



Draw out type with summation metering

Apex is our most advanced metering system, specifically designed for grid substations (GSS) and bulk power transfer points. It offers a complete grid metering solution to utilities, with comprehensive connectivity via various communication technologies to software systems for monitoring and billing.



Application

- Metering for interface points (Genco-Transco-Discos), inter-state and intra-state availability based tariff (ABT) points
- Suitable for ABT online monitoring systems
- Energy accounting system for bulk consumers and open-access consumers (IPP/PPP)
- Suitable for synchronised real-time energy monitoring at central and local GSS level
- Multi-feeder metering (using real-time kVA summation application)

Benefits

- Maximum revenue integrity through highest possible level of metering system accuracy
- Efficient network management through accurate and detailed energy flow data
- Elimination of data gaps and revenue losses through use of hot-swappable meter modules
- Minimised integration costs through multiple communications interfaces

Features

- Full four-quadrant import/export metering
- Modular rack-mounted metering system, with up to four meters per rack
- Draw-out type meter module with automatic CT shorting
- Dual auxiliary power supply (AC and DC)
- Dynamic error compensation for external current and voltage transformers
- Configurable load profiles
- Comprehensive data storage
- Configurable pulse outputs
- User-friendly LCD information panel
- Flexible tariff support (time of use/ABT/concurrent demand)
- Multiple communication ports for local and remote data transfer
- Digital summation for summated energy and concurrent apparent demand (select variants)



Technical specifications

Electrical

Connection type	CT/PT-operated
Wiring configuration	3-phase 3-wire, 3-phase 4-wire
Voltage range	63.5 V (L-N), 110 V (L-L), -20% to +15%
Current range	1-1.2 A, 5-6 A
Accuracy	Class 0.2s
Mains frequency	50 Hz ± 5%
Burden	Voltage circuit: < 1 W, 1 VA per phase Current circuit: < 1 VA per phase

Compliance

Standards	IEC 62053-22, IS 14697
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Mechanical

Dimensions (W x H x D)	
19" rack (up to 4 meter modules)	428 × 133 × 260 mm approx. (all variants)
Small rack with single meter	299 × 133 × 260 mm approx. (select variants)
Enclosure	Anodized aluminium
Sealing	Sealable screws on the front panel of each meter module

Environmental

Temperature	-20 °C to +55 °C (operating)
Humidity	95% non-condensing

Features

Auxiliary supply *	AC: 110/240 V, DC: 24/30/48/110/220 V Different combinations of AC & DC ratings available on request
Maximum demand	Up to 2 types, configurable in 4 registers
Display	80-character, alphanumeric backlit LCD
Pulse output	Each metering module supports up to 4 pulse outputs - Type: volt-free contacts - Voltage rating: 240 V AC - Current rating: 100 mA - Pulse width: 80 ms

Communication

Local reading	Optical port on the front of each metering module Optical port on the front of the summator unit (select variants)
Remote reading	On-demand remote reading via RS-232 port on rack, with option of RS-485 Modbus (select variants) Online monitoring: optical port on rack (select variants)

* Dimensions, auxiliary supply rating and communication options depend on product variant.

Australia

sales_australia@securemeters.com
www.securemeters.com/au

Dubai

sales_middleeast@securemeters.com
www.securemeters.com/me

Europe

sales_europe@securemeters.com
www.securemeters.com/eu

India, SE Asia, Africa

sales_india@securemeters.com
www.securemeters.com/in

UK

sales_uk@securemeters.com
www.securemeters.com/uk