

14

Chapter 14 RS485 통신

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14.1 본 챕터가 설명 하는 것





이 장에서는 RS485 통신을 사용하여 통신 할 수 있는 통신 방법에 대해 설명합니다. PI 메인 유닛은 RS485가 물리층으로 사용되는 Modbus-RTU 모드에 해당합니다.

Modbus 프로토콜을 사용한 히타치의 원래 EzCOM (인버터 간 통신) 기능도 사용할 수 있습니다.

사용하려는 통신 기능을 선택하고 구성하십시오.

메시지 코드, 기능 코드, 레지스터 및 코일과 같은 기능에 대한 자세한 내용은 "RS485 통신 안내서"를 참조하십시오.

안전을 위해 "1 장 안전 지침 / 리스크"를 주의 깊게 읽으십시오.

Symbol	Meanings
	일반적인 문제해결 및 질문
	솔루션을 위한 키포인트
	메모
	절차 확인

14.2 Modbus-RTU

14.2.1 통신 스펙

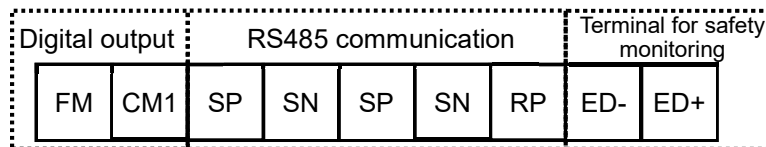
• Modbus-RTU는 통신 방법으로 사용됩니다.

Item	Modbus-RTU Mode	Remarks
Transmission speed	2400/4800/9600/19.2k/38.4k/57.6k/76.8k/115.2k bps	Sets using a parameter.
Communication method	Half duplex communication method	
Synchronous mode	Non-synchronous mode	
Transmission code	Binary	
Transmission method	Transmission from a low-order bit	
Applicable interface	RS-485	
Data bit length	8 bits	
Parity	No / Even / Odd	Sets using a parameter.
Stop bit length	1/2 bits	Sets using a parameter.
Start mode	Half side start mode by host side command	
Waiting time	0~1000[ms]	Sets using a parameter.
Connection form	1:N (N=Maximum 32)	Sets using a parameter.
Error check	Overrun / Framing / CRC-16 / Horizontal parity	

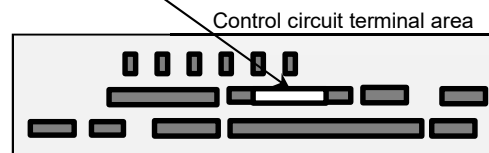
14.2.2 배선 및 연결

■ 배선 위치

통신 회선을 제어 회로 단자대에 연결하십시오.



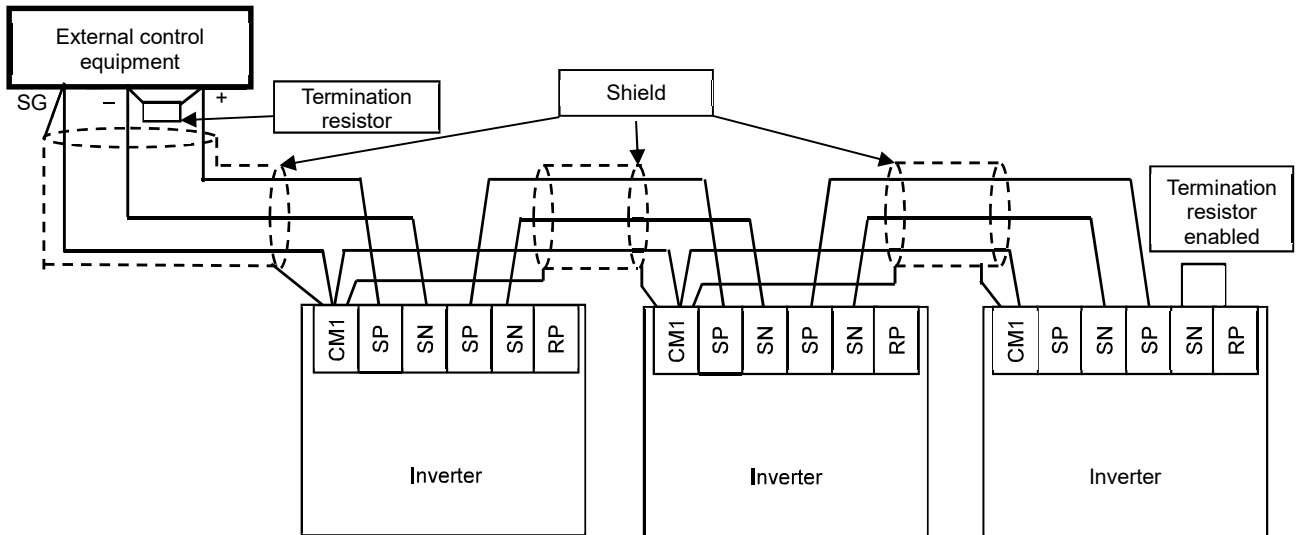
Abbreviated Terminal Name	Description
SP	Sending/receiving + side
SN	Sending/receiving - side
RP	Enable termination resistor terminal
(SN)	Enable termination resistor terminal
(CM1)	Signal ground



■ 연결

- 연결을 수행 할 때 아래 그림과 같이 각 인버터를 병렬로 연결하십시오. 중단 인버터의 경우, 단자 **RP**와 **SN** 사이의 단락. (하나의 인버터에서 **RS485** 통신을 실행하는 경우 **RP**와 **SN**의 단락도 마찬가지입니다.) **RP-SN**이 단락되면 제어 단자 블록 보드 내의 중단 저항이 활성화되어 신호 반사를 방지합니다.

- 통신 케이블의 경우 쉴드 된 케이블을 사용하십시오.
- 실드의 경우 외부 제어 장비의 신호 접지 (**SG**)가 아래 그림과 같이 인버터의 **CM1**에 연결되는 것이 좋습니다.



- TM2에 연결하는 케이블은 차폐 연선 (0.5mm²)을 사용하십시오. 위에서 언급 한 케이블을 사용할 수 없는 경우 다음을 사용하십시오.
- 0.14 mm² ~ 1.5 mm²의 단일 케이블
(두 개의 동일한 크기의 케이블을 하나의 극에 연결하려면 0.14 mm² ~ 0.5 mm²)
- 연선 0.14 mm² ~ 1.0 mm²
(두 개의 동일한 크기의 케이블을 하나의 극에 연결하기 위해 0.14 mm² ~ 0.2 mm²)

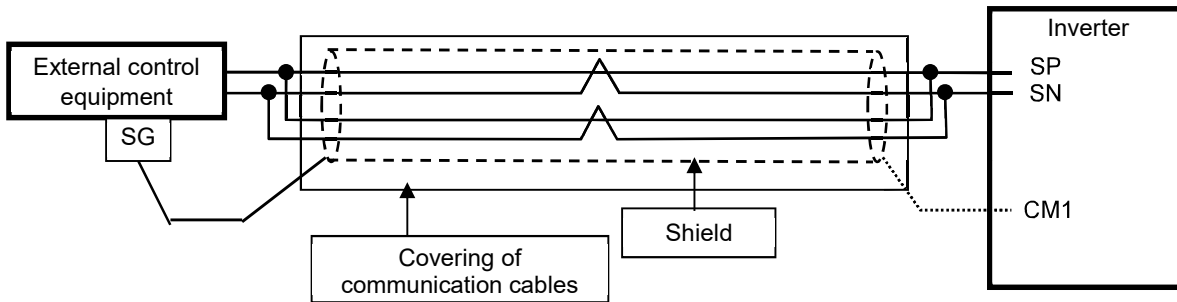
- 로드 터미널이있는 연선
0.25 mm² 내지 0.5 mm²
(예를 들어, J.S.T. Mfg. Co., Ltd.에 의해 제조된 1.25 = 3AF)

Cable stripping length 5 mm

Tightening torque 0.22·N·m to 0.25·N·m (screw size M2)



- 외부 제어 기기의 신호 접지 (SG)를 인버터 본체의 CM1에 연결하십시오.
- CM1에서 케이블을 분리하면 차폐 케이블의 통신이 향상 될 수 있습니다. 상황에 따라 연결을 변경하십시오.
- 전원 선과 알람 고전압 회로에서 통신 케이블을 분리하십시오. 통신 케이블은 전력선 및 경보 고전압 회로와 병렬로 배치하면 안됩니다.
- 두 개 이상의 케이블을 사용하는 경우 아래 그림과 같이 신호선에 모두 연결하십시오. 그렇게 할 때 각 쌍을 SP 및 SN에 연결하십시오.



14.2.3 Parameters

■Parameter settings

RS485 통신에는 다음과 같은 설정이 필요합니다.

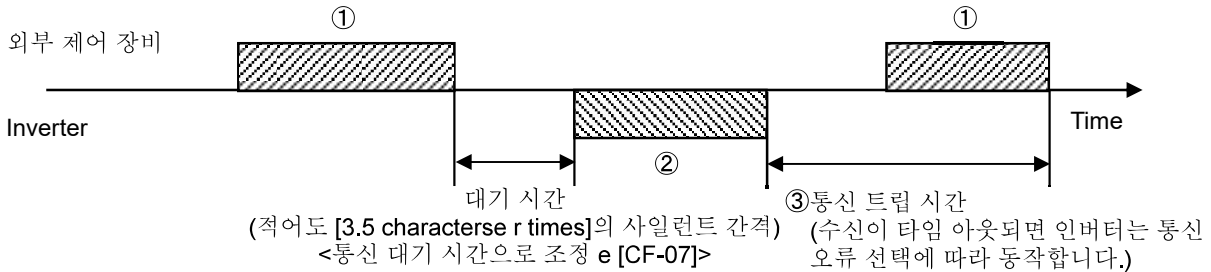
Item	Parameter	Data	Description
통신 전송 속도 선택	[CF-01]	03	2400bps
		04	4800bps
		05	9600bps
		06	19200bps
		07	38400bps
		08	57600bps
		09	76800bps
		10	115200bps
통신 스테이션 번호 선택	[CF-02]	1.~247.	인버터 국번을 지정합니다. 이것은 여러 개의 인버터를 동시에 제어하도록 설정됩니다.
통신 패리티 선택	[CF-03]	00	No Parity
		01	Even number parity
		02	Odd number parity
통신 정지 비트 선택	[CF-04]	1	1 bit
		2	2 bits
통신 오류 선택	[CF-05]	00	Trip
		01	감속 및 정지 후의 트립
		02	Ignore
		03	Free-run stop
		04	Deceleration stop
통신 타임아웃 시간	[CF-06]	0.00~100.00 (s)	통신 단절의 결정 시간. 판정 시간보다 통신이 길어지면 RS485 에러 [E041]가 발생합니다.
통신 대기 시간	[CF-07]	0.~1000. (ms)	인버터가 응답하기 까지 걸리는 시간.
통신 방법 선택	[CF-08]	00	Modbus-RTU mode
		01	Communication between inverters (EzCOM)
		02	Communication between inverters (EzCOM administrator)
출력 단자 기능 및 릴레이 출력 단자 기능	[CC-01]~[C-07]	049	통신 단선이 발생하면 [NDc] 신호가 ON 됩니다. 오류가 해제되면 신호가 OFF 됩니다.

14.2.4 통신 프로세스

A

■ 통신 프로세스

외부 제어 장비와 인버터 간의 통신은 다음 프로세스에서 수행됩니다.



① 외부 제어 장비에서 인버터로 보낸 프레임 (query)

② 인버터에서 외부 제어 장비로 반환되는 프레임 (response)

③ 인버터가 응답을 보낸 후 설정된 시간 내에 호스의 쿼리가 완전히 수신되지 않으면 [CF-06] (통신 타임 아웃 시간), 인버터는 헤드 데이터를 다시 수신하는 상태가 됩니다. 이 동안 인버터는 무응답 상태가 되어 통신 오류 선택에서 설정된 대로 동작합니다. 자세한 내용은 다음을 참조하십시오.

수신 타임 아웃 모니터링은 전원 공급 장치를 켜거나 재설정 한 후 첫 번째 전송이 완료된 후에 시작됩니다. 수신 타임 아웃은 전송이 수행 될 때까지 발생하지 않습니다. 인버터 (프레임 ②)의 응답은 인버터가 쿼리 (프레임 ①)를 수신 한 후 응답으로 출력되므로 적극적으로 출력되지 않습니다.

■ Parameter

Item	Parameter	Data	Description
통신 오류 선택	[CF-05]	00:Trip	수신 타임 아웃 후 에러 [E041]가있는 트립.
		01:Trip after stopping	수신 제한 시간 후 감속 정지. 정지 후 에러 [E041]가있는 트립.
		02:Ignore	트립이나 알람 출력이 없습니다.
		03:Free-run stop	프리 런 정지 트립이나 수신 타임 아웃 후 알람 출력이 없습니다.
		04:Deceleration stop	감속 정지도없고 수신 타임 아웃 후에 알람 출력도 없습니다.
통신 타임아웃 시간	[CF-06]	0.00~100.00(s)	수신 시간 초과까지의 시간.
통신 대기 시간	[CF-07]	0.~1000.(ms)	수신 완료 후 응답이 시작될 때까지의 대기 시간 (silent interval 제외).

14.3 메시지 구조

14.3.1 문의 및 응답

- 마스터에서 슬레이브로 보낸 명령 메시지를 "쿼리"라고 하며, 슬레이브로부터의 응답 메시지를 "응답"이라고 합니다.

질의와 응답의 전송 형식은 다음과 같습니다.

Query

Slave address
Function code
Query data
Error check (CRC-16)

Response

Slave address for checking
Function code for checking
Answering data
Error check (CRC-16)

14.3.2 슬레이브 주소 (통신국 번호)

- 슬레이브 주소는 1에서 247 사이의 숫자로 설정됩니다. 각 인버터 (슬레이브)를 사전에 점검하십시오. (인버터 만 쿼리의 슬레이브 주소와 일치하는 주소를 갖는 검색어를 사용합니다.)
- 마스터 인버터에서 전송 처의 슬레이브 주소에 "0"을 설정 하면 모든 방송국 (동시 방송)에 대해 방송을 활성화 할 수 있습니다. 브로드 캐스팅 모드에서 모든 슬레이브는 데이터를 수신 하지만 응답을 반환하지 않습니다.
- 브로드 캐스팅 모드에서는 데이터 읽기 및 루프백 을 실행할 수 없습니다.
- Modbus** 사양에서 1에서 247까지의 슬레이브 주소가 사용되지만 마스터 측에서 250에서 254까지의 슬레이브 주소를 사용하면 특정 슬레이브에만 동시 브로드 캐스팅을 실행할 수 있습니다 구애. (슬레이브는 응답을 반환하지 않습니다.이 기능은 쓰기 명령 (05h, 06h, 0Fh, 10h).)

Slave Address	Transmission Destination
250 (Fah)	Simultaneous broadcasting to slave addresses 01 to 09.
251 (FBh)	Simultaneous broadcasting to slave addresses 10 to 19.
252 (FCh)	Simultaneous broadcasting to slave addresses 20 to 29.
253 (FDh)	Simultaneous broadcasting to slave addresses 30 to 39.
254 (FEh)	Simultaneous broadcasting to slave addresses 40 to 247.

14.3.3 Function codes

- 기능 코드를 사용하여 인버터가 실행하는 기능을 지정하십시오.

해당 기능 코드는 다음과 같습니다.

Function code

Function Code	Function	Max. Data Bytes Handled by 1 Message	Max. Number of Data Handled by 1 Message
01h	Reads out the state of coil.	4	32 coils (bitwise)
03h	Reads out the content of retention register.	32	16 registers (in bytes)
05h	Writes to coil.	2	1 coil (bitwise)
06h	Writes to retention register.	2	1 register (in bytes)
08h	Loopback test	-	-
0Fh	Writes to multiple coils.	4	32 coils (bitwise)
10h	Writes to multiple retention registers.	32	16 registers (in bytes)
17h	Writes / reads out to multiple retention registers.	32 / 32	16 / 16 registers (in bytes)

14.3.4 Data

- 기능 코드와 관련된 데이터를 전송하십시오.
- 인버터는 **Modbus**에서 사용되는 데이터 중 아래에 표시된 데이터 형식에 해당합니다.

- 데이터의 전송 형식은 기능 코드에 따라 다릅니다.

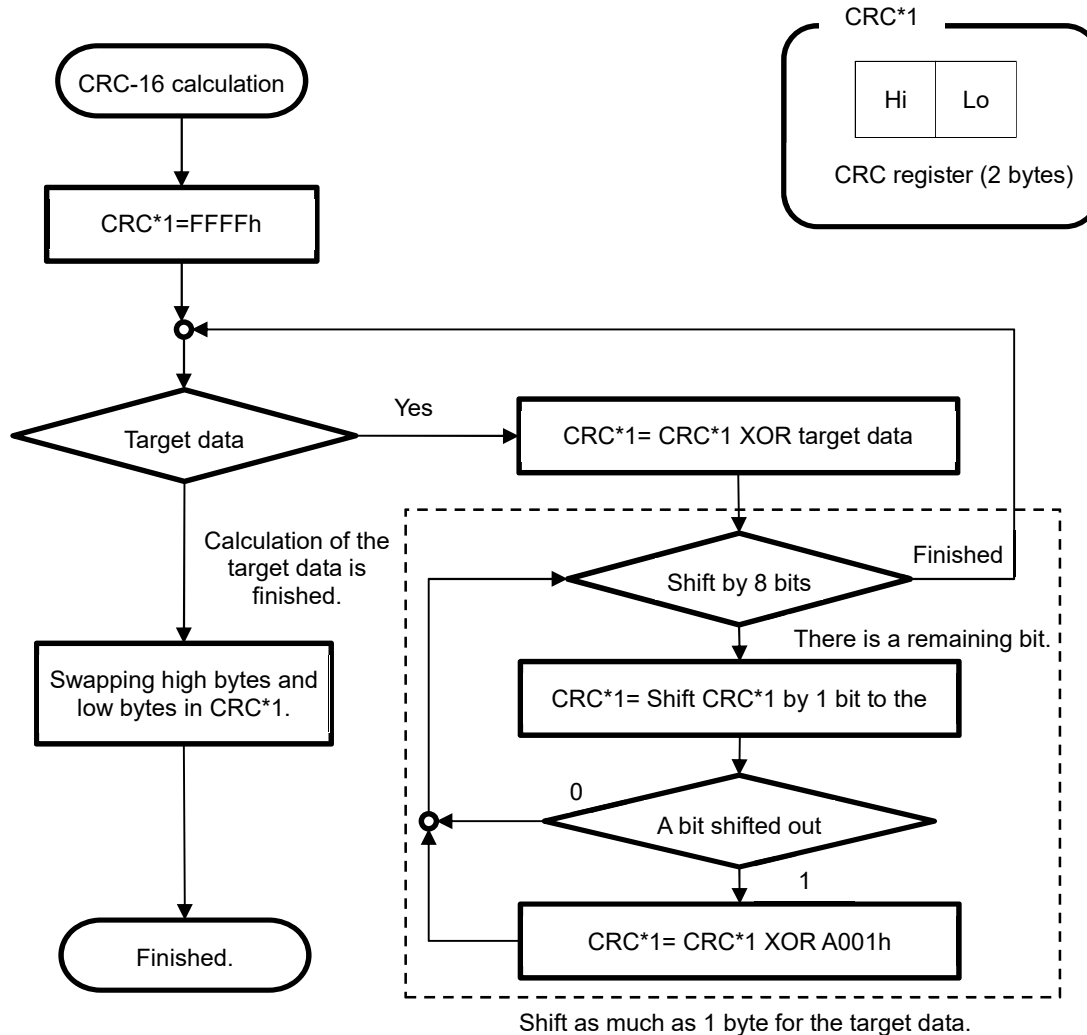
Data Name	Description
Coil	Writable/readable binary data (1 bit long)
Retention register	Writable/readable 16 bits long data

14.3.5 Error check

- Modbus-RTU의 오류를 확인하려면 CRC (Cyclic Redundancy Check)를 사용하십시오.
- CRC 코드를 생성하려면 CRC-16 ($X^{16} + X^{15} + X^2 + 1$)에 대한 생성 다항식을 사용하십시오.

- CRC 코드는 8 비트 단위로 임의의 데이터 길이의 블록에 대해 생성된 16 비트 데이터입니다.

Example of procedure for calculating CRC-16.



14.3.6 통신에 필요한 시간

- 문의료를 받은 후 인버터의 응답은 [CF-07] (통신 대기 시간) 설정 값에 응답 생성 처리 시간을 더한 것과 같습니다.

- 인버터에서 응답을 수신 한 후 다음 쿼리를 인버터에 전송할 때 [3.5 문자 이상] 이상의 간격으로 간격을 지정하십시오.

14.3.7 정상 상태에서의 반응

- "3. 각 기능 코드 설명"에 정의 된 각 쿼리의 형식에 따라 응답이 반환됩니다.

14.3.8 비정상 상태에서의 반응

- 문의 내용에 이상 (통신 이상 제외)이있는 경우, 인버터는 질문에 의해 요구 된 동작을 실행하지 않고 예외 응답을 반환합니다.
- 오류를 판별하려면 응답의 기능 코드를 확인하십시오. 예외 응답의 기능 코드는 쿼리의 기능 코드에 80h를 더한 값입니다.

- 뛰어난 응답을위한 필드 구성

Slave address
Function code
Exception code
CRC-16

- 오류에 대한 자세한 내용은 "14.3.9 예외적 인 응답"을 참조하십시오.

14.3.9 No response

- 인버터는 쿼리를 무시하고 다음 조건에서 응답을 반환하지 않습니다.

- (1) 브로드 캐스트 (슬레이브 주소가 "0"인 쿼리)가 수신될 경우
- (2) 쿼리 수신 처리 중에 통신 에러가 검출될 경우
- (3) 쿼리의 슬레이브 주소가 인버터에 설정된 슬레이브 주소와 일치하지 않을 경우
- (4) 메시지를 구성하는 데이터 간의 시간 간격은 3.5 문자 이하입니다.
- (5) 쿼리 데이터의 길이가 잘못되었습니다.
- (6) 프레임 내의 수신 간격이 1.5 문자를 초과합니다.

- (7) 쿼리의 오류 검사 코드가 일치하지 않습니다 (CRC 오류).

- (8) 그룹 별 동시 방송 (슬레이브 주소가 250에서 254 인 쿼리)을 수신합니다.



- 응답을 모니터링하기위한 타이머를 마스터에 제공 한 다음 시간 내에 응답이 반환되지 않으면 동일한 쿼리를 다시 전송하십시오.

14.4 각 기능 코드 설명

14.4.1 코일 상태 읽기 [01h]

- 코일의 상태를 읽습니다 (ON / OFF).

(예)

슬레이브 주소가 8 인 인버터의 입력 단자 기능을 1에서 6까지 읽으려면 입력 단자의 상태가 오른쪽 표와 같습니다.

Query

	Field Name	Example (HEX)
1	Slave address *1)	08
2	Function code	01
3	Coil starting No. (high) *2)	00
4	Coil starting No. (low) *2)	06
5	Number of coils (high) *3)	00
6	Number of coils (low) *3)	06
7	CRC-16 (high)	5C
8	CRC-16 (low)	90

- 코일 13 및 14는 OFF입니다.

Input terminal No.	1	2	3	4	5	6
Coil No.	7	8	9	10	11	12
Terminal state	ON	ON	ON	OFF	ON	OFF

Response

	Field Name	Example (HEX)
1	Slave address	08
2	Function code	01
3	Data bytes	01
4	Coil data *4)	17
5	CRC-16 (high)	12
6	CRC-16 (low)	1A

!

- * 1) 방송을 실행할 수 없습니다.
- * 2) 시작 번호의 값은 실제 숫자보다 하나 작습니다. "(코일 번호) -1"의 값을 지정하십시오.
- * 3) 판독 코일의 수가 0 또는 32를 초과하는 경우 오류 코드 "03h"가 반환됩니다.
- * 4) 데이터 바이트 수만큼의 데이터가 전송됩니다.

A

- 응답으로 수신된 데이터는 코일 7 ~ 14의 상태를 나타냅니다. 여기서 수신된 데이터 "17h = 00010111b"는 코일 7이 LSB가 되도록 아래에 표시된 것과 같이 읽습니다.

코일 상태 판독 명령이 정상적으로 실행되지 않으면 "3.9 예외 응답"을 참조하십시오.

Coil	14	13	12	11	10	9	8	7
Coil state	OFF	OFF	OFF	ON	OFF	ON	ON	ON
17h	0	0	0	1	0	1	1	1

마지막 코일 데이터에서, 판독 코일 데이터가 규정된 코일의 범위 밖으로 연장되면, 그 범위를 벗어난 코일 데이터는 "0"으로서 전송된다.

14.4.2 홀딩레지스터 [03h]의 내용 읽기

- 지정된 홀딩 레지스터 주소에서 지정된만큼 지정된 연속 보존 레지스터의 내용을 읽습니다.

(예)

슬레이브 주소가 5 인 인버터에서 과거 트립 내역을 읽습니다.

(트립 모니터 1의 요인과 출력 주파수를 읽으려면)

	Trip monitor 1 (factor)	Trip monitor 1 (output frequency)
Retention register No.	03E9h	03EAh, 03EBh
Data	Overvoltage (E007) (0007h)	60.00Hz (0000h, 1770h)

Query

Field Name	Example (HEX)
1 Slave address *1)	05
2 Function code	03
3 Register starting No. (high) *2)	03
4 Register starting No. (low) *2)	E8
5 The number of retention registers (high)	00
6 The number of retention registers (low)	03
7 CRC-16 (high)	84
8 CRC-16 (low)	3F

Response

Field Name	Example (HEX)
1 Slave address	05
2 Function code	03
3 Data bytes *3)	06
4 Register starting No. (high)	00
5 Register starting No. (low)	07
6 Register starting No. +1 (high)	00
7 Register starting No. +1 (low)	00
8 Register starting No. +2 (high)	17
9 Register starting No. +2 (low)	70
10 CRC-16 (high)	A8
11 CRC-16 (low)	61



- * 1) 방송을 실행할 수 없습니다.
- * 2) 시작 번호의 값은 실제 숫자보다 하나 작습니다.
"(레지스터 번호) -1"의 값을 지정하십시오.
- * 3) 데이터 바이트 수만큼의 데이터가 전송됩니다. 이 예제에서는 두 개의 유지 레지스터가 반환됩니다.
따라서 4 바이트가 됩니다.



- 응답으로 수신된 데이터는 아래와 같이 읽습니다.

Response buffer	4	5	6	7	8	9
Retention register starting No.	+0 (hi)	+0 (lo)	+1 (hi)	+1 (lo)	+2 (hi)	+2 (lo)
Response data	00h	07h	00h	00h	17h	70h
Trip description	Overvoltage trip (0007h)		Trip frequency 60.00Hz (00001770h)			

- 보존 레지스터 내용을 정상적으로 실행할 수없는 경우
"3.9 예외 응답"을 참조하십시오.

14.4.3 Writing to coil [05h]

- 코일에 기록하십시오.
코일 상태는 오른쪽 표와 같이 바뀝니다.

(예)

슬레이브 어드레스 10의 인버터에 운전 지령을 내립니다.

- 작업 명령 선택을 설정해야 합니다.
[AA111] ~ 03은 Modbus 명령을 사용하여 작동합니다.
- 운전 지령의 코일 No.는 "1"입니다.

Query

	Field Name	Example (HEX)
1	Slave address *1)	0A
2	Function code	05
3	Coil starting No. (high) *2)	00
4	Coil starting No. (low) *2)	00
5	Data to be changed (high)	FF
6	Data to be changed (low)	00
7	CRC-16 (high)	8D
8	CRC-16 (low)	41

	Coil state	
	OFF→ON	ON→OFF
Data to be changed (high)	FFh	00h
Data to be changed (low)	00h	00h

Response

	Field Name	Example (HEX)
1	Slave address	0A
2	Function code	05
3	Coil starting No. (high)	00
4	Coil starting No. (low)	00
5	Data to be changed (high)	FF
6	Data to be changed (low)	00
7	CRC-16 (high)	8D
8	CRC-16 (low)	41



- * 1) 방송이 수행되면 응답이 반환되지 않습니다.
- * 2) 표시된 값은 시작 숫자보다 하나 작습니다.
코일 No. 0001의 경우 0000 (= 0001-1)을 지정하십시오.



- 코일에 쓰기가 정상적으로 수행 될 수 없는 경우 "3.9 예외적인 응답"을 참조하십시오.

14.4.4 홀딩 레지스터에 기록하기 [06h]

- 지정된 홀딩 레지스터에 기록을 수행하십시오.

(예)

0 번 속도 지령 [Ab110]으로서 50Hz를 슬레이브 어드레스 1의 인버터에 씁니다.

- 50Hz를 설정하려면, 0 속도 명령 [Ab110]에 대한 유지 레지스터 "2F4Eh"의 데이터 분해능이 0.01Hz이기 때문에 변경 될 데이터를 "5000 (1388h)"으로 설정하십시오.

Query

	Field Name	Example (HEX)
1	Slave address *1)	01
2	Function code	06
3	Register starting No. (high)	2F
4	Register starting No. (low)	4D
5	Data to be changed (high)	13
6	Data to be changed (low)	88
7	CRC-16 (high)	1C
8	CRC-16 (low)	5F

Response

	Field Name	Example (HEX)
1	Slave address	01
2	Function code	06
3	Register starting No. (high)	2F
4	Register starting No. (low)	4D
5	Data to be changed (high)	13
6	Data to be changed (low)	88
7	CRC-16 (high)	1C
8	CRC-16 (low)	5F



- * 1) 방송이 수행되면 응답이 반환되지 않습니다.

- * 3) [Ab110] 보유 레지스터의 시작 어드레스는 레지스터 번호 "2F4Eh"보다 하나 적은 "2F4Dh"입니다. 레지스터 번호에서 1을 뺀 값이 레지스터 주소입니다.



- 보존 레지스터에 대한 쓰기가 정상적으로 실행될 수 없으면 "3.9 예외적 응답"을 참조하십시오.

14.4.5 루프백 테스트 [08h]

- 마스터와 슬레이브 간의 통신 확인을 위해 이 테스트를 사용하십시오.
테스트 데이터의 경우 임의의 값을 사용할 수 있습니다.

(예)

슬레이브 주소가 1 인 인버터에서 루프백 테스트를 수행합니다.

Query

	Field Name	Example (HEX)
1	Slave address *1)	01
2	Function code	08
3	Diagnostic sub code (high)	00
4	Diagnostic sub code (low)	00
5	Data (high)	Arbitrary
6	Data (low)	Arbitrary
7	CRC-16 (high)	CRC
8	CRC-16 (low)	CRC

Response

	Field Name	Example (HEX)
1	Slave address	01
2	Function code	08
3	Diagnostic sub code (high)	00
4	Diagnostic sub code (low)	00
5	Data (high)	Arbitrary
6	Data (low)	Arbitrary
7	CRC-16 (high)	CRC
8	CRC-16 (low)	CRC



* 1) 방송을 실행할 수 없습니다.



- Diagnostic sub 코드는 query data **echo (00h, 00h)**에만 해당하며 다른 명령에는 해당되지 않습니다.

14.4.6 멀티플 코일에 기록하기 [0Fh]

- 연속적인 멀티플 코일을 다시 작성하십시오.

(예)

슬레이브 주소가 5 인 인버터의 입력 단자 기능 상태를 1 에서 6으로 변경합니다.

입력 단자의 상태는 아래와 같습니다.

Input terminal No.	1	2	3	4	5	6
Coil No.	7	8	9	10	11	12
Terminal state	ON	ON	ON	OFF	ON	OFF

Query

	Field Name	Example (HEX)
1	Slave address *1)	05
2	Function code	0F
3	Coil starting No. (high) *2)	00
4	Coil starting No. (low) *2)	06
5	Number of coils (high)	00
6	Number of coils (low)	06
7	Bytes *3)	02
8	Data to be changed (high) *3)	17
9	Data to be changed (low) *3)	00
10	CRC-16 (high)	DB
11	CRC-16 (low)	3E

Response

	Field Name	Example (HEX)
1	Slave address	05
2	Function code	0F
3	Coil starting No. (high)	00
4	Coil starting No. (low)	06
5	Number of coils (high)	00
6	Number of coils (low)	06
7	CRC-16 (high)	34
8	CRC-16 (low)	4C



- * 1) 방송이 수행되면 응답이 반환되지 않습니다.
- * 2) 시작 번호의 값은 번호보다 하나 작습니다.
- * 3) 변경해야 할 바이트 수가 홀수 인 경우에도 변경할 데이터가 상위 바이트와 하위 바이트로 구성되므로 숫자에 1을 더해줍니다.



- 멀티플 코일에 쓰기가 정상적으로 실행될 수없는 경우 "3.9 예외적 인 응답"을 참조하십시오.

14.4.7 멀티플 레지스터에 기록하기 [10h]

- 연속 멀티플 레지스터를 다시 작성하십시오.

(예)

슬레이브 어드레스가 1 ~ 3000 초인 인버터의 가속 시간 [FA-10]을 설정합니다.

- 가속 시간 [FA-10]의 보존 레지스터 "2B02h, 2B03h"의 데이터 분해능은 0.01 초이므로 3000 초를 설정하려면 변경할 데이터를 "300,000 (493E0h)"으로 설정하십시오.

Query

	Field Name	Example (HEX)
1	Slave address *1)	01
2	Function code	10
3	Starting address (high) *2)	2B
4	Starting address (low) *2)	01
5	The number of retention registers (high)	00
6	The number of retention registers (low)	02
7	Bytes *3)	04
8	Data to be changed 1 (high)	00
9	Data to be changed 1 (low)	04
10	Data to be changed 2 (high)	93
11	Data to be changed 2 (low)	E0
12	CRC-16 (high)	9E
13	CRC-16 (low)	9F

Response

	Field Name	Example (HEX)
1	Slave address	01
2	Function code	10
3	Starting address (high)	2B
4	Starting address (low)	01
5	The number of retention registers (high)	00
6	The number of retention registers (low)	02
7	CRC-16 (high)	E5
8	CRC-16 (low)	34

!

- * 1) 방송이 수행되면 응답이 반환되지 않습니다.
- * 2) 시작 주소의 값은 실제 주소보다 하나 작습니다.
- * 3) 홀딩 레지스터 수 대신 실제로 변경 될 바이트 수를 지정하십시오.

A

- 여러 개의 코일에 쓰기가 정상적으로 수행 될 수없는 경우 "14.3.9 예외적 인 응답"을 참조하십시오.

14.4.8 멀티플 레지스터 기록 및 읽기

[17h]

- 연속 멀티플 레지스터에 기록하고 읽습니다.

(예) 슬레이브 어드레스가 "1"인 인버터에 출력 주파수 설정 [FA-01]에 50.00Hz를 쓰고 출력 주파수 모니터 값 [dA-01]을 읽습니다.

Query:

No.	Field Name	Example (Hex)
1	Slave address	01
2	Function code	17
3	Readout register starting address (high) *1)	27
4	Readout register starting address (low) *1)	10
5	The number of readout registers (high)	00
6	The number of readout registers (low)	02
7	Writing register starting address (high) *1)	2A
8	Writing register starting address (low) *1)	F8
9	The number of writing registers (high)	00
10	The number of writing registers (low)	02
11	Writing data bytes n	04
12	Writing data 1 (high)	00
13	Writing data 1 (low)	00
14	Writing data 2 (high)	13
15	Writing data 2 (low)	88
16	CRC-16 (high)	F4
17	CRC-16 (low)	86

(Register address) = (register No.) - 1

(Register address) = (register No.) - 1

0000 1388h → 5000d → 50.00Hz

Response:

No.	Field Name	Example (Hex)
1	Slave address	01
2	Function code	17
3	Readout data bytes n	04
4	Readout data 1 (high)	00
5	Readout data 1 (low)	00
6	Readout data 2 (high)	13
7	Readout data 2 (low)	88
8	CRC-16 (high)	F4
9	CRC-16 (low)	71

0000 1388h → 5000d → 50.00Hz



* 1) 홀딩 레지스터의 시작 어드레스는 레지스터 번호보다 1 작습니다.
레지스터 번호에서 1을 뺀 값이 레지스터 어드레스입니다.



- 멀티플 레지스터에 대한 쓰기 및 읽기가 정상적으로 수행 될 수 없는 경우 "3.9 예외적 인 응답"을 참조하십시오.

14.4.9 예외적인 반응

- 마스터 인버터는 방충이 아닌 질의에 대한 응답이 필요합니다.
- 인버터는 쿼리에 해당하는 응답을 반환해야하지만 쿼리에 오류가있는 경우 인버터는 예외적인 응답을 반환합니다.
- 필드 구성의 세부 사항을 보여줍니다. 함수 코드의 값은 예외적인 응답을받는 쿼리에 80h를 더함으로써 얻어진다. 예외 코드는 예외적인 응답 요소를 나타냅니다.

Function code

Query	Exception Response
01h	81h
03h	83h
05h	85h
06h	86h
0Fh	8Fh
10h	90h
17h	97h

- 예외 응답의 필드 구성은 다음과 같습니다.

Field composition

Slave address
Function code
Exception code
CRC-16

Exception code

Code	Description
01h	지원되지 않는 함수가 지정되었습니다.
02h	지정된 주소가 존재하지 않습니다.
03h	지정한 데이터가 받아 들일 수 없는 형식입니다.
21h	홀딩 레지스터에 기록 할 때 데이터는 인버터 범위를 벗어납니다.
22h	인버터가 다음과 같이 기능이 실행되는 것을 허용하지 않는 상태입니다 : <ul style="list-style-type: none"> • 실행 중에 변경이 금지 된 레지스터가 곧 변경 될 것입니다. • 소프트웨어 랙이 적용된 레지스터에 데이터가 기록되었습니다. • 실행 중에 ENTER 명령이 실행되었습니다. • 부족 명령 중에 ENTER 명령이 실행되었습니다. • 자동 튜닝이 가능할 때 데이터가 레지스터에 기록 될 예정이었습니다.
23h	쓰기를위한 함수 코드는 판독을 위해 특수화 된 매개 변수에 사용되었습니다.
26h	데이터 쓰기 또는 데이터 초기화 실행 중에 데이터가 기록되었습니다.
27h	2 레지스터 long 매개 변수의 상위 쪽 레지스터에만 액세스했습니다.

14.4.10 홀딩 레지스터에 생긴 변경 사항 저장

- 홀딩 레지스터 (06h)에 대한 쓰기 명령이 실행 되더라도 인버터는 변경된 데이터를 저장하지 않습니다. 복수의 레지스터 (10h)에 대한 기록 커맨드가 사용됩니다.
- 데이터를 기록하지 않고 인버터의 전원을 차단하면 데이터가 홀딩 레지스터가 변경되기 전의 상태로 복원됩니다.

■ ENTER명령 발행 방법

- 홀딩 레지스터 (06h)에 대한 쓰기 명령을 사용하여 1이 홀딩 레지스터 (9000 (DEC))에 기록 될 때 전체 메모리 쓰기가 수행됩니다.

Cautions

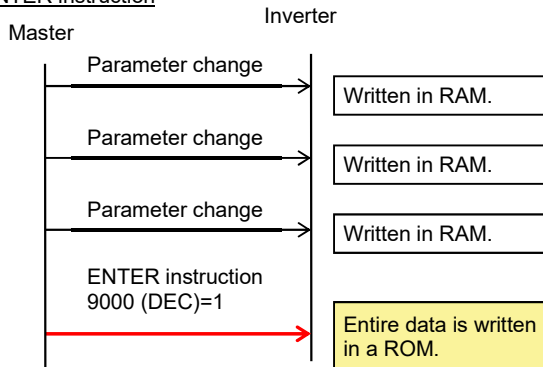
- ENTER 명령에 의한 데이터 쓰기 중 전원을 끄지 마십시오. 전원을 끄면 데이터가 제대로 저장되지 않습니다. 데이터 집음 중에 신호 (코일 No. 0049h)를 모니터링하여 데이터의 기록 여부를 결정하십시오.
- ENTER 명령을 자주 사용하면 인버터의 메모리 요소에 재기록 횟수 제한이 있기 때문에 컨버터의 수명이 단축될 수 있습니다. ENTER 명령의 사용은 최소화해야 하며, 특히 이 명령의 주기적 발행 및 / 또는 연속 발급은 완전히 피해야 합니다.

- 홀딩 레지스터에 대한 변경 사항을 인버터에 저장하려면 아래 표시된 절차에서 ENTER 명령어를 실행해야 합니다.
- 모터 상수와 같은 제어 상수를 변경하려면 ENTER 명령을 사용하고 제어 처리 내부 변수를 다시 계산해야 합니다.

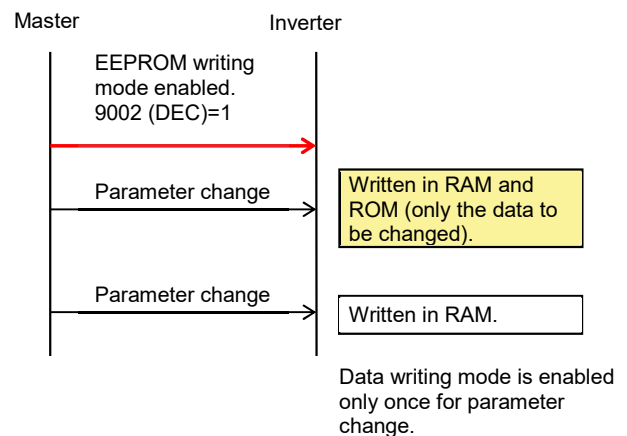
■ 데이터 기록 모드

- 홀딩 레지스터 (06h)에 대한 쓰기 명령을 사용하여 1이 홀딩 레지스터 (9002 (DEC))에 기록 될 때 인버터는 데이터 기록 모드로 들어갑니다.
- 인버터가 데이터 쓰기 모드로 들어간 후 쓰기 명령에 의해 홀딩 레지스터 (06h)로 변경된 데이터는 일시 저장에 위한 RAM 영역과 전원이 꺼진 경우 스토리 용 ROM 영역에 모두 기록됩니다. 그런 다음 동시에 데이터 쓰기 모드가 해제됩니다.
- 인버터가 데이터 쓰기 모드로 진입 한 후 홀딩 레지스터 (06h)에 쓰기 명령 이외의 명령을 수신하면 데이터 쓰기 모드가 해제됩니다.
- 데이터 쓰기 모드를 자주 사용하면 인버터의 메모리 요소에 재기록 횟수 제한이 있기 때문에 컨버터의 수명이 단축될 수 있습니다. 데이터 쓰기 모드의 사용은 최소화되어야 하며, 특히 이 모드의 주기적 발행 및 / 또는 연속 발행은 완전히 피해야 합니다.

ENTER instruction



Data writing mode



■ 제어 처리 내부 변수의 재 계산

- 홀딩 레지스터 (06h)에 대한 쓰기 명령을 사용하여 1이 보유 홀딩 레지스터 (9010 (DEC))에 기록 될 때 제어 처리 내부 변수의 재 계산이 수행됩니다.

14.5 EzCOM 기능

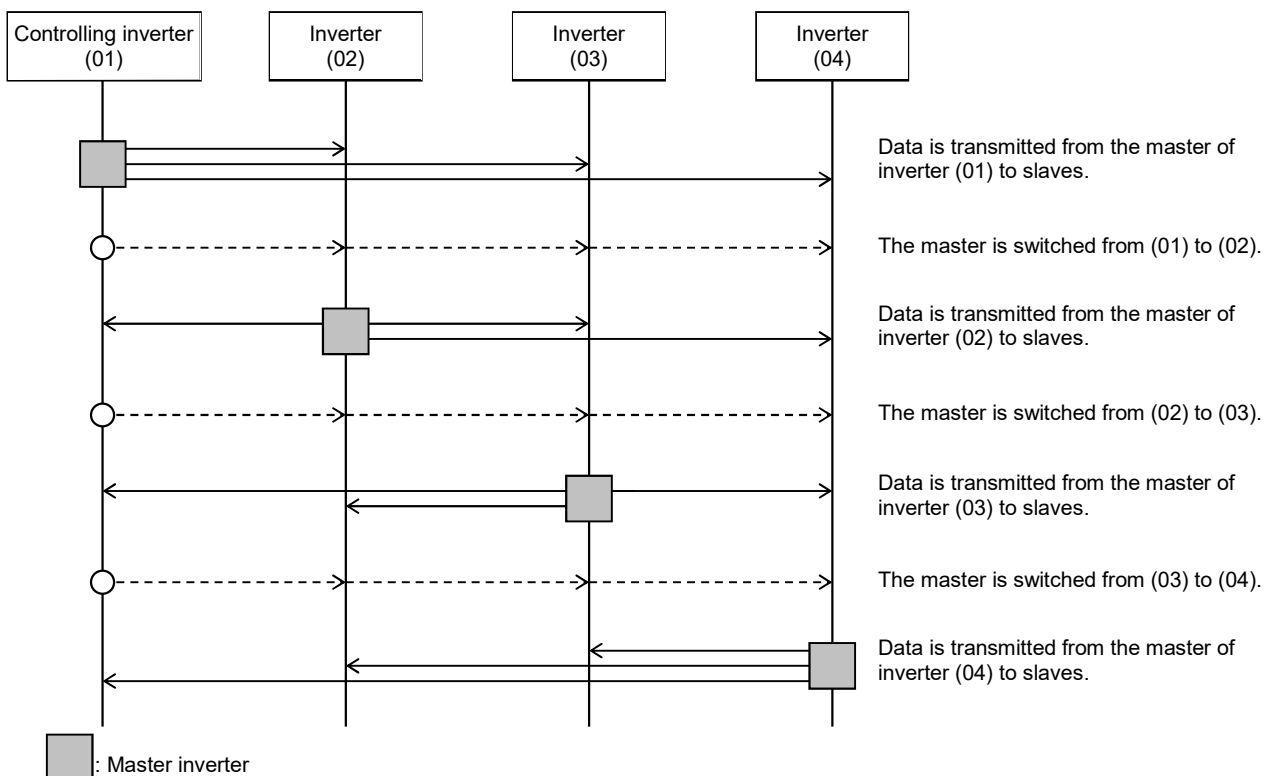
14.5.1 What is EzCOM?

Q

• EzCOM이란?

A

- EzCOM은 일반적인 Modbus-RTU 통신 (슬레이브) 을 제외하고 여러 인버터가 PC 및 PLC와 같은 마스터 인버터없이 서로 통신 할 수있게하는 기능입니다.
- EzCOM 네트워크 내의 인버터 롤은 다음 위치에 할당됩니다.
 - "인버터 제어"
 - "마스터 인버터"
 - "슬레이브 인버터"
- EzCOM 네트워크에서 "제어 인버터"는 네트워크 내의 인버터를 "마스터 인버터"로 지정하고 "마스터 인버터"는 명령을 순차적으로 제공합니다.
- 일반적인 Modbus 통신 (RS-485)과 마찬가지로 EzCOM 통신에 사용되는 각 인버터의 SP 및 SN 단자를 연결하십시오.
- 마스터 인버터는 5 개의 다른 명령을 임의의 슬레이브 인버터의 홀딩 레지스터에 쓸 수 있습니다.
- 일단 마스터와 슬레이브 사이의 데이터 전송이 완료되면 제어 인버터는 마스터 인버터를 순차적으로 시프트시키고 각 마스터 인버터의 설정에 따라 데이터 전송을 반복합니다.
- "인버터 제어"는 항상 고정되는 반면 "마스터 인버터"는 순차적으로 시프트됩니다. 이러한 이유로 "제어 인버터"는 "마스터 인버터"또는 "슬레이브 인버터"가 될 수 있습니다.
- 최대 8 대의 인버터를 "마스터 인버터"로 사용할 수 있습니다.



14.5.2 EzCOM Settings

- EzCOM 네트워크의 각 인버터에 [CF-02]의 스테이션 번호를 설정하여 스테이션 번호가 겹치지 않도록 하십시오. 그렇게하는 동안, 스테이션 번호 01을 지정하십시오. 스테이션 번호 01의 인버터가 "제어 인버터"가됩니다.
- 제어용 인버터의 통신 선택을 EzCOM 통신의 "제어용 인버터"[CF-09] = 02로 설정합니다. 다른 인버터의 통신 선택을 EzCOM 통신 [CF-09] = 01로 설정하십시오.
- EzCOM 통신 시작 방법 [CF-22]을 제어 인버터로 설정하십시오. 입력 단자 시작 [CF-22] = 00을 선택한 경우 098 [485 : EzCOM start]를 입력 단자 1 - 9, A 또는 B 중 하나에 할당하십시오.
- 마스터 인버터는 마스터 인버터가 데이터를 쓰는 데 필요한 송신 데이터 수, 송신 지국 번호, 송신처 레지스터 및 송신원 레지스터를 설정합니다 (다음 표 참조).

Item	Parameter	Data	Set-up Destination	Description
Communication station number selection *1)	[CF-02]	1~247	ALL	Station number setting
Communication error operation selection	[CF-06]	00	ALL	Trip
		01	ALL	Trips after decelerating and stopping
		02	ALL	Ignore
		03	ALL	Free-run
		04	ALL	Deceleration stop
Communication timeout time	[CF-07]	0.00	ALL	Communication timeout disabled
		0.01~100.00	ALL	Unit [s]
Communication waiting time	[CF-08]	0.~1000.	ALL	Unit [ms]
Communication selection	[CF-09]	00	—	Modbus-RTU communication
		01	B	EzCOM communication
		02	A	EzCOM communication <controlling inverter>
EzCOM master start station number *2)	[CF-20]	01~08	A	Setting required for controlling inverter only.
EzCOM master end station number *2)	[CF-21]	01~08	A	Setting required for controlling inverter only.
EzCOM start selection	[CF-22]	00	A	Start-up by input terminal
		01	A	Always communication
Input terminal 1 to 9, A or B selection	[CA-01]~[CA-11]	098	A	[ECOM]: Starting up of EzCOM

■ 설정 대상

ALL : EzCOM에 사용되는 모든 인버터로 설정합니다.

A: 제어 할 인버터 (국번 01)로 설정하십시오.

B: 제어용 인버터 이외의 인버터 (국번 01)로 설정합니다.

* 1) 복수의 마스터 인버터를 준비 할 경우에는 연속되는 국번 (01, 02, 03, ...)을 설정하십시오. 번호가 연속적이지 않으면 인버터가 통신을 수행 할 수 없습니다.

* 2) 마스터 시작 / 끝 스테이션 번호 설정 사이의 관계는 $[CF-20] \leq [CF-21]$ 이어야합니다.

■ 마스터 인버터 지정에 위한 명령 설정

Item	Parameter	Data	Set-up Destination	Description
Number of EzCOM transmitting data	[CF-23]	01~05	M	Sets how many of the registers 1 to 5 shown below need to be transferred in EzCOM communication.
EzCOM transmission destination station number 1	[CF-24]	1~247	M	Station number for transmission destination 1.
EzCOM transmission destination register *3)	[CF-25]	0000h~FFFFh	M	Sets the high-order register of transmission destination 1.
EzCOM transmission source 1 register *3)	[CF-26]	0000h~FFFFh	M	Sets the low-order register of transmission destination 1.
EzCOM transmission destination station number 2	[CF-27]	1~247	M	Station number for transmission destination 2.
EzCOM transmission destination 2 register *3)	[CF-28]	0000h~FFFFh	M	Sets the high-order register of transmission destination 2.
EzCOM transmission source 2 register *3)	[CF-29]	0000h~FFFFh	M	Sets the low-order register of transmission destination 2.
EzCOM transmission destination station number 3	[CF-30]	1~247	M	Station number for transmission destination 3.
EzCOM transmission destination 3 register *3)	[CF-31]	0000h~FFFFh	M	Sets the high-order register of transmission destination 3.
EzCOM transmission source 3 register *3)	[CF-32]	0000h~FFFFh	M	Sets the low-order register of transmission destination 3.
EzCOM transmission destination station number 4	[CF-33]	1~247	M	Station number for transmission destination 4.
EzCOM transmission destination 4 register *3)	[CF-34]	0000h~FFFFh	M	Sets the high-order register of transmission destination 4.
EzCOM transmission source 4 register *3)	[CF-35]	0000h~FFFFh	M	Sets the low-order register of transmission destination 4.
EzCOM transmission destination station number 5	[CF-36]	1~247	M	Station number for transmission destination 5.
EzCOM transmission destination 5 register *3)	[CF-37]	0000h~FFFFh	M	Sets the high-order register of transmission destination 5.
EzCOM transmission source 5 register *3)	[CF-38]	0000h~FFFFh	M	Sets the low-order register of transmission destination 5.

■ Set-up destinations

M: [CF-20] 및 [CF-21] (= 마스터 인버터)에 지정된 국번을 가진 인버터에 설정을 수행하십시오.

* 3) 전송처 레지스터 및 전송원 레지스터는 레지스터 번호에서 1을 뺀 값을 지정하십시오. 레지스터 주소에 대한 자세한 내용은 뒷 표지에 표시된 당사 영업 담당자에게 문의하십시오.

14.5.3 EzCOM Operation



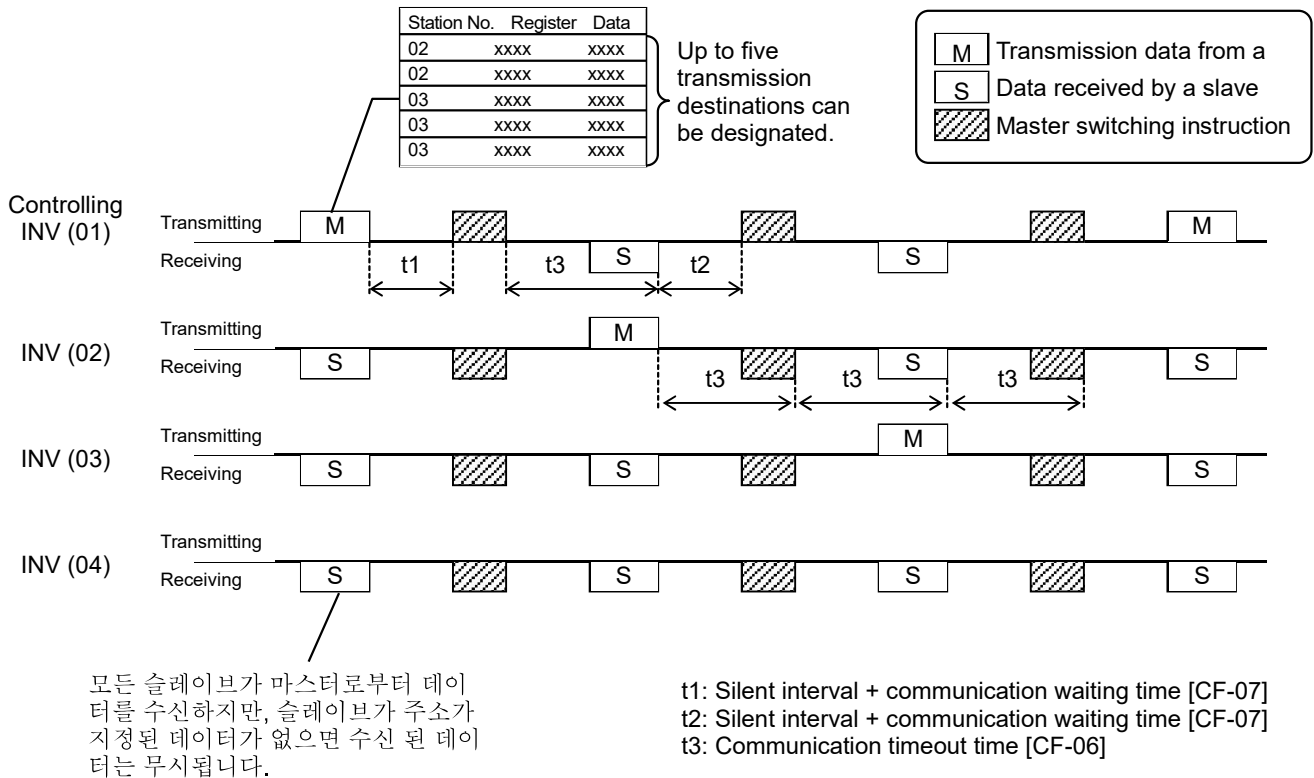
- (1) 마스터 인버터는 마스터 인버터의 설정에 따라 슬레이브 인버터에 데이터를 전송합니다.
- (2) 제어용 인버터가 마스터 전환 명령을 전송 한 후 마스터 인버터가 전환됩니다.
- (3) 다음 마스터 인버터는 (1)에서 설명한대로 슬레이브 인버터에 데이터를 전송합니다.
- (4) (2)와 (3)의 과정이 뒤 따르고 모든 과정이 마찬가지로 반복 될 것입니다.



- EzCOM 통신은 브로드 캐스트 통신에 의해 수행되기 때문에 모든 통신 데이터는 모든 스테이션으로 전송됩니다. 그 결과, 마스터 측에서 송신처로서 지정되어 있지 않은 슬레이브는 일단 데이터를 수신하지만, 그 어드레스가 아닌 데이터는 내부적으로 폐기합니다.

14.5.4 EzCOM 통신의 예

- 다음은 인버터 01 ~ 03을 마스터 인버터로 지정한 경우의 국번 01 ~ 04 (총 4 개의 인버터)의 인버터의 통신 시퀀스입니다.



- 제어 인버터의 통신 타임 아웃 시간 [CF-06]은 0 이외의 값을 설정하십시오 (1 초 이상 권장). 그렇지 않으면 EzCOM 기능은 통신이 타임 아웃되어 마스터 인버터의 데이터를 수신할 수 없을 때 중지됩니다. EzCOM 기능이 정지되면, 전원을 다시 켜거나 [RS] 단자로 리셋하여 제어 인버터를 리셋하십시오.
- 제어용 인버터가 마스터 인버터인 경우, 마스터 인버터가 데이터를 송신한 후 무음 간격 + 통신 대기 시간 [CF-07] (상기 t1)을 거친 후 마스터 전환 명령이 전송됩니다.

- 제어용 인버터 이외의 인버터가 마스터 인버터인 경우, 마스터 인버터로부터의 데이터를 수신한 후에 마스터 전환 명령을 송신한 후 무음 간격 + 통신 대기 시간 [CF-07] (상기 t2)을 송신합니다.
- 통신 타임 아웃 타이머는 수신 대기 시작부터 카운팅을 시작합니다. 설정된 시간 내에 데이터 수신이 완료되지 않으면 통신이 타임 아웃되고 (상기 t3) 통신 에러 선택 [CF-05]에 따라 인버터가 작동합니다.



- EzCOM 스타트 선택에서 연속 통신 [CF-22] = 01이 선택되면, 제어 인버터는 전원이 켜지 자마자 전송을 시작합니다. 다른 인버터가 늦게 켜지면 정상적인 통신을 수행 할 수 없으며 제어 인버터가 통신 시간 초과를 발생시킵니다. 항상 통신을 선택하는 경우 다른 인버터가 켜져 있는지 확인한 후 제어 인버터를 켜십시오.
- 송신 대상 레지스터에 08FFh (데이터 쓰기) 또는 0901h (데이터 쓰기 모드 선택)를 설정하지 마십시오.
- [CF-09]와 [CF-20] - [CF-22]의 설정을 변경하면 전원을 다시 켜거나 [RS] 단자를 사용하여 변경 사항을 반영 할 수 있습니다.

14.6 코일 및 통신레지스터 목록

14.6.1 레지스터 및 코일 설정 시 사전 정리

- 목록에 표시된 R 또는 W는 코일 또는 유지 레지스터가 읽기 또는 쓰기에 사용될 수 있는지 여부를 나타냅니다.
R: only readout
W: only writing
RW: both readout and writing
- 목록의 "코일 No. (10 진수)" 또는 "기능 코드" 열에 있는 개요 문자는 Ver. 2.00. Ver.1.xx의 매개 변수에 액세스하지 마십시오.
- 설정 범위의 상세한 내용은 "12 장 인버터 기능"을, 모니터의 상세한 내용은 "13 장 모니터 기능"을 참조하십시오. 또한 버전에 따라 모니터 및 / 또는 설정 범위가 달라지는 일부 매개 변수가 있습니다.
- 목록에 표시된 설정 범위는 [CF-11] 레지스터 데이터 선택 (A, V % 변환 기능)이 "00 : (A, V)"로 설정된 조건의 값입니다.
매개 변수 선택으로 설정된 위치
"01 : (%)" , 전류 / 전압 관련 파라미터의 모니터 및 설정 범위는 정격 값에 대한 백분율로 표시됩니다.
- 아래 표에 나와있는 것처럼 레지스터 번호와 데이터 형식이 Ver.1.xx에서 변경되었습니다.

① Frequency command (after calculation)

Ver.1.xx				Ver.2.00			
Function Code	Register No. (decimal)	Register No. (hexadecimal)	Monitor content	Function Code	Register No. (decimal)	Register No. (hexadecimal)	Monitor content
dA-04	10004	2714h	0 ~ 59000 (w/o sign)	dA-04 (dA-05)	10004 (high)	2714h (high)	-59000 ~ 59000 (with sign)
					10005 (low)	2715h (low)	

② RS485 Set frequency

Ver.1.xx				Ver.2.00			
Function Code	Register No. (decimal)	Register No. (hexadecimal)	Monitor content	Function Code	Register No. (decimal)	Register No. (hexadecimal)	Monitor content
-	10502 (high)	2906h (high)	0 ~ 59000 (with sign)	Not changed			-59000 ~ 59000 (with sign)
-	10503 (low)	2907h (low)					

③ Auxiliary speed command (monitor + setting)

Ver.1.xx				Ver.2.00			
Function Code	Register No. (decimal)	Register No. (hexadecimal)	Monitor content	Function Code	Register No. (decimal)	Register No. (hexadecimal)	Monitor content
FA-02	11002	2AFAh	0 ~ 59000 (w/o sign)	FA-02 (FA-03)	11002 (high)	2AFAh (high)	-59000 to +59000 (monitor)
					11003 (low)	2AFBh (low)	0 to 59000 (setting) (with sign)

14.6.2 코일 번호 목록

Coil No. (decimal)	Coil No. (hexadecimal)	Item name	R/W	Setting description
0	0000h	(Reserved)		
1	0001h	Operation command	R/W	1: Run / 0: Stop (enabled when AA111/AA211=03)
2	0002h	Rotation direction command	R/W	1: Reverse / 0: Normal (enabled when AA111/AA211=03)
3	0003h	External trip [EXT]	R/W	1: Trip / 0: Not trip
4	0004h	Trip reset [RS]	R/W	1: Reset / 0: Not reset
5	0005h	Input terminal 1	R/W	1: ON/0: OFF
6	0006h	Input terminal 2	R/W	1: ON/0: OFF
7	0007h	Input terminal 3	R/W	1: ON/0: OFF
8	0008h	Input terminal 4	R/W	1: ON/0: OFF
9	0009h	Input terminal 5	R/W	1: ON/0: OFF
10	000Ah	Input terminal 6	R/W	1: ON/0: OFF
11	000Bh	Input terminal 7	R/W	1: ON/0: OFF
12	000Ch	Input terminal 8	R/W	1: ON/0: OFF
13	000Dh	Input terminal 9	R/W	1: ON/0: OFF
14	000Eh	Input terminal A	R/W	1: ON/0: OFF
15	000Fh	Input terminal B	R/W	1: ON/0: OFF
16	0010h	(Reserved)		
~	~	(Reserved)		
20	0014h	(Reserved)		
21	0015h	Operating status	R	1: Rotating in normal direction, rotating in reverse direction / 0: Other than rotating in normal/reverse rotation (linked with dA-03)
22	0016h	Rotation direction	R	1: Rotating in reverse direction / 0: Rotating in normal direction (linked with dA-03)
23	0017h	Inverter operation ready completion	R	1: Ready / 0: Not ready
24	0018h	(Reserved)		
25	0019h	Output terminal 11	R	1: ON/0: OFF
26	001Ah	Output terminal 12	R	1: ON/0: OFF
27	001Bh	Output terminal 13	R	1: ON/0: OFF
28	001Ch	Output terminal 14	R	1: ON/0: OFF
29	001Dh	Output terminal 15	R	1: ON/0: OFF
30	001Eh	Output terminal 16	R	1: ON/0: OFF
31	001Fh	Output terminal AL	R	1: ON/0: OFF
32	0020h	(Reserved)		
~	~			
72	0048h	(Reserved)		
73	0049h	Data being written	R	1: Being written / 0: Normal state
74	004Ah	CRC error	R	1: With error / 0: No error
75	004Bh	Overrun error	R	1: With error / 0: No error
76	004Ch	Framing error	R	1: With error / 0: No error
77	004Dh	Parity error	R	1: With error / 0: No error
78	004Eh	Sum check error	R	1: With error / 0: No error
79~	004Fh~	(Reserved)		

14.6.3 홀딩 레지스터 번호 목록

(Monitor (Code-d))

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
dA-01	10001	2711h	Output frequency monitor	R	0 ~ 59000	0.01Hz
dA-02	10002	2712h	Output current monitor	R	0 ~ 65535	0.01A
dA-03	10003	2713h	Operation direction monitor	R	0 ~ 3	1
dA-04	10004	2714h	Frequency command (after calculation) (High)	R	-59000 ~ 59000 (Register No. and monitor range are not the same with Ver1.xx.)	0.01Hz
(dA-05)	10005	2715h	(Low)			
dA-06	10006	2716h	Output frequency conversion monitor (High)	R	0 ~ 5900000	0.01
(dA-07)	10007	2717h	(Low)			
dA-08	10008	2718h	Speed detection value monitor (High)	R	-59000 ~ 59000	0.01Hz
(dA-09)	10009	2719h	(Low)			
dA-12	10012	271Ch	Output frequency monitor (with sign) (High)	R	-59000 ~ 59000	0.01Hz
(dA-13)	10013	271Dh	(Low)			
dA-14	10014	271Eh	Frequency upper limit monitor	R	0 ~ 59000	0.01Hz
dA-15	10015	271Fh	Torque command monitor (after calculation)	R	-10000 ~ 10000	0.1%
dA-16	10016	2720h	Torque limit monitor	R	0 ~ 5000	0.1%
dA-17	10017	2721h	Output torque monitor	R	-10000 ~ 10000	0.1%
dA-18	10018	2722h	Output voltage monitor	R	0 ~ 8000	0.1V
dA-20	10020	2724h	Current position monitor (High)	R	-268435455 ~ 268435455 In high resolution mode: -1073741823 to 1073741823	1pls
(dA-21)	10021	2725h	(Low)			
dA-26	10026	272Ah	Pulse train position deviation monitor (High)	R	-2147483647 ~ 2147483647	1pls
(dA-27)	10027	272Bh	(Low)			
dA-28	10028	272Ch	Pulse counter monitor (High)	R	0 ~ 2147483647	1pls
(dA-29)	10029	272Dh	(Low)			
dA-30	10030	272Eh	Input power monitor	R	0 ~ 60000 (~132kW) 0~20000 (160kW~)	0.01kWh 0.1kWh
dA-32	10032	2730h	Integrated input power monitor (High)	R	0 ~ 10000000	0.1kWh
(dA-33)	10033	2731h	(Low)			
dA-34	10034	2732h	Output power monitor	R	0 ~ 60000 (~132kW) 0~20000 (160kW~)	0.01kWh 0.1kWh
dA-36	10036	2734h	Integrated output power monitor (High)	R	0 ~ 10000000	0.1kWh
(dA-37)	10037	2735h	(Low)			
dA-38	10038	2736h	Motor temperature monitor	R	-200 ~ 2000	0.1°C
dA-40	10040	2738h	DC voltage monitor	R	0 ~ 10000	0.1Vdc
dA-41	10041	2739h	BRD load factor monitor	R	0 ~ 10000	0.01%
dA-42	10042	273Ah	Electronic thermal load factor monitor (MTR)	R	0 ~ 10000	0.01%
dA-43	10043	273Bh	Electronic thermal load factor monitor (CTL)	R	0 ~ 10000	0.01%
dA-45	10045	273Dh	Safety STO monitor	R	0 ~ 7	1
dA-46	10046	273Eh	Safety option hardware monitor	R	0 ~ 0xFFFF	1
dA-47	10047	273Fh	Safety option function monitor	R	0 ~ 6	1
dA-50	10050	2742h	Terminal block option mounted state	R	0 ~ 15	1
dA-51	10051	2743h	Input terminal monitor	R	0 ~ 0xFFFF	1
dA-54	10054	2746h	Output terminal monitor	R	0 ~ 0xFF	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
dA-60	10060	274Ch	Analog I/O selection monitor	R	0 ~ 0xFF	1
dA-61	10061	274Dh	Analog input [Ai1] monitor	R	0 ~ 10000	0.01%
dA-62	10062	274Eh	Analog input [Ai2] monitor	R	0 ~ 10000	0.01%
dA-63	10063	274Fh	Analog input [Ai3] monitor	R	-10000 ~ 10000	0.01%
dA-64	10064	2750h	Extended analog input [Ai4] monitor	R	0 ~ 10000	0.01%
dA-65	10065	2751h	Extended analog input [Ai5] monitor	R	0 ~ 10000	0.01%
dA-66	10066	2752h	Extended analog input [Ai6] monitor	R	-10000 ~ 10000	0.01%
dA-70	10070	2756h	Pulse train input monitor (inverter)	R	-10000 ~ 10000	0.01%
dA-71	10071	2757h	Pulse train input monitor (option)	R	-10000 ~ 10000	0.01%
dA-81	10081	2761h	Option slot 1 mounted state	R	0 ~ 48	1
dA-82	10082	2762h	Option slot 2 mounted state	R	0 ~ 48	1
dA-83	10083	2763h	Option slot 3 mounted state	R	0 ~ 48	1
db-01	10101	2775h	Program download monitor	R	0 ~ 1	1
db-02	10102	2776h	Program No. monitor	R	0 ~ 9999	1
db-03	10103	2777h	Program counter (Task-1)	R	1 ~ 1024	1
db-04	10104	2778h	Program counter (Task-2)	R	1 ~ 1024	1
db-05	10105	2779h	Program counter (Task-3)	R	1 ~ 1024	1
db-06	10106	277Ah	Program counter (Task-4)	R	1 ~ 1024	1
db-07	10107	277Bh	Program counter (Task-5)	R	1 ~ 1024	1
db-08	10108	277Ch	User monitor 0 (High)	R	-2147483647 ~ 2147483647	1
(db-09)	10109	277Dh	(Low)			
db-10	10110	277Eh	User monitor 1 (High)	R	-2147483647 ~ 2147483647	1
(db-11)	10111	277Fh	(Low)			
db-12	10112	2780h	User monitor 2 (High)	R	-2147483647 ~ 2147483647	1
(db-13)	10113	2781h	(Low)			
db-14	10114	2782h	User monitor 3 (High)	R	-2147483647 ~ 2147483647	1
(db-15)	10115	2783h	(Low)			
db-16	10116	2784h	User monitor 4 (High)	R	-2147483647 ~ 2147483647	1
(db-17)	10117	2785h	(Low)			
db-18	10118	2786h	Analog output monitor YA0	R	0 ~ 10000	0.01%
db-19	10119	2787h	Analog output monitor YA1	R	0 ~ 10000	0.01%
db-20	10120	2788h	Analog output monitor YA2	R	0 ~ 10000	0.01%
db-21	10121	2789h	Analog output monitor YA3	R	0 ~ 10000	0.01%
db-22	10122	278Ah	Analog output monitor YA4	R	0 ~ 10000	0.01%
db-23	10123	278Bh	Analog output monitor YA5	R	0 ~ 10000	0.01%
db-30	10130	2792h	PID1 feedback data 1 monitor (High)	R	-10000 ~ 10000	Per AH-06 setting
(db-31)	10131	2793h	(Low)			
db-32	10132	2794h	PID1 feedback data 2 monitor (High)	R	-10000 ~ 10000	Per AH-06 setting
(db-33)	10133	2795h	(Low)			
db-34	10134	2796h	PID1 feedback data 3 monitor (High)	R	-10000 ~ 10000	Per AH-06 setting
(db-35)	10135	2797h	(Low)			
db-36	10136	2798h	PID2 feedback data monitor (High)	R	-10000 ~ 10000	Per AJ-06 setting
(db-37)	10137	2799h	(Low)			
db-38	10138	279Ah	PID3 feedback data monitor (High)	R	-10000 ~ 10000	Per AJ-26 setting
(db-39)	10139	279Bh	(Low)			
db-40	10140	279Ch	PID4 feedback data monitor (High)	R	-10000 ~ 10000	Per AJ-46 setting
(db-41)	10141	279Dh	(Low)			

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
db-42	10142	279Eh	PID1 target value monitor (after calculation) (High)	R	-10000 ~ 10000	Per AH-06 setting
(db-43)	10143	279Fh	(Low)			
db-44	10144	27A0h	PID1 feedback data monitor (after calculation) (High)	R	-10000 ~ 10000	Per AH-06 setting
(db-45)	10145	27A1h	(Low)			
db-50	10150	27A6h	PID1 output monitor	R	-10000 ~ 10000	0.01%
db-51	10151	27A7h	PID1 deviation monitor	R	-10000 ~ 10000	0.01%
db-52	10152	27A8h	PID1 deviation 1 monitor	R	-10000 ~ 10000	0.01%
db-53	10153	27A9h	PID1 deviation 2 monitor	R	-10000 ~ 10000	0.01%
db-54	10154	27AAh	PID1 deviation 3 monitor	R	-10000 ~ 10000	0.01%
db-55	10155	27ABh	PID2 output monitor	R	-10000 ~ 10000	0.01%
db-56	10156	27ACH	PID2 deviation monitor	R	-10000 ~ 10000	0.01%
db-57	10157	27ADh	PID3 output monitor	R	-10000 ~ 10000	0.01%
db-58	10158	27AEh	PID3 deviation monitor	R	-10000 ~ 10000	0.01%
db-59	10159	27AFh	PID4 output monitor	R	-10000 ~ 10000	0.01%
db-60	10160	27B0h	PID4 deviation monitor	R	-10000 ~ 10000	0.01%
db-61	10161	27B1h	PID current P gain monitor	R	0 ~ 1000	0.1 x
db-62	10162	27B2h	PID current I gain monitor	R	0 ~ 36000	0.1s
db-63	10163	27B3h	PID current D gain monitor	R	0 ~ 10000	0.01s
db-64	10164	27B4h	PID feed forward monitor	R	0 ~ 10000	0.01%
dC-01	10201	27D9h	Inverter load type selection monitor	R	0 ~ 2	1
dC-02	10202	27DAh	Rated current monitor	R	0 ~ 65535	0.1A
dC-07	10207	27DFh	Speed command destination monitor (main)	R	0 ~ 34	1
dC-08	10208	27E0h	Speed command destination monitor (auxiliary)	R	0 ~ 34	1
dC-10	10210	27E2h	Operation command destination monitor	R	0 ~ 6	1
dC-15	10215	27E7h	Cooling fin temperature monitor	R	-200 ~ 2000	0.1°C
dC-16	10216	27E8h	Life diagnostic monitor	R	0 ~ 0xFF	1
dC-20	10220	27ECh	Total start-up count	R	1 ~ 65535	1
dC-21	10221	27EDh	Power-on count	R	1 ~ 65535	1
dC-22	10222	27EEh	Cumulative operating hours monitor during RUN (High)	R	0 ~ 1000000	1hr
(dC-23)	10223	27EFh	(Low)			
dC-24	10224	27F0h	Cumulative power-on time (High)	R	0 ~ 1000000	1hr
(dC-25)	10225	27F1h	(Low)			
dC-26	10226	27F2h	Cumulative operating time of cooling fan (High)	R	0 ~ 1000000	1hr
(dC-27)	10227	27F3h	(Low)			
dC-37	10237	27FDh	Detailed monitor for icon 2 LIM	R	0 ~ 6	1
dC-38	10238	27FEh	Detailed monitor for icon 2 LIM	R	0 ~ 4	1
dC-39	10239	27FFh	Detailed monitor for icon 2 RETRY	R	0 ~ 2	1
dC-40	10240	2800h	Detailed monitor for icon 2 NRDY	R	0 ~ 9	1
dC-45	10245	2805h	IM/SM monitor	R	0 ~ 1	1
dC-50	10250	280Ah	Firmware Ver. monitor	R	0 ~ 0xFFFF Higher 1 byte: Major Lower 1 byte: Minor 1	1
dC-53	10253	280Dh	Firmware Gr. monitor	R	0 ~ 1	1

(Trip monitor)

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
Trip monitor (dE-01)	1000	03E8h	Trip count monitor	R	0 ~ 65535	1
Trip monitor (dE-11)	1001	03E9h	Trip monitor 1 Factor	R	1 ~ 255	1
	1002	03EAh	Trip monitor 1 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1003	03EBh	(with sign) (Low)			
	1004	03ECh	Trip monitor 1 Output current	R	0 ~ 65535	0.01A
	1005	03EDh	Trip monitor 1 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1006	03EEh	Trip monitor 1 Inverter state	R	0 ~ 8	1
	1007	03EFh	Trip monitor 1 LAD state	R	0 ~ 5	1
	1008	03F0h	Trip monitor 1 INV control mode	R	0 ~ 11	1
	1009	03F1h	Trip monitor 1 Limit state	R	0 ~ 6	1
	1010	03F2h	Trip monitor 1 Special state	R	0 ~ 6	1
	1012	03F4h	Trip monitor 1 RUN time (High)	R	0 ~ 1000000	1hr
	1013	03F5h	(Low)			
	1014	03F6h	Trip monitor 1 Power ON time (High)	R	0 ~ 1000000	1hr
	1015	03F7h	(Low)			
	1016	03F8h	Trip monitor 1 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1017	03F9h	Trip monitor 1 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1018	03FAh	Trip monitor 1 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1
Trip monitor (dE-12)	1021	03FDh	Trip monitor 2 Factor	R	1 ~ 255	1
	1022	03FEh	Trip monitor 2 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1023	03FFh	(with sign) (Low)			
	1024	0400h	Trip monitor 2 Output current	R	0 ~ 65535	0.01A
	1025	0401h	Trip monitor 2 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1026	0402h	Trip monitor 2 Inverter state	R	0 ~ 8	1
	1027	0403h	Trip monitor 2 LAD state	R	0 ~ 5	1
	1028	0404h	Trip monitor 2 INV control mode	R	0 ~ 11	1
	1029	0405h	Trip monitor 2 Limit state	R	0 ~ 6	1
	1030	0406h	Trip monitor 2 Special state	R	0 ~ 6	1
	1032	0408h	Trip monitor 2 RUN time (High)	R	0 ~ 1000000	1hr
	1033	0409h	(Low)			
	1034	040Ah	Trip monitor 2 Power ON time (High)	R	0 ~ 1000000	1hr
	1035	040Bh	(Low)			
	1036	040Ch	Trip monitor 2 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1037	040Dh	Trip monitor 2 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1038	040Eh	Trip monitor 2 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
Trip monitor (dE-13)	1041	0411h	Trip monitor 3 Factor	R	1 ~ 255	1
	1042	0412h	Trip monitor 3 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1043	0413h	(with sign) (Low)			
	1044	0414h	Trip monitor 3 Output current	R	0 ~ 65535	0.01A
	1045	0415h	Trip monitor 3 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1046	0416h	Trip monitor 3 Inverter state	R	0 ~ 8	1
	1047	0417h	Trip monitor 3 LAD state	R	0 ~ 5	1
	1048	0418h	Trip monitor 3 INV control mode	R	0 ~ 11	1
	1049	0419h	Trip monitor 3 Limit state	R	0 ~ 6	1
	1050	041Ah	Trip monitor 3 Special state	R	0 ~ 6	1
	1052	041Ch	Trip monitor 3 RUN time (High)	R	0 ~ 1000000	1hr
	1053	041Dh	(Low)			
	1054	041Eh	Trip monitor 3 Power ON time (High)	R	0 ~ 1000000	1hr
	1055	041Fh	(Low)			
	1056	0420h	Trip monitor 3 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
Trip monitor (dE-14)	1057	0421h	Trip monitor 3 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1058	0422h	Trip monitor 3 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1
	1061	0425h	Trip monitor 4 Factor	R	1 ~ 255	1
	1062	0426h	Trip monitor 4 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1063	0427h	(with sign) (Low)			
	1064	0428h	Trip monitor 4 Output current	R	0 ~ 65535	0.01A
	1065	0429h	Trip monitor 4 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1066	042Ah	Trip monitor 4 Inverter state	R	0 ~ 8	1
	1067	042Bh	Trip monitor 4 LAD state	R	0 ~ 5	1
	1068	042Ch	Trip monitor 4 INV control mode	R	0 ~ 11	1
	1069	042Dh	Trip monitor 4 Limit state	R	0 ~ 6	1
	1070	042Eh	Trip monitor 4 Special state	R	0 ~ 6	1
	1072	0430h	Trip monitor 4 RUN time (High)	R	0 ~ 1000000	1hr
	1073	0431h	(Low)			
	1074	0432h	Trip monitor 4 Power ON time (High)	R	0 ~ 1000000	1hr
	1075	0433h	(Low)			
	1076	0434h	Trip monitor 4 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1077	0435h	Trip monitor 4 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1078	0436h	Trip monitor 4 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
Trip monitor (dE-15)	1081	0439h	Trip monitor 5 Factor	R	1 ~ 255	1
	1082	043Ah	Trip monitor 5 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1083	043Bh	(with sign) (Low)			
	1084	043Ch	Trip monitor 5 Output current	R	0 ~ 65535	0.01A
	1085	043Dh	Trip monitor 5 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1086	043Eh	Trip monitor 5 Inverter state	R	0 ~ 8	1
	1087	043Fh	Trip monitor 5 LAD state	R	0 ~ 5	1
	1088	0440h	Trip monitor 5 INV control mode	R	0 ~ 11	1
	1089	0441h	Trip monitor 5 Limit state	R	0 ~ 6	1
	1090	0442h	Trip monitor 5 Special state	R	0 ~ 6	1
	1092	0444h	Trip monitor 5 RUN time (High)	R	0 ~ 1000000	1hr
	1093	0445h	(Low)			
	1094	0446h	Trip monitor 5 Power ON time (High)	R	0 ~ 1000000	1hr
	1095	0447h	(Low)			
	1096	0448h	Trip monitor 5 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
Trip monitor (dE-16)	1097	0449h	Trip monitor 5 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1098	044Ah	Trip monitor 5 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1
	1101	044Dh	Trip monitor 6 Factor	R	1 ~ 255	1
	1102	044Eh	Trip monitor 6 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1103	044Fh	(with sign) (Low)			
	1104	0450h	Trip monitor 6 Output current	R	0 ~ 65535	0.01A
	1105	0451h	Trip monitor 6 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1106	0452h	Trip monitor 6 Inverter state	R	0 ~ 8	1
	1107	0453h	Trip monitor 6 LAD state	R	0 ~ 5	1
	1108	0454h	Trip monitor 6 INV control mode	R	0 ~ 11	1
	1109	0455h	Trip monitor 6 Limit state	R	0 ~ 6	1
	1110	0456h	Trip monitor 6 Special state	R	0 ~ 6	1
	1112	0458h	Trip monitor 6 RUN time (High)	R	0 ~ 1000000	1hr
	1113	0459h	(Low)			
	1114	045Ah	Trip monitor 6 Power ON time (High)	R	0 ~ 1000000	1hr
	1115	045Bh	(Low)			
	1116	045Ch	Trip monitor 6 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1117	045Dh	Trip monitor 6 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1118	045Eh	Trip monitor 6 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
Trip monitor (dE-17)	1121	0461h	Trip monitor 7 Factor	R	1 ~ 255	1
	1122	0462h	Trip monitor 7 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1123	0463h	(with sign) (Low)			
	1124	0464h	Trip monitor 7 Output current	R	0 ~ 65535	0.01A
	1125	0465h	Trip monitor 7 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1126	0466h	Trip monitor 7 Inverter state	R	0 ~ 8	1
	1127	0467h	Trip monitor 7 LAD state	R	0 ~ 5	1
	1128	0468h	Trip monitor 7 INV control mode	R	0 ~ 11	1
	1129	0469h	Trip monitor 7 Limit state	R	0 ~ 6	1
	1130	046Ah	Trip monitor 7 Special state	R	0 ~ 6	1
	1132	046Ch	Trip monitor 7 RUN time (High)	R	0 ~ 1000000	1hr
	1133	046Dh	(Low)			
	1134	046Eh	Trip monitor 7 Power ON time (High)	R	0 ~ 1000000	1hr
	1135	046Fh	(Low)			
	1136	0470h	Trip monitor 7 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1137	0471h	Trip monitor 7 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1138	0472h	Trip monitor 7 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1
Trip monitor (dE-18)	1141	0475h	Trip monitor 8 Factor	R	1 ~ 255	1
	1142	0476h	Trip monitor 8 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1143	0477h	(with sign) (Low)			
	1144	0478h	Trip monitor 8 Output current	R	0 ~ 65535	0.01A
	1145	0479h	Trip monitor 8 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1146	047Ah	Trip monitor 8 Inverter state	R	0 ~ 8	1
	1147	047Bh	Trip monitor 8 LAD state	R	0 ~ 5	1
	1148	047Ch	Trip monitor 8 INV control mode	R	0 ~ 11	1
	1149	047Dh	Trip monitor 8 Limit state	R	0 ~ 6	1
	1150	047Eh	Trip monitor 8 Special state	R	0 ~ 6	1
	1152	0480h	Trip monitor 8 RUN time (High)	R	0 ~ 1000000	1hr
	1153	0481h	(Low)			
	1154	0482h	Trip monitor 8 Power ON time (High)	R	0 ~ 1000000	1hr
	1155	0483h	(Low)			
	1156	0484h	Trip monitor 8 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1157	0485h	Trip monitor 8 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1158	0486h	Trip monitor 8 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
Trip monitor (dE-19)	1161	0489h	Trip monitor 9 Factor	R	1 ~ 255	1
	1162	048Ah	Trip monitor 9 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1163	048Bh	(with sign) (Low)			
	1164	048Ch	Trip monitor 9 Output current	R	0 ~ 65535	0.01A
	1165	048Dh	Trip monitor 9 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1166	048Eh	Trip monitor 9 Inverter state	R	0 ~ 8	1
	1167	048Fh	Trip monitor 9 LAD state	R	0 ~ 5	1
	1168	0490h	Trip monitor 9 INV control mode	R	0 ~ 11	1
	1169	0491h	Trip monitor 9 Limit state	R	0 ~ 6	1
	1170	0492h	Trip monitor 9 Special state	R	0 ~ 6	1
	1172	0494h	Trip monitor 9 RUN time (High)	R	0 ~ 1000000	1hr
	1173	0495h	(Low)			
	1174	0496h	Trip monitor 9 Power ON time (High)	R	0 ~ 1000000	1hr
	1175	0497h	(Low)			
	1176	0498h	Trip monitor 9 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
Trip monitor (dE-20)	1177	0499h	Trip monitor 9 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1178	049Ah	Trip monitor 9 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1
	1181	049Dh	Trip monitor 10 Factor	R	1 ~ 255	1
	1182	049Eh	Trip monitor 10 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1183	049Fh	(with sign) (Low)			
	1184	04A0h	Trip monitor 10 Output current	R	0 ~ 65535	0.01A
	1185	04A1h	Trip monitor 10 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1186	04A2h	Trip monitor 10 Inverter state	R	0 ~ 8	1
	1187	04A3h	Trip monitor 10 LAD state	R	0 ~ 5	1
	1188	04A4h	Trip monitor 10 INV control mode	R	0 ~ 11	1
	1189	04A5h	Trip monitor 10 Limit state	R	0 ~ 6	1
	1190	04A6h	Trip monitor 10 Special state	R	0 ~ 6	1
	1192	04A8h	Trip monitor 10 RUN time (High)	R	0 ~ 1000000	1hr
	1193	04A9h	(Low)			
	1194	04AAh	Trip monitor 10 Power ON time (High)	R	0 ~ 1000000	1hr
	1195	04ABh	(Low)			
	1196	04ACh	Trip monitor 10 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1197	04ADh	Trip monitor 10 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1198	04AEh	Trip monitor 10 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1

(Retry monitor)

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
Retry monitor (dE-31)	1201	04B1h	Retry monitor 1 Factor	R	1 ~ 255	1
	1202	04B2h	Retry monitor 1 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1203	04B3h	(with sign) (Low)			
	1204	04B4h	Retry monitor 1 Output current	R	0 ~ 65535	0.01A
	1205	04B5h	Retry monitor 1 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1206	04B6h	Retry monitor 1 Inverter state	R	0 ~ 8	1
	1207	04B7h	Retry monitor 1 LAD state	R	0 ~ 5	1
	1208	04B8h	Retry monitor 1 INV control mode	R	0 ~ 11	1
	1209	04B9h	Retry monitor 1 Limit state	R	0 ~ 6	1
	1210	04BAh	Retry monitor 1 Special state	R	0 ~ 6	1
	1212	04BCh	Retry monitor 1 RUN time (High)	R	0 ~ 1000000	1hr
	1213	04BDh	(Low)			
	1214	04BEh	Retry monitor 1 Power ON time (High)	R	0 ~ 1000000	1hr
	1215	04BFh	(Low)			
	1216	04C0h	Retry monitor 1 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1217	04C1h	Retry monitor 1 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1218	04C2h	Retry monitor 1 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1
Retry monitor (dE-32)	1221	04C5h	Retry monitor 2 Factor	R	1 ~ 255	1
	1222	04C6h	Retry monitor 2 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1223	04C7h	(with sign) (Low)			
	1224	04C8h	Retry monitor 2 Output current	R	0 ~ 65535	0.01A
	1225	04C9h	Retry monitor 2 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1226	04CAh	Retry monitor 2 Inverter state	R	0 ~ 8	1
	1227	04CBh	Retry monitor 2 LAD state	R	0 ~ 5	1
	1228	04CCh	Retry monitor 2 INV control mode	R	0 ~ 11	1
	1229	04CDh	Retry monitor 2 Limit state	R	0 ~ 6	1
	1230	04CEh	Retry monitor 2 Special state	R	0 ~ 6	1
	1232	04D0h	Retry monitor 2 RUN time (High)	R	0 ~ 1000000	1hr
	1233	04D1h	(Low)			
	1234	04D2h	Retry monitor 2 Power ON time (High)	R	0 ~ 1000000	1hr
	1235	04D3h	(Low)			
	1236	04D4h	Retry monitor 2 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1237	04D5h	Retry monitor 2 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1238	04D6h	Retry monitor 2 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
Retry monitor (dE-33)	1241	04D9h	Retry monitor 3 Factor	R	1 ~ 255	1
	1242	04DAh	Retry monitor 3 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1243	04DBh	(with sign) (Low)			
	1244	04DCh	Retry monitor 3 Output current	R	0 ~ 65535	0.01A
	1245	04DDh	Retry monitor 3 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1246	04DEh	Retry monitor 3 Inverter state	R	0 ~ 8	1
	1247	04DFh	Retry monitor 3 LAD state	R	0 ~ 5	1
	1248	04E0h	Retry monitor 3 INV control mode	R	0 ~ 11	1
	1249	04E1h	Retry monitor 3 Limit state	R	0 ~ 6	1
	1250	04E2h	Retry monitor 3 Special state	R	0 ~ 6	1
	1252	04E4h	Retry monitor 3 RUN time (High)	R	0 ~ 1000000	1hr
	1253	04E5h	(Low)			
	1254	04E6h	Retry monitor 3 Power ON time (High)	R	0 ~ 1000000	1hr
	1255	04E7h	(Low)			
	1256	04E8h	Retry monitor 3 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1257	04E9h	Retry monitor 3 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1258	04EAh	Retry monitor 3 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1
Retry monitor (dE-34)	1261	04EDh	Retry monitor 4 Factor	R	1 ~ 255	1
	1262	04EEh	Retry monitor 4 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1263	04EFh	(with sign) (Low)			
	1264	04F0h	Retry monitor 4 Output current	R	0 ~ 65535	0.01A
	1265	04F1h	Retry monitor 4 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1266	04F2h	Retry monitor 4 Inverter state	R	0 ~ 8	1
	1267	04F3h	Retry monitor 4 LAD state	R	0 ~ 5	1
	1268	04F4h	Retry monitor 4 INV control mode	R	0 ~ 11	1
	1269	04F5h	Retry monitor 4 Limit state	R	0 ~ 6	1
	1270	04F6h	Retry monitor 4 Special state	R	0 ~ 6	1
	1272	04F8h	Retry monitor 4 RUN time (High)	R	0 ~ 1000000	1hr
	1273	04F9h	(Low)			
	1274	04FAh	Retry monitor 4 Power ON time (High)	R	0 ~ 1000000	1hr
	1275	04FBh	(Low)			
	1276	04FCh	Retry monitor 4 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1277	04FDh	Retry monitor 4 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1278	04FEh	Retry monitor 4 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
Retry monitor (dE-35)	1281	0501h	Retry monitor 5 Factor	R	1 ~ 255	1
	1282	0502h	Retry monitor 5 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1283	0503h	(with sign) (Low)			
	1284	0504h	Retry monitor 5 Output current	R	0 ~ 65535	0.01A
	1285	0505h	Retry monitor 5 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1286	0506h	Retry monitor 5 Inverter state	R	0 ~ 8	1
	1287	0507h	Retry monitor 5 LAD state	R	0 ~ 5	1
	1288	0508h	Retry monitor 5 INV control mode	R	0 ~ 11	1
	1289	0509h	Retry monitor 5 Limit state	R	0 ~ 6	1
	1290	050Ah	Retry monitor 5 Special state	R	0 ~ 6	1
	1292	050Ch	Retry monitor 5 RUN time (High)	R	0 ~ 1000000	1hr
	1293	050Dh	(Low)			
	1294	050Eh	Retry monitor 5 Power ON time (High)	R	0 ~ 1000000	1hr
	1295	050Fh	(Low)			
	1296	0510h	Retry monitor 5 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1297	0511h	Retry monitor 5 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1298	0512h	Retry monitor 5 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1
Retry monitor (dE-36)	1301	0515h	Retry monitor 6 Factor	R	1 ~ 255	1
	1302	0516h	Retry monitor 6 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1303	0517h	(with sign) (Low)			
	1304	0518h	Retry monitor 6 Output current	R	0 ~ 65535	0.01A
	1305	0519h	Retry monitor 6 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1306	051Ah	Retry monitor 6 Inverter state	R	0 ~ 8	1
	1307	051Bh	Retry monitor 6 LAD state	R	0 ~ 5	1
	1308	051Ch	Retry monitor 6 INV control mode	R	0 ~ 11	1
	1309	051Dh	Retry monitor 6 Limit state	R	0 ~ 6	1
	1310	051Eh	Retry monitor 6 Special state	R	0 ~ 6	1
	1312	0520h	Retry monitor 6 RUN time (High)	R	0 ~ 1000000	1hr
	1313	0521h	(Low)			
	1314	0522h	Retry monitor 6 Power ON time (High)	R	0 ~ 1000000	1hr
	1315	0523h	(Low)			
	1316	0524h	Retry monitor 6 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1317	0525h	Retry monitor 6 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1318	0526h	Retry monitor 6 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
Retry monitor (dE-37)	1321	0529h	Retry monitor 7 Factor	R	1 ~ 255	1
	1322	052Ah	Retry monitor 7 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1323	052Bh	(with sign) (Low)			
	1324	052Ch	Retry monitor 7 Output current	R	0 ~ 65535	0.01A
	1325	052Dh	Retry monitor 7 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1326	052Eh	Retry monitor 7 Inverter state	R	0 ~ 8	1
	1327	052Fh	Retry monitor 7 LAD state	R	0 ~ 5	1
	1328	0530h	Retry monitor 7 INV control mode	R	0 ~ 11	1
	1329	0531h	Retry monitor 7 Limit state	R	0 ~ 6	1
	1330	0532h	Retry monitor 7 Special state	R	0 ~ 6	1
	1332	0534h	Retry monitor 7 RUN time (High)	R	0 ~ 1000000	1hr
	1333	0535h	(Low)			
	1334	0536h	Retry monitor 7 Power ON time (High)	R	0 ~ 1000000	1hr
	1335	0537h	(Low)			
	1336	0538h	Retry monitor 7 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1337	0539h	Retry monitor 7 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1338	053Ah	Retry monitor 7 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1
Retry monitor (dE-38)	1341	053Dh	Retry monitor 8 Factor	R	1 ~ 255	1
	1342	053Eh	Retry monitor 8 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1343	053Fh	(with sign) (Low)			
	1344	0540h	Retry monitor 8 Output current	R	0 ~ 65535	0.01A
	1345	0541h	Retry monitor 8 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1346	0542h	Retry monitor 8 Inverter state	R	0 ~ 8	1
	1347	0543h	Retry monitor 8 LAD state	R	0 ~ 5	1
	1348	0544h	Retry monitor 8 INV control mode	R	0 ~ 11	1
	1349	0545h	Retry monitor 8 Limit state	R	0 ~ 6	1
	1350	0546h	Retry monitor 8 Special state	R	0 ~ 6	1
	1352	0548h	Retry monitor 8 RUN time (High)	R	0 ~ 1000000	1hr
	1353	0549h	(Low)			
	1354	054Ah	Retry monitor 8 Power ON time (High)	R	0 ~ 1000000	1hr
	1355	054Bh	(Low)			
	1356	054Ch	Retry monitor 8 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1357	054Dh	Retry monitor 8 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1358	054Eh	Retry monitor 8 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
Retry monitor (dE-39)	1361	0551h	Retry monitor 9 Factor	R	1 ~ 255	1
	1362	0552h	Retry monitor 9 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1363	0553h	(with sign) (Low)			
	1364	0554h	Retry monitor 9 Output current	R	0 ~ 65535	0.01A
	1365	0555h	Retry monitor 9 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1366	0556h	Retry monitor 9 Inverter state	R	0 ~ 8	1
	1367	0557h	Retry monitor 9 LAD state	R	0 ~ 5	1
	1368	0558h	Retry monitor 9 INV control mode	R	0 ~ 11	1
	1369	0559h	Retry monitor 9 Limit state	R	0 ~ 6	1
	1370	055Ah	Retry monitor 9 Special state	R	0 ~ 6	1
	1372	055Ch	Retry monitor 9 RUN time (High)	R	0 ~ 1000000	1hr
	1373	055Dh	(Low)			
	1374	055Eh	Retry monitor 9 Power ON time (High)	R	0 ~ 1000000	1hr
	1375	055Fh	(Low)			
	1376	0560h	Retry monitor 9 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1377	0561h	Retry monitor 9 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1378	0562h	Retry monitor 9 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1
Retry monitor (dE-40)	1381	0565h	Retry monitor 10 Factor	R	1 ~ 255	1
	1382	0566h	Retry monitor 10 Output frequency (High)	R	-59000 ~ 59000	0.01Hz
	1383	0567h	(with sign) (Low)			
	1384	0568h	Retry monitor 10 Output current	R	0 ~ 65535	0.01A
	1385	0569h	Retry monitor 10 P-N DC voltage	R	0 ~ 10000	0.1Vdc
	1386	056Ah	Retry monitor 10 Inverter state	R	0 ~ 8	1
	1387	056Bh	Retry monitor 10 LAD state	R	0 ~ 5	1
	1388	056Ch	Retry monitor 10 INV control mode	R	0 ~ 11	1
	1389	056Dh	Retry monitor 10 Limit state	R	0 ~ 6	1
	1390	056Eh	Retry monitor 10 Special state	R	0 ~ 6	1
	1392	0570h	Retry monitor 10 RUN time (High)	R	0 ~ 1000000	1hr
	1393	0571h	(Low)			
	1394	0572h	Retry monitor 10 Power ON time (High)	R	0 ~ 1000000	1hr
	1395	0573h	(Low)			
	1396	0574h	Retry monitor 10 Absolute time (year, month)	R	00 - 99 (BCD code) 01 - 12 (BCD code)	1 1
	1397	0575h	Retry monitor 10 Absolute time (day, day of the week)	R	01 - 31 (BCD code) 00 - 06 (BCD code)	1 1
	1398	0576h	Retry monitor 10 Absolute time (hour, minute)	R	00 - 23 (BCD code) 00 - 59 (BCD code)	1 1

(Warning)

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
dE-50	1500	05DCh	Warning monitor	R	0 ~ 65535	1

(Writing, recalculation register)

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
-	9000	2328h	ENTER instruction (Writing to Data Flash)	W	01: writing all parameters	1
-	9002	232Ah	1 register writing mode	W	01: enabled	1
-	9010	2332h	Motor constant recalculation (motor constant standard data not to be developed)	W	01: enabled	1

(Items other than parameter)

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
-	10502	2906h	RS485 Set frequency (High)	R/W	-59000 to + 59000 (setting range is not the same with Ver1.xx.)	0.01Hz
-	10503	2907h	(Signed) (Common to main speed and auxiliary speed) (Low)			
-	10526	291Eh	RS485 Torque command	R/W	-5000 ~ 5000	0.1%
-	10530	2922h	RS485 Torque bias	R/W	-5000 ~ 5000	0.1%
-	10534	2926h	RS485 Torque control speed limit value (for normal rotation)	R/W	0 ~ 59000	0.01Hz
-	10535	2927h	RS485 Torque control speed limit value (for reverse rotation)	R/W	0 ~ 59000	0.01Hz
-	10546	2932h	RS485 PID target value (High)	R/W	-10000 ~ 10000	0.01%
-	10547	2933h	(Low)			
-	10554	293Ah	RS485 PID feedback data (High)	R/W	-10000 ~ 10000	0.01%
-	10555	293Bh	(Low)			
-	10566	2946h	RS485 Torque limit	R/W	0 ~ 5000	0.1%
-	16053	3EB5h	Output terminal function option output (OPO output)	R/W	0 ~ 0x7F	1
-	16060	3EBCh	Coil data 0 (coil No. 0001h - 000Fh)	R/W	0 ~ 0xFFFF	1
-	16061	3EBDh	Coil data 1 (coil No. 0010h - 001Fh)	R	0 ~ 0xFFFF	1
-	16062	3EBEh	Coil data 2 (coil No. 0020h - 002Fh)	R	0 ~ 0xFFFF	1
-	16063	3EBFh	Coil data 3 (coil No. 0030h - 003Fh)	R	0 ~ 0xFFFF	1
-	16064	3EC0h	Coil data 4 (coil No. 0040h - 004Fh)	R	0 ~ 0xFFFF	1

(Monitor + setting parameter (Code-F))

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
FA-01	11001	2AF9h	Main speed command (monitor + setting)	R/W	0 ~ 59000	0.01Hz
FA-02	11002	2AFAh	Auxiliary speed command (monitor + setting) (High)	R/W	-59000 to +59000 (monitor) 0 to 59000 (setting) (Register No. and monitor range are not the same with Ver1.xx.)	0.01Hz
(FA-03)	11003	2AFBh	(Low)			
FA-10	11010	2B02h	Acceleration time (monitor + setting) (High)	R/W	0 ~ 360000	0.01s
(FA-11)	11011	2B03h	(Low)			
FA-12	11012	2B04h	Deceleration time (monitor + setting) (High)	R/W	0 ~ 360000	0.01s
(FA-13)	11013	2B05h	(Low)			
FA-15	11015	2B07h	Torque command monitor (monitor + setting)	R/W	-5000 ~ 5000	0.1%
FA-16	11016	2B08h	Torque bias monitor (monitor + setting)	R/W	-5000 ~ 5000	0.1%
FA-20	11020	2B0Ch	Position command monitor (monitor + setting) (High)	R/W	-268435455 ~ 268435455 In high resolution mode: -1073741823 to 1073741823	1
(FA-21)	11021	2B0Dh	(Low)			
FA-30	11030	2B16h	PID1 target value 1 (monitor + setting) (High)	R/W	-10000 ~ 10000	Per AH-06 setting
(FA-31)	11031	2B17h	(Low)			
FA-32	11032	2B18h	PID1 target value 2 (monitor + setting) (High)	R/W	-10000 ~ 10000	Per AH-06 setting
(FA-33)	11033	2B19h	(Low)			
FA-34	11034	2B1Ah	PID1 target value 3 (monitor + setting) (High)	R/W	-10000 ~ 10000	Per AH-06 setting
(FA-35)	11035	2B1Bh	(Low)			
FA-36	11036	2B1Ch	PID2 target value (monitor + setting) (High)	R/W	-10000 ~ 10000	Per AJ-06 setting
(FA-37)	11037	2B1Dh	(Low)			
FA-38	11038	2B1Eh	PID3 target value (monitor + setting) (High)	R/W	-10000 ~ 10000	Per AJ-26 setting
(FA-39)	11039	2B1Fh	(Low)			
FA-40	11040	2B20h	PID4 target value (monitor + setting) (High)	R/W	-10000 ~ 10000	Per AJ-46 setting
(FA-41)	11041	2B21h	(Low)			

(Setting parameter (Code-A, b, C, H, o, P, U))

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
AA101	12001	2EE1h	First main speed command selection	R/W	1 ~ 16	1
AA102	12002	2EE2h	First auxiliary speed command selection	R/W	0 ~ 16	1
AA104	12004	2EE4h	First auxiliary speed setting	R/W	0 ~ 59000	0.01Hz
AA105	12005	2EE5h	First operator selection	R/W	0 ~ 3	1
AA106	12006	2EE6h	First additional frequency setting (High)	R/W	-59000 ~ 59000	0.01Hz
(AA107)	12007	2EE7h	(SET-POINT) (Low)			
AA111	12011	2EEBh	First operation command selection	R/W	0 ~ 6	1
AA-12	12012	2EECh	RUN key direction selection	R/W	0 ~ 1	1
AA-13	12013	2EEDh	STOP key selection	R/W	0 ~ 2	1
AA114	12014	2EEh	First operation direction limit selection	R/W	0 ~ 2	1
AA115	12015	2EEFh	First stop mode selection	R/W	0 ~ 1	1
AA121	12021	2EF5h	First control mode	R/W	0 ~ 12	1
AA123	12023	2EF7h	First vector control mode selection	R/W	0 ~ 3	1
AA201	22001	55F1h	Second main speed command selection	R/W	1 ~ 16	1
AA202	22002	55F2h	Second auxiliary speed command selection	R/W	0 ~ 16	1
AA204	22004	55F4h	Second auxiliary speed setting	R/W	0 ~ 59000	0.01Hz
AA205	22005	55F5h	Second operator selection	R/W	0 ~ 3	1
AA206	22006	55F6h	Second additional frequency setting (High)	R/W	-59000 ~ 59000	0.01Hz
(AA207)	22007	55F7h	(SET-POINT) (Low)			
AA211	22011	55FBh	Second operation command selection	R/W	0 ~ 6	1
AA214	22014	55FEh	Second operation direction limit selection	R/W	0 ~ 2	1
AA215	22015	55FFh	Second stop mode selection	R/W	0 ~ 1	1
AA221	22021	5605h	Second control mode	R/W	0 ~ 11	1
AA223	22023	5607h	Second vector control mode selection	R/W	0 ~ 3	1
Ab-01	12101	2F45h	Frequency conversion coefficient	R/W	1 ~ 10000	0.01
Ab-03	12103	2F47h	Multi-step speed selection	R/W	0 ~ 1	1
Ab110	12110	2F4Eh	0th speed of the 1st multi-step speed	R/W	0 ~ 59000	0.01Hz
Ab-11	12111	2F4Fh	1st speed of the multi-step speed	R/W	0 ~ 59000	0.01Hz
Ab-12	12112	2F50h	2nd speed of the multi-step speed	R/W	0 ~ 59000	0.01Hz
Ab-13	12113	2F51h	3rd speed of the multi-step speed	R/W	0 ~ 59000	0.01Hz
Ab-14	12114	2F52h	4th speed of the multi-step speed	R/W	0 ~ 59000	0.01Hz
Ab-15	12115	2F53h	5th speed of the multi-step speed	R/W	0 ~ 59000	0.01Hz
Ab-16	12116	2F54h	6th speed of the multi-step speed	R/W	0 ~ 59000	0.01Hz
Ab-17	12117	2F55h	7th speed of the multi-step speed	R/W	0 ~ 59000	0.01Hz
Ab-18	12118	2F56h	8th speed of the multi-step speed	R/W	0 ~ 59000	0.01Hz
Ab-19	12119	2F57h	9th speed of the multi-step speed	R/W	0 ~ 59000	0.01Hz
Ab-20	12120	2F58h	10th speed of the multi-step speed	R/W	0 ~ 59000	0.01Hz
Ab-21	12121	2F59h	11th speed of the multi-step speed	R/W	0 ~ 59000	0.01Hz
Ab-22	12122	2F5Ah	12th speed of the multi-step speed	R/W	0 ~ 59000	0.01Hz
Ab-23	12123	2F5Bh	13th speed of the multi-step speed	R/W	0 ~ 59000	0.01Hz
Ab-24	12124	2F5Ch	14th speed of the multi-step speed	R/W	0 ~ 59000	0.01Hz
Ab-25	12125	2F5Dh	15th speed of the multi-step speed	R/W	0 ~ 59000	0.01Hz
Ab210	22110	565Eh	0th speed of the 2nd multi-step speed	R/W	0 ~ 59000	0.01Hz

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
AC-01	12201	2FA9h	Acceleration or deceleration time input type	R/W	0 ~ 4	1
AC-02	12202	2FAAh	Multi-stage acceleration or deceleration selection	R/W	0 ~ 1	1
AC-03	12203	2FABh	Acceleration pattern selection	R/W	0 ~ 4	1
AC-04	12204	2FACH	Deceleration pattern selection	R/W	0 ~ 4	1
AC-05	12205	2FADh	Acceleration curve constant (S, U, reverse U)	R/W	1 ~ 10	1
AC-06	12206	2FAEh	Deceleration curve constant (S, U, reverse U)	R/W	1 ~ 10	1
AC-08	12208	2FB0h	Curvature 1 for EL-S-shaped acceleration	R/W	0 ~ 100	1%
AC-09	12209	2FB1h	Curvature 2 for EL-S-shaped acceleration	R/W	0 ~ 100	1%
AC-10	12210	2FB2h	Curvature 1 for EL-S-shaped deceleration	R/W	0 ~ 100	1%
AC-11	12211	2FB3h	Curvature 2 for EL-S-shaped deceleration	R/W	0 ~ 100	1%
AC115	12215	2FB7h	First 2-stage acceleration or deceleration selection	R/W	0 ~ 2	1
AC116	12216	2FB8h	First 2-stage acceleration frequency	R/W	0 ~ 59000	0.01Hz
AC117	12217	2FB9h	First 2-stage deceleration frequency	R/W	0 ~ 59000	0.01Hz
AC120	12220	2FBCh	First acceleration time 1 (High)	R/W	0 ~ 360000	0.01s
(AC121)	12221	2FBDh	(Low)			
AC122	12222	2FBEh	First deceleration time 1 (High)	R/W	0 ~ 360000	0.01s
(AC123)	12223	2FBFh	(Low)			
AC124	12224	2FC0h	First acceleration time 2 (High)	R/W	0 ~ 360000	0.01s
(AC125)	12225	2FC1h	(Low)			
AC126	12226	2FC2h	First deceleration time 2 (High)	R/W	0 ~ 360000	0.01s
(AC127)	12227	2FC3h	(High)			
AC-30	12230	2FC6h	Acceleration time for multi-speed 1st speed (High)	R/W	0 ~ 360000	0.01s
(AC-31)	12231	2FC7h	(Low)			
AC-32	12232	2FC8h	Deceleration time for multi-speed 1st speed (High)	R/W	0 ~ 360000	0.01s
(AC-33)	12233	2FC9h	(Low)			
AC-34	12234	2FCAh	Acceleration time for multi-speed 2nd speed (High)	R/W	0 ~ 360000	0.01s
(AC-35)	12235	2FCBh	(Low)			
AC-36	12236	2FCCh	Deceleration time for multi-speed 2nd speed (High)	R/W	0 ~ 360000	0.01s
(AC-37)	12237	2FCDh	(Low)			
AC-38	12238	2FCEh	Acceleration time for multi-speed 3rd speed (High)	R/W	0 ~ 360000	0.01s
(AC-39)	12239	2FCFh	(Low)			
AC-40	12240	2FD0h	Deceleration time for multi-speed 3rd speed (High)	R/W	0 ~ 360000	0.01s
(AC-41)	12241	2FD1h	(Low)			
AC-42	12242	2FD2h	Acceleration time for multi-speed 4th speed (High)	R/W	0 ~ 360000	0.01s
(AC-43)	12243	2FD3h	(Low)			
AC-44	12244	2FD4h	Deceleration time for multi-speed 4th speed (High)	R/W	0 ~ 360000	0.01s
(AC-45)	12245	2FD5h	(Low)			
AC-46	12246	2FD6h	Acceleration time for multi-speed 5th speed (High)	R/W	0 ~ 360000	0.01s
(AC-47)	12247	2FD7h	(Low)			
AC-48	12248	2FD8h	Deceleration time for multi-speed 5th speed (High)	R/W	0 ~ 360000	0.01s
(AC-49)	12249	2FD9h	(Low)			
AC-50	12250	2FDAh	Acceleration time for multi-speed 6th speed (High)	R/W	0 ~ 360000	0.01s
(AC-51)	12251	2FDBh	(Low)			
AC-52	12252	2FDCh	Deceleration time for multi-speed 6th speed (High)	R/W	0 ~ 360000	0.01s
(AC-53)	12253	2FDDh	(Low)			

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
AC-54	12254	2FDEh	Acceleration time for multi-speed 7th speed (High)	R/W	0 ~ 360000	0.01s
(AC-55)	12255	2FDFh	(Low)			
AC-56	12256	2FE0h	Deceleration time for multi-speed 7th speed (High)	R/W	0 ~ 360000	0.01s
(AC-57)	12257	2FE1h	(Low)			
AC-58	12258	2FE2h	Acceleration time for multi-speed 8th speed (High)	R/W	0 ~ 360000	0.01s
(AC-59)	12259	2FE3h	(Low)			
AC-60	12260	2FE4h	Deceleration time for multi-speed 8th speed (High)	R/W	0 ~ 360000	0.01s
(AC-61)	12261	2FE5h	(Low)			
AC-62	12262	2FE6h	Acceleration time for multi-speed 9th speed (High)	R/W	0 ~ 360000	0.01s
(AC-63)	12263	2FE7h	(Low)			
AC-64	12264	2FE8h	Deceleration time for multi-speed 9th speed (High)	R/W	0 ~ 360000	0.01s
(AC-65)	12265	2FE9h	(Low)			
AC-66	12266	2FEAh	Acceleration time for multi-speed 10th speed (High)	R/W	0 ~ 360000	0.01s
(AC-67)	12267	2FEBh	(Low)			
AC-68	12268	2FEC h	Deceleration time for multi-speed 10th speed (High)	R/W	0 ~ 360000	0.01s
(AC-69)	12269	2FEDh	(Low)			
AC-70	12270	2FEEh	Acceleration time for multi-speed 11th speed (High)	R/W	0 ~ 360000	0.01s
(AC-71)	12271	2FEFh	(Low)			
AC-72	12272	2FF0h	Deceleration time for multi-speed 11th speed (High)	R/W	0 ~ 360000	0.01s
(AC-73)	12273	2FF1h	(Low)			
AC-74	12274	2FF2h	Acceleration time for multi-speed 12th speed (High)	R/W	0 ~ 360000	0.01s
(AC-75)	12275	2FF3h	(Low)			
AC-76	12276	2FF4h	Deceleration time for multi-speed 12th speed (High)	R/W	0 ~ 360000	0.01s
(AC-77)	12277	2FF5h	(Low)			
AC-78	12278	2FF6h	Acceleration time for multi-speed 13th speed (High)	R/W	0 ~ 360000	0.01s
(AC-79)	12279	2FF7h	(Low)			
AC-80	12280	2FF8h	Deceleration time for multi-speed 13th speed (High)	R/W	0 ~ 360000	0.01s
(AC-81)	12281	2FF9h	(Low)			
AC-82	12282	2FFAh	Acceleration time for multi-speed 14th speed (High)	R/W	0 ~ 360000	0.01s
(AC-83)	12283	2FFBh	(Low)			
AC-84	12284	2FFCh	Deceleration time for multi-speed 14th speed (High)	R/W	0 ~ 360000	0.01s
(AC-85)	12285	2FFDh	(Low)			
AC-86	12286	2FFEh	Acceleration time for multi-speed 15th speed (High)	R/W	0 ~ 360000	0.01s
(AC-87)	12287	2FFFh	(Low)			
AC-88	12288	3000h	Deceleration time for multi-speed 15th speed (High)	R/W	0 ~ 360000	0.01s
(AC-89)	12289	3001h	(Low)			
AC215	22215	56C7h	Second 2-stage acceleration or deceleration selection	R/W	0 ~ 2	1
AC216	22216	56C8h	Second 2-stage acceleration frequency	R/W	0 ~ 59000	0.01Hz
AC217	22217	56C9h	Second 2-stage deceleration frequency	R/W	0 ~ 59000	0.01Hz
AC220	22220	56CCh	Second acceleration time 1 (High)	R/W	0 ~ 360000	0.01s
(AC221)	22221	56CDh	(Low)			
AC222	22222	56Ceh	Second deceleration time 1 (High)	R/W	0 ~ 360000	0.01s
(AC223)	22223	56CFh	(Low)			
AC224	22224	56D0h	Second acceleration time 2 (High)	R/W	0 ~ 360000	0.01s
(AC225)	22225	56D1h	(Low)			
AC226	22226	56D2h	Second deceleration time 2 (High)	R/W	0 ~ 360000	0.01s
(AC227)	22227	56D3h	(Low)			

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
Ad-01	12301	300Dh	Torque command input selection	R/W	1 ~ 15	1
Ad-02	12302	300Eh	Torque command setting	R/W	-5000 ~ 5000	0.1%
Ad-03	12303	300Fh	Torque command polarity selection	R/W	0 ~ 1	1
Ad-04	12304	3010h	Speed/torque control switch time	R/W	0 ~ 1000	1ms
Ad-11	12311	3017h	Torque bias input selection	R/W	0 ~ 15	1
Ad-12	12312	3018h	Torque bias setting	R/W	-5000 ~ 5000	0.1%
Ad-13	12313	3019h	Torque bias polarity selection	R/W	0 ~ 1	1
Ad-14	12314	301Ah	Enable torque bias terminal [TBS] selection	R/W	0 ~ 1	1
Ad-40	12340	3034h	Torque control speed limit value input selection	R/W	1 ~ 13	1
Ad-41	12341	3035h	Torque control speed limit value (for normal rotation)	R/W	0 ~ 59000	0.01Hz
Ad-42	12342	3036h	Torque control speed limit value (for reverse rotation)	R/W	0 ~ 59000	0.01Hz
AE-01	12401	3071h	Electronic gear installation position selection	R/W	0 ~ 1	1
AE-02	12402	3072h	Electronic gear ratio's numerator	R/W	1 ~ 10000	1
AE-03	12403	3073h	Electronic gear ratio's denominator	R/W	1 ~ 10000	1
AE-04	12404	3074h	Positioning completion range setting	R/W	0 ~ 10000	1pls
AE-05	12405	3075h	Positioning completion delay time setting	R/W	0 ~ 1000	0.01s
AE-06	12406	3076h	Position control feed forward	R/W	0 ~ 65535	0.01
AE-07	12407	3077h	Position loop gain	R/W	0 ~ 10000	0.01
AE-08	12408	3078h	Position bias setting	R/W	-2048 ~ 2048	1pls
AE-10	12410	307Ah	Orientation stop position input destination selection	R/W	0 ~ 3	1
AE-11	12411	307Bh	Orientation stop position input destination selection	R/W	0 ~ 4095	1
AE-12	12412	307Ch	Orientation speed setting	R/W	0 ~ 12000	0.01Hz
AE-13	12413	307Dh	Orientation direction setting	R/W	0 ~ 1	1
AE-20	12420	3084h	Position command 0 (High)	R/W	-268435455 ~ 268435455	1pls
(AE-21)	12421	3085h	(Low)		In high resolution mode: -1073741823 to 1073741823	
AE-22	12422	3086h	Position command 1 (High)	R/W	-268435455 ~ 268435455	1pls
(AE-23)	12423	3087h	(Low)		In high resolution mode: -1073741823 to 1073741823	
AE-24	12424	3088h	Position command 2 (High)	R/W	-268435455 ~ 268435455	1pls
(AE-25)	12425	3089h	(Low)		In high resolution mode: -1073741823 to 1073741823	
AE-26	12426	308Ah	Position command 3 (High)	R/W	-268435455 ~ 268435455	1pls
(AE-27)	12427	308Bh	(Low)		In high resolution mode: -1073741823 to 1073741823	
AE-28	12428	308Ch	Position command 4 (High)	R/W	-268435455 ~ 268435455	1pls
(AE-29)	12429	308Dh	(Low)		In high resolution mode: -1073741823 to 1073741823	
AE-30	12430	308Eh	Position command 5 (High)	R/W	-268435455 ~ 268435455	1pls
(AE-31)	12431	308Fh	(Low)		In high resolution mode: -1073741823 to 1073741823	
AE-32	12432	3090h	Position command 6 (High)	R/W	-268435455 ~ 268435455	1pls
(AE-33)	12433	3091h	(Low)		In high resolution mode: -1073741823 to 1073741823	
AE-34	12434	3092h	Position command 7 (High)	R/W	-268435455 ~ 268435455	1pls
(AE-35)	12435	3093h	(Low)		In high resolution mode: -1073741823 to 1073741823	
AE-36	12436	3094h	Position command 8 (High)	R/W	-268435455 ~ 268435455	1pls
(AE-37)	12437	3095h	(Low)		In high resolution mode: -1073741823 to 1073741823	

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
AE-38	12438	3096h	Position command 9 (High)	R/W	-268435455 ~ 268435455 In high resolution mode: -1073741823 to 1073741823	1pls
(AE-39)	12439	3097h	(Low)			
AE-40	12440	3098h	Position command 10 (High)	R/W	-268435455 ~ 268435455 In high resolution mode: -1073741823 to 1073741823	1pls
(AE-41)	12441	3099h	(Low)			
AE-42	12442	309Ah	Position command 11 (High)	R/W	-268435455 ~ 268435455 In high resolution mode: -1073741823 to 1073741823	1pls
(AE-43)	12443	309Bh	(Low)			
AE-44	12444	309Ch	Position command 12 (High)	R/W	-268435455 ~ 268435455 In high resolution mode: -1073741823 to 1073741823	1pls
(AE-45)	12445	309Dh	(Low)			
AE-46	12446	309Eh	Position command 13 (High)	R/W	-268435455 ~ 268435455 In high resolution mode: -1073741823 to 1073741823	1pls
(AE-47)	12447	309Fh	(Low)			
AE-48	12448	30A0h	Position command 14 (High)	R/W	-268435455 ~ 268435455 In high resolution mode: -1073741823 to 1073741823	1pls
(AE-49)	12449	30A1h	(Low)			
AE-50	12450	30A2h	Position command 15 (High)	R/W	-268435455 ~ 268435455 In high resolution mode: -1073741823 to 1073741823	1pls
(AE-51)	12451	30A3h	(Low)			
AE-52	12452	30A4h	Position range designation (forward rotation side) (High)	R/W	0 ~ 268435455 In high resolution mode: 0 to 1073741823	1pls
(AE-53)	12453	30A5h	(Low)			
AE-54	12454	30A6h	Position range designation (reverse rotation side) (High)	R/W	-268435455 ~ 0 In high resolution mode: -1073741823 to 0	1pls
(AE-55)	12455	30A7h	(Low)			
AE-56	12456	30A8h	Positioning mode selection	R/W	0 ~ 1	1
AE-60	12460	30Ach	Teaching selection	R/W	0 ~ 15	1
AE-61	12461	30Adh	Memorization of current position at power-off	R/W	0 ~ 1	1
AE-62	12462	30Aeh	Preset position data (High)	R/W	-268435455 ~ 268435455 In high resolution mode: -1073741823 to 1073741823	1pls
(AE-63)	12463	30Afh	(Low)			
AE-64	12464	30B0h	Gain for calculating the deceleration stop distance	R/W	5000 ~ 20000	0.01%
AE-65	12465	30B1h	Bias for calculating the deceleration stop distance	R/W	0 ~ 65535	0.01%
AE-66	12466	30B2h	APR control speed limit	R/W	0 ~ 10000	0.01%
AE-67	12467	30B3h	APR start speed	R/W	0 ~ 10000	0.01%
AE-70	12470	30B6h	Zero return mode selection	R/W	0 ~ 2	1
AE-71	12471	30B7h	Zero return direction selection	R/W	0 ~ 1	1
AE-72	12472	30B8h	Low speed zero return speed	R/W	0 ~ 1000	0.01Hz
AE-73	12473	30B9h	High speed zero return speed	R/W	0 ~ 59000	0.01Hz

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
AF101	12501	30D5h	First DC braking selection	R/W	0 ~ 2	1
AF102	12502	30D6h	First braking mode selection	R/W	0 ~ 2	1
AF103	12503	30D7h	First DC braking frequency	R/W	0 ~ 59000	0.01Hz
AF104	12504	30D8h	First DC braking delay time	R/W	0 ~ 500	0.01s
AF105	12505	30D9h	First DC braking force at the time of the stop	R/W	0 ~ 100	1%
AF106	12506	30Dah	First DC braking time at the time of the stop	R/W	0 ~ 6000	0.01s
AF107	12507	30DBh	First DC braking trigger selection	R/W	0 ~ 1	1
AF108	12508	30DCh	First DC braking force at the start	R/W	0 ~ 100	1%
AF109	12509	30DDh	First DC braking time at the start	R/W	0 ~ 6000	0.01s
AF120	12520	30E8h	First contactor control selection	R/W	0 ~ 2	1
AF121	12521	30E9h	First start waiting time	R/W	0 ~ 200	0.01s
AF122	12522	30Eah	First contactor release delay time	R/W	0 ~ 200	0.01s
AF123	12523	30Ebh	First contactor check time	R/W	0 ~ 500	0.01s
AF130	12530	30F2h	First brake control selection	R/W	0 ~ 3	1
AF131	12531	30F3h	First brake release establishment waiting time (normal rotation side)	R/W	0 ~ 500	0.01s
AF132	12532	30F4h	First acceleration waiting time (normal rotation side)	R/W	0 ~ 500	0.01s
AF133	12533	30F5h	First stop waiting time (normal rotation side)	R/W	0 ~ 500	0.01s
AF134	12534	30F6h	First brake confirmation waiting time (normal rotation side)	R/W	0 ~ 500	0.01s
AF135	12535	30F7h	First brake release frequency (normal rotation side)	R/W	0 ~ 59000	0.01Hz
AF136	12536	30F8h	First brake release current (normal rotation side)	R/W	(0 to 2.00) * CTL rated current	0.1A
AF137	12537	30F9h	First brake apply frequency (normal rotation side)	R/W	0 ~ 59000	0.01Hz
AF138	12538	30Fah	First brake release establishment waiting time (reverse rotation side)	R/W	0 ~ 500	0.01s
AF139	12539	30FBh	First acceleration waiting time (reverse rotation side)	R/W	0 ~ 500	0.01s
AF140	12540	30FCh	First stop waiting time (reverse rotation side)	R/W	0 ~ 500	0.01s
AF141	12541	30FDh	First brake confirmation waiting time (reverse rotation side)	R/W	0 ~ 500	0.01s
AF142	12542	30Feh	First brake release frequency (reverse rotation side)	R/W	0 ~ 59000	0.01Hz
AF143	12543	30FFh	First brake release current (reverse rotation side)	R/W	(0 to 2.00) * CTL rated current	0.1A
AF144	12544	3100h	First brake apply frequency (reverse rotation side)	R/W	0 ~ 59000	0.01Hz
AF150	12550	3106h	First brake release delay time	R/W	0 ~ 200	0.01s
AF151	12551	3107h	First brake apply delay time	R/W	0 ~ 200	0.01s
AF152	12552	3108h	First brake check time	R/W	0 ~ 500	0.01s
AF153	12553	3109h	First servo lock time at start	R/W	0 ~ 1000	0.01s
AF154	12554	310Ah	First servo lock time at the time of the stop	R/W	0 ~ 1000	0.01s
AF201	22501	57E5h	Second DC braking selection	R/W	0 ~ 2	1
AF202	22502	57E6h	Second braking mode selection	R/W	0 ~ 2	1
AF203	22503	57E7h	Second DC braking frequency	R/W	0 ~ 59000	0.01Hz
AF204	22504	57E8h	Second DC braking delay time	R/W	0 ~ 500	0.01s
AF205	22505	57E9h	Second DC braking force at the time of the stop	R/W	0 ~ 100	1%
AF206	22506	57Eah	Second DC braking time at the time of the stop	R/W	0 ~ 6000	0.01s
AF207	22507	57Ebh	Second DC braking trigger selection	R/W	0 ~ 1	1
AF208	22508	57Ech	Second DC braking force at the start	R/W	0 ~ 100	1%
AF209	22509	57Edh	Second DC braking time at the start	R/W	0 ~ 6000	0.01s
AF220	22520	57F8h	Second contactor control selection	R/W	0 ~ 2	1
AF221	22521	57F9h	Second start waiting time	R/W	0 ~ 200	0.01s
AF222	22522	57Fah	Second contactor release delay time	R/W	0 ~ 200	0.01s
AF223	22523	57FBh	Second contactor check time	R/W	0 ~ 500	0.01s

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
AF230	22530	5802h	Second brake control selection	R/W	0 ~ 3	1
AF231	22531	5803h	Second brake release establishment waiting time (normal rotation side)	R/W	0 ~ 500	0.01s
AF232	22532	5804h	Second acceleration waiting time (normal rotation side)	R/W	0 ~ 500	0.01s
AF233	22533	5805h	Second stop waiting time (normal rotation side)	R/W	0 ~ 500	0.01s
AF234	22534	5806h	Second brake confirmation waiting time (normal rotation side)	R/W	0 ~ 500	0.01s
AF235	22535	5807h	Second brake release frequency (normal rotation side)	R/W	0 ~ 59000	0.01Hz
AF236	22536	5808h	Second brake release current (normal rotation side)	R/W	(0 to 2.00) * CTL rated current	0.1A
AF237	22537	5809h	Second brake apply frequency (normal rotation side)	R/W	0 ~ 59000	0.01Hz
AF238	22538	580Ah	Second brake release establishment waiting time (reverse rotation side)	R/W	0 ~ 500	0.01s
AF239	22539	580Bh	Second acceleration waiting time (normal rotation side)	R/W	0 ~ 500	0.01s
AF240	22540	580Ch	Second stop waiting time (reverse rotation side)	R/W	0 ~ 500	0.01s
AF241	22541	580Dh	Second brake confirmation waiting time (reverse rotation side)	R/W	0 ~ 500	0.01s
AF242	22542	580Eh	Second brake release frequency (reverse rotation side)	R/W	0 ~ 59000	0.01Hz
AF243	22543	580Fh	Second brake release current (reverse rotation side)	R/W	(0 to 2.00) * CTL rated current	0.1A
AF244	22544	5810h	Second brake apply frequency (reverse rotation side)	R/W	0 ~ 59000	0.01Hz
AF250	22550	5816h	Second brake release delay time	R/W	0 ~ 200	0.01s
AF251	22551	5817h	Second brake apply delay time	R/W	0 ~ 200	0.01s
AF252	22552	5818h	Second brake check time	R/W	0 ~ 500	0.01s
AF253	22553	5819h	Second servo lock time at start	R/W	0 ~ 1000	0.01s
AF254	22554	581Ah	Second servo lock time at the time of the stop	R/W	0 ~ 1000	0.01s
AG101	12601	3139h	First jump frequency 1	R/W	0 ~ 59000	0.01Hz
AG102	12602	313Ah	First jump frequency range 1	R/W	0 ~ 1000	0.01Hz
AG103	12603	313Bh	First jump frequency 2	R/W	0 ~ 59000	0.01Hz
AG104	12604	313Ch	First jump frequency range 2	R/W	0 ~ 1000	0.01Hz
AG105	12605	313Dh	First jump frequency 3	R/W	0 ~ 59000	0.01Hz
AG106	12606	313Eh	First jump frequency range 3	R/W	0 ~ 1000	0.01Hz
AG110	12610	3142h	First acceleration-hold frequency	R/W	0 ~ 59000	0.01Hz
AG111	12611	3143h	First acceleration-hold time	R/W	0 ~ 600	0.1s
AG112	12612	3144h	First deceleration-hold frequency	R/W	0 ~ 59000	0.01Hz
AG113	12613	3145h	First deceleration-hold time	R/W	0 ~ 600	0.1s
AG-20	12620	314Ch	Jogging frequency	R/W	0 ~ 1000	0.01Hz
AG-21	12621	314Dh	Jogging stop selection	R/W	0 ~ 5	1
AG201	22601	5849h	Second jump frequency 1	R/W	0 ~ 59000	0.01Hz
AG202	22602	584Ah	Second jump frequency range 1	R/W	0 ~ 1000	0.01Hz
AG203	22603	584Bh	Second jump frequency 2	R/W	0 ~ 59000	0.01Hz
AG204	22604	584Ch	Second jump frequency range 2	R/W	0 ~ 1000	0.01Hz
AG205	22605	584Dh	Second jump frequency 3	R/W	0 ~ 59000	0.01Hz
AG206	22606	584Eh	Second jump frequency range 3	R/W	0 ~ 1000	0.01Hz
AG210	22610	5852h	Second acceleration-hold frequency	R/W	0 ~ 59000	0.01Hz
AG211	22611	5853h	Second acceleration-hold time	R/W	0 ~ 600	0.1s
AG212	22612	5854h	Second deceleration-hold frequency	R/W	0 ~ 59000	0.01Hz
AG213	22613	5855h	Second deceleration-hold time	R/W	0 ~ 600	0.1s

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
AH-01	12701	319Dh	PID1 selection	R/W	0 ~ 2	1
AH-02	12702	319Eh	PID1 deviation minus	R/W	0 ~ 1	1
AH-03	12703	319Fh	PID1 unit selection (PID1)	R/W	0 ~ 58	1
AH-04	12704	31A0h	PID1 scale adjustment (0%)	R/W	-10000 ~ 10000	1
AH-05	12705	31A1h	PID1 scale adjustment (100%)	R/W	-10000 ~ 10000	1
AH-06	12706	31A2h	PID1 scale adjustment (decimal point)	R/W	0 ~ 4	1
AH-07	12707	31A3h	PID1 target value 1 input destination selection	R/W	0 ~ 13	1
AH-10	12710	31A6h	PID1 target value 1 set value (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-11)	12711	31A7h	(Low)			
AH-12	12712	31A8h	PID1 multistage target value 1 (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-13)	12713	31A9h	(Low)			
AH-14	12714	31Aah	PID1 multistage target value 2 (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-15)	12715	31Abh	(Low)			
AH-16	12716	31Ach	PID1 multistage target value 3 (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-17)	12717	31Adh	(Low)			
AH-18	12718	31Aeh	PID1 multistage target value 4 (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-19)	12719	31Afh	(Low)			
AH-20	12720	31B0h	PID1 multistage target value 5 (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-21)	12721	31B1h	(Low)			
AH-22	12722	31B2h	PID1 multistage target value 6 (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-23)	12723	31B3h	(Low)			
AH-24	12724	31B4h	PID1 multistage target value 7 (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-25)	12725	31B5h	(Low)			
AH-26	12726	31B6h	PID1 multistage target value 8 (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-27)	12727	31B7h	(Low)			
AH-28	12728	31B8h	PID1 multistage target value 9 (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-29)	12729	31B9h	(Low)			
AH-30	12730	31Bah	PID1 multistage target value 10 (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-31)	12731	31BBh	(Low)			
AH-32	12732	31BCh	PID1 multistage target value 11 (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-33)	12733	31BDh	(Low)			
AH-34	12734	31Beh	PID1 multistage target value 12 (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-35)	12735	31BFh	(Low)			
AH-36	12736	31C0h	PID1 multistage target value 13 (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-37)	12737	31C1h	(Low)			
AH-38	12738	31C2h	PID1 multistage target value 14 (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-39)	12739	31C3h	(Low)			
AH-40	12740	31C4h	PID1 multistage target value 15 (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-41)	12741	31C5h	(Low)			
AH-42	12742	31C6h	PID1 target value 2 input destination selection	R/W	0 – 13	1
AH-44	12744	31C8h	PID1 target value 2 set value (High)	R/W	-10000 – 10000	Per AH-06 setting
(AH-45)	12745	31C9h	(Low)			
AH-46	12746	31Cah	PID1 target value 3 input destination selection	R/W	0 ~ 13	1
AH-48	12748	31CCh	PID1 target value 3 set value (High)	R/W	-10000 ~ 10000	Per AH-06 setting
(AH-49)	12749	31CDh	(Low)			

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
AH-50	12750	31Ceh	PID1 target value 1 operator selection	R/W	1 ~ 6	1
AH-51	12751	31CFh	PID1 feedback data 1 input destination selection	R/W	0 ~ 13	1
AH-52	12752	31D0h	PID1 feedback data 2 input destination selection	R/W	0 ~ 13	1
AH-53	12753	31D1h	PID1 feedback data 3 input destination selection	R/W	0 ~ 13	1
AH-54	12754	31D2h	PID1 feedback data operator selection	R/W	1 ~ 10	1
AH-60	12760	31D8h	PID1 gain switch method selection	R/W	0 ~ 1	1
AH-61	12761	31D9h	PID1 proportional gain 1	R/W	0 ~ 1000	0.1
AH-62	12762	31Dah	PID1 integral gain 1	R/W	0 ~ 36000	0.1s
AH-63	12763	31DBh	PID1 differential gain 1	R/W	0 ~ 10000	0.01s
AH-64	12764	31DCh	PID1 proportional gain 2	R/W	0 ~ 1000	0.1
AH-65	12765	31DDh	PID1 integral gain 2	R/W	0 ~ 36000	0.1s
AH-66	12766	31Deh	PID1 differential gain 2	R/W	0 ~ 10000	0.01s
AH-67	12767	31DFh	PID1 gain switch time	R/W	0 ~ 10000	1ms
AH-70	12770	31E2h	PID1 feed forward selection	R/W	0 ~ 6	1
AH-71	12771	31E3h	PID1 changeable range	R/W	0 ~ 10000	0.01%
AH-72	12772	31E4h	PID1 deviation excessive level	R/W	0 ~ 10000	0.01%
AH-73	12773	31E5h	PID1 feedback comparison signal OFF level	R/W	0 ~ 10000	0.01%
AH-74	12774	31E6h	PID1 feedback comparison signal ON level	R/W	0 ~ 10000	0.01%
AH-75	12775	31E7h	PID soft-start function selection	R/W	0 ~ 1	1
AH-76	12776	31E8h	PID soft-start target level	R/W	0 ~ 10000	0.01%
AH-78	12778	31Eah	Acceleration time for PID soft-start (High)	R/W	0 ~ 360000	0.01s
(AH-79)	12779	31Ebh	(Low)			
AH-80	12780	31Ech	PID soft-start time	R/W	0 ~ 10000	0.01s
AH-81	12781	31Edh	PID start abnormal judgment implement selection	R/W	0 ~ 2	1
AH-82	12782	31Eeh	PID start abnormal judgment level	R/W	0 ~ 10000	0.01%
AH-85	12785	31F1h	PID sleep condition selection	R/W	0 ~ 2	1
AH-86	12786	31F2h	PID sleep start level	R/W	0 ~ 59000	0.01Hz
AH-87	12787	31F3h	PID sleep operation time	R/W	0 ~ 10000	0.01s
AH-88	12788	31F4h	Boost selection prior to PID sleep	R/W	0 ~ 1	1
AH-89	12789	31F5h	Boost time prior to PID sleep	R/W	0 ~ 10000	0.01s
AH-90	12790	31F6h	Boost amount prior to PID sleep	R/W	0 ~ 10000	0.01%
AH-91	12791	31F7h	Minimum operation time prior to PID sleep	R/W	0 ~ 10000	0.01s
AH-92	12792	31F8h	PID sleep status minimum retaining time	R/W	0 ~ 10000	0.01s
AH-93	12793	31F9h	PID wake condition selection	R/W	1 ~ 3	1
AH-94	12794	31Fah	PID wake start level	R/W	0 ~ 10000	0.01%
AH-95	12795	31FBh	PID wake operation time	R/W	0 ~ 10000	0.01s
AH-96	12796	31FCh	PID wake start deviation amount	R/W	0 ~ 10000	0.01%
AJ-01	12801	3201h	PID2 selection	R/W	0 ~ 2	1
AJ-02	12802	3202h	PID2 deviation minus	R/W	0 ~ 1	1
AJ-03	12803	3203h	PID2 unit selection (PID2)	R/W	0 ~ 58	1
AJ-04	12804	3204h	PID2 scale adjustment (0%)	R/W	-10000 ~ 10000	1
AJ-05	12805	3205h	PID2 scale adjustment (100%)	R/W	-10000 ~ 10000	1
AJ-06	12806	3206h	PID2 scale adjustment (decimal point)	R/W	0 ~ 4	1
AJ-07	12807	3207h	PID2 target value input destination selection	R/W	0 ~ 15	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
AJ-10	12810	320Ah	PID2 target value set value (High)	R/W	-10000 ~ 10000	Per AJ-06 setting
(AJ-11)	12811	320Bh	(Low)			
AJ-12	12812	320Ch	PID2 feedback data input destination selection	R/W	0 ~ 13	1
AJ-13	12813	320Dh	PID2 proportional gain	R/W	0 ~ 1000	0.1
AJ-14	12814	320Eh	PID2 integral gain	R/W	0 ~ 36000	0.1s
AJ-15	12815	320Fh	PID2 differential gain	R/W	0 ~ 10000	0.01s
AJ-16	12816	3210h	PID2 changeable range	R/W	0 ~ 10000	0.01%
AJ-17	12817	3211h	PID2 deviation excessive level	R/W	0 ~ 10000	0.01%
AJ-18	12818	3212h	PID2 feedback comparison signal OFF level	R/W	0 ~ 10000	0.01%
AJ-19	12819	3213h	PID2 feedback comparison signal ON level	R/W	0 ~ 10000	0.01%
AJ-21	12821	3215h	PID3 selection	R/W	0 ~ 2	1
AJ-22	12822	3216h	PID3 deviation minus	R/W	0 ~ 1	1
AJ-23	12823	3217h	PID3 unit selection (PID3)	R/W	0 ~ 58	1
AJ-24	12824	3218h	PID3 scale adjustment (0%)	R/W	-10000 ~ 10000	1
AJ-25	12825	3219h	PID3 scale adjustment (100%)	R/W	-10000 ~ 10000	1
AJ-26	12826	321Ah	PID3 scale adjustment (decimal point)	R/W	0 ~ 4	1
AJ-27	12827	321Bh	PID3 target value input destination selection	R/W	0 ~ 13	1
AJ-30	12830	321Eh	PID3 target value setting (High)	R/W	-10000 ~ 10000	Per AJ-26 setting
(AJ-31)	12831	321Fh	(Low)			
AJ-32	12832	3220h	PID3 feedback data input destination selection	R/W	0 ~ 13	1
AJ-33	12833	3221h	PID3 proportional gain	R/W	0 ~ 1000	0.1
AJ-34	12834	3222h	PID3 integral gain	R/W	0 ~ 36000	0.1s
AJ-35	12835	3223h	PID3 differential gain	R/W	0 ~ 10000	0.01s
AJ-36	12836	3224h	PID3 changeable range	R/W	0 ~ 10000	0.01%
AJ-37	12837	3225h	PID3 deviation excessive level	R/W	0 ~ 10000	0.01%
AJ-38	12838	3226h	PID3 feedback comparison signal OFF level	R/W	0 ~ 10000	0.01%
AJ-39	12839	3227h	PID3 feedback comparison signal ON level	R/W	0 ~ 10000	0.01%
AJ-41	12841	3229h	PID4 selection	R/W	0 ~ 2	1
AJ-42	12842	322Ah	PID4 deviation minus	R/W	0 ~ 1	1
AJ-43	12843	322Bh	PID4 unit selection (PID4)	R/W	0 ~ 58	1
AJ-44	12844	322Ch	PID4 scale adjustment (0%)	R/W	-10000 ~ 10000	1
AJ-45	12845	322Dh	PID4 scale adjustment (100%)	R/W	-10000 ~ 10000	1
AJ-46	12846	322Eh	PID4 scale adjustment (decimal point)	R/W	0 ~ 4	1
AJ-47	12847	322Fh	PID4 target value input destination selection	R/W	0 ~ 13	1
AJ-50	12850	3232h	PID4 target value setting (High)	R/W	-10000 ~ 10000	Per AJ-46 setting
(AJ-51)	12851	3233h	(Low)			
AJ-52	12852	3234h	PID4 feedback data input destination selection	R/W	0 ~ 13	1
AJ-53	12853	3235h	PID4 proportional gain	R/W	0 ~ 1000	0.1
AJ-54	12854	3236h	PID4 integral gain	R/W	0 ~ 36000	0.1s
AJ-55	12855	3237h	PID4 differential gain	R/W	0 ~ 10000	0.01s
AJ-56	12856	3238h	PID4 changeable range	R/W	0 ~ 10000	0.01%
AJ-57	12857	3239h	PID4 deviation excessive level	R/W	0 ~ 10000	0.01%
AJ-58	12858	323Ah	PID4 feedback comparison signal OFF level	R/W	0 ~ 10000	0.01%
AJ-59	12859	323Bh	PID4 feedback comparison signal ON level	R/W	0 ~ 10000	0.01%

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
bA101	13001	32C9h	First frequency upper limit selection	R/W	0 ~ 13	1
bA102	13002	32Cah	First frequency upper limiter	R/W	0 ~ 59000	0.01Hz
bA103	13003	32CBh	First frequency lower limiter	R/W	0 ~ 59000	0.01Hz
bA110	13010	32D2h	First torque limit selection	R/W	0 ~ 11	1
bA111	13011	32D3h	First torque limit parameter mode selection	R/W	0 ~ 1	1
bA112	13012	32D4h	First torque limit 1 (Four quadrant normal powered)	R/W	0 ~ 5000	0.1%
bA113	13013	32D5h	First torque limit 2 (Four quadrant reverse regenerative)	R/W	0 ~ 5000	0.1%
bA114	13014	32D6h	First torque limit 3 (Four quadrant reverse powered)	R/W	0 ~ 5000	0.1%
bA115	13015	32D7h	First torque limit 4 (Four quadrant normal regenerative)	R/W	0 ~ 5000	0.1%
bA116	13016	32D8h	First torque LAD stop selection	R/W	0 ~ 1	1
bA120	13020	32DCh	First overcurrent suppression selection	R/W	0 ~ 1	1
bA121	13021	32DDh	First overcurrent suppression level	R/W	(0 to 2.00) * CTL rated current	0.1A
bA122	13022	32Deh	First overload limit 1 selection	R/W	0 ~ 3	1
bA123	13023	32DFh	First overload limit 1 level	R/W	(0.20 to 2.00) * CTL rated current	0.1A
bA124	13024	32E0h	First overload limit 1 operation time (High)	R/W	10 ~ 360000	0.01s
(bA125)	13025	32E1h	(Low)			
bA126	13026	32E2h	First overload limit 2 selection	R/W	0 ~ 3	1
bA127	13027	32E3h	First overload limit 2 level	R/W	(0.20 to 2.00) * CTL rated current	0.1A
bA128	13028	32E4h	First overload limit 2 operation time (High)	R/W	10 ~ 360000	0.01s
(bA129)	13029	32E5h	(Low)			
bA-30	13030	32E6h	Instantaneous power failure non-stop selection	R/W	0 ~ 3	1
bA-31	13031	32E7h	Instantaneous power failure non-stop function starting voltage	R/W	200V class: 0 ~ 4100 400V class: 0 ~ 8200	0.1Vdc
bA-32	13032	32E8h	Instantaneous power failure non-stop target level	R/W	200V class: 0 ~ 4100 400V class: 0 ~ 8200	0.1Vdc
bA-34	13034	32Eah	Instantaneous power failure non-stop deceleration time (High)	R/W	1 ~ 360000	0.01s
(bA-35)	13035	32Ebh	(Low)			
bA-36	13036	32Ech	Instantaneous power failure non-stop deceleration starting range	R/W	0 ~ 1000	0.01Hz
bA-37	13037	32Edh	Instantaneous power failure non-stop constant DC voltage control P gain	R/W	0 ~ 500	0.01
bA-38	13038	32Eeh	Instantaneous power failure non-stop constant DC voltage control I gain	R/W	0 ~ 15000	0.01s
bA140	13040	32F0h	First overvoltage suppression function selection	R/W	0 ~ 3	1
bA141	13041	32F1h	First overvoltage suppression level setting	R/W	200V class: 3300 ~ 4000 400V class: 6600 ~ 8000	0.1Vdc
bA142	13042	32F2h	First overvoltage suppression operating time (High)	R/W	0 ~ 360000	0.01s
(bA143)	13043	32F3h	(Low)			
bA144	13044	32F4h	First constant DC voltage control P gain	R/W	0 ~ 500	0.01
bA145	13045	32F5h	First constant DC voltage control I gain	R/W	0 ~ 15000	0.01s
bA146	13046	32F6h	First overexcitation function selection (V/f)	R/W	0 ~ 4	1
bA147	13047	32F7h	First overexcitation output filter time constant (V/f)	R/W	0 ~ 100	0.01s
bA148	13048	32F8h	First overexcitation voltage gain (V/f)	R/W	50 ~ 400	1%
bA149	13049	32F9h	First overexcitation suppression level setting (V/f)	R/W	200V class: 3300 ~ 4000 400V class: 6600 ~ 8000	0.1Vdc

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
bA-60	13060	3304h	BRD use rate	R/W	0 ~ 1000 (linked with bA-63)	0.1%
bA-61	13061	3305h	BRD selection	R/W	0 ~ 2	1
bA-62	13062	3306h	BRD ON level	R/W	200V class: 3300 ~ 4000 400V class: 6600 ~ 8000	0.1Vdc
bA-63	13063	3307h	BRD resistance	R/W	From the minimum resistance to 600.0	0.1Ω
bA-70	13070	330Eh	Cooling fan operation selection	R/W	0 ~ 2	1
bA-71	13071	330Fh	Selection of cumulative cooling fan operating time clearance	R/W	0 ~ 1	1
bA201	23001	59D9h	Second frequency upper limit selection	R/W	0 ~ 13	1
bA202	23002	59Dah	Second frequency upper limiter	R/W	0 ~ 59000	0.01Hz
bA203	23003	59DBh	Second frequency lower limiter	R/W	0 ~ 59000	0.01Hz
bA210	23010	59E2h	Second torque limit selection	R/W	0 ~ 11	1
bA211	23011	59E3h	Second torque limit parameter mode selection	R/W	0 ~ 1	1
bA212	23012	59E4h	Second torque limit 1 (Four quadrant normal powered)	R/W	0 ~ 5000	0.1%
bA213	23013	59E5h	Second torque limit 2 (Four quadrant reverse regenerative)	R/W	0 ~ 5000	0.1%
bA214	23014	59E6h	Second torque limit 3 (Four quadrant reverse powered)	R/W	0 ~ 5000	0.1%
bA215	23015	59E7h	Second torque limit 4 (Four quadrant normal regenerative)	R/W	0 ~ 5000	0.1%
bA216	23016	59E8h	Second torque LAD stop selection	R/W	0 ~ 1	1
bA220	23020	59Ech	Second overcurrent suppression selection	R/W	0 ~ 1	1
bA221	23021	59Edh	Second overcurrent suppression level	R/W	(0 to 2.00) * CTL rated current	0.1A
bA222	23022	59Eeh	Second overload limit 1 selection	R/W	0 ~ 3	1
bA223	23023	59Efh	Second overload limit 1 level	R/W	(0.20 to 2.00) * CTL rated current	0.1A
bA224	23024	59F0h	Second overload limit 1 operation time (High)	R/W	10 ~ 360000	0.01s
(bA225)	23025	59F1h	(Low)			
bA226	23026	59F2h	Second overload limit 2 selection	R/W	0 ~ 3	1
bA227	23027	59F3h	Second overload limit 2 level	R/W	(0.20 to 2.00) * CTL rated current	0.1A
bA228	23028	59F4h	Second overload limit 2 operation time (High)	R/W	10 ~ 360000	0.01s
(bA229)	23029	59F5h	(Low)			
bA240	23040	5A00h	Second overvoltage suppression function selection	R/W	0 ~ 3	1
bA241	23041	5A01h	Second overvoltage suppression level setting	R/W	200V class: 3300 ~ 4000 400V class: 6600 ~ 8000	0.1Vdc
bA242	23042	5A02h	Second overvoltage suppression operating time (High)	R/W	0 ~ 360000	0.01s
(bA243)	23043	5A03h	(Low)			
bA244	23044	5A04h	Second constant DC voltage control P gain	R/W	0 ~ 500	0.01
bA245	23045	5A05h	Second constant DC voltage control I gain	R/W	0 ~ 15000	0.01s
bA246	23046	5A06h	Second overexcitation function selection (V/f)	R/W	0 ~ 4	1
bA247	23047	5A07h	Second overexcitation output filter time constant (V/f)	R/W	0 ~ 100	0.01s
bA248	23048	5A08h	Second overexcitation voltage gain (V/f)	R/W	50 ~ 400	1%
bA249	23049	5A09h	Second overexcitation suppression level setting (V/f)	R/W	200V class: 3300 ~ 4000 400V class: 6600 ~ 8000	0.1Vdc

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
bb101	13101	332Dh	First carrier frequency	R/W	5 to 160 (varies depending on selection of capacity and load rating)	0.1kHz
bb102	13102	332Eh	First sprinkle carrier pattern selection	R/W	0 ~ 3	1
bb103	13103	332Fh	First automatic carrier frequency reduction selection	R/W	0 ~ 2	1
bb-10	13110	3336h	Auto-reset selection	R/W	0 ~ 2	1
bb-11	13111	3337h	Alarm output selection when the auto-reset is enabled	R/W	0 ~ 1	1
bb-12	13112	3338h	Automatic resetting stand-by time	R/W	0 ~ 600	1s
bb-13	13113	3339h	Automatic resetting count setting	R/W	0 ~ 10	1
bb-20	13120	3340h	Instantaneous power failure retry count selection	R/W	0 ~ 16 / 255	1
bb-21	13121	3341h	Undervoltage retry count selection	R/W	0 ~ 16 / 255	1
bb-22	13122	3342h	Overcurrent retry count selection	R/W	0 ~ 5	1
bb-23	13123	3343h	Overvoltage retry count selection	R/W	0 ~ 5	1
bb-24	13124	3344h	Selection of instantaneous power failure/undervoltage retry	R/W	0 ~ 4	1
bb-25	13125	3345h	Allowable instantaneous power failure time	R/W	3 ~ 250	0.1s
bb-26	13126	3346h	Retry wait time after instantaneous power failure/undervoltage	R/W	3 ~ 1000	0.1s
bb-27	13127	3347h	Instantaneous power failure/undervoltage tripping selection during stop	R/W	0 ~ 2	1
bb-28	13128	3348h	Overcurrent trip/retry selection	R/W	0 ~ 4	1
bb-29	13129	3349h	Retry wait time after overcurrent	R/W	3 ~ 1000	0.1s
bb-30	13130	334Ah	Overvoltage trip/retry selection	R/W	0 ~ 4	1
bb-31	13131	334Bh	Retry wait time after overvoltage	R/W	3 ~ 1000	0.1s
bb-40	13140	3354h	Restart after free-run release	R/W	0 ~ 3	1
bb-41	13141	3355h	Restart after reset release	R/W	0 ~ 3	1
bb-42	13142	3356h	Speed frequency matching lower limit frequency setting	R/W	0 ~ 59000	0.01Hz
bb-43	13143	3357h	Restarting level of frequency acquisition	R/W	(0.20 to 2.00) * CTL rated current	0.1A
bb-44	13144	3358h	Constant (speed) for frequency acquisition restarting	R/W	10 ~ 3000	0.01s
bb-45	13145	3359h	Constant (voltage) for frequency acquisition restarting	R/W	10 ~ 3000	0.01s
bb-46	13146	335Ah	Overcurrent suppression level for frequency acquisition restart	R/W	(0 to 2.00) * CTL rated current	0.1A
bb-47	13147	335Bh	Start speed selection for frequency acquisition restart	R/W	0 ~ 2	1
bb160	13160	3368h	First overcurrent detection level	R/W	(0.20 to 2.20) * ND rated current	0.1A
bb-61	13161	3369h	Incoming overvoltage selection	R/W	0 ~ 1	1
bb-62	13162	336Ah	Incoming overvoltage level selection	R/W	200V class: 3000 ~ 4100 400V class: 6000 ~ 8200	0.1Vdc
bb-64	13164	336Ch	Ground fault detection selection	R/W	0 ~ 1	1
bb-65	13165	336Dh	Input phase loss selection	R/W	0 ~ 1	1
bb-66	13166	336Eh	Output phase loss selection	R/W	0 ~ 1	1
bb-67	13167	336Fh	Output phase loss detection sensitivity	R/W	1 ~ 100	1%
bb-70	13170	3372h	Thermistor error level	R/W	0 ~ 10000	1Ω
bb-80	13180	337Ch	Over-speed error detection level	R/W	0 ~ 1500	0.1%
bb-81	13181	337Dh	Over-speed error detection time	R/W	0 ~ 50	0.1s
bb-82	13182	337Eh	Operation for speed deviation error	R/W	0 ~ 1	1
bb-83	13183	337Fh	Speed deviation error detection level	R/W	0 ~ 1000	0.1%
bb-84	13184	3380h	Speed deviation error detection time	R/W	0 ~ 50	0.1s
bb-85	13185	3381h	Behavior when the position deviation is abnormal	R/W	0 ~ 1	1
bb-86	13186	3382h	Abnormal position deviation detection level	R/W	0 ~ 65535 (*100pls)	1 (*100pls)
bb-87	13187	3383h	Abnormal position deviation time	R/W	0 ~ 50	0.1s

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
bb201	23101	5A3Dh	Second carrier frequency	R/W	5 to 160 (varies depending on selection of capacity and load rating)	0.1kHz
bb202	23102	5A3Eh	Second sprinkle carrier pattern selection	R/W	0 ~ 3	1
bb203	23103	5A3Fh	Second automatic carrier frequency reduction selection	R/W	0 ~ 2	1
bb260	23160	5A78h	Second overcurrent detection level	R/W	(0.20 to 2.20) * ND rated current	0.1A
bC110	13210	339Ah	First electronic thermal level	R/W	(0 to 3.00) * CTL rated current	0.1A
bC111	13211	339Bh	First electronic thermal characteristics selection	R/W	0 ~ 2	1
bC112	13212	339Ch	First electronic thermal subtraction function selection	R/W	0 ~ 1	1
bC113	13213	339Dh	First electronic thermal subtraction time	R/W	1 ~ 1000	1s
bC-14	13214	339Eh	Electronic thermal counter memory at power-off	R/W	0 ~ 1	1
bC120	13220	33A4h	First free electronic thermal frequency 1	R/W	0 ~ 59000 (bC122)	0.01Hz
bC121	13221	33A5h	First free electronic thermal current 1	R/W	(0 to 3.00) * CTL rated current	0.1A
bC122	13222	33A6h	First free electronic thermal frequency 2	R/W	0 ~ 59000 (bC120 ~ bC124)	0.01Hz
bC123	13223	33A7h	First free electronic thermal current 2	R/W	(0 to 3.00) * CTL rated current	0.1A
bC124	13224	33A8h	First free electronic thermal frequency 3	R/W	0 (bC122) ~ 59000	0.01Hz
bC125	13225	33A9h	First free electronic thermal current 3	R/W	(0 to 3.00) * CTL rated current	0.1A
bC210	23210	5AAAh	Second electronic thermal level	R/W	(0 to 3.00) * CTL rated current	0.1A
bC211	23211	5AABh	Second electronic thermal characteristics selection	R/W	0 ~ 2	1
bC212	23212	5AACH	Second electronic thermal subtraction function selection	R/W	0 ~ 1	1
bC213	23213	5AADh	Second electronic thermal subtraction time	R/W	1 ~ 1000	1s
bC220	23220	5AB4h	Second free electronic thermal frequency 1	R/W	0 ~ 59000 (bC222)	0.01Hz
bC221	23221	5AB5h	Second free electronic thermal current 1	R/W	(0 to 3.00) * CTL rated current	0.1A
bC222	23222	5AB6h	Second free electronic thermal frequency 2	R/W	0 ~ 59000 (bC220 ~ bC224)	0.01Hz
bC223	23223	5AB7h	Second free electronic thermal current 2	R/W	(0 to 3.00) * CTL rated current	0.1A
bC224	23224	5AB8h	Second free electronic thermal frequency 3	R/W	0 (bC222) ~ 59000	0.01Hz
bC225	23225	5AB9h	Second free electronic thermal current 3	R/W	(0 to 3.00) * CTL rated current	0.1A
bd-01	13301	33F5h	STO input indication selection	R/W	0 ~ 2	1
bd-02	13302	33F6h	STO allowable input switch time	R/W	0 ~ 6000	0.01s
bd-03	13303	33F7h	STO indication selection within allowable input time	R/W	0 ~ 1	1
bd-04	13304	33F8h	STO operation selection after allowable input time	R/W	0 ~ 2	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
CA-01	14001	36B1h	Selection of input terminal [1]	R/W	0 ~ 110	1
CA-02	14002	36B2h	Selection of input terminal [2]	R/W	0 ~ 110	1
CA-03	14003	36B3h	Selection of input terminal [3]	R/W	0 ~ 110	1
CA-04	14004	36B4h	Selection of input terminal [4]	R/W	0 ~ 110	1
CA-05	14005	36B5h	Selection of input terminal [5]	R/W	0 ~ 110	1
CA-06	14006	36B6h	Selection of input terminal [6]	R/W	0 ~ 110	1
CA-07	14007	36B7h	Selection of input terminal [7]	R/W	0 ~ 110	1
CA-08	14008	36B8h	Selection of input terminal [8]	R/W	0 ~ 110	1
CA-09	14009	36B9h	Selection of input terminal [9]	R/W	0 ~ 110	1
CA-10	14010	36Bah	Selection of input terminal [A]	R/W	0 ~ 110	1
CA-11	14011	36BBh	Selection of input terminal [B]	R/W	0 ~ 110	1
CA-21	14021	36C5h	Selection of Input terminal [1] a/b (NO/NC)	R/W	0 ~ 1	1
CA-22	14022	36C6h	Selection of Input terminal [2] a/b (NO/NC)	R/W	0 ~ 1	1
CA-23	14023	36C7h	Selection of Input terminal [3] a/b (NO/NC)	R/W	0 ~ 1	1
CA-24	14024	36C8h	Selection of Input terminal [4] a/b (NO/NC)	R/W	0 ~ 1	1
CA-25	14025	36C9h	Selection of Input terminal [5] a/b (NO/NC)	R/W	0 ~ 1	1
CA-26	14026	36Cah	Selection of Input terminal [6] a/b (NO/NC)	R/W	0 ~ 1	1
CA-27	14027	36CBh	Selection of Input terminal [7] a/b (NO/NC)	R/W	0 ~ 1	1
CA-28	14028	36CCh	Selection of Input terminal [8] a/b (NO/NC)	R/W	0 ~ 1	1
CA-29	14029	36CDh	Selection of Input terminal [9] a/b (NO/NC)	R/W	0 ~ 1	1
CA-30	14030	36Ceh	Selection of Input terminal [A] a/b (NO/NC)	R/W	0 ~ 1	1
CA-31	14031	36CFh	Selection of Input terminal [B] a/b (NO/NC)	R/W	0 ~ 1	1
CA-41	14041	36D9h	Input terminal [1] response time	R/W	0 ~ 400	1ms
CA-42	14042	36Dah	Input terminal [2] response time	R/W	0 ~ 400	1ms
CA-43	14043	36DBh	Input terminal [3] response time	R/W	0 ~ 400	1ms
CA-44	14044	36DCh	Input terminal [4] response time	R/W	0 ~ 400	1ms
CA-45	14045	36DDh	Input terminal [5] response time	R/W	0 ~ 400	1ms
CA-46	14046	36Deh	Input terminal [6] response time	R/W	0 ~ 400	1ms
CA-47	14047	36DFh	Input terminal [7] response time	R/W	0 ~ 400	1ms
CA-48	14048	36E0h	Input terminal [8] response time	R/W	0 ~ 400	1ms
CA-49	14049	36E1h	Input terminal [9] response time	R/W	0 ~ 400	1ms
CA-50	14050	36E2h	Input terminal [A] response time	R/W	0 ~ 400	1ms
CA-51	14051	36E3h	Input terminal [B] response time	R/W	0 ~ 400	1ms
CA-55	14055	36E7h	Multi-step input determination time	R/W	0 ~ 2000	1ms
CA-60	14060	36Ech	FUP/FDN overwriting target selection	R/W	0 ~ 1	1
CA-61	14061	36Edh	FUP/FDN memory selection	R/W	0 ~ 1	1
CA-62	14062	36Eeh	FUP/FDN UDC terminal mode selection	R/W	0 ~ 1	1
CA-64	14064	36F0h	Acceleration time for FUP/FDN functions (High)	R/W	0 ~ 360000	0.01s
(CA-65)	14065	36F1h	(Low)			
CA-66	14066	36F2h	Deceleration time for FUP/FDN functions (High)	R/W	0 ~ 360000	0.01s
(CA-67)	14067	36F3h	(Low)			
CA-70	14070	36F6h	Speed command selection with [F-OP] enabled.	R/W	1 ~ 16	1
CA-71	14071	36F7h	Operation command selection with [F-OP] enabled.	R/W	0 ~ 6	1
CA-72	14072	36F8h	Reset selection	R/W	0 ~ 3	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
CA-81	14081	3701h	Encoder constant set-up	R/W	32 ~ 65535	1pls
CA-82	14082	3702h	Encoder phase sequence selection	R/W	0 ~ 1	1
CA-83	14083	3703h	Motor gear ratio's numerator	R/W	1 ~ 10000	1
CA-84	14084	3704h	Motor gear ratio's denominator	R/W	1 ~ 10000	1
CA-90	14090	370Ah	Pulse train input (internal) detection target selection	R/W	0 ~ 3	1
CA-91	14091	370Bh	Pulse train input (internal) mode selection	R/W	0 ~ 2	1
CA-92	14092	370Ch	Pulse train frequency scale	R/W	5 ~ 3200	0.01kHz
CA-93	14093	370Dh	Pulse train frequency filter time constant	R/W	1 ~ 200	0.01s
CA-94	14094	370Eh	Pulse train frequency bias amount	R/W	-1000 ~ 1000	0.1%
CA-95	14095	370Fh	Pulse train frequency detection upper limit	R/W	0 ~ 1000	0.1%
CA-96	14096	3710h	Pulse train frequency detection lower level	R/W	0 ~ 1000	0.1%
CA-97	14097	3711h	Pulse count compare-match output ON level	R/W	0 ~ 65535	1
CA-98	14098	3712h	Pulse count compare-match output OFF level	R/W	0 ~ 65535	1
CA-99	14099	3713h	Maximum value for pulse count compare-match output	R/W	0 ~ 65535	1
Cb-01	14101	3715h	[Ai1] terminal input filter time constant	R/W	1 ~ 500	1ms
Cb-03	14103	3717h	[Ai1] terminal start amount	R/W	0 ~ 10000	0.01%
Cb-04	14104	3718h	[Ai1] terminal end amount	R/W	0 ~ 10000	0.01%
Cb-05	14105	3719h	[Ai1] terminal start ratio	R/W	0 ~ 1000 (Cb-06)	0.1%
Cb-06	14106	371Ah	[Ai1] terminal end ratio	R/W	(Cb-05) 0 ~ 1000	0.1%
Cb-07	14107	371Bh	[Ai1] terminal start selection	R/W	0 ~ 1	1
Cb-11	14111	371Fh	[Ai2] terminal input filter time constant	R/W	1 ~ 500	1ms
Cb-13	14113	3721h	[Ai2] terminal start amount	R/W	0 ~ 10000	0.01%
Cb-14	14114	3722h	[Ai2] terminal end amount	R/W	0 ~ 10000	0.01%
Cb-15	14115	3723h	[Ai2] terminal start ratio	R/W	0 ~ 1000 (Cb-16)	0.1%
Cb-16	14116	3724h	[Ai2] terminal end ratio	R/W	(Cb-15) 0 ~ 1000	0.1%
Cb-17	14117	3725h	[Ai2] terminal start selection	R/W	0 ~ 1	1
Cb-21	14121	3729h	[Ai3] terminal input filter time constant	R/W	1 ~ 500	1ms
Cb-22	14122	372Ah	[Ai3] terminal selection	R/W	0 ~ 2	1
Cb-23	14123	372Bh	[Ai3] terminal start amount	R/W	-10000 ~ 10000	0.01%
Cb-24	14124	372Ch	[Ai3] terminal end amount	R/W	-10000 ~ 10000	0.01%
Cb-25	14125	372Dh	[Ai3] terminal start ratio	R/W	-1000 ~ 1000 (Cb-26)	0.1%
Cb-26	14126	372Eh	[Ai3] terminal end ratio	R/W	(Cb-25)-1000 ~ 1000	0.1%
Cb-30	14130	3732h	[Ai1] voltage/current bias adjustment	R/W	-10000 ~ 10000	0.01%
Cb-31	14131	3733h	[Ai1] voltage/current adjustment gain	R/W	0 ~ 20000	0.01%
Cb-32	14132	3734h	[Ai2] voltage/current bias adjustment	R/W	-10000 ~ 10000	0.01%
Cb-33	14133	3735h	[Ai2] voltage/current adjustment gain	R/W	0 ~ 20000	0.01%
Cb-34	14134	3736h	[Ai3] voltage bias adjustment	R/W	-10000 ~ 10000	0.01%
Cb-35	14135	3737h	[Ai3] voltage adjustment gain	R/W	0 ~ 20000	0.01%
Cb-40	14140	373Ch	Thermistor selection	R/W	0 ~ 2	1
Cb-41	14141	373Dh	Thermistor [TH+/TH-] adjustment	R/W	0 ~ 10000	0.1
Cb-51	14151	3747h	QOP-VR input filter time constant	R/W	1 ~ 500	1ms
Cb-53	14153	3749h	QOP -VR start amount	R/W	0 ~ 10000	0.01%
Cb-54	14154	374Ah	QOP -VR end amount	R/W	0 ~ 10000	0.01%
Cb-55	14155	374Bh	QOP -VR start ratio	R/W	0 ~ 1000 (Cb-56)	0.1%
Cb-56	14156	374Ch	QOP -VR end ratio	R/W	(Cb-55) 0 ~ 1000	0.1%
Cb-57	14157	374Dh	QOP -VR start selection	R/W	0 ~ 1	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
CC-01	14201	3779h	Selection of output terminal [11]	R/W	0 ~ 93	1
CC-02	14202	377Ah	Selection of output terminal [12]	R/W	0 ~ 93	1
CC-03	14203	377Bh	Selection of output terminal [13]	R/W	0 ~ 93	1
CC-04	14204	377Ch	Selection of output terminal [14]	R/W	0 ~ 93	1
CC-05	14205	377Dh	Selection of output terminal [15]	R/W	0 ~ 93	1
CC-06	14206	377Eh	Selection of relay output terminal [16]	R/W	0 ~ 93	1
CC-07	14207	377Fh	Selection of relay output terminal [AL]	R/W	0 ~ 93	1
CC-11	14211	3783h	Selection of output terminal [11] a/b (NO/NC)	R/W	0 ~ 1	1
CC-12	14212	3784h	Selection of output terminal [12] a/b (NO/NC)	R/W	0 ~ 1	1
CC-13	14213	3785h	Selection of output terminal [13] a/b (NO/NC)	R/W	0 ~ 1	1
CC-14	14214	3786h	Selection of output terminal [14] a/b (NO/NC)	R/W	0 ~ 1	1
CC-15	14215	3787h	Selection of output terminal [15] a/b (NO/NC)	R/W	0 ~ 1	1
CC-16	14216	3788h	Selection of output terminal [16] a/b (NO/NC)	R/W	0 ~ 1	1
CC-17	14217	3789h	Selection of output terminal [AL] a/b (NO/NC)	R/W	0 ~ 1	1
CC-20	14220	378Ch	Output terminal [11] on-delay time	R/W	0 ~ 10000	0.01s
CC-21	14221	378Dh	Output terminal [11] off-delay time	R/W	0 ~ 10000	0.01s
CC-22	14222	378Eh	Output terminal [12] on-delay time	R/W	0 ~ 10000	0.01s
CC-23	14223	378Fh	Output terminal [12] off-delay time	R/W	0 ~ 10000	0.01s
CC-24	14224	3790h	Output terminal [13] on-delay time	R/W	0 ~ 10000	0.01s
CC-25	14225	3791h	Output terminal [13] off-delay time	R/W	0 ~ 10000	0.01s
CC-26	14226	3792h	Output terminal [14] on-delay time	R/W	0 ~ 10000	0.01s
CC-27	14227	3793h	Output terminal [14] off-delay time	R/W	0 ~ 10000	0.01s
CC-28	14228	3794h	Output terminal [15] on-delay time	R/W	0 ~ 10000	0.01s
CC-29	14229	3795h	Output terminal [15] off-delay time	R/W	0 ~ 10000	0.01s
CC-30	14230	3796h	Output terminal [16] on-delay time	R/W	0 ~ 10000	0.01s
CC-31	14231	3797h	Output terminal [16] off-delay time	R/W	0 ~ 10000	0.01s
CC-32	14232	3798h	Output terminal [AL] on-delay time	R/W	0 ~ 10000	0.01s
CC-33	14233	3799h	Output terminal [AL] off-delay time	R/W	0 ~ 10000	0.01s
CC-40	14240	37A0h	Logical calculation output signal LOG1 selection 1	R/W	0 ~ 93	1
CC-41	14241	37A1h	Logical calculation output signal LOG1 selection 2	R/W	0 ~ 93	1
CC-42	14242	37A2h	Logical calculation output signal LOG1 operator selection	R/W	0 ~ 2	1
CC-43	14243	37A3h	Logical calculation output signal LOG2 selection 1	R/W	0 ~ 93	1
CC-44	14244	37A4h	Logical calculation output signal LOG2 selection 2	R/W	0 ~ 93	1
CC-45	14245	37A5h	Logical calculation output signal LOG2 operator selection	R/W	0 ~ 2	1
CC-46	14246	37A6h	Logical calculation output signal LOG3 selection 1	R/W	0 ~ 93	1
CC-47	14247	37A7h	Logical calculation output signal LOG3 selection 2	R/W	0 ~ 93	1
CC-48	14248	37A8h	Logical calculation output signal LOG3 operator selection	R/W	0 ~ 2	1
CC-49	14249	37A9h	Logical calculation output signal LOG4 selection 1	R/W	0 ~ 93	1
CC-50	14250	37Aah	Logical calculation output signal LOG4 selection 2	R/W	0 ~ 93	1
CC-51	14251	37Abh	Logical calculation output signal LOG4 operator selection	R/W	0 ~ 2	1
CC-52	14252	37Ach	Logical calculation output signal LOG5 selection 1	R/W	0 ~ 93	1
CC-53	14253	37Adh	Logical calculation output signal LOG5 selection 2	R/W	0 ~ 93	1
CC-54	14254	37Aeh	Logical calculation output signal LOG5 operator selection	R/W	0 ~ 2	1
CC-55	14255	37Afh	Logical calculation output signal LOG6 selection 1	R/W	0 ~ 93	1
CC-56	14256	37B0h	Logical calculation output signal LOG6 selection 2	R/W	0 ~ 93	1
CC-57	14257	37B1h	Logical calculation output signal LOG6 operator selection	R/W	0 ~ 2	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
CC-58	14258	37B2h	Logical calculation output signal LOG7 selection 1	R/W	0 ~ 93	1
CC-59	14259	37B3h	Logical calculation output signal LOG7 selection 2	R/W	0 ~ 93	1
CC-60	14260	37B4h	Logical calculation output signal LOG7 operator selection	R/W	0 ~ 2	1
Cd-01	14301	37DDh	[FM] terminal output form selection	R/W	0 ~ 1	1
Cd-02	14302	37Deh	[FM] terminal standard frequency (for PWM output)	R/W	0 ~ 3600	1Hz
Cd-03	14303	37DFh	[FM] terminal output selection	R/W	0 to 65535 (register No. of d, F codes)	1
Cd-04	14304	37E0h	[Ao1] terminal output selection	R/W	0 to 65535 (register No. of d, F codes)	1
Cd-05	14305	37E1h	[Ao2] terminal output selection	R/W	0 to 65535 (register No. of d, F codes)	1
Cd-10	14310	37E6h	Analog monitor adjustment mode selection	R/W	0 ~ 1	1
Cd-11	14311	37E7h	[FM] output filter time constant	R/W	1 ~ 500	1ms
Cd-12	14312	37E8h	[FM] output data type selection	R/W	0 ~ 1	1
Cd-13	14313	37E9h	[FM] bias adjustment	R/W	-1000 ~ 1000	0.1%
Cd-14	14314	37Eah	[FM] gain adjustment	R/W	-10000 ~ 10000	0.1%
Cd-15	14315	37Ebh	[FM] output level in the adjustment mode	R/W	-1000 ~ 1000	0.1%
Cd-21	14321	37F1h	[Ao1] output filter time constant	R/W	1 ~ 500	1ms
Cd-22	14322	37F2h	[Ao1] output data type selection	R/W	0 ~ 1	1
Cd-23	14323	37F3h	[Ao1] bias adjustment (common to voltage/current)	R/W	-1000 ~ 1000	0.1%
Cd-24	14324	37F4h	[Ao1] gain adjustment (common to voltage/current)	R/W	-10000 ~ 10000	0.1%
Cd-25	14325	37F5h	[Ao1] output level in the adjustment mode	R/W	-1000 ~ 1000	0.1%
Cd-31	14331	37FBh	[Ao2] output filter time constant	R/W	1 ~ 500	1ms
Cd-32	14332	37FCh	[Ao2] output data type selection	R/W	0 ~ 1	1
Cd-33	14333	37FDh	[Ao2] bias adjustment (common to voltage/current)	R/W	-1000 ~ 1000	0.1%
Cd-34	14334	37Feh	[Ao2] gain adjustment (common to voltage/current)	R/W	-10000 ~ 10000	0.1%
Cd-35	14335	37FFh	[Ao2] output level in the adjustment mode	R/W	-1000 ~ 1000	0.1%
CE101	14401	3841h	First low current signal output mode selection	R/W	0 ~ 1	1
CE102	14402	3842h	First low current detection level 1	R/W	(0 to 2.00) * CTL rated current	0.1A
CE103	14403	3843h	First low current detection level 2	R/W	(0 to 2.00) * CTL rated current	0.1A
CE105	14405	3845h	First overload prewarning signal output mode selection	R/W	0 ~ 1	1
CE106	14406	3846h	First overload prewarning level 1	R/W	(0 to 2.00) * CTL rated current	0.1A
CE107	14407	3847h	First overload prewarning level 2	R/W	(0 to 2.00) * CTL rated current	0.1A
CE-10	14410	384Ah	Acceleration reaching frequency 1	R/W	0 ~ 59000	0.01Hz
CE-11	14411	384Bh	Deceleration reaching frequency 1	R/W	0 ~ 59000	0.01Hz
CE-12	14412	384Ch	Acceleration reaching frequency 2	R/W	0 ~ 59000	0.01Hz
CE-13	14413	384Dh	Deceleration reaching frequency 2	R/W	0 ~ 59000	0.01Hz
CE120	14420	3854h	First over torque level (normal powered)	R/W	0 ~ 5000	0.1%
CE121	14421	3855h	First over torque level (reverse regenerative)	R/W	0 ~ 5000	0.1%
CE122	14422	3856h	First over torque level (reverse powered)	R/W	0 ~ 5000	0.1%
CE123	14423	3857h	First over torque level (normal regenerative)	R/W	0 ~ 5000	0.1%
CE-30	14430	385Eh	Electronic thermal warning level (MTR)	R/W	0 ~ 10000	0.01%
CE-31	14431	385Fh	Electronic thermal warning level (CTL)	R/W	0 ~ 10000	0.01%
CE-33	14433	3861h	Zero-speed detection value level	R/W	0 ~ 10000	0.01Hz
CE-34	14434	3862h	Cooling fin heating prewarning level	R/W	0 ~ 200	1°C
CE-36	14436	3864h	RUN time/power supply ON time level (High)	R/W	0 ~ 100000	1hr
(CE-37)	14437	3865h	(Low)			

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
CE-40	14440	3868h	Window comparator [Ai1] upper limit level	R/W	0 ~ 100	1%
CE-41	14441	3869h	Window comparator [Ai1] lower limit level	R/W	0 ~ 100	1%
CE-42	14442	386Ah	Window comparator [Ai1] hysteresis range	R/W	0 ~ 10	1%
CE-43	14443	386Bh	Window comparator [Ai2] upper limit level	R/W	0 ~ 100	1%
CE-44	14444	386Ch	Window comparator [Ai2] lower limit level	R/W	0 ~ 100	1%
CE-45	14445	386Dh	Window comparator [Ai2] hysteresis range	R/W	0 ~ 10	1%
CE-46	14446	386Eh	Window comparator [Ai3] upper limit level	R/W	-100 ~ 100	1%
CE-47	14447	386Fh	Window comparator [Ai3] lower limit level	R/W	-100 ~ 100	1%
CE-48	14448	3870h	Window comparator [Ai3] hysteresis range	R/W	0 ~ 10	1%
CE-50	14450	3872h	[Ai1] operation level at disconnection	R/W	0 ~ 100	1%
CE-51	14451	3873h	[Ai1] operation level selection at disconnection	R/W	0 ~ 2	1
CE-52	14452	3874h	[Ai2] operation level at disconnection	R/W	0 ~ 100	1%
CE-53	14453	3875h	[Ai2] operation level selection at disconnection	R/W	0 ~ 2	1
CE-54	14454	3876h	[Ai3] operation level at disconnection	R/W	-100 ~ 100	1%
CE-55	14455	3877h	[Ai3] operation level selection at disconnection	R/W	0 ~ 2	1
CE201	24401	5F51h	Second low current signal output mode selection	R/W	0 ~ 1	1
CE202	24402	5F52h	Second low current detection level 1	R/W	(0 to 2.00) * CTL rated current	0.1A
CE203	24403	5F53h	Second low current detection level 2	R/W	(0 to 2.00) * CTL rated current	0.1A
CE205	24405	5F55h	Second overload prewarning signal output mode selection	R/W	0 ~ 1	1
CE206	24406	5F56h	Second overload prewarning level 1	R/W	(0 to 2.00) * CTL rated current	0.1A
CE207	24407	5F57h	Second overload prewarning level 2	R/W	(0 to 2.00) * CTL rated current	0.1A
CE220	24420	5F64h	Second over torque level (normal powered)	R/W	0 ~ 5000	0.1%
CE221	24421	5F65h	Second over torque level (reverse regenerative)	R/W	0 ~ 5000	0.1%
CE222	24422	5F66h	Second over torque level (reverse powered)	R/W	0 ~ 5000	0.1%
CE223	24423	5F67h	Second over torque level (normal regenerative)	R/W	0 ~ 5000	0.1%

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
CF-01	14501	38A5h	Communication transmission speed selection (baudrate selection)	R/W	3 ~ 10	1
CF-02	14502	38A6h	Communication station number selection	R/W	1 ~ 247	1
CF-03	14503	38A7h	Communication parity selection	R/W	0 ~ 2	1
CF-04	14504	38A8h	Communication stop bit selection	R/W	1 ~ 2	1
CF-05	14505	38A9h	Communication error selection	R/W	0 ~ 4	1
CF-06	14506	38Aah	Communication timeout time	R/W	0 ~ 10000	0.01s
CF-07	14507	38Abh	Communication waiting time	R/W	0 ~ 1000	1ms
CF-08	14508	38Ach	Communication method selection	R/W	1 ~ 3	1
CF-11	14511	38AFh	Resister data A, V \leftrightarrow % conversion function	R/W	0 ~ 1	1
CF-20	14520	38B8h	EzCOM start INV station number	R/W	1 ~ 8	1
CF-21	14521	38B9h	EzCOM end INV station number	R/W	1 ~ 8	1
CF-22	14522	38Bah	EzCOM start selection	R/W	0 ~ 1	1
CF-23	14523	38BBh	Number of EzCOM data	R/W	1 ~ 5	1
CF-24	14524	38BCh	EzCOM transmission destination station number 1	R/W	1 ~ 247	1
CF-25	14525	38BDh	EzCOM transmission destination register 1	R/W	0 ~ 65535	1
CF-26	14526	38Beh	EzCOM transmission source register 1	R/W	0 ~ 65535	1
CF-27	14527	38BFh	EzCOM transmission destination station number 2	R/W	1 ~ 247	1
CF-28	14528	38C0h	EzCOM transmission destination register 2	R/W	0 ~ 65535	1
CF-29	14529	38C1h	EzCOM transmission source register 2	R/W	0 ~ 65535	1
CF-30	14530	38C2h	EzCOM transmission destination station number 3	R/W	1 ~ 247	1
CF-31	14531	38C3h	EzCOM transmission destination register 3	R/W	0 ~ 65535	1
CF-32	14532	38C4h	EzCOM transmission source register 3	R/W	0 ~ 65535	1
CF-33	14533	38C5h	EzCOM transmission destination station number 4	R/W	1 ~ 247	1
CF-34	14534	38C6h	EzCOM transmission destination register 4	R/W	0 ~ 65535	1
CF-35	14535	38C7h	EzCOM transmission source register 4	R/W	0 ~ 65535	1
CF-36	14536	38C8h	EzCOM transmission destination station number 5	R/W	1 ~ 247	1
CF-37	14537	38C9h	EzCOM transmission destination register 5	R/W	0 ~ 65535	1
CF-38	14538	38Cah	EzCOM transmission source register 5	R/W	0 ~ 65535	1
CF-50	14550	38D6h	USB station number selection	R/W	1 ~ 247	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
HA-01	15001	3A99h	Auto-tuning selection	R/W	0 ~ 3	1
HA-02	15002	3A9Ah	Operation command for auto-tuning	R/W	0 ~ 1	1
HA-03	15003	3A9Bh	Online tuning selection	R/W	0 ~ 1	1
HA110	15010	3AA2h	First stability constant	R/W	0 ~ 1000	1%
HA115	15015	3AA7h	First speed response	R/W	0 ~ 1000	1%
HA120	15020	3AACh	First gain switch selection	R/W	0 ~ 1	1
HA121	15021	3AADh	First gain switch selection	R/W	0 ~ 10000	1ms
HA122	15022	3AAEh	First gain switch intermediate speed 1	R/W	0 ~ 59000	0.01Hz
HA123	15023	3AAFh	First gain switch intermediate speed 2	R/W	0 ~ 59000	0.01Hz
HA124	15024	3AB0h	First gain mapping maximum speed	R/W	0 ~ 59000	0.01Hz
HA125	15025	3AB1h	First gain mapping P gain 1	R/W	0 ~ 10000	0.1%
HA126	15026	3AB2h	First gain mapping I gain 1	R/W	0 ~ 10000	0.1%
HA127	15027	3AB3h	First gain mapping P control P gain 1	R/W	0 ~ 10000	0.1%
HA128	15028	3AB4h	First gain mapping P gain 2	R/W	0 ~ 10000	0.1%
HA129	15029	3AB5h	First gain mapping I gain 2	R/W	0 ~ 10000	0.1%
HA130	15030	3AB6h	First gain mapping P control P gain 2	R/W	0 ~ 10000	0.1%
HA131	15031	3AB7h	First gain mapping P gain 3	R/W	0 ~ 10000	0.1%
HA132	15032	3AB8h	First gain mapping I gain 3	R/W	0 ~ 10000	0.1%
HA133	15033	3AB9h	First gain mapping P gain 4	R/W	0 ~ 10000	0.1%
HA134	15034	3ABAh	First gain mapping I gain 4	R/W	0 ~ 10000	0.1%
HA210	25010	61B2h	Second stability constant (V/f, A.bst)	R/W	0 ~ 1000	1%
HA215	25015	61B7h	Second speed response	R/W	0 ~ 1000	1%
HA220	25020	61BCh	Second gain switch selection	R/W	0 ~ 1	1
HA221	25021	61BDh	Second gain switch time	R/W	0 ~ 10000	1ms
HA222	25022	61Beh	Second gain switch intermediate speed 1	R/W	0 ~ 59000	0.01Hz
HA223	25023	61BFh	Second gain switch intermediate speed 2	R/W	0 ~ 59000	0.01Hz
HA224	25024	61C0h	Second gain mapping maximum speed	R/W	0 ~ 59000	0.01Hz
HA225	25025	61C1h	Second gain mapping P gain 1	R/W	0 ~ 10000	0.1%
HA226	25026	61C2h	Second gain mapping I gain 1	R/W	0 ~ 10000	0.1%
HA227	25027	61C3h	Second gain mapping P control P gain 1	R/W	0 ~ 10000	0.1%
HA228	25028	61C4h	Second gain mapping P gain 2	R/W	0 ~ 10000	0.1%
HA229	25029	61C5h	Second gain mapping I gain 2	R/W	0 ~ 10000	0.1%
HA230	25030	61C6h	Second gain mapping P control P gain 2	R/W	0 ~ 10000	0.1%
HA231	25031	61C7h	Second gain mapping P gain 3	R/W	0 ~ 10000	0.1%
HA232	25032	61C8h	Second gain mapping I gain 3	R/W	0 ~ 10000	0.1%
HA233	25033	61C9h	Second gain mapping P gain 4	R/W	0 ~ 10000	0.1%
HA234	25034	61Cah	Second gain mapping I gain 4	R/W	0 ~ 10000	0.1%

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
Hb102	15102	3AFEh	First IM motor capacity selection	R/W	1 ~ 16000	0.01kW
Hb103	15103	3AFFh	Selection of number of first IM motor poles	R/W	0 ~ 23	1
Hb104	15104	3B00h	First IM base frequency	R/W	1000 ~ 59000	0.01Hz
Hb105	15105	3B01h	First IM maximum frequency	R/W	1000 ~ 59000	0.01Hz
Hb106	15106	3B02h	First IM motor's rated voltage	R/W	1 ~ 1000	1V
Hb108	15108	3B04h	First IM motor's rated current (High)	R/W	1 ~ 1000000	0.01A
(Hb109)	15109	3B05h	(Low)			
Hb110	15110	3B06h	First IM motor constant R1 (High)	R/W	1 ~ 1000000000	0.000001Ω
(Hb111)	15111	3B07h	(Low)			
Hb112	15112	3B08h	First IM motor constant R2 (High)	R/W	1 ~ 1000000000	0.000001Ω
(Hb113)	15113	3B09h	(Low)			
Hb114	15114	3B0Ah	First IM motor constant L (High)	R/W	1 ~ 1000000000	0.000001mH
(Hb115)	15115	3B0Bh	(Low)			
Hb116	15116	3B0Ch	First IM motor constant lo (High)	R/W	1 ~ 1000000	0.01A
(Hb117)	15117	3B0Dh	(Low)			
Hb118	15118	3B0Eh	First IM motor constant J (High)	R/W	1 ~ 1000000000	0.00001kg·m ²
(Hb119)	15119	3B0Fh	(Low)			
Hb130	15130	3B1Ah	First minimum frequency (V/f, A.bst, IM-SLV)	R/W	10 ~ 1000	0.01Hz
Hb131	15131	3B1Bh	First reduced voltage start time (V/f)	R/W	0 ~ 2000	1ms
Hb140	15140	3B24h	First manual torque boost operation mode selection	R/W	0 ~ 3	1
Hb141	15141	3B25h	First amount of manual torque boost (V/f)	R/W	0 ~ 200	0.1%
Hb142	15142	3B26h	First manual torque boost break point (V/f)	R/W	0 ~ 500	0.1%
Hb145	15145	3B29h	First energy-saving operation selection (V/f)	R/W	0 ~ 1	1
Hb146	15146	3B2Ah	First energy-saving response/accuracy adjustment (V/f)	R/W	0 ~ 100	1%
Hb150	15150	3B2Eh	First free V/f frequency 1	R/W	0 ~ 59000 (Hb152)	0.01Hz
Hb151	15151	3B2Fh	First free V/f voltage 1	R/W	0 ~ 10000	0.1V
Hb152	15152	3B30h	First free V/f frequency 2	R/W	0 ~ 59000 (Hb150)~(Hb154)	0.01Hz
Hb153	15153	3B31h	First free V/f voltage 2	R/W	0 ~ 10000	0.1V
Hb154	15154	3B32h	First free V/f frequency 3	R/W	0 ~ 59000 (Hb152)~(Hb156)	0.01Hz
Hb155	15155	3B33h	First free V/f voltage 3	R/W	0 ~ 10000	0.1V
Hb156	15156	3B34h	First free V/f frequency 4	R/W	0 ~ 59000 (Hb154)~(Hb158)	0.01Hz
Hb157	15157	3B35h	First free V/f voltage 4	R/W	0 ~ 10000	0.1V
Hb158	15158	3B36h	First free V/f frequency 5	R/W	0 ~ 59000 (Hb156)~(Hb160)	0.01Hz
Hb159	15159	3B37h	First free V/f voltage 5	R/W	0 ~ 10000	0.1V
Hb160	15160	3B38h	First free V/f frequency 6	R/W	0 ~ 59000 (Hb158)~(Hb162)	0.01Hz
Hb161	15161	3B39h	First free V/f voltage 6	R/W	0 ~ 10000	0.1V
Hb162	15162	3B3Ah	First free V/f frequency 7	R/W	0 ~ 59000 (Hb160)~(Hb104)	0.01Hz
Hb163	15163	3B3Bh	First free V/f voltage 7	R/W	0 ~ 10000	0.1V
Hb170	15170	3B42h	First slip compensation P gain with sensor (V/f, A.bst)	R/W	0 ~ 1000	1%
Hb171	15171	3B43h	First slip compensation I gain with sensor (V/f, A.bst)	R/W	0 ~ 1000	1%
Hb180	15180	3B4Ch	First output voltage gain (V/f)	R/W	0 ~ 255	1%

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
Hb202	25102	620Eh	Second IM motor capacity selection	R/W	1 ~ 16000	0.01kW
Hb203	25103	620Fh	Selection of number of second IM motor poles	R/W	0 ~ 23	1
Hb204	25104	6210h	Second IM base frequency	R/W	1000 ~ 59000	0.01Hz
Hb205	25105	6211h	Second IM maximum frequency	R/W	1000 ~ 59000	0.01Hz
Hb206	25106	6212h	Second IM motor's rated voltage	R/W	1 ~ 1000	1V
Hb208	25108	6214h	Second IM motor's rated current (High)	R/W	1 ~ 1000000	0.01A
(Hb209)	25109	6215h	(Low)			
Hb210	25110	6216h	Second IM motor constant R1 (High)	R/W	1 ~ 1000000000	0.000001Ω
(Hb211)	25111	6217h	(Low)			
Hb212	25112	6218h	Second IM motor constant R2 (High)	R/W	1 ~ 1000000000	0.000001Ω
(Hb213)	25113	6219h	(Low)			
Hb214	25114	621Ah	Second IM motor constant L (High)	R/W	1 ~ 1000000000	0.000001mH
(Hb215)	25115	621Bh	(Low)			
Hb216	25116	621Ch	Second IM motor constant lo (High)	R/W	1 ~ 1000000	0.01A
(Hb217)	25117	621Dh	(Low)			
Hb218	25118	621Eh	Second IM motor constant J (High)	R/W	1 ~ 1000000000	0.00001kg·m ²
(Hb219)	25119	621Fh	(Low)			
Hb230	25130	622Ah	Second minimum frequency (V/f, A.bst, IM-SLV)	R/W	10 ~ 1000	0.01Hz
Hb231	25131	622Bh	Second reduced voltage start time (V/f)	R/W	0 ~ 2000	1ms
Hb240	25140	6234h	Second manual torque boost operation mode selection	R/W	0 ~ 3	1
Hb241	25141	6235h	Second amount of manual torque boost (V/f)	R/W	0 ~ 200	0.1%
Hb242	25142	6236h	Second manual torque boost break point (V/f)	R/W	0 ~ 500	0.1%
Hb245	25145	6239h	Second energy-saving operation selection (V/f)	R/W	0 ~ 1	1
Hb246	25146	623Ah	Second energy-saving response/accuracy adjustment (V/f)	R/W	0 ~ 100	1%
Hb250	25150	623Eh	Second free V/f frequency 1	R/W	0 ~ 59000 (Hb252)	0.01Hz
Hb251	25151	623Fh	Second free V/f voltage 1	R/W	0 ~ 10000	0.1V
Hb252	25152	6240h	Second free V/f frequency 2	R/W	0 ~ 59000 (Hb250)~(Hb254)	0.01Hz
Hb253	25153	6241h	Second free V/f voltage 2	R/W	0 ~ 10000	0.1V
Hb254	25154	6242h	Second free V/f frequency 3	R/W	0 ~ 59000 (Hb252)~(Hb256)	0.01Hz
Hb255	25155	6243h	Second free V/f voltage 3	R/W	0 ~ 10000	0.1V
Hb256	25156	6244h	Second free V/f frequency 4	R/W	0 ~ 59000 (Hb254)~(Hb258)	0.01Hz
Hb257	25157	6245h	Second free V/f voltage 4	R/W	0 ~ 10000	0.1V
Hb258	25158	6246h	Second free V/f frequency 5	R/W	0 ~ 59000 (Hb256)~(Hb260)	0.01Hz
Hb259	25159	6247h	Second free V/f voltage 5	R/W	0 ~ 10000	0.1V
Hb260	25160	6248h	Second free V/f frequency 6	R/W	0 ~ 59000 (Hb258)~(Hb262)	0.01Hz
Hb261	25161	6249h	Second free V/f voltage 6	R/W	0 ~ 10000	0.1V
Hb262	25162	624Ah	Second free V/f frequency 7	R/W	0 ~ 59000 (Hb260)~(Hb204)	0.01Hz
Hb263	25163	624Bh	Second free V/f voltage 7	R/W	0 ~ 10000	0.1V
Hb270	25170	6252h	Second slip compensation P gain with sensor (V/f, A.bst)	R/W	0 ~ 1000	1%
Hb271	25171	6253h	Second slip compensation I gain with sensor (V/f, A.bst)	R/W	0 ~ 1000	1%
Hb280	25180	625Ch	Second output voltage gain (V/f)	R/W	0 ~ 255	1%

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
HC101	15201	3B61h	First automatic torque boost voltage compensation gain	R/W	0 ~ 255	1%
HC102	15202	3B62h	First automatic torque boost slip compensation gain	R/W	0 ~ 255	1%
HC110	15210	3B6Ah	First zero-speed range limiter (IM-0Hz-SLV)	R/W	0 ~ 100	1%
HC111	15211	3B6Bh	First amount of boost at the start (IM-SLV)	R/W	0 ~ 50	1%
HC112	15212	3B6Ch	First amount of boost at the start (IM-0Hz-SLV)	R/W	0 ~ 50	1%
HC113	15213	3B6Dh	First selection of whether a secondary-resistance correction is to be conducted (IM-SLV, IM-0Hz-SLV, IM-CLV)	R/W	0 ~ 1	1
HC114	15214	3B6Eh	First selection of reversal prevention (IM-SLV, IM-0Hz-SLV, IM-CLV)	R/W	0 ~ 1	1
HC120	15220	3B74h	First time constant for torque current command filter (IM-SLV, IM-0Hz-SLV, IM-CLV, SM-CLV)	R/W	0 ~ 100	1ms
HC121	15221	3B75h	First speed feed forward compensation adjustment gain (IM-SLV, IM-0Hz-SLV, IM-CLV, SM-CLV)	R/W	0 ~ 1000	1%
HC201	25201	6271h	Second automatic torque boost voltage compensation gain	R/W	0 ~ 255	1%
HC202	25202	6272h	Second automatic torque boost slip compensation gain	R/W	0 ~ 255	1%
HC210	25210	627Ah	Second zero-speed range limiter (IM-0Hz-SLV)	R/W	0 ~ 100	1%
HC211	25211	627Bh	Second amount of boost at the start (IM-SLV)	R/W	0 ~ 50	1%
HC212	25212	627Ch	Second amount of boost at the start (IM-0Hz-SLV)	R/W	0 ~ 50	1%
HC213	25213	627Dh	Second selection of whether a secondary-resistance correction is to be conducted (IM-SLV, IM-0Hz-SLV, IM-CLV)	R/W	0 ~ 1	1
HC214	25214	627Eh	Second selection of reversal prevention (IM-SLV, IM-0Hz-SLV, IM-CLV)	R/W	0 ~ 1	1
HC220	25220	6284h	Second time constant for torque current command filter (IM-SLV, IM-0Hz-SLV, IM-CLV, SM-CLV)	R/W	0 ~ 100	1ms
HC221	25221	6285h	Second speed feed forward compensation adjustment gain (IM-SLV, IM-0Hz-SLV, IM-CLV, SM-CLV)	R/W	0 ~ 1000	1%

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
Hd102	15302	3BC6h	First SM (PMM) motor capacity selection	R/W	1 ~ 16000	0.01kW
Hd103	15303	3BC7h	First selection of number of SM (PMM) motor poles	R/W	0 ~ 23	1
Hd104	15304	3BC8h	First SM (PMM) base frequency	R/W	1000 ~ 59000	0.01Hz
Hd105	15305	3BC9h	First SM (PMM) maximum frequency	R/W	1000 ~ 59000	0.01Hz
Hd106	15306	3BCAh	First SM (PMM) motor's rated voltage	R/W	1 ~ 1000	1V
Hd108	15308	3BCCh	First SM (PMM) motor's rated current (High)	R/W	1 ~ 1000000	0.01A
(Hd109)	15309	3BCDh	(Low)			
Hd110	15310	3BCEh	First SM (PMM) motor's constant R (High)	R/W	1 ~ 1000000000	0.000001Ω
(Hd111)	15311	3BCFh	(Low)			
Hd112	15312	3BD0h	First SM (PMM) motor's constant Ld (High)	R/W	1 ~ 1000000000	0.000001mH
(Hd113)	15313	3BD1h	(Low)			
Hd114	15314	3BD2h	First SM (PMM) motor's constant Lq (High)	R/W	1 ~ 1000000000	0.000001mH
(Hd115)	15315	3BD3h	(Low)			
Hd116	15316	3BD4h	First SM (PMM) motor's constant Ke (High)	R/W	1 ~ 1000000	0.1mVs/rad
(Hd117)	15317	3BD5h	(Low)			
Hd118	15318	3BD6h	First SM (PMM) motor's constant J (High)	R/W	1 ~ 1000000000	0.00001 kg·m ²
(Hd119)	15319	3BD7h	(Low)			
Hd130	15330	3BE2h	First SM minimum frequency (switch) (SM-SLV, SM-IVMS)	R/W	0 ~ 50	1%
Hd131	15331	3BE3h	First SM no-load current (SM-SLV, SM-IVMS)	R/W	0 ~ 100	1%
Hd132	15332	3BE4h	First SM start method selection (SM-SLV, SM-IVMS, SM-CLV)	R/W	0 ~ 1	1
Hd133	15333	3BE5h	First SM initial position estimation zero-V stand-by times (SM-SLV, SM-IVMS, SM-CLV)	R/W	0 ~ 255	1
Hd134	15334	3BE6h	First SM initial position estimation detection stand-by times (SM-SLV, SM-IVMS, SM-CLV)	R/W	0 ~ 255	1
Hd135	15335	3BE7h	First SM initial position estimation detection times (SM-SLV, SM-IVMS, SM-CLV)	R/W	0 ~ 255	1
Hd136	15336	3BE8h	First SM initial position estimation voltage gain (SM-SLV, SM-IVMS, SM-CLV)	R/W	0 ~ 200	1%
Hd137	15337	3BE9h	First SM initial position estimation magnetic-pole position offset (SM-SLV, SM-IVMS, SM-CLV)	R/W	0 ~ 359	1deg
Hd-41	15341	3BEDh	IVMS carrier frequency	R/W	5 ~ 160	0.1kHz
Hd-42	15342	3BEEh	Filter gain of IVMS detection current	R/W	0 ~ 1000	1
Hd-43	15343	3BEFh	Open-phase voltage detection gain selection.	R/W	0 ~ 3	1
Hd-44	15344	3BF0h	Selection of open-phase switch threshold correction.	R/W	0 ~ 1	1
Hd-45	15345	3BF1h	Speed control P gain	R/W	0 ~ 1000	1
Hd-46	15346	3BF2h	Speed control I gain	R/W	0 ~ 10000	1
Hd-47	15347	3BF3h	Waiting time for open-phase switching	R/W	0 ~ 1000	1
Hd-48	15348	3BF4h	Restriction on the rotation-direction determination	R/W	0 ~ 1	1
Hd-49	15349	3BF5h	Adjustment of the timing for detecting the open-phase voltage	R/W	0 ~ 1000	1
Hd-50	15350	3BF6h	Minimum pulse width adjustment	R/W	0 ~ 1000	1
Hd-51	15351	3BF7h	Current limit of IVMS threshold	R/W	0 ~ 255	1
Hd-52	15352	3BF8h	IVMS threshold gain	R/W	0 ~ 255	1
Hd-58	15358	3BFEh	IVMS carrier-frequency switching start/finish point	R/W	0 ~ 50	1%

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
Hd202	25302	62D6h	Second SM (PMM) motor capacity selection	R/W	1 ~ 16000	0.01kW
Hd203	25303	62D7h	Second selection of number of SM (PMM) motor poles	R/W	0 ~ 23	1
Hd204	25304	62D8h	Second SM (PMM) base frequency	R/W	1000 ~ 59000	0.01Hz
Hd205	25305	62D9h	Second SM (PMM) maximum frequency	R/W	1000 ~ 59000	0.01Hz
Hd206	25306	62Dah	Second SM (PMM) motor's rated voltage	R/W	1 ~ 1000	1V
Hd208	25308	62DCh	Second SM (PMM) motor's rated current (High)	R/W	1 ~ 1000000	0.01A
(Hd209)	25309	62DDh	(Low)			
Hd210	25310	62Deh	Second SM (PMM) motor's constant R (High)	R/W	1 ~ 1000000000	0.000001Ω
(Hd211)	25311	62DFh	(Low)			
Hd212	25312	62E0h	Second SM (PMM) motor's constant Ld (High)	R/W	1 ~ 1000000000	0.000001mH
(Hd213)	25313	62E1h	(Low)			
Hd214	25314	62E2h	Second SM (PMM) motor's constant Lq (High)	R/W	1 ~ 1000000000	0.000001mH
(Hd215)	25315	62E3h	(Low)			
Hd216	25316	62E4h	Second SM (PMM) motor's constant Ke (High)	R/W	1 ~ 1000000	0.1mVs/rad
(Hd217)	25317	62E5h	(Low)			
Hd218	25318	62E6h	Second SM (PMM) motor's constant J (High)	R/W	1 ~ 1000000000	0.00001 kg·m ²
(Hd219)	25319	62E7h	(Low)			
Hd230	25330	62F2h	Second SM minimum frequency (switch) (SM-SLV, SM-IVMS)	R/W	0 ~ 50	1%
Hd231	25331	62F3h	Second SM no-load current (SM-SLV, SM-IVMS)	R/W	0 ~ 100	1%
Hd232	25332	62F4h	First SM start method selection (SM-SLV, SM-IVMS, SM-CLV)	R/W	0 ~ 1	1
Hd233	25333	62F5h	Second SM initial position estimation zero-V stand-by times (SM-SLV, SM-IVMS, SM-CLV)	R/W	0 ~ 255	1
Hd234	25334	62F6h	Second SM initial position estimation detection stand-by times (SM-SLV, SM-IVMS, SM-CLV)	R/W	0 ~ 255	1
Hd235	25335	62F7h	Second SM initial position estimation detection times (SM-SLV, SM-IVMS, SM-CLV)	R/W	0 ~ 255	1
Hd236	25336	62F8h	Second SM initial position estimation voltage gain (SM-SLV, SM-IVMS, SM-CLV)	R/W	0 ~ 200	1%
Hd237	25337	62F9h	Second SM initial position estimation magnetic-pole position offset (SM-SLV, SM-IVMS, SM-CLV)	R/W	0 ~ 359	1deg

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
oA-10	16010	3E8Ah	Operation selection when option error occurs (SLOT-1)	R/W	0 ~ 1	1
oA-11	16011	3E8Bh	Communication monitoring timer setting	R/W	0 ~ 10000	0.01s
oA-12	16012	3E8Ch	Operation setting at the time of communication error	R/W	0 ~ 4	1
oA-13	16013	3E8Dh	Selection of operation command behavior at start of option (SLOT-1)	R/W	0 ~ 1	1
oA-20	16020	3E94h	Operation selection when option error occurs (SLOT-2)	R/W	0 ~ 1	1
oA-21	16021	3E95h	Communication monitoring timer setting	R/W	0 ~ 10000	0.01s
oA-22	16022	3E96h	Operation setting at the time of communication error	R/W	0 ~ 4	1
oA-23	16023	3E97h	Selection of operation command behavior at start of option (SLOT-2)	R/W	0 ~ 1	1
oA-30	16030	3E9Eh	Operation selection when option error occurs (SLOT-3)	R/W	0 ~ 1	1
oA-31	16031	3E9Fh	Communication monitoring timer setting	R/W	0 ~ 10000	0.01s
oA-32	16032	3EA0h	Operation setting at the time of communication error	R/W	0 ~ 4	1
oA-33	16033	3EA1h	Selection of operation command behavior at start of option (SLOT-3)	R/W	0 ~ 1	1
ob-01	16101	3EE5h	Encoder constant set-up (option)	R/W	32 ~ 65535	1pls
ob-02	16102	3EE6h	Encoder phase sequence selection (option)	R/W	0 ~ 1	1
ob-03	16103	3EE7h	Motor gear ratio's numerator (option)	R/W	1 ~ 10000	1
ob-04	16104	3EE8h	Motor gear ratio's denominator (option)	R/W	1 ~ 10000	1
ob-10	16110	3EEh	Pulse train input SA/SB (option) detection target selection	R/W	0 ~ 1	1
ob-11	16111	3EEFh	Pulse train input SA/SB (option) mode selection	R/W	0 ~ 2	1
ob-12	16112	3EF0h	Pulse train frequency scale (option)	R/W	5 ~ 20000	0.01kHz
ob-13	16113	3EF1h	Pulse train frequency filter time constant (option)	R/W	1 ~ 200	0.01s
ob-14	16114	3EF2h	Pulse train frequency bias amount (option)	R/W	-1000 ~ 1000	0.1%
ob-15	16115	3EF3h	Pulse train frequency detection upper limit (option)	R/W	0 ~ 1000	0.1%
ob-16	16116	3EF4h	Pulse train frequency detection lower level (option)	R/W	0 ~ 1000	0.1%
oC-01	16201	3F49h	Safety-option input indication selection	R/W	0 ~ 1	1
oC-10	16210	3F52h	SS1-A deceleration time (High)	R/W	0 ~ 360000	0.01s
(oC-11)	16211	3F53h	(Low)			
oC-12	16212	3F54h	SLS-A deceleration time (High)	R/W	0 ~ 360000	0.01s
(oC-13)	16213	3F55h	(Low)			
oC-14	16214	3F56h	SLS-A speed upper limit: normal rotation	R/W	0 ~ 59000	0.01Hz
oC-15	16215	3F57h	SLS-A speed upper limit: reverse rotation	R/W	0 ~ 59000	0.01Hz
oC-16	16216	3F58h	SDI-A deceleration time (High)	R/W	0 ~ 360000	0.01s
(oC-17)	16217	3F59h	(Low)			
oC-18	16218	3F5Ah	SDI-A restriction direction	R/W	0 ~ 1	1
oC-20	16220	3F5Ch	SS1-B deceleration time (High)	R/W	0 ~ 360000	0.01s
(oC-21)	16221	3F5Dh	(Low)			
oC-22	16222	3F5Eh	SLS-B deceleration time (High)	R/W	0 ~ 360000	0.01s
(oC-23)	16223	3F5Fh	(Low)			
oC-24	16224	3F60h	SLS-B speed upper limit: normal rotation	R/W	0 ~ 59000	0.01Hz
oC-25	16225	3F61h	SLS-B speed upper limit: reverse rotation	R/W	0 ~ 59000	0.01Hz
oC-26	16226	3F62h	SDI-B deceleration time (High)	R/W	0 ~ 360000	0.01s
(oC-27)	16227	3F63h	(Low)			
oC-28	16228	3F64h	SDI-B restriction direction	R/W	0 ~ 1	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
oE-01	16401	4011h	[Ai4] terminal input filter time constant	R/W	1 ~ 500	1ms
oE-03	16403	4013h	[Ai4] terminal start amount	R/W	0 ~ 10000	0.01%
oE-04	16404	4014h	[Ai4] terminal end amount	R/W	0 ~ 10000	0.01%
oE-05	16405	4015h	[Ai4] terminal start ratio	R/W	0 ~ 1000 (oE-06)	0.1%
oE-06	16406	4016h	[Ai4] terminal end ratio	R/W	(oE-05) 0 ~ 1000	0.1%
oE-07	16407	4017h	[Ai4] terminal start selection	R/W	0 ~ 1	1
oE-11	16411	401Bh	[Ai5] terminal input filter time constant	R/W	1 ~ 500	1ms
oE-13	16413	401Dh	[Ai5] terminal start amount	R/W	0 ~ 10000	0.01%
oE-14	16414	401Eh	[Ai5] terminal end amount	R/W	0 ~ 10000	0.01%
oE-15	16415	401Fh	[Ai5] terminal start ratio	R/W	0 ~ 1000 (oE-16)	0.1%
oE-16	16416	4020h	[Ai5] terminal end ratio	R/W	(oE-15) 0 ~ 1000	0.1%
oE-17	16417	4021h	[Ai5] terminal start selection	R/W	0 ~ 1	1
oE-21	16421	4025h	[Ai6] terminal input filter time constant	R/W	1 ~ 500	1ms
oE-23	16423	4027h	[Ai6] terminal start amount	R/W	-10000 ~ 10000	0.01%
oE-24	16424	4028h	[Ai6] terminal end amount	R/W	-10000 ~ 10000	0.01%
oE-25	16425	4029h	[Ai6] terminal start ratio	R/W	-1000 ~ 1000 (oE-26)	0.1%
oE-26	16426	402Ah	[Ai6] terminal end ratio	R/W	(oE-25) -1000 ~ 1000	0.1%
oE-28	16428	402Ch	[Ai4] voltage/current bias adjustment	R/W	-10000 ~ 10000	0.01%
oE-29	16429	402Dh	[Ai4] voltage/current adjustment gain	R/W	0 ~ 20000	0.01%
oE-30	16430	402Eh	[Ai5] voltage/current bias adjustment	R/W	-10000 ~ 10000	0.01%
oE-31	16431	402Fh	[Ai5] voltage/current adjustment gain	R/W	0 ~ 20000	0.01%
oE-32	16432	4030h	[Ai6] voltage bias adjustment	R/W	-10000 ~ 10000	0.01%
oE-33	16433	4031h	[Ai6] voltage adjustment gain	R/W	0 ~ 20000	0.01%
oE-35	16435	4033h	Window comparator [Ai4] upper limit level	R/W	0 ~ 100	1%
oE-36	16436	4034h	Window comparator [Ai4] lower limit level	R/W	0 ~ 100	1%
oE-37	16437	4035h	Window comparator [Ai4] hysteresis range	R/W	0 ~ 10	1%
oE-38	16438	4036h	Window comparator [Ai5] upper limit level	R/W	0 ~ 100	1%
oE-39	16439	4037h	Window comparator [Ai5] lower limit level	R/W	0 ~ 100	1%
oE-40	16440	4038h	Window comparator [Ai5] hysteresis range	R/W	0 ~ 10	1%
oE-41	16441	4039h	Window comparator [Ai6] upper limit level	R/W	-100 ~ 100	1%
oE-42	16442	403Ah	Window comparator [Ai6] lower limit level	R/W	-100 ~ 100	1%
oE-43	16443	403Bh	Window comparator [Ai6] hysteresis range	R/W	0 ~ 10	1%
oE-44	16444	403Ch	[Ai4] operation level at disconnection	R/W	0 ~ 100	1%
oE-45	16445	403Dh	[Ai4] operation level selection at disconnection	R/W	0 ~ 2	1
oE-46	16446	403Eh	[Ai5] operation level at disconnection	R/W	0 ~ 100	1%
oE-47	16447	403Fh	[Ai5] operation level selection at disconnection	R/W	0 ~ 2	1
oE-48	16448	4040h	[Ai6] operation level at disconnection	R/W	-100 ~ 100	1%
oE-49	16449	4041h	[Ai6] operation level selection at disconnection	R/W	0 ~ 2	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
oE-50	16450	4042h	[Ao3] terminal output selection	R/W	0 to 65535 (register No.)	1
oE-51	16451	4043h	[Ao4] terminal output selection	R/W	0 to 65535 (register No.)	1
oE-52	16452	4044h	[Ao5] terminal output selection	R/W	0 to 65535 (register No.)	1
oE-56	16456	4048h	[Ao3] output filter time constant	R/W	1 ~ 500	1ms
oE-57	16457	4049h	[Ao3] terminal sign selection	R/W	0 ~ 1	1
oE-58	16458	404Ah	[Ao3] bias adjustment (voltage/current)	R/W	-1000 ~ 1000	0.1%
oE-59	16459	404Bh	[Ao3] gain adjustment (voltage/current)	R/W	-10000 ~ 10000	0.1%
oE-60	16460	404Ch	[Ao3] output level in the adjustment mode	R/W	-1000 ~ 1000	0.1%
oE-61	16461	404Dh	[Ao4] output filter time constant	R/W	1 ~ 500	1ms
oE-62	16462	404Eh	[Ao4] output data type selection	R/W	0 ~ 1	1
oE-63	16463	404Fh	[Ao4] bias adjustment (voltage/current)	R/W	-1000 ~ 1000	0.1%
oE-64	16464	4050h	[Ao4] gain adjustment (voltage/current)	R/W	-10000 ~ 10000	0.1%
oE-65	16465	4051h	[Ao4] output level in the adjustment mode	R/W	-1000 ~ 1000	0.1%
oE-66	16466	4052h	[Ao5] output filter time constant	R/W	1 ~ 500	1ms
oE-67	16467	4053h	[Ao5] output data type selection	R/W	0 ~ 1	1
oE-68	16468	4054h	[Ao5] bias adjustment (voltage)	R/W	-1000 ~ 1000	0.1%
oE-69	16469	4055h	[Ao5] gain adjustment (voltage)	R/W	-10000 ~ 10000	0.1%
oE-70	16470	4056h	[Ao5] output level in the adjustment mode	R/W	-1000 ~ 1000	0.1%
oH-01	16701	413Dh	IP address selection (P1-EN)	R/W	0 ~ 1	1
oH-02	16702	413Eh	Transmission speed (port 1) (P1-EN)	R/W	0 ~ 4	1
oH-03	16703	413Fh	Transmission speed (port 2) (P1-EN)	R/W	0 ~ 4	1
oH-04	16704	4140h	Ethernet communication timeout (P1-EN)	R/W	1 ~ 65535	1 (*10ms)
oH-05	16705	4141h	Modbus TCP port number (IPv4)	R/W	502,1024 ~ 65535	1
oH-06	16706	4142h	Modbus TCP port number (IPv6)	R/W	502,1024 ~ 65535	1
oH-20	16720	4150h	Profibus Node address	R/W	0 ~ 125	1
oH-21	16721	4151h	Profibus Clear Mode selection	R/W	0 ~ 1	1
oH-22	16722	4152h	Profibus Map selection	R/W	0 ~ 2	1
oH-23	16723	4153h	Selection of setting from the Profibus master	R/W	0 ~ 1	1
oH-24	16724	4154h	Selection of setpoint telegram/Actual value telegram Gr (P1-PB)	R/W	0 ~ 2	1
oH-30	16730	415Ah	IP address selection (P1-PN)	R/W	0 ~ 1	1
oH-31	16731	415Bh	Transmission speed (port 1) (P1-PN)	R/W	0 ~ 4	1
oH-32	16732	415Ch	Transmission speed (port 2) (P1-PN)	R/W	0 ~ 4	1
oH-33	16733	415Dh	Ethernet communication timeout (P1-PN)	R/W	1 ~ 65535	1 (*10ms)
oH-34	16734	415Eh	Selection of setpoint telegram/Actual value telegram Gr (P1-PN)	R/W	0 ~ 2	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
oJ-01	16801	41A1h	Gr.A flexible command registration writing register 1	R/W	0 ~ 65535	1
oJ-02	16802	41A2h	Gr.A flexible command registration writing register 2	R/W	0 ~ 65535	1
oJ-03	16803	41A3h	Gr.A flexible command registration writing register 3	R/W	0 ~ 65535	1
oJ-04	16804	41A4h	Gr.A flexible command registration writing register 4	R/W	0 ~ 65535	1
oJ-05	16805	41A5h	Gr.A flexible command registration writing register 5	R/W	0 ~ 65535	1
oJ-06	16806	41A6h	Gr.A flexible command registration writing register 6	R/W	0 ~ 65535	1
oJ-07	16807	41A7h	Gr.A flexible command registration writing register 7	R/W	0 ~ 65535	1
oJ-08	16808	41A8h	Gr.A flexible command registration writing register 8	R/W	0 ~ 65535	1
oJ-09	16809	41A9h	Gr.A flexible command registration writing register 9	R/W	0 ~ 65535	1
oJ-10	16810	41AAh	Gr.A flexible command registration writing register 10	R/W	0 ~ 65535	1
oJ-11	16811	41ABh	Gr.A flexible command registration reading register 1	R/W	0 ~ 65535	1
oJ-12	16812	41ACh	Gr.A flexible command registration reading register 2	R/W	0 ~ 65535	1
oJ-13	16813	41ADh	Gr.A flexible command registration reading register 3	R/W	0 ~ 65535	1
oJ-14	16814	41AEh	Gr.A flexible command registration reading register 4	R/W	0 ~ 65535	1
oJ-15	16815	41AFh	Gr.A flexible command registration reading register 5	R/W	0 ~ 65535	1
oJ-16	16816	41B0h	Gr.A flexible command registration reading register 6	R/W	0 ~ 65535	1
oJ-17	16817	41B1h	Gr.A flexible command registration reading register 7	R/W	0 ~ 65535	1
oJ-18	16818	41B2h	Gr.A flexible command registration reading register 8	R/W	0 ~ 65535	1
oJ-19	16819	41B3h	Gr.A flexible command registration reading register 9	R/W	0 ~ 65535	1
oJ-20	16820	41B4h	Gr.A flexible command registration reading register 10	R/W	0 ~ 65535	1
oJ-21	16821	41B5h	Gr.B flexible command registration writing register 1	R/W	0 ~ 65535	1
oJ-22	16822	41B6h	Gr.B flexible command registration writing register 2	R/W	0 ~ 65535	1
oJ-23	16823	41B7h	Gr.B flexible command registration writing register 3	R/W	0 ~ 65535	1
oJ-24	16824	41B8h	Gr.B flexible command registration writing register 4	R/W	0 ~ 65535	1
oJ-25	16825	41B9h	Gr.B flexible command registration writing register 5	R/W	0 ~ 65535	1
oJ-26	16826	41BAh	Gr.B flexible command registration writing register 6	R/W	0 ~ 65535	1
oJ-27	16827	41BBh	Gr.B flexible command registration writing register 7	R/W	0 ~ 65535	1
oJ-28	16828	41BCh	Gr.B flexible command registration writing register 8	R/W	0 ~ 65535	1
oJ-29	16829	41BDh	Gr.B flexible command registration writing register 9	R/W	0 ~ 65535	1
oJ-30	16830	41BEh	Gr.B flexible command registration writing register 10	R/W	0 ~ 65535	1
oJ-31	16831	41BFh	Gr.B flexible command registration reading register 1	R/W	0 ~ 65535	1
oJ-32	16832	41C0h	Gr.B flexible command registration reading register 2	R/W	0 ~ 65535	1
oJ-33	16833	41C1h	Gr.B flexible command registration reading register 3	R/W	0 ~ 65535	1
oJ-34	16834	41C2h	Gr.B flexible command registration reading register 4	R/W	0 ~ 65535	1
oJ-35	16835	41C3h	Gr.B flexible command registration reading register 5	R/W	0 ~ 65535	1
oJ-36	16836	41C4h	Gr.B flexible command registration reading register 6	R/W	0 ~ 65535	1
oJ-37	16837	41C5h	Gr.B flexible command registration reading register 7	R/W	0 ~ 65535	1
oJ-38	16838	41C6h	Gr.B flexible command registration reading register 8	R/W	0 ~ 65535	1
oJ-39	16839	41C7h	Gr.B flexible command registration reading register 9	R/W	0 ~ 65535	1
oJ-40	16840	41C8h	Gr.B flexible command registration reading register 10	R/W	0 ~ 65535	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
oJ-41	16841	41C9h	Gr.C flexible command registration writing register 1	R/W	0 ~ 65535	1
oJ-42	16842	41CAh	Gr.C flexible command registration writing register 2	R/W	0 ~ 65535	1
oJ-43	16843	41CBh	Gr.C flexible command registration writing register 3	R/W	0 ~ 65535	1
oJ-44	16844	41CCh	Gr.C flexible command registration writing register 4	R/W	0 ~ 65535	1
oJ-45	16845	41CDh	Gr.C flexible command registration writing register 5	R/W	0 ~ 65535	1
oJ-46	16846	41CEh	Gr.C flexible command registration writing register 6	R/W	0 ~ 65535	1
oJ-47	16847	41CFh	Gr.C flexible command registration writing register 7	R/W	0 ~ 65535	1
oJ-48	16848	41D0h	Gr.C flexible command registration writing register 8	R/W	0 ~ 65535	1
oJ-49	16849	41D1h	Gr.C flexible command registration writing register 9	R/W	0 ~ 65535	1
oJ-50	16850	41D2h	Gr.C flexible command registration writing register 10	R/W	0 ~ 65535	1
oJ-51	16851	41D3h	Gr.C flexible command registration reading register 1	R/W	0 ~ 65535	1
oJ-52	16852	41D4h	Gr.C flexible command registration reading register 2	R/W	0 ~ 65535	1
oJ-53	16853	41D5h	Gr.C flexible command registration reading register 3	R/W	0 ~ 65535	1
oJ-54	16854	41D6h	Gr.C flexible command registration reading register 4	R/W	0 ~ 65535	1
oJ-55	16855	41D7h	Gr.C flexible command registration reading register 5	R/W	0 ~ 65535	1
oJ-56	16856	41D8h	Gr.C flexible command registration reading register 6	R/W	0 ~ 65535	1
oJ-57	16857	41D9h	Gr.C flexible command registration reading register 7	R/W	0 ~ 65535	1
oJ-58	16858	41DAh	Gr.C flexible command registration reading register 8	R/W	0 ~ 65535	1
oJ-59	16859	41DBh	Gr.C flexible command registration reading register 9	R/W	0 ~ 65535	1
oJ-60	16860	41DCh	Gr.C flexible command registration reading register 10	R/W	0 ~ 65535	1
oL-01	16901	4205h	Gr.1 IPv4 IP address (1)	R/W	0 ~ 255	1
oL-02	16902	4206h	Gr.1 IPv4 IP address (2)	R/W	0 ~ 255	1
oL-03	16903	4207h	Gr.1 IPv4 IP address (3)	R/W	0 ~ 255	1
oL-04	16904	4208h	Gr.1 IPv4 IP address (4)	R/W	0 ~ 255	1
oL-05	16905	4209h	Gr.1 IPv4 subnet mask (1)	R/W	0 ~ 255	1
oL-06	16906	420Ah	Gr.1 IPv4 subnet mask (2)	R/W	0 ~ 255	1
oL-07	16907	420Bh	Gr.1 IPv4 subnet mask (3)	R/W	0 ~ 255	1
oL-08	16908	420Ch	Gr.1 IPv4 subnet mask (4)	R/W	0 ~ 255	1
oL-09	16909	420Dh	Gr.1 IPv4 default gateway (1)	R/W	0 ~ 255	1
oL-10	16910	420Eh	Gr.1 IPv4 default gateway (2)	R/W	0 ~ 255	1
oL-11	16911	420Fh	Gr.1 IPv4 default gateway (3)	R/W	0 ~ 255	1
oL-12	16912	4210h	Gr.1 IPv4 default gateway (4)	R/W	0 ~ 255	1
oL-20	16920	4218h	Gr.1 IPv6 IP address (1)	R/W	0 ~ 65535	1
oL-21	16921	4219h	Gr.1 IPv6 IP address (2)	R/W	0 ~ 65535	1
oL-22	16922	421Ah	Gr.1 IPv6 IP address (3)	R/W	0 ~ 65535	1
oL-23	16923	421Bh	Gr.1 IPv6 IP address (4)	R/W	0 ~ 65535	1
oL-24	16924	421Ch	Gr.1 IPv6 IP address (5)	R/W	0 ~ 65535	1
oL-25	16925	421Dh	Gr.1 IPv6 IP address (6)	R/W	0 ~ 65535	1
oL-26	16926	421Eh	Gr.1 IPv6 IP address (7)	R/W	0 ~ 65535	1
oL-27	16927	421Fh	Gr.1 IPv6 IP address (8)	R/W	0 ~ 65535	1
oL-28	16928	4220h	Gr.1 IPv6 subnet prefix	R/W	0 ~ 127	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
oL-29	16929	4221h	Gr.1 IPv6 default gateway (1)	R/W	0 ~ 65535	1
oL-30	16930	4222h	Gr.1 IPv6 default gateway (2)	R/W	0 ~ 65535	1
oL-31	16931	4223h	Gr.1 IPv6 default gateway (3)	R/W	0 ~ 65535	1
oL-32	16932	4224h	Gr.1 IPv6 default gateway (4)	R/W	0 ~ 65535	1
oL-33	16933	4225h	Gr.1 IPv6 default gateway (5)	R/W	0 ~ 65535	1
oL-34	16934	4226h	Gr.1 IPv6 default gateway (6)	R/W	0 ~ 65535	1
oL-35	16935	4227h	Gr.1 IPv6 default gateway (7)	R/W	0 ~ 65535	1
oL-36	16936	4228h	Gr.1 IPv6 default gateway (8)	R/W	0 ~ 65535	1
oL-40	16940	422Ch	Gr.2 IPv4 IP address (1)	R/W	0 ~ 255	1
oL-41	16941	422Dh	Gr.2 IPv4 IP address (2)	R/W	0 ~ 255	1
oL-42	16942	422Eh	Gr.2 IPv4 IP address (3)	R/W	0 ~ 255	1
oL-43	16943	422Fh	Gr.2 IPv4 IP address (4)	R/W	0 ~ 255	1
oL-44	16944	4230h	Gr.2 IPv4 subnet mask (1)	R/W	0 ~ 255	1
oL-45	16945	4231h	Gr.2 IPv4 subnet mask (2)	R/W	0 ~ 255	1
oL-46	16946	4232h	Gr.2 IPv4 subnet mask (3)	R/W	0 ~ 255	1
oL-47	16947	4233h	Gr.2 IPv4 subnet mask (4)	R/W	0 ~ 255	1
oL-48	16948	4234h	Gr.2 IPv4 default gateway (1)	R/W	0 ~ 255	1
oL-49	16949	4235h	Gr.2 IPv4 default gateway (2)	R/W	0 ~ 255	1
oL-50	16950	4236h	Gr.2 IPv4 default gateway (3)	R/W	0 ~ 255	1
oL-51	16951	4237h	Gr.2 IPv4 default gateway (4)	R/W	0 ~ 255	1
oL-60	16960	4240h	Gr.2 IPv6 IP address (1)	R/W	0 ~ 65535	1
oL-61	16961	4241h	Gr.2 IPv6 IP address (2)	R/W	0 ~ 65535	1
oL-62	16962	4242h	Gr.2 IPv6 IP address (3)	R/W	0 ~ 65535	1
oL-63	16963	4243h	Gr.2 IPv6 IP address (4)	R/W	0 ~ 65535	1
oL-64	16964	4244h	Gr.2 IPv6 IP address (5)	R/W	0 ~ 65535	1
oL-65	16965	4245h	Gr.2 IPv6 IP address (6)	R/W	0 ~ 65535	1
oL-66	16966	4246h	Gr.2 IPv6 IP address (7)	R/W	0 ~ 65535	1
oL-67	16967	4247h	Gr.2 IPv6 IP address (8)	R/W	0 ~ 65535	1
oL-68	16968	4248h	Gr.2 IPv6 subnet prefix	R/W	0 ~ 127	1
oL-69	16969	4249h	Gr.2 IPv6 default gateway (1)	R/W	0 ~ 65535	1
oL-70	16970	424Ah	Gr.2 IPv6 default gateway (2)	R/W	0 ~ 65535	1
oL-71	16971	424Bh	Gr.2 IPv6 default gateway (3)	R/W	0 ~ 65535	1
oL-72	16972	424Ch	Gr.2 IPv6 default gateway (4)	R/W	0 ~ 65535	1
oL-73	16973	424Dh	Gr.2 IPv6 default gateway (5)	R/W	0 ~ 65535	1
oL-74	16974	424Eh	Gr.2 IPv6 default gateway (6)	R/W	0 ~ 65535	1
oL-75	16975	424Fh	Gr.2 IPv6 default gateway (7)	R/W	0 ~ 65535	1
oL-76	16976	4250h	Gr.2 IPv6 default gateway (8)	R/W	0 ~ 65535	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
PA-01	17001	4269h	Em-Force mode selection	R/W	0 ~ 1	1
PA-02	17002	426Ah	Em-Force mode frequency setting	R/W	0 ~ 59000	0.01Hz
PA-03	17003	426Bh	Rotation direction command in the Em-Force mode	R/W	0 ~ 1	1
PA-04	17004	426Ch	Commercial power supply bypass function selection	R/W	0 ~ 1	1
PA-05	17005	426Dh	Bypass function delay time	R/W	0 ~ 10000	0.1s
PA-20	17020	427Ch	Simulation mode selection	R/W	0 ~ 1	1
PA-21	17021	427Dh	Selection of error code for alarm test	R/W	0 ~ 255	1
PA-22	17022	427Eh	Output current monitor optional output selection	R/W	0 ~ 7	1
PA-23	17023	427Fh	Output current monitor optional setting value	R/W	(0 to 3.00) * CTL rated current	0.1A
PA-24	17024	4280h	P-N voltage monitor optional output selection	R/W	0 ~ 7	1
PA-25	17025	4281h	P-N voltage monitor optional setting value	R/W	200Vclass:0 ~ 4500 400Vclass:0 ~ 9000	0.1Vdc
PA-26	17026	4282h	Output voltage monitor optional output selection	R/W	0 ~ 7	1
PA-27	17027	4283h	Output voltage monitor optional setting value	R/W	200Vclass:0 ~ 3000 400Vclass:0 ~ 6000	0.1V
PA-28	17028	4284h	Output torque monitor optional output selection	R/W	0 ~ 7	1
PA-29	17029	4285h	Output torque monitor optional setting value	R/W	-5000 ~ 5000	0.1%
PA-30	17030	4286h	Frequency adjustment optional output selection	R/W	0 ~ 7	1
PA-31	17031	4287h	Frequency matching frequency optional setting value	R/W	0 ~ 59000	0.01Hz

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
UA-10	18010	465Ah	Display selection	R/W	0 ~ 4	1
UA-12	18012	465Ch	Clearing of integrated input power	R/W	0 ~ 1	1
UA-13	18013	465Dh	Integrated input power display gain	R/W	1 ~ 1000	1
UA-14	18014	465Eh	Clearing of integrated output power	R/W	0 ~ 1	1
UA-15	18015	465Fh	Integrated output power display gain	R/W	1 ~ 1000	1
UA-16	18016	4660h	Soft-lock selection	R/W	0 ~ 1	1
UA-17	18017	4661h	Soft-lock target selection	R/W	0 ~ 1	1
UA-18	18018	4662h	Data R/W selection	R/W	0 ~ 1	1
UA-19	18019	4663h	Battery level warning selection	R/W	0 ~ 2	1
UA-20	18020	4664h	Operation selection at disconnection of operator keypad	R/W	0 ~ 4	1
UA-21	18021	4665h	Second setting parameter display selection	R/W	0 ~ 1	1
UA-22	18022	4666h	Option parameter display selection (when full display is selected)	R/W	0 ~ 1	1
UA-30	18030	466Eh	User parameter auto setting selection	R/W	0 ~ 1	1
UA-31	18031	466Fh	User parameter 1 selection	R/W	0 to 65535 (register No.)	1
UA-32	18032	4670h	User parameter 2 selection	R/W	0 to 65535 (register No.)	1
UA-33	18033	4671h	User parameter 3 selection	R/W	0 to 65535 (register No.)	1
UA-34	18034	4672h	User parameter 4 selection	R/W	0 to 65535 (register No.)	1
UA-35	18035	4673h	User parameter 5 selection	R/W	0 to 65535 (register No.)	1
UA-36	18036	4674h	User parameter 6 selection	R/W	0 to 65535 (register No.)	1
UA-37	18037	4675h	User parameter 7 selection	R/W	0 to 65535 (register No.)	1
UA-38	18038	4676h	User parameter 8 selection	R/W	0 to 65535 (register No.)	1
UA-39	18039	4677h	User parameter 9 selection	R/W	0 to 65535 (register No.)	1
UA-40	18040	4678h	User parameter 10 selection	R/W	0 to 65535 (register No.)	1
UA-41	18041	4679h	User parameter 11 selection	R/W	0 to 65535 (register No.)	1
UA-42	18042	467Ah	User parameter 12 selection	R/W	0 to 65535 (register No.)	1
UA-43	18043	467Bh	User parameter 13 selection	R/W	0 to 65535 (register No.)	1
UA-44	18044	467Ch	User parameter 14 selection	R/W	0 to 65535 (register No.)	1
UA-45	18045	467Dh	User parameter 15 selection	R/W	0 to 65535 (register No.)	1
UA-46	18046	467Eh	User parameter 16 selection	R/W	0 to 65535 (register No.)	1
UA-47	18047	467Fh	User parameter 17 selection	R/W	0 to 65535 (register No.)	1
UA-48	18048	4680h	User parameter 18 selection	R/W	0 to 65535 (register No.)	1
UA-49	18049	4681h	User parameter 19 selection	R/W	0 to 65535 (register No.)	1
UA-50	18050	4682h	User parameter 20 selection	R/W	0 to 65535 (register No.)	1
UA-51	18051	4683h	User parameter 21 selection	R/W	0 to 65535 (register No.)	1
UA-52	18052	4684h	User parameter 22 selection	R/W	0 to 65535 (register No.)	1
UA-53	18053	4685h	User parameter 23 selection	R/W	0 to 65535 (register No.)	1
UA-54	18054	4686h	User parameter 24 selection	R/W	0 to 65535 (register No.)	1
UA-55	18055	4687h	User parameter 25 selection	R/W	0 to 65535 (register No.)	1
UA-56	18056	4688h	User parameter 26 selection	R/W	0 to 65535 (register No.)	1
UA-57	18057	4689h	User parameter 27 selection	R/W	0 to 65535 (register No.)	1
UA-58	18058	468Ah	User parameter 28 selection	R/W	0 to 65535 (register No.)	1
UA-59	18059	468Bh	User parameter 29 selection	R/W	0 to 65535 (register No.)	1
UA-60	18060	468Ch	User parameter 30 selection	R/W	0 to 65535 (register No.)	1
UA-61	18061	468Dh	User parameter 31 selection	R/W	0 to 65535 (register No.)	1
UA-62	18062	468Eh	User parameter 32 selection	R/W	0 to 65535 (register No.)	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
UA-90	18090	46AAh	Operator keypad display off standby time (QOP)	R/W	0 ~ 60	1min
UA-91	18091	46ABh	Initial screen selection (QOP)	R/W	0 to 65535 (register No. of d, F codes)	1
UA-92	18092	46ACh	Initial screen automatic transition function (QOP)	R/W	0 ~ 1	1
UA-93	18093	46ADh	Selection of data change during monitoring (QOP)	R/W	0 ~ 1	1
UA-94	18094	46AEh	Selection of multi-speed command change during monitoring (QOP)	R/W	0 ~ 1	1
Ub-01	18101	46B5h	Selection of initialization	R/W	0 ~ 8	1
Ub-02	18102	46B6h	Selection of initial values	R/W	0 ~ 3	1
Ub-03	18103	46B7h	Load type selection	R/W	0 ~ 2	1
Ub-05	18105	46B9h	Initialization start selection	R/W	0 ~ 1	1
UC-01	18201	4719h	Debug mode selection	R/W	0 ~ 3	1
Ud-01	18301	477Dh	Trace function selection	R/W	0 ~ 1	1
Ud-02	18302	477Eh	Trace start	R/W	0 ~ 1	1
Ud-03	18303	477Fh	Selection of the number of trace data	R/W	0 ~ 8	1
Ud-04	18304	4780h	Trace signal number selection	R/W	0 ~ 8	1
Ud-10	18310	4786h	Trace data -0 selection	R/W	0 to 65535 (register No. of d, F codes)	1
Ud-11	18311	4787h	Trace data -1 selection	R/W	0 to 65535 (register No. of d, F codes)	1
Ud-12	18312	4788h	Trace data -2 selection	R/W	0 to 65535 (register No. of d, F codes)	1
Ud-13	18313	4789h	Trace data -3 selection	R/W	0 to 65535 (register No. of d, F codes)	1
Ud-14	18314	478Ah	Trace data -4 selection	R/W	0 to 65535 (register No. of d, F codes)	1
Ud-15	18315	478Bh	Trace data -5 selection	R/W	0 to 65535 (register No. of d, F codes)	1
Ud-16	18316	478Ch	Trace data -6 selection	R/W	0 to 65535 (register No. of d, F codes)	1
Ud-17	18317	478Dh	Trace data -7 selection	R/W	0 to 65535 (register No. of d, F codes)	1
Ud-20	18320	4790h	Trace signal -0 I/O selection	R/W	0 ~ 1	1
Ud-21	18321	4791h	Trace signal -0 input terminal selection	R/W	0 ~ 110	1
Ud-22	18322	4792h	Trace signal -0 output terminal selection	R/W	0 ~ 93	1
Ud-23	18323	4793h	Trace signal -1 I/O selection	R/W	0 ~ 1	1
Ud-24	18324	4794h	Trace signal -1 input terminal selection	R/W	0 ~ 110	1
Ud-25	18325	4795h	Trace signal -1 output terminal selection	R/W	0 ~ 93	1
Ud-26	18326	4796h	Trace signal -2 I/O selection	R/W	0 ~ 1	1
Ud-27	18327	4797h	Trace signal -2 input terminal selection	R/W	0 ~ 110	1
Ud-28	18328	4798h	Trace signal -2 output terminal selection	R/W	0 ~ 93	1
Ud-29	18329	4799h	Trace signal -3 I/O selection	R/W	0 ~ 1	1
Ud-30	18330	479Ah	Trace signal -3 input terminal selection	R/W	0 ~ 110	1
Ud-31	18331	479Bh	Trace signal -3 output terminal selection	R/W	0 ~ 93	1
Ud-32	18332	479Ch	Trace signal -4 I/O selection	R/W	0 ~ 1	1
Ud-33	18333	479Dh	Trace signal -4 input terminal selection	R/W	0 ~ 110	1
Ud-34	18334	479Eh	Trace signal -4 output terminal selection	R/W	0 ~ 93	1
Ud-35	18335	479Fh	Trace signal -5 I/O selection	R/W	0 ~ 1	1
Ud-36	18336	47A0h	Trace signal -5 input terminal selection	R/W	0 ~ 110	1
Ud-37	18337	47A1h	Trace signal -5 output terminal selection	R/W	0 ~ 93	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
Ud-38	18338	47A2h	Trace signal -6 I/O selection	R/W	0 ~ 1	1
Ud-39	18339	47A3h	Trace signal -6 input terminal selection	R/W	0 ~ 110	1
Ud-40	18340	47A4h	Trace signal -6 output terminal selection	R/W	0 ~ 93	1
Ud-41	18341	47A5h	Trace signal -7 I/O selection	R/W	0 ~ 1	1
Ud-42	18342	47A6h	Trace signal -7 input terminal selection	R/W	0 ~ 110	1
Ud-43	18343	47A7h	Trace signal -7 output terminal selection	R/W	0 ~ 93	1
Ud-50	18350	47AEh	Trace trigger 1 selection	R/W	0 ~ 16	1
Ud-51	18351	47AFh	Selection of trigger 1 operation at trace data trigger	R/W	0 ~ 1	1
Ud-52	18352	47B0h	Trigger 1 level at trace data trigger	R/W	0 ~ 100	1%
Ud-53	18353	47B1h	Selection of trigger 1 operation at trace signal trigger	R/W	0 ~ 1	1
Ud-54	18354	47B2h	Trace trigger 2 selection	R/W	0 ~ 16	1
Ud-55	18355	47B3h	Selection of trigger 2 operation at trace data trigger	R/W	0 ~ 1	1
Ud-56	18356	47B4h	Trigger 2 level at trace data trigger	R/W	0 ~ 100	1%
Ud-57	18357	47B5h	Selection of trigger 2 operation at trace signal trigger	R/W	0 ~ 1	1
Ud-58	18358	47B6h	Trigger condition selection	R/W	0 ~ 3	1
Ud-59	18359	47B7h	Trigger point setting	R/W	0 ~ 100	1%
Ud-60	18360	47B8h	Sampling time setting	R/W	1 ~ 10	1
UE-01	18401	47E1h	EzSQ execution interval	R/W	0 ~ 1	1
UE-02	18402	47E2h	EzSQ function selection	R/W	0 ~ 2	1
UE-10	18410	47EAh	EzSQ user parameter U (00)	R/W	0 ~ 65535	1
UE-11	18411	47EBh	EzSQ user parameter U (01)	R/W	0 ~ 65535	1
UE-12	18412	47ECh	EzSQ user parameter U (02)	R/W	0 ~ 65535	1
UE-13	18413	47EDh	EzSQ user parameter U (03)	R/W	0 ~ 65535	1
UE-14	18414	47EEh	EzSQ user parameter U (04)	R/W	0 ~ 65535	1
UE-15	18415	47EFh	EzSQ user parameter U (05)	R/W	0 ~ 65535	1
UE-16	18416	47F0h	EzSQ user parameter U (06)	R/W	0 ~ 65535	1
UE-17	18417	47F1h	EzSQ user parameter U (07)	R/W	0 ~ 65535	1
UE-18	18418	47F2h	EzSQ user parameter U (08)	R/W	0 ~ 65535	1
UE-19	18419	47F3h	EzSQ user parameter U (09)	R/W	0 ~ 65535	1
UE-20	18420	47F4h	EzSQ user parameter U (10)	R/W	0 ~ 65535	1
UE-21	18421	47F5h	EzSQ user parameter U (11)	R/W	0 ~ 65535	1
UE-22	18422	47F6h	EzSQ user parameter U (12)	R/W	0 ~ 65535	1
UE-23	18423	47F7h	EzSQ user parameter U (13)	R/W	0 ~ 65535	1
UE-24	18424	47F8h	EzSQ user parameter U (14)	R/W	0 ~ 65535	1
UE-25	18425	47F9h	EzSQ user parameter U (15)	R/W	0 ~ 65535	1
UE-26	18426	47FAh	EzSQ user parameter U (16)	R/W	0 ~ 65535	1
UE-27	18427	47FBh	EzSQ user parameter U (17)	R/W	0 ~ 65535	1
UE-28	18428	47FCh	EzSQ user parameter U (18)	R/W	0 ~ 65535	1
UE-29	18429	47FDh	EzSQ user parameter U (19)	R/W	0 ~ 65535	1
UE-30	18430	47FEh	EzSQ user parameter U (20)	R/W	0 ~ 65535	1
UE-31	18431	47FFh	EzSQ user parameter U (21)	R/W	0 ~ 65535	1
UE-32	18432	4800h	EzSQ user parameter U (22)	R/W	0 ~ 65535	1
UE-33	18433	4801h	EzSQ user parameter U (23)	R/W	0 ~ 65535	1
UE-34	18434	4802h	EzSQ user parameter U (24)	R/W	0 ~ 65535	1
UE-35	18435	4803h	EzSQ user parameter U (25)	R/W	0 ~ 65535	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
UE-36	18436	4804h	EzSQ user parameter U (26)	R/W	0 ~ 65535	1
UE-37	18437	4805h	EzSQ user parameter U (27)	R/W	0 ~ 65535	1
UE-38	18438	4806h	EzSQ user parameter U (28)	R/W	0 ~ 65535	1
UE-39	18439	4807h	EzSQ user parameter U (29)	R/W	0 ~ 65535	1
UE-40	18440	4808h	EzSQ user parameter U (30)	R/W	0 ~ 65535	1
UE-41	18441	4809h	EzSQ user parameter U (31)	R/W	0 ~ 65535	1
UE-42	18442	480Ah	EzSQ user parameter U (32)	R/W	0 ~ 65535	1
UE-43	18443	480Bh	EzSQ user parameter U (33)	R/W	0 ~ 65535	1
UE-44	18444	480Ch	EzSQ user parameter U (34)	R/W	0 ~ 65535	1
UE-45	18445	480Dh	EzSQ user parameter U (35)	R/W	0 ~ 65535	1
UE-46	18446	480Eh	EzSQ user parameter U (36)	R/W	0 ~ 65535	1
UE-47	18447	480Fh	EzSQ user parameter U (37)	R/W	0 ~ 65535	1
UE-48	18448	4810h	EzSQ user parameter U (38)	R/W	0 ~ 65535	1
UE-49	18449	4811h	EzSQ user parameter U (39)	R/W	0 ~ 65535	1
UE-50	18450	4812h	EzSQ user parameter U (40)	R/W	0 ~ 65535	1
UE-51	18451	4813h	EzSQ user parameter U (41)	R/W	0 ~ 65535	1
UE-52	18452	4814h	EzSQ user parameter U (42)	R/W	0 ~ 65535	1
UE-53	18453	4815h	EzSQ user parameter U (43)	R/W	0 ~ 65535	1
UE-54	18454	4816h	EzSQ user parameter U (44)	R/W	0 ~ 65535	1
UE-55	18455	4817h	EzSQ user parameter U (45)	R/W	0 ~ 65535	1
UE-56	18456	4818h	EzSQ user parameter U (46)	R/W	0 ~ 65535	1
UE-57	18457	4819h	EzSQ user parameter U (47)	R/W	0 ~ 65535	1
UE-58	18458	481Ah	EzSQ user parameter U (48)	R/W	0 ~ 65535	1
UE-59	18459	481Bh	EzSQ user parameter U (49)	R/W	0 ~ 65535	1
UE-60	18460	481Ch	EzSQ user parameter U (50)	R/W	0 ~ 65535	1
UE-61	18461	481Dh	EzSQ user parameter U (51)	R/W	0 ~ 65535	1
UE-62	18462	481Eh	EzSQ user parameter U (52)	R/W	0 ~ 65535	1
UE-63	18463	481Fh	EzSQ user parameter U (53)	R/W	0 ~ 65535	1
UE-64	18464	4820h	EzSQ user parameter U (54)	R/W	0 ~ 65535	1
UE-65	18465	4821h	EzSQ user parameter U (55)	R/W	0 ~ 65535	1
UE-66	18466	4822h	EzSQ user parameter U (56)	R/W	0 ~ 65535	1
UE-67	18467	4823h	EzSQ user parameter U (57)	R/W	0 ~ 65535	1
UE-68	18468	4824h	EzSQ user parameter U (58)	R/W	0 ~ 65535	1
UE-69	18469	4825h	EzSQ user parameter U (59)	R/W	0 ~ 65535	1
UE-70	18470	4826h	EzSQ user parameter U (60)	R/W	0 ~ 65535	1
UE-71	18471	4827h	EzSQ user parameter U (61)	R/W	0 ~ 65535	1
UE-72	18472	4828h	EzSQ user parameter U (62)	R/W	0 ~ 65535	1
UE-73	18473	4829h	EzSQ user parameter U (63)	R/W	0 ~ 65535	1

Function Code	Register No. (decimal)	Register No. (hexadecimal)	Function Name	R/W	Monitor Content and Setting Item	Data Resolution / Unit
UF-02	18502	4846h	EzSQ user parameter UL (00) (High)	R/W	-2147483647 ~ 2147483647	1
(UF-03)	18503	4847h	(Low)			
UF-04	18504	4848h	EzSQ user parameter UL (01) (High)	R/W	-2147483647 ~ 2147483647	1
(UF-05)	18505	4849h	(Low)			
UF-06	18506	484Ah	EzSQ user parameter UL (02) (High)	R/W	-2147483647 ~ 2147483647	1
(UF-07)	18507	484Bh	(Low)			
UF-08	18508	484Ch	EzSQ user parameter UL (03) (High)	R/W	-2147483647 ~ 2147483647	1
(UF-09)	18509	484Dh	(Low)			
UF-10	18510	484Eh	EzSQ user parameter UL (04) (High)	R/W	-2147483647 ~ 2147483647	1
(UF-11)	18511	484Fh	(Low)			
UF-12	18512	4850h	EzSQ user parameter UL (05) (High)	R/W	-2147483647 ~ 2147483647	1
(UF-13)	18513	4851h	(Low)			
UF-14	18514	4852h	EzSQ user parameter UL (06) (High)	R/W	-2147483647 ~ 2147483647	1
(UF-15)	18515	4853h	(Low)			
UF-16	18516	4854h	EzSQ user parameter UL (07) (High)	R/W	-2147483647 ~ 2147483647	1
(UF-17)	18517	4855h	(Low)			
UF-18	18518	4856h	EzSQ user parameter UL (08) (High)	R/W	-2147483647 ~ 2147483647	1
(UF-19)	18519	4857h	(Low)			
UF-20	18520	4858h	EzSQ user parameter UL (09) (High)	R/W	-2147483647 ~ 2147483647	1
(UF-21)	18521	4859h	(Low)			
UF-22	18522	485Ah	EzSQ user parameter UL (10) (High)	R/W	-2147483647 ~ 2147483647	1
(UF-23)	18523	485Bh	(Low)			
UF-24	18524	485Ch	EzSQ user parameter UL (11) (High)	R/W	-2147483647 ~ 2147483647	1
(UF-25)	18525	485Dh	(Low)			
UF-26	18526	485Eh	EzSQ user parameter UL (12) (High)	R/W	-2147483647 ~ 2147483647	1
(UF-27)	18527	485Fh	(Low)			
UF-28	18528	4860h	EzSQ user parameter UL (13) (High)	R/W	-2147483647 ~ 2147483647	1
(UF-29)	18529	4861h	(Low)			
UF-30	18530	4862h	EzSQ user parameter UL (14) (High)	R/W	-2147483647 ~ 2147483647	1
(UF-31)	18531	4863h	(Low)			
UF-32	18532	4864h	EzSQ user parameter UL (15) (High)	R/W	-2147483647 ~ 2147483647	1
(UF-33)	18533	4865h	(Low)			