

AS300 Single Phase Smart Residential Meter



Modular Smart Metering Solutions

Features

- Flexible modular communications
- Smart grid capability
- Integrated disconnect switch, Single or dual pole
- Local prepayment capability
- Full measurement capability
 - Import/Export kWh
 - Import/Export kvarh
 - Q1, Q2, Q3, Q4 kvarh
 - kVAh
- Flexible tariff
 - 3 concurrent tariffs
 - TOU & block tariff
- Menu driven display
 - Backlight
- Up to 3 pushbuttons
- DLMS protocol
- Optical communications port
- Firmware download
- Load profiling
- Instrumentation
- Instrumentation profiling
- Power quality monitoring
- Extensive security data
- Historic Billing information
- External meter reading storage
- Electronic output options
- RS485

Compliance

- MID & IEC Accuracy
- Spanish Type 5
- SRSM Compliance
- UK Code of Practice 10

The AS300 forms an integral part of Elster's AMI solution portfolio with the ability to manage data from Smart Electricity, Gas and Water meters. MDMS and Head End applications are also available to meet individual utility requirements. A range of communications solutions can be deployed to ensure secure and reliable 2-way communications between backend systems and metering devices.

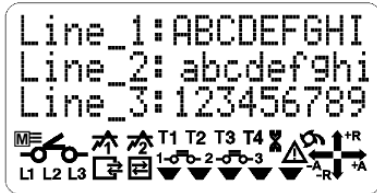
The AS300 offers a modular solution for both WAN/LAN and HAN communication infrastructures. This modularity ensures the AS300 is future proofed for the utility, allowing for the choice of communications technologies to change. Elster offer's a range of communications protocols to match market requirements including GSM/GPRS; PLC (SFSK and OFDM); RF for WAN/LAN communications, M-Bus (wired or wireless); and Wavenis or ZigBee for HAN communications.

The AS300 offers a highly flexible platform that should match all current and anticipated needs for Smart Metering. The meter can be offered in various forms or variants to match the different requirements of different markets. The features list opposite highlights features that will be available in the first release of this product, the appropriate combination of these will be offered for specific market opportunities. The product will continually be developed to match any new market requirements.

Smart Grid applications in the future will greatly benefit from the existence of Smart Meters already installed on the network. The AS300 has been designed to fulfil this requirement, the meter offers selectable and definable power quality monitoring as well as instrumentation profiling. By utilising this comprehensive information, utilities/network operators can gain a detailed understanding of their network performance.



Display



Menu driven display sequence with English or OBIS identifiers

- Dot matrix
- 3 lines (5mm), 16 characters
- 2 lines (5mm, 10mm), 16 characters
- Comprehensive icons

Communications

Local

- Optical bidirectional IEC62056-21 port
- HAN interface to read gas, water meters and In Home Display

Remote

- WAN or LAN communications allowing remote meter reading and programming
- Modules will be available for:
 - GSM/GPRS
 - PLC
 - Low Power Radio

Tariff Capabilities

TOU Tariff Structure

- 12 Seasons
- 12 Week profiles
- 24 Day profiles
 - 12 switching times per day profile
 - 50 special dates
- Up to 6 measurement sources
- Automatic billing periods
- 3 concurrent tariffs
- Deferred tariff

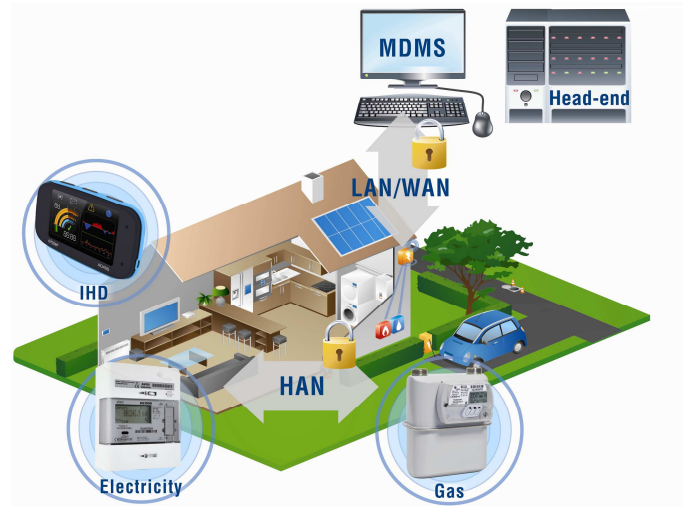
TOU/Block Tariff Structure

- Import/export kWh
- 8 TOU rates, 8 blocks
- Block threshold can be dependent on 2 TOU
- TOU /Block periods can be shorter than a billing period

Critical Peak Pricing

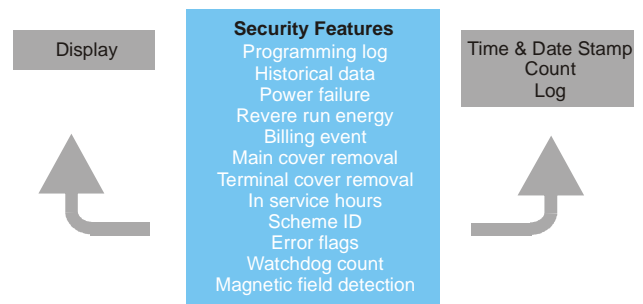
- Precedence over normal tariff
- Immediate or advanced notice
- 3 CPP day profiles

System



Security and Privacy

The AS300 forms part of a system and offers end to end security by utilising the latest industry standards. These standards also ensure that there is a suitable level of privacy. The meter also offers excellent security against traditional fraud or tampering techniques.



Load Profiling

Up to 6 channels from any measured values.

Daily Profile

- Cumulative snap shot every midnight
- 93 days storage

Technical Data

Current range	5 - 100A
Voltage range	220 - 240V
Frequency	50Hz
Impulse withstand	12kV impulse (from 40Ω source) 6kV impulse (from 2Ω source)
Display	3 lines x 16 characters Icons and chevrons
Baud rates	Optical - 300 to 9600 baud
Product design life	15 years
Temperature	-25°C to +55°C (operating range) -25°C to +70°C (storage)
Humidity	Annual mean 75% (non condensing)
Test indicator output	1000 or 2000 pulses/kWh (kvarh)
Dimensions	130mm (W) x 170mm (H) x 65mm (D)
Specifications	EC Directive 2004/22/EC (MID) kWh Class A or Class B kvarh Class 2 or Class 3 EN 62053 - 23 Code of Practice 10 (Issue 1, Version 1.0)
Case	IP53 to IEC 62059

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