



Yesterday's Maximum is Today's Minimum!

APM/APR

AMI – DIN RAIL LOAD CONTROL DEVICES



The APM/APR DIN Rail units are used as appliance (load) control devices. The units are a part of Powercom AMI solution, allowing the Utilities or the customers to control the major appliances at the customer premises (as Geyser, swimming pool pump, etc.). The units are activated by the master AMI system (through the "Smart Meter" or by serial control interface). The APM/APR units include internal relay (16A-60A), serial communication interface (RS485) and Radio Frequency. The APM unit includes metering capability offering information as Energy consumption, Voltage, Current, PF. A real time clock (RTC) enables scheduled connect/disconnect functionality. The APM/APR are perfect for use of "Smart Home Applications" and Industrial control application.

FEATURES

- ❑ Single Phase and Poly Phase connection.
- ❑ Fully featured IEC standard, Certified to IEC 62052-11, 62053-11, Class 2, for active energy
- ❑ Measures active energy, RMS voltage, RMS current, power factor, Frequency
- ❑ TOU with 4 tariffs and 8 customer billing cycles
- ❑ Two step tariffs can be activated over a designated time (upon time or consumption)
- ❑ Integrated Load Switch (16-60Amp)
- ❑ Load disconnection when configurable power thresholds are exceeded
- ❑ Event log with circular memory buffer
- ❑ Anti-tamper protection (terminal cover lock)
- ❑ Large-character LCD manual and auto-scrolling display(Optional)
- ❑ Supports display and IR reading during power outage (Optional)
- ❑ Hardware and software security protection
- ❑ Includes RS485 and RF (optional) communications
- ❑ Digital Input and output for event reading and additional control functionality
- ❑ Remote Firmware upgrade through communication
- ❑ Supports both Prepayment and Credit modes by remote configuration.
- ❑ Multi current thresholds: I_{max}(Protects the utility circuit breakers), I_{critical}(in power shortage will limit consumption), and I_{debt} (limit when the customer has existing debt)
- ❑ Long life time of 15 years





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SPECIFICATIONS

| | |
|---|--|
| Voltage Range | 0.7 ... 1.3Un |
| Nominal frequency | 50Hz ±5% |
| Reference Voltage Un | 230V/400V +/- 20% |
| Connection Voltage | One phase and poly phase connection |
| Power Consumption | |
| Accuracy | Active class 2 to IEC 62053-11, 62053-21, 62053-22, 62053-23 |
| Real time clock | <0.5s/d with temperature compensation function |
| Temperature Range | |
| • Specified operate range | -40 ° to +85 ° |
| • Limit range of operation | -40 ° to +85 ° |
| • Storage and transport | -40 ° to 85 ° |
| Humidity | 6kV with 1.2/50us to IEC62052-11 |
| Voltage impulse strength | 6kV with 1.2/50us to IEC62052-11 |
| Insulation strength | 4kV at 50Hz for 1 minute |
| EMC | To IEC 61000-4 |
| Radio interference | To IEC/CISPR 11, Class A equipment |
| Protection class | IP 54 (IEC 529) Indoor use |
| Disconnect switch | 16A-60A, local and remote control |
| Display (Optional) | Large LCD with backlight, display at outage |
| Output/Input interferences | |
| • Digital Input/ Output | Two digital isolated outputs and two inputs |
| Measurement function | |
| • Energy (kWh) | Active Energy |
| • Power quality | voltage, current, PF and Frequency (optional) |
| • Event Log | Records with date/time stamp |
| • Programming, RTC time synchronization, Outage, load switch on/off, Max. Current, Max. Voltage | Records 10 most recent logs of each event with a time stamps |
| • Power fail | Disconnecting the load in case the supply voltage drops under 70% or if the Current is less than 5% In |
| • Firmware Upgrade | Remote firmware upgrade through communication |
| • Renewable Energy special Tariff | Separate tariff setting (import and export) for energy metering when renewable energy is used (PV, wind Energy etc.) |
| Unit Life Time | At least 15 years |





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Part Numbering

APM 1 16 CR

Product Type

APM Appliance Control with Metering
APR Appliance Control with Relay

Type

1 Single Phase
3 3 Phase

Relay Rating

16 16 Amp
25 25 Amp
45 45 Amp
60 60 Amp

Communication

C RS485
R RF

