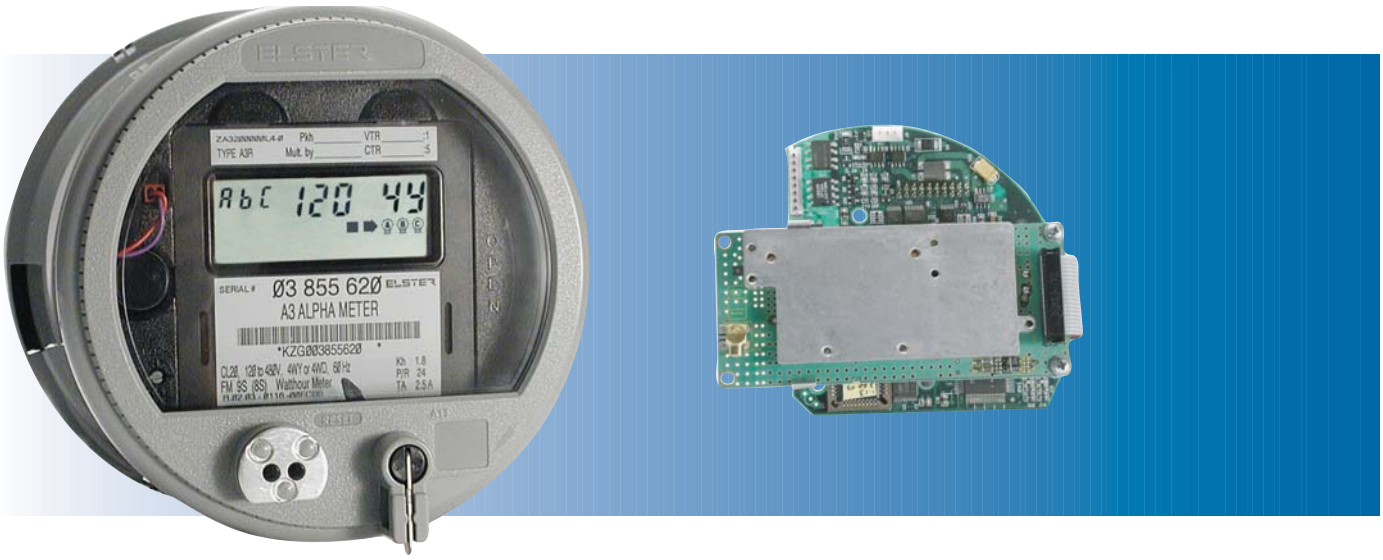
A3 ALPHA® Meter with the Internal Cellular Modem



The internal cellular modem (ICM) is a component to the portfolio of Elster Electricity communications option boards for the A3 ALPHA electronic meter. Equipped with the "under the cover" ICM, the A3 ALPHA meter benefits from the coverage provided by wireless public networks. This solution is based on analog cellular technology that provides network coverage where digital technology is impractical or unavailable.

Easy Installation

The ICM option board installs under the cover of the A3 ALPHA meter; no external transmitters or boxes are needed to use the cellular modem. Once the A3 ALPHA meter with ICM is installed on-site, a test can be initiated using Elster Electricity's Metercat™ support software to validate the quality of the communications link. This test uses a loop back mechanism and exercises both the transmit link (usually the weaker) and the receive link to make certain the ICM is communicating properly over the cellular network.

Easy Configuration

Using Metercat support software, the ICM is easily configured with the following information:

- Mobile ID number: The telephone number assigned by the cellular service provider to the ICM.
- System ID: The system ID (SID) number is assigned by the cellular service provider and identifies the home network.
- Mode of operation: The ICM can be set to use different roaming methods. It can be programmed for the home network only (no roaming), normal (roaming), specific network type (A or B), or custom (multiple regions).

Easy Maintenance

The custom SID list (provided by the cellular service provider) makes it easier for the utility to maintain its inventory of A3 ALPHA meters with ICM. Without the custom SID list, the utility must make certain that a meter with a cellular modem is always correctly paired with its home network, otherwise the meter would incur roaming charges if it were installed outside its home network. Using Metercat support software, the custom SID list is loaded into the A3 ALPHA meter with ICM. This allows the utility to install the meter in any region provided by the carrier without incurring roaming charges.

A3 ALPHA Meter

The A3 ALPHA meter builds on the strengths of the existing ALPHA meter design. Like its predecessors, the A3 ALPHA meter uses Elster Electricity's patented digital measurement techniques that offer high accuracy, repeatability, and low ownership costs. In support of open architecture standards, the A3 ALPHA meter fully supports ANSI C12.18, C12.19, and C12.21.

The A3 ALPHA meter has many features that make it a powerful electricity meter, such as:

- reactive metering
- advanced four quadrant metering
- transformer and line loss compensation
- power quality monitoring
- load profiling and instrumentation profiling

A3 ALPHA meter with ICM Options

The A3 ALPHA meter with ICM comes with the option of 0 or 4 relays. Additionally, the A3 ALPHA meter with ICM can be purchased with an option for an external antenna ready option (no internal antenna; external antenna must be purchased separately).

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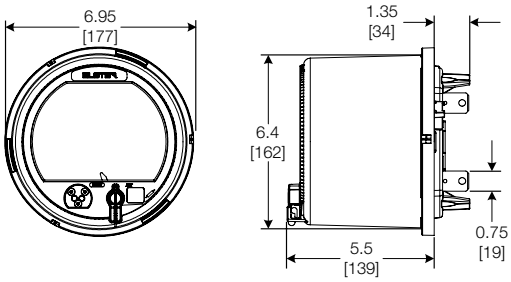
Technical Specifications

Operating ranges						
Voltage	*Nameplate nominal range*		*Operating range*			
	120 V to 480 V		96 V to 528 V			
Current	0 to Class Amperes					
Frequency	Nominal 50 Hz or 60 Hz ± 5 %					
Temperature range	*Ambient*		*Inside meter cover*			
	-40 °C to +50 °C		-40 °C to +70 °C			
Humidity range	0 % to 100 % noncondensing					
General performance characteristics						
Starting current	*Form 1S and 3S*		*All other forms*			
	10 mA for Class 20 100 mA for Class 200 160 mA for Class 320		5 mA for Class 20 50 mA for Class 200 80 mA for Class 320			
Creep 0.000 A (no current)	No more than one pulse measured per quantity, conforming to ANSI C12.1 requirements					
Primary time base	Power line frequency (50 Hz or 60 Hz), with selectable crystal oscillator					
Secondary time base	Meets the ANSI limit of 0.02 % using the 32.768 kHz crystal. Initial performance is expected to be equal to or better than ± 55 seconds per month at room temperature.					
Outage carryover capacity	6 hours at +25 °C. Supercapacitor rated at 0.1 Farads, 5.5 V.					
Communications speed	*Optical port*		*Remote port*			
	300 bps to 28,800 bps (nominal)		1200 bps			
ANSI Standards	C12.1	C12.10	C12.18	C12.19	C12.20	C12.21
FCC Compliance	Part 15 (Class B) and Part 22					

S-base dimensions, front and side



Dimensions in inches [millimeters]. For reference only. Do not use for construction.

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