	Cb-06	End rate of Teminal[Ai1]	2
228E	0	Cb-07	Start point selection of Teminal[Ai1]	2
228F	0	Cb-11	Time constant of filter[Ai2]	2
2290	0	Cb-13	Start value of Teminal[Ai2]	2
2291	0	Cb-14	End value of Teminal[Ai2]	2
2292	0	Cb-15	Start rate of Teminal[Ai2]	2
2293	0	Cb-16	End rate of Teminal[Ai2]	2
2294	0	Cb-17	Start selection of Teminal[Ai2]	2
2295	0	Cb-21	Time constant of filter[Ai3]	2
2296	0	Cb-22	Teminal selection[Ai3]	2
2297	0	Cb-23	Start value of Teminal[Ai3]	2
2298	0	Cb-24	End value of Teminal[Ai3]	2
2299	0	Cb-25	Start rate of Teminal[Ai3]	2
229A	0	Cb-26	End rate of Teminal[Ai3]	2
229B	0	Cb-30	[Ai1] Voltage/Current zero-bias adjustment	2
229C	0	Cb-31	[Ai1] Voltage/Current gain adjustment	2
229D	0	Cb-32	[Ai2] Voltage/Current zero-bias adjustment	2
229E	0	Cb-33	[Ai2] Voltage/Current gain adjustment	2
229F	0	Cb-34	[Ai3] Voltage bias adjustment	2
22A0	0	Cb-35	[Ai3] Voltage gain adjustment	2
22A1	0	Cb-40	Thermistor type selection	2
22A2	0	Cb-41	Thermistor gain adjustment	2
22A3	0	CC-01	Output terminal [11] function	2
22A4	0	CC-02	Output terminal [12] function	2

Index	Sub-index	Code	Name	size
22A5	0	CC-03	Output terminal [13] function	2
22A6	0	CC-04	Output terminal [14] function	2
22A7	0	CC-05	Output terminal [15] function	2
22A8	0	CC-06	Output terminal [16] function	2
22A9	0	CC-07	Output terminal [AL] function	2
22AA	0	CC-11	Output terminal [11] active state	2
22AB	0	CC-12	Output terminal [12] active state	2
22AC	0	CC-13	Output terminal [13] active state	2
22AD	0	CC-14	Output terminal [14] active state	2
22AE	0	CC-15	Output terminal [15] active state	2
22AF	0	CC-16	Output terminal [16] active state	2
22B0	0	CC-17	Output terminal [AL] active state	2
22B1	0	CC-20	Output terminal [11] on-delay time	2
22B2	0	CC-21	Output terminal [11] off-delay time	2
22B3	0	CC-22	Output terminal [12] on-delay time	2
22B4	0	CC-23	Output terminal [12] off-delay time	2
22B5	0	CC-24	Output terminal [13] on-delay time	2
22B6	0	CC-25	Output terminal [13] off-delay time	2
22B7	0	CC-26	Output terminal [14] on-delay time	2
22B8	0	CC-27	Output terminal [14] off-delay time	2
22B9	0	CC-28	Output terminal [15] on-delay time	2
22BA	0	CC-29	Output terminal [15] off-delay time	2
22BB	0	CC-30	Output terminal [16] on-delay time	2
22BC	0	CC-31	utput terminal [16] off-delay time	2
22BD	0	CC-32	Output terminal [AL] on-delay time	2
22BE	0	CC-33	Output terminal [AL] off-delay time	2
22BF	0	CC-40	LOG1 selection 1	2
22C0	0	CC-41	LOG1 selection 2	2
22C1	0	CC-42	LOG1 operator selection	2
22C2	0	CC-43	LOG2 selection 1	2
22C3	0	CC-44	LOG2 selection 2	2
22C4	0	CC-45	LOG2 operator selection	2
22C5	0	CC-46	LOG3 selection 1	2
22C6	0	CC-47	LOG3 selection 2	2
22C7	0	CC-48	LOG3 operator selection	2
22C8	0	CC-49	LOG4 selection 1	2
22C9	0	CC-50	LOG4 selection 2	2
22CA	0	CC-51	LOG4 operator selection	2
22CB	0	CC-52	LOG5 selection 1	2
22CC	0	CC-53	LOG5 selection 2	2
22CD	0	CC-54	LOG5 operator selection	2
22CE	0	CC-55	LOG6 selection 1	2
22CF	0	CC-56	LOG6 selection 2	2
22D0	0	CC-57	LOG6 operator selection	2
22D1	0	CC-58	LOG7 selection 1	2

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22D2	0	CC-59	LOG7 selection 2	2
22D3	0	CC-60	LOG7 operator Selection	2
22D4	0	Cd-01	[FM] Monitor output wave form selection	2
22D5	0	Cd-02	[FM] Monitor base frequency (at PWM output)	2
22D6	0	Cd-03	[FM] Monitor terminal selection	2
22D7	0	Cd-04	[Ao1] Monitor terminal selection	2
22D8	0	Cd-05	[Ao2] Monitor terminal selection	2
22D9	0	Cd-10	Analogue monitor adjustment mode enable	2
22DA	0	Cd-11	Time constant of [FM] output filter	2
22DB	0	Cd-12	[FM] output data type selection	2
22DC	0	Cd-13	[FM] Monitor bias adjustment	2
22DD	0	Cd-14	[FM] Monitor gain adjustment	2
22DE	0	Cd-15	Output level setting at [FM] Monitor adjustment mode	2
22DF	0	Cd-21	Time constant of [Ao1] output filter	2
22E0	0	Cd-22	[Ao1] output data type selection	2
22E1	0	Cd-23	[Ao1] Monitor bias adjustmant	2
22E2	0	Cd-24	[Ao1] Monitor gain adjustmant	2
22E3	0	Cd-25	Output level setting at monitor [Ao1] adjustment mode	2
22E4	0	Cd-31	Time constant of [Ao2] output filter on monitor	2
22E5	0	Cd-32	[Ao2] data type selection	2
22E6	0	Cd-33	[Ao2] monitor bias adjustment	2
22E7	0	Cd-34	[Ao2] monitor gain adjustment	2
22E8	0	Cd-35	Output level setting at [Ao2] monitor adjustment mode	2
22E9	0	CE101	Low-current indication signal mode selection, 1st-motor	2
22EA	0	CE102	Low-current detection level 1, 1st-motor	2
22EB	0	CE103	Low-current detection level 2, 1st-motor	2
22EC	0	CE105	Overload signal output mode selection, 1st-motor	2
22ED	0	CE106	Overload detection level 1, 1st-motor	2
22EE	0	CE107	Overload detection level 2, 1st-motor	2
22EF	0	CE-10	Arrival frequency for acceleration 1	2
22F0	0	CE-11	Frequency arrival for deceleration 1	2
22F1	0	CE-12	Arrival frequency for acceleration 2	2
22F2	0	CE-13	Frequency arrival for deceleration 2	2
22F3	0	CE120	Over-torque level (Forward driving), 1st-motor	2

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22F4	0	CE121	Over-torque level (Reverse regenerative), 1st-motor	2
22F5	0	CE122	Over-torque level (Reverse driving), 1st-motor	2
22F6	0	CE123	Over-torque level (Forward regenerative), 1st-motor	2
22F7	0	CE-30	Electronic thermal warning level (MTR)	2
22F8	0	CE-31	Electronic thermal warning level (CTL)	2
22F9	0	CE-33	Zero speed detection level	2
22FA	0	CE-34	Cooling Fan over-heat warning level	2
22FB	0	CE-36	Run/power-on warning time	4
22FC	0	CE-40	Window Comparter for[Ai1]higher level	2
22FD	0	CE-41	Window Comparter for[Ai1]Lower level	2
22FE	0	CE-42	Window Comparter for[Ai1]Hysteresis width	2
22FF	0	CE-43	Window Comparter for[Ai2]Higher level	2
2300	0	CE-44	Window Comparter for[Ai2]Lower level	2
2301	0	CE-45	Window Comparter for[Ai2]Hysteresis width	2
2302	0	CE-46	Window Comparter for[Ai3]Higher level	2
2303	0	CE-47	Window Comparter for[Ai3]Lower level	2
2304	0	CE-48	Window Comparter for[Ai3]Hysteresis width	2
2305	0	CE-50	[Ai1] Operation level	2
2306	0	CE-51	[Ai1] Level enable	2
2307	0	CE-52	[Ai2] Operation level	2
2308	0	CE-53	[Ai2] Level enable	2
2309	0	CE-54	[Ai3] Operation level	2
230A	0	CE-55	[Ai3] Level enable	2
230B	0	CE201	Low-current indication signal output mode selection, 2nd-motor	2
230C	0	CE202	Low-current detection level 1, 2nd-motor	2
230D	0	CE203	Low-current detection level 2, 2nd-motor	2
230E	0	CE205	Overload warning signal output mode selection, 2nd-motor	2
230F	0	CE206	Overload warning level 1,2nd-motor	2

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2310	0	CE207	Overload warning level 2,2nd-motor	2
2311	0	CE220	Over-torque level (Forward driving), 2nd-motor	2
2312	0	CE221	Over-torque level (Reverse regenerative), 2nd-motor	2
2313	0	CE222	Over-torque level (Reverse driving), 2nd-motor	2
2314	0	CE223	Over-torque level (Forward regenerative), 2nd-motor	2
2315	0	CF-01	RS485 communication baud rate selection	2
2316	0	CF-02	RS485 communication Node allocation	2
2317	0	CF-03	RS485 communication parity selection	2
2318	0	CF-04	RS485 communication stop-bit selection	2
2319	0	CF-05	RS485 communication communication error selection	2
231A	0	CF-06	RS485 communication timeout setting	2
231B	0	CF-07	RS485 communication wait time setting	2
231C	0	CF-08	RS485 communication mode selection	2
231D	0	CF-20	EzCOM Start node No.	2
231E	0	CF-21	EzCOM End node No.	2
231F	0	CF-22	EzCOM Start selection	2
2320	0	CF-23	EzCOM data size	2
2321	0	CF-24	EzCOM destination address 1	2
2322	0	CF-25	EzCOM destination register 1	2
2323	0	CF-26	EzCOM source register 1	2
2324	0	CF-27	EzCOM destination address 2	2
2325	0	CF-28	EzCOM destination register 2	2
2326	0	CF-29	EzCOM source register 2	2
2327	0	CF-30	EzCOM destination address 3	2
2328	0	CF-31	EzCOM destination register 3	2
2329	0	CF-32	EzCOM source register 3	2
232A	0	CF-33	EzCOM destination address 4	2
232B	0	CF-34	EzCOM destination register 4	2
232C	0	CF-35	EzCOM source register 4	2
232D	0	CF-36	EzCOM destination address 5	2
232E	0	CF-37	EzCOM destination register 5	2
232F	0	CF-38	EzCOM source register 5	2
2330	0	HA-01	Auto-tuning selection	2
2331	0	HA-02	RUN command when Auto-tuning	2

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2332	0	HA-03	Online auto-tuning selection	2
2333	0	HA110	Stabilization constant, 1st-motor	2
2334	0	HA115	Speed response, 1st motor	2
2335	0	HA120	Gain switching selection, 1st-motor	2
2336	0	HA121	Gain switching time,1st-motor	2
2337	0	HA122	Intermediate frequency 1 of gain switching, 1st-motor	2
2338	0	HA123	Intermediate frequency 2 of gain switching, 1st-motor	2
2339	0	HA124	Gain mapping maximum frequency, 1st-motor	2
233A	0	HA125	Mapping P gain 1,1st-motor	2
233B	0	HA126	Mapping I gain 1,1st-motor	2
233C	0	HA127	Mapping P control P gain 1, 1st-motor	2
233D	0	HA128	Mapping P gain 2,1st-motor	2
233E	0	HA129	Mapping I gain 2, 1st-motor	2
233F	0	HA130	Mapping P control P gain 2, 1st-motor	2
2340	0	HA131	Mapping P gain 3,1st-motor	2
2341	0	HA132	Mapping I gain 3,1st-motor	2
2342	0	HA133	Mapping P gain 4,1st-motor	2
2343	0	HA134	Mapping I gain 4,1st-motor	2
2344	0	HA210	Stabilization constant, 2nd-motor	2
2345	0	HA215	Speed response, 2nd-motor	2
2346	0	HA220	Gain switching selection, 2nd-motor	2
2347	0	HA221	Gain switching time, 2nd-motor	2
2348	0	HA222	Intermediate frequency 1 of gain switching, 2nd-motor	2
2349	0	HA223	Intermediate frequency 2 of gain switching, 2nd-motor	2
234A	0	HA224	Gain mapping maximum frequency,2nd-motor	2
234B	0	HA225	Mapping P gain 1, 2nd-motor	2
234C	0	HA226	Mapping I gain 1, 2nd-motor	2
234D	0	HA227	Mapping P control P gain 1, 2nd-motor	2
234E	0	HA228	Mapping P gain 2, 2nd-motor	2
234F	0	HA229	Mapping I gain 2, 2nd-motor	2
2350	0	HA230	Mapping P control P gain 2, 2nd-motor	2
2351	0	HA231	Mapping P gain 3, 2nd-motor	2
2352	0	HA232	Mapping I gain 3, 2nd-motor	2
2353	0	HA233	Mapping P gain 4, 2nd-motor	2
2354	0	HA234	Mapping I gain 4, 2nd-motor	2
2355	0	Hb102	Motor capacity selection,1st-motor	2
2356	0	Hb103	Number of poles selection,1st-motor	2

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2357	0	Hb104	Motor base frequency,1st-motor	2
2358	0	Hb105	Motor maximum frequency,1st-motor	2
2359	0	Hb106	Motor rated voltage,1st-motor	2
235A	0	Hb108	Motor rated current,1st-motor	4
235B	0	Hb110	Motor constant R1,1st-motor	4
235C	0	Hb112	Motor constant R2,1st-motor	4
235D	0	Hb114	Motor constant L,1st-motor	4
235E	0	Hb116	Motor constant Io,1st-motor	4
235F	0	Hb118	Motor constant J,1st-motor	4
2360	0	Hb130	Minimum frequency,1st-motor	2
2361	0	Hb131	Reduced voltage start time, 1st-motor	2
2362	0	Hb140	Manual torque boost operation mode enable, 1st-motor	2
2363	0	Hb141	Manual torque boost value,1st-motor	2
2364	0	Hb142	Manual torque boost value,1st-motor	2
2365	0	Hb145	Energy saving operation enable, 1st-motor	2
2366	0	Hb146	Energy saving mode adjustment,1st-motor	2
2367	0	Hb150	Free-setting V/f frequency (1)	2
2368	0	Hb151	Free-setting V/f voltage (1)	2
2369	0	Hb152	Free-setting V/f frequency (2)	2
236A	0	Hb153	Free-setting V/f voltage (2)	2
236B	0	Hb154	Free-setting V/f frequency (3)	2
236C	0	Hb155	Free-setting V/f voltage (3)	2
236D	0	Hb156	Free-setting V/f frequency (4)	2
236E	0	Hb157	Free-setting V/f voltage (4)	2
236F	0	Hb158	Free-setting V/f frequency (5)	2
2370	0	Hb159	Free-setting V/f voltage (5)	2
2371	0	Hb160	Free-setting V/f frequency (6)	2
2372	0	Hb161	Free-setting V/f voltage (6)	2
2373	0	Hb162	Free-setting V/f frequency (7)	2
2374	0	Hb163	Free-setting V/f voltage (7)	2
2375	0	Hb180	Output voltage gain	2
2376	0	Hb202	Capacity selection, 2nd-motor	2
2377	0	Hb203	Number of poles, 2nd-motor	2
2378	0	Hb204	Base frequency, 2nd-motor	2
2379	0	Hb205	Maximum frequency,2nd-motor	2
237A	0	Hb206	Rated voltage, 2nd-motor	2
237B	0	Hb208	Rated current, 2nd-motor	4
237C	0	Hb210	Constant R1, 2nd-motor	4
237D	0	Hb212	Constant R2, 2nd-motor	4
237E	0	Hb214	Constant L, 2nd-motor	4
237F	0	Hb216	Constant Io, 2nd-motor	4
2380	0	Hb218	Constant J, 2nd-motor	4

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2381	0	Hb230	Minimum frequency, 2nd-motor	2
2382	0	Hb231	Reduced voltage start time, 2nd-motor	2
2383	0	Hb240	Manual torque boost operation mode selection, 2nd-motor	2
2384	0	Hb241	Manual torque boost value, 2nd-motor	2
2385	0	Hb242	Manual torque boost peak, 2nd-motor	2
2386	0	Hb245	Energy saving operation selection,2nd-motor	2
2387	0	Hb246	Energy saving mode adjustment,2nd-motor	2
2388	0	Hb250	Free-setting V/f frequency (1) ,2nd-motor	2
2389	0	Hb251	Free-setting V/f voltage (1) , 2nd-motor	2
238A	0	Hb252	Free-setting V/f frequency (2) ,2nd-motor	2
238B	0	Hb253	Free-setting V/f voltage (2) , 2nd-motor	2
238C	0	Hb254	Free-setting V/f frequency (3) ,2nd-motor	2
238D	0	Hb255	Free-setting V/f voltage (3) , 2nd-motor	2
238E	0	Hb256	Free-setting V/f frequency (4) ,2nd-motor	2
238F	0	Hb257	Free-setting V/f voltage (4) , 2nd-motor	2
2390	0	Hb258	Free-setting V/f frequency (5) ,2nd-motor	2
2391	0	Hb259	Free-setting V/f voltage (5) , 2nd-motor	2
2392	0	Hb260	Free-setting V/f frequency (6) ,2nd-motor	2
2393	0	Hb261	Free-setting V/f voltage (6) , 2nd-motor	2
2394	0	Hb262	Free-setting V/f frequency (7) ,2nd-motor	2
2395	0	Hb263	Free-setting V/f voltage (7) , 2nd-motor	2
2396	0	Hb280	Output voltage gain, 2nd-motor	2
2397	0	HC101	Voltage compensation gain for automatic torque boost., 1st-motor	2
2398	0	HC102	Slippage compensation gain for automatic torque boost , 1st-motor	2
2399	0	HC110	IM-SLV-0Hz Zero speed area limit,	2

Index	Sub-index	Code	Name	size
			1st-motor	
239A	0	HC111	IM-SLV starting boost value, 1st-motor	2
239B	0	HC112	IM-SLV-0Hz starting boost value, 1st-motor	2
239C	0	HC113	Secondary resistor compensation enable, 1st-motor	2
239D	0	HC114	Reverse run protection enable, 1st-motor	2
239E	0	HC120	Time constant of torque current reference filter, 1st-motor	2
239F	0	HC121	Feedforward gain compensation adjustment for speed, 1st-motor	2
23A0	0	HC201	Voltage compensation gain for automatic torque boost., 2nd-motor	2
23A1	0	HC202	Slippage compensation gain for automatic torque boost, 2nd-motor	2
23A2	0	HC210	IM-SLV-0Hz Zero speed area limit,2nd-motor	2
23A3	0	HC211	IM-SLV starting boost value,2nd-motor	2
23A4	0	HC212	IM-SLV-0Hz starting boost value,2nd-motor	2
23A5	0	HC213	Secondary resistor compensation enable, 2nd-motor	2
23A6	0	HC214	Reverse protection selection,2nd-motor	2
23A7	0	HC220	Time constant of torque current reference filter, 2nd-motor	2
23A8	0	HC221	Feedforward gain compensation adjustment for speed, 2nd-motor	2
23A9	0	Hd102	Capacity selection,1st-motor	2
23AA	0	Hd103	Number of poles, 1st-motor	2
23AB	0	Hd104	Base frequency,1st-motor	2
23AC	0	Hd105	Maximum frequency,1st-motor	2
23AD	0	Hd106	Rated voltage, 1st-motor	2
23AE	0	Hd108	Rated current, 1st-motor	4
23AF	0	Hd110	Constant R, 1st-motor	4
23B0	0	Hd112	Constant Ld, 1st-motor	4
23B1	0	Hd114	Constant Lq, 1st-motor	4
23B2	0	Hd116	Constant Ke, 1st-motor	4
23B3	0	Hd118	Constant J, 1st-motor	4
23B4	0	Hd130	Minimum frequency,1st-motor	2
23B5	0	Hd131	No-load current,1st-motor	2
23B6	0	Hd132	Starting method	2

Index	Sub-index	Code	Name	size
23B7	0	Hd133	Initial position estimated- 0V waiting times, 1st-motor	2
23B8	0	Hd134	Initial position estimated- detection waiting times,1st-motor	2
23B9	0	Hd135	Initial position estimated- detection times, 1st-motor	2
23BA	0	Hd136	Initial position estimated- voltage gain, 1st-motor	2
23BB	0	Hd137	Initial position estimated- position offset, 1st-motor	2
23BC	0	Hd202	Motor capacity, 2nd-motor	2
23BD	0	Hd203	Number of poles, 2nd-motor	2
23BE	0	Hd204	Base frequency, 2nd-motor	2
23BF	0	Hd205	Maximum frequency, 2nd-motor	2
23C0	0	Hd206	Rated voltage, 2nd-motor	2
23C1	0	Hd208	Rated current, 2nd-motor	4
23C2	0	Hd210	Constant R, 2nd-motor	4
23C3	0	Hd212	Constant Ld, 2nd-motor	4
23C4	0	Hd214	Constant Lq, 2nd-motor	4
23C5	0	Hd216	Constant Ke, 2nd-motor	4
23C6	0	Hd218	Constant J, 2nd-motor	4
23C7	0	Hd230	Minimum frequency, 2nd-motor	2
23C8	0	Hd231	No-load current, 2nd-motor	2
23C9	0	Hd232	Starting method, 2nd-motor	2
23CA	0	Hd233	Initial position estimated - 0V waiting times, 2nd-motor	2
23CB	0	Hd234	Initial position estimated -detection waiting times, 2nd-motor	2
23CC	0	Hd235	Initial position estimated -detection times, 2nd-motor	2
23CD	0	Hd236	Initial position estimated -voltage gain, 2nd-motor	2
23CE	0	Hd237	Initial position estimated -position offset, 2nd-motor	2
23CF	0	PA-20	Simulation mode selection	2
23D0	0	PA-21	Error code selection for Alarm test	2
23D1	0	PA-22	Output current monitor optional output selection	2
23D2	0	PA-23	Output current monitor optional output value	2
23D3	0	PA-24	DC voltage monitor optional output selection	2
23D4	0	PA-25	DC voltage monitor optional output value	2
23D5	0	PA-26	Output voltage monitor optional output selection	2

Index	Sub-index	Code	Name	size
23D6	0	PA-27	Output voltage monitor optional output value	2
23D7	0	PA-28	Output torque monitor optional output selection	2
23D8	0	PA-29	Output torque monitor optional output value	2
23D9	0	PA-30	Start with frequency matching optional setting enable	2
23DA	0	PA-31	Start with frequency matching optional value setting	2
23DB	0	UA-12	Accumulation input power monitor clear	2
23DC	0	UA-13	Display gain for Accumulation input power monitor	2
23DD	0	UA-14	Accumulated output power monitor clear	2
23DE	0	UA-15	Display gain for Accumulation output power monitor	2
23DF	0	UA-16	Software-Lock selection	2
23E0	0	UA-17	Software-Lock target selection	2
23E1	0	Ub-01	Restore to factory settings selection	2
23E2	0	Ub-02	Initialization data selection	2
23E3	0	Ub-03	Load type selection	2
23E4	0	Ub-05	Initialization execution enable	2
23E5	0	UC-01	(-)	2
23E6	0	UE-02	EzSQ function selection	2
23E7	0	UE-10	U(00)	2
23E8	0	UE-11	U(01)	2
23E9	0	UE-12	U(02)	2
23EA	0	UE-13	U(03)	2
23EB	0	UE-14	U(04)	2
23EC	0	UE-15	U(05)	2
23ED	0	UE-16	U(06)	2
23EE	0	UE-17	U(07)	2
23EF	0	UE-18	U(08)	2
23F0	0	UE-19	U(09)	2
23F1	0	UE-20	U(10)	2
23F2	0	UE-21	U(11)	2
23F3	0	UE-22	U(12)	2
23F4	0	UE-23	U(13)	2
23F5	0	UE-24	U(14)	2
23F6	0	UE-25	U(15)	2
23F7	0	UE-26	U(16)	2
23F8	0	UE-27	U(17)	2
23F9	0	UE-28	U(18)	2

Index	Sub-index	Code	Name	size
23FA	0	UE-29	U(19)	2
23FB	0	UE-30	U(20)	2
23FC	0	UE-31	U(21)	2
23FD	0	UE-32	U(22)	2
23FE	0	UE-33	U(23)	2
23FF	0	UE-34	U(24)	2
2400	0	UE-35	U(25)	2
2401	0	UE-36	U(26)	2
2402	0	UE-37	U(27)	2
2403	0	UE-38	U(28)	2
2404	0	UE-39	U(29)	2
2405	0	UE-40	U(30)	2
2406	0	UE-41	U(31)	2
2407	0	UE-42	U(32)	2
2408	0	UE-43	U(33)	2
2409	0	UE-44	U(34)	2
240A	0	UE-45	U(35)	2
240B	0	UE-46	U(36)	2
240C	0	UE-47	U(37)	2
240D	0	UE-48	U(38)	2
240E	0	UE-49	U(39)	2
240F	0	UE-50	U(40)	2
2410	0	UE-51	U(41)	2
2411	0	UE-52	U(42)	2
2412	0	UE-53	U(43)	2
2413	0	UE-54	U(44)	2
2414	0	UE-55	U(45)	2
2415	0	UE-56	U(46)	2
2416	0	UE-57	U(47)	2
2417	0	UE-58	U(48)	2
2418	0	UE-59	U(49)	2
2419	0	UE-60	U(50)	2
241A	0	UE-61	U(51)	2
241B	0	UE-62	U(52)	2
241C	0	UE-63	U(53)	2
241D	0	UE-64	U(54)	2
241E	0	UE-65	U(55)	2
241F	0	UE-66	U(56)	2
2420	0	UE-67	U(57)	2
2421	0	UE-68	U(58)	2
2422	0	UE-69	U(59)	2
2423	0	UE-70	U(60)	2
2424	0	UE-71	U(61)	2
2425	0	UE-72	U(62)	2
2426	0	UE-73	U(63)	2

Index	Sub-index	Code	Name	size
2427	0	UF-02	UL(00)	4
2428	0	UF-04	UL(01)	4
2429	0	UF-06	UL(05)	4
242A	0	UF-08	UL(03)	4
242B	0	UF-10	UL(04)	4
242C	0	UF-12	UL(05)	4
242D	0	UF-14	UL(06)	4
242E	0	UF-16	UL(07)	4
242F	0	UF-18	UL(08)	4
2430	0	UF-20	UL(09)	4
2431	0	UF-22	UL(10)	4
2432	0	UF-24	UL(11)	4
2433	0	UF-26	UL(12)	4
2434	0	UF-28	UL(13)	4
2435	0	UF-30	UL(14)	4
2436	0	UF-32	UL(15)	4
2437	0	dA-08	Detect speed monitor	2
2438	0	dA-12	Output Frequency Monitor (signed)	2
2439	0	dA-14	Frequency upper limit monitor	2
243A	0	dA-20	Current position monitor	2
243B	0	dA-26	Pulse train position deviation monitor	2
243C	0	dA-38	Motor temperature monitor	2
243D	0	dA-46	Safety option hardware monitor	2
243E	0	dA-47	Safety option monitor	2
243F	0	dA-50	Control terminal status	2
2440	0	dA-64	Extension Analog input [Ai4] monitor	2
2441	0	dA-65	Extension Analog input [Ai5] monitor	2
2442	0	dA-66	Extension Analog input [Ai6] monitor	2
2443	0	dA-71	Pulse train input monitor (P1-FS)	2
2444	0	db-21	Analog output monitor YA3	2
2445	0	db-22	Analog output monitor YA4	2
2446	0	db-23	Analog output monitor YA5	2
2447	0	db-34	PID1 Feedback value 3 monitor	2
2448	0	db-38	PID3 Feedback value monitor	2
2449	0	db-40	PID4 Feedback value monitor	2
244A	0	db-52	PID1 Deviation 1 monitor	2
244B	0	db-53	PID1 Deviation 2 monitor	2
244C	0	db-54	PID1 Deviation 3 monitor	2
244D	0	db-57	PID3 Output monitor	2
244E	0	db-58	PID3 Deviation monitor	2
244F	0	db-59	PID4 Output monitor	2
2450	0	db-60	PID4 Deviation monitor	2
2451	0	dC-53	Firmware Gr. Monitor	2
2452	0	dE-31-1	trip factor monitor,trip 1st	2
2453	0	dE-31-2	frequency monitor,trip 1st	2

Index	Sub-index	Code	Name	size
2454	0	dE-31-3	output current monitor,trip 1st	2
2455	0	dE-31-4	PN voltage(DC) monitor,trip 1st	2
2456	0	dE-31-5	INV status monitor,trip 1st	2
2457	0	dE-31-6	LAD status monitor,trip 1st	2
2458	0	dE-31-7	INV control mode monitor,trip 1st	2
2459	0	dE-31-8	limit status monitor,trip 1st	2
245A	0	dE-31-9	unusual status monitor,trip 1st	2
245B	0	dE-31-10	accumulated running time monitor,trip 1st	2
245C	0	dE-31-11	accumulated power-on time monitor,trip 1st	2
245D	0	dE-31-12	absolte time(year,month) monitor,trip 1st	2
245E	0	dE-31-13	absolte time(day,week) monitor,trip 1st	2
245F	0	dE-31-14	absolte time(hour,minute) monitor,trip 1st	2
2460	0	dE-32-1	trip factor monitor,trip 2nd	2
2461	0	dE-32-2	frequency monitor,trip 2nd	2
2462	0	dE-32-3	output current monitor,trip 2nd	2
2463	0	dE-32-4	PN voltage(DC) monitor,trip 2nd	2
2464	0	dE-32-5	INV status monitor,trip 2nd	2
2465	0	dE-32-6	LAD status monitor,trip 2nd	2
2466	0	dE-32-7	INV control mode monitor,trip 2nd	2
2467	0	dE-32-8	limit status monitor,trip 2nd	2
2468	0	dE-32-9	unusual status monitor,trip 2nd	2
2469	0	dE-32-10	accumulated running time monitor,trip 2nd	2
246A	0	dE-32-11	accumulated power-on time monitor,trip 2nd	2
246B	0	dE-32-12	absolte time(year,month) monitor,trip 2nd	2
246C	0	dE-32-13	absolte time(day,week) monitor,trip 2nd	2
246D	0	dE-32-14	absolte time(hour,minute) monitor,trip 2nd	2
246E	0	dE-33-1	trip factor monitor,trip 3rd	2
246F	0	dE-33-2	frequency monitor,trip 3rd	2
2470	0	dE-33-3	output current monitor,trip 3rd	2
2471	0	dE-33-4	PN voltage(DC) monitor,trip 3rd	2
2472	0	dE-33-5	INV status monitor,trip 3rd	2
2473	0	dE-33-6	LAD status monitor,trip 3rd	2
2474	0	dE-33-7	INV control mode monitor,trip 3rd	2
2475	0	dE-33-8	limit status monitor,trip 3rd	2
2476	0	dE-33-9	unusual status monitor,trip 3rd	2
2477	0	dE-33-10	accumulated running time monitor,trip	2

Index	Sub-index	Code	Name	size
			3rd	
2478	0	dE-33-11	accumulated power-on time monitor,trip 3rd	2
2479	0	dE-33-12	absolte time(year,month) monitor,trip 3rd	2
247A	0	dE-33-13	absolte time(day,week) monitor,trip 3rd	2
247B	0	dE-33-14	absolte time(hour,minute) monitor,trip 3rd	2
247C	0	dE-34-1	trip factor monitor,trip 4th	2
247D	0	dE-34-2	frequency monitor,trip 4th	2
247E	0	dE-34-3	output current monitor,trip 4th	2
247F	0	dE-34-4	PN voltage(DC) monitor,trip 4th	2
2480	0	dE-34-5	INV status monitor,trip 4th	2
2481	0	dE-34-6	LAD status monitor,trip 4th	2
2482	0	dE-34-7	INV control mode monitor,trip 4th	2
2483	0	dE-34-8	limit status monitor,trip 4th	2
2484	0	dE-34-9	unusual status monitor,trip 4th	2
2485	0	dE-34-10	accumulated running time monitor,trip 4th	2
2486	0	dE-34-11	accumulated power-on time monitor,trip 4th	2
2487	0	dE-34-12	absolte time(year,month) monitor,trip 4th	2
2488	0	dE-34-13	absolte time(day,week) monitor,trip 4th	2
2489	0	dE-34-14	absolte time(hour,minute) monitor,trip 4th	2
248A	0	dE-35-1	trip factor monitor,trip 5th	2
248B	0	dE-35-2	frequency monitor,trip 5th	2
248C	0	dE-35-3	output current monitor,trip 5th	2
248D	0	dE-35-4	PN voltage(DC) monitor,trip 5th	2
248E	0	dE-35-5	INV status monitor,trip 5th	2
248F	0	dE-35-6	LAD status monitor,trip 5th	2
2490	0	dE-35-7	INV control mode monitor,trip 5th	2
2491	0	dE-35-8	limit status monitor,trip 5th	2
2492	0	dE-35-9	unusual status monitor,trip 5th	2
2493	0	dE-35-10	accumulated running time monitor,trip 5th	2
2494	0	dE-35-11	accumulated power-on time monitor,trip 5th	2
2495	0	dE-35-12	absolte time(year,month) monitor,trip 5th	2
2496	0	dE-35-13	absolte time(day,week) monitor,trip 5th	2
2497	0	dE-35-14	absolte time(hour,minute) monitor,trip	2

Index	Sub-index	Code	Name	size
			5th	
2498	0	dE-36-1	trip factor monitor,trip 6th	2
2499	0	dE-36-2	frequency monitor,trip 6th	2
249A	0	dE-36-3	output current monitor,trip 6th	2
249B	0	dE-36-4	PN voltage(DC) monitor,trip 6th	2
249C	0	dE-36-5	INV status monitor,trip 6th	2
249D	0	dE-36-6	LAD status monitor,trip 6th	2
249E	0	dE-36-7	INV control mode monitor,trip 6th	2
249F	0	dE-36-8	limit status monitor,trip 6th	2
24A0	0	dE-36-9	unusual status monitor,trip 6th	2
24A1	0	dE-36-10	accumulated running time monitor,trip 6th	2
24A2	0	dE-36-11	accumulated power-on time monitor,trip 6th	2
24A3	0	dE-36-12	absolte time(year,month) monitor,trip 6th	2
24A4	0	dE-36-13	absolte time(day,week) monitor,trip 6th	2
24A5	0	dE-36-14	absolte time(hour,minute) monitor,trip 6th	2
24A6	0	dE-37-1	trip factor monitor,trip 7th	2
24A7	0	dE-37-2	frequency monitor,trip 7th	2
24A8	0	dE-37-3	output current monitor,trip 7th	2
24A9	0	dE-37-4	PN voltage(DC) monitor,trip 7th	2
24AA	0	dE-37-5	INV status monitor,trip 7th	2
24AB	0	dE-37-6	LAD status monitor,trip 7th	2
24AC	0	dE-37-7	INV control mode monitor,trip 7th	2
24AD	0	dE-37-8	limit status monitor,trip 7th	2
24AE	0	dE-37-9	unusual status monitor,trip 7th	2
24AF	0	dE-37-10	accumulated running time monitor,trip 7th	2
24B0	0	dE-37-11	accumulated power-on time monitor,trip 7th	2
24B1	0	dE-37-12	absolte time(year,month) monitor,trip 7th	2
24B2	0	dE-37-13	absolte time(day,week) monitor,trip 7th	2
24B3	0	dE-37-14	absolte time(hour,minute) monitor,trip 7th	2
24B4	0	dE-38-1	trip factor monitor,trip 8th	2
24B5	0	dE-38-2	frequency monitor,trip 8th	2
24B6	0	dE-38-3	output current monitor,trip 8th	2
24B7	0	dE-38-4	PN voltage(DC) monitor,trip 8th	2
24B8	0	dE-38-5	INV status monitor,trip 8th	2
24B9	0	dE-38-6	LAD status monitor,trip 8th	2
24BA	0	dE-38-7	INV control mode monitor,trip 8th	2

Index	Sub-index	Code	Name	size
24BB	0	dE-38-8	limit status monitor,trip 8th	2
24BC	0	dE-38-9	unusual status monitor,trip 8th	2
24BD	0	dE-38-10	accumulated running time monitor,trip 8th	2
24BE	0	dE-38-11	accumulated power-on time monitor,trip 8th	2
24BF	0	dE-38-12	absolte time(year,month) monitor,trip 8th	2
24C0	0	dE-38-13	absolte time(day,week) monitor,trip 8th	2
24C1	0	dE-38-14	absolte time(hour,minute) monitor,trip 8th	2
24C2	0	dE-39-1	trip factor monitor,trip 9th	2
24C3	0	dE-39-2	frequency monitor,trip 9th	2
24C4	0	dE-39-3	output current monitor,trip 9th	2
24C5	0	dE-39-4	PN voltage(DC) monitor,trip 9th	2
24C6	0	dE-39-5	INV status monitor,trip 9th	2
24C7	0	dE-39-6	LAD status monitor,trip 9th	2
24C8	0	dE-39-7	INV control mode monitor,trip 9th	2
24C9	0	dE-39-8	limit status monitor,trip 9th	2
24CA	0	dE-39-9	unusual status monitor,trip 9th	2
24CB	0	dE-39-10	accumulated running time monitor,trip 9th	2
24CC	0	dE-39-11	accumulated power-on time monitor,trip 9th	2
24CD	0	dE-39-12	absolte time(year,month) monitor,trip 9th	2
24CE	0	dE-39-13	absolte time(day,week) monitor,trip 9th	2
24CF	0	dE-39-14	absolte time(hour,minute) monitor,trip 9th	2
24D0	0	dE-40-1	trip factor monitor,trip 10th	2
24D1	0	dE-40-2	frequency monitor,trip 10th	2
24D2	0	dE-40-3	output current monitor,trip 10th	2
24D3	0	dE-40-4	PN voltage(DC) monitor,trip 10th	2
24D4	0	dE-40-5	INV status monitor,trip 10th	2
24D5	0	dE-40-6	LAD status monitor,trip 10th	2
24D6	0	dE-40-7	INV control mode monitor,trip 10th	2
24D7	0	dE-40-8	limit status monitor,trip 10th	2
24D8	0	dE-40-9	unusual status monitor,trip 10th	2
24D9	0	dE-40-10	accumulated running time monitor,trip 10th	2
24DA	0	dE-40-11	accumulated power-on time monitor,trip 10th	2
24DB	0	dE-40-12	absolte time(year,month) monitor,trip 10th	2

Index	Sub-index	Code	Name	size
24DC	0	dE-40-13	absolte time(day,week) monitor,trip 10th	2
24DD	0	dE-40-14	absolte time(hour,minute) monitor,trip 10th	2
24E4	0	FA-20	Position reference monitor	2
24E5	0	FA-34	PID1 Set Value 3 monitor	2
24E6	0	FA-38	PID3 Set Value monitor	2
24E7	0	FA-40	PID4 Set Value monitor	2
24E8	0	AA123	Vector control mode selection,1st-motor	2
24E9	0	AA223	Vector control mode selection,2nd-motor	2
24EA	0	Ad-40	Input selection for speed limit at torque control	2
24EB	0	AE-01	Electronic gear setting point selection	2
24EC	0	AE-02	Electronic gear ratio numerator	2
24ED	0	AE-03	Electronic gear ratio denominator	2
24EE	0	AE-04	Positioning complete range setting	2
24EF	0	AE-05	Positioning complete delay time setting	2
24F0	0	AE-06	Position feed-forward gain setting	2
24F1	0	AE-07	Position loop gain setting	2
24F2	0	AE-08	Position bias setting	2
24F3	0	AE-10	Stop position selection of Home search function	2
24F4	0	AE-11	Stop position of Home search function	2
24F5	0	AE-12	Speed reference of Home search function	2
24F6	0	AE-13	Direction of Home search function	2
24F7	0	AE-20	Position reference 0 setting	2
24F8	0	AE-22	Position reference 1 setting	2
24F9	0	AE-24	Position reference 2 setting	2
24FA	0	AE-26	Position reference 3 setting	2
24FB	0	AE-28	Position reference 4 setting	2
24FC	0	AE-30	Position reference 5 setting	2
24FD	0	AE-32	Position reference 6 setting	2
24FE	0	AE-34	Position reference 7 setting	2
24FF	0	AE-36	Position reference 8 setting	2
2500	0	AE-38	Position reference 9 setting	2
2501	0	AE-40	Position reference 10 setting	2
2502	0	AE-42	Position reference 11 setting	2
2503	0	AE-44	Position reference 12 setting	2
2504	0	AE-46	Position reference 13 setting	2
2505	0	AE-48	Position reference 14 setting	2

Index	Sub-index	Code	Name	size
2506	0	AE-50	Position reference 15 setting	2
2507	0	AE-52	Position control range setting(forward)	2
2508	0	AE-54	Position control range setting(reverse)	2
2509	0	AE-56	Position control mode selection	2
250A	0	AE-60	Teach-in function target selection	2
250B	0	AE-61	Current position saving at power-off	2
250C	0	AE-62	Preset position data	2
250D	0	AE-64	Deceleration stop distance calculation Gain	2
250E	0	AE-65	Deceleration stop distance calculation Bias	2
250F	0	AE-66	Speed Limit in APR control	2
2510	0	AE-67	APR start speed	2
2511	0	AE-70	Homing function selection	2
2512	0	AE-71	Direction of Homing function	2
2513	0	AE-72	Low-speed of homing function	2
2514	0	AE-73	High-Speed of homing function	2
2515	0	AF102	Braking type selection, 1st-motor	2
2516	0	AF120	Contactor Control Enable, 1st-motor	2
2517	0	AF121	Run delay time, 1st-motor	2
2518	0	AF122	Contactor off delay time, 1st-motor	2
2519	0	AF123	Contactor answer back check time,1st-motor	2
251A	0	AF150	Brake open delay time, 1st-motor	2
251B	0	AF151	Brake close delay time, 1st-motor	2
251C	0	AF152	Brake answer back check time,1st-motor	2
251D	0	AF153	Servo lock/ DC injection time at start, 1st-motor	2
251E	0	AF154	Servo lock/ DC injection time at stop,1st-motor	2
251F	0	AF202	Braking type selection, 2nd-motor	2
2520	0	AF220	ContactorControl Enable, 2nd-motor	2
2521	0	AF221	Run delay time, 2nd-motor	2
2522	0	AF222	Contactor off delay time, 2nd-motor	2
2523	0	AF223	Contactor answer back check time,2nd-motor	2
2524	0	AF250	Brake open delay time, 2nd-motor	2
2525	0	AF251	Brake close delay time, 2nd-motor	2
2526	0	AF252	Brake answer back check time,2nd-motor	2
2527	0	AF253	Servo lock/ DC injection time at start, 2nd-motor	2
2528	0	AF254	Servo lock/ DC injection time at	2

Index	Sub-index	Code	Name	size
			stop,2nd-motor	
2529	0	AH-46	Input source selection of Set-point 3 for PID1	2
252A	0	AH-48	Set-point 2 setting for PID1	2
252B	0	AH-53	Input source selection of Process data 3 for PID1	2
252C	0	AH-81	PID soft start error detection enable	2
252D	0	AH-82	PID soft start error detection level	2
252E	0	AH-88	Setpoint boost before PID sleep enable	2
252F	0	AH-89	Setpoint boost time	2
2530	0	AH-90	Setpoint boost value	2
2531	0	AH-91	Minimum RUN time befor PID sleep	2
2532	0	AH-92	Minimum active time of PID sleep	2
2533	0	AJ-21	PID3 Enable	2
2534	0	AJ-22	Reverse PID3 deviation	2
2535	0	AJ-23	PID3 unit selection	2
2536	0	AJ-24	PID3 scaling (0%)	2
2537	0	AJ-25	PID3 scaling (100%)	2
2538	0	AJ-26	PID3 scaling (decimal point)	2
2539	0	AJ-27	Target value reference selection for PID3	2
253A	0	AJ-30	PID3 target value	4
253B	0	AJ-32	Feedback data reference selection for PID3	2
253C	0	AJ-33	PID3 proportional gain	2
253D	0	AJ-34	PID3 integral time constant	2
253E	0	AJ-35	PID3 derivative gain	2
253F	0	AJ-36	PID3 output range	2
2540	0	AJ-37	PID3 deviation level	2
2541	0	AJ-38	PID3 deviation level	2
2542	0	AJ-39	PID3 deviation level	2
2543	0	AJ-41	PID4 Enable	2
2544	0	AJ-42	Reverse PID4 deviation	2
2545	0	AJ-43	PID4 unit selection	2
2546	0	AJ-44	PID4 scaling (0%)	2
2547	0	AJ-45	PID4 scaling (100%)	2
2548	0	AJ-46	PID4 scaling (decimal point)	2
2549	0	AJ-47	Target value reference selection for PID4	2
254A	0	AJ-50	PID4 target value	4
254B	0	AJ-52	Feedback data reference selection for PID4	2
254C	0	AJ-53	PID4 proportional gain	2
254D	0	AJ-54	PID4 integral time constant	2

Index	Sub-index	Code	Name	size
254E	0	AJ-55	PID4 derivative gain	2
254F	0	AJ-56	PID4 output range	2
2550	0	AJ-57	PID4 deviation level	2
2551	0	AJ-58	PID4 deviation level	2
2552	0	AJ-59	PID4 deviation level	2
2553	0	ba101	Frequency limit selection, 1st-motor	2
2554	0	ba201	Frequency limit selection, 2nd motor	2
2555	0	bb102	Upper Frequency limit, 1st-motor	2
2556	0	bb-10	Automatic error reset selection	2
2557	0	bb-11	Alarm signal selection at Automatic error reset is active	2
2558	0	bb-12	Automatic error reset wait time	2
2559	0	bb-13	Automatic error reset number	2
255B	0	bb-80	Over speed detection level	2
255C	0	bb-81	Over speed detection time	2
255D	0	bb-82	Speed deviation error mode selection	2
255E	0	bb-83	Speed deviation error detection level	2
255F	0	bb-84	Speed deviation error detection time	2
2560	0	bb-85	Position deviation error mode selection	2
2561	0	bb-86	Position deviation error detection level	2
2562	0	bb-87	Position deviation error detection time	2
2563	0	bb202	Sprinkle carrier pattern selection,2nd-motor	2
2564	0	CA-81	Encoder constant setting	2
2565	0	CA-82	Encoder position selection	2
2566	0	CA-83	Motor gear ratio Numerator	2
2567	0	CA-84	Motor gear ratio Denominator	2
2568	0	CA-97	Comparing match output ON-level for Pulse count	2
2569	0	CA-98	Comparing match output OFF-level 0 to 65535 for Pulse count	2
256A	0	CA-99	Comparing match output Maximum value for Pulse count	2
256B	0	Cb-51	Filter time constant of Volume on QOP	2
256C	0	Cb-53	Start value of Volume on QOP	2
256D	0	Cb-54	End value of Volume on QOP	2
256E	0	Cb-55	Start rate of Volume on QOP	2
256F	0	Cb-56	End rate of Volume on QOP	2
2570	0	Cb-57	Start point selection of Volume on QOP	2
2571	0	CF-11	RS485 registor data selection	2
2572	0	CF-50	USB communication Node allocation	2

Index	Sub-index	Code	Name	size
2573	0	Hb170	Slip Compensation P-gain witn encoder, 1st-motor	2
2574	0	Hb171	Slip Compensation I-gain witn encoder, 1st-motor	2
2575	0	Hb270	Slip Compensation P-gain witn encoder, 2nd-motor	2
2576	0	Hb271	Slip Compensation I-gain witn encoder, 2nd-motor	2
2584	0	oA-10	Operation mode on option card error (SLOT-1)	2
2585	0	oA-11	Communication Watch Dog Timer (SLOT-1)	2
2586	0	oA-12	Action selection at communication error (SLOT-1)	2
2587	0	oA-13	Run command selection at start up (SLOT-1)	2
2588	0	oA-20	Operation mode on option card error (SLOT-2)	2
2589	0	oA-21	Communication Watch Dog Timer (SLOT-2)	2
258A	0	oA-22	Action selection at communication error (SLOT-2)	2
258B	0	oA-23	Run command selection at start up (SLOT-2)	2
258C	0	oA-30	Operation mode on option card error (SLOT-3)	2
258D	0	oA-31	Communication Watch Dog Timer (SLOT-3)	2
258E	0	oA-32	Action selection at communication error (SLOT-3)	2
258F	0	oA-33	Run command selection at start up (SLOT-3)	2
2590	0	ob-01	Encoder constant setting	2
2591	0	ob-02	Encoder position selection	2
2592	0	ob-03	Motor gear ratio Numerator	2
2593	0	ob-04	Motor gear ratio Denominator	2
2594	0	ob-10	Pulse train detection object selection (option)	2
2595	0	ob-11	Mode selection of pulse train input (option)	2
2596	0	ob-12	Pulse train frequency Scale (option)	2
2597	0	ob-13	Pulse train frequency Filter time constant (option)	2
2598	0	ob-14	Pulse train frequency Bias value (option)	2
2599	0	ob-15	Pulse train frequency High Limit	2

Index	Sub-index	Code	Name	size
			(option)	
259A	0	ob-16	Pulse train frequency detection low level (option)	2
259B	0	oC-01	Safety oputionn input display selection	2
259C	0	oC-10	Safety oputionn input display selection	4
259D	0	oC-12	SS1-A deceleration time setting	4
259E	0	oC-14	SLS-A Speed upper limit(Forward)	2
259F	0	oC-15	SLS-A Speed upper limit(Reverse)	2
25A0	0	oC-16	SLS-A Speed upper limit(Reverse)	4
25A1	0	oC-18	SDI-A limited direction	2
25A2	0	oC-20	SDI-A limited direction	4
25A3	0	oC-22	SS1-B deceleration time setting	4
25A4	0	oC-24	SLS-B Speed upper limit(Forward)	2
25A5	0	oC-25	SLS-B Speed upper limit(Reverse)	2
25A6	0	oC-26	SLS-B Speed upper limit(Reverse)	4
25A7	0	oC-28	SDI-B limited direction	2
25A8	0	oE-01	Filter time constant of Terminal [Ai4]	2
25A9	0	oE-03	Start value of Terminal [Ai4]	2
25AA	0	oE-04	End value of Terminal [Ai4]	2
25AB	0	oE-05	Start rate of Terminal [Ai4]	2
25AC	0	oE-06	End rate of Terminal [Ai4]	2
25AD	0	oE-07	Start point selection of Terminal [Ai4]	2
25AE	0	oE-11	Filter time constant of Terminal [Ai5]	2
25AF	0	oE-13	Start value of Terminal [Ai5]	2
25B0	0	oE-14	End value of Terminal [Ai5]	2
25B1	0	oE-15	Start rate of Terminal [Ai5]	2
25B2	0	oE-16	End rate of Terminal [Ai5]	2
25B3	0	oE-17	Start point selection of Terminal [Ai5]	2
25B4	0	oE-21	Filter time constant of Terminal [Ai6]	2
25B5	0	oE-23	Start value of Terminal [Ai6]	2
25B6	0	oE-24	End value of Terminal [Ai6]	2
25B7	0	oE-25	Start rate of Terminal [Ai6]	2
25B8	0	oE-26	End rate of Terminal [Ai6]	2
25B9	0	oE-28	[Ai4] Voltage/Current zero-bias adjustment	2
25BA	0	oE-29	[Ai4] Voltage/Current gain adjustment	2
25BB	0	oE-30	[Ai5] Voltage/Current zero-bias adjustment	2
25BC	0	oE-31	[Ai5] Voltage/Current gain adjustment	2
25BD	0	oE-32	[Ai6] Voltage zero-bias adjustment	2
25BE	0	oE-33	[Ai6] Voltage gain adjustment	2
25BF	0	oE-35	Window compareter for [Ai4] higher level	2
25C0	0	oE-36	Window compareter for [Ai4] lower level	2

Index	Sub-index	Code	Name	size
25C1	0	oE-37	Window compareter for [Ai4] hysterisis width	2
25C2	0	oE-38	Window compareter for [Ai5] higher level	2
25C3	0	oE-39	Window compareter for [Ai5] lower level	2
25C4	0	oE-40	Window compareter for [Ai5] hysterisis width	2
25C5	0	oE-41	Window compareter for [Ai6] higher level	2
25C6	0	oE-42	Window compareter for [Ai6] lower level	2
25C7	0	oE-43	Window compareter for [Ai6] hysterisis width	2
25C8	0	oE-44	Operation level at [AI4] disconnection	2
25C9	0	oE-45	Operation level selection at [Ai4] disconnection	2
25CA	0	oE-46	Operation level at [Ai5] disconnection	2
25CB	0	oE-47	Operation level selection at [Ai5] disconnection	2
25CC	0	oE-48	Operation level at [Ai6] disconnection	2
25CD	0	oE-49	Operation level selection at [Ai6] disconnection	2
25CE	0	oE-50	[Ao3] monitor output selection	2
25CF	0	oE-51	[Ao4] monitor output selection	2
25D0	0	oE-52	[Ao5] monitor output selection	2
25D1	0	oE-56	Filter time constant of [Ao3] monitor	2
25D2	0	oE-57	[Ao3] Data type selection	2
25D3	0	oE-58	[Ao3] monitor bias adjustment	2
25D4	0	oE-59	[Ao3] monitor gain adjustment	2
25D5	0	oE-60	Output level setting at [Ao3] monitor adjust mode	2
25D6	0	oE-61	Filter time constant of [Ao4] monitor	2
25D7	0	oE-62	[Ao4] Data type selection	2
25D8	0	oE-63	[Ao4] monitor bias adjustment	2
25D9	0	oE-64	[Ao4] monitor gain adjustment	2
25DA	0	oE-65	Output level setting at [Ao4] monitor adjust mode	2
25DB	0	oE-66	Filter time constant of [Ao5] monitor	2
25DC	0	oE-67	[Ao5] Data type selection	2
25DD	0	oE-68	[Ao5] monitor bias adjustment	2
25DE	0	oE-69	[Ao5] monitor gain adjustment	2
25DF	0	oE-70	Output level setting at [Ao5] monitor adjust mode	2
25E0	0	oH-01	IP-Address selection	2
25E1	0	oH-02	Communication speed (port-1)	2

Index	Sub-index	Code	Name	size
25E2	0	oH-03	Communication speed (port-2)	2
25E3	0	oH-04	Ethernet communication timeout	2
25E4	0	oH-05	Modbus TCP Port No.(IPv4)	2
25E5	0	oH-06	Modbus TCP Port No.(IPv6)	2
25E6	0	oH-20	Profibus Node address	2
25E7	0	oH-21	Profibus clear mode selection	2
25E8	0	oH-22	Profibus Map selection	2
25E9	0	oH-23	Setting enable from Profi master	2
25EA	0	oH-24	Setpoint telegram/Actual value telegram Gr. Selection	2
25EB	0	oH-30	IP-Address selection	2
25EC	0	oH-31	Communication speed (port-1)	2
25ED	0	oH-32	Communication speed (port-2)	2
25EE	0	oH-33	Ethernet communication timeout	2
25EF	0	oH-34	Setpoint telegram/Actual value telegram Gr. Selection	2
25F0	0	oJ-01	Flexible command registration writing register 1	2
25F1	0	oJ-02	Flexible command registration writing register 2	2
25F2	0	oJ-03	Flexible command registration writing register 3	2
25F3	0	oJ-04	Flexible command registration writing register 4	2
25F4	0	oJ-05	Flexible command registration writing register 5	2
25F5	0	oJ-06	Flexible command registration writing register 6	2
25F6	0	oJ-07	Flexible command registration writing register 7	2
25F7	0	oJ-08	Flexible command registration writing register 8	2
25F8	0	oJ-09	Flexible command registration writing register 9	2
25F9	0	oJ-10	Flexible command registration writing register 10	2
25FA	0	oJ-11	Flexible command registration Reading register 1	2
25FB	0	oJ-12	Flexible command registration Reading register 2	2
25FC	0	oJ-13	Flexible command registration Reading register 3	2
25FD	0	oJ-14	Flexible command registration Reading register 4	2

Index	Sub-index	Code	Name	size
25FE	0	oJ-15	Flexible command registration Reading register 5	2
25FF	0	oJ-16	Flexible command registration Reading register 6	2
2600	0	oJ-17	Flexible command registration Reading register 7	2
2601	0	oJ-18	Flexible command registration Reading register 8	2
2602	0	oJ-19	Flexible command registration Reading register 9	2
2603	0	oJ-20	Flexible command registration Reading register 10	2
2604	0	oJ-21	Flexible command registration writing register 1	2
2605	0	oJ-22	Flexible command registration writing register 2	2
2606	0	oJ-23	Flexible command registration writing register 3	2
2607	0	oJ-24	Flexible command registration writing register 4	2
2608	0	oJ-25	Flexible command registration writing register 5	2
2609	0	oJ-26	Flexible command registration writing register 6	2
260A	0	oJ-27	Flexible command registration writing register 7	2
260B	0	oJ-28	Flexible command registration writing register 8	2
260C	0	oJ-29	Flexible command registration writing register 9	2
260D	0	oJ-30	Flexible command registration writing register 10	2
260E	0	oJ-31	Flexible command registration Reading register 1	2
260F	0	oJ-32	Flexible command registration Reading register 2	2
2610	0	oJ-33	Flexible command registration Reading register 3	2
2611	0	oJ-34	Flexible command registration Reading register 4	2
2612	0	oJ-35	Flexible command registration Reading register 5	2
2613	0	oJ-36	Flexible command registration Reading register 6	2
2614	0	oJ-37	Flexible command registration Reading register 7	2

Index	Sub-index	Code	Name	size
2615	0	oJ-38	Flexible command registration Reading register 8	2
2616	0	oJ-39	Flexible command registration Reading register 9	2
2617	0	oJ-40	Flexible command registration Reading register 10	2
2618	0	oJ-41	Flexible command registration writing register 1	2
2619	0	oJ-42	Flexible command registration writing register 2	2
261A	0	oJ-43	Flexible command registration writing register 3	2
261B	0	oJ-44	Flexible command registration writing register 4	2
261C	0	oJ-45	Flexible command registration writing register 5	2
261D	0	oJ-46	Flexible command registration writing register 6	2
261E	0	oJ-47	Flexible command registration writing register 7	2
261F	0	oJ-48	Flexible command registration writing register 8	2
2620	0	oJ-49	Flexible command registration writing register 9	2
2621	0	oJ-50	Flexible command registration writing register 10	2
2622	0	oJ-51	Flexible command registration Reading register 1	2
2623	0	oJ-52	Flexible command registration Reading register 2	2
2624	0	oJ-53	Flexible command registration Reading register 3	2
2625	0	oJ-54	Flexible command registration Reading register 4	2
2626	0	oJ-55	Flexible command registration Reading register 5	2
2627	0	oJ-56	Flexible command registration Reading register 6	2
2628	0	oJ-57	Flexible command registration Reading register 7	2
2629	0	oJ-58	Flexible command registration Reading register 8	2
262A	0	oJ-59	Flexible command registration Reading register 9	2
262B	0	oJ-60	Flexible command registration Reading register 10	2

Index	Sub-index	Code	Name	size
262C	0	oL-01	IPv4 IP address (1)	2
262D	0	oL-02	IPv4 IP address (2) t	2
262E	0	oL-03	IPv4 IP address (3)	2
262F	0	oL-04	IPv4 IP address (4)	2
2630	0	oL-05	IPv4 Sub-net mask (1)	2
2631	0	oL-06	IPv4 Sub-net mask (2)	2
2632	0	oL-07	IPv4 Sub-net mask (3)	2
2633	0	oL-08	IPv4 Sub-net mask (4)	2
2634	0	oL-09	IPv4 Default gateway (1)	2
2635	0	oL-10	IPv4 Default gateway (2)	2
2636	0	oL-11	IPv4 Default gateway (3)	2
2637	0	oL-12	IPv4 Default gateway (4)	2
2638	0	oL-20	IPv6 IP address (1)	2
2639	0	oL-21	IPv6 IP address (2)	2
263A	0	oL-22	IPv6 IP address (3)	2
263B	0	oL-23	IPv6 IP address (4)	2
263C	0	oL-24	IPv6 IP address (5)	2
263D	0	oL-25	IPv6 IP address (6)	2
263E	0	oL-26	IPv6 IP address (7)	2
263F	0	oL-27	IPv6 IP address (8)	2
2640	0	oL-28	IPv6 Prefix of Sub-net	2
2641	0	oL-29	IPv6 Default gateway (1)	2
2642	0	oL-30	IPv6 Default gateway (2)	2
2643	0	oL-31	IPv6 Default gateway (3)	2
2644	0	oL-32	IPv6 Default gateway (4)	2
2645	0	oL-33	IPv6 Default gateway (5)	2
2646	0	oL-34	IPv6 Default gateway (6)	2
2647	0	oL-35	IPv6 Default gateway (7)	2
2648	0	oL-36	IPv6 Default gateway (8)	2
2649	0	oL-40	IPv4 IP address (1)	2
264A	0	oL-41	IPv4 IP address (2)	2
264B	0	oL-42	IPv4 IP address (3)	2
264C	0	oL-43	IPv4 IP address (4)	2
264D	0	oL-44	IPv4 Sub-net mask (1)	2
264E	0	oL-45	IPv4 Sub-net mask (2)	2
264F	0	oL-46	IPv4 Sub-net mask (3)	2
2650	0	oL-47	IPv4 Sub-net mask (4)	2
2651	0	oL-48	IPv4 Default gateway (1)	2
2652	0	oL-49	IPv4 Default gateway (2)	2
2653	0	oL-50	IPv4 Default gateway (3)	2
2654	0	oL-51	IPv4 Default gateway (4)	2
2655	0	oL-60	IPv6 IP address (1)	2
2656	0	oL-61	IPv6 IP address (2)	2
2657	0	oL-62	IPv6 IP address (3)	2
2658	0	oL-63	IPv6 IP address (4)	2

Index	Sub-index	Code	Name	size
2659	0	oL-64	IPv6 IP address (5)	2
265A	0	oL-65	IPv6 IP address (6)	2
265B	0	oL-66	IPv6 IP address (7)	2
265C	0	oL-67	IPv6 IP address (8)	2
265D	0	oL-68	IPv6 Prefix of Sub-net,	2
265E	0	oL-69	IPv6 Default gateway (1)	2
265F	0	oL-70	IPv6 Default gateway (2)	2
2660	0	oL-71	IPv6 Default gateway (3)	2
2661	0	oL-72	IPv6 Default gateway (4)	2
2662	0	oL-73	IPv6 Default gateway (5)	2
2663	0	oL-74	IPv6 Default gateway (6)	2
2664	0	oL-75	IPv6 Default gateway (7)	2
2665	0	oL-76	IPv6 Default gateway (8)	2
2666	0	PA-01	Mode selection for Emergency-force drive	2
2667	0	PA-02	Frequency reference setting at Emergency-force drive	2
2668	0	PA-03	Direction command at Emergencyforce drive	2
2669	0	PA-04	Commercial power supply bypass function selection	2
266A	0	PA-05	Delay time of Bypass function	2
266B	0	UA-10	Display restriction selection	2
266C	0	UA-18	Data R/W selection	2
266D	0	UA-19	Low battery warning enable	2
266E	0	UA-20	Action selection at keypad disconnection	2
266F	0	UA-21	2nd-motor parameter display selection	2
2670	0	UA-22	Option parameter display selection	2
2671	0	UA-30	User parameter auto setting function enable	2
2672	0	UA-31	User parameter 1 selection	2
2673	0	UA-32	User parameter 2 selection	2
2674	0	UA-33	User parameter 3 selection	2
2675	0	UA-34	User parameter 4 selection	2
2676	0	UA-35	User parameter 5 selection	2
2677	0	UA-36	User parameter 6 selection	2
2678	0	UA-37	User parameter 7 selection	2
2679	0	UA-38	User parameter 8 selection	2
267A	0	UA-39	User parameter 9 selection	2
267B	0	UA-40	User parameter 10 selection	2
267C	0	UA-41	User parameter 11 selection	2
267D	0	UA-42	User parameter 12 selection	2
267E	0	UA-43	User parameter 13 selection	2

Index	Sub-index	Code	Name	size
267F	0	UA-44	User parameter 14 selection	2
2680	0	UA-45	User parameter 15 selection	2
2681	0	UA-46	User parameter 16 selection	2
2682	0	UA-47	User parameter 17 selection	2
2683	0	UA-48	User parameter 18 selection	2
2684	0	UA-49	User parameter 19 selection	2
2685	0	UA-50	User parameter 20 selection	2
2686	0	UA-51	User parameter 21 selection	2
2687	0	UA-52	User parameter 22 selection	2
2688	0	UA-53	User parameter 23 selection	2
2689	0	UA-54	User parameter 24 selection	2
268A	0	UA-55	User parameter 25 selection	2
268B	0	UA-56	User parameter 26 selection	2
268C	0	UA-57	User parameter 27 selection	2
268D	0	UA-58	User parameter 28 selection	2
268E	0	UA-59	User parameter 29 selection	2
268F	0	UA-60	User parameter 30 selection	2
2690	0	UA-61	User parameter 31 selection	2
2691	0	UA-62	User parameter 32 selection	2
2692	0	UA-90	QOP indication off waiting time	2
2693	0	UA-91	Initial Disply selection	2
2694	0	UA-92	Auto-return to Initial display enable	2
2695	0	UA-93	Setting enable at Monitor display	2
2696	0	UA-94	Multispeed change on the frequency reference monitor display	2
2697	0	Ud-01	Trace function enable	2
2698	0	Ud-02	Trace start	2
2699	0	Ud-03	Trace data number setting	2
269A	0	Ud-04	Trace signal number setting	2
269B	0	Ud-10	Trace data 0 selection	2
269C	0	Ud-11	Trace data 1 selection	2
269D	0	Ud-12	Trace data 2 selection	2
269E	0	Ud-13	Trace data 3 selection	2
269F	0	Ud-14	Trace data 4 selection	2
26A0	0	Ud-15	Trace data 5 selection	2
26A1	0	Ud-16	Trace data 6 selection	2
26A2	0	Ud-17	Trace data 7 selection	2
26A3	0	Ud-20	Trace signal 0 Input/Output selection	2
26A4	0	Ud-21	Trace signal 0 Input Terminal selection	2
26A5	0	Ud-22	Trace signal 0 Output Terminal selection	2
26A6	0	Ud-23	Trace signal 1 Input/Output selection	2
26A7	0	Ud-24	Trace signal 1 Input Terminal selection	2

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26A8	0	Ud-25	Trace signal 1 Output Terminal selection	2
26A9	0	Ud-26	Trace signal 2 Input/Output selection	2
26AA	0	Ud-27	Trace signal 2 Input Terminal selection	2
26AB	0	Ud-28	Trace signal 2 Output Terminal selection	2
26AC	0	Ud-29	Trace signal 3 Input/Output selection	2
26AD	0	Ud-30	Trace signal 3 Input Terminal selection	2
26AE	0	Ud-31	Trace signal 3 Output Terminal selection	2
26AF	0	Ud-32	Trace signal 4 Input/Output selection	2
26B0	0	Ud-33	Trace signal 4 Input Terminal selection	2
26B1	0	Ud-34	Trace signal 4 Output Terminal selection	2
26B2	0	Ud-35	Trace signal 5 Input/Output selection	2
26B3	0	Ud-36	Trace signal 5 Input Terminal selection	2
26B4	0	Ud-37	Trace signal 5 Output Terminal selection	2
26B5	0	Ud-38	Trace signal 6 Input/Output selection	2
26B6	0	Ud-39	Trace signal 6 Input Terminal selection	2
26B7	0	Ud-40	Trace signal 6 Output Terminal selection	2
26B8	0	Ud-41	Trace signal 7 Input/Output selection	2
26B9	0	Ud-42	Trace signal 7 Input Terminal selection	2
26BA	0	Ud-43	Trace signal 7 Output Terminal selection	2
26BB	0	Ud-50	Trace trigger 1 selection	2
26BC	0	Ud-51	Trigger 1 action selection at trace data trigger	2
26BD	0	Ud-52	Trigger 1 level setting at trace data trigger	2
26BE	0	Ud-53	Trigger 1 action selection at trace signal trigger	2
26BF	0	Ud-54	Trace trigger 2 selection	2
26C0	0	Ud-55	Trigger 2 action selection at trace data trigger	2
26C1	0	Ud-56	Trigger 2 level setting at trace data trigger	2
26C2	0	Ud-57	Trigger 2 action selection at trace	2

Index	Sub-index	Code	Name	size
			signal trigger	
26C3	0	Ud-58	Trigger condition selection	2
26C4	0	Ud-59	Trigger point setting	2
26C5	0	Ud-60	Sampling time selection	2
26C6	0	UE-01	EzSQ operation cycle	2