A3 ALPHA® meter with UMT-C-A3

Two way communications to the A3 ALPHA meter over existing power lines is available with the TWACS UMT-C-A3 transponder installed under the meter cover.

The data you need

Whether the billing data is simple (kWh energy and maximum demand) or complex (kWh and kVARh, kW and kVAR maximum demand, and power factor coincident with kW maximum demand)—the UMT-C-A3 transponder from Distribution Control Systems retrieves billing data directly from the A3 ALPHA meter registers and transmits it over the TWACS power line system to the TWACS Net Server. The A3 ALPHA meter with the UMT-C-A3 transponder can be configured to support a variety of options:

- energy consumption
- demand
- time-of-use
- reactive energy measurement and demand
- apparent energy measurement and demand
- power factor
- bidirectional energy
- instrumentation values (such as per phase voltage)
- error and warning messages

Installed under the cover

The UMT-C-A3 can be installed on an A3 ALPHA demand meter (A3D), a TOU meter (A3T), an apparent power meter (A3K), a reactive meter (A3R), and a bidirectional energy meter (A3Q). Since the UMT-C-A3 is mounted under the cover of the A3 ALPHA meter, the installation is easy. There are no external enclosures to mount or additional wiring required. Once the meter is installed and power is applied, the A3 ALPHA meter begins its metering process, and the UMT-C-A3 is powered and connected to the TWACS communication network.

No guessing required

The A3 ALPHA meter and the UMT-C-A3 feature a wide range voltage input. The meter and transponder may be used with any distribution voltage from 120 V to 480 V. The installer has the correct voltage rating all of the time. The wide voltage range feature detects and operates accurately on the voltage applied. There is also a UMT-C-A3 transponder for voltage transformer applications when the line voltage exceeds 480 V.

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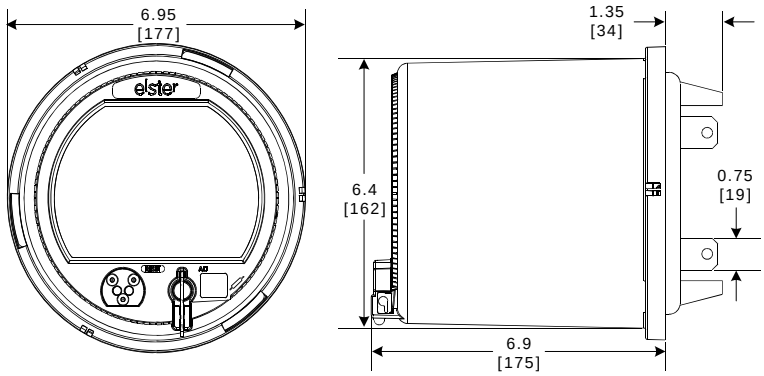
Elster's A3 ALPHA meter builds on the strengths of the ALPHA meter design. The patented digital measurement techniques offer high accuracy, repeatability, and low ownership costs.

Technical specifications

Maximum voltage	Continuous 528 VAC (AnyPhase option: L-L or L-N)	
Maximum current	Continuous at Class amperes; temporary (1 second) at 200 % of meter maximum current	
Surge voltage withstand	ANSI C37.90.1 Oscillatory	2.5 kV, 2500 strikes
	Fast transient	5 kV, 2500 strikes
	ANSI C62.41	6 kV at 1.2/50 µs, 10 strikes
	IEC 61000-4-4	4 kV, 2.5 kHz repetitive burst for 1 minute
	ANSI C12.1 Insulation	2.5 kV, 60 Hz for 1 minute
Voltage range	Nameplate nominal range	120 V to 480 V
	Operating range	96 V to 528 V
Current range	0 to Class amperes	
Frequency range	Nominal 50 Hz or 60 Hz ± 5 %	
Temperature range	-40 °C to +85 °C inside the meter cover	
Humidity range	0 % to 100 % noncondensing	
Power supply burden	Less than 4 W	
Per phase current burden	0.1 milliohms typical at 25 °C	
Per phase voltage burden	0.008 W at 120 V; 0.03 W at 240 V; 0.04 W at 480 V	
Accuracy	Meets ANSI C12.20 accuracy for accuracy Class 0.2 %	
Starting current	Forms 1S and 3S	10 mA for Class 20 100 mA for Class 200 160 mA for Class 3201
	All other forms	5 mA for Class 20 50 mA for Class 200 80 mA for Class 320
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. Super capacitor rated at 0.1 Farads, 5.5 V.	
ANSI standards	C12.1; C12.10; C12.18; C12.19; C12.20; C12.21	



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

About Elster Group

Elster Group is the world's leading manufacturer and supplier of highly accurate, high quality, integrated metering and utilization solutions to the gas, electricity, and water industries. In addition, through its subsidiary Ipsen International, it is the leading global manufacturer of high-level thermo-chemical treatment equipment.

The group has over 8,500 staff and operations in 38 countries, focused in North and South America, Europe, and Asia. Elster's high quality products and systems reflect the wealth of knowledge and experience gained from over 170 years of dedication to measuring energy and scarce natural resources.

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