

“Multi-Channel Energy Monitoring”

DTS 307 MCM

Series of Multi-Channel Monitors



Introduction

- The **DTS 307 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 or 24Vac / 12-24Vdc auxiliary powered (model dependent)
- 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 307 model

Model Numbering

DTS 307-**xx**-**y**-**zz**C

➤ **xx**

- **EM** – Ethernet with Modbus TCP ONLY
- **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
- **A** – Meter powered from external 24Vac or 12-24Vdc supply

➤ **zz**

- **9** – 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

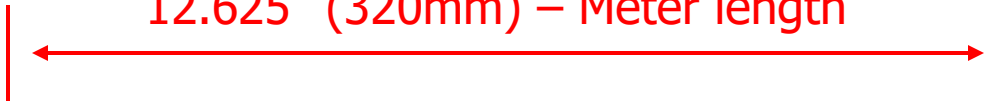
| SKU | Part # | Description |
|-----------|------------------|--|
| D307-0200 | DTS 307-SB-N-9C | 9 Current Circuits, Serial: Modbus & BACnet MS/TP, Self-Powered |
| D307-0204 | DTS 307-SB-N-12C | 12 Current Circuits, Serial: Modbus & BACnet MS/TP, Self-Powered |
| D307-0208 | DTS 307-SB-N-18C | 18 Current Circuits, Serial: Modbus & BACnet MS/TP, Self-Powered |
| D307-0212 | DTS 307-SB-N-24C | 24 Current Circuits, Serial: Modbus & BACnet MS/TP, Self-Powered |

| SKU | Part # | Description |
|-----------|------------------|---|
| D307-0202 | DTS 307-EB-N-9C | 9 Current Circuits, Ethernet: Modbus TCP & BACnet/IP, Self-Powered |
| D307-0206 | DTS 307-EB-N-12C | 12 Current Circuits, Ethernet: Modbus TCP & BACnet/IP, Self-Powered |
| D307-0210 | DTS 307-EB-N-18C | 18 Current Circuits, Ethernet: Modbus TCP & BACnet/IP, Self-Powered |
| D307-0214 | DTS 307-EB-N-24C | 24 Current Circuits, Ethernet: Modbus TCP & BACnet/IP, Self-Powered |

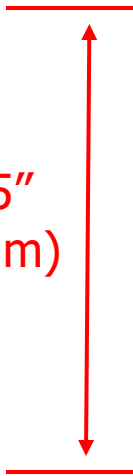
Dimensions

DTS 307-EB-N-24C

12.625" (320mm) – Meter length

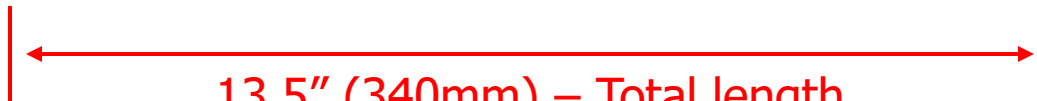


6.375" (160mm)



Height
3.25" (83mm)

13.5" (340mm) – Total length



Enclosure Options

The DTS 307-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, Neutral and Ground 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 fused voltage inputs, Neutral and Ground terminals**

Enclosure Options (Cont.)

The DTS 307-xx-y-**09C** and DTS 307-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, Neutral and Ground terminals**

➤ **MKTENCL-096**

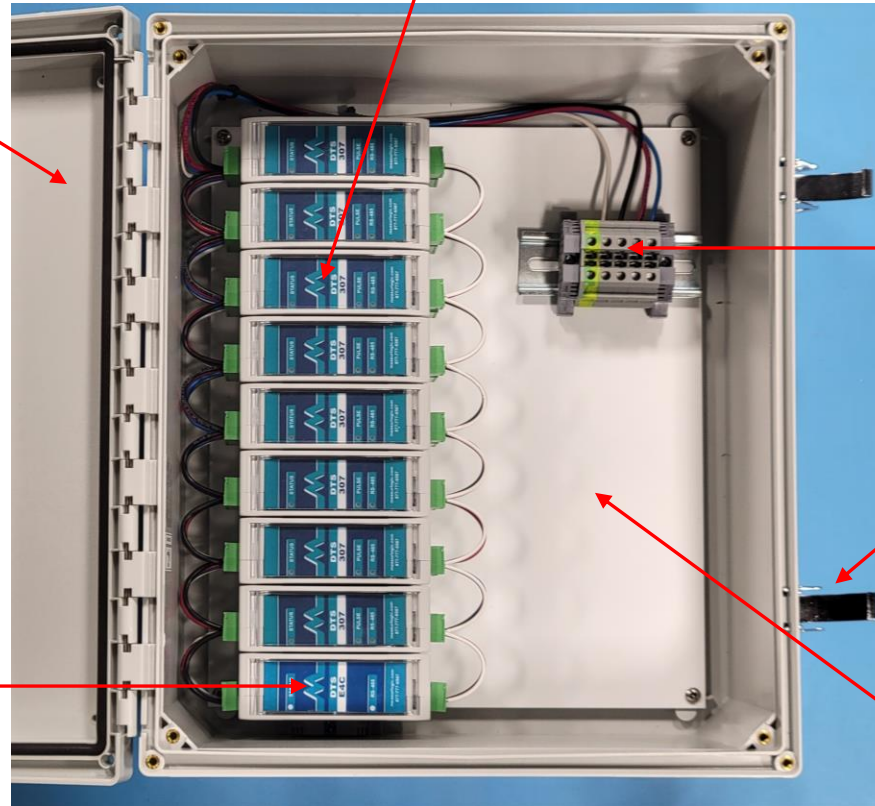
- 12" x 10" x 6"
- Suitable for **up to 12 channel DTS meter**
- Weatherproof with stainless steel lockable latches
- Non-metallic and wall mounting
- **3 phase fused voltage inputs and Neutral terminals**

Enclosure Options (cont.)

The DTS 307-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

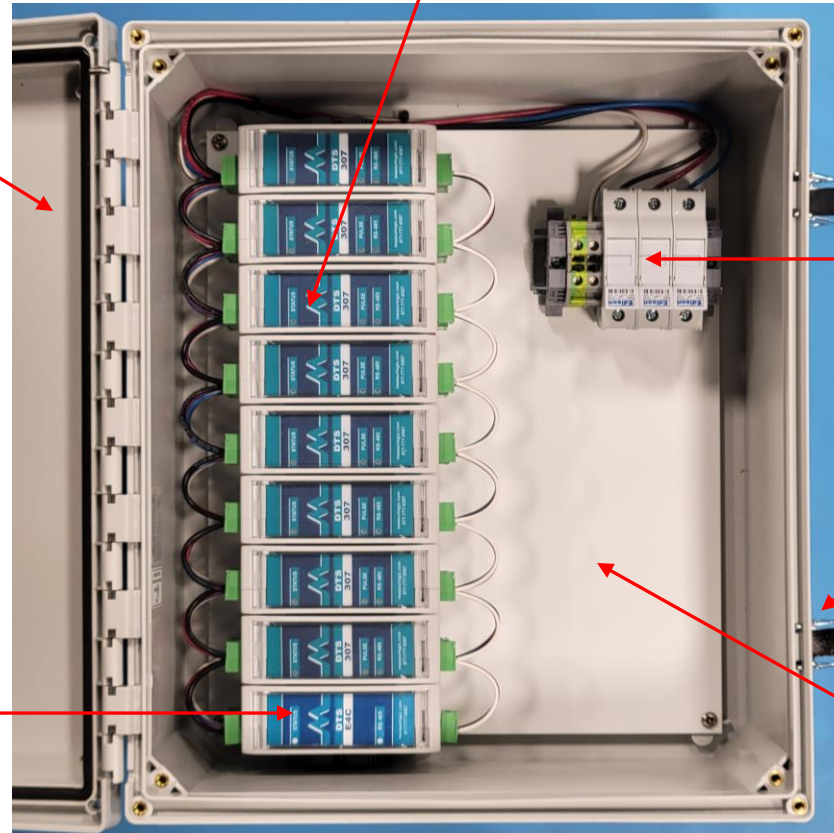
RS-485 to Ethernet
Converter

Enclosure Options (cont.)

The DTS 307-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



3 phase fused
Voltage inputs,
Neutral & Ground
terminals

Stainless Steel,
lockable latches

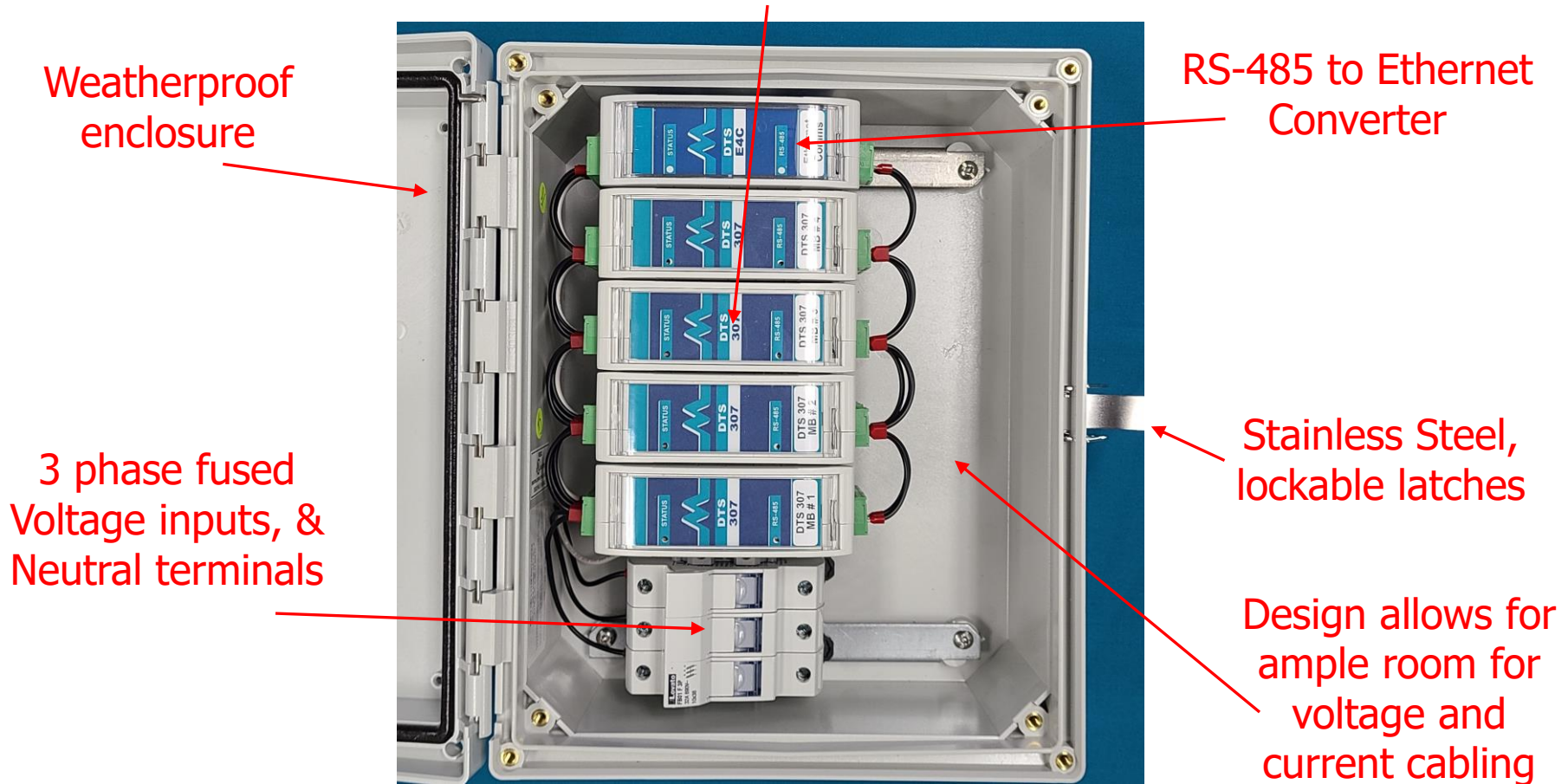
Design allows for
ample room for
voltage and
current cabling

RS-485 to Ethernet
Converter

Enclosure Options (cont.)

The DTS 307-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 307-WG-N-12C din-rail multi-channel monitor mounted in MKTENCL-096

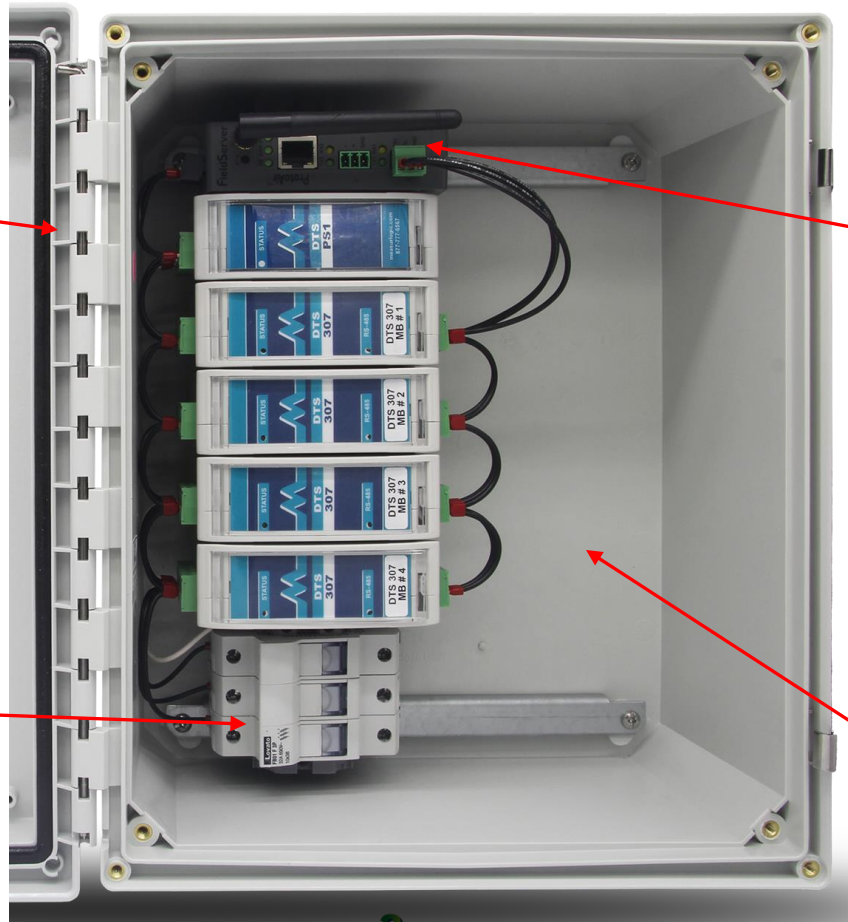
12 pre-wired circuits shown (9 or 12 channel options for this enclosure)

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

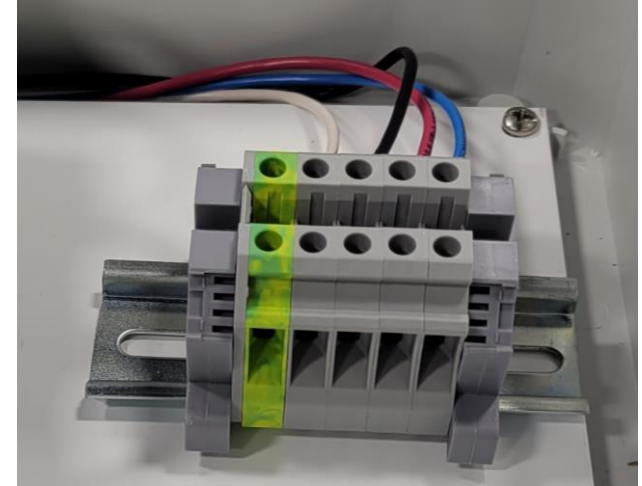


Customer Connections

Voltage connection options:

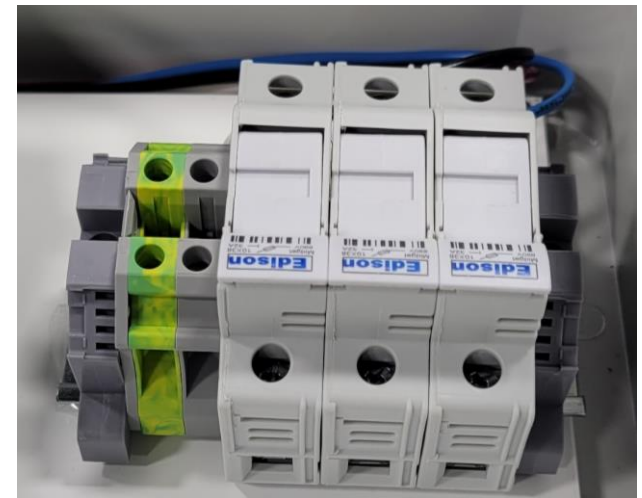
➤ **MKTENCL-090**

- Screw terminals on DIN rail
- 3 phase, Neutral and Ground terminals



➤ **MKTENCL-092**

- Fused voltage inputs (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)**

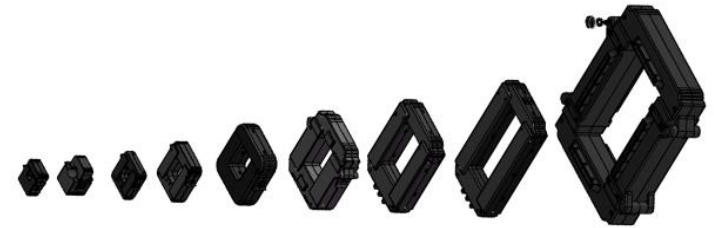


Current Transformers

➤ The following CTs are compatible with the DTS 307-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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