SATEC Powerful Solutions
SATEC Overview

30+ years of innovation as a technology leader in Electrical Power and Power-Quality
Hardware solutions for primary service or sub-metering
Advanced Software solutions include SATEC’s ExpertPower Dashboard and Reporting/Analysis/Billing Features
SATEC’s Billing Service Team provides custom tenant billing services as a full service offering with expertise in local regulations

SATEC has a unique reputation of being the standard people can rely on for measuring energy usage, load profiling, and precise recording of faults and power quality events

Corporate headquarters located in Union, NJ
SATEC is a member of the New Jersey Business and Industry Association and the New Jersey Technology Council
SATEC

Hardware Solutions

Electrical Monitoring Solutions:
• Over a dozen models of metering hardware to fit customer applications
• Metering for Building Main, Critical Loads, Distribution, and Sub-Metering for ASHRAE or LEED requirements
• Tenant (Commercial/Residential) Sub-Metering solutions

Features:
• Revenue Grade ANSI C12.20 and IEC62053-22
• Resilient Historical Data Trending Solutions using Time-Stamped non-volatile on-board memory with programmable logging
• Volt/Amp/Power/Energy/PF/Harmonics/Directional energy/Time-Of-Use/more...
• Open Protocol Communication: Easily integrate with SCADA/BMS
Advanced Power Quality:
- Fault Recording with High-Speed event triggering using advanced hardware
- Identifying Sag/Swell/Transient/Alarms/External Inputs from Relay’s
- Multi-channel waveform recording with high precision customizable logs
- Sequence of Event with dozens of inputs and advanced software analysis
- PMU Syncrophasor
- Harmonic Analysis with directional harmonics and high order harmonics
- Alarm input/output, Programmable Control, open protocol SCADA/BMS integration, Long term historical data trending, Directional Energy totalizers, advanced Time Of Use programmable seasonal rate schedule accumulators
SATEC Data Management Solutions

Internet

ExpertPower™ (Cloud based)

SCADA

Modbus TCP/IP, Modbus RTU, DNP3.0 L2, IEC 61850, BacNet IP

EM133  EM235  PM130 PLUS  PM135  BFM136  BFM-II  PM172  PM174/5  PM335  EM920  PM180
Detailed Harmonic Analysis

Directional Harmonics
WATTS & VARS
SOURCE
LOAD

Phase Active Power: 12.75 kW
Phase Reactive Power: 0.39 kvar
Frequency: 49.82 Hz

Over limit
Three *Simultaneous* WAVEFORM RECORDERS LOGS

**Waveform LOG #1** - For System Protection Group  
10 Channels at 128 samples / cycle – 64 cycle snapshot  
Includes DC and 48 Digital Inputs  
FAULT RECORDING – DC - BREAKER - SOE

**Waveform LOG #2** - For Power Quality Group  
8 Channels 1024 samples / cycle  
32 cycle snapshot  
SAGS – SWELLS – IMPULSES  
As per IEEE-1159 categories

**Waveform LOG #3** - For Motor Startup  
64 samples / cycle – 10800 cycle snapshot (3 Min)
Phasor Measurement Unit (PMU)

IEEE Std. C37.118.1 - 2014
SATEC

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