

# Vertiv™ Liebert® DPM

Intelligent Power Quality Monitoring and Metering for PDUs/RPPs



## Overview

Vertiv™ Liebert® DPM is an intelligent power quality monitoring system that oversees critical power distribution hardware by displaying operation and breaker status, equipment load levels, and power waveforms on a 9" color touchscreen.

Monitoring power usage in your critical environment is essential to supporting the safety and continuity of your IT infrastructure. Vertiv™ Liebert® DPM provides easy access to accurate, real-time data on power status, load levels, and power quality within PDUs and RPPs, whether the IT footprint is deployed in an on-site data center or a remote facility.

Vertiv™ Liebert® DPM provides real-time monitoring of power status and load levels to support the reliability of IT infrastructure in both hyperscale data centers and remote facilities. It features a color touchscreen interface for clear visualization of one-line system diagrams, breaker status, and equipment load levels. The interface includes navigation tools for configuring system parameters, managing equipment loads, and applying site-specific settings, enabling precise control and simplified operation.

## Benefits

- User-friendly graphical interface with single-line diagram showing real-time system status
- Accurate power metering for billing and cost allocation
- Automatic charting display for logged power and environmental data
- Equipment load management across local and remote facilities with warnings of near overload conditions
- Automated commissioning mode to seamlessly integrate Building Management & DCIM systems
- Optional local and remote Emergency Power-Off
- Optional waveform capture to help identify root cause of power quality issues and outages

Vertiv Liebert DPM offers metering accuracy of 0.5% or better for voltage, current, power, and energy measurements. It supports integration with Building Management Systems (BMS) and Electrical Power Monitoring Systems (EPMS) using standard communication protocols, allowing centralized monitoring and control of local and remote power distribution. The system includes automatic overload notifications and emergency power-off functionality. Additional capabilities include billing-grade metering, waveform capture for power quality analysis, and secure data logging for compliance and troubleshooting. Audible and visual alarms provide clear indication of abnormal conditions.

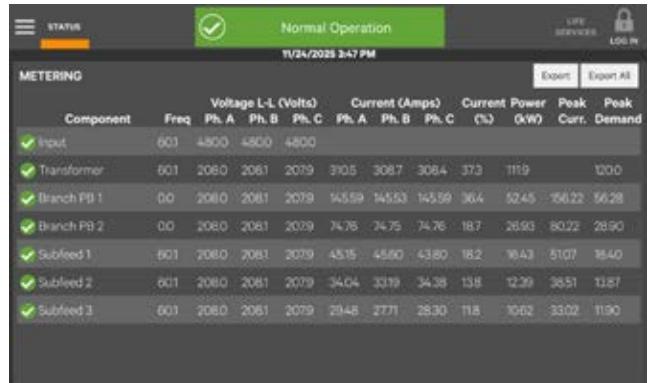
Designed for flexibility, Vertiv Liebert DPM can be configured to match the specific set of subfeeds or panelboards inside the PDU/RPP in which it is installed. It provides breaker status through auxiliary and bell contacts and includes advanced security measures to protect data integrity. The system logs power quality events for diagnostic purposes and supports integration with DCIM platforms and cloud-based monitoring solutions. These features enable detailed analysis, proactive maintenance, and reliable operation in mission-critical environments.



## Features

### Comprehensive Power Monitoring

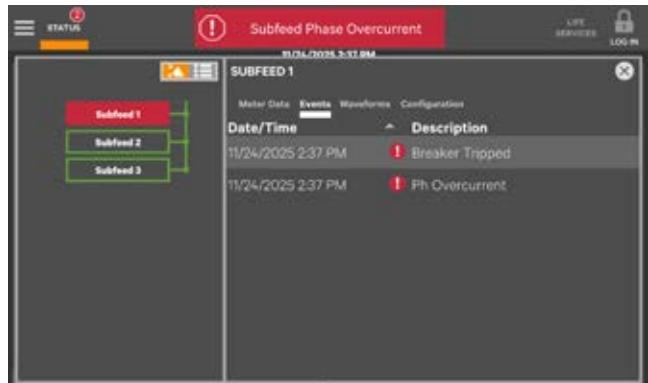
Measure all critical parameters—voltage, current, power, energy, frequency, and power factor—at mains, subfeeds, and branch circuits. High-quality CTs support accurate measurements, and data is easily accessible on the touchscreen or via export for analysis.



Component	Freq	Voltage L-L (Volts)			Current (Amps)			Current Power (kW)		Peak Curr.	Peak Demand
		Ph. A	Ph. B	Ph. C	Ph. A	Ph. B	Ph. C	(%)	(kW)		
Input	60	4800	4800	4800							
Transformer	60	2080	2081	2079	3105	3087	3084	37.3	111.9		1200
Branch PB 1	60	2080	2081	2079	145.59	145.53	145.59	36.4	52.45	156.22	56.28
Branch PB 2	60	2080	2081	2079	74.76	74.75	74.76	18.7	26.93	80.22	26.90
Subfeed 1	60	2080	2081	2079	45.15	45.00	43.80	18.2	36.42	51.07	16.40
Subfeed 2	60	2080	2081	2079	34.04	33.19	34.38	13.8	12.39	36.51	13.87
Subfeed 3	60	2080	2081	2079	29.48	27.71	28.30	11.8	10.62	33.02	11.90

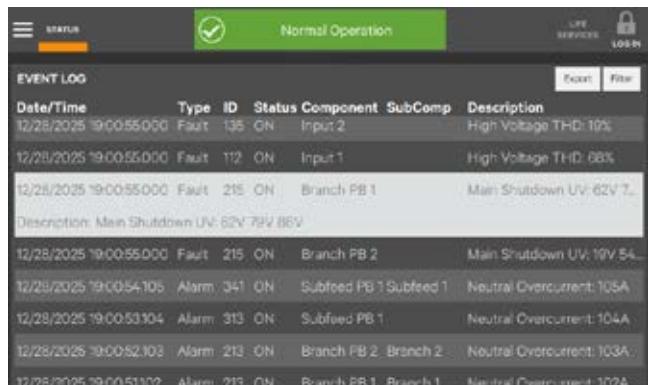
### Intuitive Touchscreen Interface

Color-coded visual and audible alarms, along with interactive one-line diagrams, provide instant visibility. Drill down into metering data, events, and settings for actionable insights at a glance.



### Advanced Event & Data Intelligence

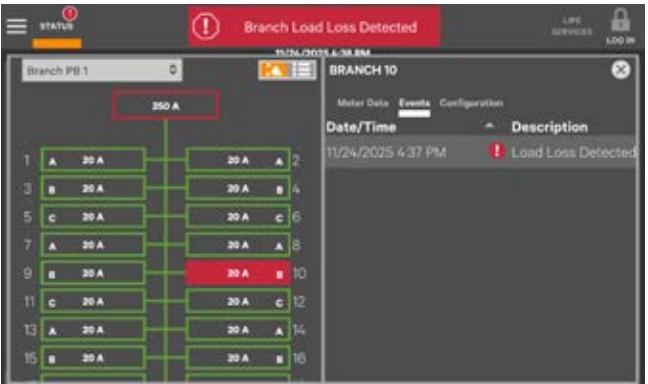
Capture and log up to 1,000 power quality events with 1 ms timestamp precision. Continuous sampling delivers accurate efficiency and uptime metrics, enabling proactive management and independent PUE calculation.



Date/Time	Type	ID	Status	Component	SubComp	Description	
						Event	Filter
12/28/2025 19:00:55:000	Fault	135	ON	Input	2	High Voltage THD: 10%	
12/28/2025 19:00:55:000	Fault	112	ON	Input	1	High Voltage THD: 68%	
12/28/2025 19:00:55:000	Fault	215	ON	Branch PB 1		Main Shutdown UV: 62V 7%	Description: Main Shutdown UV: 62V 7% 86V
12/28/2025 19:00:55:000	Fault	215	ON	Branch PB 2		Main Shutdown UV: 10V 54%	
12/29/2025 19:00:54:105	Alarm	341	ON	Subfeed PB 1	Subfeed 1	Neutral Overcurrent: 105A	
12/28/2025 19:00:53:104	Alarm	313	ON	Subfeed PB 1		Neutral Overcurrent: 104A	
12/28/2025 19:00:52:103	Alarm	213	ON	Branch PB 2	Branch 2	Neutral Overcurrent: 103A	
12/28/2025 19:00:51:102	Alarm	213	ON	Branch PB 1	Branch 1	Neutral Overcurrent: 102A	

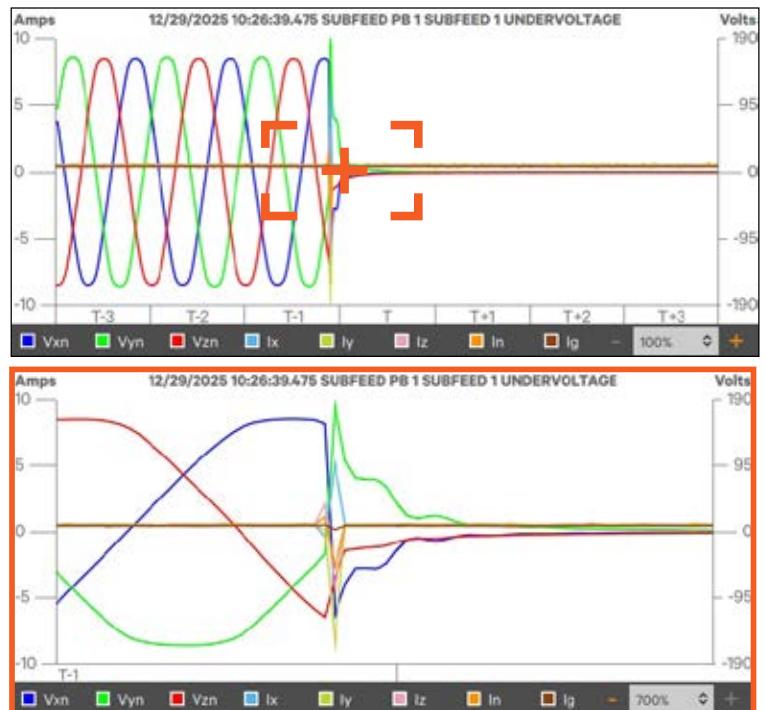
### Load Loss Detection

Identify when a downstream component has stopped working or been disconnected with patented load loss detection technology. Clear event notifications help data center teams quickly pinpoint issues and restore normal operation.



## Waveform Capture

Quickly diagnose power quality issues with detailed waveform visibility. When an event occurs, DPM captures seven cycles of the voltage and current waveforms at the fault location. Interactive tools allow for phase filtering, zooming, and panning for precise analysis, and root cause identification.



The top image shows the full waveform view, and the bottom image displays a 700% zoomed-in view of the highlighted region.

## Secure & Flexible Communication

Up to two monitoring cards enable reliable communication between DPM and external networks. Support for common protocols including Modbus, BACnet, SNMP, and more supports seamless integration with any BMS or EPMS in the facility.



Vertiv™ Liebert® IntelliSlot™ RDU120

## Vertiv™ Product Integration

DPM is purpose-built to seamlessly integrate directly into Vertiv's power distribution products—delivering unmatched compatibility and performance. Available within Vertiv™ PDUs (Vertiv™ Liebert® TFX and Vertiv™ Liebert® PPC) and RPPs (Vertiv™ Liebert® RXV and Vertiv™ Liebert® RXA), DPM provides a unified solution for monitoring and distribution. By owning both the metering technology and the cabinet design, Vertiv offers optimized reliability and a single-source advantage for data center infrastructure.



Vertiv™ Liebert® RXV



Vertiv™ Liebert® TFX



## Technical Specifications

Supported Vertiv™ PDU Products (Vertiv™ Liebert® TFX & Vertiv™ Liebert® PPC) and Vertiv™ RPP Products (Vertiv™ Liebert® RXV & Vertiv™ Liebert® RXA)

### Communication

Monitoring Card	RDU120
Protocols	Velocity RS-485, Modbus RS-485, Modbus (IP) TCP, BACnet/MSTP, BACnet IP, SNMP, SMS, HTTP/HTTPS, Email
Cybersecurity Certifications	UL2900-1, IEC 62443-4-2
Display	9" Color touchscreen
Alarm Annunciation	Audible alarm; visual alarm (3 color LED strip); digital status bar; silence switch
Emergency Power Off Options	Remote EPO; local EPO pushbutton

### Monitoring Accuracy

Voltage	+/- 0.2%
Amperage	+/- 0.5%
Power	+/- 0.5%
Energy	+/- 0.5%
Frequency	+/- 0.1 Hz

### Performance Characteristics

Event Log	Up to 1,000 events
Event Timestamp Precision	1 ms
Time Synchronization	Via NTP or RDU120
Memory Storage	32 MB, battery backed, non-volatile
Input Contacts	Two customer contacts (N.O. or N.C.)
Output Contacts	Two form C summary alarm contacts (N.O. & N.C.)

### Monitored Parameters\*

	Mains and Subfeeds	Branch Circuits
Apparent Power (kVA)	•	
Real Power (kW)	•	•
Energy (kWh)	•	•
Peak Demand	•	•
Power Factor	•	•
Percent Load	•	•
Current (Per Phase)	•	•
Peak Current (Per Phase)	•	•
Neutral Current	•	•
Ground Current	•	
Current, THD % and Individual	•	
Current, Crest Factor (Peak/RMS)	•	
Current, Harmonic K-Factor	•	
Voltage, L-L, L-N	•	
Voltage, THD % and Individual	•	
Frequency	•	

### Power Quality

Harmonics Analysis	Up to 9th order (voltage and current)
Sampling Frequency	128 samples/cycle
Waveform Capture Frequency	64 samples/cycle
Captured Data Length	7 cycles
Event Triggers	Over/undervoltage, overcurrent, breaker open and trip, manual trigger
Data Export	USB or network download as .csv file

\*For complete list of monitored parameters, please contact your local Vertiv Sales rep or download the Intellislot Modbus and Bacnet Protocols Reference Guide SL-28170 at [Vertiv.com](http://Vertiv.com).

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