

AS330D

Single Phase Smart Meter



Applications

Residential

Brief Description

The AS330D forms an integral part of Elster's AMI solution that manages data from Smart Electricity, Gas and Water meters. MDMS and Head End applications are available to meet individual utility requirements.

WAN communications is provided by an integrated OFDM PRIME PLC. Communications are in accordance with the PRIME Standard DLMS COSEM mac layer with an IEC 61334-4-32 convergence layer. The status of the modem can be monitored by a multi-coloured LED.

The AS330D offers a highly flexible platform that should match current and anticipated market needs. The product is focused on the Spanish requirements, therefore matching the existing requirements of advanced metering. The hardware is specifically designed to meet all the current requirements of Type 5 Metering Standard. The firmware meets the requirements of Type 5 and has been verified against the KEMA test tool. The firmware is downloadable allowing any future enhancements to be introduced at a future date. The metrological code cannot be updated as this runs on a separate microprocessor.

Smart Grid applications in the future will greatly benefit from the existence of Smart Meters installed on the networks. The AS330D has been designed to anticipate this requirement of smart grids, 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.

Approvals: EC Directive 2004/22/EC (MID), kWh Class A or Class B, IEC EN62053 -23, kvarh Class 2 or Class 3.

Features

- Integrated PLC, WAN communications
- Full measurement capability
Import/Export kWh
Q1 - Q4 kvarh
- Flexible tariff
3 Concurrent tariffs
6 Time of use registers
6 MD registers
- 2 Line dot matrix display
- Menu driven display
- Visualisation spec
- 2 Push buttons
- DLMS protocol
- Type 5 Companion Standard
- Optical communications port
- Firmware download
- Load profiling
- Hourly (90 days)
- Daily (90 days)
- Instrumentation
- Power quality monitoring
- Integrated contractor
- Extensive security data
- 12 Sets historic billing information
- 10 Sets daily information
- Electronic output - optional

Compliance

- MID & IEC Accuracy
- Type 5



Technical Data

Current: IEC Ratings MID/EN Rating Frequency Reference Voltage Voltage Operating Range	20 - 60A, 10 - 60A, 5 - 60A [Ib-I _{max}] 0.5 - 10 (60)A, 0.25 - 5 (60)A [I _{min} - I _{ref} (I _{max})] 50 Hz 230V a.c. ±20%
Short Circuit Current Insulation Voltage Maximum Neutral Fault Voltage Maximum Phase Consumption (Voltage) Maximum Phase Consumption (Current)	Short circuit current withstand: 30 I _{max} 4000 Vac 1 min 1.9 U _n (UNE EN 50470-3) ≤ 2W, ≤ 10VA (UNE EN 50470-3) ≤ 2.5VA (UNE EN 50470-3) at I _{ref}
EMC Compatibility Surge Withstand (1,2/50μs) Dielectric Test	6kV, R _{source} = 2 Ohm 12kV, R _{source} = 40 Ohm (only between main terminals) 4kV, 1 min, 50 Hz
Display	High contrast, 2 Line Display. Wide Viewing Angle
Meter Constant (pulsing LED output) Pulse Width	4000 kWh - Default (Wavelength 880nm) 5 ms
Auxiliary Relay	0.5A, 250 Vac
Product Design Life Service Design Life	20 years 15 years
Temperature Humidity	Specified Operational Range: -25° C to +55° C Limit Operating Range: -25° C to +70° C Storage Range: -25° C to +70° C Non - Condensing Annual Mean 75% (95% for 30 days spread over one year)
Dimensions Weight	230.2mm (High) x 131.90mm (Wide) x 65mm (Deep) 739g - Long terminal cover
Accuracy Class kWh kvarh	EC Directive 2004/22/EC (MID) - Class A or Class B. (EN 50470-3) IEC 62053-21, Class 1 or Class 2 Class 2 or Class 3 - EN 62053-23
Case	Generally to DIN 43857 IP53 to IEC 60529:1989
Terminals Main Auxiliary	7.2 mm cable entry, M6 (x2) Terminal Screws - max torque 2.8 N m 2.5 mm bores, M3 Terminal Screws - max torque 0.45 N m

