ACE6000

Commercial Electricity Meter Portfolio

ACE6000 four-quadrant load profiling meters support the new needs arising from deregulation and competition in the electricity market as well as classic metering.
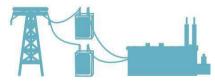
Smart

Compliant with IEC standards, these meters include large innovative capabilities.

They allow multiple recording of load profiles along with local and remote communication.

Flexible

Designed for direct or transformer connection, ACE6000 meters employ a scalable architecture that makes them equally suitable for use with existing and new electricity distribution networks.

Wide Range of Applications

Thanks to an auto-ranging power supply and wide measuring range, a single meter type can be used across a variety of applications – from large commercial installations to industrial metering.

Accuracy and linearity ensure high quality billing data (including Load Profiles).

Instantaneous values for a variety of quantities serve as a base for network monitoring.

PSTN, GSM, GPRS and IP communications are supported thanks to DLMS-Cosem Protocol.

Adding value

Through the application of the latest-generation metrological and communications technologies, ACE6000 meters bring significant benefits to utilities and end-users alike, adding value to every aspect of the metering process.

Utility Benefits

»» Reduced Inventory Cost
Thanks to a wide measuring range and auto-ranging power supply, industrial and commercial users need only one type of meter for many types of installations.

»» Reduced Data Collection Cost
Read cycles are kept to a minimum by internal storage of all billing data, and powerful communications capabilities permit low-cost remote meter reading. Conformance with the latest IEC DLMS-Cosem communications standards ensures that the meters can

be integrated easily into standard data collection systems as well as future GPRS or IP based systems.

»» Reduced Non-Technical Losses
Multiple safety features guard against technical problems being introduced by human intervention.

»» Withstand Adverse Environments
Our meters are designed and tested to cope with severe environmental conditions, such as electromagnetic disturbances and network condition variations.

End-User Benefits

»» Excess Consumption Feature
ACE6000 meters can monitor consumption against configurable thresholds and can activate contacts if consumption exceeds limits.

»» Instantaneous values such as Power Factor, Demand, Volts and Amps are made available for the end-user to help monitor personal consumption.

Key Features

Multi-Energy

Internal measurement of active and reactive power in each direction.

Load Profiles

Up to 16 channels for various base quantities into two independent profiles

Multi-Rate

»» Multi-rate billing for energy and demand
»» 10 basic quantities can be submitted to billing
»» 32 energy-rate and 24 demand-rate registers are available
»» Rate switching performed by internal clock

Smart metering features:

»» Remote/Local connect/disconnect meter installation through external contactor
»» Meter communication lock after wrong passwords sessions
»» EN50160 compliancy
»» Deliver modem information on demand

Communications

»» Two communication channels
»» Local- and remote-reading ports
»» External telephone modem can be supplied from the meter, (PSTN, GSM)
»» DLMS-Cosem compliance opens to GPRS and IP networks

Software

Itron offers a complete range of associated software:

»» ACE Pilot software for reading and programming
»» Compatibility with already deployed AMR systems

ACE6000 Meter series

»» Basic version without outputs with 1 serial port
»» Flexible version with 4 outputs and 1 serial port
»» Serial port can either be RS232 or RS485

Technical Specifications

Ratings	Voltage: Direct Current: Ct/Connection:	3*57.7/100V up to 3*277/480V auto ranging Ib 5A, Imax 100A Ib 1A, Imax 10A
Network Types	Direct Connection: C/t, v/t connection:	4-wire meter, fully operational in 3-wire connection without neutral 3- and 4-wire configurable connections (for asymetrical VDE or symetrical USE connections)
Accuracy	Direct Connected: Transformer Connected: Reactive energy:	Active energy MID: Class B Active energy Class 0.5S & MID: Class B Class 2 or Class C
Frequency	50 / 60 Hz	
Real Time Clock	Back up with external removable battery and internal super capacitor Compliant with IEC 62054-21	
Operating Temperature Range	-40°C to +70°C (specific variant for high temperature operating conditions)	
Standards	Full compliance with MID standard EN50470-1 and EN50470-3 and CE marking standards (mechanical, climatic, electrical, electromechanical, metrological)	
Communications	IR-port (IEC 62056/21 and IEC 62056/42-46-53-61-62) RS232C or RS485 DLMS-Cosem, Protocol (IEC 62056/42-46-53-61-62)	

Accessories

Communications	External telephone modem Cabling for external communications devices IR-reading device for connection to PC Itron Sparklet modem is easily inserted under the ACE6000 terminal cover.
Configuration/ Calibration	ACE Pilot Utility Software for configuration and reading
Documentation	Test certificate User guide Installation Manual

Dimensions