

ADAPT2 Modbus Map Specification

SALICRU Engineering
V1.9

Overview

ADAPT2 Modbus specification



Contents

Document Management	3
- Introduction	6
1.1 - Definitions, Acronyms and Abbreviations	6
1.2 - References	6
2 - Characteristics of the Modbus protocol.....	7
3 - Record memory space for Modbus.	15
- Appendix A.....	373



Document Management

Document History

Date	Ver.	Author	Description
1/11/2019	1.0	Ramon Ciurans Anglada	First creation
26/08/2020	1.1	Ramon Ciurans Anglada	Modification of Page Header
23/10/2020	1.2	Sabé - Cruixent	Change in definition of registers: - 200 and 201 - 217 to 228 - 454 to 457 New registers added: - 241 to 243 - 464
23/02/2021	1.3	Ramon Ciurans Anglada	New registers added: - 474 to 477 - 709 to 711
30/03/2021	1.4	Ramon Ciurans Anglada	Canceled registers: - 504 to 506 Change in definition of registers: - 467 New registers added: 600 to 671
15/04/2021	1.5	Ramon Ciurans Anglada	New registers added: 402, 414, 415, 427, 439, 440, 482, 483, 484, 485, 486, 487 718, 719, 720, 721
31/05/2021	1.6	Ramon Ciurans Anglada	New registers added: 706
30/06/2022	1.7	Ramon Ciurans Anglada	New registers extended: 402: b15=ALM_INV_IGBT_DRIVER_FAULT



Date	Ver.	Author	Description
			415: bit 0=WRN_EXTERNAL_DIG_1 bit 1=WRN_EXTERNAL_DIG_2 bit 2=WRN_EXTERNAL_DIG_3 bit 3=WRN_EXTERNAL_DIG_4 bit 4=WRN_EXTERNAL_DIG_5 bit 5=WRN_EXTERNAL_DIG_6 427: b15=ACK_ALM_INV_IGBT_DRIVER_FAULT 440: bit 0=ACK_WRN_EXTERNAL_DIG_1 bit 1=ACK_WRN_EXTERNAL_DIG_2 bit 2=ACK_WRN_EXTERNAL_DIG_3 bit 3=ACK_WRN_EXTERNAL_DIG_4 bit 4=ACK_WRN_EXTERNAL_DIG_5 bit 5=ACK_WRN_EXTERNAL_DIG_6 444: Alarms counter. 445: Warning counter. 446: Alarms and Warning counter. 447: Alarms indicator Flag. 448: Warnings indicator Flag. 449: Alarms and Warning indicator Flag. 594: Correcton of the description "Temperature HS2 of the Bypass module"
13/09/2022	1.8	Ramon Ciurans Anglada	New records added: 1400 to 1430: Rectifier CAN counters. 1440: Originally installed number of modules write register 1450 to 1460: Inverter CAN counters.



27/09/2022	1.9	Ramon Ciurans Anglada	Modified the definition of register 104. New records added: Register 1441: Register of modules installed from the calculation at the beginning (if register 1440 is equal to 0) or copied from the manual writing register 1440 if it is different from 0. Register 403: Extension of the Alarms Log 428: Added Alarm ACK Extension Registers 415 and 416: Extension of the warnings Records 440 and 441: Warnings ACK extension added
------------	-----	-----------------------	---



- Introduction

1.1 - Definitions, Acronyms and Abbreviations

Term	Description
SLC	SALICRU

1.2 - References



2 - Characteristics of the Modbus protocol.

The Modbus protocol for this system has the following characteristics:

- Frame format: RTU.
- Data bits: 8 Bits.
- Stop bits: 1 Bit.
- Parity: None.

The format of the RTU frame is as follows:

START	ADDRESS	FUNCTION	DATA	CRC	FINAL
3.5 bytes	8 BITS	8 BITS	n x 8 BITS	16 BITS	3.5 bytes

The start and end of the frame are indicated with a minimum silence interval of 3.5 bytes, as shown below. This time will depend on the programmed transmission speed.

If the minimum time between consecutive frames is not respected, both frames will be detected as a single one and, therefore, a reception error will occur.

In this case, no response will be sent by the unit.

2.1.- Available Modbus functions.

The Modbus protocol used by this unit has the following functions:

Code	Function name
3	Read Holding Registers
16	Preset Multiple Registers



2.2.-Function 3: Read Holding Registers.

This function allows you to check the content of one or more consecutive records of the memory map.

Address	03 H	Start address (High)	Start address (Low)	Number of records (High)	Number of records (Low)	CRC (Low)	CRC (High)
---------	------	----------------------	---------------------	--------------------------	-------------------------	-----------	------------

The meaning of each field is shown below:

Address: Address of the unit receiving the message.

03 H: Function code.

Start address (High): High portion of the address, after which the records will be read.

Start address (Low): Low portion of the address, after which the records will be read.

Number of records (High): High portion of the number of records to read.

Number of records (Low): High portion of the number of records to read.

Notes:

- The address **n** of a specific record is indicated as n-1. In other words, the record with address 0001 H is indicated as 0000 H in the frame, and subsequently with other frames.
- The maximum number of records is 15. An error message will be generated if this number is exceeded.

The response without error will be as follows:

Address	03	Number of Bytes	Record n (High)	Record n (Low)		Record m (High)	Record m (Low)	CRC (Low)	CRC (High)
---------	----	-----------------	-----------------	----------------	------------------------	-----------------	----------------	-----------	------------

Address: Address of the responding unit.

03 H : Code of the function to which it responds.

Number of bytes: Contains the number of bytes included in the following record content.

Record n (High): High portion of the content in record n .

Record n (Low): Low portion of the content in record n.



Record m (High): High portion of the content in record m.

Record m (Low): Low portion of the content in record m.

Where **n** is the record with the same address as the start address and **m** is the record used by the address obtained with the following formula:

$$\text{Address of m} = \text{Start address} + \text{Number of records} - 1.$$

Example: To read the content of 2 records from address 10H . If we assume that the unit's address is 01 H, the message format will be as follows:

Address	03 H	Start address (High)	Start address (Low)	Number of records (High)	Number of records (Low)	CRC (Low)	CRC (High)
01 H	03 H	00 H	0F H	00 H	02 H	F4H	08 H

The response can be:

Address	03 H	Number of bytes	Record 1 (High)	Record 1 (Low)	Record 2 (High)	Record 2 (Low)	CRC (Low)	CRC (High)
01 H	03 H	04 H	00 H	AE H	00 H	00 H	9B H	D2 H

The field "Number of bytes" indicates the number of bytes in the record content that will be sent in the frame (in this case 4: 00,AE,00 and 00).

Record 1 corresponds to address 0010 H and Record 2 to address 0011 H (000F and 0010 H in the frame of the question message). Therefore:

Record 0010 H contains 00AE H and record 0011 H contains 0000 H.



2.3.- Function 16: Preset Multiple Registers

This function can be used to write one or more consecutive memory records.

Ad dr	10 H	Start addr. (High)	Start addr. (Low)	Number of records (High)	Number of records (Low)	No. Bytes	Rec. n (High)	Rec. n (Low)		Rec. m (High)	Rec. m (High)	CRC (Low)	CRC (High)
----------	------	--------------------------	-------------------------	-----------------------------------	----------------------------------	--------------	------------------	-----------------	------	------------------	------------------	--------------	---------------

Addr.: Address of the unit receiving the message.

10 H: Function code.

Start addr. (High): High portion of the address, after which the records will be written.

Start addr. (Low) Low portion of the address, after which the records will be written.

Number of records (High): High portion of the number of records to write.

Number of records (Low): Low portion of the number of records to write.

No. Bytes: Indicates the number of record data bytes sent.

Record n (High): High part of the content to write in record n.

Record n (Low): Low part of the content to write in record n.

Record m (High): High part of the content to write in record m.

Record m (Low): Low part of the content to write in record m.

Notes:

- Address **n** of a specific record is indicated as **n-1**. In other words, the record with address 0001 H is indicated as 0000 H in the frame, and subsequently with other frames.
- The maximum number of records is 10. A reception error will occur if this number is exceeded and no response will be returned.
- If the unit's address is 0 (general address), no response will be returned.
- If one of the values to program is incorrect, the write process will be interrupted and only the records before the error was generated will be written.



The response without error would be of the following type:

Address	10 H	Start address (High)	Start address (Low)	Number of records (High)	Number of records (Low)	CRC (Low)	CRC (High)
---------	------	----------------------	---------------------	--------------------------	-------------------------	-----------	------------

Address: Address of the responding unit.

03 H : Code of the function to which it responds.

Start address (High): High portion of the address, after which the records will be written.

Start address (Low): Low portion of the address, after which the records will be written.

Number of records (High): High portion of the number of records written.

Number of records (Low): Low portion of the number of records written.

Example: If you wish to write 2 records from address 3E H of unit 01 H, the data to write would be 00E6 H and 00A3 H, respectively. The message format will be:

Add r	10 H	Start addr. (High)	Start addr. (Low)	Number of records (High)	Number of records (Low)	No. Bytes	Rec. n (High)	Rec. n (Low)	Rec. m (High)	Rec. m (Low)	CRC (Low)	CRC (High)
01H	10 H	00 H	3D H	00 H	02 H	04 H	00 H	E6 H	00 H	A3 H	90 H	AC H

Where:

Record n: This is the starting record, indicated by the start address (003E H).

Record m: This is the final record (003F H).

The field "Number of bytes" indicates the number of bytes included in the record and sent in the frame.



The response can be:

Add r	10 H	Start address (High)	Start address (Low)	Number of records (High)	Number of records (Low)	CRC (Low)	CRC (High)
01H	10 H	00 H	3D H	00 H	02 H	D0 H	04 H

2.4.- Error messages.

The error messages have the following format:

Address	Function code	Error code	CRC (Low)	CRC (High)
---------	---------------	------------	-----------	------------

Address: This is the address of the unit sent in the message.

Function code: This is the code of the function that generated the error, with bit number 7 set to 1.

Error code: Indicates the type of error that occurred. The table below shows the different types of errors.

Code	Name	Meaning
01 H	ILLEGAL FUNCTION	The function is not allowed in this unit.
02 H	ILLEGAL DATA ADDRESS	The specified address is incorrect.
03 H	ILLEGAL DATA VALUE	One or more values of the data field are incorrect.
04 H	SLAVE DEVICE FAILURE	Failure in the unit when executing a function.
05 H	ACKNOWLEDGE	The unit is still processing the function.
06 H	SLAVE DEVICE BUSY	The unit is busy processing another function.



Example:

Function 03 H was sent to unit 01 H, requesting information of more than 18 records; the unit returns the following message:

Address	Function code	Error code	CRC (Low)	CRC (High)
01 H	83 H	03 H	01 H	31 H

Address: Address of the unit returning the message.

Function code: This is the result of activating bit number 7 of the function code sent (03 H).

Error code: Indicates the type of error generated. In this case, one of the values of the data field is invalid.

2.5.- Calculation of the CRC.

The content of the CRC field is two bytes. It is calculated using all fields in the frame (except this field). A calculation method is described below:

1. Load a 16-bit record with FFFF H. This record will be called "CRC record".
2. Perform the exclusive OR operation of the byte under the CRC record with the first byte of the message. Include the result in the CRC record.
3. Shift the CRC record one bit to the right, filling the free bit to the left with a 0.
4. If the bit shifted to the right is 0: Repeat step 3.
If the bit shifted to the right is 1: Perform an exclusive OR operation between the CRC record and value A001 H. Include the result in the CRC record.
5. Repeat steps 3 and 4 until the bit has been shifted 8 times. The message's full byte will already be processed at this stage.
6. Repeat steps 2 to 5 for all message bytes.



7. The final content of the CRC record is the CRC value. The CRC is included in the frame as follows:

- a). Set the byte with the lowest CRC weight first.
- b). Next, enter the byte with the highest weight.



3 - Record memory space for Modbus.

Simplified map / Map structure

Base	Base address: 0dec
Product identification	Base address: 1dec
Basic product configuration	Base address: 100dec
Relay programming	Base address: 200dec
Commands	Base address: 300dec
Alarms, Warnings and Recognition	Base address: 400dec
Relay outputs	Base address: 450dec
Status variables	Base address: 462dec
CLOUD	Base address: 480dec
Measurements	Base address: 500dec
Nominal unit values	Base address: 700dec
Advanced product configuration	Base address: 1000dec
Calibrations	Base address: 1200dec
Module Counters	Base address: 1400dec
Module 1	Base address: 2000dec
• Measurements	Base address: 2000dec
• Alarms, Warnings and States (SCODES)	Base address: 2200dec
Module 2	Base address: 2500dec
• Measurements	Base address: 2500dec
• Alarms, Warnings and States (SCODES)	Base address: 2700dec
Module 3	Base address: 3000dec
• Measurements	Base address: 3000dec
• Alarms, Warnings and States (SCODES)	Base address: 3200dec
Module 4	Base address: 3500dec
• Measurements	Base address: 3500dec
• Alarms, Warnings and States (SCODES)	Base address: 3700dec

Module 5	Base address: 4000dec
• Measurements	Base address: 4000dec
• Alarms, Warnings and States (SCODES)	Base address: 4200dec
Module 6	Base address: 4500dec
• Measurements	Base address: 4500dec
• Alarms, Warnings and States (SCODES)	Base address: 4700dec
Module 7	Base address: 5000dec
• Measurements	Base address: 5000dec
• Alarms, Warnings and States (SCODES)	Base address: 5200dec
Module 8	Base address: 5500dec
• Measurements	Base address: 5500dec
• Alarms, Warnings and States (SCODES)	Base address: 5700dec
Module 9	Base address: 6000dec
• Measurements	Base address: 6000dec
• Alarms, Warnings and States (SCODES)	Base address: 6200dec
Module 10	Base address: 6500dec
• Measurements	Base address: 6500dec
• Alarms, Warnings and States (SCODES)	Base address: 6700dec
Module 11	Base address: 7000dec
• Measurements	Base address: 7000dec
• Alarms, Warnings and States (SCODES)	Base address: 7200dec
Module 12	Base address: 7500dec
• Measurements	Base address: 7500dec
• Alarms, Warnings and States (SCODES)	Base address: 7700dec
Module 13	Base address: 8000dec
• Measurements	Base address: 8000dec

Alarms, Warnings and States (SCODES)	Base address: 8200dec
Module 14	Base address: 8500dec
Measurements	Base address: 8500dec
Alarms, Warnings and States (SCODES)	Base address: 8700dec
Module 15	Base address: 9000dec
Measurements	Base address: 9000dec
Alarms, Warnings and States (SCODES)	Base address: 9200dec
Module 16	Base address: 9500dec
Measurements	Base address: 9500dec
Alarms, Warnings and States (SCODES)	Base address: 9700dec
Module 17	Base address: 10000dec
Measurements	Base address: 10000dec
Alarms, Warnings and States (SCODES)	Base address: 10200dec
Module 18	Base address: 10500dec
Measurements	Base address: 10500dec
Alarms, Warnings and States (SCODES)	Base address: 10700dec
Module 19	Base address: 11000dec
Measurements	Base address: 11000dec
Alarms, Warnings and States (SCODES)	Base address: 11200dec
Module 20	Base address: 11500dec
Measurements	Base address: 11500dec
Alarms, Warnings and States (SCODES)	Base address: 11700dec
Module 21	Base address: 12000dec
Measurements	Base address: 12000dec
Alarms, Warnings and States (SCODES)	Base address: 12200dec
Module 22	Base address: 12500dec

• Measurements	Base address: 12500dec
• Alarms, Warnings and States (SCODES)	Base address: 12700dec
Module 23	Base address: 13000dec
• Measurements	Base address: 13000dec
• Alarms, Warnings and States (SCODES)	Base address: 13200dec
Module 24	Base address: 13500dec
• Measurements	Base address: 13500dec
• Alarms, Warnings and States (SCODES)	Base address: 13700dec
Module 25	Base address: 14000dec
• Measurements	Base address: 14000dec
• Alarms, Warnings and States (SCODES)	Base address: 14200dec
Module 26	Base address: 14500dec
• Measurements	Base address: 14500dec
• Alarms, Warnings and States (SCODES)	Base address: 14700dec
Module 27	Base address: 15000dec
• Measurements	Base address: 15000dec
• Alarms, Warnings and States (SCODES)	Base address: 15200dec
Module 28	Base address: 15500dec
• Measurements	Base address: 15500dec
• Alarms, Warnings and States (SCODES)	Base address: 15700dec
Module 29	Base address: 16000dec
• Measurements	Base address: 16000dec
• Alarms, Warnings and States (SCODES)	Base address: 16200dec
Module 30	Base address: 16500dec
• Measurements	Base address: 16500dec
• Alarms, Warnings and States (SCODES)	Base address: 16700dec

ALL RECORDS SPECIFIED IN THE TABLE BELOW ARE 16-BIT RECORDS.

	Addr dec	Content	Units	Type
Product identification		Base address: 1dec		
	1 7	**Reserved**		
	8	Product ID ⁽¹⁾	Ascii	R
	9	Product ID ⁽¹⁾	Ascii	R
	10	Product version ⁽¹⁾	Ascii	R
	11	Highest platform version (Odyssey)	NUMERIC	R
	12	Lowest platform version (Odyssey)	NUMERIC	R
	13	CPU ID	NUMERIC	R
	14	HW ID	NUMERIC	R
	15	Modbus map version	NUMERIC	R
	16	Serial number ⁽¹⁾	Ascii	R
	17	Serial number ⁽¹⁾	Ascii	R
	18	Serial number ⁽¹⁾	Ascii	R
	19	Serial number ⁽¹⁾	Ascii	R
	20	Serial number ⁽¹⁾	Ascii	R
	21	Serial number ⁽¹⁾	Ascii	R
	22	Serial number ⁽¹⁾	Ascii	R
	23 ... 24	**Free**		
	25	Highest version of the application	NUMERIC	R
	26	Lowest version of application 1	NUMERIC	R

	Addr dec	Content	Units	Type
	27	Lowest version of application 2	NUMERIC	R
	28	Lowest version of application 3	NUMERIC	R
	29	Lowest version of application 4	NUMERIC	R
	30	Lowest version of application 5	NUMERIC	R
	31 ... 40	**Free**		
	41	Manufacturer (1)	Ascii	R
	42	Manufacturer (1)	Ascii	R
	43	Manufacturer (1)	Ascii	R
	44	Manufacturer (1)	Ascii	R
	45	Manufacturer (1)	Ascii	R
	46	Manufacturer (1)	Ascii	R
	47	Manufacturer (1)	Ascii	R
	48	Manufacturer (1)	Ascii	R
	49	Manufacturer (1)	Ascii	R
	50	Model name (1)	Ascii	R
	51	Model name (1)	Ascii	R
	52	Model name (1)	Ascii	R
	53	Model name (1)	Ascii	R
	54	Model name (1)	Ascii	R
	55 ... 59	**Free**		

	Addr dec	Content	Units	Type
	60	Common HREG layer version	NUMERIC	R
	61	Private HREG layer version	NUMERIC	R
	62	**Free**		
	63	Common SREG layer version	NUMERIC	R
	64	Private SREG layer version	NUMERIC	R
	65 ... 66	**Free**		
	67	File system version	NUMERIC	R
	68 ... 95	**Free**		
	96	Control plate ID 1	Dimensionless	R
	97	Control plate ID 2	Dimensionless	R
	98	Control plate ID 3	Dimensionless	R
	99	Control plate ID 4	Dimensionless	R
Basic product configuration			Base address: 100dec	
	100	Hours and Minutes	Hours, Minutes (2)	R/W
	101	Seconds and Day of the week	Seconds, Day of the week (2)	R/W
	102	Day of the Month and Month	Day number, Month (2)	R/W
	103	Year	Year (2)	R/W
	104	Current Modbus user	MODBUS_BASIC_USER, MODBUS_SERVICE_EXPORT_USER, MODBUS_SERVICE_USER, MODBUS_NIMBUS_USER,	R/W

	Addr dec	Content	Units	Type
	105	Modbus user (1)	Ascii	R/W
	106	Modbus user (1)	Ascii	R/W
	107	Programming key (1)	Ascii	R/W
	108	Programming key (1)	Ascii	R/W
	109	Programming key (1)	Ascii	R/W
	110	Programming key (1)	Ascii	R/W
	111	Programming key (1)	Ascii	R/W
	112	Programming key (1)	Ascii	R/W
	113	Address of the unit in parallel	1-64	R/W
	114	HMI language	0=language1 1=language2 2=language3 3=language4 4=language5 5=language6	R/W
	115	Serial port protocol	0=Modbus 1=Shell	R/W
	116	Modbus address of serial port 1		R/W
	117	Parity of serial port 1	0=NoParity 1=OddParity 2=EvenParity	R/W
	118	Baud Rate of serial port 1	0=B1200 1=B2400 2=B4800 3=B9600 4=B19200 5=B57600 6=B115200	R/W
	119	Stop Bits of serial port 1	1=1StopBits 2=2StopBits	R/W
	120	Modbus address of serial port 2		R/W

	Addr dec	Content	Units	Type
	121	Parity of serial port 2	0=NoParity 1=OddParity 2=EvenParity	R/W
	122	Baud Rate of serial port 2	0=B1200 1=B2400 2=B4800 3=B9600 4=B19200 5=B57600 6=B115200	R/W
	123	Stop Bits of serial port 2	1=1StopBits 2=2StopBits	R/W
	124	Modbus address of serial port 3		R/W
	125	Parity of serial port 3	0=NoParity 1=OddParity 2=EvenParity	R/W
	126	Baud Rate of serial port 3	0=B1200 1=B2400 2=B4800 3=B9600 4=B19200 5=B57600 6=B115200	R/W
	127	Stop Bits of serial port 3	1=1StopBits 2=2StopBits	R/W
	125 ... 199	**Free**		

Relay programming

Base address: 200dec

	Addr dec	Content	Units	Type
	200	Relay enable/disable b0=Relay 1 b1=Relay 2 b2=Relay 3 b3=Relay 4 b4=Expansion Relay 1 b5=Expansion Relay 2 b6=Expansion Relay 3 b7=Expansion Relay 4 b8=Relay_INV0_1 b9=Relay_INV0_2 b10=Relay_INV0_3 b11=Relay_INV0_4 b12=Beeper b13=Expansion Relay 5 b14=**Free** b15=**Free**	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W**
	201	Default relay status b0=Relay 1 b1=Relay 2 b2=Relay 3 b3=Relay 4 b4=Expansion Relay 1 b5=Expansion Relay 2 b6=Expansion Relay 3 b7=Expansion Relay 4 b8=Relay_INV0_1 b9=Relay_INV0_2 b10=Relay_INV0_3 b11=Relay_INV0_4 b12=Beeper b13=Expansion Relay 5 b14=**Free** b15=**Free**	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W** R/W**
	202	Beeper activation code	Code (3)	R/W**
	203	Beeper activation time	0.1s	R/W**
	204	Beeper deactivation time	0.1 s	R/W**
	205	Activation code of relay 1	Code (3)	R/W**
	206	Activation time of relay 1	0.1s	R/W**
	207	Deactivation time of relay 1	0.1 s	R/W**

	Addr dec	Content	Units	Type
	208	Activation code of relay 2	Code (3)	R/W**
	209	Activation time of relay 2	0.1s	R/W**
	210	Deactivation time of relay 2	0.1 s	R/W**
	211	Activation code of relay 3	Code (3)	R/W**
	212	Activation time of relay 3	0.1s	R/W**
	213	Deactivation time of relay 3	0.1 s	R/W**
	214	Activation code of relay 4	Code (3)	R/W**
	215	Activation time of relay 4	0.1s	R/W**
	216	Deactivation time of relay 4	0.1 s	R/W**
	217	Activation code of expansion relay 1	Code (3)	R/W**
	218	Activation time of expansion relay 1	0.1s	R/W**
	219	Deactivation time of expansion relay 1	0.1 s	R/W**
	220	Activation code of expansion relay 2	Code (3)	R/W**
	221	Activation time of expansion relay 2	0.1s	R/W**
	222	Deactivation time of expansion relay 2	0.1 s	R/W**
	223	Activation code of expansion relay 3	Code (3)	R/W**
	224	Activation time of expansion relay 3	0.1s	R/W**
	225	Deactivation time of expansion relay 3	0.1 s	R/W**
	226	Activation code of expansion relay 4	Code (3)	R/W**
	227	Activation time of expansion relay 4	0.1s	R/W**
	228	Deactivation time of expansion relay 4	0.1 s	R/W**
	229	Activation code of relay_INV0_1	Code (3)	R/W**
	230	Activation time of relay_INV0_1	0.1s	R/W**
	231	Deactivation time of relay_INV0_1	0.1 s	R/W**
	232	Activation code of relay_INV0_2	Code (3)	R/W**

	Addr dec	Content	Units	Type
	233	Activation time of relay_INV0_2	0.1s	R/W**
	234	Deactivation time of relay_INV0_2	0.1 s	R/W**
	235	Activation code of relay_INV0_3	Code (3)	R/W**
	236	Activation time of relay_INV0_3	0.1s	R/W**
	237	Deactivation time of relay_INV0_3	0.1 s	R/W**
	238	Activation code of relay_INV0_4	Code (3)	R/W**
	239	Activation time of relay_INV0_4	0.1s	R/W**
	240	Deactivation time of relay_INV0_4	0.1 s	R/W**
	241	Activation code of expansion relay 5	Code (3)	R/W**
	242	Activation time of expansion relay 5	0.1s	R/W**
	243	Deactivation time of expansion relay 5	0.1s	R/W**
	244 ... 299			
System commands			Base address: 300dec	
	300	UPS unlock command		
	301	Datalogger delete command		
	302	Beeper stop command (mute)		
	303	Transfer BYP to INV and INV to BYP		
	304	Battery test commands		
	305	Commands for modules		
	306	UPS stop order in "n" minutes		
	307	UPS restart order after "m" minutes		
	308 ...	**Free**		

	Addr dec	Content	Units	Type
	399			
Alarms, Warnings and Recognition			Base address: 400dec	
	400	b0=ALM_EPO b1=ALM_BYPASS_SEQUENCE_ERROR b2=ALM_BYPASS_SCR_FAIL_OPEN b3=ALM_BYPASS_SCR_FAIL_SHORTED b4=ALM_BYPASS_OVER_LOAD_TOUT b5=ALM_OUTPUT_SHORT_CIRCUIT b6=ALM_BATTERY_EOD b7=ALM_RECTIFIER_FAIL b8=ALM_INVERTER_FAIL b9=ALM_RECTIFIER_OVER_TEMP b10=ALM_FAN_FAIL b11=ALM_OUTPUT_OVER_LOAD b12=ALM_INVERTER_OVERLOAD_TOUT b13=ALM_INVERTER_OVER_TEMP b14=ALM_ON_UPS_INHIBITED b15=ALM_BATTERY_REVERSE	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R
	401	b0=ALM_INVERTER_PROTECT b1=ALM_INPUT_NEUTRAL_LOST b2=ALM_BYPASS_FAN_FAIL b3=ALM_PARALLEL_CABLE_ERROR b4=ALM_REC_CAN_FAIL b5=ALM_INV_IO_CAN_FAIL b6=ALM_INV_DATA_CAN_FAIL b7=ALM_SYNC_PULSE_FAIL b8=ALM_BATTERY_VOLT_DETECT_FAIL b9=ALM_OUTPUT_VOLT_FAIL_R b10=ALM_OUTPUT_VOLT_FAIL_S b11=ALM_OUTPUT_VOLT_FAIL_T b12=ALM_INV_BRIDGE_FAIL b13=ALM_INPUT_CURR_UNBALANCE b14=ALM_REC_SOFT_START_FAIL b15=ALM_RELAY_CONNECT_FAIL	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R

	Addr dec	Content	Units	Type
	402	b0=ALM_RELAY_SHORT_CIRCUIT b1=ALM_PWM_SYNC_FAI b2=ALM_INPUT_OVER_CURR_TOUT b3=ALM_NO_INLET_TEMP_SENSOR b4=ALM_NO_OUTLET_TEMP_SENSOR b5=ALM_BYPASS_CAN_FAIL b6=ALM_FIRMWARE_ERROR b7=ALM_SYSTEM_SETTING_ERROR b8=ALM_MODULE_ID_DUPLICATE b9=ALM_INV_IGBT_OVERCURRENT b10=ALM_REDUNDANT_OVL_TOUT b11=ALM_NO_OUTPUT b12=ALM_MAINT_BYPASS b13: ALM_BATTERY_LOW b14: ALM_FILE_SYSTEM_ERROR b15=ALM_INV_IGBT_DRIVER_FAULT	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R
	403	Bit0: ALM_BATTERY_OVER_VOLTAGE Bit1: ALM_REC_PHASE_SEQ_FAULT Bit2: ALM_NEG_BUS_UNDERVOLTAGE Bit3: ALM_POS_BUS_UNDERVOLTAGE Bit4: ALM_AUX_POWER_LOST Bit5: ALM_INV_SCR_OVERTEMP	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R
	404			
	...			
	412	**Free**		
	413	b0=WRN_BATTERY_NOT_CONNECTED b1=WRN_MODULE_ON_LESS b2=WRN_UTILITY_ABNORMAL b3=WRN_BYPASS_VOLT_ABNORMAL_R b4=WRN_BYPASS_VOLT_ABNORMAL_S b5=WRN_BYPASS_VOLT_ABNORMAL_T b6=WRN_BYPASS_MODULE_OVER_LOAD_R b7=WRN_BYPASS_MODULE_OVER_LOAD_S b8=WRN_BYPASS_MODULE_OVER_LOAD_T b9=WRN_BYF_FREQ_OVER_TRACK b10=WRN_EXCEED_TX_TIMES_LMT b11=WRN_BATTERY_VOLT_LOW b12=WRN_LOST_N_X_REDUNDANT b13=WRN_BATTERY_TEST_FAIL b14=WRN_BATTERY_MAINTENANCE_FAIL b15=WRN_AMBIENT_OVER_TEMP	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R

	Addr dec	Content	Units	Type
	414	b0=WRN_INPUT_VOLT_DETECT_FAIL b1=WRN_OUTLET_TEMP_ERROR b2=WRN_DC_BUS_OVER_VOLT b3=WRN_INLET_OVER_TEMP b4=WRN_BATTERY_OVER_TEMP b5=WRN_BYPASS_FAN_EXPIRED b6=WRN_CAPACITOR_EXPIRED b7=WRN_FAN_EXPIRED b8=WRN_OUTLET_DELTA_TEMP b9=WRN_BATTERY_EXPIRED b10=WRN_DUST_FILTER_EXPIRED b11=WRN_BATT_CHARGER_FAULT b12=WRN_RTC_BATT_LOW b13=WRN_GENSET_INPUT b14=WRN_SHUTDOWN_INPUT b15=WRN_BCB_OPEN	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R
	415	bit 0=WRN_EXTERNAL_DIG_1 bit 1=WRN_EXTERNAL_DIG_2 bit 2=WRN_EXTERNAL_DIG_3 bit 3=WRN_EXTERNAL_DIG_4 bit 4=WRN_EXTERNAL_DIG_5 bit 5=WRN_EXTERNAL_DIG_6 bit 6=WRN_SYNCHRONIZATION_FAULT bit 7= WRN_INPUT_OVERCURRENT bit 8= WRN_PWM_PULSE_FAULT bit 9= WRN_INPUT_BACKFEED bit 10= WRN_BATT_POS_NEG_VOLT_DIFFERENCE bit 11= WRN_INV_PWR_BACKFEED bit 12= WRN_SCR_STATUS bit 13=WRN_CURRENT_SHARING bit 14=WRN_FAN_FAIL_OVERTEMP bit 15=WRN_NO_INP_SCR_TEMP_SENSOR	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R
	416	Bit 0=WRN_MODULE_FAULT	0=False/1=True	R
	417			
	...			
	424	**Free**		

	Addr dec	Content	Units	Type
	425	b0=ACK_ALM_EPO b1=ACK_ALM_BYPASS_SEQUENCE_ERROR b2=ACK_ALM_BYPASS_SCR_FAIL_OPEN b3=ACK_ALM_BYPASS_SCR_FAIL_SHORTED b4=ACK_ALM_BYPASS_OVER_LOAD_TOUT b5=ACK_ALM_OUTPUT_SHORT_CIRCUIT b6=ACK_ALM_BATTERY_EOD b7=ACK_ALM_RECTIFIER_FAIL b8=ACK_ALM_INVERTER_FAIL b9=ACK_ALM_RECTIFIER_OVER_TEMP b10=ACK_ALM_FAN_FAIL b11=ACK_ALM_OUTPUT_OVER_LOAD b12=ACK_ALM_INVERTER_OVERLOAD_TOUT b13=ACK_ALM_INVERTER_OVER_TEMP b14=ACK_ALM_ON_UPS_INHIBITED b15=ACK_ALM_BATTERY_REVERSE	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R/W**
	426	b0=ACK_ALM_INVERTER_PROTECT b1=ACK_ALM_INPUT_NEUTRAL_LOST b2=ACK_ALM_BYPASS_FAN_FAIL b3=ACK_ALM_PARALLEL_CABLE_ERROR b4=ACK_ALM_REC_CAN_FAIL b5=ACK_ALM_INV_IO_CAN_FAIL b6=ACK_ALM_INV_DATA_CAN_FAIL b7=ACK_ALM_SYNC_PULSE_FAIL b8=ACK_ALM_BATTERY_VOLT_DETECT_FAIL b9=ACK_ALM_OUTPUT_VOLT_FAIL_R b10=ACK_ALM_OUTPUT_VOLT_FAIL_S b11=ACK_ALM_OUTPUT_VOLT_FAIL_T b12=ACK_ALM_INV_BRIDGE_FAIL b13=ACK_ALM_INPUT_CURR_UNBALANCE b14=ACK_ALM_REC_SOFT_START_FAIL b15=ACK_ALM_RELAY_CONNECT_FAIL	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R/W**
	427	b0=ACK_ALM_RELAY_SHORT_CIRCUIT b1=ACK_ALM_PWM_SYNC_FAI b2=ACK_ALM_INPUT_OVER_CURR_TOUT b3=ACK_ALM_NO_INLET_TEMP_SENSOR b4=ACK_ALM_NO_OUTLET_TEMP_SENSOR b5=ACK_ALM_BYPASS_CAN_FAIL b6=ACK_ALM_FIRMWARE_ERROR b7=ACK_ALM_SYSTEM_SETTING_ERROR b8=ACK_ALM_MODULE_ID_DUPLICATE b9=ACK_ALM_INV_IGBT_OVERCURRENT b10=ACK_ALM_REDUNDANT_OVL_TOUT b11=ACK_ALM_NO_OUTPUT b12=ACK_ALM_MAINT_BYPASS b13: ALM_BATTERY_LOW b14: ALM_FILE_SYSTEM_ERROR	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R/W**

	Addr dec	Content	Units	Type
		b15=ACK_ALM_INV_IGBT_DRIVER_FAULT	0=False/1=True 0=False/1=True	
	428	Bit0: ACK_ALM_BATTERY_OVER_VOLTAGE Bit1: ACK_ALM_REC_PHASE_SEQ_FAULT Bit2: ACK_ALM_NEG_BUS_UNDERVOLTAGE Bit3: ACK_ALM_POS_BUS_UNDERVOLTAGE Bit4: ACK_ALM_AUX_POWER_LOST Bit5: ACK_ALM_INV_SCR_OVERTEMP	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R/W**
	429 ... 437	**Free**		
	438	b0=ACK_WRN_BATTERY_NOT_CONNECTED b1=ACK_WRN_MODULE_ON_LESS b2=ACK_WRN_UTILITY_ABNORMAL b3=ACK_WRN_BYPASS_VOLT_ABNORMAL_R b4=ACK_WRN_BYPASS_VOLT_ABNORMAL_S b5=ACK_WRN_BYPASS_VOLT_ABNORMAL_T b6=ACK_WRN_BYPASS_MODULE_OVER_LOAD_R b7=ACK_WRN_BYPASS_MODULE_OVER_LOAD_S b8=ACK_WRN_BYPASS_MODULE_OVER_LOAD_T b9=ACK_WRN_BYP_FREQ_OVER_TRACK b10=ACK_WRN_EXCEED_TX_TIMES_LMT b11=ACK_WRN_BATT_CHARGER_FAULT b12=ACK_WRN_LOST_N_X_REDUNDANT b13=ACK_WRN_BATTERY_TEST_FAIL b14=ACK_WRN_BATTERY_MAINTENANCE_FAIL b15=ACK_WRN_AMBIENT_OVER_TEMP	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R/W**
	439	b0=ACK_WRN_INPUT_VOLT_DETECT_FAIL b1=ACK_WRN_OUTLET_TEMP_ERROR b2=ACK_WRN_DC_BUS_OVER_VOLT b3=ACK_WRN_INLET_OVER_TEMP b4=ACK_WRN_BATTERY_OVER_TEMP b5=ACK_WRN_BYPASS_FAN_EXPIRED b6=ACK_WRN_CAPACITOR_EXPIRED b7=ACK_WRN_FAN_EXPIRED b8=ACK_WRN_OUTLET_DELTA_TEMP b9=ACK_WRN_BATTERY_EXPIRED b10=ACK_WRN_DUST_FILTER_EXPIRED b11=ACK_WRN_BYPASS_OVER_TEMP b12=ACK_WRN_RTC_BATT_LOW b13=WRN_GENSET_INPUT b14=WRN_SHUTDOWN_INPUT b15=WRN_BCB_OPEN	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R/W**

	Addr dec	Content	Units	Type
	440	bit 0: WRN_EXTERNAL_DIG_1 bit 1: WRN_EXTERNAL_DIG_2 bit 2: WRN_EXTERNAL_DIG_3 bit 3: WRN_EXTERNAL_DIG_4 bit 4: WRN_EXTERNAL_DIG_5 bit 5: WRN_EXTERNAL_DIG_6 bit 6=ACK_WRN_SYNCHRONIZATION_FAULT bit 7= ACK_WRN_INPUT_OVERCURRENT bit 8= ACK_WRN_PWM_PULSE_FAULT bit 9= ACK_WRN_INPUT_BACKFEED bit 10= ACK_WRN_BATT_POS_NEG_VOLT_DIFF bit 11= ACK_WRN_INV_PWR_BACKFEED bit 12= ACK_WRN_SCR_STATUS bit 13= ACK_WRN_CURRENT_SHARING bit 14= ACK_WRN_FAN_FAIL_OVERTEMP bit 15= ACK_WRN_NO_INP_SCR_TEMP_SENSOR	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R/W**
	441	Bit 0=ACK_WRN_MODULE_FAULT	0=False/1=True	R/W**
	442			
	...			
	443	**Free**		
	444	Alarm counter.		
	445	Warning counter.		
	446	Alarm and Warning counter.		
	447	Alarm flag indicator.		
	448	Warning flag indicator.		
	449	Alarm and Warning flag indicator.		
Relay outputs			Base address: 450dec	
	450	Output of relay 1		R
	451	Output of relay 2		R
	452	Output of relay 3		R
	453	Output of relay 4		R
	454	Output of expansion relay 1		R

	Addr dec	Content	Units	Type
	455	Output of expansion relay 2		R
	456	Output of expansion relay 3		R
	457	Output of expansion relay 4		R
	458	Output of relay INV0 1		R
	459	Output of relay INV0 2		R
	460	Output of relay INV0 3		R
	461	Output of relay INV0 4		R
		Status variables	Base address: 462dec	
	462	UPS STATUS (1) b0=STS_UPS_SINGLE b1=STS_UPS_PARALLEL b2=STS_UPS_ECO_MODE b3=STS_UPS_PARALLE_ECO b4=STS_UPS_LBS b5=STS_UPS_LBS_PARALLEL b6=STS_UPS_BURNING b7=STS_BYPASS_AVAILABLE b8=STS_SINGLE_PHASE_IN b9=STS_SINGLE_PHASE_OUT b10=STS_LOAD_ON_INVERTER b11=STS_LOAD_ON_BYPASS b12=STS_LOAD_ON_NONE b13=STS_LOAD_ON_MAINT_BY b14=STS_UPS_NO_OUT_INIT b15=STS_UPS_WAITING_4_BYPASS	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R

	Addr dec	Content	Units	Type
	463	UPS STATUS (2) b0=STS_UPS_ON_BYP_READY_4_INV b1=STS_UPS_ON_BYP_INV_STARTING b2=STS_UPS_ON_INV b3=STS_UPS_ON_BYP_BLOCKED b4=STS_UPS_NO_OUT_BLOCKED b5=STS_BATT_STATUS_NOTHING b6=STS_BATT_STATUS_FLOATING b7=STS_BATT_STATUS_BOOST b8=STS_BATT_STATUS_DISCHARGE b9=STS_BATT_STATUS_STOP4AWHILE b10=STS_BATT_STATUS_EOD b11=STS_BATT_TEST b12=STS_BATT_MAINTENANCE b13=STS_MAINTENANCE_BYPASS b14=STS_NOT_ACKNOWLEDGED_ALM b15=**Free**	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R
	464	Output of expansion relay 5		
	465	General status of the UPS	NOTHING=0 SHUTDOWN_READY=1 NO_OUT_INIT=2 WAITING_4_BYPASS=3 ON_BYP_READY_4_INV=4 INV_STARTING=5 UPS_ON_INV=6 ON_BYP_BLOCKED=7 NO_OUT_BLOCKED=8	R
	466	General status of the Battery	NOTHING=0 FLOATING=1 BOOST=2 DISCHARGE=3 STOP4AWHILE=4 EOD=5 TEST=6 MAINTENANCE=7	R
	467	General status of the Load	SHUTDOWN_READY=0 NORMAL=1 LOAD_ON_BYPASS=2 LOAD_ON_INVERTER=3 LOAD_ON_NONE=4	R
	468	General status of the Bypass	BYP_SCR_OFF=0 BYP_SCR_ON=1	R

	Addr dec	Content	Units	Type
	469	STATUS_FLAGS1 b0=firstTripAlmostReady b1=aftFirstTripDlyed b2=BypAvailable b3=BypOvlTimeout b4=AgingMode b5=EPO b6=PowerUpEnd b7=ForbidTx2Byp b8=OvTempByp b9=BypCriticalFastFail b10=BypCbMaintDly b11=EodLatchedNoOp b12=EcoMode b13=Ok4IntTxInvZero b14=ParallelEcoMode b15=BypCbMaintClosed	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R
	470	STATUS_FLAGS2 b0=NotUsed b1=NotUsed b2=NotUsed b3=NotUsed b4=NotUsed b5=ScrOpenFault b6=InvLess4IntTxInv b7=orLoadOnInv b8=orLoadOnByp b9=CanTxBypIntFlag b10=CanTxBypNormFlag b11=CanTxBypOptFlag b12=CanTxInvIntFlag b13=CanTxInvFlag b14=LoadOnNone b15=ScrLogicStatus	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R

	Addr dec	Content	Units	Type
	471	STATUS_FLAGS3 b0=NotUsed b1=NotUsed b2=maintBypassAlarm b3=outSinglePhase b4=bypOutCompatibility b5=parallelOperation b6=PrePowerUpEnd b7=adclnitOk b8=phaseSequenceError b9=bypassSCRfault b10=invCanFail b11=recCanFail b12=moduleOnLess b13=batteryNotConnected b14=firmwareError b15=invOverloadTimeOut	0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True 0=False/1=True	R
	472	Open battery test result	0=NO_STARTED 1=UNDER_TEST 2=TEST_OK 3=TEST_NO_OK 4=TEST_STOPPED	R
	473	Battery discharge test result		R
	474	Estimated Back Up Time	0.. 9999 Min.	R
	475	Battery State of Charge	0.. 100%	R
	476	Current screen number	Number	R
	477	HIM Resets Counter	Integer	R
	478			
	...			
	479	**Free**		
CLOUD			Base address: 480dec	
	480	Unit connected to the "cloud".	0=False/1=True	R/W**

	Addr dec	Content	Units	Type
	481	Cloud allowed	0=False/1=True	R/W**
	482	HREG_IO_DIG_INP_EXT_1	0=False/1=True	R
	483	HREG_IO_DIG_INP_EXT_2	0=False/1=True	R
	484	HREG_IO_DIG_INP_EXT_3	0=False/1=True	R
	485	HREG_IO_DIG_INP_EXT_4	0=False/1=True	R
	486	HREG_IO_DIG_INP_EXT_5	0=False/1=True	R/W**
	487	HREG_IO_DIG_INP_EXT_6	0=False/1=True	R/W**
	481 ... 499	**Free**		
Measurements			Base address: 500dec	
	500	Total input active power	0.1 kW	R
	501 ... 502	**Free**		
	503	Total input power factor	0.01	R

	Addr dec	Content	Units	Type
	504 ... 512	**Free**		
	513	Power factor at the input of phase R	0.01	R
	514	Power factor at the input of phase S	0.01	R
	515	Power factor at the input of phase T	0.01	R
	516	Input frequency	0.01 Hz	R
	517	Input voltage of phase R	0.1 V	R
	518	Input voltage of phase S	0.1 V	R
	519	Input voltage of phase T	0.1 V	R
	520 ... 522	**Free**		
	523	Negative battery voltage	0.1 V	R
	524	Positive battery voltage	0.1 V	R
	525 ... 526	**Free**		
	527	RMS input current of phase R	0.1 A	R
	528	RMS input current of phase S	0.1 A	R
	529	RMS input current of phase T	0.1 A	R
	530	Negative charging current	0.1 A	R
	531	Positive charging current	0.1 A	R
	532	RMS bypass voltage of phase R	0.1 V	R

	Addr dec	Content	Units	Type
	533	RMS bypass voltage of phase S	0.1 V	R
	534	RMS bypass voltage of phase T	0.1 V	R
	535	Bypass frequency	0.1 Hz	R
	536	Bypass input current of phase R	0.1 V	R
	537	Bypass input current of phase S	0.1 V	R
	538	Bypass input current of phase T	0.1 V	R
	539	RMS inverter voltage of phase R	0.1 V	R
	540	RMS inverter voltage of phase S	0.1 V	R
	541	RMS inverter voltage of phase T	0.1 V	R
	542	RMS output voltage of phase R	0.1 V	R
	543	RMS output voltage of phase S	0.1 V	R
	544	RMS output voltage of phase T	0.1 V	R
	545	Negative battery discharge current	0.1A	R
	546	Positive battery discharge current	0.1A	R
	547	RMS input current of phase R (Inverter side)	0.1 A	R
	548	RMS input current of phase S (Inverter side)	0.1 A	R
	549	RMS input current of phase T (Inverter side)	0.1 A	R
	550 ... 552	**Free**		
	553	RMS output current of phase R	0.1 A	R
	554	RMS output current of phase S	0.1 A	R
	555	RMS output current of phase T	0.1 A	R

	Addr dec	Content	Units	Type
	556	Total output active power	0.1 kW	R
	557	Total output apparent power	0.1 kVA	R
	558	Total output power factor	0.01	R
	559	Output active power at phase R	0.1 kW	R
	560	Output active power at phase S	0.1 kW	R
	561	Output active power at phase T	0.1 kW	R
	562	Output apparent power at phase R	0.1 kVA	R
	563	Output apparent power at phase S	0.1 kVA	R
	564	Output apparent power at phase T	0.1 kVA	R
	565	Output power factor at phase R	0.01	R
	566	Output power factor at phase S	0.01	R
	567	Output power factor at phase T	0.01	R
	568	Total output load	0.1 %	R
	569	Output load at phase R	0.1 %	R
	570	Output load at phase S	0.1 %	R
	571	Output load at phase T	0.1 %	R
	572	Output frequency	0.1 Hz	R
	573	UPS hours on	days	R/W**
	574	Output reactive power at phase R	0.1 kW _r	R
	575	Output reactive power at phase S	0.1 kW _r	R
	576	Output reactive power at phase T	r	R
	577	Hours discharged	Hours	R/W**
	578	**Free**		

	Addr dec	Content	Units	Type
	...			
	582			
	583	Hours of use of the Bypass fans L	Hours	R/W**
	584	Hours of use of the Bypass fans H	Hours	R/W**
	585	Hours of use of the batteries	Hours	R/W**
	586	**Free**		
	587	Maximum ambient temperature	°C	R/W**
	588	**Free**		
	589	Maximum battery temperature	°C	R/W**
	590	**Free**		
	591	Battery temperature	1°C	R
	592	Ambient temperature	1°C	R
	593	Temperature HS1 of the Bypass module	1°C	R
	594	Temperature HS2 of the Bypass module	1°C	R
	595	Counter of the number of discharge procedures	Dimensionless	R/W**
	596	**Free**	Dimensionless	R
	597	Remaining battery charge	1 min	R
	598			
	...	**Free**		
	599			
	600	HREG_DISPLAY_SYSTEM_BATT_NEG_CURR		
	601	HREG_DISPLAY_SYSTEM_BATT_POS_CURR		
	602	HREG_DISPLAY_SYSTEM_BYPASS_CURRENT_R		

	Addr dec	Content	Units	Type
	603	HREG_DISPLAY_SYSTEM_BYPASS_CURRENT_S		
	604	HREG_DISPLAY_SYSTEM_BYPASS_CURRENT_SINGLE		
	605	HREG_DISPLAY_SYSTEM_BYPASS_CURRENT_T		
	606	HREG_DISPLAY_SYSTEM_BYPASS_PF_R		
	607	HREG_DISPLAY_SYSTEM_BYPASS_PF_S		
	608	HREG_DISPLAY_SYSTEM_BYPASS_PF_SINGLE		
	609	HREG_DISPLAY_SYSTEM_BYPASS_PF_T		
	610	HREG_DISPLAY_SYSTEM_BYPASS_VOLTAGE_R		
	611	HREG_DISPLAY_SYSTEM_BYPASS_VOLTAGE_S		
	612	HREG_DISPLAY_SYSTEM_BYPASS_VOLTAGE_SINGLE		
	613	HREG_DISPLAY_SYSTEM_BYPASS_VOLTAGE_T		
	614	HREG_DISPLAY_SYSTEM_INPUT_CURRENT_R		
	615	HREG_DISPLAY_SYSTEM_INPUT_CURRENT_S		
	616	HREG_DISPLAY_SYSTEM_INPUT_CURRENT_SINGLE		
	617	HREG_DISPLAY_SYSTEM_INPUT_CURRENT_T		
	618	HREG_DISPLAY_SYSTEM_INPUT_FREQUENCY		
	619	HREG_DISPLAY_SYSTEM_INPUT_PF_R		
	620	HREG_DISPLAY_SYSTEM_INPUT_PF_S		

	Addr dec	Content	Units	Type
	621	HREG_DISPLAY_SYSTEM_INPUT_PF_SINGLE		
	622	HREG_DISPLAY_SYSTEM_INPUT_PF_T		
	623	HREG_DISPLAY_SYSTEM_INPUT_VOLTAGE_ R		
	624	HREG_DISPLAY_SYSTEM_INPUT_VOLTAGE_ S		
	625	HREG_DISPLAY_SYSTEM_INPUT_VOLTAGE_ SINGLE		
	626	HREG_DISPLAY_SYSTEM_INPUT_VOLTAGE_ T		
	627	HREG_DISPLAY_SYSTEM_OFFSET_OUTPUT_ ACT_PWR		
	628	HREG_DISPLAY_SYSTEM_OFFSET_OUTPUT_ APP_PWR		
	629	HREG_DISPLAY_SYSTEM_OFFSET_OUTPUT_ CURRENT_R		
	630	HREG_DISPLAY_SYSTEM_OFFSET_OUTPUT_ CURRENT_S		
	631	HREG_DISPLAY_SYSTEM_OFFSET_OUTPUT_ CURRENT_SINGLE		
	632	HREG_DISPLAY_SYSTEM_OFFSET_OUTPUT_ CURRENT_T		
	633	HREG_DISPLAY_SYSTEM_OFFSET_OUTPUT_ R_ACT_PWR		
	634	HREG_DISPLAY_SYSTEM_OFFSET_OUTPUT_ R_APP_PWR		
	635	HREG_DISPLAY_SYSTEM_OFFSET_OUTPUT_ R_REACT_PWR		
	636	HREG_DISPLAY_SYSTEM_OFFSET_OUTPUT_ REACT_PWR		
	637	HREG_DISPLAY_SYSTEM_OFFSET_OUTPUT_ S_ACT_PWR		

	Addr dec	Content	Units	Type
	638	HREG_DISPLAY_SYSTEM_OFFSET_OUTPUT_ S_APP_PWR		
	639	HREG_DISPLAY_SYSTEM_OFFSET_OUTPUT_ S_REACT_PWR		
	640	HREG_DISPLAY_SYSTEM_OFFSET_OUTPUT_ T_ACT_PWR		
	641	HREG_DISPLAY_SYSTEM_OFFSET_OUTPUT_ T_APP_PWR		
	642	HREG_DISPLAY_SYSTEM_OFFSET_OUTPUT_ T_REACT_PWR		
	643	HREG_DISPLAY_SYSTEM_OUTPUT_ACT_PW R		
	644	HREG_DISPLAY_SYSTEM_OUTPUT_APP_PW R		
	645	HREG_DISPLAY_SYSTEM_OUTPUT_CURREN T_R		
	646	HREG_DISPLAY_SYSTEM_OUTPUT_CURREN T_S		
	647	HREG_DISPLAY_SYSTEM_OUTPUT_CURREN T_SINGLE		
	648	HREG_DISPLAY_SYSTEM_OUTPUT_CURREN T_T		
	649	HREG_DISPLAY_SYSTEM_OUTPUT_FREQUE NCY		
	650	HREG_DISPLAY_SYSTEM_OUTPUT_PF_R		
	651	HREG_DISPLAY_SYSTEM_OUTPUT_PF_S		
	652	HREG_DISPLAY_SYSTEM_OUTPUT_PF_SING LE		
	653	HREG_DISPLAY_SYSTEM_OUTPUT_PF_T		
	654	HREG_DISPLAY_SYSTEM_OUTPUT_R_ACT_P WR		

	Addr dec	Content	Units	Type
	655	HREG_DISPLAY_SYSTEM_OUTPUT_R_APP_P WR		
	656	HREG_DISPLAY_SYSTEM_OUTPUT_R_LOAD		
	657	HREG_DISPLAY_SYSTEM_OUTPUT_R_REACT _PWR		
	658	HREG_DISPLAY_SYSTEM_OUTPUT_REACT_P WR		
	659	HREG_DISPLAY_SYSTEM_OUTPUT_S_ACT_P WR		
	660	HREG_DISPLAY_SYSTEM_OUTPUT_S_APP_P WR		
	661	HREG_DISPLAY_SYSTEM_OUTPUT_S_LOAD		
	662	HREG_DISPLAY_SYSTEM_OUTPUT_S_REACT _PWR		
	663	HREG_DISPLAY_SYSTEM_OUTPUT_T_ACT_P WR		
	664	HREG_DISPLAY_SYSTEM_OUTPUT_T_APP_P WR		
	665	HREG_DISPLAY_SYSTEM_OUTPUT_T_LOAD		
	666	HREG_DISPLAY_SYSTEM_OUTPUT_T_REACT _PWR		
	667	HREG_DISPLAY_SYSTEM_OUTPUT_TOTAL_L OAD		
	668	HREG_DISPLAY_SYSTEM_OUTPUT_VOLTAGE _R		
	669	HREG_DISPLAY_SYSTEM_OUTPUT_VOLTAGE _S		
	670	HREG_DISPLAY_SYSTEM_OUTPUT_VOLTAGE _SINGLE		
	671	HREG_DISPLAY_SYSTEM_OUTPUT_VOLTAGE _T		

	Addr dec	Content	Units	Type
	672 ... 699	*Free**		
		Nominal	Base address: 700dec	
	700	UPS model	1KVA	R/W**
	701	Rated input voltage value		
	702	Nominal input frequency		
	703 ... 704	*Free**		
	705	Number of string batteries (Total bus)	Dimensionless	R/W**
	706	Capacity of the 12V battery pack used	1 Ah	R/W**
	707	Battery charge current	0.1 C	R/W**
	708	Nominal battery capacity @ 20 hours	1 Ah	R/W**
	709	Battery Power Rating at 1 hour	Wh	R/W**
	710	Battery Model	XP12V3400_112AH 0 XP12V3000_99_6A H 1 XP12V2500_75_6A H 2 XP12V1800_80_8A H 3 GPL12400_40AH 4 GP12340_34AH 5 GP12260_26AH 6 HR1251W_14AH 7 GP12120_12AH 8 HR1234W_7_6AH 9 GP1272_7_2AH 10 GP1245_4_5AH 11 GENERIC_15MIN_P WR_RATING 12	R/W**

	Addr dec	Content	Units	Type
	711	HIM Max. inactivity Time	0.. 999 Min.	R/W**
	712	Nominal output voltage (phase-neutral)	V	R/W**
	713	Nominal output frequency	Hz	R/W**
	714 ... 716	**Free**		
	717	Nominal bypass voltage	V	R/W**
	718	Fast Charging Lithium cell element	0,01V	R/W**
	719	Floating Charging Lithium cell element	0,01V	R/W**
	720	End backup time level	0,01V	R/W**
	721	Number of Lithium elements	adimensional	R/W**
	740 ... 999	**Free**		
Advanced settings			Base address: 1000dec	
	1000	System units in parallel	Dimensionless	R/W**
	1001	UPS ID	Dimensionless	R/W**
	1002	Bypass Margin High	%	R/W**
	1003	Bypass Margin Low	%	R/W**
	1004	Bypass Frequency Limit	Hz	R/W**
	1005	Dine tuning the output voltage	V	R/W**
	1006	Number of attempts	Dimensionless	R/W**
	1007	Synchronisation speed (Slew Rate)	Hz/s	R/W**
	1008	Synchronisation window	Hz	R/W**

	Addr dec	Content	Units	Type
	1009	Number of redundant modules	Dimensionless	R/W**
	1010	Definition of the number of modules in each cabinet	Dimensionless	R/W**
	1011 ... 1012	**Free**		
	1013	Boost/Cell charging voltage	0.01	R/W**
	1014	Percentage power of the module used to charge the batteries	%	R/W**
	1015	Charging current of the additional battery charger	1A	R/W**
	1016	Battery/cell float voltage	0.01 V	R/W**
	1017	Battery shutoff voltage (0.6 x C)	0.01 V	R/W**
	1018	Battery shutoff voltage (0.15 x C)	0.01 V	R/W**
	1019	Voltage/temperature compensation	1 mV/°C	R/W**
	1020	**Free**		
	1021	Maximum battery temperature	0.1°C	R/W**
	1022	**Free**		
	1023	Maximum ambient temperature	0.1°C	R/W**
	1024	Maximum temperature increase	0=20°C 1=20°C 2=23°C 3=25°C	R/W**
	1025	Maximum input air temperature	0=30.5°C 1=32.5°C 2=35.5°C 3=37.5°C	R/W**
	1026	EPO delay	0=0.5s 1=1s 2=2s	R/W**

	Addr dec	Content	Units	Type
	1027	CONFIG UPS FLAGS (1) b0=TX2_INV_INT_ENABLE b1=MOD_ON_OFF_ENABLE b2=SLEEP_ENABLE b3=DEEP_SLEEP_ENABLE b4=BYP_TX_INSTALLED b5=SCI_LCD_ENABLE b6=INLET_OV_TMP_ALMEN b7=FORBID_TX2_BYP b8=LOCAL_EPO_DISABLE b9=REMOTE_EPO_DISABLE b10=BYP_OV_TMP_FORBID_BYP b11=NO_BATTERY b12=DISABLE_PM_NUM_ERR b13=FB_DET_ONLY_AT_BATT b14=OP_TX_INSTALLED b15=IP_TX_INSTALLED		R/W**
	1028	CONFIG UPS FLAGS (2) b0=OVL_REDUNDANCY_FAIL b1=FLAG_UPS_CONFIG_1 b2=FLAG_UPS_CONFIG_2 b3=FLAG_UPS_CONFIG_3 b4=FLAG_UPS_CONFIG_4 b5=FLAG_UPS_CONFIG_5 b6=FLAG_UPS_CONFIG_6 b7=FLAG_UPS_CONFIG_7 b8=FLAG_UPS_CONFIG_8 b9=FLAG_UPS_CONFIG_9 b10=FLAG_UPS_CONFIG_A b11=FLAG_UPS_CONFIG_B b12=FLAG_UPS_CONFIG_C b13=FLAG_UPS_CONFIG_D b14=FLAG_UPS_CONFIG_E b15=FLAG_UPS_CONFIG_F		R/W**

	Addr dec	Content	Units	Type
	1029	CONFIG UPS FLAGS (3) b0=FLAG_UPS_CONFIG_G b1=FLAG_UPS_CONFIG_H b2=FLAG_UPS_CONFIG_I b3=FLAG_UPS_CONFIG_J b4=FLAG_UPS_CONFIG_K b5=FLAG_UPS_CONFIG_L b6=FLAG_UPS_CONFIG_M b7=FLAG_UPS_CONFIG_N b8=FLAG_UPS_CONFIG_O b9=**Free** b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R/W**
	1030	**Free**		
	1031	CONFIG MODULE FLAGS(1) b0=DERATE b1=OUT_3_1_PHS b2=AUTO_BOOST b3=AUTO_MAINT b4=RM_OR_HT b5=NOT_TX_TLMT b6=HI2_LOW_VOLT_SYS b7=LOGO_TYPE b8=REC_CTR_WAY b9=PF_FLAG b10=ALLOW_DC_OV_RST b11=OV_LD_TOUT_EXT b12=INHIBIT_ADJ b13=DC_BUS_LEVEL b14=PF_EXTERM b15=MOD_FAN_FAIL_OFF		R/W**

	Addr dec	Content	Units	Type
	1032	CONFIG MODULE FLAGS(2) b0=FAN_3_LEVEL_SPEED_ENABLE b1=ALLOW_LOST_PHASE_WORK b2=MOTOR_MODE b3=FREQUENCY_CONVERTER_MODE b4=BYPASS_BACKFEED_PROTECTED_ENABLE b5=RECTIFIER_BIG_PARAMETER_ENABLE b6=INPUT_OVERVOLT_FAST_CHECK_ENABLE b7=CHARGER_FAIL_ALARM_ENABLE b8=OUTPUT_SHORT_TRANSFER_BYPASS_ENABLE b9=GENERATOR_IN_CHARGER_OFF_ENABLE b10=MAIN_BACKFEED_DETECT_ENABLE b11=INVERTOR_CONTROL_WAY_ENABLE b12=GEN_IN_EXTRA_CHARGER_OFF_ENABLE b13=RSVD_SCODE4_0 b14=IN_3_1_PHS b15=RSVD_SCODE4_2		R/W**
	1033	CONFIG MODULE FLAGS(3) b0=DISP_LL_VOLT b1=RSVD_SCODE4_4 b2=SNT_COM_ALM_EN b3=RSVD_SCODE4_6 b4=DC_BUS_VOLT_CTRL0 b5=DC_BUS_VOLT_CTRL1 b6=REC_CTRL_WITH_TX b7=AGE_TX_BATT_EN b8=OP_SHORT_CLR_EN b9=FAST_BOOST_EN b10=RSVD_SCODE4_D b11=RSVD_SCODE4_E b12=RSVD_SCODE4_F b13=**Free** b14=**Free** b15=**Free**		R/W**
	1034	**Free**		
	1035	Maximum hours of use of DC capacitors	Hours	R/W**
	1036	Maximum hours of use of the module fans	Hours	R/W**

	Addr dec	Content	Units	Type
	1037	Maximum hours of use of Bypass module fans	Hours	R/W**
	1038	Maximum hours of use of the dust filter	Hours	R/W**
	1039 ... 1049	**Free**		
	1050	Type of battery	0= VRLA 1=Li-ion	R/W**
	1051	Interval between the automatic Fast Charge times	Months	R/W**
	1052	Maximum time in the Fast Charge mode	Hours	R/W**
	1053	**Free**		
	1054	Automatic battery test: frequency	Hours	R/W**
	1055	Battery maintenance time	Hours	R/W**
	1056	Cabinet power, in kVA		R/W**
	1057	Power used in the cabinet, in kVA		R/W**
	1058	Active UPS power		R
	1059	Apparent power of the module		R/W**
	1060	Apparent power used by the module		R/W**
	1061	Transfer delay between the battery and grid	s	R/W**
	1062	Start-up after the end of Low charge level	0=Normal 1=BypOnly 2=NoOperation	R/W**
	1063	Percentage re-injection power (ageing mode)	%	R/W**
	1064 ... 1199	** Free **		

	Addr dec	Content	Units	Type
		Calibrations	Base address: 1200dec	
	1200	HW version calib factor L	V	R/W**
	1201	HW version calib factor H	V	R/W**
	1202 ... 1225	**Free**		
	1226	Output R current calib factor L	Dimensionless	R/W**
	1227	Output R current calib factor H	Dimensionless	R/W**
	1228	Output R current offset L	Amperes per bit	R/W**
	1229	Output R current offset H	Amperes per bit	R/W**
	1230	Output S current calib factor L	Dimensionless	R/W**
	1231	Output S current calib factor H	Dimensionless	R/W**
	1232	Output S current offset L	Amperes per bit	R/W**
	1233	Output S current offset H	Amperes per bit	R/W**
	1234	Output T current calib factor L	Dimensionless	R/W**
	1235	Output T current calib factor H	Dimensionless	R/W**
	1236	Output T current offset L	Amperes per bit	R/W**
	1237	Output T current offset H	Amperes per bit	R/W**
	1238	Bypass HS1 Temp calib factor L	Dimensionless	R/W**
	1239	Bypass HS1 Temp calib factor H	Dimensionless	R/W**
	1240	Bypass HS2 Temp calib factor L	Dimensionless	R/W**
	1241	Bypass HS2 Temp calib factor H	Dimensionless	R/W**
	1242 ...	**Free**		

	Addr dec	Content	Units	Type
	1243			
	1244	Bypass R Voltage calib factor L	Dimensionless	R/W**
	1245	Bypass R Voltage calib factor H	Dimensionless	R/W**
	1246	Bypass S Voltage calib factor L	Dimensionless	R/W**
	1247	Bypass S Voltage calib factor H	Dimensionless	R/W**
	1248	Bypass T Voltage calib factor L	Dimensionless	R/W**
	1249	Bypass T Voltage calib factor H	Dimensionless	R/W**
	1250 ... 1261	**Free**		
	1262	Output R Voltage calib factor L	Dimensionless	R/W**
	1263	Output R Voltage calib factor H	Dimensionless	R/W**
	1264	Output S Voltage calib factor L	Dimensionless	R/W**
	1265	Output S Voltage calib factor H	Dimensionless	R/W**
	1266	Output T Voltage calib factor L	Dimensionless	R/W**
	1267	Output T Voltage calib factor H	Dimensionless	R/W**
	1268 ... 1299	**Free**		
	1300	RTC Voltage calib factor L	Dimensionless	R/W**
	1301	RTC Voltage calib factor H	Dimensionless	R/W**
	1302	Ambient Temperature calib factor L	Dimensionless	R/W**
	1303	Ambient Temperature calib factor H	Dimensionless	R/W**
	1304	**Free**		

	Addr dec	Content	Units	Type
	...			
	1305			
	1306	Battery Temperature calib factor L	Dimensionless	R/W**
	1307	Battery Temperature calib factor H	Dimensionless	R/W**
	1308	**Free**		
	...			
	1399			
	1400	SREG_MTR_MODULES_COMMISSIONED – Number of manually committed installed modules	Number of Modules	R/W**
	1401	SREG_MTR_MODULES_INSTALLED - Number of calculated installed modules	Number of Modules	R
	1402	NUMBER_OF_PM_BATT_FLOAT– Number of Modules with Battery in Floating	Module counter	R
	1403	NUMBER_OF_PM_BATT_DISCH– Number of Modules with Battery in Discharge	Module counter	R
	1404	NUMBER_OF_PM_BATT_NO_WORK– Number of Modules with Standby Battery	Module counter	R
	1405	NUMBER_OF_PM_IN_NONE– No. of Modules with No power supply to the load	Module counter	R
	1406	NUMBER_OF_PM_IN_UPS- Number of Modules with Load in Inverter mode	Module counter	R
	1407	NUMBER_OF_PM_IN_BYP- Number of Modules with Load in Bypass mode	Module counter	R
	1408	NUMBER_OF_REC_OFF- Number of Modules with Rectifier OFF	Module counter	R
	1409	NUMBER_OF_REC_SOFT_START- Number of Modules with Soft Start Rectifier	Module counter	R
	1410	NUMBER_OF_REC_NORMAL- Number of Modules with Rectifier ON	Module counter	R
	1411	NUMBER_OF_INV_OFF- Number of Modules with Inverter OFF	Module counter	R
	1412	NUMBER_OF_INV_SOFT_START- Number of Modules with Soft Start Inverter	Module counter	R

	Addr dec	Content	Units	Type
	1413	NUMBER_OF_INV_NORMAL- Number of Modules with Inverter ON	Module counter	R
	1414	NUMBER_OF_PM_INV_DISABLE- Number of Modules with Inverter Deactivated	Module counter	R
	1415	NUMBER_OF_PM_INV_ENABLE- Number of Modules with Inverter Activated	Module counter	R
	1416	NUMBER_OF_PM_NO_SUPPLY- No. of Modules with Inverter Not Powering	Module counter	R
	1417	NUMBER_OF_PM_READY_4_SUPPLY- No. of Modules with Inverter ready to power	Module counter	R
	1418	NUMBER_OF_PM_SUPPLYING- Number of Modules with Inverter Powering	Module counter	R
	1419	NUMBER_OF_PM_PUSHED- Number of Modules Inserted	Module counter	R
	1420	NUMBER_OF_PM_PULLED- Number of Extracted Modules	Module counter	R
	1421	NUMBER_OF_PM_NOT_RDY_4_INT_TX_2_BYP- Number of Modules ready for transfer to Bypass	Module counter	R
	1422	NUMBER_OF_PM_RDY4_INT_TX_2_BYP- Number of Modules ready for transfer to Bypass with Interruption	Module counter	R
	1423	NUMBER_OF_PM_IN_NORMAL_MODE – Number of Modules working Normal On-Line mode	Module counter	R
	1424	NUMBER_OF_PM_IN_SLEEP_MODE – Number of Modules Working in Sleep Mode	Module counter	R
	1425	NUMBER_OF_INV_NOT_AVAILABLE – Inverter Not Available	Module counter	R
	1426	NUMBER_OF_INV_AVAILABLE – Number of Modules with Inverter Available	Module counter	R
	1427	NUMBER_OF_PM_PWR_UP_NOT_FINISHED – Number of Modules with Power Up Not completed	Module counter	R
	1428	NUMBER_OF_PM_PWR_UP_FINISHED - Number of Modules with Power Up completed	Module counter	R
	1429	NUMBER_OF_PM_THREE_PHASE_INPUT- Number of Modules Configured for Three-Phase Output	Module counter	R
	1430	NUMBER_OF_PM_SINGLE_PHASE_INPUT- Number of Modules Configured for Single-Phase Output	Module counter	R

	Addr dec	Content	Units	Type
	1431... 1439	**Free**		
	1440	SREG_MTR_MODULES_COMMISSIONED – Number of modules installed	Modules number	R/W**
	1441... 1449	**Free**		
	1450	COUNTER_OF_PM_INV_ON – Number of Modules with Inverter ON	Module counter	R
	1451	COUNTER_OF_PM_BYP_STS – Number of Modules with Bypass Status OK	Module counter	R
	1452	COUNTER_OF_PM_LOCKED_BYP – Number of Modules with PLL linked with the Bypass	Module counter	R
	1453	COUNTER_OF_PM_ON_INV – Number of Modules with Inverter output	Module counter	R
	1454	COUNTER_OF_PM_INV_AVAILABLE – Number of Modules with Inverter Available to connect to the output	Module counter	R
	1455	COUNTER_OF_PM_LOAD_ON_BYP – Number of Modules with the load in Bypass	Module counter	R
	1456	COUNTER_OF_PM_LOAD_ON_INV – Number of Modules with the load in Inverter	Module counter	R
	1457	WHICH_PM_IS_SYNC_MASTER – Synchronization Master Module	Module number	R
	1458	WHICH_PM_IS_CONTROL_MASTER – Master Control Module	Module number	R
	1459	COUNTER_OF_PM_FORBID_INV – Number of Modules with Inverter Not allowed	Module counter	R
	1460	COUNTER_OF_PM_NEED_INC_DC – Number of Modules with increased DC Bus Voltage	Module counter	R
Measurements of module Base	1461 ... 1999	**Free**		

	Addr dec	Content	Units	Type
addresses: 2000				
	2002			
	2003	Main Input Voltage Phase R	0.1 V	R
	2004	Main Input Voltage Phase S	0.1 V	R
	2005	Main Input Voltage Phase T	0.1 V	R
	2006	Main Input Current Phase R	0.1 A	R
	2007	Main Input Current Phase S	0.1 A	R
	2008	Main Input Current Phase T	0.1 A	R
	2009	Main Input Frequency Phase R	0.01 Hz	R
	2010	Main Input Frequency Phase S	0.01 Hz	R
	2011	Main Input Frequency Phase T	0.01 Hz	R
	2012	Input PF Phase R	0.01	R
	2013	Input PF Phase S	0.01	R
	2014	Input PF Phase T	0.01	R
	2015	Positive DC Bus Voltage	0.1 V	R
	2016	Negative DC Bus Voltage	0.1 V	R
	2017	Positive Battery String Voltage	0.1 V	R
	2018	Negative Battery String Voltage	0.1 V	R
	2019	Positive Charger Voltage	0.1 V	R
	2020	Negative Charger Voltage	0.1 V	R
	2021	Costive Charger Current	0.1 A	R
	2022	Negative Charger Current	0.1 A	R
	2023	Costive Discharge Current	0.1 A	R

	Addr dec	Content	Units	Type
	2024	Negative Discharge Current	0.1 A	R
	2025	Inverter Voltage Phase R	0.1 V	R
	2026	Inverter Voltage Phase S	0.1 V	R
	2027	Inverter Voltage Phase T	0.1 V	R
	2028	Output Current Phase R	0.1 A	R
	2029	Output Current Phase S	0.1 A	R
	2030	Output Current Phase T	0.1 A	R
	2031	Output Frequency Phase R	0.01 Hz	R
	2032	Output Frequency Phase S	0.01 Hz	R
	2033	Output Frequency Phase T	0.01 Hz	R
	2034	Output PF Phase R	0.01	R
	2035	Output PF Phase S	0.01	R
	2036	Output PF Phase T	0.01	R
	2037	Output Voltage Phase R	0.1 V	R
	2038	Output Voltage Phase S	0.1 V	R
	2039	Output Voltage Phase T	0.1 V	R
	2040	Bypass Voltage Phase R	0.1 V	R
	2041	Bypass Voltage Phase S	0.1 V	R
	2042	Bypass Voltage Phase T	0.1 V	R
	2043	Output Apparent Power Phase R	0.1 kVA	R
	2044	Output Apparent Power Phase S	0.1 kVA	R
	2045	Output Apparent Power Phase T	0.1 kVA	R
	2046	Output Active Power Phase R	0.1 kW	R

	Addr dec	Content	Units	Type
	2047	Output Active Power Phase S	0.1 kW	R
	2048	Output Active Power Phase T	0.1 kW	R
	2049	Output Reactive Power Phase R	0.1 kVAr	R
	2050	Output Reactive Power Phase S	0.1 kVAr	R
	2051	Output Reactive Power Phase T	0.1 kVAr	R
	2052	Output Load Percentage Phase R	0.1 V	R
	2053 ... 2072	Output Load Percentage Phase S	0.1 V	R
	2073	Output Load Percentage Phase T	0.1 V	R
	2074	Reserved		
	2075	Fan Running Time (hour)	Hours	R/W**
	2076	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	2077	Reserved		
	2078	Reserved		
	2079	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	2080	Utility Power And Battery Sign Integration	Dimensionless	R
	2081	Reserved		
	2082	Reserved		
	2083	Rectifier DSP Input Port	Dimensionless	R
	2084	Rectifier DSP Output Port	Dimensionless	R
	2085	Inverter DSP Input Port	Dimensionless	R
	2086	Inverter DSP Output	Dimensionless	R
	2087	Allow Inverter On Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	2088	Allow Transfer to Invert Sign Integration	Dimensionless	R
	2089	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	2090	Inverter Power Off Locked Sign Integration	Dimensionless	R
	2091	Reserved		
	2092	Inverter IO CAN	Dimensionless	R
	2093	Inverter DATA CAN	Dimensionless	R
	2094	Parallel Signal	Dimensionless	R
	2095	Read Rectifier Variate	Dimensionless	R
	2096	Write Rectifier Variate	Dimensionless	R
	2097	Read Inverter Variate	Dimensionless	R
	2098	Write Inverter Variate	Dimensionless	R
	2099	Inlet Temperature	0.1°C	R
	2100	Outlet Temperature	0.1°C	R
	2101	Rectifier IGBT Temperature Phase R	0.1°C	R
	2102	Rectifier IGBT Temperature Phase S	0.1°C	R
	2103	Rectifier IGBT Temperature Phase T	0.1°C	R
	2104	Inverter IGBT Temperature Phase R	0.1°C	R
	2105 ... 2144	Inverter IGBT Temperature Phase S	0.1°C	R
	2145	Inverter IGBT Temperature Phase T	0.1°C	R
	2146	Reserved		
	2147	Rectifier Identifier	Dimensionless	R

	Addr dec	Content	Units	Type
	2148	Rectifier Series Number	Dimensionless	R
	2149	Rectifier First Version Number	Dimensionless	R
	2150	Rectifier Second Version Number	Dimensionless	R
	2151	Inverter Identifier	Dimensionless	R
	2152	Inverter Series Number	Dimensionless	R
	2153 .. 2199	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 1		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 2200				
	2200	**Free**		
				2201
	2202	MODULE ALARMS (1) b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R

	Addr dec	Content	Units	Type
	2203 ... 2204	MODULE ALARMS (2) b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R
	2205	MODULE ALARMS (3) b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	2206	**Free**		

	Addr dec	Content	Units	Type
	2207 ... 2209	MODULE WARNINGS (1) b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R
	2210	MODULE WARNINGS (2) b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=**Free** b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	2211	**Free**		
	2212	SCODE STS_0_0		R
	2213	SCODE STS_0_1		R

	Addr dec	Content	Units	Type
	2214	SCODE STS_0_2		R
	2215	SCODE STS_0_3		R
	2216	SCODE STS_1_0		R
	2217	SCODE STS_1_1		R
	2218	SCODE STS_1_2		R
	2219	SCODE STS_1_3		R
	2220	SCODE STS_2_0		R
	2221	SCODE STS_2_1		R
	2222	**Free**		
	2223	SCODE ALM_0_0		R
	2224	SCODE ALM_0_1		R
	2225	SCODE ALM_0_2		R
	2226	SCODE ALM_0_3		R
	2227	SCODE ALM_1_0		R
	2228	SCODE ALM_1_1		R
	2229	SCODE ALM_1_2		R
	2230	SCODE ALM_1_3		R
	2231	SCODE ALM_2_0		R
	2232	SCODE ALM_2_1		R
	2233	SCODE ALM_2_2		R
	2234	SCODE ALM_2_3		R
	2235	SCODE ALM_3_0		R
	2236	SCODE ALM_3_1		R

	Addr dec	Content	Units	Type
	2237	SCODE ALM_3_2		R
	2238	SCODE ALM_3_3		R
	2239	SCODE ALM_4_0		R
	2240	SCODE ALM_4_1		R
	2241	SCODE ALM_4_2		R
	2242	SCODE ALM_4_3		R
	2243	SCODE ALM_5_0		R
	2244	SCODE ALM_5_1		R
	2245	SCODE ALM_5_2		R
	2246	SCODE ALM_5_3		R
	2247 ... 2248	SCODE ALM_6_0		R
	2249	SCODE ALM_6_1		R
	2250	**Free**		R
	2251	SPECIAL SCODE ALM_7_0		R
	2252	Inverter Supplying		
	2253	Inverter ReadyForSupply		
	2254	Rectifier Status		
	2255	Battery Discharge		
	2256	Battery Boost		
	2257 ... 2499	Battery Float		

	Addr dec	Content	Units	Type
Measurements of Module 2 Base address : 2500		Module set to Bypass		
	2500	**Free**		
				2501
	2502			
	2503	Main Input Voltage Phase R	0.1 V	R
	2504	Main Input Voltage Phase S	0.1 V	R
	2505	Main Input Voltage Phase T	0.1 V	R
	2506	Main Input Current Phase R	0.1 A	R
	2507	Main Input Current Phase S	0.1 A	R
	2508	Main Input Current Phase T	0.1 A	R
	2509	Main Input Frequency Phase R	0.01 Hz	R
	2510	Main Input Frequency Phase S	0.01 Hz	R
	2511	Main Input Frequency Phase T	0.01 Hz	R
	2512	Input PF Phase R	0.01	R
	2513	Input PF Phase S	0.01	R
	2514	Input PF Phase T	0.01	R
	2515	Positive DC Bus Voltage	0.1 V	R
	2516	Negative DC Bus Voltage	0.1 V	R
	2517	Positive Battery String Voltage	0.1 V	R

	Addr dec	Content	Units	Type
	2518	Negative Battery String Voltage	0.1 V	R
	2519	Positive Charger Voltage	0.1 V	R
	2520	Negative Charger Voltage	0.1 V	R
	2521	Costive Charger Current	0.1 A	R
	2522	Negative Charger Current	0.1 A	R
	2523	Costive Discharge Current	0.1 A	R
	2524	Negative Discharge Current	0.1 A	R
	2525	Inverter Voltage Phase R	0.1 V	R
	2526	Inverter Voltage Phase S	0.1 V	R
	2527	Inverter Voltage Phase T	0.1 V	R
	2528	Output Current Phase R	0.1 A	R
	2529	Output Current Phase S	0.1 A	R
	2530	Output Current Phase T	0.1 A	R
	2531	Output Frequency Phase R	0.01 Hz	R
	2532	Output Frequency Phase S	0.01 Hz	R
	2533	Output Frequency Phase T	0.01 Hz	R
	2534	Output PF Phase R	0.01	R
	2535	Output PF Phase S	0.01	R
	2536	Output PF Phase T	0.01	R
	2537	Output Voltage Phase R	0.1 V	R
	2538	Output Voltage Phase S	0.1 V	R
	2539	Output Voltage Phase T	0.1 V	R
	2540	Bypass Voltage Phase R	0.1 V	R

	Addr dec	Content	Units	Type
	2541	Bypass Voltage Phase S	0.1 V	R
	2542	Bypass Voltage Phase T	0.1 V	R
	2543	Output Apparent Power Phase R	0.1 kVA	R
	2544	Output Apparent Power Phase S	0.1 kVA	R
	2545	Output Apparent Power Phase T	0.1 kVA	R
	2546	Output Active Power Phase R	0.1 kW	R
	2547	Output Active Power Phase S	0.1 kW	R
	2548	Output Active Power Phase T	0.1 kW	R
	2549	Output Reactive Power Phase R	0.1 kVAr	R
	2550	Output Reactive Power Phase S	0.1 kVAr	R
	2551	Output Reactive Power Phase T	0.1 kVAr	R
	2552	Output Load Percentage Phase R	0.1 V	R
	2553 ... 2572	Output Load Percentage Phase S	0.1 V	R
	2573	Output Load Percentage Phase T	0.1 V	R
	2574	Reserved		
	2575	Fan Running Time (hour)	Hours	R/W**
	2576	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	2577	Reserved		
	2578	Reserved		
	2579	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	2580	Utility Power And Battery Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	2581	Reserved		
	2582	Reserved		
	2583	Rectifier DSP Input Port	Dimensionless	R
	2584	Rectifier DSP Output Port	Dimensionless	R
	2585	Inverter DSP Input Port	Dimensionless	R
	2586	Inverter DSP Output	Dimensionless	R
	2587	Allow Inverter On Sign Integration	Dimensionless	R
	2588	Allow Transfer to Invert Sign Integration	Dimensionless	R
	2589	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	2590	Inverter Power Off Locked Sign Integration	Dimensionless	R
	2591	Reserved		
	2592	Inverter IO CAN	Dimensionless	R
	2593	Inverter DATA CAN	Dimensionless	R
	2594	Parallel Signal	Dimensionless	R
	2595	Read Rectifier Variate	Dimensionless	R
	2596	Write Rectifier Variate	Dimensionless	R
	2597	Read Inverter Variate	Dimensionless	R
	2598	Write Inverter Variate	Dimensionless	R
	2599	Inlet Temperature	0.1°C	R
	2600	Outlet Temperature	0.1°C	R
	2601	Rectifier IGBT Temperature Phase R	0.1°C	R
	2602	Rectifier IGBT Temperature Phase S	0.1°C	R

	Addr dec	Content	Units	Type
	2603	Rectifier IGBT Temperature Phase T	0.1°C	R
	2604	Inverter IGBT Temperature Phase R	0.1°C	R
	2605 .. 2644	Inverter IGBT Temperature Phase S	0.1°C	R
	2645	Inverter IGBT Temperature Phase T	0.1°C	R
	2646	Reserved		
	2647	Rectifier Identifier	Dimensionless	R
	2648	Rectifier Series Number	Dimensionless	R
	2649	Rectifier First Version Number	Dimensionless	R
	2650	Rectifier Second Version Number	Dimensionless	R
	2651	Inverter Identifier	Dimensionless	R
	2652	Inverter Series Number	Dimensionless	R
	2653 ... 2699	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 2		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 2700				
	2700	**Free**		
				2701

	Addr dec	Content	Units	Type
	2702	MODULE ALARMS (1) b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R
	2703 ... 2704	MODULE ALARMS (2) b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R

	Addr dec	Content	Units	Type
	2705	MODULE ALARMS (3) b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	2706	**Free**		
	2707 ... 2709	MODULE WARNINGS (1) b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOU R = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R

	Addr dec	Content	Units	Type
	2710	MODULE WARNINGS (2) b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=**Free** b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	2711	**Free**		
	2712	SCODE STS_0_0		R
	2713	SCODE STS_0_1		R
	2714	SCODE STS_0_2		R
	2715	SCODE STS_0_3		R
	2716	SCODE STS_1_0		R
	2717	SCODE STS_1_1		R
	2718	SCODE STS_1_2		R
	2719	SCODE STS_1_3		R
	2720	SCODE STS_2_0		R
	2721	SCODE STS_2_1		R
	2722	**Free**		

	Addr dec	Content	Units	Type
	2723	SCODE ALM_0_0		R
	2724	SCODE ALM_0_1		R
	2725	SCODE ALM_0_2		R
	2726	SCODE ALM_0_3		R
	2727	SCODE ALM_1_0		R
	2728	SCODE ALM_1_1		R
	2729	SCODE ALM_1_2		R
	2730	SCODE ALM_1_3		R
	2731	SCODE ALM_2_0		R
	2732	SCODE ALM_2_1		R
	2733	SCODE ALM_2_2		R
	2734	SCODE ALM_2_3		R
	2735	SCODE ALM_3_0		R
	2736	SCODE ALM_3_1		R
	2737	SCODE ALM_3_2		R
	2738	SCODE ALM_3_3		R
	2739	SCODE ALM_4_0		R
	2740	SCODE ALM_4_1		R
	2741	SCODE ALM_4_2		R
	2742	SCODE ALM_4_3		R
	2743	SCODE ALM_5_0		R
	2744	SCODE ALM_5_1		R
	2745	SCODE ALM_5_2		R

	Addr dec	Content	Units	Type
	2746	SCODE ALM_5_3		R
	2747 ... 2748	SCODE ALM_6_0		R
	2749	SCODE ALM_6_1		R
	2750	**Free**		R
	2751	SPECIAL SCODE ALM_7_0		R
	2752	Inverter Supplying		
	2753	Inverter ReadyForSupply		
	2754	Rectifier Status		
	2755	Battery Discharge		
	2756	Battery Boost		
	2757 ... 2999	Battery Float		
Measur ements of Module 3 Base address : 3000		Module set to Bypass		
	3000	**Free**		
				3001
	3002	**Free**		
	3003	Main Input Voltage Phase R	0.1 V	R

	Addr dec	Content	Units	Type
	3004	Main Input Voltage Phase S	0.1 V	R
	3005	Main Input Voltage Phase T	0.1 V	R
	3006	Main Input Current Phase R	0.1 A	R
	3007	Main Input Current Phase S	0.1 A	R
	3008	Main Input Current Phase T	0.1 A	R
	3009	Main Input Frequency Phase R	0.01 Hz	R
	3010	Main Input Frequency Phase S	0.01 Hz	R
	3011	Main Input Frequency Phase T	0.01 Hz	R
	3012	Input PF Phase R	0.01	R
	3013	Input PF Phase S	0.01	R
	3014	Input PF Phase T	0.01	R
	3015	Positive DC Bus Voltage	0.1 V	R
	3016	Negative DC Bus Voltage	0.1 V	R
	3017	Positive Battery String Voltage	0.1 V	R
	3018	Negative Battery String Voltage	0.1 V	R
	3019	Positive Charger Voltage	0.1 V	R
	3020	Negative Charger Voltage	0.1 V	R
	3021	Costive Charger Current	0.1 A	R
	3022	Negative Charger Current	0.1 A	R
	3023	Costive Discharge Current	0.1 A	R
	3024	Negative Discharge Current	0.1 A	R
	3025	Inverter Voltage Phase R	0.1 V	R
	3026	Inverter Voltage Phase S	0.1 V	R

	Addr dec	Content	Units	Type
	3027	Inverter Voltage Phase T	0.1 V	R
	3028	Output Current Phase R	0.1 A	R
	3029	Output Current Phase S	0.1 A	R
	3030	Output Current Phase T	0.1 A	R
	3031	Output Frequency Phase R	0.01 Hz	R
	3032	Output Frequency Phase S	0.01 Hz	R
	3033	Output Frequency Phase T	0.01 Hz	R
	3034	Output PF Phase R	0.01	R
	3035	Output PF Phase S	0.01	R
	3036	Output PF Phase T	0.01	R
	3037	Output Voltage Phase R	0.1 V	R
	3038	Output Voltage Phase S	0.1 V	R
	3039	Output Voltage Phase T	0.1 V	R
	3040	Bypass Voltage Phase R	0.1 V	R
	3041	Bypass Voltage Phase S	0.1 V	R
	3042	Bypass Voltage Phase T	0.1 V	R
	3043	Output Apparent Power Phase R	0.1 kVA	R
	3044	Output Apparent Power Phase S	0.1 kVA	R
	3045	Output Apparent Power Phase T	0.1 kVA	R
	3046	Output Active Power Phase R	0.1 kW	R
	3047	Output Active Power Phase S	0.1 kW	R
	3048	Output Active Power Phase T	0.1 kW	R
	3049	Output Reactive Power Phase R	0.1 kVAr	R

	Addr dec	Content	Units	Type
	3050	Output Reactive Power Phase S	0.1 kVAr	R
	3051	Output Reactive Power Phase T	0.1 kVAr	R
	3052	Output Load Percentage Phase R	0.1 V	R
	3053 ... 3072	Output Load Percentage Phase S	0.1 V	R
	3073	Output Load Percentage Phase T	0.1 V	R
	3074	Reserved		
	3075	Fan Running Time (hour)	Hours	R/W**
	3076	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	3077	Reserved		
	3078	Reserved		
	3079	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	3080	Utility Power And Battery Sign Integration	Dimensionless	R
	3081	Reserved		
	3082	Reserved		
	3083	Rectifier DSP Input Port	Dimensionless	R
	3084	Rectifier DSP Output Port	Dimensionless	R
	3085	Inverter DSP Input Port	Dimensionless	R
	3086	Inverter DSP Output	Dimensionless	R
	3087	Allow Inverter On Sign Integration	Dimensionless	R
	3088	Allow Transfer to Invert Sign Integration	Dimensionless	R
	3089	Transfer to Bypass Locked Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	3090	Inverter Power Off Locked Sign Integration	Dimensionless	R
	3091	Reserved		
	3092	Inverter IO CAN	Dimensionless	R
	3093	Inverter DATA CAN	Dimensionless	R
	3094	Parallel Signal	Dimensionless	R
	3095	Read Rectifier Variate	Dimensionless	R
	3096	Write Rectifier Variate	Dimensionless	R
	3097	Read Inverter Variate	Dimensionless	R
	3098	Write Inverter Variate	Dimensionless	R
	3099	Inlet Temperature	0.1°C	R
	3100	Outlet Temperature	0.1°C	R
	3101	Rectifier IGBT Temperature Phase R	0.1°C	R
	3102	Rectifier IGBT Temperature Phase S	0.1°C	R
	3103	Rectifier IGBT Temperature Phase T	0.1°C	R
	3104	Inverter IGBT Temperature Phase R	0.1°C	R
	3105 ... 3144	Inverter IGBT Temperature Phase S	0.1°C	R
	3145	Inverter IGBT Temperature Phase T	0.1°C	R
	3146	Reserved		
	3147	Rectifier Identifier	Dimensionless	R
	3148	Rectifier Series Number	Dimensionless	R
	3149	Rectifier First Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
	3150	Rectifier Second Version Number	Dimensionless	R
	3151	Inverter Identifier	Dimensionless	R
	3152	Inverter Series Number	Dimensionless	R
	3152 ... 3199	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODE S) 3				
		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 3200				
	3200	**Free**		
				3201
	3202	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R

	Addr dec	Content	Units	Type
	3203 ... 3204	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R
	3205	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	3206	**Free**		

	Addr dec	Content	Units	Type
	3207 .. 3209	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOU R = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R
	3210	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SEN R = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	3211	**Free**		
	3212	SCODE STS_0_0		R

	Addr dec	Content	Units	Type
	3213	SCODE STS_0_1		R
	3214	SCODE STS_0_2		R
	3215	SCODE STS_0_3		R
	3216	SCODE STS_1_0		R
	3217	SCODE STS_1_1		R
	3218	SCODE STS_1_2		R
	3219	SCODE STS_1_3		R
	3220	SCODE STS_2_0		R
	3221	SCODE STS_2_1		R
	3222	**Free**		
	3223	SCODE ALM_0_0		R
	3224	SCODE ALM_0_1		R
	3225	SCODE ALM_0_2		R
	3226	SCODE ALM_0_3		R
	3227	SCODE ALM_1_0		R
	3228	SCODE ALM_1_1		R
	3229	SCODE ALM_1_2		R
	3230	SCODE ALM_1_3		R
	3231	SCODE ALM_2_0		R
	3232	SCODE ALM_2_1		R
	3233	SCODE ALM_2_2		R
	3234	SCODE ALM_2_3		R
	3235	SCODE ALM_3_0		R

	Addr dec	Content	Units	Type
	3236	SCODE ALM_3_1		R
	3237	SCODE ALM_3_2		R
	3238	SCODE ALM_3_3		R
	3239	SCODE ALM_4_0		R
	3240	SCODE ALM_4_1		R
	3241	SCODE ALM_4_2		R
	3242	SCODE ALM_4_3		R
	3243	SCODE ALM_5_0		R
	3244	SCODE ALM_5_1		R
	3245	SCODE ALM_5_2		R
	3246	SCODE ALM_5_3		R
	3247 ... 3248	SCODE ALM_6_0		R
	3249	SCODE ALM_6_1		R
	3250	**Free**		R
	3251	"0000"+SPECIAL SCODE ALM_7_0		R
	3252	Inverter Supplying		
	3253	Inverter ReadyForSupply		
	3254	Rectifier Status		
	3255	Battery Discharge		
	3256	Battery Boost		

	Addr dec	Content	Units	Type
	3257 ... 3499	Battery Float		
Measur ements of Module 4 Base address : 3500		Module set to Bypass		
	3500	**Free**		
				3501
	3502	**Free**		
	3503	Main Input Voltage Phase R	0.1 V	R
	3504	Main Input Voltage Phase S	0.1 V	R
	3505	Main Input Voltage Phase T	0.1 V	R
	3506	Main Input Current Phase R	0.1 A	R
	3507	Main Input Current Phase S	0.1 A	R
	3508	Main Input Current Phase T	0.1 A	R
	3509	Main Input Frequency Phase R	0.01 Hz	R
	3510	Main Input Frequency Phase S	0.01 Hz	R
	3511	Main Input Frequency Phase T	0.01 Hz	R
	3512	Input PF Phase R	0.01	R
	3513	Input PF Phase S	0.01	R
	3514	Input PF Phase T	0.01	R
	3515	Positive DC Bus Voltage	0.1 V	R

	Addr dec	Content	Units	Type
	3516	Negative DC Bus Voltage	0.1 V	R
	3517	Positive Battery String Voltage	0.1 V	R
	3518	Negative Battery String Voltage	0.1 V	R
	3519	Positive Charger Voltage	0.1 V	R
	3520	Negative Charger Voltage	0.1 V	R
	3521	Costive Charger Current	0.1 A	R
	3522	Negative Charger Current	0.1 A	R
	3523	Costive Discharge Current	0.1 A	R
	3524	Negative Discharge Current	0.1 A	R
	3525	Inverter Voltage Phase R	0.1 V	R
	3526	Inverter Voltage Phase S	0.1 V	R
	3527	Inverter Voltage Phase T	0.1 V	R
	3528	Output Current Phase R	0.1 A	R
	3529	Output Current Phase S	0.1 A	R
	3530	Output Current Phase T	0.1 A	R
	3531	Output Frequency Phase R	0.01 Hz	R
	3532	Output Frequency Phase S	0.01 Hz	R
	3533	Output Frequency Phase T	0.01 Hz	R
	3534	Output PF Phase R	0.01	R
	3535	Output PF Phase S	0.01	R
	3536	Output PF Phase T	0.01	R
	3537	Output Voltage Phase R	0.1 V	R
	3538	Output Voltage Phase S	0.1 V	R

	Addr dec	Content	Units	Type
	3539	Output Voltage Phase T	0.1 V	R
	3540	Bypass Voltage Phase R	0.1 V	R
	3541	Bypass Voltage Phase S	0.1 V	R
	3542	Bypass Voltage Phase T	0.1 V	R
	3543	Output Apparent Power Phase R	0.1 kVA	R
	3544	Output Apparent Power Phase S	0.1 kVA	R
	3545	Output Apparent Power Phase T	0.1 kVA	R
	3546	Output Active Power Phase R	0.1 kW	R
	3547	Output Active Power Phase S	0.1 kW	R
	3548	Output Active Power Phase T	0.1 kW	R
	3549	Output Reactive Power Phase R	0.1 kVAr	R
	3550	Output Reactive Power Phase S	0.1 kVAr	R
	3551	Output Reactive Power Phase T	0.1 kVAr	R
	3552	Output Load Percentage Phase R	0.1 V	R
	3553 ... 3572	Output Load Percentage Phase S	0.1 V	R
	3573	Output Load Percentage Phase T	0.1 V	R
	3574	Reserved		
	3575	Fan Running Time (hour)	Hours	R/W**
	3576	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	3577	Reserved		
	3578	Reserved		

	Addr dec	Content	Units	Type
	3579	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	3580	Utility Power And Battery Sign Integration	Dimensionless	R
	3581	Reserved		
	3582	Reserved		
	3583	Rectifier DSP Input Port	Dimensionless	R
	3584	Rectifier DSP Output Port	Dimensionless	R
	3585	Inverter DSP Input Port	Dimensionless	R
	3586	Inverter DSP Output	Dimensionless	R
	3587	Allow Inverter On Sign Integration	Dimensionless	R
	3588	Allow Transfer to Invert Sign Integration	Dimensionless	R
	3589	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	3590	Inverter Power Off Locked Sign Integration	Dimensionless	R
	3591	Reserved		
	3592	Inverter IO CAN	Dimensionless	R
	3593	Inverter DATA CAN	Dimensionless	R
	3594	Parallel Signal	Dimensionless	R
	3595	Read Rectifier Variate	Dimensionless	R
	3596	Write Rectifier Variate	Dimensionless	R
	3597	Read Inverter Variate	Dimensionless	R
	3598	Write Inverter Variate	Dimensionless	R
	3599	Inlet Temperature	0.1°C	R
	3600	Outlet Temperature	0.1°C	R

	Addr dec	Content	Units	Type
	3601	Rectifier IGBT Temperature Phase R	0.1°C	R
	3602	Rectifier IGBT Temperature Phase S	0.1°C	R
	3603	Rectifier IGBT Temperature Phase T	0.1°C	R
	3604	Inverter IGBT Temperature Phase R	0.1°C	R
	3605 ... 3644	Inverter IGBT Temperature Phase S	0.1°C	R
	3645	Inverter IGBT Temperature Phase T	0.1°C	R
	3646	Reserved		
	3647	Rectifier Identifier	Dimensionless	R
	3648	Rectifier Series Number	Dimensionless	R
	3649	Rectifier First Version Number	Dimensionless	R
	3650	Rectifier Second Version Number	Dimensionless	R
	3651	Inverter Identifier	Dimensionless	R
	3652	Inverter Series Number	Dimensionless	R
	3653 ... 3699	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODE S) 4		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 3700				
	3700	**Free**		
				3701

	Addr dec	Content	Units	Type
	3702	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R
	3703 ... 3704	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R

	Addr dec	Content	Units	Type
	3705	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	3706	**Free**		
	3707 ... 3709	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOU R = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R

	Addr dec	Content	Units	Type
	3710	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	3711	**Free**		
	3712	SCODE STS_0_0		R
	3713	SCODE STS_0_1		R
	3714	SCODE STS_0_2		R
	3715	SCODE STS_0_3		R
	3716	SCODE STS_1_0		R
	3717	SCODE STS_1_1		R
	3718	SCODE STS_1_2		R
	3719	SCODE STS_1_3		R
	3720	SCODE STS_2_0		R
	3721	SCODE STS_2_1		R
	3722	**Free**		

	Addr dec	Content	Units	Type
	3723	SCODE ALM_0_0		R
	3724	SCODE ALM_0_1		R
	3725	SCODE ALM_0_2		R
	3726	SCODE ALM_0_3		R
	3727	SCODE ALM_1_0		R
	3728	SCODE ALM_1_1		R
	3729	SCODE ALM_1_2		R
	3730	SCODE ALM_1_3		R
	3731	SCODE ALM_2_0		R
	3732	SCODE ALM_2_1		R
	3733	SCODE ALM_2_2		R
	3734	SCODE ALM_2_3		R
	3735	SCODE ALM_3_0		R
	3736	SCODE ALM_3_1		R
	3737	SCODE ALM_3_2		R
	3738	SCODE ALM_3_3		R
	3739	SCODE ALM_4_0		R
	3740	SCODE ALM_4_1		R
	3741	SCODE ALM_4_2		R
	3742	SCODE ALM_4_3		R
	3743	SCODE ALM_5_0		R
	3744	SCODE ALM_5_1		R
	3745	SCODE ALM_5_2		R

	Addr dec	Content	Units	Type
	3746	SCODE ALM_5_3		R
	3747 ... 3748	SCODE ALM_6_0		R
	3749	SCODE ALM_6_1		R
	3750	**Free**		R
	3751	"0000"+SPECIAL SCODE ALM_7_0		R
	3752	Inverter Supplying		
	3753	Inverter ReadyForSupply		
	3754	Rectifier Status		
	3755	Battery Discharge		
	3756	Battery Boost		
	3757 ... 3799	Battery Float		
Measur ements of Module 5 Base address : 4000		Module set to Bypass		
	4000	**Free**		
				4001
	4002	**Free**		
	4003	Main Input Voltage Phase R	0.1 V	R

	Addr dec	Content	Units	Type
	4004	Main Input Voltage Phase S	0.1 V	R
	4005	Main Input Voltage Phase T	0.1 V	R
	4006	Main Input Current Phase R	0.1 A	R
	4007	Main Input Current Phase S	0.1 A	R
	4008	Main Input Current Phase T	0.1 A	R
	4009	Main Input Frequency Phase R	0.01 Hz	R
	4010	Main Input Frequency Phase S	0.01 Hz	R
	4011	Main Input Frequency Phase T	0.01 Hz	R
	4012	Input PF Phase R	0.01	R
	4013	Input PF Phase S	0.01	R
	4014	Input PF Phase T	0.01	R
	4015	Positive DC Bus Voltage	0.1 V	R
	4016	Negative DC Bus Voltage	0.1 V	R
	4017	Positive Battery String Voltage	0.1 V	R
	4018	Negative Battery String Voltage	0.1 V	R
	4019	Positive Charger Voltage	0.1 V	R
	4020	Negative Charger Voltage	0.1 V	R
	4021	Costive Charger Current	0.1 A	R
	4022	Negative Charger Current	0.1 A	R
	4023	Costive Discharge Current	0.1 A	R
	4024	Negative Discharge Current	0.1 A	R
	4025	Inverter Voltage Phase R	0.1 V	R
	4026	Inverter Voltage Phase S	0.1 V	R

	Addr dec	Content	Units	Type
	4027	Inverter Voltage Phase T	0.1 V	R
	4028	Output Current Phase R	0.1 A	R
	4029	Output Current Phase S	0.1 A	R
	4030	Output Current Phase T	0.1 A	R
	4031	Output Frequency Phase R	0.01 Hz	R
	4032	Output Frequency Phase S	0.01 Hz	R
	4033	Output Frequency Phase T	0.01 Hz	R
	4034	Output PF Phase R	0.01	R
	4035	Output PF Phase S	0.01	R
	4036	Output PF Phase T	0.01	R
	4037	Output Voltage Phase R	0.1 V	R
	4038	Output Voltage Phase S	0.1 V	R
	4039	Output Voltage Phase T	0.1 V	R
	4040	Bypass Voltage Phase R	0.1 V	R
	4041	Bypass Voltage Phase S	0.1 V	R
	4042	Bypass Voltage Phase T	0.1 V	R
	4043	Output Apparent Power Phase R	0.1 kVA	R
	4044	Output Apparent Power Phase S	0.1 kVA	R
	4045	Output Apparent Power Phase T	0.1 kVA	R
	4046	Output Active Power Phase R	0.1 kW	R
	4047	Output Active Power Phase S	0.1 kW	R
	4048	Output Active Power Phase T	0.1 kW	R
	4049	Output Reactive Power Phase R	0.1 kVAr	R

	Addr dec	Content	Units	Type
	4050	Output Reactive Power Phase S	0.1 kVAr	R
	4051	Output Reactive Power Phase T	0.1 kVAr	R
	4052	Output Load Percentage Phase R	0.1 V	R
	4053 ... 4072	Output Load Percentage Phase S	0.1 V	R
	4073	Output Load Percentage Phase T	0.1 V	R
	4074	Reserved		
	4075	Fan Running Time (hour)	Hours	R/W**
	4076	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	4077	Reserved		
	4078	Reserved		
	4079	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	4080	Utility Power And Battery Sign Integration	Dimensionless	R
	4081	Reserved		
	4082	Reserved		
	4083	Rectifier DSP Input Port	Dimensionless	R
	4084	Rectifier DSP Output Port	Dimensionless	R
	4085	Inverter DSP Input Port	Dimensionless	R
	4086	Inverter DSP Output	Dimensionless	R
	4087	Allow Inverter On Sign Integration	Dimensionless	R
	4088	Allow Transfer to Invert Sign Integration	Dimensionless	R
	4089	Transfer to Bypass Locked Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	4090	Inverter Power Off Locked Sign Integration	Dimensionless	R
	4091	Reserved		
	4092	Inverter IO CAN	Dimensionless	R
	4093	Inverter DATA CAN	Dimensionless	R
	4094	Parallel Signal	Dimensionless	R
	4095	Read Rectifier Variate	Dimensionless	R
	4096	Write Rectifier Variate	Dimensionless	R
	4097	Read Inverter Variate	Dimensionless	R
	4098	Write Inverter Variate	Dimensionless	R
	4099	Inlet Temperature	0.1°C	R
	4100	Outlet Temperature	0.1°C	R
	4101	Rectifier IGBT Temperature Phase R	0.1°C	R
	4102	Rectifier IGBT Temperature Phase S	0.1°C	R
	4103	Rectifier IGBT Temperature Phase T	0.1°C	R
	4104	Inverter IGBT Temperature Phase R	0.1°C	R
	4105 ... 4144	Inverter IGBT Temperature Phase S	0.1°C	R
	4145	Inverter IGBT Temperature Phase T	0.1°C	R
	4146	Reserved		
	4147	Rectifier Identifier	Dimensionless	R
	4148	Rectifier Series Number	Dimensionless	R
	4149	Rectifier First Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
	4150	Rectifier Second Version Number	Dimensionless	R
	4151	Inverter Identifier	Dimensionless	R
	4152	Inverter Series Number	Dimensionless	R
	4153 ... 4199	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODE S) 5				
		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 4200				
	4200	**Free**		
				4201
	4202	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R

	Addr dec	Content	Units	Type
	4203 ... 4204	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R
	4205	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	4206	**Free**		

	Addr dec	Content	Units	Type
	4207 ... 4209	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R
	4210	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	4211	**Free**		
	4212	SCODE STS_0_0		R
	4213	SCODE STS_0_1		R

	Addr dec	Content	Units	Type
	4214	SCODE STS_0_2		R
	4215	SCODE STS_0_3		R
	4216	SCODE STS_1_0		R
	4217	SCODE STS_1_1		R
	4218	SCODE STS_1_2		R
	4219	SCODE STS_1_3		R
	4220	SCODE STS_2_0		R
	4221	SCODE STS_2_1		R
	4222	**Free**		
	4223	SCODE ALM_0_0		R
	4224	SCODE ALM_0_1		R
	4225	SCODE ALM_0_2		R
	4226	SCODE ALM_0_3		R
	4227	SCODE ALM_1_0		R
	4228	SCODE ALM_1_1		R
	4229	SCODE ALM_1_2		R
	4230	SCODE ALM_1_3		R
	4231	SCODE ALM_2_0		R
	4232	SCODE ALM_2_1		R
	4233	SCODE ALM_2_2		R
	4234	SCODE ALM_2_3		R
	4235	SCODE ALM_3_0		R
	4236	SCODE ALM_3_1		R

	Addr dec	Content	Units	Type
	4237	SCODE ALM_3_2		R
	4238	SCODE ALM_3_3		R
	4239	SCODE ALM_4_0		R
	4240	SCODE ALM_4_1		R
	4241	SCODE ALM_4_2		R
	4242	SCODE ALM_4_3		R
	4243	SCODE ALM_5_0		R
	4244	SCODE ALM_5_1		R
	4245	SCODE ALM_5_2		R
	4246	SCODE ALM_5_3		R
	4247 ... 4248	SCODE ALM_6_0		R
	4249	SCODE ALM_6_1		R
	4250	**Free**		R
	4251	"0000"+SPECIAL SCODE ALM_7_0		R
	4252	Inverter Supplying		
	4253	Inverter ReadyForSupply		
	4254	Rectifier Status		
	4255	Battery Discharge		
	4256	Battery Boost		
	4257 ... 4499	Battery Float		

	Addr dec	Content	Units	Type
Measurements of Module 6 Base address : 4500		Module set to Bypass		
	4500	**Free**		
				4501
	4502	**Free**		
	4503	Main Input Voltage Phase R	0.1 V	R
	4504	Main Input Voltage Phase S	0.1 V	R
	4505	Main Input Voltage Phase T	0.1 V	R
	4506	Main Input Current Phase R	0.1 A	R
	4507	Main Input Current Phase S	0.1 A	R
	4508	Main Input Current Phase T	0.1 A	R
	4509	Main Input Frequency Phase R	0.01 Hz	R
	4510	Main Input Frequency Phase S	0.01 Hz	R
	4511	Main Input Frequency Phase T	0.01 Hz	R
	4512	Input PF Phase R	0.01	R
	4513	Input PF Phase S	0.01	R
	4514	Input PF Phase T	0.01	R
	4515	Positive DC Bus Voltage	0.1 V	R
	4516	Negative DC Bus Voltage	0.1 V	R
	4517	Positive Battery String Voltage	0.1 V	R

	Addr dec	Content	Units	Type
	4518	Negative Battery String Voltage	0.1 V	R
	4519	Positive Charger Voltage	0.1 V	R
	4520	Negative Charger Voltage	0.1 V	R
	4521	Costive Charger Current	0.1 A	R
	4522	Negative Charger Current	0.1 A	R
	4523	Costive Discharge Current	0.1 A	R
	4524	Negative Discharge Current	0.1 A	R
	4525	Inverter Voltage Phase R	0.1 V	R
	4526	Inverter Voltage Phase S	0.1 V	R
	4527	Inverter Voltage Phase T	0.1 V	R
	4528	Output Current Phase R	0.1 A	R
	4529	Output Current Phase S	0.1 A	R
	4530	Output Current Phase T	0.1 A	R
	4531	Output Frequency Phase R	0.01 Hz	R
	4532	Output Frequency Phase S	0.01 Hz	R
	4533	Output Frequency Phase T	0.01 Hz	R
	4534	Output PF Phase R	0.01	R
	4535	Output PF Phase S	0.01	R
	4536	Output PF Phase T	0.01	R
	4537	Output Voltage Phase R	0.1 V	R
	4538	Output Voltage Phase S	0.1 V	R
	4539	Output Voltage Phase T	0.1 V	R
	4540	Bypass Voltage Phase R	0.1 V	R

	Addr dec	Content	Units	Type
	4541	Bypass Voltage Phase S	0.1 V	R
	4542	Bypass Voltage Phase T	0.1 V	R
	4543	Output Apparent Power Phase R	0.1 kVA	R
	4544	Output Apparent Power Phase S	0.1 kVA	R
	4545	Output Apparent Power Phase T	0.1 kVA	R
	4546	Output Active Power Phase R	0.1 kW	R
	4547	Output Active Power Phase S	0.1 kW	R
	4548	Output Active Power Phase T	0.1 kW	R
	4549	Output Reactive Power Phase R	0.1 kVAr	R
	4550	Output Reactive Power Phase S	0.1 kVAr	R
	4551	Output Reactive Power Phase T	0.1 kVAr	R
	4552	Output Load Percentage Phase R	0.1 V	R
	4553 ... 4572	Output Load Percentage Phase S	0.1 V	R
	4573	Output Load Percentage Phase T	0.1 V	R
	4574	Reserved		
	4575	Fan Running Time (hour)	Hours	R/W**
	4576	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	4577	Reserved		
	4578	Reserved		
	4579	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	4580	Utility Power And Battery Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	4581	Reserved		
	4582	Reserved		
	4583	Rectifier DSP Input Port	Dimensionless	R
	4584	Rectifier DSP Output Port	Dimensionless	R
	4585	Inverter DSP Input Port	Dimensionless	R
	4586	Inverter DSP Output	Dimensionless	R
	4587	Allow Inverter On Sign Integration	Dimensionless	R
	4588	Allow Transfer to Invert Sign Integration	Dimensionless	R
	4589	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	4590	Inverter Power Off Locked Sign Integration	Dimensionless	R
	4591	Reserved		
	4592	Inverter IO CAN	Dimensionless	R
	4593	Inverter DATA CAN	Dimensionless	R
	4594	Parallel Signal	Dimensionless	R
	4595	Read Rectifier Variate	Dimensionless	R
	4596	Write Rectifier Variate	Dimensionless	R
	4597	Read Inverter Variate	Dimensionless	R
	4598	Write Inverter Variate	Dimensionless	R
	4599	Inlet Temperature	0.1°C	R
	4600	Outlet Temperature	0.1°C	R
	4601	Rectifier IGBT Temperature Phase R	0.1°C	R
	4602	Rectifier IGBT Temperature Phase S	0.1°C	R
	4603	Rectifier IGBT Temperature Phase T	0.1°C	R

	Addr dec	Content	Units	Type
	4604	Inverter IGBT Temperature Phase R	0.1°C	R
	4605 ... 4644	Inverter IGBT Temperature Phase S	0.1°C	R
	4645	Inverter IGBT Temperature Phase T	0.1°C	R
	4646	Reserved		
	4647	Rectifier Identifier	Dimensionless	R
	4648	Rectifier Series Number	Dimensionless	R
	4649	Rectifier First Version Number	Dimensionless	R
	4650	Rectifier Second Version Number	Dimensionless	R
	4651	Inverter Identifier	Dimensionless	R
	4652	Inverter Series Number	Dimensionless	R
	4652 ... 4699	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 6		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 4700				
	4700	**Free**		
				4701

	Addr dec	Content	Units	Type
	4702	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R
	4703 ... 4704	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R

	Addr dec	Content	Units	Type
	4705	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	4706	**Free**		
	4707 ... 4709	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R

	Addr dec	Content	Units	Type
	4710	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	4711	**Free**		
	4712	SCODE STS_0_0		R
	4713	SCODE STS_0_1		R
	4714	SCODE STS_0_2		R
	4715	SCODE STS_0_3		R
	4716	SCODE STS_1_0		R
	4717	SCODE STS_1_1		R
	4718	SCODE STS_1_2		R
	4719	SCODE STS_1_3		R
	4720	SCODE STS_2_0		R
	4721	SCODE STS_2_1		R
	4722	**Free**		
	4723	SCODE ALM_0_0		R

	Addr dec	Content	Units	Type
	4724	SCODE ALM_0_1		R
	4725	SCODE ALM_0_2		R
	4726	SCODE ALM_0_3		R
	4727	SCODE ALM_1_0		R
	4728	SCODE ALM_1_1		R
	4729	SCODE ALM_1_2		R
	4730	SCODE ALM_1_3		R
	4731	SCODE ALM_2_0		R
	4732	SCODE ALM_2_1		R
	4733	SCODE ALM_2_2		R
	4734	SCODE ALM_2_3		R
	4735	SCODE ALM_3_0		R
	4736	SCODE ALM_3_1		R
	4737	SCODE ALM_3_2		R
	4738	SCODE ALM_3_3		R
	4739	SCODE ALM_4_0		R
	4740	SCODE ALM_4_1		R
	4741	SCODE ALM_4_2		R
	4742	SCODE ALM_4_3		R
	4743	SCODE ALM_5_0		R
	4744	SCODE ALM_5_1		R
	4745	SCODE ALM_5_2		R
	4746	SCODE ALM_5_3		R

	Addr dec	Content	Units	Type
	4747 ... 4748	SCODE ALM_6_0		R
	4749	SCODE ALM_6_1		R
	4750	**Free**		R
	4751	"0000"+SPECIAL SCODE ALM_7_0		R
	4752	Inverter Supplying		
	4753	Inverter ReadyForSupply		
	4754	Rectifier Status		
	4755	Battery Discharge		
	4756	Battery Boost		
	4757 ... 4999	Battery Float		
Measur ements of Module 7 Base address : 5000		Module set to Bypass		
	5000	**Free**		
				5001
	5002	**Free**		
	5003	Main Input Voltage Phase R	0.1 V	R
	5004	Main Input Voltage Phase S	0.1 V	R

	Addr dec	Content	Units	Type
	5005	Main Input Voltage Phase T	0.1 V	R
	5006	Main Input Current Phase R	0.1 A	R
	5007	Main Input Current Phase S	0.1 A	R
	5008	Main Input Current Phase T	0.1 A	R
	5009	Main Input Frequency Phase R	0.01 Hz	R
	5010	Main Input Frequency Phase S	0.01 Hz	R
	5011	Main Input Frequency Phase T	0.01 Hz	R
	5012	Input PF Phase R	0.01	R
	5013	Input PF Phase S	0.01	R
	5014	Input PF Phase T	0.01	R
	5015	Positive DC Bus Voltage	0.1 V	R
	5016	Negative DC Bus Voltage	0.1 V	R
	5017	Positive Battery String Voltage	0.1 V	R
	5018	Negative Battery String Voltage	0.1 V	R
	5019	Positive Charger Voltage	0.1 V	R
	5020	Negative Charger Voltage	0.1 V	R
	5021	Costive Charger Current	0.1 A	R
	5022	Negative Charger Current	0.1 A	R
	5023	Costive Discharge Current	0.1 A	R
	5024	Negative Discharge Current	0.1 A	R
	5025	Inverter Voltage Phase R	0.1 V	R
	5026	Inverter Voltage Phase S	0.1 V	R
	5027	Inverter Voltage Phase T	0.1 V	R

	Addr dec	Content	Units	Type
	5028	Output Current Phase R	0.1 A	R
	5029	Output Current Phase S	0.1 A	R
	5030	Output Current Phase T	0.1 A	R
	5031	Output Frequency Phase R	0.01 Hz	R
	5032	Output Frequency Phase S	0.01 Hz	R
	5033	Output Frequency Phase T	0.01 Hz	R
	5034	Output PF Phase R	0.01	R
	5035	Output PF Phase S	0.01	R
	5036	Output PF Phase T	0.01	R
	5037	Output Voltage Phase R	0.1 V	R
	5038	Output Voltage Phase S	0.1 V	R
	5039	Output Voltage Phase T	0.1 V	R
	5040	Bypass Voltage Phase R	0.1 V	R
	5041	Bypass Voltage Phase S	0.1 V	R
	5042	Bypass Voltage Phase T	0.1 V	R
	5043	Output Apparent Power Phase R	0.1 kVA	R
	5044	Output Apparent Power Phase S	0.1 kVA	R
	5045	Output Apparent Power Phase T	0.1 kVA	R
	5046	Output Active Power Phase R	0.1 kW	R
	5047	Output Active Power Phase S	0.1 kW	R
	5048	Output Active Power Phase T	0.1 kW	R
	5049	Output Reactive Power Phase R	0.1 kVAr	R
	5050	Output Reactive Power Phase S	0.1 kVAr	R

	Addr dec	Content	Units	Type
	5051	Output Reactive Power Phase T	0.1 kVAr	R
	5052	Output Load Percentage Phase R	0.1 V	R
	5053 ... 5072	Output Load Percentage Phase S	0.1 V	R
	5073	Output Load Percentage Phase T	0.1 V	R
	5074	Reserved		
	5075	Fan Running Time (hour)	Hours	R/W**
	5076	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	5077	Reserved		
	5078	Reserved		
	5079	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	5080	Utility Power And Battery Sign Integration	Dimensionless	R
	5081	Reserved		
	5082	Reserved		
	5083	Rectifier DSP Input Port	Dimensionless	R
	5084	Rectifier DSP Output Port	Dimensionless	R
	5085	Inverter DSP Input Port	Dimensionless	R
	5086	Inverter DSP Output	Dimensionless	R
	5087	Allow Inverter On Sign Integration	Dimensionless	R
	5088	Allow Transfer to Invert Sign Integration	Dimensionless	R
	5089	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	5090	Inverter Power Off Locked Sign Integration	Dimensionless	R
	5091	Reserved		

	Addr dec	Content	Units	Type
	5092	Inverter IO CAN	Dimensionless	R
	5093	Inverter DATA CAN	Dimensionless	R
	5094	Parallel Signal	Dimensionless	R
	5095	Read Rectifier Variate	Dimensionless	R
	5096	Write Rectifier Variate	Dimensionless	R
	5097	Read Inverter Variate	Dimensionless	R
	5098	Write Inverter Variate	Dimensionless	R
	5099	Inlet Temperature	0.1°C	R
	5100	Outlet Temperature	0.1°C	R
	5101	Rectifier IGBT Temperature Phase R	0.1°C	R
	5102	Rectifier IGBT Temperature Phase S	0.1°C	R
	5103	Rectifier IGBT Temperature Phase T	0.1°C	R
	5104	Inverter IGBT Temperature Phase R	0.1°C	R
	5105 ... 5144	Inverter IGBT Temperature Phase S	0.1°C	R
	5145	Inverter IGBT Temperature Phase T	0.1°C	R
	5146	Reserved		
	5147	Rectifier Identifier	Dimensionless	R
	5148	Rectifier Series Number	Dimensionless	R
	5149	Rectifier First Version Number	Dimensionless	R
	5150	Rectifier Second Version Number	Dimensionless	R
	5151	Inverter Identifier	Dimensionless	R

	Addr dec	Content	Units	Type
	5152	Inverter Series Number	Dimensionless	R
	5153 ... 5199	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 7				
		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 5200				
	5200	**Free**		
				5201
	5202	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R

	Addr dec	Content	Units	Type
	5203 ... 5204	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R
	5205	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	5206	**Free**		

	Addr dec	Content	Units	Type
	5207 ... 5209	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R
	5210	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	5211	**Free**		
	5212	SCODE STS_0_0		R
	5213	SCODE STS_0_1		R

	Addr dec	Content	Units	Type
	5214	SCODE STS_0_2		R
	5215	SCODE STS_0_3		R
	5216	SCODE STS_1_0		R
	5217	SCODE STS_1_1		R
	5218	SCODE STS_1_2		R
	5219	SCODE STS_1_3		R
	5220	SCODE STS_2_0		R
	5221	SCODE STS_2_1		R
	5222	**Free**		
	5223	SCODE ALM_0_0		R
	5224	SCODE ALM_0_1		R
	5225	SCODE ALM_0_2		R
	5226	SCODE ALM_0_3		R
	5227	SCODE ALM_1_0		R
	5228	SCODE ALM_1_1		R
	5229	SCODE ALM_1_2		R
	5230	SCODE ALM_1_3		R
	5231	SCODE ALM_2_0		R
	5232	SCODE ALM_2_1		R
	5233	SCODE ALM_2_2		R
	5234	SCODE ALM_2_3		R
	5235	SCODE ALM_3_0		R
	5236	SCODE ALM_3_1		R

	Addr dec	Content	Units	Type
	5237	SCODE ALM_3_2		R
	5238	SCODE ALM_3_3		R
	5239	SCODE ALM_4_0		R
	5240	SCODE ALM_4_1		R
	5241	SCODE ALM_4_2		R
	5242	SCODE ALM_4_3		R
	5243	SCODE ALM_5_0		R
	5244	SCODE ALM_5_1		R
	5245	SCODE ALM_5_2		R
	5246	SCODE ALM_5_3		R
	5247 ... 5248	SCODE ALM_6_0		R
	5249	SCODE ALM_6_1		R
	5250	**Free**		R
	5251	"0000"+SPECIAL SCODE ALM_7_0		R
	5252	Inverter Supplying		
	5253	Inverter ReadyForSupply		
	5254	Rectifier Status		
	5255	Battery Discharge		
	5256	Battery Boost		
	5257 ... 5499	Battery Float		

	Addr dec	Content	Units	Type
Measurements of Module 8 Base address : 5500		Module set to Bypass		
	5500	**Free**		
				5501
	5502	**Free**		
	5503	Main Input Voltage Phase R	0.1 V	R
	5504	Main Input Voltage Phase S	0.1 V	R
	5505	Main Input Voltage Phase T	0.1 V	R
	5506	Main Input Current Phase R	0.1 A	R
	5507	Main Input Current Phase S	0.1 A	R
	5508	Main Input Current Phase T	0.1 A	R
	5509	Main Input Frequency Phase R	0.01 Hz	R
	5510	Main Input Frequency Phase S	0.01 Hz	R
	5511	Main Input Frequency Phase T	0.01 Hz	R
	5512	Input PF Phase R	0.01	R
	5513	Input PF Phase S	0.01	R
	5514	Input PF Phase T	0.01	R
	5515	Positive DC Bus Voltage	0.1 V	R
	5516	Negative DC Bus Voltage	0.1 V	R
	5517	Positive Battery String Voltage	0.1 V	R

	Addr dec	Content	Units	Type
	5518	Negative Battery String Voltage	0.1 V	R
	5519	Positive Charger Voltage	0.1 V	R
	5520	Negative Charger Voltage	0.1 V	R
	5521	Costive Charger Current	0.1 A	R
	5522	Negative Charger Current	0.1 A	R
	5523	Costive Discharge Current	0.1 A	R
	5524	Negative Discharge Current	0.1 A	R
	5525	Inverter Voltage Phase R	0.1 V	R
	5526	Inverter Voltage Phase S	0.1 V	R
	5527	Inverter Voltage Phase T	0.1 V	R
	5528	Output Current Phase R	0.1 A	R
	5529	Output Current Phase S	0.1 A	R
	5530	Output Current Phase T	0.1 A	R
	5531	Output Frequency Phase R	0.01 Hz	R
	5532	Output Frequency Phase S	0.01 Hz	R
	5533	Output Frequency Phase T	0.01 Hz	R
	5534	Output PF Phase R	0.01	R
	5535	Output PF Phase S	0.01	R
	5536	Output PF Phase T	0.01	R
	5537	Output Voltage Phase R	0.1 V	R
	5538	Output Voltage Phase S	0.1 V	R
	5539	Output Voltage Phase T	0.1 V	R
	5540	Bypass Voltage Phase R	0.1 V	R

	Addr dec	Content	Units	Type
	5541	Bypass Voltage Phase S	0.1 V	R
	5542	Bypass Voltage Phase T	0.1 V	R
	5543	Output Apparent Power Phase R	0.1 kVA	R
	5544	Output Apparent Power Phase S	0.1 kVA	R
	5545	Output Apparent Power Phase T	0.1 kVA	R
	5546	Output Active Power Phase R	0.1 kW	R
	5547	Output Active Power Phase S	0.1 kW	R
	5548	Output Active Power Phase T	0.1 kW	R
	5549	Output Reactive Power Phase R	0.1 kVAr	R
	5550	Output Reactive Power Phase S	0.1 kVAr	R
	5551	Output Reactive Power Phase T	0.1 kVAr	R
	5552	Output Load Percentage Phase R	0.1 V	R
	5553 ... 5572	Output Load Percentage Phase S	0.1 V	R
	5573	Output Load Percentage Phase T	0.1 V	R
	5574	Reserved		
	5575	Fan Running Time (hour)	Hours	R/W**
	5576	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	5577	Reserved		
	5578	Reserved		
	5579	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	5580	Utility Power And Battery Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	5581	Reserved		
	5582	Reserved		
	5583	Rectifier DSP Input Port	Dimensionless	R
	5584	Rectifier DSP Output Port	Dimensionless	R
	5585	Inverter DSP Input Port	Dimensionless	R
	5586	Inverter DSP Output	Dimensionless	R
	5587	Allow Inverter On Sign Integration	Dimensionless	R
	5588	Allow Transfer to Invert Sign Integration	Dimensionless	R
	5589	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	5590	Inverter Power Off Locked Sign Integration	Dimensionless	R
	5591	Reserved		
	5592	Inverter IO CAN	Dimensionless	R
	5593	Inverter DATA CAN	Dimensionless	R
	5594	Parallel Signal	Dimensionless	R
	5595	Read Rectifier Variate	Dimensionless	R
	5596	Write Rectifier Variate	Dimensionless	R
	5597	Read Inverter Variate	Dimensionless	R
	5598	Write Inverter Variate	Dimensionless	R
	5599	Inlet Temperature	0.1°C	R
	5600	Outlet Temperature	0.1°C	R
	5601	Rectifier IGBT Temperature Phase R	0.1°C	R
	5602	Rectifier IGBT Temperature Phase S	0.1°C	R
	5603	Rectifier IGBT Temperature Phase T	0.1°C	R

	Addr dec	Content	Units	Type
	5604	Inverter IGBT Temperature Phase R	0.1°C	R
	5605 ... 5644	Inverter IGBT Temperature Phase S	0.1°C	R
	5645	Inverter IGBT Temperature Phase T	0.1°C	R
	5646	Reserved		
	5647	Rectifier Identifier	Dimensionless	R
	5648	Rectifier Series Number	Dimensionless	R
	5649	Rectifier First Version Number	Dimensionless	R
	5650	Rectifier Second Version Number	Dimensionless	R
	5651	Inverter Identifier	Dimensionless	R
	5652	Inverter Series Number	Dimensionless	R
	5653 ... 5699	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 8		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 5700				
	5700	**Free**		
				5701

	Addr dec	Content	Units	Type
	5702	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R
	5703 ... 5704	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R

	Addr dec	Content	Units	Type
	5705	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	5706	**Free**		
	5707 ... 5709	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R

	Addr dec	Content	Units	Type
	5710	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	5711	**Free**		
	5712	SCODE STS_0_0		R
	5713	SCODE STS_0_1		R
	5714	SCODE STS_0_2		R
	5715	SCODE STS_0_3		R
	5716	SCODE STS_1_0		R
	5717	SCODE STS_1_1		R
	5718	SCODE STS_1_2		R
	5719	SCODE STS_1_3		R
	5720	SCODE STS_2_0		R
	5721	SCODE STS_2_1		R
	5722	**Free**		
	5723	SCODE ALM_0_0		R

	Addr dec	Content	Units	Type
	5724	SCODE ALM_0_1		R
	5725	SCODE ALM_0_2		R
	5726	SCODE ALM_0_3		R
	5727	SCODE ALM_1_0		R
	5728	SCODE ALM_1_1		R
	5729	SCODE ALM_1_2		R
	5730	SCODE ALM_1_3		R
	5731	SCODE ALM_2_0		R
	5732	SCODE ALM_2_1		R
	5733	SCODE ALM_2_2		R
	5734	SCODE ALM_2_3		R
	5735	SCODE ALM_3_0		R
	5736	SCODE ALM_3_1		R
	5737	SCODE ALM_3_2		R
	5738	SCODE ALM_3_3		R
	5739	SCODE ALM_4_0		R
	5740	SCODE ALM_4_1		R
	5741	SCODE ALM_4_2		R
	5742	SCODE ALM_4_3		R
	5743	SCODE ALM_5_0		R
	5744	SCODE ALM_5_1		R
	5745	SCODE ALM_5_2		R
	5746	SCODE ALM_5_3		R

	Addr dec	Content	Units	Type
	5747 ... 5748	SCODE ALM_6_0		R
	5749	SCODE ALM_6_1		R
	5750	**Free**		R
	5751	"0000"+SPECIAL SCODE ALM_7_0		R
	5752	Inverter Supplying		
	5753	Inverter ReadyForSupply		
	5754	Rectifier Status		
	5755	Battery Discharge		
	5756	Battery Boost		
	5757 ... 5999	Battery Float		
Measur ements of Module 9 Base address : 6000		Module set to Bypass		
	6000	**Free**		
				6001
	6002	**Free**		
	6003	Main Input Voltage Phase R	0.1 V	R
	6004	Main Input Voltage Phase S	0.1 V	R

	Addr dec	Content	Units	Type
	6005	Main Input Voltage Phase T	0.1 V	R
	6006	Main Input Current Phase R	0.1 A	R
	6007	Main Input Current Phase S	0.1 A	R
	6008	Main Input Current Phase T	0.1 A	R
	6009	Main Input Frequency Phase R	0.01 Hz	R
	6010	Main Input Frequency Phase S	0.01 Hz	R
	6011	Main Input Frequency Phase T	0.01 Hz	R
	6012	Input PF Phase R	0.01	R
	6013	Input PF Phase S	0.01	R
	6014	Input PF Phase T	0.01	R
	6015	Positive DC Bus Voltage	0.1 V	R
	6016	Negative DC Bus Voltage	0.1 V	R
	6017	Positive Battery String Voltage	0.1 V	R
	6018	Negative Battery String Voltage	0.1 V	R
	6019	Positive Charger Voltage	0.1 V	R
	6020	Negative Charger Voltage	0.1 V	R
	6021	Costive Charger Current	0.1 A	R
	6022	Negative Charger Current	0.1 A	R
	6023	Costive Discharge Current	0.1 A	R
	6024	Negative Discharge Current	0.1 A	R
	6025	Inverter Voltage Phase R	0.1 V	R
	6026	Inverter Voltage Phase S	0.1 V	R
	6027	Inverter Voltage Phase T	0.1 V	R

	Addr dec	Content	Units	Type
	6028	Output Current Phase R	0.1 A	R
	6029	Output Current Phase S	0.1 A	R
	6030	Output Current Phase T	0.1 A	R
	6031	Output Frequency Phase R	0.01 Hz	R
	6032	Output Frequency Phase S	0.01 Hz	R
	6033	Output Frequency Phase T	0.01 Hz	R
	6034	Output PF Phase R	0.01	R
	6035	Output PF Phase S	0.01	R
	6036	Output PF Phase T	0.01	R
	6037	Output Voltage Phase R	0.1 V	R
	6038	Output Voltage Phase S	0.1 V	R
	6039	Output Voltage Phase T	0.1 V	R
	6040	Bypass Voltage Phase R	0.1 V	R
	6041	Bypass Voltage Phase S	0.1 V	R
	6042	Bypass Voltage Phase T	0.1 V	R
	6043	Output Apparent Power Phase R	0.1 kVA	R
	6044	Output Apparent Power Phase S	0.1 kVA	R
	6045	Output Apparent Power Phase T	0.1 kVA	R
	6046	Output Active Power Phase R	0.1 kW	R
	6047	Output Active Power Phase S	0.1 kW	R
	6048	Output Active Power Phase T	0.1 kW	R
	6049	Output Reactive Power Phase R	0.1 kVAr	R
	6050	Output Reactive Power Phase S	0.1 kVAr	R

	Addr dec	Content	Units	Type
	6051	Output Reactive Power Phase T	0.1 kVAr	R
	6052	Output Load Percentage Phase R	0.1 V	R
	6053 ... 6072	Output Load Percentage Phase S	0.1 V	R
	6073	Output Load Percentage Phase T	0.1 V	R
	6074	Reserved		
	6075	Fan Running Time (hour)	Hours	R/W**
	6076	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	6077	Reserved		
	6078	Reserved		
	6079	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	6080	Utility Power And Battery Sign Integration	Dimensionless	R
	6081	Reserved		
	6082	Reserved		
	6083	Rectifier DSP Input Port	Dimensionless	R
	6084	Rectifier DSP Output Port	Dimensionless	R
	6085	Inverter DSP Input Port	Dimensionless	R
	6086	Inverter DSP Output	Dimensionless	R
	6087	Allow Inverter On Sign Integration	Dimensionless	R
	6088	Allow Transfer to Invert Sign Integration	Dimensionless	R
	6089	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	6090	Inverter Power Off Locked Sign Integration	Dimensionless	R
	6091	Reserved		

	Addr dec	Content	Units	Type
	6092	Inverter IO CAN	Dimensionless	R
	6093	Inverter DATA CAN	Dimensionless	R
	6094	Parallel Signal	Dimensionless	R
	6095	Read Rectifier Variate	Dimensionless	R
	6096	Write Rectifier Variate	Dimensionless	R
	6097	Read Inverter Variate	Dimensionless	R
	6098	Write Inverter Variate	Dimensionless	R
	6099	Inlet Temperature	0.1°C	R
	6100	Outlet Temperature	0.1°C	R
	6101	Rectifier IGBT Temperature Phase R	0.1°C	R
	6102	Rectifier IGBT Temperature Phase S	0.1°C	R
	6103	Rectifier IGBT Temperature Phase T	0.1°C	R
	6104	Inverter IGBT Temperature Phase R	0.1°C	R
	6105 ... 6144	Inverter IGBT Temperature Phase S	0.1°C	R
	6145	Inverter IGBT Temperature Phase T	0.1°C	R
	6146	Reserved		
	6147	Rectifier Identifier	Dimensionless	R
	6148	Rectifier Series Number	Dimensionless	R
	6149	Rectifier First Version Number	Dimensionless	R
	6150	Rectifier Second Version Number	Dimensionless	R
	6151	Inverter Identifier	Dimensionless	R

	Addr dec	Content	Units	Type
	6152	Inverter Series Number	Dimensionless	R
	6153 ... 6199	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 9				
	Inverter Second Version Number		Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 6200				
	6200	**Free**		
				6201
	6202	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R

	Addr dec	Content	Units	Type
	6203 ... 6204	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R
	6205	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	6206	**Free**		

	Addr dec	Content	Units	Type
	6207 ... 6209	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R
	6210	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	6211	**Free**		
	6212	SCODE STS_0_0		R
	6213	SCODE STS_0_1		R

	Addr dec	Content	Units	Type
	6214	SCODE STS_0_2		R
	6215	SCODE STS_0_3		R
	6216	SCODE STS_1_0		R
	6217	SCODE STS_1_1		R
	6218	SCODE STS_1_2		R
	6219	SCODE STS_1_3		R
	6220	SCODE STS_2_0		R
	6221	SCODE STS_2_1		R
	6222	**Free**		
	6223	SCODE ALM_0_0		R
	6224	SCODE ALM_0_1		R
	6225	SCODE ALM_0_2		R
	6226	SCODE ALM_0_3		R
	6227	SCODE ALM_1_0		R
	6228	SCODE ALM_1_1		R
	6229	SCODE ALM_1_2		R
	6230	SCODE ALM_1_3		R
	6231	SCODE ALM_2_0		R
	6232	SCODE ALM_2_1		R
	6233	SCODE ALM_2_2		R
	6234	SCODE ALM_2_3		R
	6235	SCODE ALM_3_0		R
	6236	SCODE ALM_3_1		R

	Addr dec	Content	Units	Type
	6237	SCODE ALM_3_2		R
	6238	SCODE ALM_3_3		R
	6239	SCODE ALM_4_0		R
	6240	SCODE ALM_4_1		R
	6241	SCODE ALM_4_2		R
	6242	SCODE ALM_4_3		R
	6243	SCODE ALM_5_0		R
	6244	SCODE ALM_5_1		R
	6245	SCODE ALM_5_2		R
	6246	SCODE ALM_5_3		R
	6247 ... 6248	SCODE ALM_6_0		R
	6249	SCODE ALM_6_1		R
	6250	**Free**		R
	6251	"0000"+SPECIAL SCODE ALM_7_0		R
	6252	Inverter Supplying		
	6253	Inverter ReadyForSupply		
	6254	Rectifier Status		
	6255	Battery Discharge		
	6256	Battery Boost		
	6257 ... 6499	Battery Float		

	Addr dec	Content	Units	Type
Measurements of Module 10 Base address : 6500		Module set to Bypass		
	6500	**Free**		
				6501
	6502	**Free**		
	6503	Main Input Voltage Phase R	0.1 V	R
	6504	Main Input Voltage Phase S	0.1 V	R
	6505	Main Input Voltage Phase T	0.1 V	R
	6506	Main Input Current Phase R	0.1 A	R
	6507	Main Input Current Phase S	0.1 A	R
	6508	Main Input Current Phase T	0.1 A	R
	6509	Main Input Frequency Phase R	0.01 Hz	R
	6510	Main Input Frequency Phase S	0.01 Hz	R
	6511	Main Input Frequency Phase T	0.01 Hz	R
	6512	Input PF Phase R	0.01	R
	6513	Input PF Phase S	0.01	R
	6514	Input PF Phase T	0.01	R
	6515	Positive DC Bus Voltage	0.1 V	R
	6516	Negative DC Bus Voltage	0.1 V	R
	6517	Positive Battery String Voltage	0.1 V	R

	Addr dec	Content	Units	Type
	6518	Negative Battery String Voltage	0.1 V	R
	6519	Positive Charger Voltage	0.1 V	R
	6520	Negative Charger Voltage	0.1 V	R
	6521	Costive Charger Current	0.1 A	R
	6522	Negative Charger Current	0.1 A	R
	6523	Costive Discharge Current	0.1 A	R
	6524	Negative Discharge Current	0.1 A	R
	6525	Inverter Voltage Phase R	0.1 V	R
	6526	Inverter Voltage Phase S	0.1 V	R
	6527	Inverter Voltage Phase T	0.1 V	R
	6528	Output Current Phase R	0.1 A	R
	6529	Output Current Phase S	0.1 A	R
	6530	Output Current Phase T	0.1 A	R
	6531	Output Frequency Phase R	0.01 Hz	R
	6532	Output Frequency Phase S	0.01 Hz	R
	6533	Output Frequency Phase T	0.01 Hz	R
	6534	Output PF Phase R	0.01	R
	6535	Output PF Phase S	0.01	R
	6536	Output PF Phase T	0.01	R
	6537	Output Voltage Phase R	0.1 V	R
	6538	Output Voltage Phase S	0.1 V	R
	6539	Output Voltage Phase T	0.1 V	R
	6540	Bypass Voltage Phase R	0.1 V	R

	Addr dec	Content	Units	Type
	6541	Bypass Voltage Phase S	0.1 V	R
	6542	Bypass Voltage Phase T	0.1 V	R
	6543	Output Apparent Power Phase R	0.1 kVA	R
	6544	Output Apparent Power Phase S	0.1 kVA	R
	6545	Output Apparent Power Phase T	0.1 kVA	R
	6546	Output Active Power Phase R	0.1 kW	R
	6547	Output Active Power Phase S	0.1 kW	R
	6548	Output Active Power Phase T	0.1 kW	R
	6549	Output Reactive Power Phase R	0.1 kVAr	R
	6550	Output Reactive Power Phase S	0.1 kVAr	R
	6551	Output Reactive Power Phase T	0.1 kVAr	R
	6552	Output Load Percentage Phase R	0.1 V	R
	6553 ... 6572	Output Load Percentage Phase S	0.1 V	R
	6573	Output Load Percentage Phase T	0.1 V	R
	6574	Reserved		
	6575	Fan Running Time (hour)	Hours	R/W**
	6576	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	6577	Reserved		
	6578	Reserved		
	6579	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	6580	Utility Power And Battery Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	6581	Reserved		
	6582	Reserved		
	6583	Rectifier DSP Input Port	Dimensionless	R
	6584	Rectifier DSP Output Port	Dimensionless	R
	6585	Inverter DSP Input Port	Dimensionless	R
	6586	Inverter DSP Output	Dimensionless	R
	6587	Allow Inverter On Sign Integration	Dimensionless	R
	6588	Allow Transfer to Invert Sign Integration	Dimensionless	R
	6589	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	6590	Inverter Power Off Locked Sign Integration	Dimensionless	R
	6591	Reserved		
	6592	Inverter IO CAN	Dimensionless	R
	6593	Inverter DATA CAN	Dimensionless	R
	6594	Parallel Signal	Dimensionless	R
	6595	Read Rectifier Variate	Dimensionless	R
	6596	Write Rectifier Variate	Dimensionless	R
	6597	Read Inverter Variate	Dimensionless	R
	6598	Write Inverter Variate	Dimensionless	R
	6599	Inlet Temperature	0.1°C	R
	6600	Outlet Temperature	0.1°C	R
	6601	Rectifier IGBT Temperature Phase R	0.1°C	R
	6602	Rectifier IGBT Temperature Phase S	0.1°C	R
	6603	Rectifier IGBT Temperature Phase T	0.1°C	R

	Addr dec	Content	Units	Type
	6604	Inverter IGBT Temperature Phase R	0.1°C	R
	6605 ... 6644	Inverter IGBT Temperature Phase S	0.1°C	R
	6645	Inverter IGBT Temperature Phase T	0.1°C	R
	6646	Reserved		
	6647	Rectifier Identifier	Dimensionless	R
	6648	Rectifier Series Number	Dimensionless	R
	6649	Rectifier First Version Number	Dimensionless	R
	6650	Rectifier Second Version Number	Dimensionless	R
	6651	Inverter Identifier	Dimensionless	R
	6652	Inverter Series Number	Dimensionless	R
	6653 ... 6699	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 10		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 6700				
	6700	**Free**		
				6701

	Addr dec	Content	Units	Type
	6702	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R
	6703 ... 6704	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R

	Addr dec	Content	Units	Type
	6705	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	6706	**Free**		
	6707 ... 6709	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R

	Addr dec	Content	Units	Type
	6710	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	6711	**Free**		
	6712	SCODE STS_0_0		R
	6713	SCODE STS_0_1		R
	6714	SCODE STS_0_2		R
	6715	SCODE STS_0_3		R
	6716	SCODE STS_1_0		R
	6717	SCODE STS_1_1		R
	6718	SCODE STS_1_2		R
	6719	SCODE STS_1_3		R
	6720	SCODE STS_2_0		R
	6721	SCODE STS_2_1		R
	6722	**Free**		
	6723	SCODE ALM_0_0		R

	Addr dec	Content	Units	Type
	6724	SCODE ALM_0_1		R
	6725	SCODE ALM_0_2		R
	6726	SCODE ALM_0_3		R
	6727	SCODE ALM_1_0		R
	6728	SCODE ALM_1_1		R
	6729	SCODE ALM_1_2		R
	6730	SCODE ALM_1_3		R
	6731	SCODE ALM_2_0		R
	6732	SCODE ALM_2_1		R
	6733	SCODE ALM_2_2		R
	6734	SCODE ALM_2_3		R
	6735	SCODE ALM_3_0		R
	6736	SCODE ALM_3_1		R
	6737	SCODE ALM_3_2		R
	6738	SCODE ALM_3_3		R
	6739	SCODE ALM_4_0		R
	6740	SCODE ALM_4_1		R
	6741	SCODE ALM_4_2		R
	6742	SCODE ALM_4_3		R
	6743	SCODE ALM_5_0		R
	6744	SCODE ALM_5_1		R
	6745	SCODE ALM_5_2		R
	6746	SCODE ALM_5_3		R

	Addr dec	Content	Units	Type
	6747 ... 6748	SCODE ALM_6_0		R
	6749	SCODE ALM_6_1		R
	6750	**Free**		R
	6751	"0000"+SPECIAL SCODE ALM_7_0		R
	6752	Inverter Supplying		
	6753	Inverter ReadyForSupply		
	6754	Rectifier Status		
	6755	Battery Discharge		
	6756	Battery Boost		
	6757 ... 6999	Battery Float		
Measur ements of Module 11 Base address : 7000		Module set to Bypass		
	7000	**Free**		
				7001
	7002	**Free**		
	7003	Main Input Voltage Phase R	0.1 V	R
	7004	Main Input Voltage Phase S	0.1 V	R

	Addr dec	Content	Units	Type
	7005	Main Input Voltage Phase T	0.1 V	R
	7006	Main Input Current Phase R	0.1 A	R
	7007	Main Input Current Phase S	0.1 A	R
	7008	Main Input Current Phase T	0.1 A	R
	7009	Main Input Frequency Phase R	0.01 Hz	R
	7010	Main Input Frequency Phase S	0.01 Hz	R
	7011	Main Input Frequency Phase T	0.01 Hz	R
	7012	Input PF Phase R	0.01	R
	7013	Input PF Phase S	0.01	R
	7014	Input PF Phase T	0.01	R
	7015	Positive DC Bus Voltage	0.1 V	R
	7016	Negative DC Bus Voltage	0.1 V	R
	7017	Positive Battery String Voltage	0.1 V	R
	7018	Negative Battery String Voltage	0.1 V	R
	7019	Positive Charger Voltage	0.1 V	R
	7020	Negative Charger Voltage	0.1 V	R
	7021	Costive Charger Current	0.1 A	R
	7022	Negative Charger Current	0.1 A	R
	7023	Costive Discharge Current	0.1 A	R
	7024	Negative Discharge Current	0.1 A	R
	7025	Inverter Voltage Phase R	0.1 V	R
	7026	Inverter Voltage Phase S	0.1 V	R
	7027	Inverter Voltage Phase T	0.1 V	R

	Addr dec	Content	Units	Type
	7028	Output Current Phase R	0.1 A	R
	7029	Output Current Phase S	0.1 A	R
	7030	Output Current Phase T	0.1 A	R
	7031	Output Frequency Phase R	0.01 Hz	R
	7032	Output Frequency Phase S	0.01 Hz	R
	7033	Output Frequency Phase T	0.01 Hz	R
	7034	Output PF Phase R	0.01	R
	7035	Output PF Phase S	0.01	R
	7036	Output PF Phase T	0.01	R
	7037	Output Voltage Phase R	0.1 V	R
	7038	Output Voltage Phase S	0.1 V	R
	7039	Output Voltage Phase T	0.1 V	R
	7040	Bypass Voltage Phase R	0.1 V	R
	7041	Bypass Voltage Phase S	0.1 V	R
	7042	Bypass Voltage Phase T	0.1 V	R
	7043	Output Apparent Power Phase R	0.1 kVA	R
	7044	Output Apparent Power Phase S	0.1 kVA	R
	7045	Output Apparent Power Phase T	0.1 kVA	R
	7046	Output Active Power Phase R	0.1 kW	R
	7047	Output Active Power Phase S	0.1 kW	R
	7048	Output Active Power Phase T	0.1 kW	R
	7049	Output Reactive Power Phase R	0.1 kVAr	R
	7050	Output Reactive Power Phase S	0.1 kVAr	R

	Addr dec	Content	Units	Type
	7051	Output Reactive Power Phase T	0.1 kVAr	R
	7052	Output Load Percentage Phase R	0.1 V	R
	7053 ... 7072	Output Load Percentage Phase S	0.1 V	R
	7073	Output Load Percentage Phase T	0.1 V	R
	7074	Reserved		
	7075	Fan Running Time (hour)	Hours	R/W**
	7076	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	7077	Reserved		
	7078	Reserved		
	7079	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	7080	Utility Power And Battery Sign Integration	Dimensionless	R
	7081	Reserved		
	7082	Reserved		
	7083	Rectifier DSP Input Port	Dimensionless	R
	7084	Rectifier DSP Output Port	Dimensionless	R
	7085	Inverter DSP Input Port	Dimensionless	R
	7086	Inverter DSP Output	Dimensionless	R
	7087	Allow Inverter On Sign Integration	Dimensionless	R
	7088	Allow Transfer to Invert Sign Integration	Dimensionless	R
	7089	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	7090	Inverter Power Off Locked Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	7091	Reserved		
	7092	Inverter IO CAN	Dimensionless	R
	7093	Inverter DATA CAN	Dimensionless	R
	7094	Parallel Signal	Dimensionless	R
	7095	Read Rectifier Variate	Dimensionless	R
	7096	Write Rectifier Variate	Dimensionless	R
	7097	Read Inverter Variate	Dimensionless	R
	7098	Write Inverter Variate	Dimensionless	R
	7099	Inlet Temperature	0.1°C	R
	7100	Outlet Temperature	0.1°C	R
	7101	Rectifier IGBT Temperature Phase R	0.1°C	R
	7102	Rectifier IGBT Temperature Phase S	0.1°C	R
	7103	Rectifier IGBT Temperature Phase T	0.1°C	R
	7104	Inverter IGBT Temperature Phase R	0.1°C	R
	7105 ... 7144	Inverter IGBT Temperature Phase S	0.1°C	R
	7145	Inverter IGBT Temperature Phase T	0.1°C	R
	7146	Reserved		
	7147	Rectifier Identifier	Dimensionless	R
	7148	Rectifier Series Number	Dimensionless	R
	7149	Rectifier First Version Number	Dimensionless	R
	7150	Rectifier Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
	7151	Inverter Identifier	Dimensionless	R
	7152	Inverter Series Number	Dimensionless	R
	7153 ... 7199	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODE S) 11	Inverter Second Version Number			
			Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 7200				
	7200	**Free**		
				7201
	7202	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R

	Addr dec	Content	Units	Type
	7203 ... 7204	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R
	7205	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	7206	**Free**		

	Addr dec	Content	Units	Type
	7207..7 209	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R
	7210	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	7211	**Free**		
	7212	SCODE STS_0_0		R
	7213	SCODE STS_0_1		R
	7214	SCODE STS_0_2		R

	Addr dec	Content	Units	Type
	7215	SCODE STS_0_3		R
	7216	SCODE STS_1_0		R
	7217	SCODE STS_1_1		R
	7218	SCODE STS_1_2		R
	7219	SCODE STS_1_3		R
	7220	SCODE STS_2_0		R
	7221	SCODE STS_2_1		R
	7222	**Free**		
	7223	SCODE ALM_0_0		R
	7224	SCODE ALM_0_1		R
	7225	SCODE ALM_0_2		R
	7226	SCODE ALM_0_3		R
	7227	SCODE ALM_1_0		R
	7228	SCODE ALM_1_1		R
	7229	SCODE ALM_1_2		R
	7230	SCODE ALM_1_3		R
	7231	SCODE ALM_2_0		R
	7232	SCODE ALM_2_1		R
	7233	SCODE ALM_2_2		R
	7234	SCODE ALM_2_3		R
	7235	SCODE ALM_3_0		R
	7236	SCODE ALM_3_1		R
	7237	SCODE ALM_3_2		R

	Addr dec	Content	Units	Type
	7238	SCODE ALM_3_3		R
	7239	SCODE ALM_4_0		R
	7240	SCODE ALM_4_1		R
	7241	SCODE ALM_4_2		R
	7242	SCODE ALM_4_3		R
	7243	SCODE ALM_5_0		R
	7244	SCODE ALM_5_1		R
	7245	SCODE ALM_5_2		R
	7246	SCODE ALM_5_3		R
	7247 ... 7248	SCODE ALM_6_0		R
	7249	SCODE ALM_6_1		R
	7250	**Free**		R
	7251	"0000"+SPECIAL SCODE ALM_7_0		R
	7252	Inverter Supplying		
	7253	Inverter ReadyForSupply		
	7254	Rectifier Status		
	7255	Battery Discharge		
	7256	Battery Boost		
	7257 ... 7499	Battery Float		
Meas urem		Module set to Bypass		

	Addr dec	Content	Units	Type
ents of Modu le 12 Base addre ss: 7500				
	7500	**Free**		
				7501
	7502	**Free**		
	7503	Main Input Voltage Phase R	0.1 V	R
	7504	Main Input Voltage Phase S	0.1 V	R
	7505	Main Input Voltage Phase T	0.1 V	R
	7506	Main Input Current Phase R	0.1 A	R
	7507	Main Input Current Phase S	0.1 A	R
	7508	Main Input Current Phase T	0.1 A	R
	7509	Main Input Frequency Phase R	0.01 Hz	R
	7510	Main Input Frequency Phase S	0.01 Hz	R
	7511	Main Input Frequency Phase T	0.01 Hz	R
	7512	Input PF Phase R	0.01	R
	7513	Input PF Phase S	0.01	R
	7514	Input PF Phase T	0.01	R
	7515	Positive DC Bus Voltage	0.1 V	R
	7516	Negative DC Bus Voltage	0.1 V	R
	7517	Positive Battery String Voltage	0.1 V	R

	Addr dec	Content	Units	Type
	7518	Negative Battery String Voltage	0.1 V	R
	7519	Positive Charger Voltage	0.1 V	R
	7520	Negative Charger Voltage	0.1 V	R
	7521	Costive Charger Current	0.1 A	R
	7522	Negative Charger Current	0.1 A	R
	7523	Costive Discharge Current	0.1 A	R
	7524	Negative Discharge Current	0.1 A	R
	7525	Inverter Voltage Phase R	0.1 V	R
	7526	Inverter Voltage Phase S	0.1 V	R
	7527	Inverter Voltage Phase T	0.1 V	R
	7528	Output Current Phase R	0.1 A	R
	7529	Output Current Phase S	0.1 A	R
	7530	Output Current Phase T	0.1 A	R
	7531	Output Frequency Phase R	0.01 Hz	R
	7532	Output Frequency Phase S	0.01 Hz	R
	7533	Output Frequency Phase T	0.01 Hz	R
	7534	Output PF Phase R	0.01	R
	7535	Output PF Phase S	0.01	R
	7536	Output PF Phase T	0.01	R
	7537	Output Voltage Phase R	0.1 V	R
	7538	Output Voltage Phase S	0.1 V	R
	7539	Output Voltage Phase T	0.1 V	R
	7540	Bypass Voltage Phase R	0.1 V	R

	Addr dec	Content	Units	Type
	7541	Bypass Voltage Phase S	0.1 V	R
	7542	Bypass Voltage Phase T	0.1 V	R
	7543	Output Apparent Power Phase R	0.1 kVA	R
	7544	Output Apparent Power Phase S	0.1 kVA	R
	7545	Output Apparent Power Phase T	0.1 kVA	R
	7546	Output Active Power Phase R	0.1 kW	R
	7547	Output Active Power Phase S	0.1 kW	R
	7548	Output Active Power Phase T	0.1 kW	R
	7549	Output Reactive Power Phase R	0.1 kVAr	R
	7550	Output Reactive Power Phase S	0.1 kVAr	R
	7551	Output Reactive Power Phase T	0.1 kVAr	R
	7552	Output Load Percentage Phase R	0.1 V	R
	7553 ... 7572	Output Load Percentage Phase S	0.1 V	R
	7573	Output Load Percentage Phase T	0.1 V	R
	7574	Reserved		
	7575	Fan Running Time (hour)	Hours	R/W**
	7576	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	7577	Reserved		
	7578	Reserved		
	7579	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	7580	Utility Power And Battery Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	7581	Reserved		
	7582	Reserved		
	7583	Rectifier DSP Input Port	Dimensionless	R
	7584	Rectifier DSP Output Port	Dimensionless	R
	7585	Inverter DSP Input Port	Dimensionless	R
	7586	Inverter DSP Output	Dimensionless	R
	7587	Allow Inverter On Sign Integration	Dimensionless	R
	7588	Allow Transfer to Invert Sign Integration	Dimensionless	R
	7589	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	7590	Inverter Power Off Locked Sign Integration	Dimensionless	R
	7591	Reserved		
	7592	Inverter IO CAN	Dimensionless	R
	7593	Inverter DATA CAN	Dimensionless	R
	7594	Parallel Signal	Dimensionless	R
	7595	Read Rectifier Variate	Dimensionless	R
	7596	Write Rectifier Variate	Dimensionless	R
	7597	Read Inverter Variate	Dimensionless	R
	7598	Write Inverter Variate	Dimensionless	R
	7599	Inlet Temperature	0.1°C	R
	7600	Outlet Temperature	0.1°C	R
	7601	Rectifier IGBT Temperature Phase R	0.1°C	R
	7602	Rectifier IGBT Temperature Phase S	0.1°C	R
	7603	Rectifier IGBT Temperature Phase T	0.1°C	R

	Addr dec	Content	Units	Type
	7604	Inverter IGBT Temperature Phase R	0.1°C	R
	7605 ... 7644	Inverter IGBT Temperature Phase S	0.1°C	R
	7645	Inverter IGBT Temperature Phase T	0.1°C	R
	7646	Reserved		
	7647	Rectifier Identifier	Dimensionless	R
	7648	Rectifier Series Number	Dimensionless	R
	7649	Rectifier First Version Number	Dimensionless	R
	7650	Rectifier Second Version Number	Dimensionless	R
	7651	Inverter Identifier	Dimensionless	R
	7652	Inverter Series Number	Dimensionless	R
	7653 ... 7699	Inverter First Version Number	Dimensionless	R
Alarm s, Warni ngs and States (SCOD ES) 12		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base addre ss: 7700				
	7700	**Free**		
				7701

	Addr dec	Content	Units	Type
	7702	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R
	7703 ... 7704	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R

	Addr dec	Content	Units	Type
	7705	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	7706	**Free**		
	7707 ... 7709	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R

	Addr dec	Content	Units	Type
	7710	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	7711	**Free**		
	7712	SCODE STS_0_0		R
	7713	SCODE STS_0_1		R
	7714	SCODE STS_0_2		R
	7715	SCODE STS_0_3		R
	7716	SCODE STS_1_0		R
	7717	SCODE STS_1_1		R
	7718	SCODE STS_1_2		R
	7719	SCODE STS_1_3		R
	7720	SCODE STS_2_0		R
	7721	SCODE STS_2_1		R
	7722	**Free**		
	7723	SCODE ALM_0_0		R

	Addr dec	Content	Units	Type
	7724	SCODE ALM_0_1		R
	7725	SCODE ALM_0_2		R
	7726	SCODE ALM_0_3		R
	7727	SCODE ALM_1_0		R
	7728	SCODE ALM_1_1		R
	7729	SCODE ALM_1_2		R
	7730	SCODE ALM_1_3		R
	7731	SCODE ALM_2_0		R
	7732	SCODE ALM_2_1		R
	7733	SCODE ALM_2_2		R
	7734	SCODE ALM_2_3		R
	7735	SCODE ALM_3_0		R
	7736	SCODE ALM_3_1		R
	7737	SCODE ALM_3_2		R
	7738	SCODE ALM_3_3		R
	7739	SCODE ALM_4_0		R
	7740	SCODE ALM_4_1		R
	7741	SCODE ALM_4_2		R
	7742	SCODE ALM_4_3		R
	7743	SCODE ALM_5_0		R
	7744	SCODE ALM_5_1		R
	7745	SCODE ALM_5_2		R
	7746	SCODE ALM_5_3		R

	Addr dec	Content	Units	Type
	7747 ... 7748	SCODE ALM_6_0		R
	7749	SCODE ALM_6_1		R
	7750	**Free**		R
	7751	"0000"+SPECIAL SCODE ALM_7_0		R
	7752	Inverter Supplying		
	7753	Inverter ReadyForSupply		
	7754	Rectifier Status		
	7755	Battery Discharge		
	7756	Battery Boost		
	7757 ... 7999	Battery Float		
Meas urem ents of Modu le 13 Base addre ss: 8000		Module set to Bypass		
	8000	**Free**		
				8001
	8002	**Free**		
	8003	Main Input Voltage Phase R	0.1 V	R

	Addr dec	Content	Units	Type
	8004	Main Input Voltage Phase S	0.1 V	R
	8005	Main Input Voltage Phase T	0.1 V	R
	8006	Main Input Current Phase R	0.1 A	R
	8007	Main Input Current Phase S	0.1 A	R
	8008	Main Input Current Phase T	0.1 A	R
	8009	Main Input Frequency Phase R	0.01 Hz	R
	8010	Main Input Frequency Phase S	0.01 Hz	R
	8011	Main Input Frequency Phase T	0.01 Hz	R
	8012	Input PF Phase R	0.01	R
	8013	Input PF Phase S	0.01	R
	8014	Input PF Phase T	0.01	R
	8015	Positive DC Bus Voltage	0.1 V	R
	8016	Negative DC Bus Voltage	0.1 V	R
	8017	Positive Battery String Voltage	0.1 V	R
	8018	Negative Battery String Voltage	0.1 V	R
	8019	Positive Charger Voltage	0.1 V	R
	8020	Negative Charger Voltage	0.1 V	R
	8021	Costive Charger Current	0.1 A	R
	8022	Negative Charger Current	0.1 A	R
	8023	Costive Discharge Current	0.1 A	R
	8024	Negative Discharge Current	0.1 A	R
	8025	Inverter Voltage Phase R	0.1 V	R
	8026	Inverter Voltage Phase S	0.1 V	R

	Addr dec	Content	Units	Type
	8027	Inverter Voltage Phase T	0.1 V	R
	8028	Output Current Phase R	0.1 A	R
	8029	Output Current Phase S	0.1 A	R
	8030	Output Current Phase T	0.1 A	R
	8031	Output Frequency Phase R	0.01 Hz	R
	8032	Output Frequency Phase S	0.01 Hz	R
	8033	Output Frequency Phase T	0.01 Hz	R
	8034	Output PF Phase R	0.01	R
	8035	Output PF Phase S	0.01	R
	8036	Output PF Phase T	0.01	R
	8037	Output Voltage Phase R	0.1 V	R
	8038	Output Voltage Phase S	0.1 V	R
	8039	Output Voltage Phase T	0.1 V	R
	8040	Bypass Voltage Phase R	0.1 V	R
	8041	Bypass Voltage Phase S	0.1 V	R
	8042	Bypass Voltage Phase T	0.1 V	R
	8043	Output Apparent Power Phase R	0.1 kVA	R
	8044	Output Apparent Power Phase S	0.1 kVA	R
	8045	Output Apparent Power Phase T	0.1 kVA	R
	8046	Output Active Power Phase R	0.1 kW	R
	8047	Output Active Power Phase S	0.1 kW	R
	8048	Output Active Power Phase T	0.1 kW	R
	8049	Output Reactive Power Phase R	0.1 kVAr	R

	Addr dec	Content	Units	Type
	8050	Output Reactive Power Phase S	0.1 kVAr	R
	8051	Output Reactive Power Phase T	0.1 kVAr	R
	8052	Output Load Percentage Phase R	0.1 V	R
	8053 ... 8072	Output Load Percentage Phase S	0.1 V	R
	8073	Output Load Percentage Phase T	0.1 V	R
	8074	Reserved		
	8075	Fan Running Time (hour)	Hours	R/W**
	8076	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	8077	Reserved		
	8078	Reserved		
	8079	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	8080	Utility Power And Battery Sign Integration	Dimensionless	R
	8081	Reserved		
	8082	Reserved		
	8083	Rectifier DSP Input Port	Dimensionless	R
	8084	Rectifier DSP Output Port	Dimensionless	R
	8085	Inverter DSP Input Port	Dimensionless	R
	8086	Inverter DSP Output	Dimensionless	R
	8087	Allow Inverter On Sign Integration	Dimensionless	R
	8088	Allow Transfer to Invert Sign Integration	Dimensionless	R
	8089	Transfer to Bypass Locked Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	8090	Inverter Power Off Locked Sign Integration	Dimensionless	R
	8091	Reserved		
	8092	Inverter IO CAN	Dimensionless	R
	8093	Inverter DATA CAN	Dimensionless	R
	8094	Parallel Signal	Dimensionless	R
	8095	Read Rectifier Variate	Dimensionless	R
	8096	Write Rectifier Variate	Dimensionless	R
	8097	Read Inverter Variate	Dimensionless	R
	8098	Write Inverter Variate	Dimensionless	R
	8099	Inlet Temperature	0.1°C	R
	8100	Outlet Temperature	0.1°C	R
	8101	Rectifier IGBT Temperature Phase R	0.1°C	R
	8102	Rectifier IGBT Temperature Phase S	0.1°C	R
	8103	Rectifier IGBT Temperature Phase T	0.1°C	R
	8104	Inverter IGBT Temperature Phase R	0.1°C	R
	8105 ... 8144	Inverter IGBT Temperature Phase S	0.1°C	R
	8145	Inverter IGBT Temperature Phase T	0.1°C	R
	8146	Reserved		
	8147	Rectifier Identifier	Dimensionless	R
	8148	Rectifier Series Number	Dimensionless	R
	8149	Rectifier First Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
	8150	Rectifier Second Version Number	Dimensionless	R
	8151	Inverter Identifier	Dimensionless	R
	8152	Inverter Series Number	Dimensionless	R
	8153 ... 8199	Inverter First Version Number	Dimensionless	R
Alarm s, Warni ngs and States (SCOD ES) 13	Inverter Second Version Number			
			Dimensionless	R

	Addr dec	Content	Units	Type
Base addre ss: 8200				
	8200	**Free**		
				8201
	8202	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R

	Addr dec	Content	Units	Type
	8203 ... 8204	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R
	8205	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	8206	**Free**		

	Addr dec	Content	Units	Type
	8207 ... 8209	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R
	8210	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	8211	**Free**		
	8212	SCODE STS_0_0		R
	8213	SCODE STS_0_1		R

	Addr dec	Content	Units	Type
	8214	SCODE STS_0_2		R
	8215	SCODE STS_0_3		R
	8216	SCODE STS_1_0		R
	8217	SCODE STS_1_1		R
	8218	SCODE STS_1_2		R
	8219	SCODE STS_1_3		R
	8220	SCODE STS_2_0		R
	8221	SCODE STS_2_1		R
	8222	**Free**		
	8223	SCODE ALM_0_0		R
	8224	SCODE ALM_0_1		R
	8225	SCODE ALM_0_2		R
	8226	SCODE ALM_0_3		R
	8227	SCODE ALM_1_0		R
	8228	SCODE ALM_1_1		R
	8229	SCODE ALM_1_2		R
	8230	SCODE ALM_1_3		R
	8231	SCODE ALM_2_0		R
	8232	SCODE ALM_2_1		R
	8233	SCODE ALM_2_2		R
	8234	SCODE ALM_2_3		R
	8235	SCODE ALM_3_0		R
	8236	SCODE ALM_3_1		R

	Addr dec	Content	Units	Type
	8237	SCODE ALM_3_2		R
	8238	SCODE ALM_3_3		R
	8239	SCODE ALM_4_0		R
	8240	SCODE ALM_4_1		R
	8241	SCODE ALM_4_2		R
	8242	SCODE ALM_4_3		R
	8243	SCODE ALM_5_0		R
	8244	SCODE ALM_5_1		R
	8245	SCODE ALM_5_2		R
	8246	SCODE ALM_5_3		R
	8247 ... 8248	SCODE ALM_6_0		R
	8249	SCODE ALM_6_1		R
	8250	**Free**		R
	8251	"0000"+SPECIAL SCODE ALM_7_0		R
	8252	Inverter Supplying		
	8253	Inverter ReadyForSupply		
	8254	Rectifier Status		
	8255	Battery Discharge		
	8256	Battery Boost		
	8257 ... 8499	Battery Float		

	Addr dec	Content	Units	Type
Measurements of Module 14 Base address: 8500		Module set to Bypass		
	8500	**Free**		
				8501
	8502	**Free**		
	8503	Main Input Voltage Phase R	0.1 V	R
	8504	Main Input Voltage Phase S	0.1 V	R
	8505	Main Input Voltage Phase T	0.1 V	R
	8506	Main Input Current Phase R	0.1 A	R
	8507	Main Input Current Phase S	0.1 A	R
	8508	Main Input Current Phase T	0.1 A	R
	8509	Main Input Frequency Phase R	0.01 Hz	R
	8510	Main Input Frequency Phase S	0.01 Hz	R
	8511	Main Input Frequency Phase T	0.01 Hz	R
	8512	Input PF Phase R	0.01	R
	8513	Input PF Phase S	0.01	R
	8514	Input PF Phase T	0.01	R
	8515	Positive DC Bus Voltage	0.1 V	R
	8516	Negative DC Bus Voltage	0.1 V	R

	Addr dec	Content	Units	Type
	8517	Positive Battery String Voltage	0.1 V	R
	8518	Negative Battery String Voltage	0.1 V	R
	8519	Positive Charger Voltage	0.1 V	R
	8520	Negative Charger Voltage	0.1 V	R
	8521	Costive Charger Current	0.1 A	R
	8522	Negative Charger Current	0.1 A	R
	8523	Costive Discharge Current	0.1 A	R
	8524	Negative Discharge Current	0.1 A	R
	8525	Inverter Voltage Phase R	0.1 V	R
	8526	Inverter Voltage Phase S	0.1 V	R
	8527	Inverter Voltage Phase T	0.1 V	R
	8528	Output Current Phase R	0.1 A	R
	8529	Output Current Phase S	0.1 A	R
	8530	Output Current Phase T	0.1 A	R
	8531	Output Frequency Phase R	0.01 Hz	R
	8532	Output Frequency Phase S	0.01 Hz	R
	8533	Output Frequency Phase T	0.01 Hz	R
	8534	Output PF Phase R	0.01	R
	8535	Output PF Phase S	0.01	R
	8536	Output PF Phase T	0.01	R
	8537	Output Voltage Phase R	0.1 V	R
	8538	Output Voltage Phase S	0.1 V	R
	8539	Output Voltage Phase T	0.1 V	R

	Addr dec	Content	Units	Type
	8540	Bypass Voltage Phase R	0.1 V	R
	8541	Bypass Voltage Phase S	0.1 V	R
	8542	Bypass Voltage Phase T	0.1 V	R
	8543	Output Apparent Power Phase R	0.1 kVA	R
	8544	Output Apparent Power Phase S	0.1 kVA	R
	8545	Output Apparent Power Phase T	0.1 kVA	R
	8546	Output Active Power Phase R	0.1 kW	R
	8547	Output Active Power Phase S	0.1 kW	R
	8548	Output Active Power Phase T	0.1 kW	R
	8549	Output Reactive Power Phase R	0.1 kVAr	R
	8550	Output Reactive Power Phase S	0.1 kVAr	R
	8551	Output Reactive Power Phase T	0.1 kVAr	R
	8552	Output Load Percentage Phase R	0.1 V	R
	8553 ... 8572	Output Load Percentage Phase S	0.1 V	R
	8573	Output Load Percentage Phase T	0.1 V	R
	8574	Reserved		
	8575	Fan Running Time (hour)	Hours	R/W**
	8576	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	8577	Reserved		
	8578	Reserved		
	8579	Forbid Rectifier Power On Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	8580	Utility Power And Battery Sign Integration	Dimensionless	R
	8581	Reserved		
	8582	Reserved		
	8583	Rectifier DSP Input Port	Dimensionless	R
	8584	Rectifier DSP Output Port	Dimensionless	R
	8585	Inverter DSP Input Port	Dimensionless	R
	8586	Inverter DSP Output	Dimensionless	R
	8587	Allow Inverter On Sign Integration	Dimensionless	R
	8588	Allow Transfer to Invert Sign Integration	Dimensionless	R
	8589	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	8590	Inverter Power Off Locked Sign Integration	Dimensionless	R
	8591	Reserved		
	8592	Inverter IO CAN	Dimensionless	R
	8593	Inverter DATA CAN	Dimensionless	R
	8594	Parallel Signal	Dimensionless	R
	8595	Read Rectifier Variate	Dimensionless	R
	8596	Write Rectifier Variate	Dimensionless	R
	8597	Read Inverter Variate	Dimensionless	R
	8598	Write Inverter Variate	Dimensionless	R
	8599	Inlet Temperature	0.1°C	R
	8600	Outlet Temperature	0.1°C	R
	8601	Rectifier IGBT Temperature Phase R	0.1°C	R
	8602	Rectifier IGBT Temperature Phase S	0.1°C	R

	Addr dec	Content	Units	Type
	8603	Rectifier IGBT Temperature Phase T	0.1°C	R
	8604	Inverter IGBT Temperature Phase R	0.1°C	R
	8605 ... 8644	Inverter IGBT Temperature Phase S	0.1°C	R
	8645	Inverter IGBT Temperature Phase T	0.1°C	R
	8646	Reserved		
	8647	Rectifier Identifier	Dimensionless	R
	8648	Rectifier Series Number	Dimensionless	R
	8649	Rectifier First Version Number	Dimensionless	R
	8650	Rectifier Second Version Number	Dimensionless	R
	8651	Inverter Identifier	Dimensionless	R
	8652	Inverter Series Number	Dimensionless	R
	8653 ... 8699	Inverter First Version Number	Dimensionless	R
Alarm s, Warni ngs and States (SCOD ES) 14		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base addre ss:	8700			
	8700	**Free**		
				8701

	Addr dec	Content	Units	Type
	8702	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R
	8703 ... 8704	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R

	Addr dec	Content	Units	Type
	8705	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	8706	**Free**		
	8707 ... 8709	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R

	Addr dec	Content	Units	Type
	8710	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	8711	**Free**		
	8712	SCODE STS_0_0		R
	8713	SCODE STS_0_1		R
	8714	SCODE STS_0_2		R
	8715	SCODE STS_0_3		R
	8716	SCODE STS_1_0		R
	8717	SCODE STS_1_1		R
	8718	SCODE STS_1_2		R
	8719	SCODE STS_1_3		R
	8720	SCODE STS_2_0		R
	8721	SCODE STS_2_1		R
	8722	**Free**		
	8723	SCODE ALM_0_0		R

	Addr dec	Content	Units	Type
	8724	SCODE ALM_0_1		R
	8725	SCODE ALM_0_2		R
	8726	SCODE ALM_0_3		R
	8727	SCODE ALM_1_0		R
	8728	SCODE ALM_1_1		R
	8729	SCODE ALM_1_2		R
	8730	SCODE ALM_1_3		R
	8731	SCODE ALM_2_0		R
	8732	SCODE ALM_2_1		R
	8733	SCODE ALM_2_2		R
	8734	SCODE ALM_2_3		R
	8735	SCODE ALM_3_0		R
	8736	SCODE ALM_3_1		R
	8737	SCODE ALM_3_2		R
	8738	SCODE ALM_3_3		R
	8739	SCODE ALM_4_0		R
	8740	SCODE ALM_4_1		R
	8741	SCODE ALM_4_2		R
	8742	SCODE ALM_4_3		R
	8743	SCODE ALM_5_0		R
	8744	SCODE ALM_5_1		R
	8745	SCODE ALM_5_2		R
	8746	SCODE ALM_5_3		R

	Addr dec	Content	Units	Type
	8747 ... 8748	SCODE ALM_6_0		R
	8749	SCODE ALM_6_1		R
	8750	**Free**		R
	8751	"0000"+SPECIAL SCODE ALM_7_0		R
	8752	Inverter Supplying		
	8753	Inverter ReadyForSupply		
	8754	Rectifier Status		
	8755	Battery Discharge		
	8756	Battery Boost		
	8757 ... 8999	Battery Float		
Meas urem ents of Modu le 15 Base addre ss: 9000		Module set to Bypass		
	9000	**Free**		
				9001
	9002	**Free**		
	9003	Main Input Voltage Phase R	0.1 V	R

	Addr dec	Content	Units	Type
	9004	Main Input Voltage Phase S	0.1 V	R
	9005	Main Input Voltage Phase T	0.1 V	R
	9006	Main Input Current Phase R	0.1 A	R
	9007	Main Input Current Phase S	0.1 A	R
	9008	Main Input Current Phase T	0.1 A	R
	9009	Main Input Frequency Phase R	0.01 Hz	R
	9010	Main Input Frequency Phase S	0.01 Hz	R
	9011	Main Input Frequency Phase T	0.01 Hz	R
	9012	Input PF Phase R	0.01	R
	9013	Input PF Phase S	0.01	R
	9014	Input PF Phase T	0.01	R
	9015	Positive DC Bus Voltage	0.1 V	R
	9016	Negative DC Bus Voltage	0.1 V	R
	9017	Positive Battery String Voltage	0.1 V	R
	9018	Negative Battery String Voltage	0.1 V	R
	9019	Positive Charger Voltage	0.1 V	R
	9020	Negative Charger Voltage	0.1 V	R
	9021	Costive Charger Current	0.1 A	R
	9022	Negative Charger Current	0.1 A	R
	9023	Costive Discharge Current	0.1 A	R
	9024	Negative Discharge Current	0.1 A	R
	9025	Inverter Voltage Phase R	0.1 V	R
	9026	Inverter Voltage Phase S	0.1 V	R

	Addr dec	Content	Units	Type
	9027	Inverter Voltage Phase T	0.1 V	R
	9028	Output Current Phase R	0.1 A	R
	9029	Output Current Phase S	0.1 A	R
	9030	Output Current Phase T	0.1 A	R
	9031	Output Frequency Phase R	0.01 Hz	R
	9032	Output Frequency Phase S	0.01 Hz	R
	9033	Output Frequency Phase T	0.01 Hz	R
	9034	Output PF Phase R	0.01	R
	9035	Output PF Phase S	0.01	R
	9036	Output PF Phase T	0.01	R
	9037	Output Voltage Phase R	0.1 V	R
	9038	Output Voltage Phase S	0.1 V	R
	9039	Output Voltage Phase T	0.1 V	R
	9040	Bypass Voltage Phase R	0.1 V	R
	9041	Bypass Voltage Phase S	0.1 V	R
	9042	Bypass Voltage Phase T	0.1 V	R
	9043	Output Apparent Power Phase R	0.1 kVA	R
	9044	Output Apparent Power Phase S	0.1 kVA	R
	9045	Output Apparent Power Phase T	0.1 kVA	R
	9046	Output Active Power Phase R	0.1 kW	R
	9047	Output Active Power Phase S	0.1 kW	R
	9048	Output Active Power Phase T	0.1 kW	R
	9049	Output Reactive Power Phase R	0.1 kVAr	R

	Addr dec	Content	Units	Type
	9050	Output Reactive Power Phase S	0.1 kVAr	R
	9051	Output Reactive Power Phase T	0.1 kVAr	R
	9052	Output Load Percentage Phase R	0.1 V	R
	9053 ... 9072	Output Load Percentage Phase S	0.1 V	R
	9073	Output Load Percentage Phase T	0.1 V	R
	9074	Reserved		
	9075	Fan Running Time (hour)	Hours	R/W**
	9076	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	9077	Reserved		
	9078	Reserved		
	9079	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	9080	Utility Power And Battery Sign Integration	Dimensionless	R
	9081	Reserved		
	9082	Reserved		
	9083	Rectifier DSP Input Port	Dimensionless	R
	9084	Rectifier DSP Output Port	Dimensionless	R
	9085	Inverter DSP Input Port	Dimensionless	R
	9086	Inverter DSP Output	Dimensionless	R
	9087	Allow Inverter On Sign Integration	Dimensionless	R
	9088	Allow Transfer to Invert Sign Integration	Dimensionless	R
	9089	Transfer to Bypass Locked Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	9090	Inverter Power Off Locked Sign Integration	Dimensionless	R
	9091	Reserved		
	9092	Inverter IO CAN	Dimensionless	R
	9093	Inverter DATA CAN	Dimensionless	R
	9094	Parallel Signal	Dimensionless	R
	9095	Read Rectifier Variate	Dimensionless	R
	9096	Write Rectifier Variate	Dimensionless	R
	9097	Read Inverter Variate	Dimensionless	R
	9098	Write Inverter Variate	Dimensionless	R
	9099	Inlet Temperature	0.1°C	R
	9100	Outlet Temperature	0.1°C	R
	9101	Rectifier IGBT Temperature Phase R	0.1°C	R
	9102	Rectifier IGBT Temperature Phase S	0.1°C	R
	9103	Rectifier IGBT Temperature Phase T	0.1°C	R
	9104	Inverter IGBT Temperature Phase R	0.1°C	R
	9105 ... 9144	Inverter IGBT Temperature Phase S	0.1°C	R
	9145	Inverter IGBT Temperature Phase T	0.1°C	R
	9146	Reserved		
	9147	Rectifier Identifier	Dimensionless	R
	9148	Rectifier Series Number	Dimensionless	R
	9149	Rectifier First Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
	9150	Rectifier Second Version Number	Dimensionless	R
	9151	Inverter Identifier	Dimensionless	R
	9152	Inverter Series Number	Dimensionless	R
	9153 ... 9199	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 15	Inverter Second Version Number		Dimensionless	R

	Addr dec	Content	Units	Type
Base addre ss: 9200				
	9200	**Free**		
				9201
	9202	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R

	Addr dec	Content	Units	Type
	9203 ... 9204	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R
	9205	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	9206	**Free**		

	Addr dec	Content	Units	Type
	9207 ... 9209	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R
	9210	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	9211	**Free**		
	9212	SCODE STS_0_0		R
	9213	SCODE STS_0_1		R

	Addr dec	Content	Units	Type
	9214	SCODE STS_0_2		R
	9215	SCODE STS_0_3		R
	9216	SCODE STS_1_0		R
	9217	SCODE STS_1_1		R
	9218	SCODE STS_1_2		R
	9219	SCODE STS_1_3		R
	9220	SCODE STS_2_0		R
	9221	SCODE STS_2_1		R
	9222	**Free**		
	9223	SCODE ALM_0_0		R
	9224	SCODE ALM_0_1		R
	9225	SCODE ALM_0_2		R
	9226	SCODE ALM_0_3		R
	9227	SCODE ALM_1_0		R
	9228	SCODE ALM_1_1		R
	9229	SCODE ALM_1_2		R
	9230	SCODE ALM_1_3		R
	9231	SCODE ALM_2_0		R
	9232	SCODE ALM_2_1		R
	9233	SCODE ALM_2_2		R
	9234	SCODE ALM_2_3		R
	9235	SCODE ALM_3_0		R
	9236	SCODE ALM_3_1		R

	Addr dec	Content	Units	Type
	9237	SCODE ALM_3_2		R
	9238	SCODE ALM_3_3		R
	9239	SCODE ALM_4_0		R
	9240	SCODE ALM_4_1		R
	9241	SCODE ALM_4_2		R
	9242	SCODE ALM_4_3		R
	9243	SCODE ALM_5_0		R
	9244	SCODE ALM_5_1		R
	9245	SCODE ALM_5_2		R
	9246	SCODE ALM_5_3		R
	9247 ... 9248	SCODE ALM_6_0		R
	9249	SCODE ALM_6_1		R
	9250	**Free**		R
	9251	"0000"+SPECIAL SCODE ALM_7_0		R
	9252	Inverter Supplying		
	9253	Inverter ReadyForSupply		
	9254	Rectifier Status		
	9255	Battery Discharge		
	9256	Battery Boost		
	9257 ... 9499	Battery Float		

	Addr dec	Content	Units	Type
Meas urem ents of Modu le 16 Base addre ss: 9500		Module set to Bypass		
	9500	**Free**		
				9501
	9502	**Free**		
	9503	Main Input Voltage Phase R	0.1 V	R
	9504	Main Input Voltage Phase S	0.1 V	R
	9505	Main Input Voltage Phase T	0.1 V	R
	9506	Main Input Current Phase R	0.1 A	R
	9507	Main Input Current Phase S	0.1 A	R
	9508	Main Input Current Phase T	0.1 A	R
	9509	Main Input Frequency Phase R	0.01 Hz	R
	9510	Main Input Frequency Phase S	0.01 Hz	R
	9511	Main Input Frequency Phase T	0.01 Hz	R
	9512	Input PF Phase R	0.01	R
	9513	Input PF Phase S	0.01	R
	9514	Input PF Phase T	0.01	R
	9515	Positive DC Bus Voltage	0.1 V	R
	9516	Negative DC Bus Voltage	0.1 V	R

	Addr dec	Content	Units	Type
	9517	Positive Battery String Voltage	0.1 V	R
	9518	Negative Battery String Voltage	0.1 V	R
	9519	Positive Charger Voltage	0.1 V	R
	9520	Negative Charger Voltage	0.1 V	R
	9521	Costive Charger Current	0.1 A	R
	9522	Negative Charger Current	0.1 A	R
	9523	Costive Discharge Current	0.1 A	R
	9524	Negative Discharge Current	0.1 A	R
	9525	Inverter Voltage Phase R	0.1 V	R
	9526	Inverter Voltage Phase S	0.1 V	R
	9527	Inverter Voltage Phase T	0.1 V	R
	9528	Output Current Phase R	0.1 A	R
	9529	Output Current Phase S	0.1 A	R
	9530	Output Current Phase T	0.1 A	R
	9531	Output Frequency Phase R	0.01 Hz	R
	9532	Output Frequency Phase S	0.01 Hz	R
	9533	Output Frequency Phase T	0.01 Hz	R
	9534	Output PF Phase R	0.01	R
	9535	Output PF Phase S	0.01	R
	9536	Output PF Phase T	0.01	R
	9537	Output Voltage Phase R	0.1 V	R
	9538	Output Voltage Phase S	0.1 V	R
	9539	Output Voltage Phase T	0.1 V	R

	Addr dec	Content	Units	Type
	9540	Bypass Voltage Phase R	0.1 V	R
	9541	Bypass Voltage Phase S	0.1 V	R
	9542	Bypass Voltage Phase T	0.1 V	R
	9543	Output Apparent Power Phase R	0.1 kVA	R
	9544	Output Apparent Power Phase S	0.1 kVA	R
	9545	Output Apparent Power Phase T	0.1 kVA	R
	9546	Output Active Power Phase R	0.1 kW	R
	9547	Output Active Power Phase S	0.1 kW	R
	9548	Output Active Power Phase T	0.1 kW	R
	9549	Output Reactive Power Phase R	0.1 kVAr	R
	9550	Output Reactive Power Phase S	0.1 kVAr	R
	9551	Output Reactive Power Phase T	0.1 kVAr	R
	9552	Output Load Percentage Phase R	0.1 V	R
	9553 ... 9572	Output Load Percentage Phase S	0.1 V	R
	9573	Output Load Percentage Phase T	0.1 V	R
	9574	Reserved		
	9575	Fan Running Time (hour)	Hours	R/W**
	9576	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	9577	Reserved		
	9578	Reserved		
	9579	Forbid Rectifier Power On Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	9580	Utility Power And Battery Sign Integration	Dimensionless	R
	9581	Reserved		
	9582	Reserved		
	9583	Rectifier DSP Input Port	Dimensionless	R
	9584	Rectifier DSP Output Port	Dimensionless	R
	9585	Inverter DSP Input Port	Dimensionless	R
	9586	Inverter DSP Output	Dimensionless	R
	9587	Allow Inverter On Sign Integration	Dimensionless	R
	9588	Allow Transfer to Invert Sign Integration	Dimensionless	R
	9589	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	9590	Inverter Power Off Locked Sign Integration	Dimensionless	R
	9591	Reserved		
	9592	Inverter IO CAN	Dimensionless	R
	9593	Inverter DATA CAN	Dimensionless	R
	9594	Parallel Signal	Dimensionless	R
	9595	Read Rectifier Variate	Dimensionless	R
	9596	Write Rectifier Variate	Dimensionless	R
	9597	Read Inverter Variate	Dimensionless	R
	9598	Write Inverter Variate	Dimensionless	R
	9599	Inlet Temperature	0.1°C	R
	9600	Outlet Temperature	0.1°C	R
	9601	Rectifier IGBT Temperature Phase R	0.1°C	R
	9602	Rectifier IGBT Temperature Phase S	0.1°C	R

	Addr dec	Content	Units	Type
	9603	Rectifier IGBT Temperature Phase T	0.1°C	R
	9604	Inverter IGBT Temperature Phase R	0.1°C	R
	9605 ... 9644	Inverter IGBT Temperature Phase S	0.1°C	R
	9645	Inverter IGBT Temperature Phase T	0.1°C	R
	9646	Reserved		
	9647	Rectifier Identifier	Dimensionless	R
	9648	Rectifier Series Number	Dimensionless	R
	9649	Rectifier First Version Number	Dimensionless	R
	9650	Rectifier Second Version Number	Dimensionless	R
	9651	Inverter Identifier	Dimensionless	R
	9652	Inverter Series Number	Dimensionless	R
	9653 ... 9699	Inverter First Version Number	Dimensionless	R
Alarm s, Warni ngs and States (SCOD ES) 16		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base addre ss:	9700			
	9700	**Free**		
				9701

	Addr dec	Content	Units	Type
	9702	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R
	9703 ... 9704	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R

	Addr dec	Content	Units	Type
	9705	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	9706	**Free**		
	9707 ... 9709	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R

	Addr dec	Content	Units	Type
	9710	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	9711	**Free**		
	9712	SCODE STS_0_0		R
	9713	SCODE STS_0_1		R
	9714	SCODE STS_0_2		R
	9715	SCODE STS_0_3		R
	9716	SCODE STS_1_0		R
	9717	SCODE STS_1_1		R
	9718	SCODE STS_1_2		R
	9719	SCODE STS_1_3		R
	9720	SCODE STS_2_0		R
	9721	SCODE STS_2_1		R
	9722	**Free**		
	9723	SCODE ALM_0_0		R

	Addr dec	Content	Units	Type
	9724	SCODE ALM_0_1		R
	9725	SCODE ALM_0_2		R
	9726	SCODE ALM_0_3		R
	9727	SCODE ALM_1_0		R
	9728	SCODE ALM_1_1		R
	9729	SCODE ALM_1_2		R
	9730	SCODE ALM_1_3		R
	9731	SCODE ALM_2_0		R
	9732	SCODE ALM_2_1		R
	9733	SCODE ALM_2_2		R
	9734	SCODE ALM_2_3		R
	9735	SCODE ALM_3_0		R
	9736	SCODE ALM_3_1		R
	9737	SCODE ALM_3_2		R
	9738	SCODE ALM_3_3		R
	9739	SCODE ALM_4_0		R
	9740	SCODE ALM_4_1		R
	9741	SCODE ALM_4_2		R
	9742	SCODE ALM_4_3		R
	9743	SCODE ALM_5_0		R
	9744	SCODE ALM_5_1		R
	9745	SCODE ALM_5_2		R
	9746	SCODE ALM_5_3		R

	Addr dec	Content	Units	Type
	9447 ... 9748	SCODE ALM_6_0		R
	9749	SCODE ALM_6_1		R
	9750	**Free**		R
	9751	"0000"+SPECIAL SCODE ALM_7_0		R
	9752	Inverter Supplying		
	9753	Inverter ReadyForSupply		
	9754	Rectifier Status		
	9755	Battery Discharge		
	9756	Battery Boost		
	9757 ... 9999	Battery Float		
Measur ements of Module 17 Base address : 10000		Module set to Bypass		
	10000	**Free**		
				10001
	10002	**Free**		
	10003	Main Input Voltage Phase R	0.1 V	R
	10004	Main Input Voltage Phase S	0.1 V	R

	Addr dec	Content	Units	Type
	10005	Main Input Voltage Phase T	0.1 V	R
	10006	Main Input Current Phase R	0.1 A	R
	10007	Main Input Current Phase S	0.1 A	R
	10008	Main Input Current Phase T	0.1 A	R
	10009	Main Input Frequency Phase R	0.01 Hz	R
	10010	Main Input Frequency Phase S	0.01 Hz	R
	10011	Main Input Frequency Phase T	0.01 Hz	R
	10012	Input PF Phase R	0.01	R
	10013	Input PF Phase S	0.01	R
	10014	Input PF Phase T	0.01	R
	10015	Positive DC Bus Voltage	0.1 V	R
	10016	Negative DC Bus Voltage	0.1 V	R
	10017	Positive Battery String Voltage	0.1 V	R
	10018	Negative Battery String Voltage	0.1 V	R
	10019	Positive Charger Voltage	0.1 V	R
	10020	Negative Charger Voltage	0.1 V	R
	10021	Costive Charger Current	0.1 A	R
	10022	Negative Charger Current	0.1 A	R
	10023	Costive Discharge Current	0.1 A	R
	10024	Negative Discharge Current	0.1 A	R
	10025	Inverter Voltage Phase R	0.1 V	R
	10026	Inverter Voltage Phase S	0.1 V	R
	10027	Inverter Voltage Phase T	0.1 V	R

	Addr dec	Content	Units	Type
	10028	Output Current Phase R	0.1 A	R
	10029	Output Current Phase S	0.1 A	R
	10030	Output Current Phase T	0.1 A	R
	10031	Output Frequency Phase R	0.01 Hz	R
	10032	Output Frequency Phase S	0.01 Hz	R
	10033	Output Frequency Phase T	0.01 Hz	R
	10034	Output PF Phase R	0.01	R
	10035	Output PF Phase S	0.01	R
	10036	Output PF Phase T	0.01	R
	10037	Output Voltage Phase R	0.1 V	R
	10038	Output Voltage Phase S	0.1 V	R
	10039	Output Voltage Phase T	0.1 V	R
	10040	Bypass Voltage Phase R	0.1 V	R
	10041	Bypass Voltage Phase S	0.1 V	R
	10042	Bypass Voltage Phase T	0.1 V	R
	10043	Output Apparent Power Phase R	0.1 kVA	R
	10044	Output Apparent Power Phase S	0.1 kVA	R
	10045	Output Apparent Power Phase T	0.1 kVA	R
	10046	Output Active Power Phase R	0.1 kW	R
	10047	Output Active Power Phase S	0.1 kW	R
	10048	Output Active Power Phase T	0.1 kW	R
	10049	Output Reactive Power Phase R	0.1 kVAr	R
	10050	Output Reactive Power Phase S	0.1 kVAr	R

	Addr dec	Content	Units	Type
	10051	Output Reactive Power Phase T	0.1 kVAr	R
	10052	Output Load Percentage Phase R	0.1 V	R
	10053 ... 10072	Output Load Percentage Phase S	0.1 V	R
	10073	Output Load Percentage Phase T	0.1 V	R
	10074	Reserved		
	10075	Fan Running Time (hour)	Hours	R/W**
	10076	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	10077	Reserved		
	10078	Reserved		
	10079	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	10080	Utility Power And Battery Sign Integration	Dimensionless	R
	10081	Reserved		
	10082	Reserved		
	10083	Rectifier DSP Input Port	Dimensionless	R
	10084	Rectifier DSP Output Port	Dimensionless	R
	10085	Inverter DSP Input Port	Dimensionless	R
	10086	Inverter DSP Output	Dimensionless	R
	10087	Allow Inverter On Sign Integration	Dimensionless	R
	10088	Allow Transfer to Invert Sign Integration	Dimensionless	R
	10089	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	10090	Inverter Power Off Locked Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	10091	Reserved		
	10092	Inverter IO CAN	Dimensionless	R
	10093	Inverter DATA CAN	Dimensionless	R
	10094	Parallel Signal	Dimensionless	R
	10095	Read Rectifier Variate	Dimensionless	R
	10096	Write Rectifier Variate	Dimensionless	R
	10097	Read Inverter Variate	Dimensionless	R
	10098	Write Inverter Variate	Dimensionless	R
	10099	Inlet Temperature	0.1°C	R
	10100	Outlet Temperature	0.1°C	R
	10101	Rectifier IGBT Temperature Phase R	0.1°C	R
	10102	Rectifier IGBT Temperature Phase S	0.1°C	R
	10103	Rectifier IGBT Temperature Phase T	0.1°C	R
	10104	Inverter IGBT Temperature Phase R	0.1°C	R
	10103 ... 10144	Inverter IGBT Temperature Phase S	0.1°C	R
	10145	Inverter IGBT Temperature Phase T	0.1°C	R
	10146	Reserved		
	10147	Rectifier Identifier	Dimensionless	R
	10148	Rectifier Series Number	Dimensionless	R
	10149	Rectifier First Version Number	Dimensionless	R
	10150	Rectifier Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
	10151	Inverter Identifier	Dimensionless	R
	10152	Inverter Series Number	Dimensionless	R
	10153 ... 10199	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODE S) 17		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 10200				
	10200	**Free**		
				10201
	10202	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R

	Addr dec	Content	Units	Type
	10203 ... 10204	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R
	10205	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	10206	**Free**		

	Addr dec	Content	Units	Type
	10207 ... 10209	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R
	10210	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	10211	**Free**		
	10212	SCODE STS_0_0		R
	10213	SCODE STS_0_1		R

	Addr dec	Content	Units	Type
	10214	SCODE STS_0_2		R
	10215	SCODE STS_0_3		R
	10216	SCODE STS_1_0		R
	10217	SCODE STS_1_1		R
	10218	SCODE STS_1_2		R
	10219	SCODE STS_1_3		R
	10220	SCODE STS_2_0		R
	10221	SCODE STS_2_1		R
	10222	**Free**		
	10223	SCODE ALM_0_0		R
	10224	SCODE ALM_0_1		R
	10225	SCODE ALM_0_2		R
	10226	SCODE ALM_0_3		R
	10227	SCODE ALM_1_0		R
	10228	SCODE ALM_1_1		R
	10229	SCODE ALM_1_2		R
	10230	SCODE ALM_1_3		R
	10231	SCODE ALM_2_0		R
	10232	SCODE ALM_2_1		R
	10233	SCODE ALM_2_2		R
	10234	SCODE ALM_2_3		R
	10235	SCODE ALM_3_0		R
	10236	SCODE ALM_3_1		R

	Addr dec	Content	Units	Type
	10237	SCODE ALM_3_2		R
	10238	SCODE ALM_3_3		R
	10239	SCODE ALM_4_0		R
	10240	SCODE ALM_4_1		R
	10241	SCODE ALM_4_2		R
	10242	SCODE ALM_4_3		R
	10243	SCODE ALM_5_0		R
	10244	SCODE ALM_5_1		R
	10245	SCODE ALM_5_2		R
	10246	SCODE ALM_5_3		R
	10247 ... 10248	SCODE ALM_6_0		R
	10249	SCODE ALM_6_1		R
	10250	**Free**		R
	10251	"0000"+SPECIAL SCODE ALM_7_0		R
	10252	Inverter Supplying		
	10253	Inverter ReadyForSupply		
	10254	Rectifier Status		
	10255	Battery Discharge		
	10256	Battery Boost		
	10257 ... 10499	Battery Float		

	Addr dec	Content	Units	Type
Measurements of Module 18 Base address:	10500	Module set to Bypass		
	10500	**Free**		
				10501
	10502	**Free**		
	10503	Main Input Voltage Phase R	0.1 V	R
	10504	Main Input Voltage Phase S	0.1 V	R
	10505	Main Input Voltage Phase T	0.1 V	R
	10506	Main Input Current Phase R	0.1 A	R
	10507	Main Input Current Phase S	0.1 A	R
	10508	Main Input Current Phase T	0.1 A	R
	10509	Main Input Frequency Phase R	0.01 Hz	R
	10510	Main Input Frequency Phase S	0.01 Hz	R
	10511	Main Input Frequency Phase T	0.01 Hz	R
	10512	Input PF Phase R	0.01	R
	10513	Input PF Phase S	0.01	R
	10514	Input PF Phase T	0.01	R
	10515	Positive DC Bus Voltage	0.1 V	R
	10516	Negative DC Bus Voltage	0.1 V	R

	Addr dec	Content	Units	Type
	10517	Positive Battery String Voltage	0.1 V	R
	10518	Negative Battery String Voltage	0.1 V	R
	10519	Positive Charger Voltage	0.1 V	R
	10520	Negative Charger Voltage	0.1 V	R
	10521	Costive Charger Current	0.1 A	R
	10522	Negative Charger Current	0.1 A	R
	10523	Costive Discharge Current	0.1 A	R
	10524	Negative Discharge Current	0.1 A	R
	10525	Inverter Voltage Phase R	0.1 V	R
	10526	Inverter Voltage Phase S	0.1 V	R
	10527	Inverter Voltage Phase T	0.1 V	R
	10528	Output Current Phase R	0.1 A	R
	10529	Output Current Phase S	0.1 A	R
	10530	Output Current Phase T	0.1 A	R
	10531	Output Frequency Phase R	0.01 Hz	R
	10532	Output Frequency Phase S	0.01 Hz	R
	10533	Output Frequency Phase T	0.01 Hz	R
	10534	Output PF Phase R	0.01	R
	10535	Output PF Phase S	0.01	R
	10536	Output PF Phase T	0.01	R
	10537	Output Voltage Phase R	0.1 V	R
	10538	Output Voltage Phase S	0.1 V	R
	10539	Output Voltage Phase T	0.1 V	R

	Addr dec	Content	Units	Type
	10540	Bypass Voltage Phase R	0.1 V	R
	10541	Bypass Voltage Phase S	0.1 V	R
	10542	Bypass Voltage Phase T	0.1 V	R
	10543	Output Apparent Power Phase R	0.1 kVA	R
	10544	Output Apparent Power Phase S	0.1 kVA	R
	10545	Output Apparent Power Phase T	0.1 kVA	R
	10546	Output Active Power Phase R	0.1 kW	R
	10547	Output Active Power Phase S	0.1 kW	R
	10548	Output Active Power Phase T	0.1 kW	R
	10549	Output Reactive Power Phase R	0.1 kVAr	R
	10550	Output Reactive Power Phase S	0.1 kVAr	R
	10551	Output Reactive Power Phase T	0.1 kVAr	R
	10552	Output Load Percentage Phase R	0.1 V	R
	10553 ... 10572	Output Load Percentage Phase S	0.1 V	R
	10573	Output Load Percentage Phase T	0.1 V	R
	10574	Reserved		
	10575	Fan Running Time (hour)	Hours	R/W**
	10576	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	10577	Reserved		
	10578	Reserved		
	10579	Forbid Rectifier Power On Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	10580	Utility Power And Battery Sign Integration	Dimensionless	R
	10581	Reserved		
	10582	Reserved		
	10583	Rectifier DSP Input Port	Dimensionless	R
	10584	Rectifier DSP Output Port	Dimensionless	R
	10585	Inverter DSP Input Port	Dimensionless	R
	10586	Inverter DSP Output	Dimensionless	R
	10587	Allow Inverter On Sign Integration	Dimensionless	R
	10588	Allow Transfer to Invert Sign Integration	Dimensionless	R
	10589	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	10590	Inverter Power Off Locked Sign Integration	Dimensionless	R
	10591	Reserved		
	10592	Inverter IO CAN	Dimensionless	R
	10593	Inverter DATA CAN	Dimensionless	R
	10594	Parallel Signal	Dimensionless	R
	10595	Read Rectifier Variate	Dimensionless	R
	10596	Write Rectifier Variate	Dimensionless	R
	10597	Read Inverter Variate	Dimensionless	R
	10598	Write Inverter Variate	Dimensionless	R
	10599	Inlet Temperature	0.1°C	R
	10600	Outlet Temperature	0.1°C	R
	10601	Rectifier IGBT Temperature Phase R	0.1°C	R
	10602	Rectifier IGBT Temperature Phase S	0.1°C	R

	Addr dec	Content	Units	Type
	10603	Rectifier IGBT Temperature Phase T	0.1°C	R
	10604	Inverter IGBT Temperature Phase R	0.1°C	R
	10605 ... 10644	Inverter IGBT Temperature Phase S	0.1°C	R
	10645	Inverter IGBT Temperature Phase T	0.1°C	R
	10646	Reserved		
	10647	Rectifier Identifier	Dimensionless	R
	10648	Rectifier Series Number	Dimensionless	R
	10649	Rectifier First Version Number	Dimensionless	R
	10650	Rectifier Second Version Number	Dimensionless	R
	10651	Inverter Identifier	Dimensionless	R
	10652	Inverter Series Number	Dimensionless	R
	10653 ... 10699	Inverter First Version Number	Dimensionless	R
Alarm s, Warni ngs and States (SCOD ES) 18		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address: 10700				
	10700	**Free**		
				10701

	Addr dec	Content	Units	Type
	10702	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R
	10703 ... 10704	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R

	Addr dec	Content	Units	Type
	10705	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	10706	**Free**		
	10707 ... 10709	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R

	Addr dec	Content	Units	Type
	10710	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	10711	**Free**		
	10712	SCODE STS_0_0		R
	10713	SCODE STS_0_1		R
	10714	SCODE STS_0_2		R
	10715	SCODE STS_0_3		R
	10716	SCODE STS_1_0		R
	10717	SCODE STS_1_1		R
	10718	SCODE STS_1_2		R
	10719	SCODE STS_1_3		R
	10720	SCODE STS_2_0		R
	10721	SCODE STS_2_1		R
	10722	**Free**		
	10723	SCODE ALM_0_0		R

	Addr dec	Content	Units	Type
	10724	SCODE ALM_0_1		R
	10725	SCODE ALM_0_2		R
	10726	SCODE ALM_0_3		R
	10727	SCODE ALM_1_0		R
	10728	SCODE ALM_1_1		R
	10729	SCODE ALM_1_2		R
	10730	SCODE ALM_1_3		R
	10731	SCODE ALM_2_0		R
	10732	SCODE ALM_2_1		R
	10733	SCODE ALM_2_2		R
	10734	SCODE ALM_2_3		R
	10735	SCODE ALM_3_0		R
	10736	SCODE ALM_3_1		R
	10737	SCODE ALM_3_2		R
	10738	SCODE ALM_3_3		R
	10739	SCODE ALM_4_0		R
	10740	SCODE ALM_4_1		R
	10741	SCODE ALM_4_2		R
	10742	SCODE ALM_4_3		R
	10743	SCODE ALM_5_0		R
	10744	SCODE ALM_5_1		R
	10745	SCODE ALM_5_2		R
	10746	SCODE ALM_5_3		R

	Addr dec	Content	Units	Type
	10747 ... 10748	SCODE ALM_6_0		R
	10749	SCODE ALM_6_1		R
	10750	**Free**		R
	10751	"0000"+SPECIAL SCODE ALM_7_0		R
	10752	Inverter Supplying		
	10753	Inverter ReadyForSupply		
	10754	Rectifier Status		
	10755	Battery Discharge		
	10756	Battery Boost		
	10757 ... 10999	Battery Float		
Meas urem ents of Modu le 19 Base addre ss: 11000		Module set to Bypass		
	11000	**Free**		
				11001
	11002	**Free**		
	11003	Main Input Voltage Phase R	0.1 V	R

	Addr dec	Content	Units	Type
	11004	Main Input Voltage Phase S	0.1 V	R
	11005	Main Input Voltage Phase T	0.1 V	R
	11006	Main Input Current Phase R	0.1 A	R
	11007	Main Input Current Phase S	0.1 A	R
	11008	Main Input Current Phase T	0.1 A	R
	11009	Main Input Frequency Phase R	0.01 Hz	R
	11010	Main Input Frequency Phase S	0.01 Hz	R
	11011	Main Input Frequency Phase T	0.01 Hz	R
	11012	Input PF Phase R	0.01	R
	11013	Input PF Phase S	0.01	R
	11014	Input PF Phase T	0.01	R
	11015	Positive DC Bus Voltage	0.1 V	R
	11016	Negative DC Bus Voltage	0.1 V	R
	11017	Positive Battery String Voltage	0.1 V	R
	11018	Negative Battery String Voltage	0.1 V	R
	11019	Positive Charger Voltage	0.1 V	R
	11020	Negative Charger Voltage	0.1 V	R
	11021	Costive Charger Current	0.1 A	R
	11022	Negative Charger Current	0.1 A	R
	11023	Costive Discharge Current	0.1 A	R
	11024	Negative Discharge Current	0.1 A	R
	11025	Inverter Voltage Phase R	0.1 V	R
	11026	Inverter Voltage Phase S	0.1 V	R

	Addr dec	Content	Units	Type
	11027	Inverter Voltage Phase T	0.1 V	R
	11028	Output Current Phase R	0.1 A	R
	11029	Output Current Phase S	0.1 A	R
	11030	Output Current Phase T	0.1 A	R
	11031	Output Frequency Phase R	0.01 Hz	R
	11032	Output Frequency Phase S	0.01 Hz	R
	11033	Output Frequency Phase T	0.01 Hz	R
	11034	Output PF Phase R	0.01	R
	11035	Output PF Phase S	0.01	R
	11036	Output PF Phase T	0.01	R
	11037	Output Voltage Phase R	0.1 V	R
	11038	Output Voltage Phase S	0.1 V	R
	11039	Output Voltage Phase T	0.1 V	R
	11040	Bypass Voltage Phase R	0.1 V	R
	11041	Bypass Voltage Phase S	0.1 V	R
	11042	Bypass Voltage Phase T	0.1 V	R
	11043	Output Apparent Power Phase R	0.1 kVA	R
	11044	Output Apparent Power Phase S	0.1 kVA	R
	11045	Output Apparent Power Phase T	0.1 kVA	R
	11046	Output Active Power Phase R	0.1 kW	R
	11047	Output Active Power Phase S	0.1 kW	R
	11048	Output Active Power Phase T	0.1 kW	R
	11049	Output Reactive Power Phase R	0.1 kVAr	R

	Addr dec	Content	Units	Type
	11050	Output Reactive Power Phase S	0.1 kVAr	R
	11051	Output Reactive Power Phase T	0.1 kVAr	R
	11052	Output Load Percentage Phase R	0.1 V	R
	11053 ... 11072	Output Load Percentage Phase S	0.1 V	R
	11073	Output Load Percentage Phase T	0.1 V	R
	11074	Reserved		
	11075	Fan Running Time (hour)	Hours	R/W**
	11076	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	11077	Reserved		
	11078	Reserved		
	11079	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	11080	Utility Power And Battery Sign Integration	Dimensionless	R
	11081	Reserved		
	11082	Reserved		
	11083	Rectifier DSP Input Port	Dimensionless	R
	11084	Rectifier DSP Output Port	Dimensionless	R
	11085	Inverter DSP Input Port	Dimensionless	R
	11086	Inverter DSP Output	Dimensionless	R
	11087	Allow Inverter On Sign Integration	Dimensionless	R
	11088	Allow Transfer to Invert Sign Integration	Dimensionless	R
	11089	Transfer to Bypass Locked Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	11090	Inverter Power Off Locked Sign Integration	Dimensionless	R
	11091	Reserved		
	11092	Inverter IO CAN	Dimensionless	R
	11093	Inverter DATA CAN	Dimensionless	R
	11094	Parallel Signal	Dimensionless	R
	11095	Read Rectifier Variate	Dimensionless	R
	11096	Write Rectifier Variate	Dimensionless	R
	11097	Read Inverter Variate	Dimensionless	R
	11098	Write Inverter Variate	Dimensionless	R
	11099	Inlet Temperature	0.1°C	R
	11100	Outlet Temperature	0.1°C	R
	11101	Rectifier IGBT Temperature Phase R	0.1°C	R
	11102	Rectifier IGBT Temperature Phase S	0.1°C	R
	11103	Rectifier IGBT Temperature Phase T	0.1°C	R
	11104	Inverter IGBT Temperature Phase R	0.1°C	R
	11105 ... 11144	Inverter IGBT Temperature Phase S	0.1°C	R
	11145	Inverter IGBT Temperature Phase T	0.1°C	R
	11146	Reserved		
	11147	Rectifier Identifier	Dimensionless	R
	11148	Rectifier Series Number	Dimensionless	R
	11149	Rectifier First Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
	11150	Rectifier Second Version Number	Dimensionless	R
	11151	Inverter Identifier	Dimensionless	R
	11152	Inverter Series Number	Dimensionless	R
	11153 ... 11199	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 19		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base addre ss: 11200				
	11200	**Free**		
				11201
	11202	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R

	Addr dec	Content	Units	Type
	11203 ... 11204	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R
	11205	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	11206	**Free**		

	Addr dec	Content	Units	Type
	11207 ... 11209	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R
	11210	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	11211	**Free**		
	11212	SCODE STS_0_0		R
	11213	SCODE STS_0_1		R

	Addr dec	Content	Units	Type
	11214	SCODE STS_0_2		R
	11215	SCODE STS_0_3		R
	11216	SCODE STS_1_0		R
	11217	SCODE STS_1_1		R
	11218	SCODE STS_1_2		R
	11219	SCODE STS_1_3		R
	11220	SCODE STS_2_0		R
	11221	SCODE STS_2_1		R
	11222	**Free**		
	11223	SCODE ALM_0_0		R
	11224	SCODE ALM_0_1		R
	11225	SCODE ALM_0_2		R
	11226	SCODE ALM_0_3		R
	11227	SCODE ALM_1_0		R
	11228	SCODE ALM_1_1		R
	11229	SCODE ALM_1_2		R
	11230	SCODE ALM_1_3		R
	11231	SCODE ALM_2_0		R
	11232	SCODE ALM_2_1		R
	11233	SCODE ALM_2_2		R
	11234	SCODE ALM_2_3		R
	11235	SCODE ALM_3_0		R
	11236	SCODE ALM_3_1		R

	Addr dec	Content	Units	Type
	11237	SCODE ALM_3_2		R
	11238	SCODE ALM_3_3		R
	11239	SCODE ALM_4_0		R
	11240	SCODE ALM_4_1		R
	11241	SCODE ALM_4_2		R
	11242	SCODE ALM_4_3		R
	11243	SCODE ALM_5_0		R
	11244	SCODE ALM_5_1		R
	11245	SCODE ALM_5_2		R
	11246	SCODE ALM_5_3		R
	11247 ... 11248	SCODE ALM_6_0		R
	11249	SCODE ALM_6_1		R
	11250	**Free**		R
	11251	"0000"+SPECIAL SCODE ALM_7_0		R
	11252	Inverter Supplying		
	11253	Inverter ReadyForSupply		
	11254	Rectifier Status		
	11255	Battery Discharge		
	11256	Battery Boost		
	11257 ... 11499	Battery Float		

	Addr dec	Content	Units	Type
Measurements of Module 20 Base address : 11500		Module set to Bypass		
	11500	**Free**		
				11501
	11502	**Free**		
	11503	Main Input Voltage Phase R	0.1 V	R
	11504	Main Input Voltage Phase S	0.1 V	R
	11505	Main Input Voltage Phase T	0.1 V	R
	11506	Main Input Current Phase R	0.1 A	R
	11507	Main Input Current Phase S	0.1 A	R
	11508	Main Input Current Phase T	0.1 A	R
	11509	Main Input Frequency Phase R	0.01 Hz	R
	11510	Main Input Frequency Phase S	0.01 Hz	R
	11511	Main Input Frequency Phase T	0.01 Hz	R
	11512	Input PF Phase R	0.01	R
	11513	Input PF Phase S	0.01	R
	11514	Input PF Phase T	0.01	R
	11515	Positive DC Bus Voltage	0.1 V	R
	11516	Negative DC Bus Voltage	0.1 V	R
	11517	Positive Battery String Voltage	0.1 V	R

	Addr dec	Content	Units	Type
	11518	Negative Battery String Voltage	0.1 V	R
	11519	Positive Charger Voltage	0.1 V	R
	11520	Negative Charger Voltage	0.1 V	R
	11521	Costive Charger Current	0.1 A	R
	11522	Negative Charger Current	0.1 A	R
	11523	Costive Discharge Current	0.1 A	R
	11524	Negative Discharge Current	0.1 A	R
	11525	Inverter Voltage Phase R	0.1 V	R
	11526	Inverter Voltage Phase S	0.1 V	R
	11527	Inverter Voltage Phase T	0.1 V	R
	11528	Output Current Phase R	0.1 A	R
	11529	Output Current Phase S	0.1 A	R
	11530	Output Current Phase T	0.1 A	R
	11531	Output Frequency Phase R	0.01 Hz	R
	11532	Output Frequency Phase S	0.01 Hz	R
	11533	Output Frequency Phase T	0.01 Hz	R
	11534	Output PF Phase R	0.01	R
	11535	Output PF Phase S	0.01	R
	11536	Output PF Phase T	0.01	R
	11537	Output Voltage Phase R	0.1 V	R
	11538	Output Voltage Phase S	0.1 V	R
	11539	Output Voltage Phase T	0.1 V	R
	11540	Bypass Voltage Phase R	0.1 V	R

	Addr dec	Content	Units	Type
	11541	Bypass Voltage Phase S	0.1 V	R
	11542	Bypass Voltage Phase T	0.1 V	R
	11543	Output Apparent Power Phase R	0.1 kVA	R
	11544	Output Apparent Power Phase S	0.1 kVA	R
	11545	Output Apparent Power Phase T	0.1 kVA	R
	11546	Output Active Power Phase R	0.1 kW	R
	11547	Output Active Power Phase S	0.1 kW	R
	11548	Output Active Power Phase T	0.1 kW	R
	11549	Output Reactive Power Phase R	0.1 kVAr	R
	11550	Output Reactive Power Phase S	0.1 kVAr	R
	11551	Output Reactive Power Phase T	0.1 kVAr	R
	11552	Output Load Percentage Phase R	0.1 V	R
	11553 ... 11572	Output Load Percentage Phase S	0.1 V	R
	11573	Output Load Percentage Phase T	0.1 V	R
	11574	Reserved		
	11575	Fan Running Time (hour)	Hours	R/W**
	11576	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	11577	Reserved		
	11578	Reserved		
	11579	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	11580	Utility Power And Battery Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	11581	Reserved		
	11582	Reserved		
	11583	Rectifier DSP Input Port	Dimensionless	R
	11584	Rectifier DSP Output Port	Dimensionless	R
	11585	Inverter DSP Input Port	Dimensionless	R
	11586	Inverter DSP Output	Dimensionless	R
	11587	Allow Inverter On Sign Integration	Dimensionless	R
	11588	Allow Transfer to Invert Sign Integration	Dimensionless	R
	11589	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	11590	Inverter Power Off Locked Sign Integration	Dimensionless	R
	11591	Reserved		
	11592	Inverter IO CAN	Dimensionless	R
	11593	Inverter DATA CAN	Dimensionless	R
	11594	Parallel Signal	Dimensionless	R
	11595	Read Rectifier Variate	Dimensionless	R
	11596	Write Rectifier Variate	Dimensionless	R
	11597	Read Inverter Variate	Dimensionless	R
	11598	Write Inverter Variate	Dimensionless	R
	11599	Inlet Temperature	0.1°C	R
	11600	Outlet Temperature	0.1°C	R
	11601	Rectifier IGBT Temperature Phase R	0.1°C	R
	11602	Rectifier IGBT Temperature Phase S	0.1°C	R
	11603	Rectifier IGBT Temperature Phase T	0.1°C	R

	Addr dec	Content	Units	Type
	11604	Inverter IGBT Temperature Phase R	0.1°C	R
	11605 ... 11644	Inverter IGBT Temperature Phase S	0.1°C	R
	11645	Inverter IGBT Temperature Phase T	0.1°C	R
	11646	Reserved		
	11647	Rectifier Identifier	Dimensionless	R
	11648	Rectifier Series Number	Dimensionless	R
	11649	Rectifier First Version Number	Dimensionless	R
	11650	Rectifier Second Version Number	Dimensionless	R
	11651	Inverter Identifier	Dimensionless	R
	11652	Inverter Series Number	Dimensionless	R
	11653 ... 11699	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 20		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 11700				
	11700	**Free**		
				11701

	Addr dec	Content	Units	Type
	11702	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R
	11703 ... 11704	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R

	Addr dec	Content	Units	Type
	11705	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	11706	**Free**		
	11707 ... 11709	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R

	Addr dec	Content	Units	Type
	11710	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	11711	**Free**		
	11712	SCODE STS_0_0		R
	11713	SCODE STS_0_1		R
	11714	SCODE STS_0_2		R
	11715	SCODE STS_0_3		R
	11716	SCODE STS_1_0		R
	11717	SCODE STS_1_1		R
	11718	SCODE STS_1_2		R
	11719	SCODE STS_1_3		R
	11720	SCODE STS_2_0		R
	11721	SCODE STS_2_1		R
	11722	**Free**		
	11723	SCODE ALM_0_0		R

	Addr dec	Content	Units	Type
	11724	SCODE ALM_0_1		R
	11725	SCODE ALM_0_2		R
	11726	SCODE ALM_0_3		R
	11727	SCODE ALM_1_0		R
	11728	SCODE ALM_1_1		R
	11729	SCODE ALM_1_2		R
	11730	SCODE ALM_1_3		R
	11731	SCODE ALM_2_0		R
	11732	SCODE ALM_2_1		R
	11733	SCODE ALM_2_2		R
	11734	SCODE ALM_2_3		R
	11735	SCODE ALM_3_0		R
	11736	SCODE ALM_3_1		R
	11737	SCODE ALM_3_2		R
	11738	SCODE ALM_3_3		R
	11739	SCODE ALM_4_0		R
	11740	SCODE ALM_4_1		R
	11741	SCODE ALM_4_2		R
	11742	SCODE ALM_4_3		R
	11743	SCODE ALM_5_0		R
	11744	SCODE ALM_5_1		R
	11745	SCODE ALM_5_2		R
	11746	SCODE ALM_5_3		R

	Addr dec	Content	Units	Type
	11747 ... 11748	SCODE ALM_6_0		R
	11749	SCODE ALM_6_1		R
	11750	**Free**		R
	11751	"0000"+SPECIAL SCODE ALM_7_0		R
	11752	Inverter Supplying		
	11753	Inverter ReadyForSupply		
	11754	Rectifier Status		
	11755	Battery Discharge		
	11756	Battery Boost		
	11757 ..1199 9	Battery Float		
Measur ements of Module 21 Base address : 1200		Module set to Bypass		
	12000	**Free**		
				12001
	12002	**Free**		
	12003	Main Input Voltage Phase R	0.1 V	R
	12004	Main Input Voltage Phase S	0.1 V	R
	12005	Main Input Voltage Phase T	0.1 V	R

	Addr dec	Content	Units	Type
	12006	Main Input Current Phase R	0.1 A	R
	12007	Main Input Current Phase S	0.1 A	R
	12008	Main Input Current Phase T	0.1 A	R
	12009	Main Input Frequency Phase R	0.01 Hz	R
	12010	Main Input Frequency Phase S	0.01 Hz	R
	12011	Main Input Frequency Phase T	0.01 Hz	R
	12012	Input PF Phase R	0.01	R
	12013	Input PF Phase S	0.01	R
	12014	Input PF Phase T	0.01	R
	12015	Positive DC Bus Voltage	0.1 V	R
	12016	Negative DC Bus Voltage	0.1 V	R
	12017	Positive Battery String Voltage	0.1 V	R
	12018	Negative Battery String Voltage	0.1 V	R
	12019	Positive Charger Voltage	0.1 V	R
	12020	Negative Charger Voltage	0.1 V	R
	12021	Costive Charger Current	0.1 A	R
	12022	Negative Charger Current	0.1 A	R
	12023	Costive Discharge Current	0.1 A	R
	12024	Negative Discharge Current	0.1 A	R
	12025	Inverter Voltage Phase R	0.1 V	R
	12026	Inverter Voltage Phase S	0.1 V	R
	12027	Inverter Voltage Phase T	0.1 V	R
	12028	Output Current Phase R	0.1 A	R

	Addr dec	Content	Units	Type
	12029	Output Current Phase S	0.1 A	R
	12030	Output Current Phase T	0.1 A	R
	12031	Output Frequency Phase R	0.01 Hz	R
	12032	Output Frequency Phase S	0.01 Hz	R
	12033	Output Frequency Phase T	0.01 Hz	R
	12034	Output PF Phase R	0.01	R
	12035	Output PF Phase S	0.01	R
	12036	Output PF Phase T	0.01	R
	12037	Output Voltage Phase R	0.1 V	R
	12038	Output Voltage Phase S	0.1 V	R
	12039	Output Voltage Phase T	0.1 V	R
	12040	Bypass Voltage Phase R	0.1 V	R
	12041	Bypass Voltage Phase S	0.1 V	R
	12042	Bypass Voltage Phase T	0.1 V	R
	12043	Output Apparent Power Phase R	0.1 kVA	R
	12044	Output Apparent Power Phase S	0.1 kVA	R
	12045	Output Apparent Power Phase T	0.1 kVA	R
	12046	Output Active Power Phase R	0.1 kW	R
	12047	Output Active Power Phase S	0.1 kW	R
	12048	Output Active Power Phase T	0.1 kW	R
	12049	Output Reactive Power Phase R	0.1 kVAr	R
	12050	Output Reactive Power Phase S	0.1 kVAr	R
	12051	Output Reactive Power Phase T	0.1 kVAr	R

	Addr dec	Content	Units	Type
	12052	Output Load Percentage Phase R	0.1 V	R
	12053 ... 12072	Output Load Percentage Phase S	0.1 V	R
	12073	Output Load Percentage Phase T	0.1 V	R
	12074	Reserved		
	12075	Fan Running Time (hour)	Hours	R/W**
	12076	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	12077	Reserved		
	12078	Reserved		
	12079	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	12080	Utility Power And Battery Sign Integration	Dimensionless	R
	12081	Reserved		
	12082	Reserved		
	12083	Rectifier DSP Input Port	Dimensionless	R
	12084	Rectifier DSP Output Port	Dimensionless	R
	12085	Inverter DSP Input Port	Dimensionless	R
	12086	Inverter DSP Output	Dimensionless	R
	12087	Allow Inverter On Sign Integration	Dimensionless	R
	12088	Allow Transfer to Invert Sign Integration	Dimensionless	R
	12089	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	12090	Inverter Power Off Locked Sign Integration	Dimensionless	R
	12091	Reserved		

	Addr dec	Content	Units	Type
	12092	Inverter IO CAN	Dimensionless	R
	12093	Inverter DATA CAN	Dimensionless	R
	12094	Parallel Signal	Dimensionless	R
	12095	Read Rectifier Variate	Dimensionless	R
	12096	Write Rectifier Variate	Dimensionless	R
	12097	Read Inverter Variate	Dimensionless	R
	12098	Write Inverter Variate	Dimensionless	R
	12099	Inlet Temperature	0.1°C	R
	12100	Outlet Temperature	0.1°C	R
	12101	Rectifier IGBT Temperature Phase R	0.1°C	R
	12102	Rectifier IGBT Temperature Phase S	0.1°C	R
	12103	Rectifier IGBT Temperature Phase T	0.1°C	R
	12104	Inverter IGBT Temperature Phase R	0.1°C	R
	12105 ... 12144	Inverter IGBT Temperature Phase S	0.1°C	R
	12145	Inverter IGBT Temperature Phase T	0.1°C	R
	12146	Reserved		
	12147	Rectifier Identifier	Dimensionless	R
	12148	Rectifier Series Number	Dimensionless	R
	12149	Rectifier First Version Number	Dimensionless	R
	12150	Rectifier Second Version Number	Dimensionless	R
	12151	Inverter Identifier	Dimensionless	R

	Addr dec	Content	Units	Type
	12152	Inverter Series Number	Dimensionless	R
	12153 ... 12199	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 21				
		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 12200				
	12200	**Free**		
				12201
	12202	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R

	Addr dec	Content	Units	Type
	12203 ... 12204	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R
	12205	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	12206	**Free**		

	Addr dec	Content	Units	Type
	12207 ... 12209	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R
	12210	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	12211	**Free**		
	12212	SCODE STS_0_0		R
	12213	SCODE STS_0_1		R

	Addr dec	Content	Units	Type
	12214	SCODE STS_0_2		R
	12215	SCODE STS_0_3		R
	12216	SCODE STS_1_0		R
	12217	SCODE STS_1_1		R
	12218	SCODE STS_1_2		R
	12219	SCODE STS_1_3		R
	12220	SCODE STS_2_0		R
	12221	SCODE STS_2_1		R
	12222	**Free**		
	12223	SCODE ALM_0_0		R
	12224	SCODE ALM_0_1		R
	12225	SCODE ALM_0_2		R
	12226	SCODE ALM_0_3		R
	12227	SCODE ALM_1_0		R
	12228	SCODE ALM_1_1		R
	12229	SCODE ALM_1_2		R
	12230	SCODE ALM_1_3		R
	12231	SCODE ALM_2_0		R
	12232	SCODE ALM_2_1		R
	12233	SCODE ALM_2_2		R
	12234	SCODE ALM_2_3		R
	12235	SCODE ALM_3_0		R
	12236	SCODE ALM_3_1		R

	Addr dec	Content	Units	Type
	12237	SCODE ALM_3_2		R
	12238	SCODE ALM_3_3		R
	12239	SCODE ALM_4_0		R
	12240	SCODE ALM_4_1		R
	12241	SCODE ALM_4_2		R
	12242	SCODE ALM_4_3		R
	12243	SCODE ALM_5_0		R
	12244	SCODE ALM_5_1		R
	12245	SCODE ALM_5_2		R
	12246	SCODE ALM_5_3		R
	12247 ... 12248	SCODE ALM_6_0		R
	12249	SCODE ALM_6_1		R
	12250	**Free**		R
	12251	"0000"+SPECIAL SCODE ALM_7_0		R
	12252	Inverter Supplying		
	12253	Inverter ReadyForSupply		
	12254	Rectifier Status		
	12255	Battery Discharge		
	12256	Battery Boost		
	12257 ... 12499	Battery Float		

	Addr dec	Content	Units	Type
Measurements of Module 22 Base address : 12500		Module set to Bypass		
	12500	**Free**		
				12501
	12502	**Free**		
	12503	Main Input Voltage Phase R	0.1 V	R
	12504	Main Input Voltage Phase S	0.1 V	R
	12505	Main Input Voltage Phase T	0.1 V	R
	12506	Main Input Current Phase R	0.1 A	R
	12507	Main Input Current Phase S	0.1 A	R
	12508	Main Input Current Phase T	0.1 A	R
	12509	Main Input Frequency Phase R	0.01 Hz	R
	12510	Main Input Frequency Phase S	0.01 Hz	R
	12511	Main Input Frequency Phase T	0.01 Hz	R
	12512	Input PF Phase R	0.01	R
	12513	Input PF Phase S	0.01	R
	12514	Input PF Phase T	0.01	R
	12515	Positive DC Bus Voltage	0.1 V	R
	12516	Negative DC Bus Voltage	0.1 V	R
	12517	Positive Battery String Voltage	0.1 V	R

	Addr dec	Content	Units	Type
	12518	Negative Battery String Voltage	0.1 V	R
	12519	Positive Charger Voltage	0.1 V	R
	12520	Negative Charger Voltage	0.1 V	R
	12521	Costive Charger Current	0.1 A	R
	12522	Negative Charger Current	0.1 A	R
	12523	Costive Discharge Current	0.1 A	R
	12524	Negative Discharge Current	0.1 A	R
	12525	Inverter Voltage Phase R	0.1 V	R
	12526	Inverter Voltage Phase S	0.1 V	R
	12527	Inverter Voltage Phase T	0.1 V	R
	12528	Output Current Phase R	0.1 A	R
	12529	Output Current Phase S	0.1 A	R
	12530	Output Current Phase T	0.1 A	R
	12531	Output Frequency Phase R	0.01 Hz	R
	12532	Output Frequency Phase S	0.01 Hz	R
	12533	Output Frequency Phase T	0.01 Hz	R
	12534	Output PF Phase R	0.01	R
	12535	Output PF Phase S	0.01	R
	12536	Output PF Phase T	0.01	R
	12537	Output Voltage Phase R	0.1 V	R
	12538	Output Voltage Phase S	0.1 V	R
	12539	Output Voltage Phase T	0.1 V	R
	12540	Bypass Voltage Phase R	0.1 V	R

	Addr dec	Content	Units	Type
	12541	Bypass Voltage Phase S	0.1 V	R
	12542	Bypass Voltage Phase T	0.1 V	R
	12543	Output Apparent Power Phase R	0.1 kVA	R
	12544	Output Apparent Power Phase S	0.1 kVA	R
	12545	Output Apparent Power Phase T	0.1 kVA	R
	12546	Output Active Power Phase R	0.1 kW	R
	12547	Output Active Power Phase S	0.1 kW	R
	12548	Output Active Power Phase T	0.1 kW	R
	12549	Output Reactive Power Phase R	0.1 kVAr	R
	12550	Output Reactive Power Phase S	0.1 kVAr	R
	12551	Output Reactive Power Phase T	0.1 kVAr	R
	12552	Output Load Percentage Phase R	0.1 V	R
	12553 ... 12572	Output Load Percentage Phase S	0.1 V	R
	12573	Output Load Percentage Phase T	0.1 V	R
	12574	Reserved		
	12575	Fan Running Time (hour)	Hours	R/W**
	12576	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	12577	Reserved		
	12578	Reserved		
	12579	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	12580	Utility Power And Battery Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	12581	Reserved		
	12582	Reserved		
	12583	Rectifier DSP Input Port	Dimensionless	R
	12584	Rectifier DSP Output Port	Dimensionless	R
	12585	Inverter DSP Input Port	Dimensionless	R
	12586	Inverter DSP Output	Dimensionless	R
	12587	Allow Inverter On Sign Integration	Dimensionless	R
	12588	Allow Transfer to Invert Sign Integration	Dimensionless	R
	12589	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	12590	Inverter Power Off Locked Sign Integration	Dimensionless	R
	12591	Reserved		
	12592	Inverter IO CAN	Dimensionless	R
	12593	Inverter DATA CAN	Dimensionless	R
	12594	Parallel Signal	Dimensionless	R
	12595	Read Rectifier Variate	Dimensionless	R
	12596	Write Rectifier Variate	Dimensionless	R
	12597	Read Inverter Variate	Dimensionless	R
	12598	Write Inverter Variate	Dimensionless	R
	12599	Inlet Temperature	0.1°C	R
	12600	Outlet Temperature	0.1°C	R
	12601	Rectifier IGBT Temperature Phase R	0.1°C	R
	12602	Rectifier IGBT Temperature Phase S	0.1°C	R
	12603	Rectifier IGBT Temperature Phase T	0.1°C	R

	Addr dec	Content	Units	Type
	12604	Inverter IGBT Temperature Phase R	0.1°C	R
	12605 ... 12644	Inverter IGBT Temperature Phase S	0.1°C	R
	12645	Inverter IGBT Temperature Phase T	0.1°C	R
	12646	Reserved		
	12647	Rectifier Identifier	Dimensionless	R
	12648	Rectifier Series Number	Dimensionless	R
	12649	Rectifier First Version Number	Dimensionless	R
	12650	Rectifier Second Version Number	Dimensionless	R
	12651	Inverter Identifier	Dimensionless	R
	12652	Inverter Series Number	Dimensionless	R
	12653 ... 12699	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 22		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 12700				
	12700	**Free**		
				12701

	Addr dec	Content	Units	Type
	12702	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R
	12703 ... 12704	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R

	Addr dec	Content	Units	Type
	12705	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	12706	**Free**		
	12707 ... 12709	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R

	Addr dec	Content	Units	Type
	12710	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	12711	**Free**		
	12712	SCODE STS_0_0		R
	12713	SCODE STS_0_1		R
	12714	SCODE STS_0_2		R
	12715	SCODE STS_0_3		R
	12716	SCODE STS_1_0		R
	12717	SCODE STS_1_1		R
	12718	SCODE STS_1_2		R
	12719	SCODE STS_1_3		R
	12720	SCODE STS_2_0		R
	12721	SCODE STS_2_1		R
	12722	**Free**		
	12723	SCODE ALM_0_0		R

	Addr dec	Content	Units	Type
	12724	SCODE ALM_0_1		R
	12725	SCODE ALM_0_2		R
	12726	SCODE ALM_0_3		R
	12727	SCODE ALM_1_0		R
	12728	SCODE ALM_1_1		R
	12729	SCODE ALM_1_2		R
	12730	SCODE ALM_1_3		R
	12731	SCODE ALM_2_0		R
	12732	SCODE ALM_2_1		R
	12733	SCODE ALM_2_2		R
	12734	SCODE ALM_2_3		R
	12735	SCODE ALM_3_0		R
	12736	SCODE ALM_3_1		R
	12737	SCODE ALM_3_2		R
	12738	SCODE ALM_3_3		R
	12739	SCODE ALM_4_0		R
	12740	SCODE ALM_4_1		R
	12741	SCODE ALM_4_2		R
	12742	SCODE ALM_4_3		R
	12743	SCODE ALM_5_0		R
	12744	SCODE ALM_5_1		R
	12745	SCODE ALM_5_2		R
	12746	SCODE ALM_5_3		R

	Addr dec	Content	Units	Type
	12747 ... 12748	SCODE ALM_6_0		R
	12749	SCODE ALM_6_1		R
	12750	**Free**		R
	12751	"0000"+SPECIAL SCODE ALM_7_0		R
	12752	Inverter Supplying		
	12753	Inverter ReadyForSupply		
	12754	Rectifier Status		
	12755	Battery Discharge		
	12756	Battery Boost		
	12757 ... 12999	Battery Float		
Measur ements of Module 23 Base address : 13000		Module set to Bypass		
	13000	**Free**		
				13001
	13002	**Free**		
	13003	Main Input Voltage Phase R	0.1 V	R
	13004	Main Input Voltage Phase S	0.1 V	R

	Addr dec	Content	Units	Type
	13005	Main Input Voltage Phase T	0.1 V	R
	13006	Main Input Current Phase R	0.1 A	R
	13007	Main Input Current Phase S	0.1 A	R
	13008	Main Input Current Phase T	0.1 A	R
	13009	Main Input Frequency Phase R	0.01 Hz	R
	13010	Main Input Frequency Phase S	0.01 Hz	R
	13011	Main Input Frequency Phase T	0.01 Hz	R
	13012	Input PF Phase R	0.01	R
	13013	Input PF Phase S	0.01	R
	13014	Input PF Phase T	0.01	R
	13015	Positive DC Bus Voltage	0.1 V	R
	13016	Negative DC Bus Voltage	0.1 V	R
	13017	Positive Battery String Voltage	0.1 V	R
	13018	Negative Battery String Voltage	0.1 V	R
	13019	Positive Charger Voltage	0.1 V	R
	13020	Negative Charger Voltage	0.1 V	R
	13021	Costive Charger Current	0.1 A	R
	13022	Negative Charger Current	0.1 A	R
	13023	Costive Discharge Current	0.1 A	R
	13024	Negative Discharge Current	0.1 A	R
	13025	Inverter Voltage Phase R	0.1 V	R
	13026	Inverter Voltage Phase S	0.1 V	R
	13027	Inverter Voltage Phase T	0.1 V	R

	Addr dec	Content	Units	Type
	13028	Output Current Phase R	0.1 A	R
	13029	Output Current Phase S	0.1 A	R
	13030	Output Current Phase T	0.1 A	R
	13031	Output Frequency Phase R	0.01 Hz	R
	13032	Output Frequency Phase S	0.01 Hz	R
	13033	Output Frequency Phase T	0.01 Hz	R
	13034	Output PF Phase R	0.01	R
	13035	Output PF Phase S	0.01	R
	13036	Output PF Phase T	0.01	R
	13037	Output Voltage Phase R	0.1 V	R
	13038	Output Voltage Phase S	0.1 V	R
	13039	Output Voltage Phase T	0.1 V	R
	13040	Bypass Voltage Phase R	0.1 V	R
	13041	Bypass Voltage Phase S	0.1 V	R
	13042	Bypass Voltage Phase T	0.1 V	R
	13043	Output Apparent Power Phase R	0.1 kVA	R
	13044	Output Apparent Power Phase S	0.1 kVA	R
	13045	Output Apparent Power Phase T	0.1 kVA	R
	13046	Output Active Power Phase R	0.1 kW	R
	13047	Output Active Power Phase S	0.1 kW	R
	13048	Output Active Power Phase T	0.1 kW	R
	13049	Output Reactive Power Phase R	0.1 kVAr	R
	13050	Output Reactive Power Phase S	0.1 kVAr	R

	Addr dec	Content	Units	Type
	13051	Output Reactive Power Phase T	0.1 kVAr	R
	13052	Output Load Percentage Phase R	0.1 V	R
	13053 ... 13072	Output Load Percentage Phase S	0.1 V	R
	13073	Output Load Percentage Phase T	0.1 V	R
	13074	Reserved		
	13075	Fan Running Time (hour)	Hours	R/W**
	13076	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	13077	Reserved		
	13078	Reserved		
	13079	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	13080	Utility Power And Battery Sign Integration	Dimensionless	R
	13081	Reserved		
	13082	Reserved		
	13083	Rectifier DSP Input Port	Dimensionless	R
	13084	Rectifier DSP Output Port	Dimensionless	R
	13085	Inverter DSP Input Port	Dimensionless	R
	13086	Inverter DSP Output	Dimensionless	R
	13087	Allow Inverter On Sign Integration	Dimensionless	R
	13088	Allow Transfer to Invert Sign Integration	Dimensionless	R
	13089	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	13090	Inverter Power Off Locked Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	13091	Reserved		
	13092	Inverter IO CAN	Dimensionless	R
	13093	Inverter DATA CAN	Dimensionless	R
	13094	Parallel Signal	Dimensionless	R
	13095	Read Rectifier Variate	Dimensionless	R
	13096	Write Rectifier Variate	Dimensionless	R
	13097	Read Inverter Variate	Dimensionless	R
	13098	Write Inverter Variate	Dimensionless	R
	13099	Inlet Temperature	0.1°C	R
	13100	Outlet Temperature	0.1°C	R
	13101	Rectifier IGBT Temperature Phase R	0.1°C	R
	13102	Rectifier IGBT Temperature Phase S	0.1°C	R
	13103	Rectifier IGBT Temperature Phase T	0.1°C	R
	13104	Inverter IGBT Temperature Phase R	0.1°C	R
	13105 ... 13144	Inverter IGBT Temperature Phase S	0.1°C	R
	13145	Inverter IGBT Temperature Phase T	0.1°C	R
	13146	Reserved		
	13147	Rectifier Identifier	Dimensionless	R
	13148	Rectifier Series Number	Dimensionless	R
	13149	Rectifier First Version Number	Dimensionless	R
	13150	Rectifier Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
	13151	Inverter Identifier	Dimensionless	R
	13152	Inverter Series Number	Dimensionless	R
	13153 ... 13199	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 23		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 13200				
	13200	**Free**		
				13201
	13202	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R

	Addr dec	Content	Units	Type
	13203 .. 13204	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R
	13205	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	13206	**Free**		

	Addr dec	Content	Units	Type
	13207 ... 13209	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R
	13210	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	13211	**Free**		
	13212	SCODE STS_0_0		R
	13213	SCODE STS_0_1		R

	Addr dec	Content	Units	Type
	13214	SCODE STS_0_2		R
	13215	SCODE STS_0_3		R
	13216	SCODE STS_1_0		R
	13217	SCODE STS_1_1		R
	13218	SCODE STS_1_2		R
	13219	SCODE STS_1_3		R
	13220	SCODE STS_2_0		R
	13221	SCODE STS_2_1		R
	13222	**Free**		
	13223	SCODE ALM_0_0		R
	13224	SCODE ALM_0_1		R
	13225	SCODE ALM_0_2		R
	13226	SCODE ALM_0_3		R
	13227	SCODE ALM_1_0		R
	13228	SCODE ALM_1_1		R
	13229	SCODE ALM_1_2		R
	13230	SCODE ALM_1_3		R
	13231	SCODE ALM_2_0		R
	13232	SCODE ALM_2_1		R
	13233	SCODE ALM_2_2		R
	13234	SCODE ALM_2_3		R
	13235	SCODE ALM_3_0		R
	13236	SCODE ALM_3_1		R

	Addr dec	Content	Units	Type
	13237	SCODE ALM_3_2		R
	13238	SCODE ALM_3_3		R
	13239	SCODE ALM_4_0		R
	13240	SCODE ALM_4_1		R
	13241	SCODE ALM_4_2		R
	13242	SCODE ALM_4_3		R
	13243	SCODE ALM_5_0		R
	13244	SCODE ALM_5_1		R
	13245	SCODE ALM_5_2		R
	13246	SCODE ALM_5_3		R
	13247 ... 13248	SCODE ALM_6_0		R
	13249	SCODE ALM_6_1		R
	13250	**Free**		R
	13251	"0000"+SPECIAL SCODE ALM_7_0		R
	13252	Inverter Supplying		
	13253	Inverter ReadyForSupply		
	13254	Rectifier Status		
	13255	Battery Discharge		
	13256	Battery Boost		
	13257 ... 13499	Battery Float		

	Addr dec	Content	Units	Type
Measurements of Module 24 Base address : 13500		Module set to Bypass		
	13500	**Free**		
				13501
	13502	**Free**		
	13503	Main Input Voltage Phase R	0.1 V	R
	13504	Main Input Voltage Phase S	0.1 V	R
	13505	Main Input Voltage Phase T	0.1 V	R
	13506	Main Input Current Phase R	0.1 A	R
	13507	Main Input Current Phase S	0.1 A	R
	13508	Main Input Current Phase T	0.1 A	R
	13509	Main Input Frequency Phase R	0.01 Hz	R
	13510	Main Input Frequency Phase S	0.01 Hz	R
	13511	Main Input Frequency Phase T	0.01 Hz	R
	13512	Input PF Phase R	0.01	R
	13513	Input PF Phase S	0.01	R
	13514	Input PF Phase T	0.01	R
	13515	Positive DC Bus Voltage	0.1 V	R
	13516	Negative DC Bus Voltage	0.1 V	R
	13517	Positive Battery String Voltage	0.1 V	R

	Addr dec	Content	Units	Type
	13518	Negative Battery String Voltage	0.1 V	R
	13519	Positive Charger Voltage	0.1 V	R
	13520	Negative Charger Voltage	0.1 V	R
	13521	Costive Charger Current	0.1 A	R
	13522	Negative Charger Current	0.1 A	R
	13523	Costive Discharge Current	0.1 A	R
	13524	Negative Discharge Current	0.1 A	R
	13525	Inverter Voltage Phase R	0.1 V	R
	13526	Inverter Voltage Phase S	0.1 V	R
	13527	Inverter Voltage Phase T	0.1 V	R
	13528	Output Current Phase R	0.1 A	R
	13529	Output Current Phase S	0.1 A	R
	13530	Output Current Phase T	0.1 A	R
	13531	Output Frequency Phase R	0.01 Hz	R
	13532	Output Frequency Phase S	0.01 Hz	R
	13533	Output Frequency Phase T	0.01 Hz	R
	13534	Output PF Phase R	0.01	R
	13535	Output PF Phase S	0.01	R
	13536	Output PF Phase T	0.01	R
	13537	Output Voltage Phase R	0.1 V	R
	13538	Output Voltage Phase S	0.1 V	R
	13539	Output Voltage Phase T	0.1 V	R
	13540	Bypass Voltage Phase R	0.1 V	R

	Addr dec	Content	Units	Type
	13541	Bypass Voltage Phase S	0.1 V	R
	13542	Bypass Voltage Phase T	0.1 V	R
	13543	Output Apparent Power Phase R	0.1 kVA	R
	13544	Output Apparent Power Phase S	0.1 kVA	R
	13545	Output Apparent Power Phase T	0.1 kVA	R
	13546	Output Active Power Phase R	0.1 kW	R
	13547	Output Active Power Phase S	0.1 kW	R
	13548	Output Active Power Phase T	0.1 kW	R
	13549	Output Reactive Power Phase R	0.1 kVAr	R
	13550	Output Reactive Power Phase S	0.1 kVAr	R
	13551	Output Reactive Power Phase T	0.1 kVAr	R
	13552	Output Load Percentage Phase R	0.1 V	R
	13553 ... 13572	Output Load Percentage Phase S	0.1 V	R
	13573	Output Load Percentage Phase T	0.1 V	R
	13574	Reserved		
	13575	Fan Running Time (hour)	Hours	R/W**
	13576	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	13577	Reserved		
	13578	Reserved		
	13579	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	13580	Utility Power And Battery Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	13581	Reserved		
	13582	Reserved		
	13583	Rectifier DSP Input Port	Dimensionless	R
	13584	Rectifier DSP Output Port	Dimensionless	R
	13585	Inverter DSP Input Port	Dimensionless	R
	13586	Inverter DSP Output	Dimensionless	R
	13587	Allow Inverter On Sign Integration	Dimensionless	R
	13588	Allow Transfer to Invert Sign Integration	Dimensionless	R
	13589	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	13590	Inverter Power Off Locked Sign Integration	Dimensionless	R
	13591	Reserved		
	13592	Inverter IO CAN	Dimensionless	R
	13593	Inverter DATA CAN	Dimensionless	R
	13594	Parallel Signal	Dimensionless	R
	13595	Read Rectifier Variate	Dimensionless	R
	13596	Write Rectifier Variate	Dimensionless	R
	13597	Read Inverter Variate	Dimensionless	R
	13598	Write Inverter Variate	Dimensionless	R
	13599	Inlet Temperature	0.1°C	R
	13600	Outlet Temperature	0.1°C	R
	13601	Rectifier IGBT Temperature Phase R	0.1°C	R
	13602	Rectifier IGBT Temperature Phase S	0.1°C	R
	13603	Rectifier IGBT Temperature Phase T	0.1°C	R

	Addr dec	Content	Units	Type
	13604	Inverter IGBT Temperature Phase R	0.1°C	R
	13605 ... 13644	Inverter IGBT Temperature Phase S	0.1°C	R
	13645	Inverter IGBT Temperature Phase T	0.1°C	R
	13646	Reserved		
	13647	Rectifier Identifier	Dimensionless	R
	13648	Rectifier Series Number	Dimensionless	R
	13649	Rectifier First Version Number	Dimensionless	R
	13650	Rectifier Second Version Number	Dimensionless	R
	13651	Inverter Identifier	Dimensionless	R
	13652	Inverter Series Number	Dimensionless	R
	13653 ... 13699	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 24		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 13700				
	13700	**Free**		
				13701

	Addr dec	Content	Units	Type
	13702	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R
	13703 ... 13704	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R

	Addr dec	Content	Units	Type
	13705	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	13706	**Free**		
	13707 ... 13709	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R

	Addr dec	Content	Units	Type
	13710	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	13711	**Free**		
	13712	SCODE STS_0_0		R
	13713	SCODE STS_0_1		R
	13714	SCODE STS_0_2		R
	13715	SCODE STS_0_3		R
	13716	SCODE STS_1_0		R
	13717	SCODE STS_1_1		R
	13718	SCODE STS_1_2		R
	13719	SCODE STS_1_3		R
	13720	SCODE STS_2_0		R
	13721	SCODE STS_2_1		R
	13722	**Free**		
	13723	SCODE ALM_0_0		R

	Addr dec	Content	Units	Type
	13724	SCODE ALM_0_1		R
	13725	SCODE ALM_0_2		R
	13726	SCODE ALM_0_3		R
	13727	SCODE ALM_1_0		R
	13728	SCODE ALM_1_1		R
	13729	SCODE ALM_1_2		R
	13730	SCODE ALM_1_3		R
	13731	SCODE ALM_2_0		R
	13732	SCODE ALM_2_1		R
	13733	SCODE ALM_2_2		R
	13734	SCODE ALM_2_3		R
	13735	SCODE ALM_3_0		R
	13736	SCODE ALM_3_1		R
	13737	SCODE ALM_3_2		R
	13738	SCODE ALM_3_3		R
	13739	SCODE ALM_4_0		R
	13740	SCODE ALM_4_1		R
	13741	SCODE ALM_4_2		R
	13742	SCODE ALM_4_3		R
	13743	SCODE ALM_5_0		R
	13744	SCODE ALM_5_1		R
	13745	SCODE ALM_5_2		R
	13746	SCODE ALM_5_3		R

	Addr dec	Content	Units	Type
	13747 ... 13748	SCODE ALM_6_0		R
	13749	SCODE ALM_6_1		R
	13750	**Free**		R
	13751	"0000"+SPECIAL SCODE ALM_7_0		R
	13752	Inverter Supplying		
	13753	Inverter ReadyForSupply		
	13754	Rectifier Status		
	13755	Battery Discharge		
	13756	Battery Boost		
	13757 ... 13999	Battery Float		
Measur ements of Module 25 Base address : 14000		Module set to Bypass		
	14000	**Free**		
				14001
	14002	**Free**		
	14003	Main Input Voltage Phase R	0.1 V	R
	14004	Main Input Voltage Phase S	0.1 V	R

	Addr dec	Content	Units	Type
	14005	Main Input Voltage Phase T	0.1 V	R
	14006	Main Input Current Phase R	0.1 A	R
	14007	Main Input Current Phase S	0.1 A	R
	14008	Main Input Current Phase T	0.1 A	R
	14009	Main Input Frequency Phase R	0.01 Hz	R
	14010	Main Input Frequency Phase S	0.01 Hz	R
	14011	Main Input Frequency Phase T	0.01 Hz	R
	14012	Input PF Phase R	0.01	R
	14013	Input PF Phase S	0.01	R
	14014	Input PF Phase T	0.01	R
	14015	Positive DC Bus Voltage	0.1 V	R
	14016	Negative DC Bus Voltage	0.1 V	R
	14017	Positive Battery String Voltage	0.1 V	R
	14018	Negative Battery String Voltage	0.1 V	R
	14019	Positive Charger Voltage	0.1 V	R
	14020	Negative Charger Voltage	0.1 V	R
	14021	Costive Charger Current	0.1 A	R
	14022	Negative Charger Current	0.1 A	R
	14023	Costive Discharge Current	0.1 A	R
	14024	Negative Discharge Current	0.1 A	R
	14025	Inverter Voltage Phase R	0.1 V	R
	14026	Inverter Voltage Phase S	0.1 V	R
	14027	Inverter Voltage Phase T	0.1 V	R

	Addr dec	Content	Units	Type
	14028	Output Current Phase R	0.1 A	R
	14029	Output Current Phase S	0.1 A	R
	14030	Output Current Phase T	0.1 A	R
	14031	Output Frequency Phase R	0.01 Hz	R
	14032	Output Frequency Phase S	0.01 Hz	R
	14033	Output Frequency Phase T	0.01 Hz	R
	14034	Output PF Phase R	0.01	R
	14035	Output PF Phase S	0.01	R
	14036	Output PF Phase T	0.01	R
	14037	Output Voltage Phase R	0.1 V	R
	14038	Output Voltage Phase S	0.1 V	R
	14039	Output Voltage Phase T	0.1 V	R
	14040	Bypass Voltage Phase R	0.1 V	R
	14041	Bypass Voltage Phase S	0.1 V	R
	14042	Bypass Voltage Phase T	0.1 V	R
	14043	Output Apparent Power Phase R	0.1 kVA	R
	14044	Output Apparent Power Phase S	0.1 kVA	R
	14045	Output Apparent Power Phase T	0.1 kVA	R
	14046	Output Active Power Phase R	0.1 kW	R
	14047	Output Active Power Phase S	0.1 kW	R
	14048	Output Active Power Phase T	0.1 kW	R
	14049	Output Reactive Power Phase R	0.1 kVAr	R
	14050	Output Reactive Power Phase S	0.1 kVAr	R

	Addr dec	Content	Units	Type
	14051	Output Reactive Power Phase T	0.1 kVAr	R
	14052	Output Load Percentage Phase R	0.1 V	R
	14053 ... 14072	Output Load Percentage Phase S	0.1 V	R
	14073	Output Load Percentage Phase T	0.1 V	R
	14074	Reserved		
	14075	Fan Running Time (hour)	Hours	R/W**
	14076	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	14077	Reserved		
	14078	Reserved		
	14079	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	14080	Utility Power And Battery Sign Integration	Dimensionless	R
	14081	Reserved		
	14082	Reserved		
	14083	Rectifier DSP Input Port	Dimensionless	R
	14084	Rectifier DSP Output Port	Dimensionless	R
	14085	Inverter DSP Input Port	Dimensionless	R
	14086	Inverter DSP Output	Dimensionless	R
	14087	Allow Inverter On Sign Integration	Dimensionless	R
	14088	Allow Transfer to Invert Sign Integration	Dimensionless	R
	14089	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	14090	Inverter Power Off Locked Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	14091	Reserved		
	14092	Inverter IO CAN	Dimensionless	R
	14093	Inverter DATA CAN	Dimensionless	R
	14094	Parallel Signal	Dimensionless	R
	14095	Read Rectifier Variate	Dimensionless	R
	14096	Write Rectifier Variate	Dimensionless	R
	14097	Read Inverter Variate	Dimensionless	R
	14098	Write Inverter Variate	Dimensionless	R
	14099	Inlet Temperature	0.1°C	R
	14100	Outlet Temperature	0.1°C	R
	14101	Rectifier IGBT Temperature Phase R	0.1°C	R
	14102	Rectifier IGBT Temperature Phase S	0.1°C	R
	14103	Rectifier IGBT Temperature Phase T	0.1°C	R
	14104	Inverter IGBT Temperature Phase R	0.1°C	R
	14105 ... 14144	Inverter IGBT Temperature Phase S	0.1°C	R
	14145	Inverter IGBT Temperature Phase T	0.1°C	R
	14146	Reserved		
	14147	Rectifier Identifier	Dimensionless	R
	14148	Rectifier Series Number	Dimensionless	R
	14149	Rectifier First Version Number	Dimensionless	R
	14150	Rectifier Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
	14151	Inverter Identifier	Dimensionless	R
	14152	Inverter Series Number	Dimensionless	R
	14153 ... 14199	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 25	Inverter Second Version Number		Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 14200				
	14200	**Free**		
				14201
	14202	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R

	Addr dec	Content	Units	Type
	14203 ... 14204	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R
	14205	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	14206	**Free**		

	Addr dec	Content	Units	Type
	14207 ... 14209	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R
	14210	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	14211	**Free**		
	14212	SCODE STS_0_0		R
	14213	SCODE STS_0_1		R

	Addr dec	Content	Units	Type
	14214	SCODE STS_0_2		R
	14215	SCODE STS_0_3		R
	14216	SCODE STS_1_0		R
	14217	SCODE STS_1_1		R
	14218	SCODE STS_1_2		R
	14219	SCODE STS_1_3		R
	14220	SCODE STS_2_0		R
	14221	SCODE STS_2_1		R
	14222	**Free**		
	14223	SCODE ALM_0_0		R
	14224	SCODE ALM_0_1		R
	14225	SCODE ALM_0_2		R
	14226	SCODE ALM_0_3		R
	14227	SCODE ALM_1_0		R
	14228	SCODE ALM_1_1		R
	14229	SCODE ALM_1_2		R
	14230	SCODE ALM_1_3		R
	14231	SCODE ALM_2_0		R
	14232	SCODE ALM_2_1		R
	14233	SCODE ALM_2_2		R
	14234	SCODE ALM_2_3		R
	14235	SCODE ALM_3_0		R
	14236	SCODE ALM_3_1		R

	Addr dec	Content	Units	Type
	14237	SCODE ALM_3_2		R
	14238	SCODE ALM_3_3		R
	14239	SCODE ALM_4_0		R
	14240	SCODE ALM_4_1		R
	14241	SCODE ALM_4_2		R
	14242	SCODE ALM_4_3		R
	14243	SCODE ALM_5_0		R
	14244	SCODE ALM_5_1		R
	14245	SCODE ALM_5_2		R
	14246	SCODE ALM_5_3		R
	14247 ... 14248	SCODE ALM_6_0		R
	14249	SCODE ALM_6_1		R
	14250	**Free**		R
	14251	"0000"+SPECIAL SCODE ALM_7_0		R
	14252	Inverter Supplying		
	14253	Inverter ReadyForSupply		
	14254	Rectifier Status		
	14255	Battery Discharge		
	14256	Battery Boost		
	14257 ... 14299	Battery Float		

	Addr dec	Content	Units	Type
Measurements of Module 26 Base address : 14500		Module set to Bypass		
	14500	**Free**		
				14501
	14502	**Free**		
	14503	Main Input Voltage Phase R	0.1 V	R
	14504	Main Input Voltage Phase S	0.1 V	R
	14505	Main Input Voltage Phase T	0.1 V	R
	14506	Main Input Current Phase R	0.1 A	R
	14507	Main Input Current Phase S	0.1 A	R
	14508	Main Input Current Phase T	0.1 A	R
	14509	Main Input Frequency Phase R	0.01 Hz	R
	14510	Main Input Frequency Phase S	0.01 Hz	R
	14511	Main Input Frequency Phase T	0.01 Hz	R
	14512	Input PF Phase R	0.01	R
	14513	Input PF Phase S	0.01	R
	14514	Input PF Phase T	0.01	R
	14515	Positive DC Bus Voltage	0.1 V	R
	14516	Negative DC Bus Voltage	0.1 V	R
	14517	Positive Battery String Voltage	0.1 V	R

	Addr dec	Content	Units	Type
	14518	Negative Battery String Voltage	0.1 V	R
	14519	Positive Charger Voltage	0.1 V	R
	14520	Negative Charger Voltage	0.1 V	R
	14521	Costive Charger Current	0.1 A	R
	14522	Negative Charger Current	0.1 A	R
	14523	Costive Discharge Current	0.1 A	R
	14524	Negative Discharge Current	0.1 A	R
	14525	Inverter Voltage Phase R	0.1 V	R
	14526	Inverter Voltage Phase S	0.1 V	R
	14527	Inverter Voltage Phase T	0.1 V	R
	14528	Output Current Phase R	0.1 A	R
	14529	Output Current Phase S	0.1 A	R
	14530	Output Current Phase T	0.1 A	R
	14531	Output Frequency Phase R	0.01 Hz	R
	14532	Output Frequency Phase S	0.01 Hz	R
	14533	Output Frequency Phase T	0.01 Hz	R
	14534	Output PF Phase R	0.01	R
	14535	Output PF Phase S	0.01	R
	14536	Output PF Phase T	0.01	R
	14537	Output Voltage Phase R	0.1 V	R
	14538	Output Voltage Phase S	0.1 V	R
	14539	Output Voltage Phase T	0.1 V	R
	14540	Bypass Voltage Phase R	0.1 V	R

	Addr dec	Content	Units	Type
	14541	Bypass Voltage Phase S	0.1 V	R
	14542	Bypass Voltage Phase T	0.1 V	R
	14543	Output Apparent Power Phase R	0.1 kVA	R
	14544	Output Apparent Power Phase S	0.1 kVA	R
	14545	Output Apparent Power Phase T	0.1 kVA	R
	14546	Output Active Power Phase R	0.1 kW	R
	14547	Output Active Power Phase S	0.1 kW	R
	14548	Output Active Power Phase T	0.1 kW	R
	14549	Output Reactive Power Phase R	0.1 kVAr	R
	14550	Output Reactive Power Phase S	0.1 kVAr	R
	14551	Output Reactive Power Phase T	0.1 kVAr	R
	14552	Output Load Percentage Phase R	0.1 V	R
	14553 ... 14572	Output Load Percentage Phase S	0.1 V	R
	14573	Output Load Percentage Phase T	0.1 V	R
	14574	Reserved		
	14575	Fan Running Time (hour)	Hours	R/W**
	14576	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	14577	Reserved		
	14578	Reserved		
	14579	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	14580	Utility Power And Battery Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	14581	Reserved		
	14582	Reserved		
	14583	Rectifier DSP Input Port	Dimensionless	R
	14584	Rectifier DSP Output Port	Dimensionless	R
	14585	Inverter DSP Input Port	Dimensionless	R
	14586	Inverter DSP Output	Dimensionless	R
	14587	Allow Inverter On Sign Integration	Dimensionless	R
	14588	Allow Transfer to Invert Sign Integration	Dimensionless	R
	14589	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	14590	Inverter Power Off Locked Sign Integration	Dimensionless	R
	14591	Reserved		
	14592	Inverter IO CAN	Dimensionless	R
	14593	Inverter DATA CAN	Dimensionless	R
	14594	Parallel Signal	Dimensionless	R
	14595	Read Rectifier Variate	Dimensionless	R
	14596	Write Rectifier Variate	Dimensionless	R
	14597	Read Inverter Variate	Dimensionless	R
	14598	Write Inverter Variate	Dimensionless	R
	14599	Inlet Temperature	0.1°C	R
	14600	Outlet Temperature	0.1°C	R
	14601	Rectifier IGBT Temperature Phase R	0.1°C	R
	14602	Rectifier IGBT Temperature Phase S	0.1°C	R
	14603	Rectifier IGBT Temperature Phase T	0.1°C	R

	Addr dec	Content	Units	Type
	14604	Inverter IGBT Temperature Phase R	0.1°C	R
	14605 ... 14644	Inverter IGBT Temperature Phase S	0.1°C	R
	14645	Inverter IGBT Temperature Phase T	0.1°C	R
	14646	Reserved		
	14647	Rectifier Identifier	Dimensionless	R
	14648	Rectifier Series Number	Dimensionless	R
	14649	Rectifier First Version Number	Dimensionless	R
	14650	Rectifier Second Version Number	Dimensionless	R
	14651	Inverter Identifier	Dimensionless	R
	14652	Inverter Series Number	Dimensionless	R
	14653 ... 14699	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 26		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 14700				
	14700	**Free**		
				14701

	Addr dec	Content	Units	Type
	14702	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R
	14703 ... 14704	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R

	Addr dec	Content	Units	Type
	14705	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	14706	**Free**		
	14707 ... 14709	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R

	Addr dec	Content	Units	Type
	14710	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	14711	**Free**		
	14712	SCODE STS_0_0		R
	14713	SCODE STS_0_1		R
	14714	SCODE STS_0_2		R
	14715	SCODE STS_0_3		R
	14716	SCODE STS_1_0		R
	14717	SCODE STS_1_1		R
	14718	SCODE STS_1_2		R
	14719	SCODE STS_1_3		R
	14720	SCODE STS_2_0		R
	14721	SCODE STS_2_1		R
	14722	**Free**		
	14723	SCODE ALM_0_0		R

	Addr dec	Content	Units	Type
	14724	SCODE ALM_0_1		R
	14725	SCODE ALM_0_2		R
	14726	SCODE ALM_0_3		R
	14727	SCODE ALM_1_0		R
	14728	SCODE ALM_1_1		R
	14729	SCODE ALM_1_2		R
	14730	SCODE ALM_1_3		R
	14731	SCODE ALM_2_0		R
	14732	SCODE ALM_2_1		R
	14733	SCODE ALM_2_2		R
	14734	SCODE ALM_2_3		R
	14735	SCODE ALM_3_0		R
	14736	SCODE ALM_3_1		R
	14737	SCODE ALM_3_2		R
	14738	SCODE ALM_3_3		R
	14739	SCODE ALM_4_0		R
	14740	SCODE ALM_4_1		R
	14741	SCODE ALM_4_2		R
	14742	SCODE ALM_4_3		R
	14743	SCODE ALM_5_0		R
	14744	SCODE ALM_5_1		R
	14745	SCODE ALM_5_2		R
	14746	SCODE ALM_5_3		R

	Addr dec	Content	Units	Type
	14747 ... 14748	SCODE ALM_6_0		R
	14749	SCODE ALM_6_1		R
	14750	**Free**		R
	14751	"0000"+SPECIAL SCODE ALM_7_0		R
	14752	Inverter Supplying		
	14753	Inverter ReadyForSupply		
	14754	Rectifier Status		
	14755	Battery Discharge		
	14756	Battery Boost		
	14757 ... 14999	Battery Float		
Measur ements of Module 27 Base address : 15000		Module set to Bypass		
	15000	**Free**		
				15001
	15002	**Free**		
	15003	Main Input Voltage Phase R	0.1 V	R
	15004	Main Input Voltage Phase S	0.1 V	R

	Addr dec	Content	Units	Type
	15005	Main Input Voltage Phase T	0.1 V	R
	15006	Main Input Current Phase R	0.1 A	R
	15007	Main Input Current Phase S	0.1 A	R
	15008	Main Input Current Phase T	0.1 A	R
	15009	Main Input Frequency Phase R	0.01 Hz	R
	15010	Main Input Frequency Phase S	0.01 Hz	R
	15011	Main Input Frequency Phase T	0.01 Hz	R
	15012	Input PF Phase R	0.01	R
	15013	Input PF Phase S	0.01	R
	15014	Input PF Phase T	0.01	R
	15015	Positive DC Bus Voltage	0.1 V	R
	15016	Negative DC Bus Voltage	0.1 V	R
	15017	Positive Battery String Voltage	0.1 V	R
	15018	Negative Battery String Voltage	0.1 V	R
	15019	Positive Charger Voltage	0.1 V	R
	15020	Negative Charger Voltage	0.1 V	R
	15021	Costive Charger Current	0.1 A	R
	15022	Negative Charger Current	0.1 A	R
	15023	Costive Discharge Current	0.1 A	R
	15024	Negative Discharge Current	0.1 A	R
	15025	Inverter Voltage Phase R	0.1 V	R
	15026	Inverter Voltage Phase S	0.1 V	R
	15027	Inverter Voltage Phase T	0.1 V	R

	Addr dec	Content	Units	Type
	15028	Output Current Phase R	0.1 A	R
	15029	Output Current Phase S	0.1 A	R
	15030	Output Current Phase T	0.1 A	R
	15031	Output Frequency Phase R	0.01 Hz	R
	15032	Output Frequency Phase S	0.01 Hz	R
	15033	Output Frequency Phase T	0.01 Hz	R
	15034	Output PF Phase R	0.01	R
	15035	Output PF Phase S	0.01	R
	15036	Output PF Phase T	0.01	R
	15037	Output Voltage Phase R	0.1 V	R
	15038	Output Voltage Phase S	0.1 V	R
	15039	Output Voltage Phase T	0.1 V	R
	15040	Bypass Voltage Phase R	0.1 V	R
	15041	Bypass Voltage Phase S	0.1 V	R
	15042	Bypass Voltage Phase T	0.1 V	R
	15043	Output Apparent Power Phase R	0.1 kVA	R
	15044	Output Apparent Power Phase S	0.1 kVA	R
	15045	Output Apparent Power Phase T	0.1 kVA	R
	15046	Output Active Power Phase R	0.1 kW	R
	15047	Output Active Power Phase S	0.1 kW	R
	15048	Output Active Power Phase T	0.1 kW	R
	15049	Output Reactive Power Phase R	0.1 kVAr	R
	15050	Output Reactive Power Phase S	0.1 kVAr	R

	Addr dec	Content	Units	Type
	15051	Output Reactive Power Phase T	0.1 kVAr	R
	15052	Output Load Percentage Phase R	0.1 V	R
	15053 ... 15072	Output Load Percentage Phase S	0.1 V	R
	15073	Output Load Percentage Phase T	0.1 V	R
	15074	Reserved		
	15075	Fan Running Time (hour)	Hours	R/W**
	15076	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	15077	Reserved		
	15078	Reserved		
	15079	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	15080	Utility Power And Battery Sign Integration	Dimensionless	R
	15081	Reserved		
	15082	Reserved		
	15083	Rectifier DSP Input Port	Dimensionless	R
	15084	Rectifier DSP Output Port	Dimensionless	R
	15085	Inverter DSP Input Port	Dimensionless	R
	15086	Inverter DSP Output	Dimensionless	R
	15087	Allow Inverter On Sign Integration	Dimensionless	R
	15088	Allow Transfer to Invert Sign Integration	Dimensionless	R
	15089	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	15090	Inverter Power Off Locked Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	15091	Reserved		
	15092	Inverter IO CAN	Dimensionless	R
	15093	Inverter DATA CAN	Dimensionless	R
	15094	Parallel Signal	Dimensionless	R
	15095	Read Rectifier Variate	Dimensionless	R
	15096	Write Rectifier Variate	Dimensionless	R
	15097	Read Inverter Variate	Dimensionless	R
	15098	Write Inverter Variate	Dimensionless	R
	15099	Inlet Temperature	0.1°C	R
	15100	Outlet Temperature	0.1°C	R
	15101	Rectifier IGBT Temperature Phase R	0.1°C	R
	15102	Rectifier IGBT Temperature Phase S	0.1°C	R
	15103	Rectifier IGBT Temperature Phase T	0.1°C	R
	15104	Inverter IGBT Temperature Phase R	0.1°C	R
	15105 ... 15144	Inverter IGBT Temperature Phase S	0.1°C	R
	15145	Inverter IGBT Temperature Phase T	0.1°C	R
	15146	Reserved		
	15147	Rectifier Identifier	Dimensionless	R
	15148	Rectifier Series Number	Dimensionless	R
	15149	Rectifier First Version Number	Dimensionless	R
	15150	Rectifier Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
	15151	Inverter Identifier	Dimensionless	R
	15152	Inverter Series Number	Dimensionless	R
	15153 ... 15199	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 27		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 15200				
	15200	**Free**		
				15201
	15202	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R

	Addr dec	Content	Units	Type
	15203 ... 15204	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R
	15205	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	15206	**Free**		

	Addr dec	Content	Units	Type
	15207 ... 15209	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R
	15210	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	15211	**Free**		
	15212	SCODE STS_0_0		R
	15213	SCODE STS_0_1		R

	Addr dec	Content	Units	Type
	15214	SCODE STS_0_2		R
	15215	SCODE STS_0_3		R
	15216	SCODE STS_1_0		R
	15217	SCODE STS_1_1		R
	15218	SCODE STS_1_2		R
	15219	SCODE STS_1_3		R
	15220	SCODE STS_2_0		R
	15221	SCODE STS_2_1		R
	15222	**Free**		
	15223	SCODE ALM_0_0		R
	15224	SCODE ALM_0_1		R
	15225	SCODE ALM_0_2		R
	15226	SCODE ALM_0_3		R
	15227	SCODE ALM_1_0		R
	15228	SCODE ALM_1_1		R
	15229	SCODE ALM_1_2		R
	15230	SCODE ALM_1_3		R
	15231	SCODE ALM_2_0		R
	15232	SCODE ALM_2_1		R
	15233	SCODE ALM_2_2		R
	15234	SCODE ALM_2_3		R
	15235	SCODE ALM_3_0		R
	15236	SCODE ALM_3_1		R

	Addr dec	Content	Units	Type
	15237	SCODE ALM_3_2		R
	15238	SCODE ALM_3_3		R
	15239	SCODE ALM_4_0		R
	15240	SCODE ALM_4_1		R
	15241	SCODE ALM_4_2		R
	15242	SCODE ALM_4_3		R
	15243	SCODE ALM_5_0		R
	15244	SCODE ALM_5_1		R
	15245	SCODE ALM_5_2		R
	15246	SCODE ALM_5_3		R
	15247 ... 15248	SCODE ALM_6_0		R
	15249	SCODE ALM_6_1		R
	15250	**Free**		R
	15251	"0000"+SPECIAL SCODE ALM_7_0		R
	15252	Inverter Supplying		
	15253	Inverter ReadyForSupply		
	15254	Rectifier Status		
	15255	Battery Discharge		
	15256	Battery Boost		
	15257 ... 15499	Battery Float		

	Addr dec	Content	Units	Type
Measurements of Module 28 Base address : 15500		Module set to Bypass		
	15500	**Free**		
				15501
	15502	**Free**		
	15503	Main Input Voltage Phase R	0.1 V	R
	15504	Main Input Voltage Phase S	0.1 V	R
	15505	Main Input Voltage Phase T	0.1 V	R
	15506	Main Input Current Phase R	0.1 A	R
	15507	Main Input Current Phase S	0.1 A	R
	15508	Main Input Current Phase T	0.1 A	R
	15509	Main Input Frequency Phase R	0.01 Hz	R
	15510	Main Input Frequency Phase S	0.01 Hz	R
	15511	Main Input Frequency Phase T	0.01 Hz	R
	15512	Input PF Phase R	0.01	R
	15513	Input PF Phase S	0.01	R
	15514	Input PF Phase T	0.01	R
	15515	Positive DC Bus Voltage	0.1 V	R
	15516	Negative DC Bus Voltage	0.1 V	R
	15517	Positive Battery String Voltage	0.1 V	R

	Addr dec	Content	Units	Type
	15518	Negative Battery String Voltage	0.1 V	R
	15519	Positive Charger Voltage	0.1 V	R
	15520	Negative Charger Voltage	0.1 V	R
	15521	Costive Charger Current	0.1 A	R
	15522	Negative Charger Current	0.1 A	R
	15523	Costive Discharge Current	0.1 A	R
	15524	Negative Discharge Current	0.1 A	R
	15525	Inverter Voltage Phase R	0.1 V	R
	15526	Inverter Voltage Phase S	0.1 V	R
	15527	Inverter Voltage Phase T	0.1 V	R
	15528	Output Current Phase R	0.1 A	R
	15529	Output Current Phase S	0.1 A	R
	15530	Output Current Phase T	0.1 A	R
	15531	Output Frequency Phase R	0.01 Hz	R
	15532	Output Frequency Phase S	0.01 Hz	R
	15533	Output Frequency Phase T	0.01 Hz	R
	15534	Output PF Phase R	0.01	R
	15535	Output PF Phase S	0.01	R
	15536	Output PF Phase T	0.01	R
	15537	Output Voltage Phase R	0.1 V	R
	15538	Output Voltage Phase S	0.1 V	R
	15539	Output Voltage Phase T	0.1 V	R
	15540	Bypass Voltage Phase R	0.1 V	R

	Addr dec	Content	Units	Type
	15541	Bypass Voltage Phase S	0.1 V	R
	15542	Bypass Voltage Phase T	0.1 V	R
	15543	Output Apparent Power Phase R	0.1 kVA	R
	15544	Output Apparent Power Phase S	0.1 kVA	R
	15545	Output Apparent Power Phase T	0.1 kVA	R
	15546	Output Active Power Phase R	0.1 kW	R
	15547	Output Active Power Phase S	0.1 kW	R
	15548	Output Active Power Phase T	0.1 kW	R
	15549	Output Reactive Power Phase R	0.1 kVAr	R
	15550	Output Reactive Power Phase S	0.1 kVAr	R
	15551	Output Reactive Power Phase T	0.1 kVAr	R
	15552	Output Load Percentage Phase R	0.1 V	R
	15553 ... 15572	Output Load Percentage Phase S	0.1 V	R
	15573	Output Load Percentage Phase T	0.1 V	R
	15574	Reserved		
	15575	Fan Running Time (hour)	Hours	R/W**
	15576	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	15577	Reserved		
	15578	Reserved		
	15579	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	15580	Utility Power And Battery Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	15581	Reserved		
	15582	Reserved		
	15583	Rectifier DSP Input Port	Dimensionless	R
	15584	Rectifier DSP Output Port	Dimensionless	R
	15585	Inverter DSP Input Port	Dimensionless	R
	15586	Inverter DSP Output	Dimensionless	R
	15587	Allow Inverter On Sign Integration	Dimensionless	R
	15588	Allow Transfer to Invert Sign Integration	Dimensionless	R
	15589	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	15590	Inverter Power Off Locked Sign Integration	Dimensionless	R
	15591	Reserved		
	15592	Inverter IO CAN	Dimensionless	R
	15593	Inverter DATA CAN	Dimensionless	R
	15594	Parallel Signal	Dimensionless	R
	15595	Read Rectifier Variate	Dimensionless	R
	15596	Write Rectifier Variate	Dimensionless	R
	15597	Read Inverter Variate	Dimensionless	R
	15598	Write Inverter Variate	Dimensionless	R
	15599	Inlet Temperature	0.1°C	R
	15600	Outlet Temperature	0.1°C	R
	15601	Rectifier IGBT Temperature Phase R	0.1°C	R
	15602	Rectifier IGBT Temperature Phase S	0.1°C	R
	15603	Rectifier IGBT Temperature Phase T	0.1°C	R

	Addr dec	Content	Units	Type
	15604	Inverter IGBT Temperature Phase R	0.1°C	R
	15605 ... 15644	Inverter IGBT Temperature Phase S	0.1°C	R
	15645	Inverter IGBT Temperature Phase T	0.1°C	R
	15646	Reserved		
	15647	Rectifier Identifier	Dimensionless	R
	15648	Rectifier Series Number	Dimensionless	R
	15649	Rectifier First Version Number	Dimensionless	R
	15650	Rectifier Second Version Number	Dimensionless	R
	15651	Inverter Identifier	Dimensionless	R
	15652	Inverter Series Number	Dimensionless	R
	15653 ... 15699	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 28		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 15700				
	15700	**Free**		
				15701

	Addr dec	Content	Units	Type
	15702	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R
	15703 ... 15704	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R

	Addr dec	Content	Units	Type
	15705	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	15706	**Free**		
	15707 ... 15709	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R

	Addr dec	Content	Units	Type
	15710	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	15711	**Free**		
	15712	SCODE STS_0_0		R
	15713	SCODE STS_0_1		R
	15714	SCODE STS_0_2		R
	15715	SCODE STS_0_3		R
	15716	SCODE STS_1_0		R
	15717	SCODE STS_1_1		R
	15718	SCODE STS_1_2		R
	15719	SCODE STS_1_3		R
	15720	SCODE STS_2_0		R
	15721	SCODE STS_2_1		R
	15722	**Free**		
	15723	SCODE ALM_0_0		R

	Addr dec	Content	Units	Type
	15724	SCODE ALM_0_1		R
	15725	SCODE ALM_0_2		R
	15726	SCODE ALM_0_3		R
	15727	SCODE ALM_1_0		R
	15728	SCODE ALM_1_1		R
	15729	SCODE ALM_1_2		R
	15730	SCODE ALM_1_3		R
	15731	SCODE ALM_2_0		R
	15732	SCODE ALM_2_1		R
	15733	SCODE ALM_2_2		R
	15734	SCODE ALM_2_3		R
	15735	SCODE ALM_3_0		R
	15736	SCODE ALM_3_1		R
	15737	SCODE ALM_3_2		R
	15738	SCODE ALM_3_3		R
	15739	SCODE ALM_4_0		R
	15740	SCODE ALM_4_1		R
	15741	SCODE ALM_4_2		R
	15742	SCODE ALM_4_3		R
	15743	SCODE ALM_5_0		R
	15744	SCODE ALM_5_1		R
	15745	SCODE ALM_5_2		R
	15746	SCODE ALM_5_3		R

	Addr dec	Content	Units	Type
	15747 ... 15748	SCODE ALM_6_0		R
	15749	SCODE ALM_6_1		R
	15750	**Free**		R
	15751	"0000"+SPECIAL SCODE ALM_7_0		R
	15752	Inverter Supplying		
	15753	Inverter ReadyForSupply		
	15754	Rectifier Status		
	15755	Battery Discharge		
	15756	Battery Boost		
	15757 ... 15999	Battery Float		
Measur ements of Module 29 Base address : 16000		Module set to Bypass		
	16000	**Free**		
				16001
	16002	**Free**		
	16003	Main Input Voltage Phase R	0.1 V	R
	16004	Main Input Voltage Phase S	0.1 V	R

	Addr dec	Content	Units	Type
	16005	Main Input Voltage Phase T	0.1 V	R
	16006	Main Input Current Phase R	0.1 A	R
	16007	Main Input Current Phase S	0.1 A	R
	16008	Main Input Current Phase T	0.1 A	R
	16009	Main Input Frequency Phase R	0.01 Hz	R
	16010	Main Input Frequency Phase S	0.01 Hz	R
	16011	Main Input Frequency Phase T	0.01 Hz	R
	16012	Input PF Phase R	0.01	R
	16013	Input PF Phase S	0.01	R
	16014	Input PF Phase T	0.01	R
	16015	Positive DC Bus Voltage	0.1 V	R
	16016	Negative DC Bus Voltage	0.1 V	R
	16017	Positive Battery String Voltage	0.1 V	R
	16018	Negative Battery String Voltage	0.1 V	R
	16019	Positive Charger Voltage	0.1 V	R
	16020	Negative Charger Voltage	0.1 V	R
	16021	Costive Charger Current	0.1 A	R
	16022	Negative Charger Current	0.1 A	R
	16023	Costive Discharge Current	0.1 A	R
	16024	Negative Discharge Current	0.1 A	R
	16025	Inverter Voltage Phase R	0.1 V	R
	16026	Inverter Voltage Phase S	0.1 V	R
	16027	Inverter Voltage Phase T	0.1 V	R

	Addr dec	Content	Units	Type
	16028	Output Current Phase R	0.1 A	R
	16029	Output Current Phase S	0.1 A	R
	16030	Output Current Phase T	0.1 A	R
	16031	Output Frequency Phase R	0.01 Hz	R
	16032	Output Frequency Phase S	0.01 Hz	R
	16033	Output Frequency Phase T	0.01 Hz	R
	16034	Output PF Phase R	0.01	R
	16035	Output PF Phase S	0.01	R
	16036	Output PF Phase T	0.01	R
	16037	Output Voltage Phase R	0.1 V	R
	16038	Output Voltage Phase S	0.1 V	R
	16039	Output Voltage Phase T	0.1 V	R
	16040	Bypass Voltage Phase R	0.1 V	R
	16041	Bypass Voltage Phase S	0.1 V	R
	16042	Bypass Voltage Phase T	0.1 V	R
	16043	Output Apparent Power Phase R	0.1 kVA	R
	16044	Output Apparent Power Phase S	0.1 kVA	R
	16045	Output Apparent Power Phase T	0.1 kVA	R
	16046	Output Active Power Phase R	0.1 kW	R
	16047	Output Active Power Phase S	0.1 kW	R
	16048	Output Active Power Phase T	0.1 kW	R
	16049	Output Reactive Power Phase R	0.1 kVAr	R
	16050	Output Reactive Power Phase S	0.1 kVAr	R

	Addr dec	Content	Units	Type
	16051	Output Reactive Power Phase T	0.1 kVAr	R
	16052	Output Load Percentage Phase R	0.1 V	R
	16053 ... 16072	Output Load Percentage Phase S	0.1 V	R
	16073	Output Load Percentage Phase T	0.1 V	R
	16074	Reserved		
	16075	Fan Running Time (hour)	Hours	R/W**
	16076	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	16077	Reserved		
	16078	Reserved		
	16079	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	16080	Utility Power And Battery Sign Integration	Dimensionless	R
	16081	Reserved		
	16082	Reserved		
	16083	Rectifier DSP Input Port	Dimensionless	R
	16084	Rectifier DSP Output Port	Dimensionless	R
	16085	Inverter DSP Input Port	Dimensionless	R
	16086	Inverter DSP Output	Dimensionless	R
	16087	Allow Inverter On Sign Integration	Dimensionless	R
	16088	Allow Transfer to Invert Sign Integration	Dimensionless	R
	16089	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	16090	Inverter Power Off Locked Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	16091	Reserved		
	16092	Inverter IO CAN	Dimensionless	R
	16093	Inverter DATA CAN	Dimensionless	R
	16094	Parallel Signal	Dimensionless	R
	16095	Read Rectifier Variate	Dimensionless	R
	16096	Write Rectifier Variate	Dimensionless	R
	16097	Read Inverter Variate	Dimensionless	R
	16098	Write Inverter Variate	Dimensionless	R
	16099	Inlet Temperature	0.1°C	R
	16100	Outlet Temperature	0.1°C	R
	16101	Rectifier IGBT Temperature Phase R	0.1°C	R
	16102	Rectifier IGBT Temperature Phase S	0.1°C	R
	16103	Rectifier IGBT Temperature Phase T	0.1°C	R
	16104	Inverter IGBT Temperature Phase R	0.1°C	R
	16105 ... 16144	Inverter IGBT Temperature Phase S	0.1°C	R
	16145	Inverter IGBT Temperature Phase T	0.1°C	R
	16146	Reserved		
	16147	Rectifier Identifier	Dimensionless	R
	16148	Rectifier Series Number	Dimensionless	R
	16149	Rectifier First Version Number	Dimensionless	R
	16150	Rectifier Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
	16151	Inverter Identifier	Dimensionless	R
	16152	Inverter Series Number	Dimensionless	R
	16153 ... 16199	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 29		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 16200				
	16200	**Free**		
				16201
	16202	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R

	Addr dec	Content	Units	Type
	16203 ... 16204	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R
	16205	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	16206	**Free**		

	Addr dec	Content	Units	Type
	16207 ... 16209	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R
	16210	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	16211	**Free**		
	16212	SCODE STS_0_0		R
	16213	SCODE STS_0_1		R

	Addr dec	Content	Units	Type
	16214	SCODE STS_0_2		R
	16215	SCODE STS_0_3		R
	16216	SCODE STS_1_0		R
	16217	SCODE STS_1_1		R
	16218	SCODE STS_1_2		R
	16219	SCODE STS_1_3		R
	16220	SCODE STS_2_0		R
	16221	SCODE STS_2_1		R
	16222	**Free**		
	16223	SCODE ALM_0_0		R
	16224	SCODE ALM_0_1		R
	16225	SCODE ALM_0_2		R
	16226	SCODE ALM_0_3		R
	16227	SCODE ALM_1_0		R
	16228	SCODE ALM_1_1		R
	16229	SCODE ALM_1_2		R
	16230	SCODE ALM_1_3		R
	16231	SCODE ALM_2_0		R
	16232	SCODE ALM_2_1		R
	16233	SCODE ALM_2_2		R
	16234	SCODE ALM_2_3		R
	16235	SCODE ALM_3_0		R
	16236	SCODE ALM_3_1		R

	Addr dec	Content	Units	Type
	16237	SCODE ALM_3_2		R
	16238	SCODE ALM_3_3		R
	16239	SCODE ALM_4_0		R
	16240	SCODE ALM_4_1		R
	16241	SCODE ALM_4_2		R
	16242	SCODE ALM_4_3		R
	16243	SCODE ALM_5_0		R
	16244	SCODE ALM_5_1		R
	16245	SCODE ALM_5_2		R
	16246	SCODE ALM_5_3		R
	16247 ... 16248	SCODE ALM_6_0		R
	16249	SCODE ALM_6_1		R
	16250	**Free**		R
	16251	"0000"+SPECIAL SCODE ALM_7_0		R
	16252	Inverter Supplying		
	16253	Inverter ReadyForSupply		
	16254	Rectifier Status		
	16255	Battery Discharge		
	16256	Battery Boost		
	16257 ... 16499	Battery Float		

	Addr dec	Content	Units	Type
Measurements of Module 30 Base address : 16500		Module set to Bypass		
	16500	**Free**		
				16501
	16502	**Free**		
	16503	Main Input Voltage Phase R	0.1 V	R
	16504	Main Input Voltage Phase S	0.1 V	R
	16505	Main Input Voltage Phase T	0.1 V	R
	16506	Main Input Current Phase R	0.1 A	R
	16507	Main Input Current Phase S	0.1 A	R
	16508	Main Input Current Phase T	0.1 A	R
	16509	Main Input Frequency Phase R	0.01 Hz	R
	16510	Main Input Frequency Phase S	0.01 Hz	R
	16511	Main Input Frequency Phase T	0.01 Hz	R
	16512	Input PF Phase R	0.01	R
	16513	Input PF Phase S	0.01	R
	16514	Input PF Phase T	0.01	R
	16515	Positive DC Bus Voltage	0.1 V	R
	16516	Negative DC Bus Voltage	0.1 V	R
	16517	Positive Battery String Voltage	0.1 V	R

	Addr dec	Content	Units	Type
	16518	Negative Battery String Voltage	0.1 V	R
	16519	Positive Charger Voltage	0.1 V	R
	16520	Negative Charger Voltage	0.1 V	R
	16521	Costive Charger Current	0.1 A	R
	16522	Negative Charger Current	0.1 A	R
	16523	Costive Discharge Current	0.1 A	R
	16524	Negative Discharge Current	0.1 A	R
	16525	Inverter Voltage Phase R	0.1 V	R
	16526	Inverter Voltage Phase S	0.1 V	R
	16527	Inverter Voltage Phase T	0.1 V	R
	16528	Output Current Phase R	0.1 A	R
	16529	Output Current Phase S	0.1 A	R
	16530	Output Current Phase T	0.1 A	R
	16531	Output Frequency Phase R	0.01 Hz	R
	16532	Output Frequency Phase S	0.01 Hz	R
	16533	Output Frequency Phase T	0.01 Hz	R
	16534	Output PF Phase R	0.01	R
	16535	Output PF Phase S	0.01	R
	16536	Output PF Phase T	0.01	R
	16537	Output Voltage Phase R	0.1 V	R
	16538	Output Voltage Phase S	0.1 V	R
	16539	Output Voltage Phase T	0.1 V	R
	16540	Bypass Voltage Phase R	0.1 V	R

	Addr dec	Content	Units	Type
	16541	Bypass Voltage Phase S	0.1 V	R
	16542	Bypass Voltage Phase T	0.1 V	R
	16543	Output Apparent Power Phase R	0.1 kVA	R
	16544	Output Apparent Power Phase S	0.1 kVA	R
	16545	Output Apparent Power Phase T	0.1 kVA	R
	16546	Output Active Power Phase R	0.1 kW	R
	16547	Output Active Power Phase S	0.1 kW	R
	16548	Output Active Power Phase T	0.1 kW	R
	16549	Output Reactive Power Phase R	0.1 kVAr	R
	16550	Output Reactive Power Phase S	0.1 kVAr	R
	16551	Output Reactive Power Phase T	0.1 kVAr	R
	16552	Output Load Percentage Phase R	0.1 V	R
	16553 ... 16572	Output Load Percentage Phase S	0.1 V	R
	16573	Output Load Percentage Phase T	0.1 V	R
	16574	Reserved		
	16575	Fan Running Time (hour)	Hours	R/W**
	16576	DC Bus Capacitor Running Time (hour)	Hours	R/W**
	16577	Reserved		
	16578	Reserved		
	16579	Forbid Rectifier Power On Sign Integration	Dimensionless	R
	16580	Utility Power And Battery Sign Integration	Dimensionless	R

	Addr dec	Content	Units	Type
	16581	Reserved		
	16582	Reserved		
	16583	Rectifier DSP Input Port	Dimensionless	R
	16584	Rectifier DSP Output Port	Dimensionless	R
	16585	Inverter DSP Input Port	Dimensionless	R
	16586	Inverter DSP Output	Dimensionless	R
	16587	Allow Inverter On Sign Integration	Dimensionless	R
	16588	Allow Transfer to Invert Sign Integration	Dimensionless	R
	16589	Transfer to Bypass Locked Sign Integration	Dimensionless	R
	16590	Inverter Power Off Locked Sign Integration	Dimensionless	R
	16591	Reserved		
	16592	Inverter IO CAN	Dimensionless	R
	16593	Inverter DATA CAN	Dimensionless	R
	16594	Parallel Signal	Dimensionless	R
	16595	Read Rectifier Variate	Dimensionless	R
	16596	Write Rectifier Variate	Dimensionless	R
	16597	Read Inverter Variate	Dimensionless	R
	16598	Write Inverter Variate	Dimensionless	R
	16599	Inlet Temperature	0.1°C	R
	16600	Outlet Temperature	0.1°C	R
	16601	Rectifier IGBT Temperature Phase R	0.1°C	R
	16602	Rectifier IGBT Temperature Phase S	0.1°C	R
	16603	Rectifier IGBT Temperature Phase T	0.1°C	R

	Addr dec	Content	Units	Type
	16604	Inverter IGBT Temperature Phase R	0.1°C	R
	16605 ... 16644	Inverter IGBT Temperature Phase S	0.1°C	R
	16645	Inverter IGBT Temperature Phase T	0.1°C	R
	16646	Reserved		
	16647	Rectifier Identifier	Dimensionless	R
	16648	Rectifier Series Number	Dimensionless	R
	16649	Rectifier First Version Number	Dimensionless	R
	16650	Rectifier Second Version Number	Dimensionless	R
	16651	Inverter Identifier	Dimensionless	R
	16652	Inverter Series Number	Dimensionless	R
	16653 ... 16699	Inverter First Version Number	Dimensionless	R
Alarms, Warnings and States (SCODES) 30		Inverter Second Version Number	Dimensionless	R

	Addr dec	Content	Units	Type
Base address : 16700				
	16700	**Free**		
				16701

	Addr dec	Content	Units	Type
	16702	b0=PM_INVERTER_FAULT b1=PM_RECT_FAULT b2=PM_SYNCHRONIZATION_FAULT b3=PM_INVERTER_VOLTAGE_PHASE_R_FAULT b4=PM_INPUT_OVERCURRENT_PHT b5=PM_INPUT_OVERCURRENT_PHS b6=PM_INPUT_OVERCURRENT_PHR b7=PM_INVERTER_VOLTAGE_PHASE_T_FAULT b8=PM_INVERTER_VOLTAGE_PHASE_S_FAULT b9=PM_INPUT_CURRENT_UNBALANCED_FAULT b10=PM_PWM_PULSE_FAULT b11=PM_SYNCHRONIZATION_PULSE_FAULT b12=PM_RECTIFIER_SOFT_STARTFAULT b13=PM_INPUT_PHASES_SEQUENCE_FAULT b14=PM_POSITIVE_BUS_OVERVOLTAGE_FAULT b15=PM_RECTIFIER_OVERTEMPERATURE_FAULT		R
	16703 ... 16704	b0=PM_INPUT_BACK_FEED b1=PM_FAN_FAIL b2=PM_NEGATIVE_BUS_OVERVOLTAGE b3=PM_POSTONEG_BATTERY_DIFFERENCE b4=PM_BATTERY_POLARITY b5=PM_NEGATIVE_BUS_UNDERVOLTAGE b6=PM_POSITIVE_BUS_UNDERVOLTAGE b7=PM_NEGATIVE_CHARGER_BATTERY_OV_VOLTAGE b8=PM_POSITIVE_CHARGER_BATTERY_OV_VOLTAGE b9=PM_NEGATIVE_BATTERY_CHARGE_FAULT b10=PM_POSITIVE_BATTERY_CHARGE_FAULT b11=PM_NEUTRAL_LOST b12=PM_OVER_LOAD_TIME_OUT b13=PM_INVERTER_POWER_BACKFEED b14=PM_INVERTER_PROTECT_FAILURE b15=PM_INVERTER_TEMPERATURE		R

	Addr dec	Content	Units	Type
	16705	b0=PM_INVERTER_SCR_STATUS b1=PM_INVERTER_OVERLOAD = 33, b2=PM_INVERTER_CURRENT_IGBT = 34, b3=PM_PARALLEL_CURRENT_SHARING = 35, b4=PM_REC_INV_COMMUNICATION = 36, b5=PM_OUTPUT_SHORT_CIRCUITED = 37, b6=PM_INVERTER_RELAY_SHORTED = 38, b7=PM_INVERTER_RELAY_OPEN = 39, b8=PM_INVERTER_BRIDGE_OPEN = 40, b9=PM_NO_OUTLET_TEMPERATURE_SENSOR = 41, b10=PM_NO_INLET_TEMPERATURE_SENSOR = 42, b11=PM_INPUT_OVERCURRENT_TIME_OUT = 43, b12=PM_INVERTER_ID_OVERLAP = 44, b13=PM_FAN_FAIL_OVERTEMPERATURE = 45, b14=PM_SYSTEM_RATE_SETTINGS = 46, b15=**Free**		R
	16706	**Free**		
	16707 ... 16709	b0=PM_INPUT_POWER_FAIL = 0, b1=PM_BYPASS_FAULT = 1, b2=PM_INPUT_FREQUENCY_FAULT = 2, b3=PM_INPUT_VOLTAGE_FAULT = 3, b4=PM_NEGATIVE_BATTERY_EOD = 4, b5=PM_POSITIVE_BATTERY_EOD = 5, b6=PM_NEGATIVE_BATTERY_VOLTAGE_LOW = 6, b7=PM_POSITIVE_BATTERY_VOLTAGE_LOW = 7, b8=PM_BYPASS_SCR_FAULT = 8, b9=PM_BYPASS_VOLTAGE = 9, b10=PM_BYPASS_PHASES_SEQUENCE = 10, b11=PM_BYPASS_FREQUENCY_OVER_TRACK = 11, b12=PM_AUXILIAR_POWER_SUPPLY_LOST = 12, b13=PM_TRANSF_TIMES_LIMTD_IN_ONE_HOUR = 13, b14=PM_MANUAL_SHUTDOWN = 14, b15=PM_INVERTER_BATT_MAINT = 15,		R

	Addr dec	Content	Units	Type
	16710	b0=PM_INVERTER_BATT_TEST = 16, b1=PM_OUTLET_DELTA_TEMPERATURE = 17, b2=PM_INVERTER_SCR_OVERTEMPERATURE = 18, b3=PM_NO_INPUT_SCR_TEMPERATURE_SENSOR = 19, b4=PM_MANUAL_ON = 20, b5=PM_FAN_EXPIRED = 21, b6=PM_CAPACITOR_EXPIRED = 22, b7=PM_INLET_OVER_TEMP = 23, b8=PM_OUTLET_OVER_TEMP = 24, b9=PM_WARNINGS_MAX = 25 b10=**Free** b11=**Free** b12=**Free** b13=**Free** b14=**Free** b15=**Free**		R
	16711	**Free**		
	16712	SCODE STS_0_0		R
	16713	SCODE STS_0_1		R
	16714	SCODE STS_0_2		R
	16715	SCODE STS_0_3		R
	16716	SCODE STS_1_0		R
	16717	SCODE STS_1_1		R
	16718	SCODE STS_1_2		R
	16719	SCODE STS_1_3		R
	16720	SCODE STS_2_0		R
	16721	SCODE STS_2_1		R
	16722	**Free**		
	16723	SCODE ALM_0_0		R

	Addr dec	Content	Units	Type
	16724	SCODE ALM_0_1		R
	16725	SCODE ALM_0_2		R
	16726	SCODE ALM_0_3		R
	16727	SCODE ALM_1_0		R
	16728	SCODE ALM_1_1		R
	16729	SCODE ALM_1_2		R
	16730	SCODE ALM_1_3		R
	16731	SCODE ALM_2_0		R
	16732	SCODE ALM_2_1		R
	16733	SCODE ALM_2_2		R
	16734	SCODE ALM_2_3		R
	16735	SCODE ALM_3_0		R
	16736	SCODE ALM_3_1		R
	16737	SCODE ALM_3_2		R
	16738	SCODE ALM_3_3		R
	16739	SCODE ALM_4_0		R
	16740	SCODE ALM_4_1		R
	16741	SCODE ALM_4_2		R
	16742	SCODE ALM_4_3		R
	16743	SCODE ALM_5_0		R
	16744	SCODE ALM_5_1		R
	16745	SCODE ALM_5_2		R
	16746	SCODE ALM_5_3		R

	Addr dec	Content	Units	Type
	16747 ... 16748	SCODE ALM_6_0		R
	16749	SCODE ALM_6_1		R
	16750	**Free**		R
	16751	"0000"+SPECIAL SCODE ALM_7_0		R
	16752	Inverter Supplying		
	16753	Inverter ReadyForSupply		
	16754	Rectifier Status		
	16755	Battery Discharge		
	16756	Battery Boost		
	16757 ... 16999	Battery Float		
		Module set to Bypass		

- * To write these records, the key must be written in the user's "Programming key" first. This record will be deleted 10 minutes after the first write operation, unless the last record written is the same.
- ** To write these records, the key must be written in the service's "Programming key" first. This record will be deleted 10 minutes after the first write operation, unless the last record written is the same.
- *** To write these records, the key must be written in the production's "Programming key" first. This record will be deleted 10 minutes after the first write operation, unless the last record written is the same.

- Appendix A

(1) These records contain information in ASCII format. Each record has 2 characters. The total amount of information is obtained by linking the different records with the same name. The information ends with code 0.

(2) The content of these records is shown in the table below:

First record		Second record		Third record		Fourth record
High	Low	High	Low	High	Low	
Hour	Minutes	Seconds	Day of the week	Day of the month	Month	Year