

What's new in PowerLogic PM3255 meters v1.2.003

PowerLogic™ PM3255 meters with firmware version 1.2.003 now support a flexible log (flex log) that allows you to select the values you want to log.

Changes to the Modbus section in the user manual

Additional Modbus function code

The meter now supports Modbus function code 0x14. The supported function codes should contain the following details:

Function Code		Function Name
Decimal	Hexadecimal	
20	0x14	Read File Record

Function code 0x14 implementation

For details on the structure of function code 0x14 requests and responses for Modbus specification, visit www.modbus.org.

NOTE: The file number for flex log in the request should be 0x0001 and other elements should be as per the specifications.

Additional Modbus registers

To read the information about flex logs, you can use additional Modbus registers. The following tables describe the flex log record and configuration information:

Flex log record information

Register address	Read/Write		Size	Type	Unit	Description
	PM3250	PM3255				
45403	-	R	1	UInt16	-	Allocated File size (max # of records in file) Peak Demand Log= 27648 Energy + Energy Log= 18688
45404	-	R	1	UInt16	-	Allocated Record size (record length in registers) Peak Demand Log= 6 Other Log= 8

ION, Modbus, PowerLogic and Schneider Electric are trademarks or registered trademarks of Schneider Electric in France, the USA and other countries. Other trademarks used are the property of their respective owners.

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

7EN12-0283-00 © 2015 Schneider Electric. All rights reserved.

Flex log record information

45407	-	R	1	UInt16	-	Current Number of Records Contained in the File Peak Demand Log= 0-27647 Energy + Energy Log= 0- 18687
45408	-	R	1	UInt16	-	First Record Sequence Number Peak Demand Log= 0 - 27647 Energy + Energy= 0 - 18687
45409	-	R	1	UInt16	-	Last Record Sequence Number Peak Demand Log= 0 - 27647 Energy + Energy= 0 - 18687

Flex log configuration information

Register address	Read/Write		Size	Type	Unit	Description
	PM3250	PM3255				
45500	-	R	1	UInt16	-	Flex log mode: 0 = Disable 1 = Peak Demand 2 = KWH_KVAH 3 = KWH_KVARH 4 = KVARH_KVAH 5 = KWH_KW 6 = KWH_KVA
45501	-	R	1	UInt16	Minute	Flex log interval duration in minutes: 10, 15, 20, 30, 60

Additional Modbus command

This section describes the additional Modbus command that can be used to configure the flex log. The following table should be added to the Modbus command list tables in the user manual.

Set Flex Log

Command number	Action (R/W)	Size	Type	Range	Description
2052	W	1	UInt16	0 - 6	Flex log mode: 0 = Disable 1 = Peak Demand 2 = KWH_KVAH 3 = KWH_KVARH 4 = KVARH_KVAH 5 = KWH_KW 6 = KWH_KVA
	W	1	UInt16	10, 15, 20, 30, 60	Flex log interval duration in minutes: 10, 15, 20, 30, 60
	W	1	UInt16	1, 2	1 = Slide 2 = Fixed NOTE: Applies only when flex log mode is set to Peak Demand

Changes to the Functions section in the user manual

Data logging (PM3255)

The data logging section should contain the additional list of logs mentioned below:

List of Flex Logs

Type	Max. Entries Stored
Flex log (power demand log)	4608
Flex log (KWH_KVAH)	2336
Flex log (KWH_KVARH)	2336
Flex log (KVARH_KVAH)	2336
Flex log (KWH_KW)	2336
Flex log (KWH_KVA)	2336

Flex Log (KWH_KVAH/KWH_KVARH/KVARH_KVAH/KWH_KW/KWH_KVA)

Log Type	Log Date/Time	Log Value1	Log Value2
KWH_KVAH	4 registers	2 registers (KWH)	2 registers (KVAH)
KWH_KVARH	4 registers	2 registers (KWH)	2 registers (KVARH)
KVARH_KVAH	4 registers	2 registers (KVARH)	2 registers (KVAH)
KWH_KW	4 registers	2 registers (KWH)	2 registers (KW)
KWH_KVA	4 registers	2 registers (KWH)	2 registers (KVA)

The first 4 registers of the record provide the timestamp, the next 2 registers provide the first value (for example, kWh in the KWH_KVAH flex log), and the last 2 registers provide the second value (for example, kVAh in the KWH_KVAH flex log).

The data format of the values from the flex log depends on the values you configured the flex log to provide.

- Energy values are provided in Float32
- Peak demand values are provided in Float32

NOTE:

- Only one flex log can be selected at a time. For example, you can log either power demand or KWH_KVAH, not both.
- Synchronize the time on the meter regularly to avoid incorrect flex log timestamp values. To synchronize the time, use ION Setup.

Additional errata for the Functions section in the user manual

Data logging (PM3255)

The maximum size of the Energy log (weekly) is 20.

The time for the Energy logging is changed from 8:03 AM to 8:00 AM.

Additional information

Visit www.schneider-electric.com to view or download the following:

- For more information on the meter's Modbus implementation, see *the PM3000 series User Manual*.
- For more information on the Modbus protocol, see the *Modbus organization website at www.modbus.org*.
- For information on using ION Setup, see the *ION Setup device configuration guide*.