

## KW2M-A/KW2M-X Eco-POWER METER User's Manual

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Protocol manual

## Cautions for Your Safety

Read the manual carefully before installing, running and maintenance for proper operation. Before using, master the knowledge of the equipment, safety information and all of other notes.

This manual uses two safety flags to indicate different levels of danger.



### WARNING

A handling error could cause serious physical injury to an operator and in the worst case could even be fatal.

- Always take precautions to ensure the overall safety of your system, so that the whole system remains safe in the event of failure of this product or other external factor.
- Do not use this product in areas with inflammable gas. It could lead to an explosion.
- Exposing this product to excessive heat or open flames could cause damage to the lithium battery or other electronic parts.
- Do not open the secondary side of CT during power on the primary side current. It might cause electric shock or CT breakdown.



### CAUTION

A handling error could cause serious physical injury to an operator or damage to the equipment.

- To prevent abnormal exothermic heat or smoke generation, use this product at the values less than the maximum of the characteristics and performance that are assured in these specifications.
- Do not dismantle or remodel the product. It could lead to abnormal exothermic heat or smoke generation.
- Do not touch the terminal while turning on electricity. It could lead to an electric shock.
- Use the external devices to function the emergency stop and interlock circuit.
- Connect the wires or connectors securely. The loose connection might cause abnormal exothermic heat or smoke generation.
- Do not allow foreign matters such as liquid, flammable materials, metals to go into the inside of the product. It might cause exothermic heat or smoke generation.
- Do not undertake construction (such as connection and disconnection) while the power supply is on.
- Never remove the terminal block under applying current to load. It might cause electric shock or CT breakdown.
- Do not use at secondary side circuit of inverter. It might cause exothermic heat or damage.

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- Modbus Protocol is a communication protocol that the Modicon Inc. developed for PLC and Modbus is the registered trademark of Schneider Electric.
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## **Introduction**

Thank you very much indeed for purchasing 'KW2M Eco-POWER METER'.

In this manual, we explain the usage of 'KW2M Eco-POWER METER' in detail.

Please use it correctly after understanding the content enough.

## Table of Contents

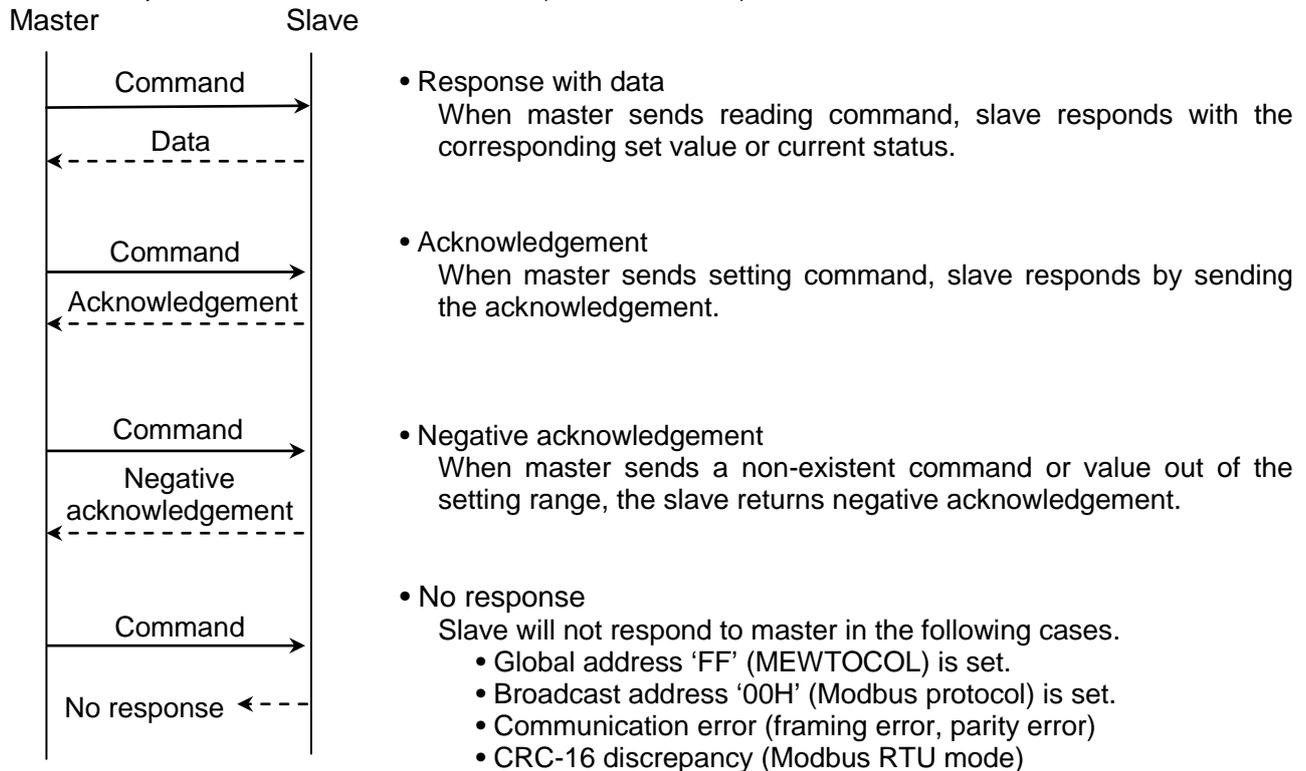
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Chapter 1 Communication.....	2
1.1 Communication Procedures .....	2
1.2 Communication timing .....	2
1.3 MEWTOCOL Communication.....	3
1.3.1 Overview of MEWTOCOL-COM.....	3
1.3.2 Data Register List.....	4
1.3.3 Error Codes .....	23
1.3.4 Command.....	23
1.4 MODBUS (RTU) Communication .....	25
1.4.1 Overview of MODBUS (RTU).....	25
1.4.2 Overview of MODBUS (TCP) .....	28
1.4.3 Data Register List (MODBUS communication) .....	29

## Chapter 1 Communication

### 1.1 Communication Procedures

Communication starts with command transmission from the host computer (hereafter Master) and ends with the response of Eco-POWER METER (hereafter Slave).



### 1.2 Communication timing

- ◆ The minimum access time from the master is 1 sec. (Minimum time for update the data)  
Eco-POWER METER may not response due to noise and so on, be sure to check that it receives the response from Eco-POWER METER.
- ◆ In order to improve the communication quality, we recommend to send the transmission again.

#### Communication timing of RS485

##### ◇Eco-POWER METER (Slave) side

When Eco-POWER METER (Slave) starts transmission to RS485 communication line, it is arranged so as to provide an idle status transmission period of about 1 to 99ms (setting available) before sending the response to ensure the synchronization on the receiving side. After sending the response, master can disconnect the transmitter from the communication line within transmission period 20ms.

##### ◇Master side (Cautions of setting a program)

At communication, keep the following conditions.

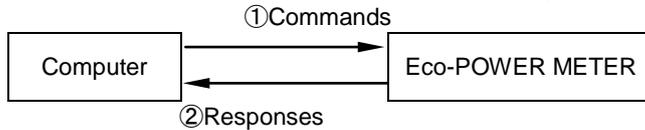
- 1) Set the program so that the master can disconnect the transmitter from the communication line within the transmission period of about 2ms after sending the command in preparation for reception of the response from Eco-POWER METER (Slave).
- 2) To avoid collision of transmissions between the master and Eco-POWER METER (Slave), send a next command after checking that the master received the response.

### 1.3 MEWTOCOL Communication

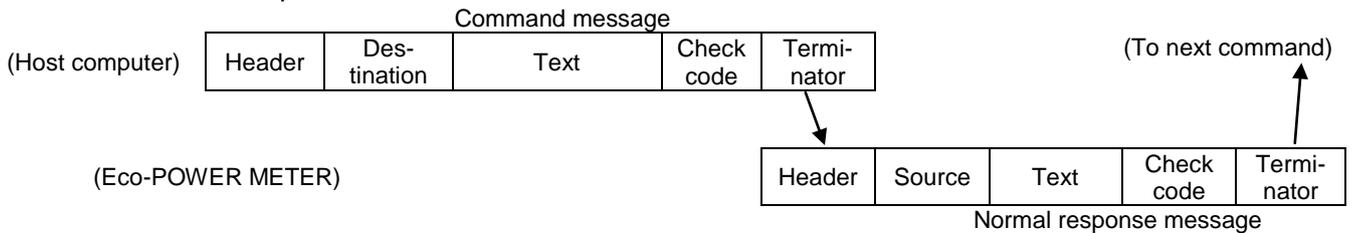
#### 1.3.1 Overview of MEWTOCOL-COM

◆Command and response functions

The computer sends commands (instructions) to Eco-POWER METER, and receives responses in return. This enables the computer and Eco-POWER METER to converse with each other, so that various kinds of information can be obtained and provided.



◆Command and response formats



◇Control codes

Name	Character	ASCII code	Explanation
Header	%	25H	Indicates the beginning of a message.
Command	#	23H	Indicates that the data comprises a command message.
Normal response	\$	24H	Indicates that the data comprises a normal response message.
Error response	!	21H	Indicates that the data comprises a response message when an error occurs.
Terminator	CR	0DH	Indicates the end of a message.

◇Destination and source AD (H), (L)

Two-digit decimal 01 to 99 (ASCII codes)

Command messages contain a station number for Eco-POWER METER that receives the message. When FF (ASCII code table) is used, however, the transmission is a global transmission (sent to all stations at once).

Note) When a global transmission is sent, no response to the command message is returned.

◇Block check code Bcc (H), (L)

Two-digit hexadecimal 00 to FF (ASCII codes)

These are codes (horizontal parity) that are used to detect errors in the transmitted data.

If ‘\*\*’ is entered instead of ‘Bcc’, however, messages can be transmitted without the Bcc. In this case, the Bcc is included with the response

◇Error code Err (H), (L)

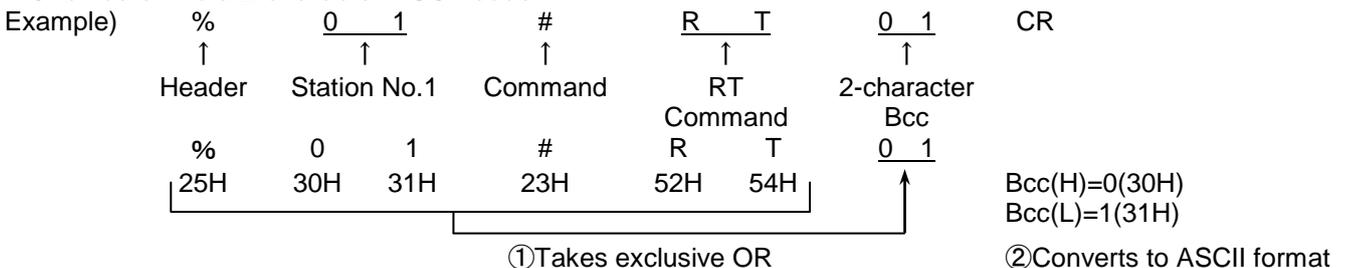
Two-digit hexadecimal 00 to FF (ASCII codes)

These indicate the content if an error occurs.

◆Bcc (Block Check Code)

-The Bcc is a code that carries out an error check using horizontal parity, to improve the reliability of the data being sent.

-The Bcc uses an exclusive OR from the header (%) to the final character of the text, and converts the 8-bit data into a 2-character ASCII code.



## 1.3.2

1.3.3 Data Register List

[N] : Unit number

Main unit → 0

Expansion unit 1 → 1 Expansion unit 2 → 2 Expansion unit 3 → 3

[C] : CH number CH1 → 0 CH2 → 5

Ex.) Integral active power 2 of Expansion unit 1, CH2 → N=1, C-5 → DT15100 to DT15103

【M】:Main unit 【E】:Expansion unit Registers without 【 】 are common.

## Setting

Data register	Name	Kind of data	Range	R/W
DT5(N)(C)17	Reset all integral value	Unsigned 16bit	0:No 1:Yes	R/W
DT5(N)(C)18	Reset integral value 1	Unsigned 16bit	0:No 1:Yes	R/W
DT5(N)(C)19	Reset integral value 2	Unsigned 16bit	0:No 1:Yes	R/W
DT5(N)(C)20	Reset integral value 3	Unsigned 16bit	0:No 1:Yes	R/W
DT50021	【M】Reset count value	Unsigned 16bit	0:No 1:Yes	R/W
DT5(N)(C)22	Reset hour meter	Unsigned 16bit	0:No 1:Yes	R/W
DT5(N)(C)23	Reset logging data	Unsigned 16bit	0:No 1:Yes	R/W
DT5(N)(C)28	Status of hour meter	Unsigned 16bit	0: Normal mode 1: Maintenance mode	R/W
DT50294	【M】Level output 1	Unsigned 16bit	0: Pulse OFF 1: Pulse ON	R/W
DT50295	【M】Level output 2	Unsigned 16bit	0: Pulse OFF 1: Pulse ON	R/W
DT50837	Calendar (min. / sec.)	Unsigned 16bit	Higher Lower m:00H to 59H, s:00H to 59H	R/W
DT50838	Calendar (day / hour)	Unsigned 16bit	Higher Lower d:01H to 31H, h:00H to 23H	R/W
DT50839	Calendar (year / month)	Unsigned 16bit	Higher Lower y:00H to 99H, m:01H to 12H	R/W
DT54(N+4)12	Leakage alarm reset (1)	Unsigned 16bit	0:No 1:Yes	R/W
DT54(N+4)13	Leakage alarm reset (2)	Unsigned 16bit	0:No 1:Yes	R/W
DT54(N+4)14	Leakage alarm reset (3)	Unsigned 16bit	0:No 1:Yes	R/W
DT55(N)02	【E】(Digital I/O) Reset Counter 1	Unsigned 16bit	0:No 1:Yes	R/W
DT55(N)03	【E】(Digital I/O) Reset Counter 2	Unsigned 16bit	0:No 1:Yes	R/W
DT56(N+4)64	【E】(Digital I/O) Level output 1	Unsigned 16bit	0: Pulse OFF 1: Pulse ON	R/W
DT56(N+4)65	【E】(Digital I/O) Level output 2	Unsigned 16bit	0: Pulse OFF 1: Pulse ON	R/W
DT56(N+4)66	【E】(Digital I/O) Level output 3	Unsigned 16bit	0: Pulse OFF 1: Pulse ON	R/W
DT56(N+4)67	【E】(Digital I/O) Level output 4	Unsigned 16bit	0: Pulse OFF 1: Pulse ON	R/W

## Measurement value

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C)100	Integral active power (1)	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)101					
DT(N)(C)102					
DT(N)(C)103					
DT(N)(C)104	Integral active power (2)	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)105					
DT(N)(C)106					
DT(N)(C)107					
DT(N)(C)108	Integral active power (3)	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)109					
DT(N)(C)110					
DT(N)(C)111					
DT(N)(C)112	Total integral active power	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)113					
DT(N)(C)114					
DT(N)(C)115					
DT(N)(C)116	Integral reactive power (1)	0.001 kvarh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)117					
DT(N)(C)118					
DT(N)(C)119					
DT(N)(C)120	Integral reactive power (2)	0.001 kvarh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)121					
DT(N)(C)122					
DT(N)(C)123					
DT(N)(C)124	Integral reactive power (3)	0.001 kvarh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)125					
DT(N)(C)126					
DT(N)(C)127					
DT(N)(C)128	Total integral reactive power	0.001 kvarh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)129					
DT(N)(C)130					
DT(N)(C)131					
DT(N)(C)132	Integral apparent power (1)	0.001 kVAh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)133					
DT(N)(C)134					
DT(N)(C)135					
DT(N)(C)136	Integral apparent power (2)	0.001 kVAh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)137					
DT(N)(C)138					
DT(N)(C)139					
DT(N)(C)140	Integral apparent power (3)	0.001 kVAh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)141					
DT(N)(C)142					
DT(N)(C)143					
DT(N)(C)144	Total integral apparent power	0.001 kVAh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)145					
DT(N)(C)146					
DT(N)(C)147					
DT(N)(C)148	Integral export active power (1)	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)149					
DT(N)(C)150					
DT(N)(C)151					
DT(N)(C)152	Integral export active power (2)	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)153					
DT(N)(C)154					
DT(N)(C)155					
DT(N)(C)156	Integral export active power (3)	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)157					
DT(N)(C)158					
DT(N)(C)159					

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C)160	Total integral export active power	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)161					
DT(N)(C)162					
DT(N)(C)163					
DT(N)(C)164	Integral export reactive power (1)	0.001 kvarh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)165					
DT(N)(C)166					
DT(N)(C)167	Integral export reactive power (2)	0.001 kvarh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)168					
DT(N)(C)169					
DT(N)(C)170					
DT(N)(C)171	Integral export reactive power (3)	0.001 kvarh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)172					
DT(N)(C)173					
DT(N)(C)174					
DT(N)(C)175	Total integral export reactive power	0.001 kvarh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT(N)(C)176					
DT(N)(C)177					
DT(N)(C)178					
DT(N)(C)179	PF (1)	0.001	Signed 16bit	-1000 to 1000	R
DT(N)(C)194					
DT(N)(C)195					
DT(N)(C)196					
DT(N)(C)197	PF (2)	0.001	Signed 16bit	-1000 to 1000	R
DT(N)(C)198					
DT(N)(C)199					
DT(N)(C)200					
DT(N)(C)201	PF (3)	0.001	Signed 16bit	-1000 to 1000	R
DT(N)(C)202					
DT(N)(C)203					
DT(N)(C)204					
DT(N)(C)205	PF average	0.001	Signed 16bit	-1000 to 1000	R
DT(N)(C)206					
DT(N)(C)207					
DT(N)(C)208					
DT(N)(C)209	Instantaneous active power (1)	0.001 kW	Signed 64bit	-999,999,999,999 to 999,999,999,999	R
DT(N)(C)210					
DT(N)(C)211					
DT(N)(C)212					
DT(N)(C)213	Instantaneous active power (2)	0.001 kW	Signed 64bit	-999,999,999,999 to 999,999,999,999	R
DT(N)(C)214					
DT(N)(C)215					
DT(N)(C)216					
DT(N)(C)217	Instantaneous active power (3)	0.001 kW	Signed 64bit	-999,999,999,999 to 999,999,999,999	R
DT(N)(C)218					
DT(N)(C)219					
DT(N)(C)220					
DT(N)(C)221	Total instantaneous active power	0.001 kW	Signed 64bit	-999,999,999,999 to 999,999,999,999	R
DT(N)(C)222					
DT(N)(C)223					
DT(N)(C)224					
DT(N)(C)225	Instantaneous reactive power (1)	0.001 kvar	Signed 64bit	-999,999,999,999 to 999,999,999,999	R
DT(N)(C)226					
DT(N)(C)227					
DT(N)(C)228					
DT(N)(C)229	Instantaneous reactive power (2)	0.001 kvar	Signed 64bit	-999,999,999,999 to 999,999,999,999	R
DT(N)(C)230					
DT(N)(C)231					
DT(N)(C)232					
DT(N)(C)233	Instantaneous reactive power (3)	0.001 kvar	Signed 64bit	-999,999,999,999 to 999,999,999,999	R
DT(N)(C)234					
DT(N)(C)235					
DT(N)(C)236					
DT(N)(C)237	Total instantaneous reactive power	0.001 kvar	Signed 64bit	-999,999,999,999 to 999,999,999,999	R
DT(N)(C)238					
DT(N)(C)239					
DT(N)(C)240					
DT(N)(C)241	Instantaneous apparent power (1)	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C)242					
DT(N)(C)243					
DT(N)(C)244					
DT(N)(C)245					

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C)236	Instantaneous apparent power (2)	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C)237					
DT(N)(C)238					
DT(N)(C)239					
DT(N)(C)240	Instantaneous apparent power (3)	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C)241					
DT(N)(C)242					
DT(N)(C)243					
DT(N)(C)244	Total instantaneous apparent power	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C)245					
DT(N)(C)246					
DT(N)(C)247					
DT(N)(C)262	Voltage 1	0.01V	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)263					
DT(N)(C)264	Voltage 2	0.01V	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)265					
DT(N)(C)266	Voltage 3	0.01V	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)267					
DT(N)(C)268	Voltage average	0.01V	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)269					
DT(N)(C)270	Line voltage 1	0.01V	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)271					
DT(N)(C)272	Line voltage 2	0.01V	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)273					
DT(N)(C)274	Line voltage 3	0.01V	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)275					
DT(N)(C)276	Line voltage average	0.01V	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)277					
DT(N)(C)278	Current (1)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)279					
DT(N)(C)280	Current (2)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)281					
DT(N)(C)282	Current (3)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)283					
DT(N)(C)284	Current phase N	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)285					
DT(N)(C)286	Current average	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)287					
DT(N)(C)288	Frequency (1)	0.01Hz	Unsigned 16bit	0 to 9999	R
DT(N)(C)289	Frequency (2)	0.01Hz	Unsigned 16bit	0 to 9999	R
DT(N)(C)290	Frequency (3)	0.01Hz	Unsigned 16bit	0 to 9999	R
DT(N)(C)291	Frequency average	0.01Hz	Unsigned 16bit	0 to 9999	R
DT(N)0292	Pulse input value(1)	—	Unsigned 32bit	0 to 999999	R/W
DT(N)0293					
DT(N)0294	【E】(Digital I/O) Pulse input value(2)	—	Unsigned 32bit	0 to 999999	R/W
DT(N)0295					
DT(N)0296	Pulse input status(1)	—	Unsigned 16bit	0:OFF, 1:ON	R
DT(N)0297	【E】(Digital I/O) Pulse input status(2)	—	Unsigned 16bit	0:OFF, 1:ON	R
DT(N)0298	Pulse output status(1)	—	Unsigned 16bit	0:OFF, 1:ON	R
DT(N)0299	Pulse output status(2)	—	Unsigned 16bit	0:OFF, 1:ON	R
DT(N)0300	【E】(Digital I/O) Pulse output status(3)	—	Unsigned 16bit	0:OFF, 1:ON	R
DT(N)0301	【E】(Digital I/O) Pulse output status(4)	—	Unsigned 16bit	0:OFF, 1:ON	R

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C)305	Present demand (active power)	0.001kW	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)306					
DT(N)(C)307	Present demand (reactive power)	0.001kvar	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)308					
DT(N)(C)309	Present demand (apparent power)	0.001kVA	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)310					
DT(N)(C)311	Present demand (active power (export))	0.001kW	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)312					
DT(N)(C)313	Present demand (reactive power(export))	0.001var	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)314					
DT(N)(C)315	Present demand (current①)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)316					
DT(N)(C)317	Present demand (current②)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)318					
DT(N)(C)319	Present demand (current③)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C)320					
DT00325	Integral active power (pulse conversion value)	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999	R/W
DT00326					
DT00327					
DT00328					
DT(N)(C)329	Load ON-time	0.1h	Unsigned 32bit	0 to 999999	R
DT(N)(C)330					
DT(N)(C)331	Load stand-by time	0.1h	Unsigned 32bit	0 to 999999	R
DT(N)(C)332					
DT(N)(C)333	Load OFF-time	0.1h	Unsigned 32bit	0 to 999999	R
DT(N)(C)334					
DT(N)(C)335	Load maintenance time	0.1h	Unsigned 32bit	0 to 999999	R
DT(N)(C)336					
DT(N)(C)345	Integral active power (1)	0.01Wh	Unsigned 32bit	0~999,999,999	R
DT(N)(C)346					
DT(N)(C)347	Integral active power (2)	0.01Wh	Unsigned 32bit	0~999,999,999	R
DT(N)(C)348					
DT(N)(C)349	Integral active power (3)	0.01Wh	Unsigned 32bit	0~999,999,999	R
DT(N)(C)350					
DT(N)(C)351	Total integral active power	0.01Wh	Unsigned 32bit	0~999,999,999	R
DT(N)(C)352					
DT(N)(C)720	Import power conversion value (1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
DT(N)(C)721					
DT(N)(C)722					
DT(N)(C)723					
DT(N)(C)724	Import power conversion value (2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
DT(N)(C)725					
DT(N)(C)726					
DT(N)(C)727					
DT(N)(C)728	Import power conversion value (3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
DT(N)(C)729					
DT(N)(C)730					
DT(N)(C)731					
DT(N)(C)732	Total Import power conversion value	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
DT(N)(C)733					
DT(N)(C)734					
DT(N)(C)735					
DT(N)(C)736	Export power conversion value (1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
DT(N)(C)737					
DT(N)(C)738					
DT(N)(C)739					
DT(N)(C)740	Export power conversion value (2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
DT(N)(C)741					
DT(N)(C)742					
DT(N)(C)743					
DT(N)(C)744	Export power conversion value (3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
DT(N)(C)745					
DT(N)(C)746					
DT(N)(C)747					

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C)748	Total Export power conversion value	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C)749					
DT(N)(C)750					
DT(N)(C)751					
DT(N)0800	Digital conversion value (1)	-	Signed 32bit	-999999999 to 999999999	R
DT(N)0801					
DT(N)0802	Digital conversion value (2)	-	Signed 32bit	-999999999 to 999999999	R
DT(N)0803					
DT(N)0804	Digital conversion value (3)	-	Signed 32bit	-999999999 to 999999999	R
DT(N)0805					
DT(N)0812	Temperature (1)	0.1°C	Signed 16bit	-2000 to 2000	R
DT(N)0813	Temperature (2)	0.1°C	Signed 16bit	-2000 to 2000	R
DT(N)5850	Leakage current (1)	0.0001A	Unsigned 32bit	0 to 999999999	R
DT(N)5851					
DT(N)5852	Leakage current (2)	0.0001A	Unsigned 32bit	0 to 999999999	R
DT(N)5853					
DT(N)5854	Leakage current (3)	0.0001A	Unsigned 32bit	0 to 999999999	R
DT(N)5855					
DT(N)5856	Leakage status (1)	-	Unsigned 16bit	0: No leakage 1: Leakage	R
DT(N)5857	Leakage status (2)	-	Unsigned 16bit	0: No leakage 1: Leakage	R
DT(N)5858	Leakage status (3)	-	Unsigned 16bit	0: No leakage 1: Leakage	R
DT05859	Total present demand (active power)	0.001kW	Unsigned 64bit	0 to 999,999,999,999	R
DT05860					
DT05861					
DT05862					
DT05863	Total present demand (reactive power)	0.001kvar	Unsigned 64bit	0 to 999,999,999,999	R
DT05864					
DT05865					
DT05866					
DT05867	Total present demand (apparent power)	0.001kVA	Unsigned 64bit	0 to 999,999,999,999	R
DT05868					
DT05869					
DT05870					
DT05871	Total present demand (active power (export))	0.001kW	Unsigned 64bit	0~999,999,999,999	R
DT05872					
DT05873					
DT05874					
DT05875	Total present demand (reactive power(export))	0.001kvar	Unsigned 64bit	0~999,999,999,999	R
DT05876					
DT05877					
DT05878					
DT(N)(C+1)000	Voltage unbalancing	0.01%	Unsigned 16bit	0 to 30000	R
DT(N)(C+1)001	Current unbalancing	0.01%	Unsigned 16bit	0 to 30000	R
DT(N)(C+1)002	Voltage THD (1)	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)003	Voltage THD (2)	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)004	Voltage THD (3)	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)005	Voltage THD average	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)006	Line voltage THD 1-2	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)007	Line voltage THD 2-3	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)008	Line voltage THD 3-1	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)009	Line voltage THD average	0.01%	Unsigned 16bit	0 to 40000	R

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C+1)010	Current THD (1)	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)011	Current THD (2)	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)012	Current THD (3)	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)013	Current THD average	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)014 + 4*(X-2)	Phase voltage X-order Harmonics (1)	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)015 + 4*(X-2)	Phase voltage X-order Harmonics (2)	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)016 + 4*(X-2)	Phase voltage X-order Harmonics (3)	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)017 + 4*(X-2)	Phase voltage X-order Harmonics average	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)134 + 4*(X-2)	Line voltage X-order harmonics (1)	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)135 + 4*(X-2)	Line voltage X-order harmonics (2)	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)136 + 4*(X-2)	Line voltage X-order harmonics (3)	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)137 + 4*(X-2)	Line voltage X-order harmonics average	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)254 + 4*(X-2)	Current X-order harmonics (1)	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)255 + 4*(X-2)	Current X-order harmonics (2)	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)256 + 4*(X-2)	Current X-order harmonics (3)	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)257 + 4*(X-2)	Current X-order harmonics average	0.01%	Unsigned 16bit	0 to 40000	R
DT(N)(C+1)444 *1	Max. demand date active power	-	Unsigned 16bit	Higher yy:15H to 99H, Lower mm:01H to 12H	R
DT(N)(C+1)445 *1	Max. demand time active power	-	Unsigned 16bit	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)446 *1	Max. demand time active power	-	Unsigned 16bit	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+1)447	Max. demand value active power	0.001kw	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+1)448					
DT(N)(C+1)449					
DT(N)(C+1)450					
DT(N)(C+1)451 *1	Max. demand date reactive power	-	Unsigned 16bit	Higher yy:15H to 99H, Lower mm:01H to 12H	R
DT(N)(C+1)452 *1	Max. demand time reactive power	-	Unsigned 16bit	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)453 *1	Max. demand time reactive power	-	Unsigned 16bit	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+1)454	Max. demand value reactive power	0.001kvar	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+1)455					
DT(N)(C+1)456					
DT(N)(C+1)457					
DT(N)(C+1)458 *1	Max. demand date apparent power	-	Unsigned 16bit	Higher yy:15H to 99H, Lower mm:01H to 12H	R
DT(N)(C+1)459 *1	Max. demand time apparent power	-	Unsigned 16bit	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)460 *1	Max. demand time apparent power	-	Unsigned 16bit	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+1)461	Max. demand value apparent power	0.001kVA	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+1)462					
DT(N)(C+1)463					
DT(N)(C+1)464					

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C+1)465 *1	Max. demand date active power (export)	-	Unsigned 16bit	Higher yy:15H to 99H, Lower mm:01H to 12H	R
DT(N)(C+1)466 *1	Max. demand time active power (export)	-	Unsigned 16bit	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)467 *1	Max. demand time active power (export)	-	Unsigned 16bit	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+1)468	Max. demand value active power (export)	0.001kW	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+1)469					
DT(N)(C+1)470					
DT(N)(C+1)471					
DT(N)(C+1)472 *1	Max. demand date reactive power (export)	-	HEX4	Higher yy:15H to 99H, Lower mm:01H to 12H	R
DT(N)(C+1)473 *1	Max. demand time reactive power (export)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)474 *1	Max. demand time reactive power (export)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+1)475	Max. demand value reactive power (export)	0.001kvar	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+1)476					
DT(N)(C+1)477					
DT(N)(C+1)478					
DT(N)(C+1)479 *1	Max. demand date current1	-	HEX4	Higher yy:15H to 99H, Lower mm:01H to 12H	R
DT(N)(C+1)480 *1	Max. demand time current1	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)481 *1	Max. demand time current1	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+1)482	Max. demand value current 1	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+1)483					
DT(N)(C+1)486 *1	Max. demand date current2	-	HEX4	Higher yy:15H to 99H, Lower mm:01H to 12H	R
DT(N)(C+1)487 *1	Max. demand time current2	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)488 *1	Max. demand time current2	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+1)489	Max. demand value current 2	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+1)490					
DT(N)(C+1)493 *1	Max. demand date current3	-	HEX4	Higher yy:15H to 99H, Lower mm:01H to 12H	R
DT(N)(C+1)494 *1	Max. demand time current3	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)495 *1	Max. demand time current3	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+1)496	Max. demand value current 3	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+1)497					
DT(N)(C+1)500 +(35*MM) *1	Monthly max. demand date active power(T1)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+1)501 +(35*MM) *1	Monthly max. demand time active power(T1)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)502 +(35*MM) *1	Monthly max. demand time active power(T1)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+1)503 +(35*MM) *1	Monthly max.demand active power(T1)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+1)504 +(35*MM) *1					
DT(N)(C+1)505 +(35*MM) *1					
DT(N)(C+1)506 +(35*MM) *1					
DT(N)(C+1)507 +(35*MM) *1	Monthly max. demand date active power(T2)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+1)508 +(35*MM) *1	Monthly max. demand time active power(T2)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)509 +(35*MM) *1	Monthly max. demand time active power(T2)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C+1)510 +(35*MM) *1	Monthly max. demand active power(T2)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+1)511 +(35*MM) *1					
DT(N)(C+1)512 +(35*MM) *1					
DT(N)(C+1)513 +(35*MM) *1					
DT(N)(C+1)514 +(35*MM) *1	Monthly max. demand date active power(T3)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+1)515 +(35*MM) *1	Monthly max. demand time active power(T3)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)516 +(35*MM) *1	Monthly max. demand time active power(T3)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+1)517 +(35*MM) *1	Monthly max. demand active power(T3)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+1)518 +(35*MM) *1					
DT(N)(C+1)519 +(35*MM) *1					
DT(N)(C+1)520 +(35*MM) *1					
DT(N)(C+1)521 +(35*MM) *1	Monthly max. demand date active power(T4)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+1)522 +(35*MM) *1	Monthly max. demand time active power(T4)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)523 +(35*MM) *1	Monthly max. demand time active power(T4)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+1)524 +(35*MM) *1	Monthly max.demand active power(T4)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+1)525 +(35*MM) *1					
DT(N)(C+1)526 +(35*MM) *1					
DT(N)(C+1)527 +(35*MM) *1					
DT(N)(C+1)528 +(35*MM) *1	Monthly max. demand date active power(T)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+1)529 +(35*MM) *1	Monthly max. demand time active power(T)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)530 +(35*MM) *1	Monthly max. demand time active power(T)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+1)531 +(35*MM) *1	Monthly max.demand active power(T)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+1)532 +(35*MM) *1					
DT(N)(C+1)533 +(35*MM) *1					
DT(N)(C+1)534 +(35*MM) *1					
DT(N)(C+1)955 +(35*MM) *1	Monthly max. demand date reactive power(T1)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+1)956 +(35*MM) *1	Monthly max. demand time reactive power(T1)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)957 +(35*MM) *1	Monthly max. demand time reactive power(T1)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C+1)958 +(35*MM) *1	Monthly max.demand reactive power(T1)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+1)959 +(35*MM) *1					
DT(N)(C+1)960 +(35*MM) *1					
DT(N)(C+1)961 +(35*MM) *1					
DT(N)(C+1)962 +(35*MM) *1	Monthly max. demand date reactive power(T2)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+1)963 +(35*MM) *1	Monthly max. demand time reactive power(T2)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)964 +(35*MM) *1	Monthly max. demand time reactive power(T2)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+1)965 +(35*MM) *1	Monthly max.demand reactive power(T2)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+1)966 +(35*MM) *1					
DT(N)(C+1)967 +(35*MM) *1					
DT(N)(C+1)968 +(35*MM) *1					
DT(N)(C+1)969 +(35*MM) *1	Monthly max. demand date reactive power(T3)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+1)970 +(35*MM) *1	Monthly max. demand time reactive power(T3)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)971 +(35*MM) *1	Monthly max. demand time reactive power(T3)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+1)972 +(35*MM) *1	Monthly max.demand reactive power(T3)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+1)973 +(35*MM) *1					
DT(N)(C+1)974 +(35*MM) *1					
DT(N)(C+1)975 +(35*MM) *1					
DT(N)(C+1)976 +(35*MM) *1					
DT(N)(C+1)976 +(35*MM) *1	Monthly max. demand date reactive power(T4)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+1)977 +(35*MM) *1	Monthly max. demand time reactive power(T4)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)978 +(35*MM) *1	Monthly max. demand time reactive power(T4)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+1)979 +(35*MM) *1	Monthly max.demand reactive power(T4)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+1)980 +(35*MM) *1					
DT(N)(C+1)981 +(35*MM) *1					
DT(N)(C+1)982 +(35*MM) *1					
DT(N)(C+1)983 +(35*MM) *1	Monthly max. demand date reactive power(T)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+1)984 +(35*MM) *1	Monthly max. demand time reactive power(T)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+1)985 +(35*MM) *1	Monthly max. demand time reactive power(T)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C+1)986 +(35*MM) *1	Monthly max.demand reactive power(T)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+1)987 +(35*MM) *1					
DT(N)(C+1)988 +(35*MM) *1					
DT(N)(C+1)989 +(35*MM) *1					
DT(N)(C+2)410 +(35*MM) *1	Monthly max. demand date apparent power(T1)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+2)411 +(35*MM) *1	Monthly max. demand time apparent power(T1)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+2)412 +(35*MM) *1	Monthly max. demand time apparent power(T1)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+2)413 +(35*MM) *1	Monthly max.demand apparent power(T1)	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+2)414 +(35*MM) *1					
DT(N)(C+2)415 +(35*MM) *1					
DT(N)(C+2)416 +(35*MM) *1					
DT(N)(C+2)417 +(35*MM) *1	Monthly max. demand date apparent power(T2)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+2)418 +(35*MM) *1	Monthly max. demand time apparent power(T2)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+2)419 +(35*MM) *1	Monthly max. demand time apparent power(T2)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+2)420 +(35*MM) *1	Monthly max.demand apparent power(T2)	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+2)421 +(35*MM) *1					
DT(N)(C+2)422 +(35*MM) *1					
DT(N)(C+2)423 +(35*MM) *1					
DT(N)(C+2)424 +(35*MM) *1	Monthly max. demand date apparent power(T3)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+2)425 +(35*MM) *1	Monthly max. demand time apparent power(T3)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+2)426 +(35*MM) *1	Monthly max. demand time apparent power(T3)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+2)427 +(35*MM) *1	Monthly max.demand apparent power(T3)	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+2)428 +(35*MM) *1					
DT(N)(C+2)429 +(35*MM) *1					
DT(N)(C+2)430 +(35*MM) *1					
DT(N)(C+2)431 +(35*MM) *1	Monthly max. demand date apparent power(T4)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+2)432 +(35*MM) *1	Monthly max. demand time apparent power(T4)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+2)433 +(35*MM) *1	Monthly max. demand time apparent power(T4)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C+2)434 +(35*MM) *1	Monthly max.demand apparent power(T4)	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+2)435 +(35*MM) *1					
DT(N)(C+2)436 +(35*MM) *1					
DT(N)(C+2)437 +(35*MM) *1					
DT(N)(C+2)438 +(35*MM) *1	Monthly max. demand date apparent power(T)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+2)439 +(35*MM) *1	Monthly max. demand time apparent power(T)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+2)440 +(35*MM) *1	Monthly max. demand time apparent power(T)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+2)441 +(35*MM) *1	Monthly max.demand apparent power(T)	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+2)442 +(35*MM) *1					
DT(N)(C+2)443 +(35*MM) *1					
DT(N)(C+2)444 +(35*MM) *1					
DT(N)(C+2)865 +(35*MM) *1	Monthly max. demand date active power (export) (T1)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+2)866 +(35*MM) *1	Monthly max. demand time active power (export) (T1)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+2)867 +(35*MM) *1	Monthly max. demand time active power (export) (T1)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+2)868 +(35*MM) *1	Monthly max.demand active power (export) (T1)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+2)869 +(35*MM) *1					
DT(N)(C+2)870 +(35*MM) *1					
DT(N)(C+2)871 +(35*MM) *1					
DT(N)(C+2)872 +(35*MM) *1	Monthly max. demand date active power (export) (T2)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+2)873 +(35*MM) *1	Monthly max. demand time active power (export) (T2)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+2)874 +(35*MM) *1	Monthly max. demand time active power (export) (T2)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+2)875 +(35*MM) *1	Monthly max.demand active power (export) (T2)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+2)876 +(35*MM) *1					
DT(N)(C+2)877 +(35*MM) *1					
DT(N)(C+2)878 +(35*MM) *1					
DT(N)(C+2)879 +(35*MM) *1	Monthly max. demand date active power (export) (T3)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+2)880 +(35*MM) *1	Monthly max. demand time active power (export) (T3)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+2)881 +(35*MM) *1	Monthly max. demand time active power (export) (T3)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C+2)882 +(35*MM) *1	Monthly max.demand active power (export) (T3)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+2)883 +(35*MM) *1					
DT(N)(C+2)884 +(35*MM) *1					
DT(N)(C+2)885 +(35*MM) *1					
DT(N)(C+2)886 +(35*MM) *1	Monthly max. demand date active power (export) (T4)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+2)887 +(35*MM) *1	Monthly max. demand time active power (export) (T4)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+2)888 +(35*MM) *1	Monthly max. demand time active power (export) (T4)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+2)889 +(35*MM) *1	Monthly max.demand active power (export) (T4)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+2)890 +(35*MM) *1					
DT(N)(C+2)891 +(35*MM) *1					
DT(N)(C+2)892 +(35*MM) *1					
DT(N)(C+2)893 +(35*MM) *1	Monthly max. demand date active power (export) (T)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+2)894 +(35*MM) *1	Monthly max. demand time active power (export) (T)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+2)895 +(35*MM) *1	Monthly max. demand time active power (export) (T)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+2)896 +(35*MM) *1	Monthly max.demand active power (export) (T)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+2)897 +(35*MM) *1					
DT(N)(C+2)898 +(35*MM) *1					
DT(N)(C+2)899 +(35*MM) *1					
DT(N)(C+3)320 +(35*MM) *1	Monthly max. demand date reactive power (export) (T1)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+3)321 +(35*MM) *1	Monthly max. demand time reactive power (export) (T1)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)322 +(35*MM) *1	Monthly max. demand time reactive power (export) (T1)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+3)323 +(35*MM) *1	Monthly max.demand reactive power (export) (T1)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+3)324 +(35*MM) *1					
DT(N)(C+3)325 +(35*MM) *1					
DT(N)(C+3)326 +(35*MM) *1					
DT(N)(C+3)327 +(35*MM) *1	Monthly max. demand date reactive power (export) (T2)	-	HEX4	Higher yy:15H to 99H, Lower min,:01H to 12H	R
DT(N)(C+3)328 +(35*MM) *1	Monthly max. demand time reactive power (export) (T2)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)329 +(35*MM) *1	Monthly max. demand time reactive power (export) (T2)	-	HEX4	Higher min,:00H to 59H, Lower ss:00H to 59H	R

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C+3)330 +(35*MM) *1	Monthly max.demand reactive power (export) (T2)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+3)331 +(35*MM) *1					
DT(N)(C+3)332 +(35*MM) *1					
DT(N)(C+3)333 +(35*MM) *1					
DT(N)(C+3)334 +(35*MM) *1	Monthly max. demand date reactive power (export) (T3)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+3)335 +(35*MM) *1	Monthly max. demand time reactive power (export) (T3)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)336 +(35*MM) *1	Monthly max. demand time reactive power (export) (T3)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+3)337 +(35*MM) *1	Monthly max.demand reactive power (export) (T3)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+3)338 +(35*MM) *1					
DT(N)(C+3)349 +(35*MM) *1					
DT(N)(C+3)340 +(35*MM) *1					
DT(N)(C+3)341 +(35*MM) *1	Monthly max. demand date reactive power (export) (T4)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+3)342 +(35*MM) *1	Monthly max. demand time reactive power (export) (T4)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)343 +(35*MM) *1	Monthly max. demand time reactive power (export) (T4)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+3)344 +(35*MM) *1	Monthly max.demand reactive power (export) (T4)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+3)345 +(35*MM) *1					
DT(N)(C+3)346 +(35*MM) *1					
DT(N)(C+3)347 +(35*MM) *1					
DT(N)(C+3)348 +(35*MM) *1	Monthly max. demand date reactive power (export) (T)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+3)349 +(35*MM) *1	Monthly max. demand time reactive power (export) (T)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)350 +(35*MM) *1	Monthly max. demand time reactive power (export) (T)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+3)351 +(35*MM) *1	Monthly max.demand reactive power (export) (T)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
DT(N)(C+3)352 +(35*MM) *1					
DT(N)(C+3)353 +(35*MM) *1					
DT(N)(C+3)354 +(35*MM) *1					
DT(N)(C+3)775 +(75*MM) *1	Monthly max. demand date current1(T1)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+3)776 +(75*MM) *1	Monthly max. demand time current1(T1)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)777 +(75*MM) *1	Monthly max. demand time current1(T1)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+3)778 +(75*MM) *1	Monthly max.demand current1(T1)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+3)779 +(75*MM) *1					

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C+3)780 +(75*MM) *1	Monthly max. demand date current2(T1)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+3)781 +(75*MM) *1	Monthly max. demand time current2(T1)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)782 +(75*MM) *1	Monthly max. demand time current2(T1)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+3)783 +(75*MM)	Monthly max.demand current2(T1)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+3)784 +(75*MM)					
DT(N)(C+3)785 +(75*MM) *1	Monthly max. demand date current3(T1)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+3)786 +(75*MM) *1	Monthly max. demand time current3(T1)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)787 +(75*MM) *1	Monthly max. demand time current3(T1)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+3)788 +(75*MM)	Monthly max.demand current3(T1)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+3)789 +(75*MM)					
DT(N)(C+3)790 +(75*MM) *1	Monthly max. demand date current1(T2)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+3)791 +(75*MM) *1	Monthly max. demand time current1(T2)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)792 +(75*MM) *1	Monthly max. demand time current1(T2)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+3)793 +(75*MM) *1	Monthly max.demand current1(T2)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+3)794 +(75*MM) *1					
DT(N)(C+3)795 +(75*MM) *1	Monthly max. demand date current2(T2)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+3)796 +(75*MM) *1	Monthly max. demand time current2(T2)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)797 +(75*MM) *1	Monthly max. demand time current2(T2)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+3)798 +(75*MM)	Monthly max.demand current2(T2)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+3)799 +(75*MM)					
DT(N)(C+3)800 +(75*MM) *1	Monthly max. demand date current3(T2)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+3)801 +(75*MM) *1	Monthly max. demand Time current3(T2)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)802 +(75*MM) *1	Monthly max. demand Time current3(T2)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+3)803 +(75*MM)	Monthly max.demand current3(T2)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+3)804 +(75*MM)					
DT(N)(C+3)805 +(75*MM) *1	Monthly max. demand date current1(T3)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+3)806 +(75*MM) *1	Monthly max. demand time current1(T3)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)807 +(75*MM) *1	Monthly max. demand time current1(T3)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C+3)808 +(75*MM) *1	Monthly max.demand current1(T3)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+3)809 +(75*MM) *1					
DT(N)(C+3)810 +(75*MM) *1	Monthly max. demand date current2(T3)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+3)811 +(75*MM) *1	Monthly max. demand time current2(T3)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)812 +(75*MM) *1	Monthly max. demand time current2(T3)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+3)813 +(75*MM)	Monthly max.demand current2(T3)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+3)814 +(75*MM)					
DT(N)(C+3)815 +(75*MM) *1	Monthly max. demand date current3(T3)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+3)816 +(75*MM) *1	Monthly max. demand time current3(T3)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)817 +(75*MM) *1	Monthly max. demand time current3(T3)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+3)818 +(75*MM)	Monthly max.demand current3(T3)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+3)819 +(75*MM)					
DT(N)(C+3)820 +(75*MM) *1	Monthly max. demand date current1(T4)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+3)821 +(75*MM) *1	Monthly max. demand time current1(T4)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)822 +(75*MM) *1	Monthly max. demand time current1(T4)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+3)823 +(75*MM) *1	Monthly max.demand current1(T4)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+3)824 +(75*MM) *1					
DT(N)(C+3)825 +(75*MM) *1	Monthly max. demand date current2(T4)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+3)826 +(75*MM) *1	Monthly max. demand time current2(T4)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)827 +(75*MM) *1	Monthly max. demand time current2(T4)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+3)828 +(75*MM)	Monthly max.demand current2(T4)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+3)829 +(75*MM)					
DT(N)(C+3)830 +(75*MM) *1	Monthly max. demand date current3(T4)	-	HEX4	Higher yy:15H to 99H, Lower min.:01H to 12H	R
DT(N)(C+3)831 +(75*MM) *1	Monthly max. demand time current3(T4)	-	HEX4	Higher dd:01H to 31H, Lower hh:00H to 23H	R
DT(N)(C+3)832 +(75*MM) *1	Monthly max. demand time current3(T4)	-	HEX4	Higher min.:00H to 59H, Lower ss:00H to 59H	R
DT(N)(C+3)833 +(75*MM)	Monthly max.demand current3(T4)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+3)834 +(75*MM)					

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C+3)835 +(75*MM) *1	Monthly max. demand date current1(T)	-	HEX4	Higher Lower yy:15H to 99H, min,:01H to 12H	R
DT(N)(C+3)836 +(75*MM) *1	Monthly max. demand time current1(T)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
DT(N)(C+3)837 +(75*MM) *1	Monthly max. demand time current1(T)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
DT(N)(C+3)838 +(75*MM) *1	Monthly max.demand current1(T)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+3)839 +(75*MM) *1					
DT(N)(C+3)840 +(75*MM) *1	Monthly max. demand date current2(T)	-	HEX4	Higher Lower yy:15H to 99H, min,:01H to 12H	R
DT(N)(C+3)841 +(75*MM) *1	Monthly max. demand time current2(T)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
DT(N)(C+3)842 +(75*MM) *1	Monthly max. demand time current2(T)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
DT(N)(C+3)843 +(75*MM)	Monthly max.demand current2(T)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+3)844 +(75*MM)					
DT(N)(C+3)845 +(75*MM) *1	Monthly max. demand date current3(T)	-	HEX4	Higher Lower yy:15H to 99H, min,:01H to 12H	R
DT(N)(C+3)846 +(75*MM) *1	Monthly max. demand time current3(T)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
DT(N)(C+3)847 +(75*MM) *1	Monthly max. demand time current3(T)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
DT(N)(C+3)848 +(75*MM)	Monthly max.demand current3(T)	0.001A	Unsigned 32bit	0 to 999,999,999	R
DT(N)(C+3)849 +(75*MM)					
DT(N)(C+4)872 *1	Import power conversion value1(T1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)873 *1					
DT(N)(C+4)874 *1					
DT(N)(C+4)875 *1					
DT(N)(C+4)876 *1	Import power conversion value2(T1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)877 *1					
DT(N)(C+4)878 *1					
DT(N)(C+4)879 *1					
DT(N)(C+4)880 *1	Import power conversion value3(T1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)881 *1					
DT(N)(C+4)882 *1					
DT(N)(C+4)883 *1					
DT(N)(C+4)884 *1	Total Import power conversion value(T1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)885 *1					
DT(N)(C+4)886 *1					
DT(N)(C+4)887 *1					
DT(N)(C+4)888 *1	Import power conversion value1(T2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)889 *1					
DT(N)(C+4)890 *1					
DT(N)(C+4)891 *1					
DT(N)(C+4)892 *1	Import power conversion value2(T2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)893 *1					
DT(N)(C+4)894 *1					
DT(N)(C+4)895 *1					
DT(N)(C+4)896 *1	Import power conversion value3(T2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)897 *1					
DT(N)(C+4)898 *1					
DT(N)(C+4)899 *1					
DT(N)(C+4)900 *1	Total Import power conversion value(T2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)901 *1					
DT(N)(C+4)902 *1					
DT(N)(C+4)903 *1					

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C+4)904 *1	Import power conversion value1(T3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)905 *1					
DT(N)(C+4)906 *1					
DT(N)(C+4)907 *1					
DT(N)(C+4)908 *1	Import power conversion value2(T3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)909 *1					
DT(N)(C+4)910 *1					
DT(N)(C+4)911 *1					
DT(N)(C+4)912 *1	Import power conversion value3(T3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)913 *1					
DT(N)(C+4)914 *1					
DT(N)(C+4)915 *1					
DT(N)(C+4)916 *1	Total Import power conversion value(T3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)917 *1					
DT(N)(C+4)918 *1					
DT(N)(C+4)919 *1					
DT(N)(C+4)920 *1	Import power conversion value1(T4)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)921 *1					
DT(N)(C+4)922 *1					
DT(N)(C+4)923 *1					
DT(N)(C+4)924 *1	Import power conversion value2(T4)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)925 *1					
DT(N)(C+4)926 *1					
DT(N)(C+4)927 *1					
DT(N)(C+4)928 *1	Import power conversion value3(T4)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)929 *1					
DT(N)(C+4)930 *1					
DT(N)(C+4)931 *1					
DT(N)(C+4)932 *1	Total Import power conversion value(T4)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)933 *1					
DT(N)(C+4)934 *1					
DT(N)(C+4)935 *1					
DT(N)(C+4)936 *1	Export power conversion value1(T1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)937 *1					
DT(N)(C+4)938 *1					
DT(N)(C+4)939 *1					
DT(N)(C+4)940 *1	Export power conversion value2(T1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)941 *1					
DT(N)(C+4)942 *1					
DT(N)(C+4)943 *1					
DT(N)(C+4)944 *1	Export power conversion value3(T1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)945 *1					
DT(N)(C+4)946 *1					
DT(N)(C+4)947 *1					
DT(N)(C+4)948 *1	Total Export power conversion value(T1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)949 *1					
DT(N)(C+4)950 *1					
DT(N)(C+4)951 *1					
DT(N)(C+4)952 *1	Export power conversion value1(T2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)953 *1					
DT(N)(C+4)954 *1					
DT(N)(C+4)955 *1					
DT(N)(C+4)956 *1	Export power conversion value2(T2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)957 *1					
DT(N)(C+4)958 *1					
DT(N)(C+4)959 *1					
DT(N)(C+4)960 *1	Export power conversion value3(T2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)961 *1					
DT(N)(C+4)962 *1					
DT(N)(C+4)963 *1					

Data register	Name	Unit	Kind of data	Range	R/W
DT(N)(C+4)964 *1	Total Export power conversion value(T2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)965 *1					
DT(N)(C+4)966 *1					
DT(N)(C+4)967 *1	Export power conversion value1(T3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)968 *1					
DT(N)(C+4)969 *1					
DT(N)(C+4)970 *1	Export power conversion value2(T3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)971 *1					
DT(N)(C+4)972 *1					
DT(N)(C+4)973 *1	Export power conversion value3(T3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)974 *1					
DT(N)(C+4)975 *1					
DT(N)(C+4)976 *1	Total Export power conversion value(T3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)977 *1					
DT(N)(C+4)978 *1					
DT(N)(C+4)979 *1	Export power conversion value1(T4)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)980 *1					
DT(N)(C+4)981 *1					
DT(N)(C+4)982 *1	Export power conversion value2(T4)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)983 *1					
DT(N)(C+4)984 *1					
DT(N)(C+4)985 *1	Export power conversion value3(T4)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)986 *1					
DT(N)(C+4)987 *1					
DT(N)(C+4)988 *1	Total Export power conversion value(T4)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
DT(N)(C+4)989 *1					
DT(N)(C+4)990 *1					
DT(N)(C+4)991 *1					
DT(N)(C+4)992 *1					
DT(N)(C+4)993 *1					
DT(N)(C+4)994 *1					
DT(N)(C+4)995 *1					
DT(N)(C+4)996 *1					
DT(N)(C+4)997 *1					
DT(N)(C+4)998 *1					
DT(N)(C+4)999 *1					

\* X for harmonics is the value in the range of 2 to 31.

\* 'Range' is not the measurement range, it shows the data range.

\* MM means '1 to 12' for month, January to December.

\*1 Only KW2M-X

Note1) R: Read W: Write

2) Data register except specified is 0.

3) If each setting value is wrote by communication, it memories to internal memory at the same time. Therefore, change setting frequently makes the internal memory's life short. Avoid to usage like this.

4) Write a data within the range when you write it.

### 1.3.4 Error Codes

#### ◇Basic procedure errors

Error code	Error name	Explanation
40H	Bcc error	• A Bcc error occurred in the command data.
41H	Format error	• A command message was sent that does not fit the transmission format.
42H	No support error	• A command was sent that is not supported.
43H	Procedure error	• Delimiter with multiple frames was sent. • The response shall be multiple frames.

#### ◇Application error

Error code	Error name	Explanation
60H	Parameter error	• The data code is not 'D'.
61H	Data error	• Word No. is specified without decimal. (0000F etc.) • The starting word No. is bigger than the ending word No. • Writing data has a code that is not hexadecimal.
62H	Registration error	• Too many registrations have been entered (more than 17). • 'MD' command was sent when some registration has been exist. • 'MG' command was sent when registration has not been entered.

#### ◇Self-diagnostic error

Error code	Error name	Explanation
45H	Operation error	• At 'WD' command, writing data is exceeded the range of data register.

### 1.3.5 Command

Eco-POWER METER has 5 kinds of commands.

Command name	Code	Explanation
Read data area	RD	Reads the contents of data area.
Write data to data area	WD	Writes data to a data area.
Register or Reset data monitored	MD	Registers the data to be monitored.
Monitoring start	MG	Monitors a registered data.
Read status	RT	Reads the specifications of Eco-POWER METER and error code if an error occurs.

#### ◆[RD]: Read data area (Reads the contents of data area.)

##### ◇Command

%	Destination x10 <sup>1</sup>   x10 <sup>0</sup>	#	R	D	D	Starting word No. 5 characters x10 <sup>4</sup>   x10 <sup>3</sup>   x10 <sup>2</sup>   x10 <sup>1</sup>   x10 <sup>0</sup>	Ending word No. 5 characters x10 <sup>4</sup>   x10 <sup>3</sup>   x10 <sup>2</sup>   x10 <sup>1</sup>   x10 <sup>0</sup>	Bcc x16 <sup>1</sup>   x16 <sup>0</sup>	CR
---	--	---	---	---	---	---	---	--	----

##### ◇Normal response (Read successful)

%	Source x10 <sup>1</sup>   x10 <sup>0</sup>	\$	R	D	First register contents 4 characters x16 <sup>1</sup>   x16 <sup>0</sup>   x16 <sup>3</sup>   x16 <sup>2</sup>	Last register contents 4 characters x16 <sup>1</sup>   x16 <sup>0</sup>   x16 <sup>3</sup>   x16 <sup>2</sup>	Bcc x16 <sup>1</sup>   x16 <sup>0</sup>	CR
					(lower word)	(higher word)	(lower word)	(higher word)

##### ◇Error response

%	Source x10 <sup>1</sup>   x10 <sup>0</sup>	!	Error code x16 <sup>1</sup>   x16 <sup>0</sup>	Bcc x16 <sup>1</sup>   x16 <sup>0</sup>	CR	(Common to each command)
---	---	---	---	--	----	--------------------------

#### ◆[WD]: Write data area (Writes data to a data area.)

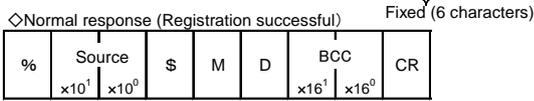
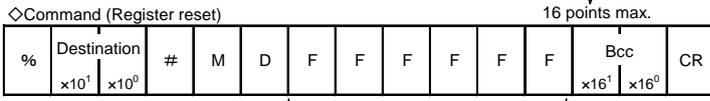
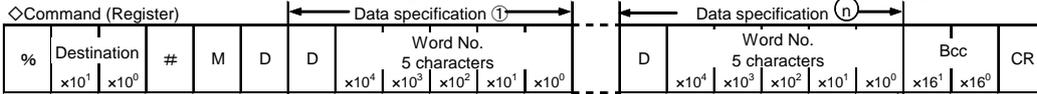
##### ◇Command

%	Destination x10 <sup>1</sup>   x10 <sup>0</sup>	#	W	D	D	Starting word No. 5 characters x10 <sup>4</sup>   x10 <sup>3</sup>   x10 <sup>2</sup>   x10 <sup>1</sup>   x10 <sup>0</sup>	Ending word No. 5 characters x10 <sup>4</sup>   x10 <sup>3</sup>   x10 <sup>2</sup>   x10 <sup>1</sup>   x10 <sup>0</sup>	First writing data 4 characters x16 <sup>1</sup>   x16 <sup>0</sup>   x16 <sup>3</sup>   x16 <sup>2</sup>	⇒
									(lower word) (higher word)

##### ◇Normal response (Write successful)

%	Source x10 <sup>1</sup>   x10 <sup>0</sup>	\$	W	D	Bcc x16 <sup>1</sup>   x16 <sup>0</sup>	CR				
							⇒	Last writing data 4 characters x16 <sup>1</sup>   x16 <sup>0</sup>   x16 <sup>3</sup>   x16 <sup>2</sup>	Bcc x16 <sup>1</sup>   x16 <sup>0</sup>	CR
								(lower word) (higher word)		

◆[MD]: Register or Reset data monitored (Registers the data to be monitored.) \*Up to 16 points can be registered for one unit.

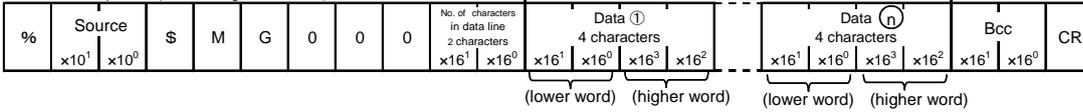


◆[MG]: Monitoring start (Monitors a registered data.)

◇Command



◇Normal response (Monitoring successful)



◆[RT]: Read the status of Eco-POWER METER (Reads the specifications of Eco-POWER METER and error codes if an error occurs.)

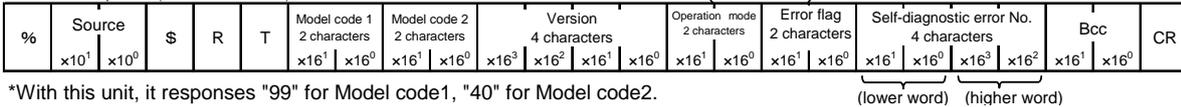
◇Command



Operation mode  
01: On operating  
00: Stop

Error flag  
01: abnormal  
00: normal

◇Normal response (Read successful)



\*With this unit, it responds "99" for Model code1, "40" for Model code2.

note) The maximum number of reading slaves is 26 (57-byte), the maximum number of writing slaves is 23 (55-byte).

## 1.4 MODBUS (RTU) Communication

### 1.4.1 Overview of MODBUS (RTU)

◆8-bit binary data in command is transmitted as it is.

Data format	Start bit	: 1 bit
	Data bit	: 8 bits (fixed)
	Parity	: No parity, Even parity, Odd parity Selectable
	Stop bit	: 1 bit, 2 bot selectable
	Error detection	: CRC-16 (Cyclic Redundancy Check)
	Data interval	: 3.5 character transmission time or less

◆Message configuration

RTU mode is configured to start after idle time processing of more than 3.5 character transmissions and end after idle time processing of more than 3.5 character transmissions.

3.5 idle characters	Slave address	Function code	Data	Error check CRC-16	3.5 idle characters
	8-bit	8-bit	* * bits	16-bit	

Master judges the transmission complete after no command for 4-characters idle time and process the command.

\*Transmission speed and judgment time to complete transmission

Transmission speed (bps)	Judgment time to complete (ms)
115200	about 0.33
57600	about 0.67
38400	about 1.00
19200	about 2.00
9600	about 4.00
4800	about 8.00
2400	about 16.00

◇Slave address:

Slave address is an individual instrument number on the slave side and is set within the range 1 to 99 (01H to 63H). Master identifies slaves by the slave address of the requested message.

Slave informs master which slave is responding to master by placing its own address in the response message. Slave address 0 (00H, broadcast address) can identify all slaves connected. However slaves do not respond.

◇Function code: Function code is command code for the slave to undertake the following action types.

Function code	Contents
03(03H)	DT Read
06(06H)	DT1 word write
16(10H)	DT several data write

Function code is used to discern whether the response is normal (acknowledgement) or if any error (negative acknowledgement) has occurred when slave returns response message to master.

When acknowledgement is returned, slave simply returns original function code. When negative acknowledgement is returned, MSB of original function code is set as 1 for response.

For example, when the master sends request message setting 00H to function code by mistake, slave returns 80H by setting MSB to 1, because the former is an illegal function.

For negative acknowledgement, the exception codes below are set to data of response message and returned to master in order to inform it of what kind of error has occurred.

Exception code	Contents
1(01H)	Illegal Function (Non-existent function)
3(03H)	Illegal data value (Value out of the devise numbers)

note1) Even if it commands to write (06H.10H) to non-existent data address, slave response with acknowledgement. However, it doesn't write.

note2) Even if it commands to write the value out of the setting range, slave response with acknowledgement. However, it doesn't write.

note3) The maximum number of reading slaves is 26 (57-byte), the maximum number of writing slaves is 23 (55-byte).

◇Data: Data depends on the function code.

A request message from the master side is composed of data item, number of data and setting data.

A response message from the slave side is composed of number of bytes, data and exception code in negative acknowledgement.

◇Error check: 16-bit data to detect communication errors. Refer to the next.

◇Acknowledgement response

When command is to write 1 point, same message of command is responded.

When command is to write several points, part of command message (6-byte) is responded.

#### ◆Error check

After calculating CRC-16 (Cyclic Redundancy Check) from slave address to the end of data, the calculated 16-bit data is appended to the end of message in sequence from low order to high order.

<How to calculate CRC>

In CRC system, the information is divided by the polynomial series. The remainder is added to the end of the information and transmitted. The generation of polynomial series is as follows.

(Generation of polynomial series:  $X^{16} + X^{15} + X^2 + 1$ )

- 1) Initialize the CRC-16 data (assumed as X) (FFFFH).
- 2) Calculate exclusive OR (XOR) with the 1st data and X. This is assumed as X.
- 3) Shift X one bit to the right. This is assumed as X.
- 4) When a carry is generated as a result of the shift, XOR is calculated by X of 3) and the fixed value (A001H). This is assumed as X. If a carry is not generated, go to step 5).
- 5) Repeat steps 3) and 4) until shifting 8 times.
- 6) XOR is calculated with the next data and X. This is assumed as X.
- 7) Repeat steps 3) to 5).
- 8) Repeat steps 3) to 5) up to the last data.
- 9) Set X as CRC-16 to the end of message in sequence from low order to high order.

#### ◆Message example

<1> Reading electricity rate (005DH) of address 1

•Command

3.5 idle characters	Slave address (01H)	Function code (03H)	Data item (005DH)	Number of data (0001H)	Error check CRC-16 (15D8H)	3.5 idle characters
	1	1	2	2	2	←character number

•Response message from slave in normal status (When Rate=1000(10.00) [03E8H])

3.5 idle characters	Slave address (01H)	Function code (03H)	Number of response byte (02H)	Number of data (03E8H)	Error check CRC-16 (B8FAH)	3.5 idle characters
	1	1	1	2	2	←character number

<2> Setting electricity rate (005DH) of address 1 (When rate is set to 20.00(2000) [07D0H])

•Command

3.5 idle characters	Slave address (01H)	Function code (06H)	Data item (005DH)	Number of data (07D0H)	Error check CRC-16 (1BB4H)	3.5 idle characters
	1	1	2	2	2	←character number

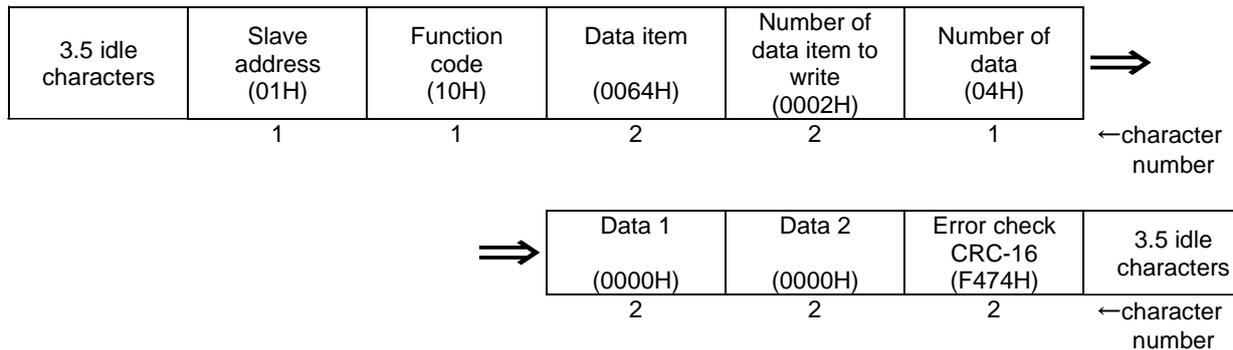
•Response message from slave in normal status

3.5 idle characters	Slave address (01H)	Function code (06H)	Data item (005DH)	Number of data (07D0H)	Error check CRC-16 (1BB4H)	3.5 idle characters
	1	1	2	2	2	←character number

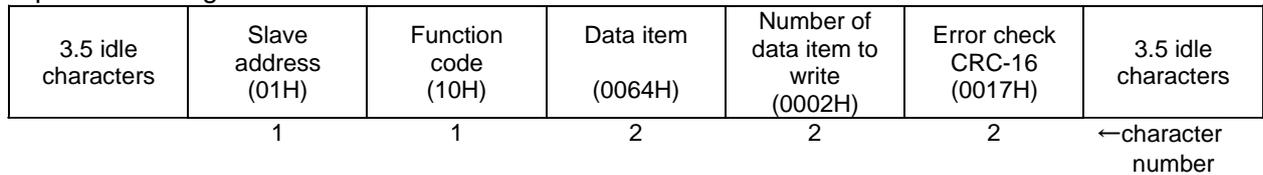
<3> Reset integral electric power (1) (0064H, 0065H: 2-word) of address 1

(When setting to 0 [0000, 0000H])

•Command



•Response message from slave in normal status



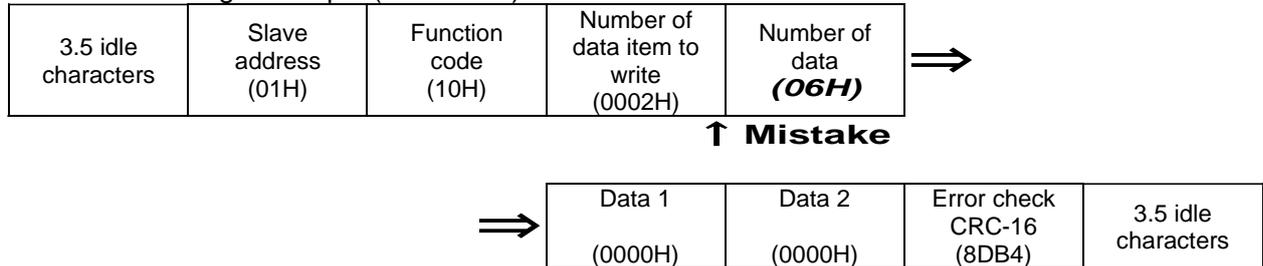
•A response message from the slave in exception (error) status

(When number of data has been mistaken.)

Function code MSB is set to 1 for the response message in exception (error) status (90H).

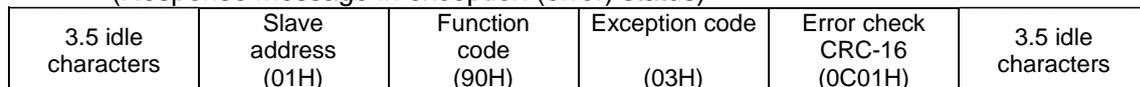
The exception code 03H (Value out of the device numbers) is returned as contents of error.

<Mistaken message example (Command)>



<Response message from slave to mistaken command

(Response message in exception (error) status)>



### 1.4.2 Overview of MODBUS (TCP)

MODBUS (TCP) has MBAP header add to the function code or data that are used for MODBUS (RTU).

#### ◆ Message configuration

MBAP header				Function code	Data
28-bit				8-bit	* * -bit
MBAP Header part					
Transaction identifier	Protocol identifier	Data length	Slave address		
16-bit	16-bit	16-bit	8-bit		

#### ◆ Data contents

Field name		Contents
MBAP header	Transaction identifier	0000H fixed
	Protocol identifier	0000H fixed
	Data length	Data length of the followed message.
	Slave address	Device number (0 to 247)
Function code		Same code as MODBUS(RTU)
Data		Data for the function code.

\*The function code and data of MODBUS (TCP) are same as that of MODBUS (RTU).  
However, MODBUS (TCP) doesn't have error check CRC-16

### 1.4.3 Data Register List (MODBUS communication)

[N] : Unit number

Main unit → 0

Expansion unit 1 → 1 Expansion unit 2 → 2 Expansion unit 3 → 3

[C] : CH number CH1 → 0 CH2 → 5

Ex.) Integral active power 2 of Expansion unit 1, CH2 → N=1, C-5

→ 0064H + 15000 = 0064H + 3A98H = 3AFCH

【M】:Main unit 【E】:Expansion unit Registers without 【 】 are common.

#### Setting

Data register	Name	Kind of data	Range	R/W
C361H + (N)(C)00	Reset all integral value	Unsigned 16bit	0:No 1:Yes	R/W
C362H + (N)(C)00	Reset integral value 1	Unsigned 16bit	0:No 1:Yes	R/W
C363H + (N)(C)00	Reset integral value 2	Unsigned 16bit	0:No 1:Yes	R/W
C364H + (N)(C)00	Reset integral value 3	Unsigned 16bit	0:No 1:Yes	R/W
C365H	【M】Reset count value	Unsigned 16bit	0:No 1:Yes	R/W
C366H + (N)(C)00	Reset hour meter	Unsigned 16bit	0:No 1:Yes	R/W
C367H + (N)(C)00	Reset logging data	Unsigned 16bit	0:No 1:Yes	R/W
C36CH + (N)(C)00	Status of hour meter	Unsigned 16bit	0: Normal mode 1: Maintenance mode	R/W
C478H	【M】Level output 1	Unsigned 16bit	0: Pulse OFF 1: Pulse ON	R/W
C479H	【M】Level output 2	Unsigned 16bit	0: Pulse OFF 1: Pulse ON	R/W
C695H	Calendar(min,·ss)	HEX4	Higher min.:00H to 59H, ss:00H to 59H	R/W
C696H	Calendar(dd·hh)	HEX4	Higher dd:01H to 31H, hh:00H to 23H	R/W
C697H	Calendar(yy·mm)	HEX4	Higher yy:15H to 99H, mm:01H to 12H	R/W
D2FCH + (N+4)00	Leakage alarm reset (1)	Unsigned 16bit	0:No 1:Yes	R/W
D2FDH + (N+4)00	Leakage alarm reset (2)	Unsigned 16bit	0:No 1:Yes	R/W
D2FEH + (N+4)00	Leakage alarm reset (3)	Unsigned 16bit	0:No 1:Yes	R/W
D6DAH + (N)00	【E】(Digital I/O) Reset Counter 1	Unsigned 16bit	0:No 1:Yes	R/W
D6DBH + (N)00	【E】(Digital I/O) Reset Counter 2	Unsigned 16bit	0:No 1:Yes	R/W
DC90H + (N)00	【E】(Digital I/O) Level output 1	Unsigned 16bit	0: Pulse OFF 1: Pulse ON	R/W
DC91H + (N)00	【E】(Digital I/O) Level output 2	Unsigned 16bit	0: Pulse OFF 1: Pulse ON	R/W
DC92H + (N)00	【E】(Digital I/O) Level output 3	Unsigned 16bit	0: Pulse OFF 1: Pulse ON	R/W
DC93H + (N)00	【E】(Digital I/O) Level output 4	Unsigned 16bit	0: Pulse OFF 1: Pulse ON	R/W

## Measurement value

Data register	Name	Unit	Kind of data	Range	R/W
0064H + (N)(C)000 <LSB>	Integral active power (1)	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
0065H + (N)(C)000					
0066H + (N)(C)000					
0067H + (N)(C)000 <MSB>					
0068H + (N)(C)000 <LSB>	Integral active power (2)	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
0069H + (N)(C)000					
006AH + (N)(C)000					
006BH + (N)(C)000 <MSB>					
006CH + (N)(C)000 <LSB>	Integral active power (3)	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
006DH + (N)(C)000					
006EH + (N)(C)000					
006FH + (N)(C)000 <MSB>					
0070H + (N)(C)000 <LSB>	Total integral active power	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
0071H + (N)(C)000					
0072H + (N)(C)000					
0073H + (N)(C)000 <MSB>					
0074H + (N)(C)000 <LSB>	Integral reactive power (1)	0.001 kvarh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
0075H + (N)(C)000					
0076H + (N)(C)000					
0077H + (N)(C)000 <MSB>					
0078H + (N)(C)000 <LSB>	Integral reactive power (2)	0.001 kvarh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
0079H + (N)(C)000					
007AH + (N)(C)000					
007BH + (N)(C)000 <MSB>					
007CH + (N)(C)000 <LSB>	Integral reactive power (3)	0.001 kvarh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
007DH + (N)(C)000					
007EH + (N)(C)000					
007FH + (N)(C)000 <MSB>					
0080H + (N)(C)000 <LSB>	Total integral reactive power	0.001 kvarh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
0081H + (N)(C)000					
0082H + (N)(C)000					
0083H + (N)(C)000 <MSB>					
0084H + (N)(C)000 <LSB>	Integral apparent power (1)	0.001 kVAh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
0085H + (N)(C)000					
0086H + (N)(C)000					
0087H + (N)(C)000 <MSB>					
0088H + (N)(C)000 <LSB>	Integral apparent power (2)	0.001 kVAh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
0089H + (N)(C)000					
008AH + (N)(C)000					
008BH + (N)(C)000 <MSB>					
008CH + (N)(C)000 <LSB>	Integral apparent power (3)	0.001 kVAh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
008DH + (N)(C)000					
008EH + (N)(C)000					
008FH + (N)(C)000 <MSB>					
0090H + (N)(C)000 <LSB>	Total integral apparent power	0.001 kVAh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
0091H + (N)(C)000					
0092H + (N)(C)000					
0093H + (N)(C)000 <MSB>					
0094H + (N)(C)000 <LSB>	Integral export active power (1)	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
0095H + (N)(C)000					
0096H + (N)(C)000					
0097H + (N)(C)000 <MSB>					
0098H + (N)(C)000 <LSB>	Integral export active power (2)	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
0099H + (N)(C)000					
009AH + (N)(C)000					
009BH + (N)(C)000 <MSB>					
009CH + (N)(C)000 <LSB>	Integral export active power (3)	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
009DH + (N)(C)000					
009EH + (N)(C)000					
009FH + (N)(C)000 <MSB>					

Data register	Name	Unit	Kind of data	Range	R/W
00A0H + (N)(C)000 <LSB>	Total integral export active power	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
00A1H + (N)(C)000					
00A1H + (N)(C)000					
00A3H + (N)(C)000 <MSB>					
00A4H + (N)(C)000 <LSB>	Integral export reactive power (1)	0.001 kvarh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
00A5H + (N)(C)000					
00A6H + (N)(C)000					
00A7H + (N)(C)000 <MSB>					
00A8H + (N)(C)000 <LSB>	Integral export reactive power (2)	0.001 kvarh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
00A9H + (N)(C)000					
00AAH + (N)(C)000					
00ABH + (N)(C)000 <MSB>					
00ACH + (N)(C)000 <LSB>	Integral export reactive power (3)	0.001 kvarh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
00ADH + (N)(C)000					
00AEH + (N)(C)000					
00AFH + (N)(C)000 <MSB>					
00B0H + (N)(C)000 <LSB>	Total integral export reactive power	0.001 kvarh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
00B1H + (N)(C)000					
00B2H + (N)(C)000					
00B3H + (N)(C)000 <MSB>					
00C2H + (N)(C)000	PF (1)	0.001	Signed 16bit	-1000 to 1000	R
00C3H + (N)(C)000	PF (2)	0.001	Signed 16bit	-1000 to 1000	R
00C4H + (N)(C)000	PF (3)	0.001	Signed 16bit	-1000 to 1000	R
00C5H + (N)(C)000	PF average	0.001	Signed 16bit	-1000 to 1000	R
00C8H + (N)(C)000 <LSB>	Instantaneous active power (1)	0.001 kW	Signed 64bit	-999,999,999,999 to 999,999,999,999	R
00C9H + (N)(C)000					
00CAH + (N)(C)000					
00CBH + (N)(C)000 <MSB>					
00CCH + (N)(C)000 <LSB>	Instantaneous active power (2)	0.001 kW	Signed 64bit	-999,999,999,999 to 999,999,999,999	R
00CDH + (N)(C)000					
00CEH + (N)(C)000					
00CFH + (N)(C)000 <MSB>					
00D0H + (N)(C)000 <LSB>	Instantaneous active power (3)	0.001 kW	Signed 64bit	-999,999,999,999 to 999,999,999,999	R
00D1H + (N)(C)000					
00D2H + (N)(C)000					
00D3H + (N)(C)000 <MSB>					
00D4H + (N)(C)000 <LSB>	Total instantaneous active power	0.001 kW	Signed 64bit	-999,999,999,999 to 999,999,999,999	R
00D5H + (N)(C)000					
00D6H + (N)(C)000					
00D7H + (N)(C)000 <MSB>					
00D8H + (N)(C)000 <LSB>	Instantaneous reactive power (1)	0.001 kvar	Signed 64bit	-999,999,999,999 to 999,999,999,999	R
00D9H + (N)(C)000					
00DAH + (N)(C)000					
00DBH + (N)(C)000 <MSB>					
00DCH + (N)(C)000 <LSB>	Instantaneous reactive power (2)	0.001 kvar	Signed 64bit	-999,999,999,999 to 999,999,999,999	R
00DDH + (N)(C)000					
00DEH + (N)(C)000					
00DFH + (N)(C)000 <MSB>					
00E0H + (N)(C)000 <LSB>	Instantaneous reactive power (3)	0.001 kvar	Signed 64bit	-999,999,999,999 to 999,999,999,999	R
00E1H + (N)(C)000					
00E2H + (N)(C)000					
00E3H + (N)(C)000 <MSB>					
00E4H + (N)(C)000 <LSB>	Total instantaneous reactive power	0.001 kvar	Signed 64bit	-999,999,999,999 to 999,999,999,999	R
00E5H + (N)(C)000					
00E6H + (N)(C)000					
00E7H + (N)(C)000 <MSB>					

Data register	Name	Unit	Kind of data	Range	R/W
00E8H + (N)(C)000 <LSB>	Instantaneous apparent power (1)	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
00E9H + (N)(C)000					
00EAH + (N)(C)000					
00EBH + (N)(C)000 <MSB>					
00ECH + (N)(C)000 <LSB>	Instantaneous apparent power (2)	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
00EDH + (N)(C)000					
00EEH + (N)(C)000					
00EFH + (N)(C)000 <MSB>					
00F0H + (N)(C)000 <LSB>	Instantaneous apparent power (3)	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
00F1H + (N)(C)000					
00F2H + (N)(C)000					
00F3H + (N)(C)000 <MSB>					
00F4H + (N)(C)000 <LSB>	Total instantaneous apparent power	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
00F5H + (N)(C)000					
00F6H + (N)(C)000					
00F7H + (N)(C)000 <MSB>					
0106H + (N)(C)000 <LSB>	Voltage 1	0.01V	Unsigned 32bit	0 to 999,999,999	R
0107H + (N)(C)000 <MSB>					
0108H + (N)(C)000 <LSB>	Voltage 2	0.01V	Unsigned 32bit	0 to 999,999,999	R
0109H + (N)(C)000 <MSB>					
010AH + (N)(C)000 <LSB>	Voltage 3	0.01V	Unsigned 32bit	0 to 999,999,999	R
010BH + (N)(C)000 <MSB>					
010CH + (N)(C)000 <LSB>	Voltage average	0.01V	Unsigned 32bit	0 to 999,999,999	R
010DH + (N)(C)000 <MSB>					
010EH + (N)(C)000 <LSB>	Line voltage 1	0.01V	Unsigned 32bit	0 to 999,999,999	R
010FH + (N)(C)000 <MSB>					
0110H + (N)(C)000 <LSB>	Line voltage 2	0.01V	Unsigned 32bit	0 to 999,999,999	R
0111H + (N)(C)000 <MSB>					
0112H + (N)(C)000 <LSB>	Line voltage 3	0.01V	Unsigned 32bit	0 to 999,999,999	R
0113H + (N)(C)000 <MSB>					
0114H + (N)(C)000 <LSB>	Line voltage average	0.01V	Unsigned 32bit	0 to 999,999,999	R
0115H + (N)(C)000 <MSB>					
0116H + (N)(C)000 <LSB>	Current (1)	0.001A	Unsigned 32bit	0 to 999,999,999	R
0117H + (N)(C)000 <MSB>					
0118H + (N)(C)000 <LSB>	Current (2)	0.001A	Unsigned 32bit	0 to 999,999,999	R
0119H + (N)(C)000 <MSB>					
011AH + (N)(C)000 <LSB>	Current (3)	0.001A	Unsigned 32bit	0 to 999,999,999	R
011BH + (N)(C)000 <MSB>					
011CH + (N)(C)000 <LSB>	Current phase N	0.001A	Unsigned 32bit	0 to 999,999,999	R
011DH + (N)(C)000 <MSB>					
011EH + (N)(C)000 <LSB>	Current average	0.001A	Unsigned 32bit	0 to 999,999,999	R
011FH + (N)(C)000 <MSB>					
0120H + (N)(C)000	Frequency (1)	0.01Hz	Unsigned 16bit	0 to 9999	R
0121H + (N)(C)000	Frequency (2)	0.01Hz	Unsigned 16bit	0 to 9999	R
0122H + (N)(C)000	Frequency (3)	0.01Hz	Unsigned 16bit	0 to 9999	R
0123H + (N)(C)000	Frequency average	0.01Hz	Unsigned 16bit	0 to 9999	R
124H + (N)0000<LSB>	Pulse input value(1)	—	Unsigned 32bit	0 to 999999	R/W
125H + (N)0000<MSB>					
126H + (N)0000<LSB>	【E】(Digital I/O) Pulse input value(2)	—	Unsigned 32bit	0 to 999999	R/W
127H + (N)0000<MSB>					
128H + (N)0000	Pulse input status(1)	—	Unsigned 16bit	0:OFF, 1:ON	R
129H + (N)0000	【E】(Digital I/O) Pulse input status(2)	—	Unsigned 16bit	0:OFF, 1:ON	R

Data register	Name	Unit	Kind of data	Range	R/W
12AH + (N)0000	Pulse output status(1)	—	Unsigned 16bit	0:OFF, 1:ON	R
12BH + (N)0000	Pulse output status(2)	—	Unsigned 16bit	0:OFF, 1:ON	R
12CH + (N)0000	【E】(Digital I/O) Pulse output status(3)	—	Unsigned 16bit	0:OFF, 1:ON	R
12DH + (N)0000	【E】(Digital I/O) Pulse output status(4)	—	Unsigned 16bit	0:OFF, 1:ON	R
0124H	Pulse input value	—	Unsigned 32bit	0 to 999999	R/W
0125H					
0128H	Pulse input status	—	Unsigned 16bit	0:OFF, 1:ON	R
012AH	Pulse output CH1 Status	—	Unsigned 16bit	0:OFF, 1:ON	R
012BH	Pulse output CH2 Status	—	Unsigned 16bit	0:OFF, 1:ON	R
0131H + (N)(C)000 <LSB>	Present demand (active power)	0.001 kW	Unsigned 32bit	0 to 999,999,999	R
0132H + (N)(C)000 <MSB>					
0133H + (N)(C)000 <LSB>	Present demand (reactive power)	0.001 kvar	Unsigned 32bit	0 to 999,999,999	R
0134H + (N)(C)000 <MSB>					
0135H + (N)(C)000 <LSB>	Present demand (apparent power)	0.001 kVA	Unsigned 32bit	0 to 999,999,999	R
0136H + (N)(C)000 <MSB>					
0137H + (N)(C)000 <LSB>	Present demand (active power (export))	0.001 kW	Unsigned 32bit	0 to 999,999,999	R
0138H + (N)(C)000 <MSB>					
0139H + (N)(C)000 <LSB>	Present demand (reactive power (export))	0.001 kvar	Unsigned 32bit	0 to 999,999,999	R
013AH + (N)(C)000 <MSB>					
013BH + (N)(C)000 <LSB>	Present demand (current①)	0.001 kW	Unsigned 32bit	0 to 999,999,999	R
013CH + (N)(C)000 <MSB>					
013DH + (N)(C)000 <LSB>	Present demand (current②)	0.001 kW	Unsigned 32bit	0 to 999,999,999	R
013EH + (N)(C)000 <MSB>					
013FH + (N)(C)000 <LSB>	Present demand (current③)	0.001 kW	Unsigned 32bit	0 to 999,999,999	R
0140H + (N)(C)000 <MSB>					
0145H <LSB>	Integral active power (pulse conversion value)	0.001 kWh	Unsigned 64bit	0 to 9,999,999,999,999,999,999	R/W
0146H					
0147H					
0148H <MSB>					
0149H + (N)(C)000 <LSB>	Load ON-time	0.1h	Unsigned 32bit	0 to 999999	R
014AH + (N)(C)000 <MSB>					
014BH + (N)(C)000 <LSB>	Load stand-by time	0.1h	Unsigned 32bit	0 to 999999	R
014CH + (N)(C)000 <MSB>					
014DH + (N)(C)000 <LSB>	Load OFF-time	0.1h	Unsigned 32bit	0 to 999999	R
014EH + (N)(C)000 <MSB>					
014FH + (N)(C)000 <LSB>	Load maintenance Time	0.1h	Unsigned 32bit	0 to 999999	R
0150H + (N)(C)000 <MSB>					
159H + (N)(C)000<LSB>	Integral active power (1)	0.01Wh	Unsigned 32bit	0 to 999,999,999	R
15AH + (N)(C)000<MSB>					
15BH + (N)(C)000<LSB>	Integral active power (2)	0.01Wh	Unsigned 32bit	0 to 999,999,999	R
15CH + (N)(C)000<MSB>					
15DH + (N)(C)000<LSB>	Integral active power (3)	0.01Wh	Unsigned 32bit	0 to 999,999,999	R
15EH + (N)(C)000<MSB>					
15FH + (N)(C)000<LSB>	Total integral active power	0.01Wh	Unsigned 32bit	0 to 999,999,999	R
160H + (N)(C)000<MSB>					
2D0H + (N)(C)000<LSB>	Import power conversion value (1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
2D1H + (N)(C)000					
2D2H + (N)(C)000					
2D3H + (N)(C)000<MSB>					
2D4H + (N)(C)000<LSB>	Import power conversion value (2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
2D5H + (N)(C)000					
2D6H + (N)(C)000					
2D7H + (N)(C)000<MSB>					

Data register	Name	Unit	Kind of data	Range	R/W
2D8H + (N)(C)000<LSB>	Import power conversion value (3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
2D9H + (N)(C)000					
2DAH + (N)(C)000					
2DBH + (N)(C)000<MSB>					
2DCH + (N)(C)000<LSB>	Total Import power conversion value	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
2DDH + (N)(C)000					
2DEH + (N)(C)000					
2DFH + (N)(C)000<MSB>					
2E0H + (N)(C)000<LSB>	Export power conversion value (1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
2E1H + (N)(C)000					
2E2H + (N)(C)000					
2E3H + (N)(C)000<MSB>					
2E4H + (N)(C)000<LSB>	Export power conversion value (2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
2E5H + (N)(C)000					
2E6H + (N)(C)000					
2E7H + (N)(C)000<MSB>					
2E8H + (N)(C)000<LSB>	Export power conversion value (3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
2E9H + (N)(C)000					
2EAH + (N)(C)000					
2EBH + (N)(C)000<MSB>					
2ECH + (N)(C)000<LSB>	Total Export power conversion value	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
2EDH + (N)(C)000					
2EEH + (N)(C)000					
2EFH + (N)(C)000<MSB>					
320H + (N)0000<LSB>	Digital conversion value (1)	-	Signed 32bit	-999999999 to 999999999	R
321H + (N)0000<MSB>					
322H + (N)0000<LSB>	Digital conversion value (2)	-	Signed 32bit	-999999999 to 999999999	R
323H + (N)0000<MSB>					
324H + (N)0000<LSB>	Digital conversion value (3)	-	Signed 32bit	-999999999 to 999999999	R
325H + (N)0000<MSB>					
32CH + (N)0000	Temperature (1)	0.1°C	Signed 16bit	-2000 to 2000	R
32DH + (N)0000	Temperature (2)	0.1°C	Signed 16bit	-2000 to 2000	R
16DAH + (N)0000	Leakage current (1)	0.0001A	Unsigned 32bit	0 to 999999999	R
16DBH + (N)0000					
16DCH + (N)0000	Leakage current (2)	0.0001A	Unsigned 32bit	0 to 999999999	R
16DDH + (N)0000					
16DEH + (N)0000	Leakage current (3)	0.0001A	Unsigned 32bit	0 to 999999999	R
16DFH + (N)0000					
16E0H + (N)0000	Leakage status (1)	-	Unsigned 16bit	0: No leakage 1:Leakage	R
16E1H + (N)0000	Leakage status (2)	-	Unsigned 16bit	0: No leakage 1:Leakage	R
16E2H + (N)0000	Leakage status (3)	-	Unsigned 16bit	0: No leakage 1:Leakage	R
16E3H	Total present demand (active power)	0.001kW	Unsigned 64bit	0 to 999,999,999,999	R
16E4H					
16E5H					
16E6H					
16E7H	Total present demand (reactive power)	0.001kvar	Unsigned 64bit	0 to 999,999,999,999	R
16E8H					
16E9H					
16EAH					
16EBH	Total present demand (apparent power)	0.001kVA	Unsigned 64bit	0 to 999,999,999,999	R
16ECH					
16EDH					
16EEH					
16EFH	Total present demand (active power (export))	0.001kW	Unsigned 64bit	0 to 999,999,999,999	R
16F0H					
16F1H					
16F2H					

Data register	Name	Unit	Kind of data	Range	R/W
16F3H	Total present demand (reactive power (export))	0.001kvar	Unsigned 64bit	0 to 999,999,999,999	R
16F4H					
16F5H					
16F6H					
0000H + (N)(C+1)000	Voltage unbalancing	0.01%	Unsigned 16bit	0 to 30000	R
0001H + (N)(C+1)000	Current unbalancing	0.01%	Unsigned 16bit	0 to 30000	R
0002H + (N)(C+1)000	Voltage THD (1)	0.01%	Unsigned 16bit	0 to 40000	R
0003H + (N)(C+1)000	Voltage THD (2)	0.01%	Unsigned 16bit	0 to 40000	R
0004H + (N)(C+1)000	Voltage THD (3)	0.01%	Unsigned 16bit	0 to 40000	R
0005H + (N)(C+1)000	Voltage THD Average	0.01%	Unsigned 16bit	0 to 40000	R
0006H + (N)(C+1)000	Line voltage THD 1-2	0.01%	Unsigned 16bit	0 to 40000	R
0007H + (N)(C+1)000	Line voltage THD 2-3	0.01%	Unsigned 16bit	0 to 40000	R
0008H + (N)(C+1)000	Line voltage THD 3-1	0.01%	Unsigned 16bit	0 to 40000	R
0009H + (N)(C+1)000	Line voltage THD average	0.01%	Unsigned 16bit	0 to 40000	R
000AH + (N)(C+1)000	Current THD (1)	0.01%	Unsigned 16bit	0 to 40000	R
000BH + (N)(C+1)000	Current THD (2)	0.01%	Unsigned 16bit	0 to 40000	R
000CH + (N)(C+1)000	Current THD (3)	0.01%	Unsigned 16bit	0 to 40000	R
000DH + (N)(C+1)000	Current THD Average	0.01%	Unsigned 16bit	0 to 40000	R
000EH + (N)(C+1)000 + 4*(X - 2)	Phase voltage X-order harmonics(1)	0.01%	Unsigned 16bit	0 to 40000	R
000FH + (N)(C+1)000 + 4*(X - 2)	Phase voltage X-order harmonics(2)	0.01%	Unsigned 16bit	0 to 40000	R
0010H + (N)(C+1)000 + 4*(X - 2)	Phase voltage X-order harmonics(3)	0.01%	Unsigned 16bit	0 to 40000	R
0011H + (N)(C+1)000 + 4*(X - 2)	Phase voltage X-order Harmonics Average	0.01%	Unsigned 16bit	0 to 40000	R
0086H + (N)(C+1)000 + 4*(X - 2)	Line voltage X-order harmonics(1)	0.01%	Unsigned 16bit	0 to 40000	R
0087H + (N)(C+1)000 + 4*(X - 2)	Line voltage X-order harmonics(2)	0.01%	Unsigned 16bit	0 to 40000	R
0088H + (N)(C+1)000 + 4*(X - 2)	Line voltage X-order harmonics(3)	0.01%	Unsigned 16bit	0 to 40000	R
0089H + (N)(C+1)000 + 4*(X - 2)	Line voltage X-order harmonics Average	0.01%	Unsigned 16bit	0 to 40000	R
00FEH + (N)(C+1)000 + 4*(X - 2)	Current X-order harmonics (1)	0.01%	Unsigned 16bit	0 to 40000	R
00FFH + (N)(C+1)000 + 4*(X - 2)	Current X-order harmonics (2)	0.01%	Unsigned 16bit	0 to 40000	R
0100H + (N)(C+1)000 + 4*(X - 2)	Current X-order harmonics (3)	0.01%	Unsigned 16bit	0 to 40000	R
0101H + (N)(C+1)000 + 4*(X - 2)	Current X-order harmonics average	0.01%	Unsigned 16bit	0 to 40000	R
01BCH + (N)(C+1)000 *1	Max. demand date active power	-	HEX4	Higher yy:15H to 99H,mm:01H to 12H	R
01BDH + (N)(C+1)000 *1	Max. demand time active power	-	HEX4	Higher dd:01H to 31H, hh:00H to 23H	R
01BEH + (N)(C+1)000 *1	Max. demand time active power	-	HEX4	Higher min,:00H to 59H, ss:00H to 59H	R

Data register	Name	Unit	Kind of data	Range	R/W
01BFH + (N)(C+1)000 <LSB>	Max. demand value active power	0.001 kw	Unsigned 64bit	0 to 999,999,999,999	R
01C0H + (N)(C+1)000					
01C1H + (N)(C+1)000					
01C2H + (N)(C+1)000 <MSB>					
01C3H + (N)(C+1)000 *1	Max. demand date reactive power	-	HEX4	Higher yy:15H to 99H,mm:01H to 12H Lower	R
01C4H + (N)(C+1)000 *1	Max. demand time reactive power	-	HEX4	Higher dd:01H to 31H, hh:00H to 23H Lower	R
01C5H + (N)(C+1)000 *1	Max. demand time reactive power	-	HEX4	Higher min.:00H to 59H, ss:00H to 59H Lower	R
01C6H + (N)(C+1)000 <LSB>	Max. demand value reactive power	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
01C7H + (N)(C+1)000					
01C8H + (N)(C+1)000					
01C9H + (N)(C+1)000 <MSB>					
01CAH + (N)(C+1)000 *1	Max. demand date apparent power	-	HEX4	Higher yy:15H to 99H,mm:01H to 12H Lower	R
01CBH + (N)(C+1)000 *1	Max. demand time apparent power	-	HEX4	Higher dd:01H to 31H, hh:00H to 23H Lower	R
01CCH + (N)(C+1)000 *1	Max. demand time apparent power	-	HEX4	Higher min.:00H to 59H, ss:00H to 59H Lower	R
01CDH + (N)(C+1)000 <LSB>	Max. demand value apparent power	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
01CEH + (N)(C+1)000					
01CFH + (N)(C+1)000					
01D0H + (N)(C+1)000 <MSB>					
01D1H + (N)(C+1)000 *1	Max. demand date active power (export)	-	HEX4	Higher yy:15H to 99H,mm:01H to 12H Lower	R
01D2H + (N)(C+1)000 *1	Max. demand time active power (export)	-	HEX4	Higher dd:01H to 31H, hh:00H to 23H Lower	R
01D3H + (N)(C+1)000 *1	Max. demand time active power (export)	-	HEX4	Higher min.:00H to 59H, ss:00H to 59H Lower	R
01D4H + (N)(C+1)000 <LSB>	Max. demand value active power (export)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
01D5H + (N)(C+1)000					
01D6H + (N)(C+1)000					
01D7H + (N)(C+1)000 <MSB>					
01D8H + (N)(C+1)000 *1	Max. demand date reactive power (export)	-	HEX4	Higher yy:15H to 99H,mm:01H to 12H Lower	R
01D9H + (N)(C+1)000 *1	Max. demand time reactive power (export)	-	HEX4	Higher dd:01H to 31H, hh:00H to 23H Lower	R
01DAH + (N)(C+1)000 *1	Max. demand time reactive power (export)	-	HEX4	Higher min.:00H to 59H, ss:00H to 59H Lower	R
01DBH + (N)(C+1)000 <LSB>	Max. demand value reactive power (export)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
01DCH + (N)(C+1)000					
01DDH + (N)(C+1)000					
01DEH + (N)(C+1)000 <MSB>					
01DFH + (N)(C+1)000 *1	Max. demand date reactive power (export)	-	HEX4	Higher yy:15H to 99H,mm:01H to 12H Lower	R
01E0H + (N)(C+1)000 *1	Max. demand time reactive power (export)	-	HEX4	Higher dd:01H to 31H, hh:00H to 23H Lower	R
01E1H + (N)(C+1)000 *1	Max. demand time reactive power (export)	-	HEX4	Higher min.:00H to 59H, ss:00H to 59H Lower	R
01E2H + (N)(C+1)000 <LSB>	Max. demand value current 1	0.001 A	Unsigned 32bit	0 to 999,999,999	R
01E3H + (N)(C+1)000 <MSB>					

Data register	Name	Unit	Kind of data	Range	R/W
01E4H + (N)(C+1)000 *1	Max. demand date current2	-	HEX4	Higher yy:15H to 99H,mm:01H to 12H Lower	R
01E5H + (N)(C+1)000 *1	Max. demand time current2	-	HEX4	Higher dd:01H to 31H, hh:00H to 23H Lower	R
01E6H + (N)(C+1)000 *1	Max. demand time current2	-	HEX4	Higher min.:00H to 59H, ss:00H to 59H Lower	R
01E9H + (N)(C+1)000 <LSB>	Max. demand value current 2	0.001 A	Unsigned 32bit	0 to 999,999,999	R
01EAH + (N)(C+1)000 <MSB>					
01EBH + (N)(C+1)000 *1	Max. demand date current3	-	HEX4	Higher yy:15H to 99H,mm:01H to 12H Lower	R
01ECH + (N)(C+1)000 *1	Max. demand time current3	-	HEX4	Higher dd:01H to 31H, hh:00H to 23H Lower	R
01EDH + (N)(C+1)000 *1	Max. demand time current3	-	HEX4	Higher min.:00H to 59H, ss:00H to 59H Lower	R
01F0H + (N)(C+1)000 <LSB>	Max. demand value current 3	0.001 A	Unsigned 32bit	0 to 999,999,999	R
01F1H + (N)(C+1)000 <MSB>					
01F4H + (N)(C+1)000 + (35*MM) *1	Monthly max. demand date active power(T1)	-	HEX4	Higher yy:15H to 99H,mm:01H to 12H Lower	R
01F5H + (N)(C+1)000 + (35*MM) *1	Monthly max. demand time active power(T1)	-	HEX4	Higher dd:01H to 31H, hh:00H to 23H Lower	R
01F6H + (N)(C+1)000 + (35*MM) *1	Monthly max. demand time active power(T1)	-	HEX4	Higher min.:00H to 59H, ss:00H to 59H Lower	R
01F7H + (N)(C+1)000 + (35*MM) <LSB> *1	Monthly max.demand active power(T1)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
01F8H + (N)(C+1)000 + (35*MM) *1					
01F9H + (N)(C+1)000 + (35*MM) *1					
01FAH + (N)(C+1)000 + (35*MM) *1					
01FBH + (N)(C+1)000 + (35*MM) *1	Monthly max. demand date active power(T2)	-	HEX4	Higher yy:15H to 99H,mm:01H to 12H Lower	R
01FCH + (N)(C+1)000 + (35*MM) *1	Monthly max. demand time active power(T2)	-	HEX4	Higher dd:01H to 31H, hh:00H to 23H Lower	R
01FDH + (N)(C+1)000 + (35*MM) *1	Monthly max. demand time active power(T2)	-	HEX4	Higher min.:00H to 59H, ss:00H to 59H Lower	R
01FEH + (N)(C+1)000 + (35*MM) <LSB> *1	Monthly max.demand active power(T2)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
01FFH + (N)(C+1)000 + (35*MM) *1					
0200H + (N)(C+1)000 + (35*MM) *1					
0201H + (N)(C+1)000 + (35*MM) <MSB> *1					
0202H + (N)(C+1)000 + (35*MM) *1	Monthly max. demand date active power(T3)	-	HEX4	Higher yy:15H to 99H,mm:01H to 12H Lower	R
0203H + (N)(C+1)000 + (35*MM) *1	Monthly max. demand time active power(T3)	-	HEX4	Higher dd:01H to 31H, hh:00H to 23H Lower	R
0204H + (N)(C+1)000 + (35*MM) *1	Monthly max. demand time active power(T3)	-	HEX4	Higher min.:00H to 59H, ss:00H to 59H Lower	R

Data register	Name	Unit	Kind of data	Range	R/W
0205H + (N)(C+1)000 +(35*MM) <LSB> *1	Monthly max.demand active power(T3)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
0206H + (N)(C+1)000 +(35*MM) *1					
0207H + (N)(C+1)000 +(35*MM) *1					
0208H + (N)(C+1)000 +(35*MM) <MSB> *1					
0209H + (N)(C+1)000 +(35*MM) *1	Monthly max. demand date active power(T4)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
020AH + (N)(C+1)000 +(35*MM) *1	Monthly max. demand time active power(T4)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
020BH + (N)(C+1)000 +(35*MM) *1	Monthly max. demand time active power(T4)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
020CH + (N)(C+1)000 +(35*MM) <LSB> *1	Monthly max.demand active power(T4)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
020DH + (N)(C+1)000 +(35*MM) *1					
020EH + (N)(C+1)000 +(35*MM) *1					
020FH + (N)(C+1)000 +(35*MM) <MSB> *1					
0210H + (N)(C+1)000 +(35*MM) *1	Monthly max. demand date active power(T)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0211H + (N)(C+1)000 +(35*MM) *1	Monthly max. demand time active power(T)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0212H + (N)(C+1)000 +(35*MM) *1	Monthly max. demand time active power(T)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
0213H + (N)(C+1)000 +(35*MM) <LSB> *1	Monthly max.demand active power(T)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
0214H + (N)(C+1)000 +(35*MM) *1					
0215H + (N)(C+1)000 +(35*MM) *1					
0216H + (N)(C+1)000 +(35*MM) <MSB> *1					
03BBH + (N)(C+1)000 +(35*MM) *1	Monthly max. demand date reactive power (T1)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
03BCH + (N)(C+1)000 +(35*MM) *1	Monthly max. demand time reactive power (T1)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
03BDH + (N)(C+1)000 +(35*MM) *1	Monthly max. demand time reactive power (T1)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
03BEH + (N)(C+1)000 +(35*MM) <LSB> *1	Monthly max.demand reactive power(T1)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
03BFH + (N)(C+1)000 +(35*MM) *1					
03C0H + (N)(C+1)000 +(35*MM) *1					
03C1H + (N)(C+1)000 +(35*MM) <MSB> *1					

Data register	Name	Unit	Kind of data	Range	R/W
03C2H + (N)(C+1)000 +(35*MM) *1	Monthly max. demand date reactive power (T2)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
03C3H + (N)(C+1)000 +(35*MM) *1	Monthly max. demand time reactive power (T2)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
03C4H + (N)(C+1)000 +(35*MM) *1	Monthly max. demand time reactive power (T2)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
03C5H + (N)(C+1)000 +(35*MM) <LSB> *1	Monthly max.demand reactive power(T2)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
03C6H + (N)(C+1)000 +(35*MM) *1					
03C7H + (N)(C+1)000 +(35*MM) *1					
03C8H + (N)(C+1)000 +(35*MM) <MSB> *1					
03C9H + (N)(C+1)000 +(35*MM) *1	Monthly max. demand date reactive power (T3)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
03CAH + (N)(C+1)000 +(35*MM) *1	Monthly max. demand time reactive power (T3)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
03CBH + (N)(C+1)000 +(35*MM) *1	Monthly max. demand time reactive power (T3)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
03D0H + (N)(C+1)000 +(35*MM) *1	Monthly max. demand date reactive power (T4)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
03D1H + (N)(C+1)000 +(35*MM) *1	Monthly max. demand time reactive power (T4)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
03D2H + (N)(C+1)000 +(35*MM) *1	Monthly max. demand time reactive power (T4)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
03D3H + (N)(C+1)000 +(35*MM) <LSB> *1	Monthly max.demand reactive power(T4)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
03D4H + (N)(C+1)000 +(35*MM) *1					
03D5H + (N)(C+1)000 +(35*MM) *1					
03D6H + (N)(C+1)000 +(35*MM) <MSB> *1					
03D7H + (N)(C+1)000 +(35*MM) *1	Monthly max. demand date reactive power(T)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
03D8H + (N)(C+1)000 +(35*MM) *1	Monthly max. demand time reactive power(T)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
03D9H + (N)(C+1)000 +(35*MM) *1	Monthly max. demand time reactive power(T)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
03DAH + (N)(C+1)000 +(35*MM) <LSB> *1	Monthly max.demand reactive power(T)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
03DBH + (N)(C+1)000 +(35*MM) *1					
03DCH + (N)(C+1)000 +(35*MM) *1					
03DDH + (N)(C+1)000 +(35*MM) <MSB> *1					

Data register	Name	Unit	Kind of data	Range	R/W
019AH + (N)(C+2)000 +(35*MM) *1	Monthly max. demand date apparent power(T1)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
019BH + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time apparent power(T1)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
019CH + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time apparent power(T1)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
019DH + (N)(C+2)000 +(35*MM) <LSB> *1	Monthly max.demand apparent power(T1)	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
019EH + (N)(C+2)000 +(35*MM) *1					
019FH + (N)(C+2)000 +(35*MM) *1					
01A0H + (N)(C+2)000 +(35*MM) <MSB> *1					
01A1H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand date apparent power(T2)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
01A2H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time apparent power(T2)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
01A3H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time apparent power(T2)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
01A4H + (N)(C+2)000 +(35*MM) <LSB> *1	Monthly max.demand apparent power(T2)	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
01A5H + (N)(C+2)000 +(35*MM) *1					
01A6H + (N)(C+2)000 +(35*MM) *1					
01A7H + (N)(C+2)000 +(35*MM) <MSB> *1					
01A8H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand date apparent power(T3)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
01A9H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time apparent power(T3)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
01AAH + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time apparent power(T3)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
01ABH + (N)(C+2)000 +(35*MM) <LSB> *1	Monthly max.demand apparent power(T3)	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
01ACH + (N)(C+2)000 +(35*MM) *1					
01ADH + (N)(C+2)000 +(35*MM) *1					
01AEH + (N)(C+2)000 +(35*MM) <MSB> *1					
01AFH + (N)(C+2)000 +(35*MM) *1	Monthly max. demand date apparent power(T4)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
01B0H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time apparent power(T4)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
01B1H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time apparent power(T4)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R

Data register	Name	Unit	Kind of data	Range	R/W
01B2H + (N)(C+2)000 +(35*MM) <LSB> *1	Monthly max.demand apparent power(T4)	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
01B3H + (N)(C+2)000 +(35*MM) *1					
01B4H + (N)(C+2)000 +(35*MM) *1					
01B5H + (N)(C+2)000 +(35*MM) <MSB> *1					
01B6H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand date apparent power(T)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
01B7H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time apparent power(T)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
01B8H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time apparent power(T)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R
01B9H + (N)(C+2)000 +(35*MM) <LSB> *1	Monthly max.demand apparent power(T)	0.001 kVA	Unsigned 64bit	0 to 999,999,999,999	R
01BAH + (N)(C+2)000 +(35*MM) *1					
01BBH + (N)(C+2)000 +(35*MM) *1					
01BCH + (N)(C+2)000 +(35*MM) <MSB> *1					
0361H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand date active power (export) (T1)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0362H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand active power (export) (T1)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0363H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time active power (export) (T1)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R
0364H + (N)(C+2)000 +(35*MM) <LSB> *1	Monthly max.demand active power(export) (T1)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
0365H + (N)(C+2)000 +(35*MM) *1					
0366H + (N)(C+2)000 +(35*MM) *1					
0367H + (N)(C+2)000 +(35*MM) <MSB> *1					
0368H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand date active power (export) (T2)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0369H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time active power (export) (T2)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
036AH + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time active power (export) (T2)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R

Data register	Name	Unit	Kind of data	Range	R/W
036BH + (N)(C+2)000 +(35*MM) <LSB> *1	Monthly max.demand active power (export) (T2)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
036CH + (N)(C+2)000 +(35*MM) *1					
036DH + (N)(C+2)000 +(35*MM) *1					
036EH + (N)(C+2)000 +(35*MM) <MSB> *1					
036FH + (N)(C+2)000 +(35*MM) *1	Monthly max. demand date active power (export) (T3)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0370H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time active power (export) (T3)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0371H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time active power (export) (T3)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R
0372H + (N)(C+2)000 +(35*MM) <LSB> *1	Monthly max.demand active power (export) (T3)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
0373H + (N)(C+2)000 +(35*MM) *1					
0374H + (N)(C+2)000 +(35*MM) *1					
0375H + (N)(C+2)000 +(35*MM) <MSB> *1					
0376H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand date active power (export) (T4)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0377H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time active power (export) (T4)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0378H + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time active power (export) (T4)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R
0379H + (N)(C+2)000 +(35*MM) <LSB> *1	Monthly max.demand active power (export) (T4)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
037AH + (N)(C+2)000 +(35*MM) *1					
037BH + (N)(C+2)000 +(35*MM) *1					
037CH + (N)(C+2)000 +(35*MM) <MSB> *1					
037DH + (N)(C+2)000 +(35*MM) *1	Monthly max. demand date active power (export) (T)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
037EH + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time active power (export) (T)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
037FH + (N)(C+2)000 +(35*MM) *1	Monthly max. demand time active power (export) (T)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R

Data register	Name	Unit	Kind of data	Range	R/W
0380H + (N)(C+2)000 +(35*MM) <LSB> *1	Monthly max.demand active power (export) (T)	0.001 kW	Unsigned 64bit	0 to 999,999,999,999	R
0381H + (N)(C+2)000 +(35*MM) *1					
0382H + (N)(C+2)000 +(35*MM) *1					
0383H + (N)(C+2)000 +(35*MM) <MSB> *1					
0140H + (N)(C+3)000 +(35*MM) *1	Monthly max. demand date reactive power (export) (T1)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0141H + (N)(C+3)000 +(35*MM) *1	Monthly max. demand time reactive power (export) (T1)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0142H + (N)(C+3)000 +(35*MM) *1	Monthly max. demand time reactive power (export) (T1)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R
0143H + (N)(C+3)000 +(35*MM) <LSB> *1	Monthly max.demand reactive power (export) (T1)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
0144H + (N)(C+3)000 +(35*MM) *1					
0145H + (N)(C+3)000 +(35*MM) *1					
0146H + (N)(C+3)000 +(35*MM) <MSB> *1					
0147H + (N)(C+3)000 +(35*MM) *1	Monthly max. demand date reactive power (export) (T2)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0148H + (N)(C+3)000 +(35*MM) *1	Monthly max. demand time reactive power (export) (T2)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0149H + (N)(C+3)000 +(35*MM) *1	Monthly max. demand time reactive power (export) (T2)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R
014AH + (N)(C+3)000 +(35*MM) <LSB> *1	Monthly max.demand reactive power (export) (T2)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
014BH + (N)(C+3)000 +(35*MM) *1					
014CH + (N)(C+3)000 +(35*MM) *1					
014DH + (N)(C+3)000 +(35*MM) <MSB> *1					
014EH + (N)(C+3)000 +(35*MM) *1	Monthly max. demand date reactive power (export) (T3)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
014FH + (N)(C+3)000 +(35*MM) *1	Monthly max. demand time reactive power (export) (T3)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0150H + (N)(C+3)000 +(35*MM) *1	Monthly max. demand time reactive power (export) (T3)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R

Data register	Name	Unit	Kind of data	Range	R/W
0151H + (N)(C+3)000 +(35*MM) <LSB> *1	Monthly max.demand reactive power (export) (T3)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
0152H + (N)(C+3)000 +(35*MM) *1					
0153H + (N)(C+3)000 +(35*MM) *1					
0154H + (N)(C+3)000 +(35*MM) <MSB> *1					
0155H + (N)(C+3)000 +(35*MM) *1	Monthly max. demand date reactive power (export) (T4)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0156H + (N)(C+3)000 +(35*MM) *1	Monthly max. demand time reactive power (export) (T4)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0157H + (N)(C+3)000 +(35*MM) *1	Monthly max. demand time reactive power (export) (T4)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R
0158H + (N)(C+3)000 +(35*MM) <LSB> *1	Monthly max.demand reactive power (export) (T4)	0.001 kvar	Unsigned 64bit	0 to 999,999,999,999	R
0159H + (N)(C+3)000 +(35*MM) *1					
015AH + (N)(C+3)000 +(35*MM) *1					
015BH + (N)(C+3)000 +(35*MM) <MSB> *1					
015CH + (N)(C+3)000 +(35*MM) *1	Monthly max. demand date reactive power (export) (T)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
015DH + (N)(C+3)000 +(35*MM) *1	Monthly max. demand time reactive power (export) (T)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
015EH + (N)(C+3)000 +(35*MM) *1	Monthly max. demand time reactive power (export) (T)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R
015FH + (N)(C+3)000 +(35*MM) <LSB> *1	Monthly max.demand reactive power (export) (T)	0.001 kvar	Unsigned 64 bit	0 to 999,999,999,999	R
0160H + (N)(C+3)000 +(35*MM) *1					
0161H + (N)(C+3)000 +(35*MM) *1					
0162H + (N)(C+3)000 +(35*MM) <MSB> *1					
0307H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand date current1 (T1)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0308H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current1(T1)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0309H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current1(T1)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R
030AH + (N)(C+3)000 +(75*MM) <LSB> *1	Monthly max.demand current1(T1)	0.001A	Unsigned 32bit	0 to 999,999,999	R
030BH + (N)(C+3)000 +(75*MM) <MSB> *1					
030CH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand date current2 (T1)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R

Data register	Name	Unit	Kind of data	Range	R/W
030DH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current2(T1)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
030EH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current2(T1)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R
030FH + (N)(C+3)000 +(75*MM) <LSB> *1	Monthly max.demand current2(T1)	0.001A	Unsigned 32bit	0 to 999,999,999	R
0310H + (N)(C+3)000 +(75*MM) <MSB> *1					
0311H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand date current3 (T1)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0312H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current3(T1)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0313H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current3(T1)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R
0314H + (N)(C+3)000 +(75*MM) <LSB> *1	Monthly max.demand current3(T1)	0.001A	Unsigned 32bit	0 to 999,999,999	R
0315H + (N)(C+3)000 +(75*MM) <MSB> *1					
0316H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand date current1 (T2)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0317H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current1(T2)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0318H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current1(T2)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R
0319H + (N)(C+3)000 +(75*MM) <LSB> *1	Monthly max.demand current1(T2)	0.001A	Unsigned 32bit	0 to 999,999,999	R
031AH + (N)(C+3)000 +(75*MM) <MSB> *1					
031BH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand date current2 (T2)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
031CH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current2(T2)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
031DH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current2(T2)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R
031EH + (N)(C+3)000 +(75*MM) <LSB> *1	Monthly max.demand current2(T2)	0.001A	Unsigned 32bit	0 to 999,999,999	R
031FH + (N)(C+3)000 +(75*MM) <MSB> *1					
0320H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand date current3 (T2)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0321H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current3(T2)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0322H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current3(T2)	-	HEX4	Higher Lower min.:00H to 59H, ss:00H to 59H	R
0323H + (N)(C+3)000 +(75*MM) <LSB> *1	Monthly max.demand current3(T2)	0.001A	Unsigned 32bit	0 to 999,999,999	R
0324H + (N)(C+3)000 +(75*MM) <MSB> *1					

Data register	Name	Unit	Kind of data	Range	R/W
0325H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand date current1 (T3)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0326H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current1(T3)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0327H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current1(T3)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
0328H + (N)(C+3)000 +(75*MM) <LSB> *1	Monthly max.demand current1(T3)	0.001A	Unsigned 32bit	0 to 999,999,999	R
0329H + (N)(C+3)000 +(75*MM) <MSB> *1					
032AH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand date current2 (T3)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
032BH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current2(T3)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
032CH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current2(T3)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
032DH + (N)(C+3)000 +(75*MM) <LSB> *1	Monthly max.demand current2(T3)	0.001A	Unsigned 32bit	0 to 999,999,999	R
032EH + (N)(C+3)000 +(75*MM) <MSB> *1					
032FH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand date current3 (T3)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0330H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current3(T3)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0331H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current3(T3)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
0332H + (N)(C+3)000 +(75*MM) <LSB> *1	Monthly max.demand current3(T3)	0.001A	Unsigned 32bit	0 to 999,999,999	R
0333H + (N)(C+3)000 +(75*MM) <MSB> *1					
0334H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand date current1 (T4)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0335H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current1(T4)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0336H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current1(T4)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
0337H + (N)(C+3)000 +(75*MM) <LSB> *1	Monthly max.demand current1(T4)	0.001A	Unsigned 32bit	0 to 999,999,999	R
0338H + (N)(C+3)000 +(75*MM) <MSB> *1					
0339H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand date current2 (T4)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
033AH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current2(T4)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
033BH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current2(T4)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R

Data register	Name	Unit	Kind of data	Range	R/W
033CH + (N)(C+3)000 +(75*MM) <LSB> *1	Monthly max.demand current2(T4)	0.001A	Unsigned 32bit	0 to 999,999,999	R
033DH + (N)(C+3)000 +(75*MM) <MSB> *1					
033EH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand date current3 (T4)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
033FH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current3(T4)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0340H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current3(T4)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
0341H + (N)(C+3)000 +(75*MM) <LSB> *1	Monthly max.demand current3(T4)	0.001A	Unsigned 32bit	0 to 999,999,999	R
0342H + (N)(C+3)000 +(75*MM) <MSB> *1					
0343H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand date current1 (T)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0344H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current1(T)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
0345H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current1(T)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
0346H + (N)(C+3)000 +(75*MM) <LSB> *1	Monthly max.demand current1(T)	0.001A	Unsigned 32bit	0 to 999,999,999	R
0347H + (N)(C+3)000 +(75*MM) <MSB> *1					
0348H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand date current2 (T)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
0349H + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current2(T)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
034AH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current2(T)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
034BH + (N)(C+3)000 +(75*MM) <LSB> *1	Monthly max.demand current2(T)	0.001A	Unsigned 32bit	0 to 999,999,999	R
034CH + (N)(C+3)000 +(75*MM) <MSB> *1					
034DH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand date current3 (T)	-	HEX4	Higher Lower yy:15H to 99H,mm:01H to 12H	R
034EH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current3(T)	-	HEX4	Higher Lower dd:01H to 31H, hh:00H to 23H	R
034FH + (N)(C+3)000 +(75*MM) *1	Monthly max. demand time current3(T)	-	HEX4	Higher Lower min,:00H to 59H, ss:00H to 59H	R
0350H + (N)(C+3)000 +(75*MM) <LSB> *1	Monthly max.demand current3(T)	0.001A	Unsigned 32bit	0 to 999,999,999	R
0351H + (N)(C+3)000 +(75*MM) <MSB> *1					
0368H + (N)(C+4)000<LSB> *1	Import power conversion value1(T1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
0369H + (N)(C+4)000 *1					
036AH + (N)(C+4)000 *1					
036BH + (N)(C+4)000<MSB> *1					

Data register	Name	Unit	Kind of data	Range	R/W
036CH + (N)(C+4)000<LSB> *1	Import power conversion value2(T1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
036DH + (N)(C+4)000 *1					
036EH + (N)(C+4)000 *1					
036FH + (N)(C+4)000<MSB> *1					
0370H + (N)(C+4)000<LSB> *1	Import power conversion value3(T1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
0371H + (N)(C+4)000 *1					
0372H + (N)(C+4)000 *1					
0373H + (N)(C+4)000<MSB> *1					
0374H + (N)(C+4)000<LSB> *1	Total Import power conversion value(T1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
0375H + (N)(C+4)000 *1					
0376H + (N)(C+4)000 *1					
0377H + (N)(C+4)000<MSB> *1					
0378H + (N)(C+4)000<LSB> *1	Import power conversion value1(T2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
0379H + (N)(C+4)000 *1					
037AH + (N)(C+4)000 *1					
037BH + (N)(C+4)000<MSB> *1					
037CH + (N)(C+4)000<LSB> *1	Import power conversion value2(T2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
037DH + (N)(C+4)000 *1					
037EH + (N)(C+4)000 *1					
037FH + (N)(C+4)000<MSB> *1					
0380H + (N)(C+4)000<LSB> *1	Import power conversion value3(T2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
0381H + (N)(C+4)000 *1					
0382H + (N)(C+4)000 *1					
0383H + (N)(C+4)000<MSB> *1					
0384H + (N)(C+4)000<LSB> *1	Total Import power conversion value(T2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
0385H + (N)(C+4)000 *1					
0386H + (N)(C+4)000 *1					
0387H + (N)(C+4)000<MSB> *1					
0388H + (N)(C+4)000<LSB> *1	Import power conversion value1(T3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
0389H + (N)(C+4)000 *1					
038AH + (N)(C+4)000 *1					
038BH + (N)(C+4)000<MSB> *1					
038CH + (N)(C+4)000<LSB> *1	Import power conversion value2(T3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
038DH + (N)(C+4)000 *1					
038EH + (N)(C+4)000 *1					
038FH + (N)(C+4)000<MSB> *1					
0390H + (N)(C+4)000<LSB> *1	Import power conversion value3(T3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
0391H + (N)(C+4)000 *1					
0392H + (N)(C+4)000 *1					
0393H + (N)(C+4)000<MSB> *1					

Data register	Name	Unit	Kind of data	Range	R/W
0394H + (N)(C+4)000<LSB> *1	Total Import power conversion value(T3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
0395H + (N)(C+4)000 *1					
0396H + (N)(C+4)000 *1					
0397H + (N)(C+4)000<MSB> *1					
0398H + (N)(C+4)000<LSB> *1	Import power conversion value1(T4)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
0399H + (N)(C+4)000 *1					
039AH + (N)(C+4)000 *1					
039BH + (N)(C+4)000<MSB> *1					
039CH + (N)(C+4)000<LSB> *1	Import power conversion value2(T4)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
039DH + (N)(C+4)000 *1					
039EH + (N)(C+4)000 *1					
039FH + (N)(C+4)000<MSB> *1					
03A0H + (N)(C+4)000<LSB> *1	Import power conversion value3(T4)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
03A1H + (N)(C+4)000 *1					
03A2H + (N)(C+4)000 *1					
03A3H + (N)(C+4)000<MSB> *1					
03A4H + (N)(C+4)000<LSB> *1	Total Import power conversion value(T4)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
03A5H + (N)(C+4)000 *1					
03A6H + (N)(C+4)000 *1					
03A7H + (N)(C+4)000<MSB> *1					
03A8H + (N)(C+4)000<LSB> *1	Export power conversion value1(T1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
03A9H + (N)(C+4)000 *1					
03AAH + (N)(C+4)000 *1					
03ABH + (N)(C+4)000<MSB> *1					
03ACH + (N)(C+4)000<LSB> *1	Export power conversion value2(T1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
03ADH + (N)(C+4)000 *1					
03AEH + (N)(C+4)000 *1					
03AFH + (N)(C+4)000<MSB> *1					
03B0H + (N)(C+4)000<LSB> *1	Export power conversion value3(T1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
03B1H + (N)(C+4)000 *1					
03B2H + (N)(C+4)000 *1					
03B3H + (N)(C+4)000<MSB> *1					
03B4H + (N)(C+4)000<LSB> *1	Total Export power conversion value(T1)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
03B5H + (N)(C+4)000 *1					
03B6H + (N)(C+4)000 *1					
03B7H + (N)(C+4)000<MSB> *1					
03B8H + (N)(C+4)000<LSB> *1	Export power conversion value1(T2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
03B9H + (N)(C+4)000 *1					
03BAH + (N)(C+4)000 *1					
03BBH + (N)(C+4)000<MSB> *1					

Data register	Name	Unit	Kind of data	Range	R/W
03BCH + (N)(C+4)000<LSB> *1	Export power conversion value2(T2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
03BDH + (N)(C+4)000 *1					
03BEH + (N)(C+4)000 *1					
03BFH + (N)(C+4)000<MSB> *1					
03C0H + (N)(C+4)000<LSB> *1	Export power conversion value3(T2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
03C1H + (N)(C+4)000 *1					
03C2H + (N)(C+4)000 *1					
03C3H + (N)(C+4)000<MSB> *1					
03C4H + (N)(C+4)000<LSB> *1	Total Export power conversion value(T2)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
03C5H + (N)(C+4)000 *1					
03C6H + (N)(C+4)000 *1					
03C7H + (N)(C+4)000<MSB> *1					
03C8H + (N)(C+4)000<LSB> *1	Export power conversion value1(T3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
03C9H + (N)(C+4)000 *1					
03CAH + (N)(C+4)000 *1					
03CBH + (N)(C+4)000<MSB> *1					
03CCH + (N)(C+4)000<LSB> *1	Export power conversion value2(T3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
03CDH + (N)(C+4)000 *1					
03CEH + (N)(C+4)000 *1					
03CFH + (N)(C+4)000<MSB> *1					
03D0H + (N)(C+4)000<LSB> *1	Export power conversion value3(T3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
03D1H + (N)(C+4)000 *1					
03D2H + (N)(C+4)000 *1					
03D3H + (N)(C+4)000<MSB> *1					
03D4H + (N)(C+4)000<LSB> *1	Total Export power conversion value(T3)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
03D5H + (N)(C+4)000 *1					
03D6H + (N)(C+4)000 *1					
03D7H + (N)(C+4)000<MSB> *1					
03D8H + (N)(C+4)000<LSB> *1	Export power conversion value1(T4)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
03D9H + (N)(C+4)000 *1					
03DAH + (N)(C+4)000 *1					
03DBH + (N)(C+4)000<MSB> *1					
03DCH + (N)(C+4)000<LSB> *1	Export power conversion value2(T4)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
03DDH + (N)(C+4)000 *1					
03DEH + (N)(C+4)000 *1					
03DFH + (N)(C+4)000<MSB> *1					
03E0H + (N)(C+4)000<LSB> *1	Export power conversion value3(T4)	0.01	Unsigned 64bit	0~9,999,999,999,999,999,999	R
03E1H + (N)(C+4)000 *1					
03E2H + (N)(C+4)000 *1					
03E3H + (N)(C+4)000<MSB> *1					

Data register	Name	Unit	Kind of data	Range	R/W
03E4H + (N)(C+4)000<LSB> *1	Total Export power conversion value(T4)	0.01	Unsigned 64bit	0~9,999,999,999,999,999	R
03E5H + (N)(C+4)000 *1					
03E6H + (N)(C+4)000 *1					
03E7H + (N)(C+4)000<MSB> *1					

\* X for harmonics is the value in the range of 2 to 31.

\* 'Range' is not the measurement range, it shows the data range.

\* MM means '1H to CH' for month, January to December.

\*1 Only KW2M-X

<LSB>: Least Significant Byte

<MSB>: Most Significant Byte

note 1) 03H: Read 06H/10H: Write

2) Data register except specified is "0".

3) If each setting value is wrote by communication, it memories to internal memory at the same time. Therefore, change setting frequently makes memory's life short. Avoid to usage like this.

4) Write a data within the range when you write it.

## Revision History

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Issue Date	Manual no.	Content of revision
June, 2015	WUME-KW2MAP-01	First edition
January, 2016	WUME-KW2MAP-02	2 <sup>nd</sup> edition Add series (KW2M-X Eco-POWER METER)
January, 2018	WUME-KW2MAP-03	3 <sup>rd</sup> edition Add series, Expansion unit (Multi analog input) and Expansion unit (Digital I/O) [Add functions] -Customized logging function for KW2M-X -Leakage current measurement mode for expansion unit (power measurement)

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Please contact .....

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Specifications are subject to change without notice.

WUME-KW2MAP-03