

“Multi-Channel Energy Monitoring”

DTS MCM

Series of Multi-Channel Monitors



Introduction

- The **DTS MCM Series** of multi-channel energy / power monitors has been designed to provide a single metering solution for 9, 12, 18 or 24 branch circuits (3, 4, 6 or 8 Three Phase circuits).
- The series is based on the ultra-compact DTS 307 3 channel 208V-480V sub-meter
- It is offered in 2 formats
 - Pre-wired on a DIN rail with 1.5ft voltage pigtails to be mounted into a 3rd party enclosure
 - Wall-mounting, lockable, non-metallic weatherproof enclosure adder with voltage terminals or fuses.

Technical Specifications

- 208V – 480Vac 3 phase 4 wire voltage inputs
- 9, 12, 18 or 24 x 333mV pluggable CT inputs (configurable for 333mV or Rogowski CTs)
- Self-powered from connected voltages (3 or 4 wire models)
- Communication Options
 - RS-485
 - RJ45 Ethernet
 - Modbus and BACnet protocols
 - Wi-fi or cell modem cloud connect
- 3, 4, 6 or 8 x SS N.O. relay outputs (kWh) depending on DTS MCM model

Model Numbering

DTS MCM-**xx**-**y**-**zz**C

➤ **xx**

- **EB** – Ethernet with BACnet/IP **and** Modbus TCP protocols
- **SB** – RS-485 serial with Modbus RTU or BACnet MS/TP (field selectable)
- **WG** – Ethernet / Wi-Fi and Cloud connected
- **VG** – Cell modem (Verizon) and Cloud connected
- **AG** – Cell modem (AT&T) and Cloud connected

➤ **y**

- **N** – Meter powered from 208V – 480V 4 wire measured voltages
- **4** – Meter powered from 208V – 480V 3 or 4 wire measured voltages
- **A** – Meter powered from external 24Vac or 12-24Vdc supply

➤ **zz**

- **09** – 9 circuits (3 x 3 phase) OR **12** – 12 channels (4 x 3 phase)
- **18** – 18 circuits (6 x 3 phase) OR **24** – 24 channels (8 x 3 phase)

Model Numbering

➤ Standard Serial & Ethernet Model Numbers

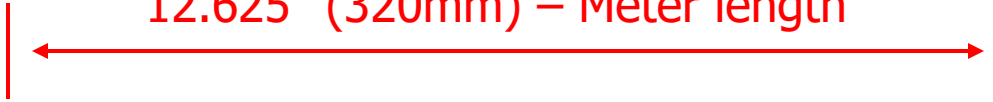
SKU	Part #	Description
DMCM-0002	DTS MCM-SB-N-9C	9 Current Circuits, Serial: Modbus & BACnet MS/TP, Self-Powered
DMCM-0006	DTS MCM-SB-N-12C	12 Current Circuits, Serial: Modbus & BACnet MS/TP, Self-Powered
DMCM-0010	DTS MCM-SB-N-18C	18 Current Circuits, Serial: Modbus & BACnet MS/TP, Self-Powered
DMCM-0014	DTS MCM-SB-N-24C	24 Current Circuits, Serial: Modbus & BACnet MS/TP, Self-Powered

SKU	Part #	Description
DMCM-0004	DTS MCM-EB-N-9C	9 Current Circuits, Ethernet: Modbus TCP & BACnet/IP, Self-Powered
DMCM-0008	DTS MCM-EB-N-12C	12 Current Circuits, Ethernet: Modbus TCP & BACnet/IP, Self-Powered
DMCM-0012	DTS MCM-EB-N-18C	18 Current Circuits, Ethernet: Modbus TCP & BACnet/IP, Self-Powered
DMCM-0016	DTS MCM-EB-N-24C	24 Current Circuits, Ethernet: Modbus TCP & BACnet/IP, Self-Powered

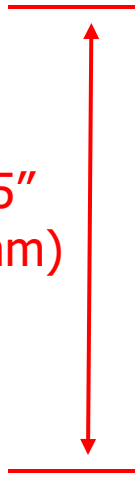
Dimensions

DTS MCM-EB-N-24C

12.625" (320mm) – Meter length

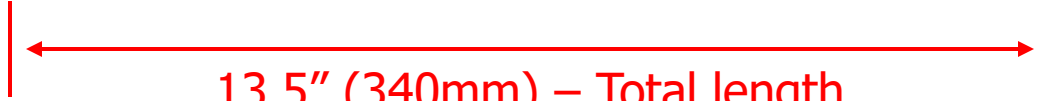


6.375" (160mm)



Height
3.25" (83mm)

13.5" (340mm) – Total length



Enclosure Options

The DTS MCM-xx-y-zzC din-rail multi-channel monitor can be mounted into either of the following 2 housing options

➤ **MKTENCL-090**

- 14" x 12" x 7"
- Suitable for **up to 24 channel DTS meter**
- Weatherproof with stainless steel lockable latches
- Non-metallic and wall mounting
- **3 phase Voltage and Neutral terminals**

➤ **MKTENCL-092**

- 14" x 12" x 7"
- Suitable for **up to 24 channel DTS meter**
- Weatherproof with stainless steel lockable latches
- Non-metallic and wall mounting
- **3 phase voltage circuit breaker and Neutral terminal**

Enclosure Options (Cont.)

The DTS MCM-xx-y-**09C** and DTS MCM-xx-y-**12C** din-rail multi-channel monitor can also be mounted into either of the following 2 housing options which are more compact

➤ **MKTENCL-094**

- 12" x 10" x 6"
- Suitable for **up to 12 channel DTS meter**
- Weatherproof with stainless steel lockable latches
- Non-metallic and wall mounting
- **3 phase Voltage and Neutral terminals**

➤ **MKTENCL-096**

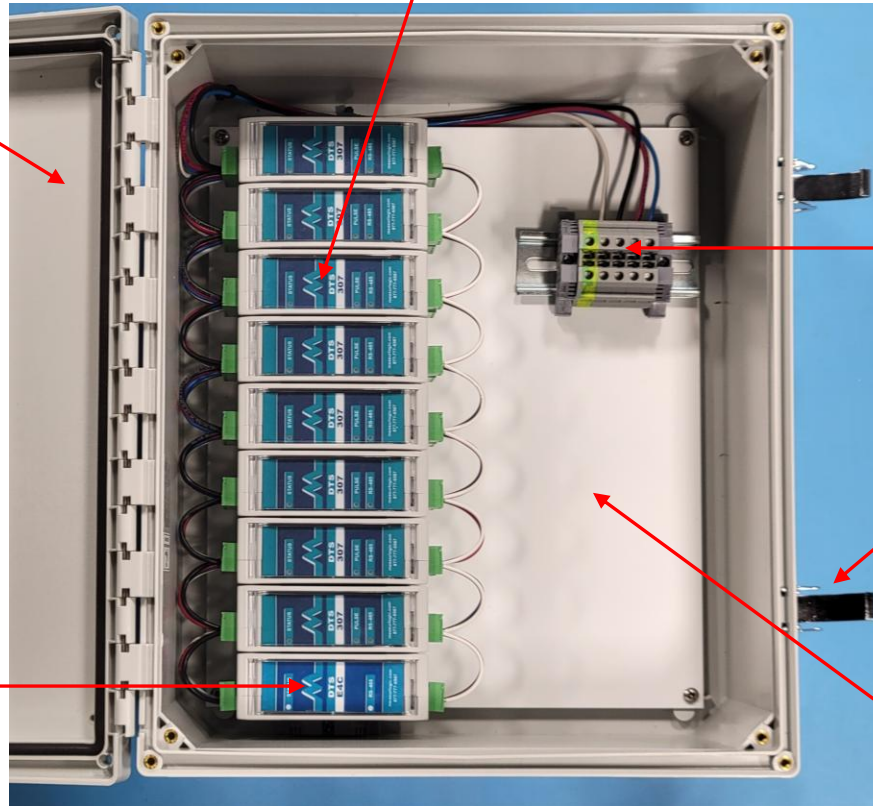
- 12" x 10" x 6"
- Suitable for **up to 12 channel DTS meter**
- Weatherproof with stainless steel lockable latches
- Non-metallic and wall mounting
- **3 phase voltage circuit breaker and Neutral terminal**

Enclosure Options (cont.)

The DTS MCM-EB-N-24C din-rail multi-channel monitor mounted in MKTENCL-090

24 pre-wired circuits shown (9, 12 or 18 channel options)

Weatherproof enclosure



3 phase Voltage, Neutral & Ground terminals

Stainless Steel, lockable latches

Design allows for ample room for voltage and current cabling

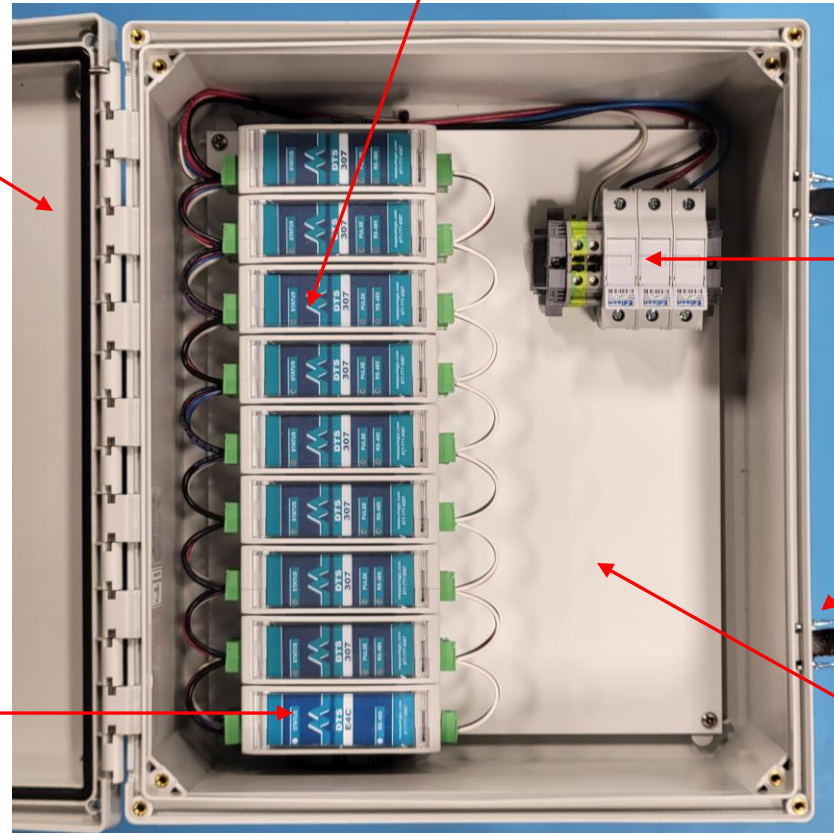
RS-485 to Ethernet Converter

Enclosure Options (cont.)

The DTS MCM-EB-N-24C din-rail multi-channel monitor mounted in MKTENCL-092

24 pre-wired circuits shown (9, 12 or 18 channel options)

Weatherproof enclosure



Voltage Circuit breaker inputs, Neutral & Ground terminals

Stainless Steel, lockable latches

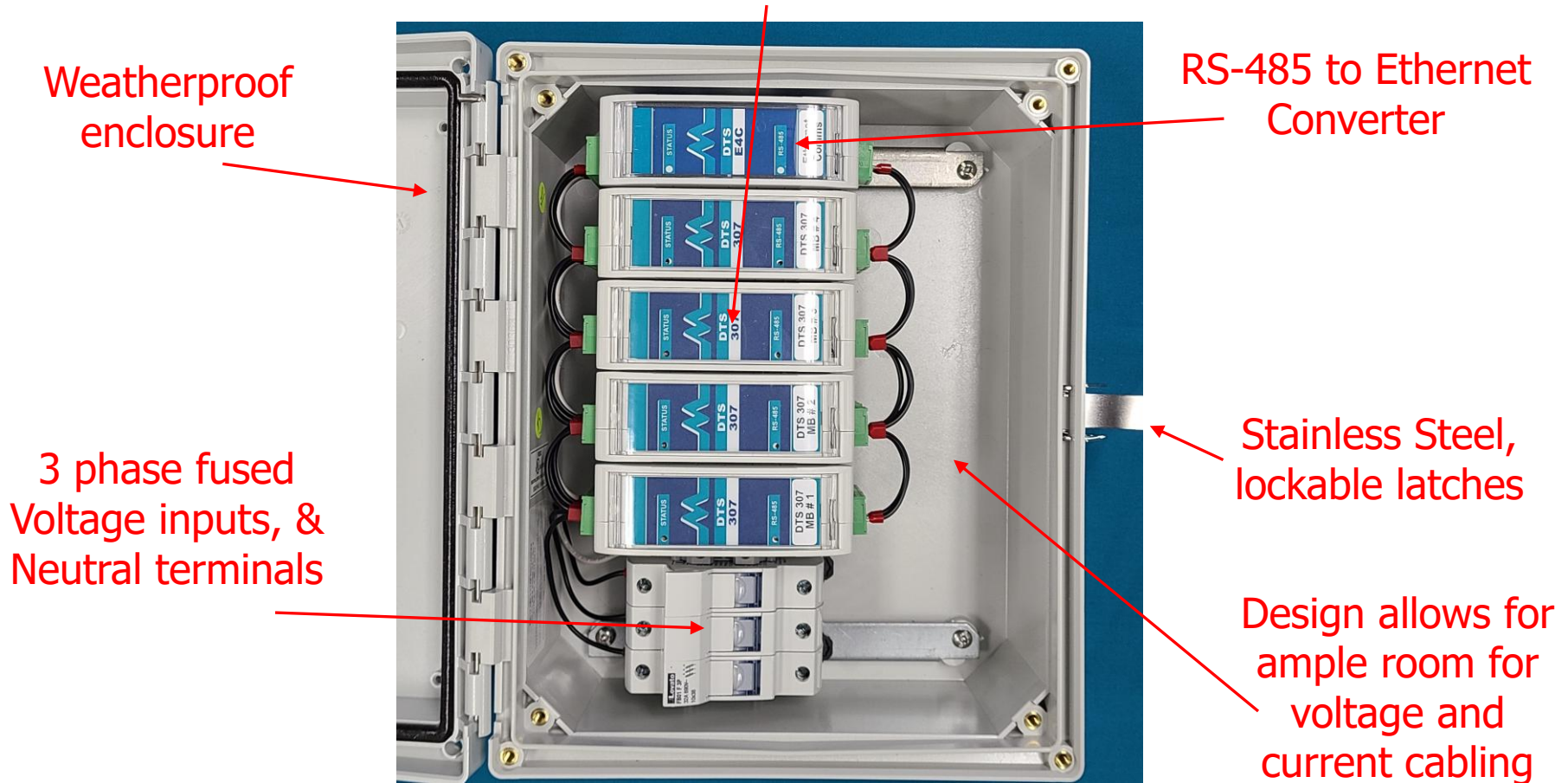
Design allows for ample room for voltage and current cabling

RS-485 to Ethernet Converter

Enclosure Options (cont.)

The DTS MCM-EB-N-12C din-rail multi-channel monitor mounted in MKTENCL-096

12 pre-wired circuits shown (9 or 12 channel options for this enclosure)



Enclosure Options (cont.)

The DTS MCM-WG-N-12C din-rail multi-channel monitor mounted in MKTENCL-096

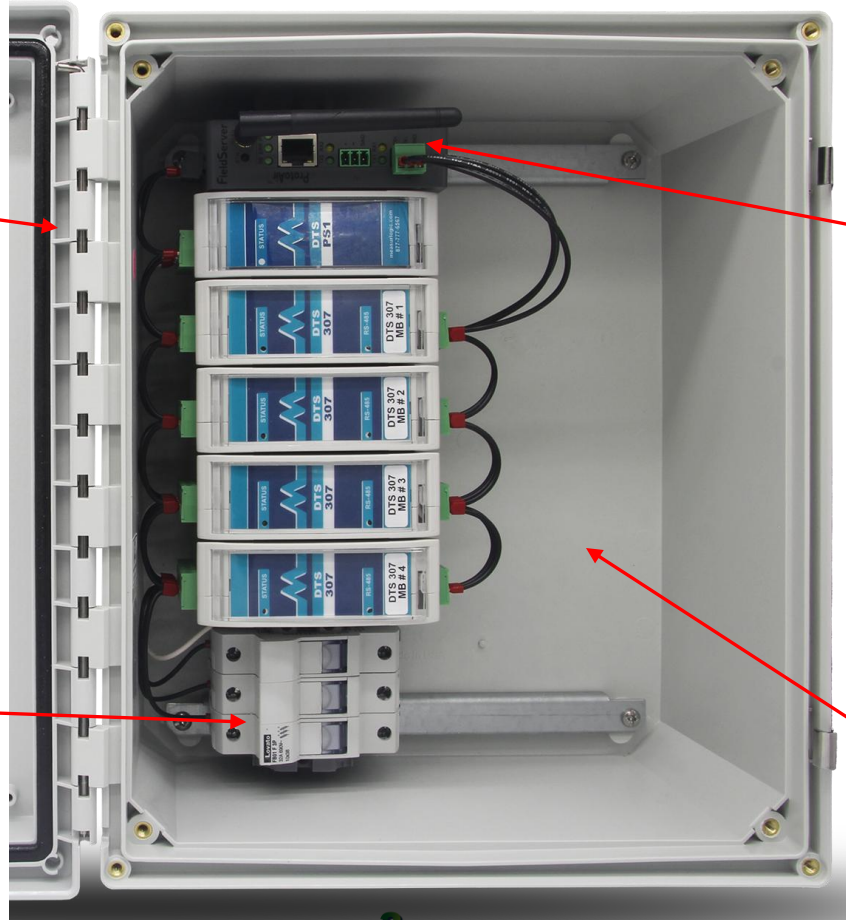
12 pre-wired circuits shown (9 or 12 channel options for this enclosure)

Weatherproof enclosure

RS-485 to
Wi-Fi / Ethernet
Converter
and
Cloud Connectivity

3 phase fused
Voltage inputs, &
Neutral terminals

Design allows for
ample room for
voltage and
current cabling

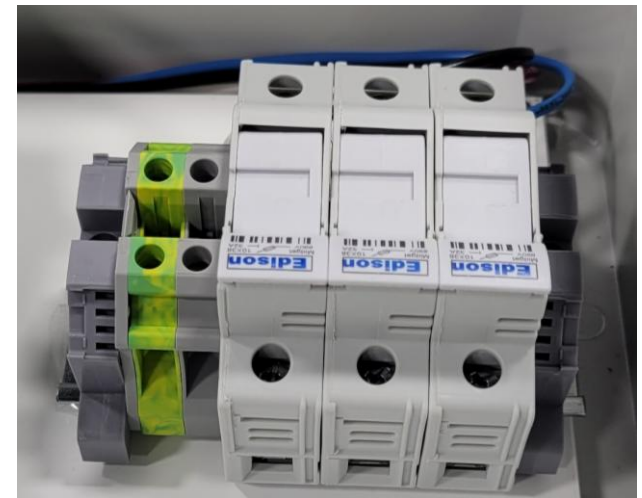
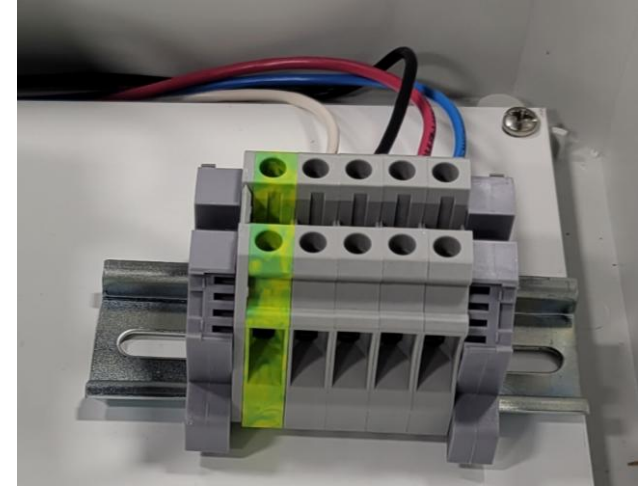


Customer Connections

Voltage connection options:

- **MKTENCL-090**
 - Screw terminals on DIN rail
 - 3 phase Voltage and Neutral terminals

- **MKTENCL-092**
 - Voltage Circuit breaker (600V rated)
 - Neutral and Ground screw terminals



Customer Connections

The pre-wired communications loom is supplied loose providing easy access to the following customer connections:

- **Pluggable Current connectors**
- **RJ-45 Ethernet jack**

Pre-wired
Communications
loom removed

RJ-45
Ethernet
Jack



Easy access
to pluggable
CT connectors



Comms
loom fitted

Display Options

Display options:

- **CCNT-0001**
 - kWh (Active Energy) counter
 - Interfaces with Pulse Output of DTS 307
 - 8 Digit
 - LCD Display, 10-year battery life

- **Other Display configurations (on request)**



Current Transformers

➤ The following CTs are compatible with the DTS MCM-xx-y-zzC multi-channel monitor

➤ MLG-WCT Series of Split Core 333mV output CTs

➤ 25A to 5000A



➤ MLG-WRT Series of flexible Rogowski CTs

➤ 4", 6", 8" or 12" apertures as standard

➤ **NO Integrator** needed when paired with a DTS meter

➤ Up to 1000A with 4" or **6"** aperture models

➤ Up to 2500A with 6" or **8"** aperture models

➤ Up to 5000A with 8" and **12"** aperture models



Contact Details

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