



# Power Monitor Family Datasheet

## PM-Series

### Overview

Samsara captures fine-grained electrical power usage to analyze consumption, measure efficiency, and reduce operating cost. PMs are ideal for instrumenting pumps, compressors, motors, and other power-intensive equipment.

Samsara's cloud-based software, includes live remote visibility from any web browser, real-time SMS and email alerts, and historical graphs and data archive with unlimited storage.

### HIGHLIGHTS

- View fine grained single phase and 3 phase power usage from the cloud
- Revenue grade power monitors provide complete usage history and power factor visibility
- A cost-effective, easy to deploy solution with no dependencies on IT, remote networking, SCADA systems
- Part of a complete solution to monitor industrial efficiency

# Cloud Based Power Monitoring

## View fine-grained power data over the web

Remotely view real-time power data from your desktop or mobile device. Samsara's Internet connected power monitors provide revenue grade visibility into single or 3 phase power including power factor.

## Harness data to reduce demand and energy cost

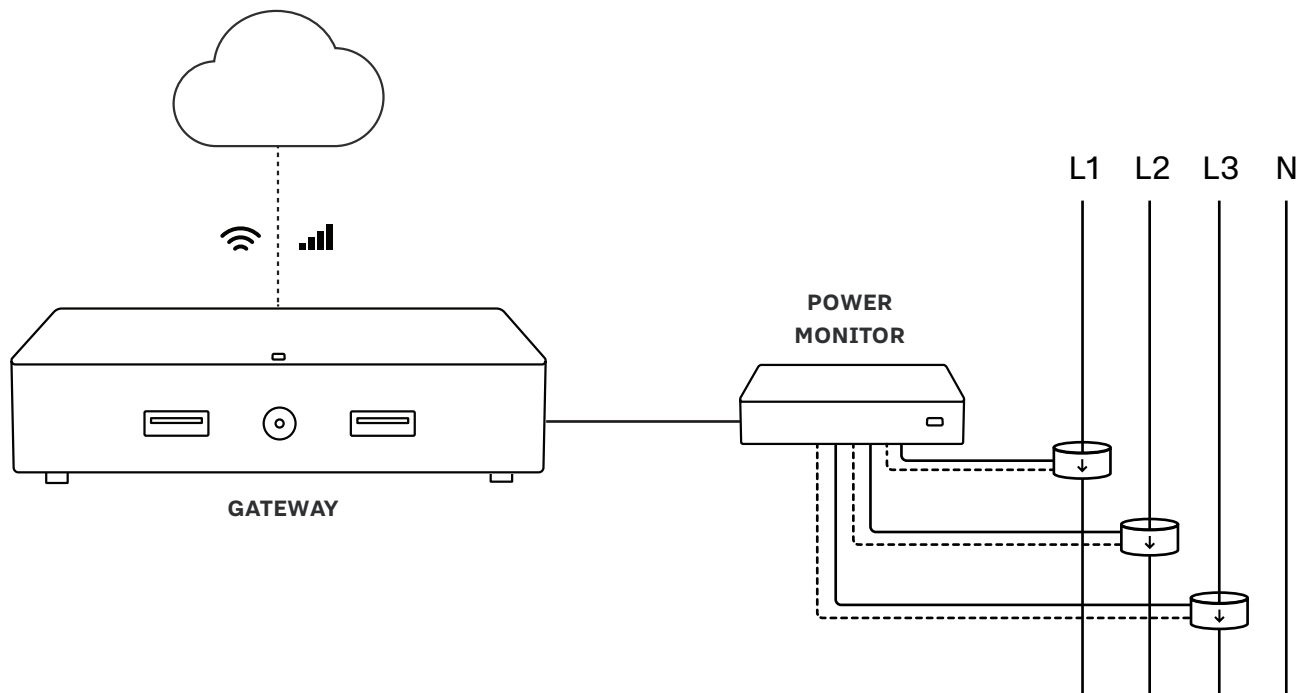
Historical power data and real-time alerts allow administrators to minimize demand and lower energy costs. Cloud based analytics provide new visibility into usage trends and anomalies.

## Measure end-to-end energy efficiency

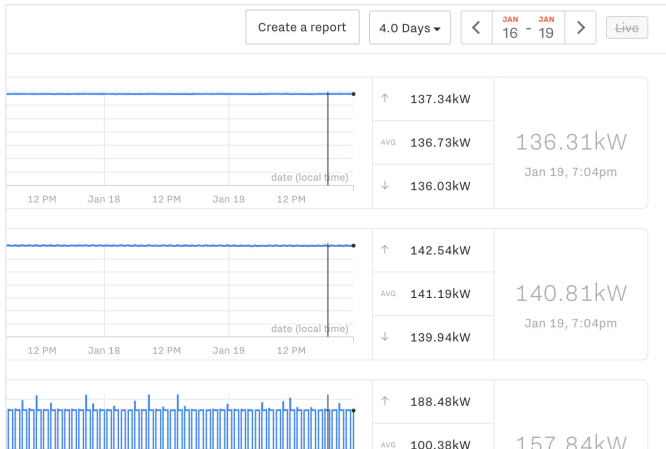
Combine power usage with industrial sensor data for a complete view of efficiency. Visualize efficiency of motors, pumps, compressors, and other power intensive equipment right from your browser.

## Affordable and easy to install

Samsara provides a complete power monitoring solution with data capture, secure wireless networking, and hosted software. Samsara is easy and cost effective to deploy without dependencies on IT networks or SCADA systems.



# Complete Picture of Power Systems



View real-time and historical power usage for your entire site directly from your browser or mobile device

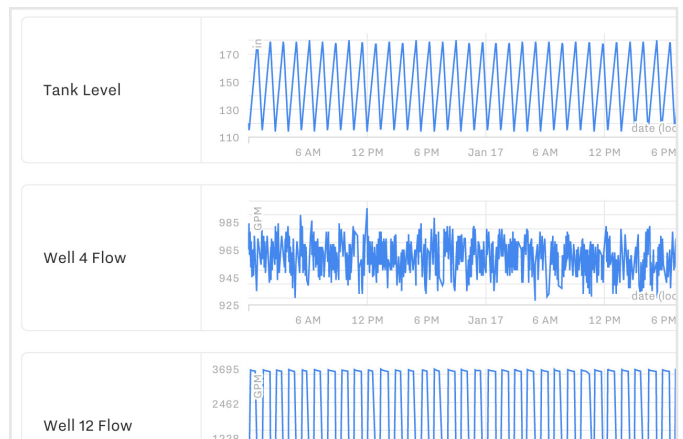


Get fine grained visibility into single or three phase power, voltage, current, and power factor

● Pump 9 ⚙

MAC address	b0:25:aa:00:49:da		
Connected to	Plant 143 - PLC Cabinet		
Last location	York St, San Francisco, CA		
Total Power	1400W		
Power	Phase 1: 620W	Phase 2: 652W	Phase 3: 12
Voltage	Phase 1: 286.9V	Phase 2: 287.9V	Phase 3: 28
Current	Phase 1: 7.20A	Phase 2: 4.40A	Phase 3: 4.1
Power Factor	Phase 1: 1.69	Phase 2: 1.48	Phase 3: 1.1
Asset View	<a href="#">Asset view</a>		

Receive real-time alerts by email or SMS when power usage goes above or below your desired thresholds



Correlate power usage with PLC measurements in order to see real time efficiency of pumps, motors, and other high power equipments

# Technical Specifications

## Power Monitor System Definition

System Type	Description	Allowable Voltages	Current Transformers(CTs) Needed
Single phase, 2-Wire	1 line and neutral	20-480V	1
Single phase, 3-Wire	2 lines and neutral	120-480V	2
3-Phase, 3-Wire	3 lines and no neutral	120-415V	2
3-Phase, 4-Wire	3 lines and neutral	120-480V	3

## System Summary

<b>Frequency</b>	50Hz/60Hz
<b>Amperage</b>	Up to 5000 amps (external current transformers required)
<b>Sampling Resolution</b>	5 second sampling interval with instantenous max demand

## Data Output

<b>Real-time transmission</b>	Hard wired communication to Samsara GW series gateway
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## Power

<b>Input Power</b>	No external power required (Meter powered from line voltage reference) Power draw: <1W
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## Enclosure

<b>Operating Temperature</b>	-5C to 45C
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## Software Features

<b>Visibility and Management via Samsara cloud</b>	Real-time remote visibility, SMS and email alerts, interactive graphing and analytics, Mobile app
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## Cloud License

<b>All-inclusive</b>	Includes maintenance and support, full dashboard access, unlimited sensor data storage, monthly feature updates, and continuous cellular connectivity
<b>Simple Pricing</b>	No long-term contracts, early termination fees, or per-feature licenses

# Ordering information

## PM-Series Power Monitors

<b>HW-PM10</b>	Power Monitor for Single Phase Circuits and accompanying CTs (license required)
<b>HW-PM20</b>	Power Monitor for Three Phase Circuits and accompanying CTs (license required)

## Current Transformers (CT)

<b>CT Model</b>	<b>Max Per Phase Amperage</b>	<b>CT inside Diameter</b>
SCT-013-200	200 amps	13mm (0.51in)
SCT-032-400	400 amps	32mm (0.91in)
SCT-065-800	800 amps	65mm (2.56in)
SCT-100-1500	1500 amps	100mm (3.93in)
SCT-100-3000	3000 amps	105mm (4.13in)

## License

<b>LIC-PM-1YR</b>	1-year license for PM-series monitors
<b>LIC-PM-3YR</b>	3-year license for PM-series monitors