

# iCON™ A (Gen3) Electric Meter

Advanced Function Residential Electricity Meter

## Description

With the SmartPoint™ integrated display, the Sensus iCon A residential electricity meter is one of the most efficient and reliable Advanced Metering Infrastructure (AMI)-ready electric meters available. The meter integrates AMI communications and meter display on one board, making the meter much more reliable and efficient than Advanced Metering Reading (AMR) meters with expansion boards. An optional remote disconnect switch allows commands from the Regional Network Interface™ (RNI) software to disconnect and/or reconnect a service.

The FlexNet™ communications network offers a simple, reliable, and secure system that is economical for mass meter deployments, strategic deployments, and rural applications while providing a multi-application solution for all AMI end points.



## Features

### METROLOGY

- Integrated board for measurement display and communication
- Internal and display resolution of one watt-hour
- Power outage and restore notification
- Customer selectable voltage Alarm reporting
- kWh, kVARh and kVAh energy measurements
- Full net metering
- Demand reading options include block, sliding, peak, and cumulative demand
- Up to four channels of load profile
- Up to eight seasons of time-of-use in up to seven tiers of data

- Remote disconnect with enhanced Load Limiting functionality
- Over-The-Air (OTA) remote FlexNet radio and meter metrology firmware download functionality
- ZigBee with PKI authentication
- IP addressable through FlexNet
- Extensive meter event logging
- Accuracy exceeds ANSI C12.20 (Class 0.2)

### ADVANCED TECHNOLOGY

- Superior accuracy
- Reliable, integrated construction
- Complete DC immunity

### FEATURES AND BENEFITS

- User definable daily read intervals

- On demand meter readings and status reports
- Meter tamper detection
- Flexible two-way communication via FlexNet communications network
- Over-the-air (OTA) remote FlexNet radio and meter configuration capabilities
- FlexNet communications network supports multiple applications in addition to electric AMI, such as distribution automation, water and gas meters
- FlexNet communications network is FCC approved for operation on an unshared primary-use licensed spectrum

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## Product Availability

Service	Class	Form	Voltage Rating (Vac)	ZigBee	Remote Disconnect
2 Wire	200	1S	120, 240	Yes	Yes
3 Wire	200	2S	240	Yes	Yes
3 Wire	320	2SE	240	Yes	No
2 Wire	20	3S	120, 240	No	No
3 Wire	20	4S	120, 240	No	No
3 Wire	200	12S	120/208	Yes	Yes
3 Wire	200	25S	120/208	Yes	Yes

## Specifications

### Power Requirements

- Voltage Rating: See Chart
- Frequency: 60 Hz

### Accuracy

- Exceeds Accuracy Class 0.2

### Burden

- Power Supply < 0.8 watts/7.9VA @ 240VAC
- Voltage Circuit per phase: 0.03 watts @ 240VAC
- Current circuit per phase 0.1 milliohms Typical @ 25°C

### Remote Disconnect

- iCon A type iSA3 - Forms 1S-RD, 2S-RD, 12S-RD
- 2-Pole, single-throw
- Magnetic latching
- Rating: 200 A, 230 Vac, 60Hz, PF 0.7/0.8 lagging
- Endurance: 6000 cycles, 200 A, 240 Vac, 60 Hz, PF 0.7/0.8 lagging
- Overload: 50 OPS, 300 A, 230 Vac, 60 Hz, PF 1.0
- Current Withstand: Per IEC 1036, ANSI C12.1: 7,000 A Peak (5,000 Amps rms) 230 Vac, 60 Hz, for 6 cycles at 0.7/0.8 PF with normal operation after exposure; 12,000 Amps rms for 4 cycles with fail safe conditions after exposure.

### Dimensions

- Diameter: 6.95 in (17.65 cm)
- Depth: 5.00 in (12.70 cm)

### Complies with Industry Standards

- ANSI C12.1 - 2001
- ANSI C12.10 - 1997
- ANSI C37.90.1 - 1989
- FCC Part 15

### Operating Environment

- Temperature: -40° to +85°C
- Humidity: 0% to 95% non-condensing
- Transient / Surge Suppression: EN61000-4-4:1995 & EN61000-4-5:1995, exceeds voltage and current surge requirements per Category 4

### Characteristic Data

- Starting Watts: 5
- Temperature Rise Specifications: Meets ANSI C12.1 Section 4.7.2.9

### Tamper Detection Options

- If the meter is inverted, energy can be added in the forward direction. Meter is also configurable to alarm in reverse energy configuration.
- The meter can distinguish a socket removal from a power outage and send alarm to head-end system.

### LCD Display

- Six-digit liquid crystal display
- User definable list of parameters that are configurable remotely via the FlexNet communications network
- Power flow and mechanical disk indicators
- kWh display with segment check option

For more information, visit us at [www.sensus.com](http://www.sensus.com)

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