MCM SERIES MULTI-CHANNEL ENERGY METER

❚ Introduction

MCM series multi-channels power meter is special designed metering device for feeder loops. Multi-function design to provide electrical parameter measurement for three-phases or single phase branch circuits, it performs a real-time metering, measures energy consumption and monitors power quality.

Advanced communications options including Modbus via RS485, optional Ethernet port; Multiple digital input ports can collect pulse signal from water meters and gas meters etc.

❚ Main Features

- Measurement accuracy class 0.5S.
- Current measuring.../5 or.../1 A.
- Multi-circuits metering.
- With 2-21st harmonic analysis.
- Optional 6DI, 2DO ports.
- Advanced electrical parameter meaturement.
- Provide 5 virtual alarm triggers.
- With SPDT relay output for alarm output.
- With RS485 modbus RTU communications.
- Current and voltage unbalance measurement
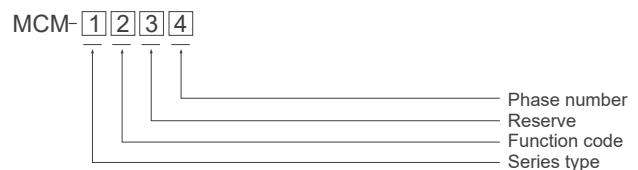- Accept customization designs.

❚ Measurement Function

Model	MCM2603	MCM2601	MCM2403	MCM2401	MCM1000
Parameters					
Basic parameters [1]	●	●	●	●	●
Harmonic distortion	-	-	●	●	-
Individial harmonic	-	-	2-21st	2-21st	-
Time of use (TOU)	-	-	-	-	-
Max demand	-	-	-	-	-
SOE record	-	-	-	-	-
Curr./volt unbalance	-	-	●	●	-
Curr./volt deviation	-	-	●	●	-
Measurement signal access					
4 Channels (3P)	-	-	●	-	-
6 Channels (3P)	●	-	-	-	●
12 Channels (1P2W)	-	-	-	●	-
18 Channels (1P2W)	-	●	-	-	○
I/O port module					
DI	○	○	-	-	-
DO	○	○	○	○	○
PO (Pulse output)	●	●	-	-	○
Communications					
RS485	●	●	●	●	●
Ethernet 10/100MB	-	-	○	○	-
Profibus	○	○	○	○	○

●With this function   ○Optional function   -Without this function

(1) Basic parameters:Voltage,Current,Frequency,Total power factor,Active power, Reactive power,Apparent power,Active energy,Reactive energy,Individual harmonic.

❚ Ordering Information

MCM– [1][2][3][4]

- Phase number
- Reserve
- Function code
- Series type

Num.	Code	Description
1	1	First generation
	2	Second generation
2	4	4 Metering ICs built-in
	6	6 Metering ICs built-in
3	0	Reserved item
4	1	Single-phase
	3	Three-phases (Only for second generation)

Technical Characteristics

Model	MCM2600	MCM2400	MCM1000
Current measurement (TRMS)			
CT secondary rated	Standard 1A/ 5A	1A, 100mA,333mV optional	Standard 1A/5A
Measurement range	0 ... 9999A		
Overload	1.2 times rated continuous; 5 seconds for 10 times of the rated		
Input consumption	<0.2 VA		
Voltage measurement (TRMS)			
PT secondary	100VAC	100VAC / 400VAC	
Frequency	45 ... 65 Hz		
Overload	30 seconds for 2 times of the rated		
Input consumption	<0.2 VA		
Direct measurement	18 ... 300 VAC L-N		18 ... 400 VAC L-L(18…250VAC L-N)
Power supply			
AC voltage	DC/AC 85~265 ± 10 %, 50 / 60 Hz		
Consumption	< 10 VA		
I/O port (alarms / control)			
Number of relays	2 Channel DO & 6 channel DI	1 x SPDT DOrelay	2 Channel DO & 6 Channel DI
Type	5 A@230VAC, passive node		
Communication			
Link method	RS485 (2/3 wires half duplex)		
Protocol	Modbus RTU		
MODBUS speed	4800/9600/12800/19200bps		