

# Mini CT Meter

## SS9007



## Product Brief

### Ubiquitous Measurement and Control

The SS9007 Mini CT Meter is a compact power metering and load switching device that can be used to monitor and control single phase electrical loads. Designed to sit on a standard switchboard DIN rail, the SS9007 has the same form factor as a standard Miniature Circuit Breaker, and accepts a wide range of external Current Transformers.

The SS9007 Mini CT Meter is suitable for a range of applications including sub-metering, Demand Management, autonomous load shedding, and site automation.

The SS9007 Mini CT Meter is designed to meter and switch a wide range of single phase loads at up to 240VAC. Load switching is performed by an internal isolated relay that can be used to trigger an external third-party contactor or relay.

Designed to function in all major electrical networks, the Mini CT Meter boasts high measurement accuracy (Class 1) with a customizable reporting frequency of up to 1Hz. Import/export energy accumulations and true signed power measurements make the SS9007 an ideal choice for monitoring renewable generation sources and energy storage devices.

High-resolution waveform sampling features provide a unique insight into the behavior and condition of monitored loads, yielding detailed information for load profiling and classification purposes.

Once installed, the Mini CT Meter can receive important software updates over the network, reducing the cost of network maintenance and guaranteeing an up-to-date feature set for all devices in the field.

The SS9007 Mini CT Meter communicates to other Saturn Energy devices using the ZigBee communications standard in the 2.4GHz ISM band. All wireless communications to and from the device are secured with AES-128 encryption using standards based technologies to ensure privacy and data integrity.

### Applications

- Energy Efficiency
- Sub-metering
- Demand Management
- Network Support
- Frequency and Voltage Control
- EV Charge Management
- Building Automation
- Load Classification

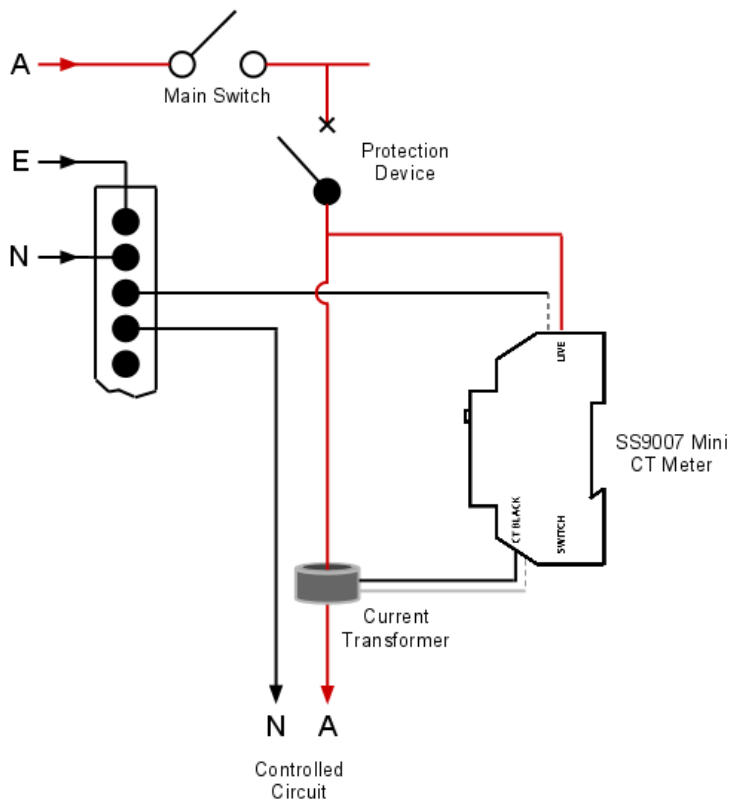
### Features

- Detailed power metrics (RMS Voltage, RMS Current, Power Factor, Frequency, Accumulated Energy Import and Export)
- Split core clip-on current transformer included
- Compact 1U DIN mount package
- ZigBee Home Automation
- Front panel button for manual activation and opt-out of dispatch events
- Able to control large loads via external contactor/relay
- Over-the-air software upgrading capability
- 4096Hz waveform sampling and reporting for voltage and current
- Co-branding options available

### Reportable Metrics

Attribute Name	Unit
Accumulated Energy Active Import	Wh
Accumulated Energy Reactive Import	varh
Accumulated Energy Active Export	Wh
Accumulated Energy Reactive Export	varh
Voltage RMS	V
Current RMS	A
Power Active	W
Power Reactive	var
Frequency	Hz
Temperature	°C
Power Factor	-

### Wiring Diagram for Typical Switchboard Installation



### Ordering Codes

	Non-Switching	Switching
40A	SS9007.2.0_40A	SS9007.2.0_R_40A
120A	SS9007.2.0_120A	SS9007.2.0_R_120A
200A	SS9007.2.0_200A	SS9007.2.0_R_200A

### About Saturn South

Saturn South is an electronics manufacturer specializing in circuit and appliance-level switching and metering solutions.

Based in Tasmania, Australia, Saturn South works closely with its Industry and Government Partners to develop energy management products for the national and global market.

Visit us at [www.saturnsouth.com](http://www.saturnsouth.com).

### Technical Specifications

- Operational Voltage Range: 70 – 240VAC, 50/60Hz (Voltage reference for measurement doubles as power supply)
- 40A, 120A, 200A CTs available
- Internal Power Consumption: Less than 1W
- ZigBee (IEEE 802.15.4) Radio in the 2.4000-2.4835 GHz unlicensed ISM band
- 93dBm receiver sensitivity
- 4.5dBm transmit power
- Tested range of 150m+ in free space
- 5A 240VAC Internal Isolated relay for switching external contactor
- AES-128 Encryption
- Mass: 85g
- Class 1 measurement accuracy
- Zero-cross switching for prolonged life of optional external switching components
- Waveform sampling and reporting capability at up to 16bit resolution, 4096s/s
- Internal switching components rated for more than 20000 switching operations.<sup>[1]</sup>

[1] Assuming a 5A load at 240VAC, PF = 1.0

### Standards

- AS/NZS 3100
- AS/NZS 61000.6.3
- AS/NZS 4268
- Certificate of Suitability
- C-Tick

### Availability

- Available Now