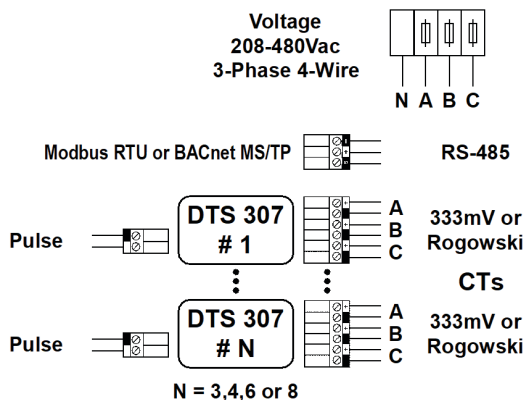




## FEATURES

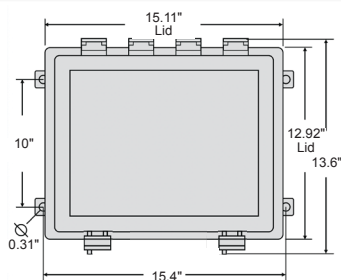
- Revenue Grade Submeter - ANSI C12.20
- 9, 12, 18 or 24 Current Circuits (3, 4, 6 or 8 x 3 phase loads)
- Based on the DTS 307 ultra-compact energy meter
- 333mV or Rogowski CTs (Software Selectable)
- 208V - 480Vac L-L Three Phase Voltage input
- Pre-wired Voltage and Communications
- Internal easy to mount DIN rail
- Line powered or low voltage 12-24Vdc / 24Vac
- RS-485 connectivity - Modbus RTU or BACnet MS/TP (Software Selectable)
- Wall Mounting, non-metallic, lockable weatherproof enclosure kits
- Abundant space for easy wiring
- 1 x kWh Energy pulse output per DTS 307
- kWh (Active Energy) Counter Display option
- Bi-directional for renewable systems (NET metering)
- UL Listed, CE, FCC Part 15 Class B
- BTL Listed
- Made in America

## CONNECTION OVERVIEW



## DIMENSIONS (ENCLOSURE)

\* Drawings are for illustrative purposes only  
Technical details subject to change



## MEASUREMENT PARAMETERS\*

### Measurement Topologies

|                                                |   |
|------------------------------------------------|---|
| 3 Phase, 3 and 4-wire                          | ✓ |
| Single Phase 2 and 3-wire (120/208 & 120/240V) | ✓ |

### Measurements

|                              |                  |
|------------------------------|------------------|
| AC Volts (phase-phase)       | L1, L2, L3 & III |
| AC Volts (phase-neutral)     | L1, L2, L3 & III |
| AC Current                   | L1, L2, L3 & III |
| Neutral Current (calculated) | ✓                |
| Frequency (Hz)               | ✓                |

### Power

|                                              |                  |
|----------------------------------------------|------------------|
| Active Power - kW (consumed/generated)       | L1, L2, L3 & III |
| Reactive Power - kVAR (inductive/capacitive) | L1, L2, L3 & III |
| Apparent Power - kVA                         | L1, L2, L3 & III |
| Power Factor                                 | L1, L2, L3 & III |
| Phase Angle                                  | L1, L2, L3 & III |
| Bi-directional for renewable systems         | ✓                |

### Demand

|                     |   |
|---------------------|---|
| kW - Sliding Window | ✓ |
|---------------------|---|

### Energy

|                                                |                  |
|------------------------------------------------|------------------|
| Active Energy - kWh (Net)                      | L1, L2, L3 & III |
| Active Energy - kWh (consumed/generated)       | III              |
| Reactive Energy - kVARh (Net)                  | L1, L2, L3 & III |
| Reactive Energy - kVARh (inductive/capacitive) | III              |

### Setpoints, Alarms, Control

|                       |   |
|-----------------------|---|
| Pulse / Status Output | 1 |
|-----------------------|---|

### Communications

|              |   |
|--------------|---|
| Modbus RTU   | ✓ |
| BACnet MS/TP | ✓ |

## SPECIFICATIONS\*

### Measuring Circuits

|                   |                       |
|-------------------|-----------------------|
| Voltage range:    | 208-480Vac, L-L       |
| Voltage overload: | 1.1 x                 |
| Voltage burden:   | <0.1 VA @ 277 Vac L-N |
| Frequency:        | 45 to 65 Hz           |
| Rated current:    | 333mV                 |
| Current overload: | 1.2 x                 |
| Power overload:   | 1.1 x                 |
| # of Circuits     | 9, 12, 18, or 24      |

### Accuracy

|               |                               |
|---------------|-------------------------------|
| Voltage:      | 0.5%, <0.2% typical (80-120%) |
| Current:      | 0.5%, <0.2% typical (10-120%) |
| Power:        | 0.5%, <0.2% typical (10-120%) |
| Power Factor: | 0.5% (between 0.5 and 1.0)    |
| Energy:**     | Class 0.2 (ANSI C12.20)       |

### Voltage Supply (Self-Powered)

|            |                                |
|------------|--------------------------------|
| Voltage:   | Powered from Phase A & Neutral |
| Frequency: | 50/60 Hz                       |
| Burden:    | <2VA per DTS 307               |

### Low Voltage AC/DC Auxiliary (Option)

|                  |                                                                |
|------------------|----------------------------------------------------------------|
| Voltage options: | 12-24Vdc or 24Vac                                              |
| Tolerance:       | +/- 10%                                                        |
| Burden:          | <2VA per DTS 307                                               |
| Isolation:       | Must be powered from a Class 2 IEC 60950 isolated power supply |

### Mechanical

|                     |                                                                                  |
|---------------------|----------------------------------------------------------------------------------|
| Connection:         | Pluggable screw terminals suitable for 12AWG stranded wire (2.5mm <sup>2</sup> ) |
| Enclosure Material: | Polycarbonate                                                                    |
| Protection:         | Nema 4x (IP 66/67)                                                               |
| Dimensions:         | 15.1" (H) x 13.34" (W) x 9.37" (D)                                               |

### Environmental

|                 |                              |
|-----------------|------------------------------|
| Operating temp: | -31° to 158°F (-35° to 70°C) |
| Storage temp:   | -40° to 185°F (-40° to 85°C) |
| Humidity:       | 5 to 95% R.H. non-condensing |

### Communications (Serial)

|             |                                                             |
|-------------|-------------------------------------------------------------|
| Connection: | 3 way pluggable, screw terminal                             |
| Protocols:  | Modbus RTU (SunSpec Certified) or BACnet MS/TP (BTL Listed) |

### Pulse Output

|                        |                                            |
|------------------------|--------------------------------------------|
| Type:                  | Potential Free, N.O. Solid State Relay     |
| Pulse Width:           | Max 10 Pulses per Second                   |
| Pulse Rate:            | 1 Pulse / 1 kWh default, user configurable |
| Max On-Resistance:     | 30 ohm                                     |
| Max Switching Voltage: | 50Vdc or 30Vac                             |
| Max Switching Current: | 120mA (350mA for 10mS)                     |
| Connection:            | Isolated Pin-Pair                          |

### Standards & Safety

|                       |                                                                                                                                                                  |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UL Listing:           | E488290                                                                                                                                                          |
| Conforms to:          | UL Std 61010.1 3rd Edition, May 11, 2012, Revised July 15, 2015                                                                                                  |
| Certified to:         | CAN/CSA C22.2 # 61010.1, 3rd Edition, Revised July 15, 2015                                                                                                      |
| Additional Standards: | IEC 61010-2-030: 2010, 1st Edition                                                                                                                               |
| EMC:                  | IEC 61326-1 (2012) Ed2<br>IEC 61000-3-2, IEC 61000-3-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11 |
| Emissions:            | CISPR 11 Group1 Class B / FCC Part 15 Class B                                                                                                                    |
| Other:                | Measurement Category III – 300Vac L-N / 520Vac L-L PD2                                                                                                           |
| Communications:       | BTL Listed. SunSpec Alliance certified                                                                                                                           |
| RoHS:                 | Compliant                                                                                                                                                        |

## MODEL NUMBER BUILDER\*

**DTS MCM - [a b] - [c] - [d] C**

### Communications

**a: S** = Serial  
**b: B** = Modbus RTU & BACnet MS/TP

### Powering Options

**C: N** = Self-Powered Va-N, 120 – 305 Vac  
**A** = External 12-24Vdc or 24Vac

### Current Circuits

**d: 9** = 9 circuits (3 x 3 phase)  
**12** = 12 circuits (4 x 3 phase)  
**18** = 18 circuits (6 x 3 phase)  
**24** = 24 circuits (8 x 3 phase)

### ORDERING EXAMPLES

| Part Number (Meter)     | Current                                              |                         | # of Circuits                                        | Voltage                     | Communications                  | kWh Outputs                                                  | Powering            |
|-------------------------|------------------------------------------------------|-------------------------|------------------------------------------------------|-----------------------------|---------------------------------|--------------------------------------------------------------|---------------------|
| DTS MCM-SB-N-9C         | 333mV or Flexible Rogowski CTs (software selectable) |                         | 9 (3 x 3ph)                                          | 208V-480V<br>3 ph 4 wire    | RS-485:<br>Modbus and BACnet    | 3                                                            | Self-powered (Va-N) |
| DTS MCM-SB-N-12C        |                                                      |                         | 12 (4 x 3ph)                                         |                             |                                 | 4                                                            |                     |
| DTS MCM-SB-N-18C        |                                                      |                         | 18 (6 x 3ph)                                         |                             |                                 | 6                                                            |                     |
| DTS MCM-SB-N-24C        |                                                      |                         | 24 (8 x 3ph)                                         |                             |                                 | 8                                                            |                     |
| DTS MCM-SB-A-9C         | 333mV or Flexible Rogowski CTs (software selectable) |                         | 9 (3 x 3ph)                                          | 208V-480V<br>3 ph 3/ 4 wire | RS-485:<br>Modbus and BACnet    | 3                                                            | 12-24Vdc or 24Vac   |
| DTS MCM-SB-A-12C        |                                                      |                         | 12 (4 x 3ph)                                         |                             |                                 | 4                                                            |                     |
| DTS MCM-SB-A-18C        |                                                      |                         | 18 (6 x 3ph)                                         |                             |                                 | 6                                                            |                     |
| DTS MCM-SB-A-24C        |                                                      |                         | 24 (8 x 3ph)                                         |                             |                                 | 8                                                            |                     |
| Part Number (Enclosure) | Dimensions                                           | Max. # of Circuits      | Voltage Inputs                                       |                             | Current Inputs                  | Features                                                     |                     |
| MKTENCL-094             | 12" x 10" x 6" Enclosure                             | 9 or 12 Circuits        | 3 phase Voltage terminals and Neutral terminal       |                             | 6 way pluggable screw terminals | Surface Mounting<br>Weatherproof<br>Non-Metallic<br>Lockable |                     |
| MKTENCL-096             |                                                      |                         | 3 phase Voltage circuit breaker and Neutral terminal |                             |                                 |                                                              |                     |
| MKTENCL-090             | 14" x 12" x 7" Enclosure                             | 9,12, 18 or 24 Circuits | 3 phase Voltage terminals and Neutral terminal       |                             |                                 |                                                              |                     |
| MKTENCL-092             |                                                      |                         | 3 phase Voltage circuit breaker and Neutral terminal |                             |                                 |                                                              |                     |

**CURRENT  
TRANSFORMER  
COMPATIBILITY**



**Split Core CTs**  
measurlogic.com/102



**Rogowski CTs**  
measurlogic.com/106

**Distributor:**

R25D

**MEASURLOGIC**

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