**Technical Note**

***Subject: How to Find Out the Available Depth for the Data Recorder in PMC-630B&C, PMC-660***

(\* For PMC-680i, the depth is fixed to be 12800. Therefore, we’ll not discuss here.)

The formula to obtain the available depth of Data Recorder is as follows –

Remarks:

1. Depth: For both PMC-630B&C and PMC-660, the maximum depth should be equal to or less than

65535, i.e. the maximum allowable setup value.

2. Memory Capacity: the total memory available for data logging, disregarding the necessary memory

reserved for fundamental log structure.

 a. For PMC-630C, the total memory is 2048KB, and 2040KB is available.

 b. For PMC-660, the total memory is 4096KB, and 3936KB is available. The unit of each recorder

is 1KB.

3. # of Parameters: the number of parameters that will be logged

4. Parameter Size in Byte: For all PMC meters, any parameter will require 4 bytes to be stored in data

log.

5. Timestamp Size:

A corresponding timestamp will also be recorded at recording a parameter.

a. For PMC-630C, the Timestamp will require 6 bytes.

b. For PMC-660, the Timestamp will require 8 bytes. The two extra bytes are used for msec.

The above formula is applicable for PMC-630B&C, PMC-660.

**Example 1:**

You have a PMC-630C which has 2MB of memory for data logging.

*Specification for PMC-630C’s Data Recorders:*

*16 Data Recorder Logs of 16 parameters each for real-time measurements*

*Recording interval from 1s to 40 days*

*Configurable depths and recording offsets*

*2MB log memory*

If you only want to log 3 parameters – Va, Vb & Vc with logging interval of 1 second, then this is the way to calculate the depth you’ll get –

Since this value is greater than 65535, you can only log 65535 records.

**Example 2:**

You have a PMC-660 which has 4MB of memory for data logging.

*Specification for PMC-660’s Data Recorders:*

* *12 standard Data Recorder Logs*
* *4 high‐speed Data Recorder Logs (1 cycle interval)*
* *Recording interval from 1s to 40 days for standard and 1 to 60 cycles*
* *for high‐speed*
* *Programmable sources include almost all real‐time, harmonics,*
* *unbalance and demand values*
* *Configurable depth and recording offset*
* *Support FIFO or stop‐when‐full recording mode*

If you want to log 20 parameters with logging interval of 15 minutes, then

this is the way to calculate the depth you’ll get –

Which means you can log up to 45800 records.