TRIACTA
SUBMETERING BEYOND MEASURE™

PowerHawk 6103

ANSI C12.20, 0.5 multi-point submeter deploying up to six 100mA solid core CTs in revenue-grade, regulated applications. Configurable as 6 single-phase, 3 two-phase or 2 three-phase meters. Ethernet communications with native BACnet IP, Modbus TCP, plus optional integrated V.90 telephone modem or Modbus RTU interface.

Product Specification

Product Numbers and Variants

Product Number	Product Name	Listings/Approvals for Revenue Applications *
910-140-01	Triacta PowerHawk 6103 ETH (120V,60Hz)	MC
910-140-05	Triacta PowerHawk 6103 ETH (277V,60Hz)	MC
910-140-01 RTU	Triacta PowerHawk 6103 ETH + RTU (120V,60Hz)	MC
910-140-05 RTU	Triacta PowerHawk 6103 ETH + RTU (277V,60Hz)	MC
910-640-01	Triacta PowerHawk 6103 ETH (120V,60Hz) NY/MD	NYPSC, MDPSC
910-640-01 RTU	Triacta PowerHawk 6103 ETH + RTU (120V,60Hz) NY/MD	NYPSC, MDPSC

* **MC**- Measurement Canada, **NYPSC** - New York Public Service Commission, **MDPSC** - Maryland Public Service Commission

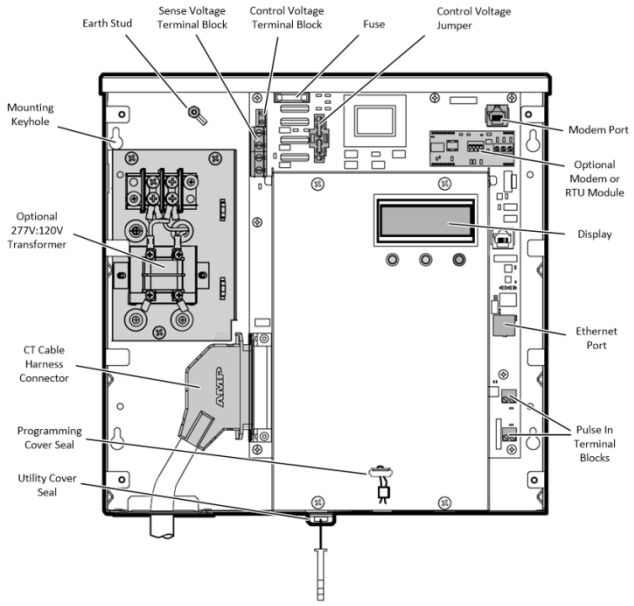
Features and Specifications

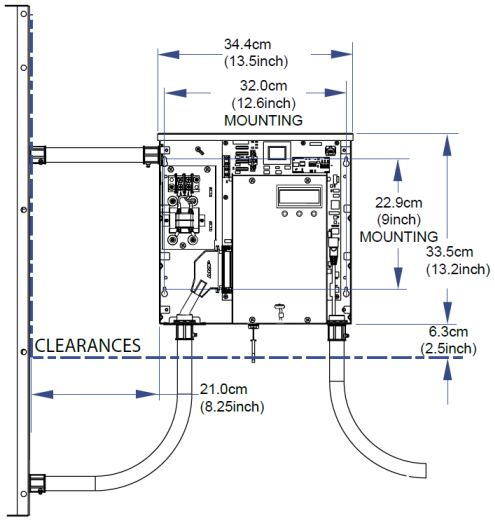
- Electronic solid state device configurable as:
  - 6 single-phase meters
  - 3 two-phase or three-phase Delta meters
  - 2 three-phase Wye meters
- 4-quadrant meter measures total and per phase:
  - Active, Reactive & Apparent Power
  - Peak W and VA Demand
  - PF and phase angles
  - Irms, Vrms
- Interfaces to 100mA output CTs or 5A:100mA CT converters
- 2 pulse inputs for connecting other meters
- Service voltages up to 277V with no external PTs
- On-board Liquid Crystal Display
- On-board non-volatile flash memory is unaffected by power outages and holds up to 2 years of meter data (1 hour intervals for 20 years)
- On-board real-time clock with battery back-up holds time up to 10 years
- Two on-board pulse inputs (2 wire) compatible with dry form A and solid state form A contacts, collect data from other pulse-out meters (gas, water or electric)
- Multi-point economic efficiencies for retrofit or new construction
- Remotely configurable and upgradable with Ethernet connectivity

Reporting and Communications

- AMR via FTP data push over IP or (optional) MODEM;
  - Plain text CSV file
  - Measurement Interval: 1 to 60 minutes
  - Reporting interval: once/day or every N min.
- Logged Measurements for AMR (interval and register):
  - Wh delivered & received
  - VARh delivered & received
  - VAh
  - Peak W & VA Demand
  - Present W & VA Demand
  - Peak Current
  - Vrms
  - Pulse counts x 2 inputs
- BAS Integration via BACnet IP, Modbus TCP/IP, or (optional) Modbus serial RTU.
- On-board Web server and Liquid Crystal Display for local readings
- Ethernet Interface
  - 10/100BaseT Full Duplex
  - DHCP Client or static IP address
  - Passive FTP port 21
  - NTP port 123
  - Modbus TCP/IP port 502
  - BACnet IP port 47808
  - HTTP port 80

Internal View and Dimensions





Specifications

MECHANICAL	
Dimensions	Height: 13.2 in. (33.5cm) Width: 13.5 in. (34.3 cm) Depth: 2.5 in. (6.4 cm)
Weight	9.5 lb. (4.4 kg)
ELECTRICAL	
Sense (Service) Voltage – With control voltage jumper removed – All Control Voltage variants except 277V	100V to 300V 50/60Hz – 2W+N+Protective Earth – 3W+N+Protective Earth Wye – 3W+Protective Earth Delta
Control Voltage and Current	120V variant +/- 12V, 125 mA 60 Hz 230/240V variants +/- 24V, 63 mA 50/60 Hz 277V variant +/- 28V, 54 mA 60 Hz
Fuse rating (F1)	120V & 277V variants: T125 mA, 250V
Required Current Transformers Measurement Category III	100 mA secondary CT Meter burden: 3.28 ohms CT burden: 13 ohms Must be UL recognized/listed
Pulse inputs 1 and 2	Dry form A and solid-state form A compatible Internal 3.3V pull-up Maximum frequency 10 Hz Minimum pulse width 20 MS
REGULATORY	
Measurement accuracy (0.5% with 0.3% CTs)	ANSI C12.1 and C12.20 Class 0.5 IEC 62053-22 Class 0.5S
Safety	IEC/EA/UL/CSA 61010-1 3rd Edition, CSA C22.2, No. 61010-1-04, CE directive 2014/35/EU
Emissions	FCC Part 15, ICES 003, EN55022, IEC 6100-4-5 - Class B, CE directive 2014/30/EU
Surge power/telephone lines	47 CFR Part 68, CS-03
RoHS	CE directive 2011/65/EU
COMMUNICATIONS AND MEMORY	
On-board Ethernet port	10/100 BaseT, Full Duplex
On-board modem (optional)	V.90
On-board Modbus RTU serial port (optional)	RS422 or RS485 19200/9600 Baud
BACnet	ASHRAE 135-1, BTL Listed B-SA
Non-volatile memory storage	Up to 2 years of data at 1-hour data intervals, 20 Years storage time
ENVIRONMENTAL	
Operating temperature	-20 to 70°C
Operating humidity	5% to 90% non-condensing
Usage environment	Indoor or enclosed outdoor environment
Maximum altitude	9843 ft (3000 m)
Pollution degree	2
Installation category	II
Measurement category	III