A3 ALPHA meter with W-WIC
Supports LTE (4G) Cat M1 cellular technologies

Utilities are being challenged to efficiently meet demand on increasingly overburdened networks. Communication requirements have evolved beyond simple monthly consumption data. A utility’s smart grid must communicate with hundreds of thousands to millions of devices. Public cellular technologies offer robust and dependable communication with the ease of plug and play installation.

The Honeywell LTE (4G) Cat M1 wireless WAN interface card (W-WIC) and antenna are installed under the cover of Honeywell’s A3 ALPHA meter. Utilities can communicate directly to the meter over public cellular networks using standardized head-end systems without requiring intermediate devices to relay the transmission. This fully integrated cellular solution provides remote communications, data acquisition, and over-the-air programming across the public cellular network.

This direct WAN-connected A3 ALPHA meter offers secure messaging over the utility’s selected cellular virtual private network using the advanced ANSI C12.22 IP-based communication protocol.

The data you need
Whether the billing data is simple (kWh energy and maximum demand) or complex (kWh and kVARh, kW and kVAR demand, and power factor coincident with kW maximum demand)—the W-WIC retrieves the data directly from the A3 ALPHA meter registers and transmits the information over the cellular network to the utility’s head-end system. The A3 ALPHA meter with W-WIC can be configured to support the following:

- energy consumption
- demand
- time-of-use (TOU)
- reactive energy measurement and demand
- apparent energy and demand
- power factor
- bidirectional energy
- instrumentation values (such as per phase voltage)
- load profile

Available meter types
The LTE (4G) Cat M1 W-WIC can be installed on the following A3 ALPHA meters:
- timekeeping (A3T)
- apparent power (A3K)
- reactive (A3R)
- Q-hour (A3Q)

Available S-base form factors
The LTE (4G) Cat M1 W-WIC is available on all S-base A3 ALPHA meter form factors.

Relay outputs
The A3 ALPHA meter with W-WIC supports any phase and 2/6 KYZ relays. Contact Honeywell for information regarding ordering the meter with LTE (4G) Cat M1 W-WIC and relay outputs.
Secure C12.22 communication protocol
By supporting the C12.22 protocol, Honeywell’s W-WIC can reduce the cost and time of wireless communication through the use of secure IP transmissions. The utility’s head-end can send a request to the A3 ALPHA meter’s W-WIC. The meter can then validate the request and transmit the requested data back to the head-end. True IP communication is faster and more efficient, which translates directly into lower cost and higher reliability. Because Honeywell fully supports AES-128 encryption in the W-WIC, communication with the headend over the WAN is secure.

Installed under the cover
Honeywell’s W-WIC and antenna installs entirely under the cover of the A3 ALPHA meter. Fully optimized antenna within the meter enclosure along with better propagation and penetration characteristics of LTE Cat M1 ensures connectivity and eliminates the need for any external antenna. Honeywell’s Metercat™ software can be used to easily configure the W-WIC with all the needed cellular communication parameters as well as handling the meter configuration. As with standard A3 ALPHA meters, an A3 ALPHA meter with W-WIC is installed on-site and can also be easily tested using Metercat software to validate the quality of the communication link. The meter can also be programmed so that the cellular signal strength is displayed on the LCD.

No guessing required
The A3 ALPHA meter features a wide range voltage input. The meter may be used with any distribution voltage from 120 V to 480 V, ensuring that the installer always has the meter with the correct voltage rating. The wide voltage range feature detects and operates accurately on the voltage applied.

Find Out More
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800-786-2215 (Honeywell Smart Energy sales information)
866-554-9007 (Product support)

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Technical specifications
For the A3 ALPHA meter:
• **Temperature range:** -40°C to +55°C (ambient)
• **Humidity range:** 0% to 100%
• **Operating range:** 96 V to 528 V
• **ANSI standards compliance:** C12.1, C12.10, C12.18, C12.19, C12.20, C12.22
• **Cellular communications:** LTE Cat M1

The A3 ALPHA meter data sheet (EMT-DS-NAEN-001025-A3) and technical manual (TM42-2190) list additional specifications for the A3 ALPHA meter.