Power Battalion 48
Networked Power Meter

The Power Battalion 48 is a multi-circuit, revenue grade power meter designed to significantly reduce installation time and cost per metering point. The Power Battalion 48 can be used with standard CTs, 1 Volt output or less, or with Rogowksi style CTs to monitor any combination of up to 16 three-phase or 48 single-phase loads. The versatility of the device allows monitoring of two separate voltages and transformers on same meter simultaneously. The Setra power meter provides ANSI C12.20 accuracy on all circuits being metered.

Easy Installation and Configuration

The Power Battalion 48 is line powered with 90-600 volts, eliminating the need to choose a separate model number for single or three phase circuits and ensuring the correct part numbers are ordered. The Power Battalion 48 can be configured with a web browser or direct USB connection prior to installation, significantly reducing labor costs, maximizing safety and eliminating the need for personal protective equipment. The initial set-up of the meter can be done from a lap top using the free Headstart software which also allows for cloning of the set-up parameters for multiple meters. The multi-colored backlit display ensure that the CTs are properly phased the first time, eliminating the hassle and expense of having to return to the job site.

CT Flexibility

The Power Battalion 48 provides the option to choose between standard split core CTs, existing current transformers or the Setra Patrol Flex CTs. Power Battalion 48's interchangeable CT configuration on the browser drop down menu allows for flexibility at the job site or when making last minute changes. Setra Patrol Flex CTs are industry best 0.5% revenue grade accuracy when used in conjunction with the Battalion.

- **Phase-Check Verification Shown on Display to Confirm Proper CT Orientation**
- **Field Selectable BACnet/Modbus (4-in-1)**
- **Back-lit Push Button Display**

Power Battalion Features:

- Displays total harmonic distortion, waveform capture, phasor plot in real time
- 4-in-1 field selectable network communications: BACnet IP, MS/TP, Modbus TCP/RTU
- 1.8 KHZ processor; updates data every second
- Phase-Check verification shown on display
- Pluggable terminal blocks for easy wiring and verification
- Backlit display
- UL 610.10 rated; can be mounted in electrical panel
- NEMA 1 enclosure or circuit board only models available
- Phase loss alarm relay
- 430 communication object points/registers per meter to choose from
- On-board 12 V power supply for external sensors
- 5 year warranty, BTL certified
- Monitor two separate voltages and transformers on the same meter simultaneously

Applications:
- High Density Electrical Distribution Panels
- Demand Side Management
- Preventative Maintenance
- Retail Store Lighting Loads
- LEED Projects
- Chiller Optimization

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Setra

ORDERING INFORMATION

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Model		Enclosure		Display		Options	
SPB48= Setra Power Battalion 48		C	Enclosure	D	Display	N	None
		P	Board Only	N	No Display		

SPECIFICATIONS

Technical		Communications	
Service Type	Single Phase, Split Phase, Three Phase-Four Wire (WYE), Three Phase-Three Wire (Delta)	Hardware	RS-485, Ethernet, and USB (for configuration only)
Power	From L1 Phase to L2 Phase, 90-600 VAC RMS CAT III 50/60Hz, 500mA AC Max	Supported Protocols	Modbus (using SunSpec IEEE-754 single precision floating point model), or BACnet
AC Protection	0.5A Fuse 200kA interrupt capacity	Max Distance	1,200 meters with Data Range of 100k bits/second or less
Power Out	Unregulated 12 VDC output, 200 mA, self-resetting fuse.	Supported Baud Rates	9600, 19200, 38400, 57600, 76800, 115200 baud
Voltage Channels	80-346 Volts AC Lint-to-Neutral, 600V Line-to-Line, CAT III. Two voltage reference inputs	Data Bits	8
Current Channels	48 channels, 0.525 VAC max, 333 mV CTs, 0-4,000+ Amps depending on CT	Parity	None, Even, Odd
Maximum Current Input	150% of current transducer rating (mV CTs) to maintain accuracy. Measure up to 4000 A with Rogowski Coil CTs	Stop Bit	2,1
Measurement Type	True RMS using high-speed digital signal processing (DSP) with continuous sampling	Data Formats	Modbus, BACnet MS/TP, Modbus TCP or BACnet IP
Line Frequency	50/60 Hz	**Mechanical**	
Waveform Sampling	1.8 kHz	Wire Connections	12-22 AWG
Parameter Update Rate	1 second	Mounting	Panel Mount/Enclosure
Measurements	Volts, Amps, kW, kVAR, kVA, aPF, dPF, kW demand, kVA demand, Import (Received) kWh, Export (Delivered) kWh, Net kWh, Import (Received) kVAh, Export (Delivered) kVAh, Net kVAh, Import (Received) kVARh, Export (Delivered) kVARh, Net kVARh, THD, Theta, Frequency. All parameters for each phase and system total.	PCBA Mounting	0.5" Standoffs #6 (Quantity 6)(user supplied)
		High Voltage Cover	IP40
Accuracy	0.2% ANSI C12.20-2010 Class 0.2	Mounting Plate	Available with Circuit Board Only model
Resolution	Values reported in IEEE-754 single precision floating point format (32 bit)	Operating Temperature[1]	-20° to +60°C (-4° to 140°F)
Display	4-line display, tri-color backlight (PhaseChek™)	Humidity	5% to 95% non-condensing
Pulse Output	Open Collector, 5mA max current, 40V max open voltage.	Enclosure	ABS Plastic, 94-V0 flammability rating
		Enclosure Dimension	(L) 26.5cm x (W) 24.8cm x (H) 7.6CM (L) 14.25" x (W) 9.75" x (H) 3.0"
Certifications		PCBA Dimensions	(L) 21.6cm x (W) 21.6cm x (H) 6.4cm (L) 8.5" x (W) 8.5" x (H) 2.5"
UL Recognized	Circuit board only version	**Headstart Software**	
UL Listed	Indoor enclosure version	Operating System	Windows® 10, Windows® 8, Windows® 7
CE	EN 61000-6-4: Class A	Communications	Ethernet or USB. One free USB port required on PC
ANSI C12.20 Class 0.2	NIST Traceable Calibration	Security	2 password levels

[1] -20°C LCD display could be illegible. Meter voltage @ -20°C must exceed 100 VAC to power the meter.