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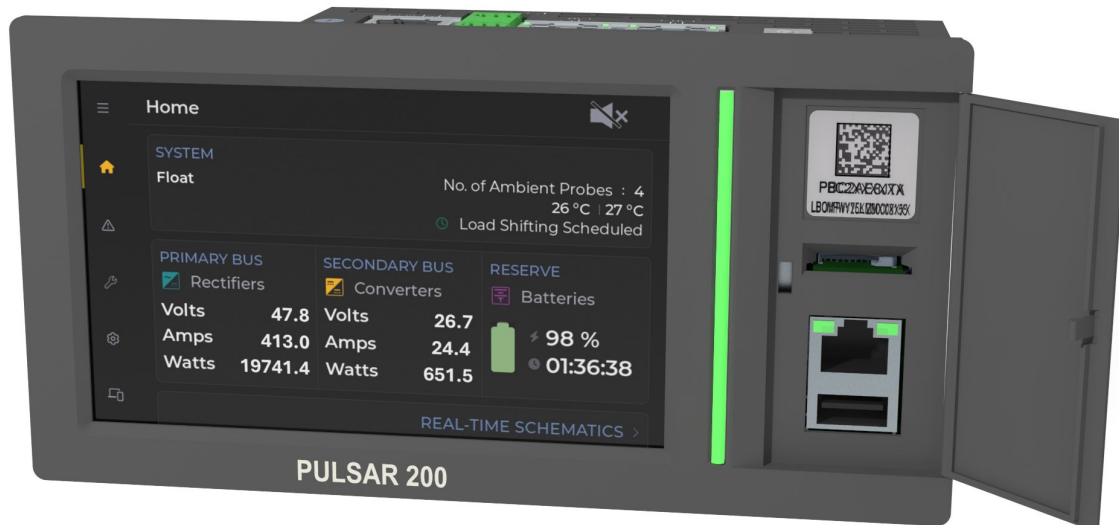
Pulsar 200

Modular by Design. Smarter by Function. Trusted Cybersecurity. Future-Ready Architecture.

Product Description

Bring your installed base into the future with the Pulsar 200 Upgrade Kit. Whether you're modernizing small sites or large-scale power plants, this platform delivers a future-ready foundation with hot-swappable modularity, secure multi-layered architecture, and comprehensive site control.

Advanced cybersecurity – built on zero-trust principles and compliant with IEC 62443 and FIPS 140-3 - protects every connection, while secure protocols like SNMPv3, MQTT, RADIUS, TACACS+, and SAML ensure encrypted access control across your network.

With support for CAN bus expansion, redundant WAN options, smart battery management, and a powerful iMX dual-core processor, the Pulsar 200 Upgrade Kit enables smooth, scalable migration, without compromising uptime or security

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Key Features

Uncompromising Cybersecurity: Pulsar 200 features a zero-trust security architecture, aligning with rigorous industry standards like IEC 62443-4-2 and FIPS 140-3. Secure Boot, hardware-backed encryption, and Trust Zone®-based isolation authenticate every connection and protect every transaction by default.

Reliable, Always-On Connectivity: Dual 1GbE WAN ports, Wi-Fi, Bluetooth, and optional 4G/5G cellular modules provide continuous connectivity. A RESTful API and built-in integration with major Network Operations Centers (NOCs) and asset platforms ensure uninterrupted system access.

Advanced Energy & Battery Management: Supports intelligent monitoring of both VRLA and lithium chemistries. Native integration with leading Battery Management Systems (BMS) optimizes efficiency, extends battery life, and maximizes system availability.

Optional Remote Monitoring: An optional monitoring module consolidates data from generators, HVAC, security, and environmental sensors. This single platform approach simplifies oversight, reduces service visits, and accelerates fault resolution.

Flexible Modular Expansion: Hot-swappable modules connect directly to the base unit or via CAN bus, enabling on-demand customization. The modular ecosystem supports scalable I/O and real-time visibility of diverse on-site assets.

Intuitive Touchscreen Control: A 5" color touchscreen provides a clear interface for live schematics, alarms, and site views. Guided setup, task wizards, and real-time alerts simplify operation and deliver actionable insights at a glance.

Comprehensive Protocol Support: Ensures secure communication and access management with support for HTTPS, SSHv2, SNMPv3, RADIUS, TACACS+, SAML, OAuth, and role-based access control.

Future-Ready by Design: Built of open standards with socketed core components, Pulsar 200 can adapt to future technology updates. Wide protocol support ensures seamless integration with evolving devices and networks.

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Pulser 200 Technical Specifications

Input

Input	
Operating Voltage	18 - 60 V_{DC}
Protection	Low voltage, over-current, input transients (±15%), reverse polarity protections.

General

General	
Operating temperature	-40 to +75°C[1]
Storage temperature	-40 to +85°C
Relative humidity	5 to 95%
Altitude	0 to 4000m

Standards

Standards	
Safety	UL 62368, UL 1801 Issue 3
EMC	EN 55032, EN 55035, relevant clauses.
Environment	RoHS 10 Compliant
MTBF	> 1 million hours at 25°C per Telcordia SR232 Issue 4

Controller Base

- 5" LCD touchscreen with highly visible light bar for system and alarm status indication.
- iMX Dual-Core, 1GB RAM, 8GB Storage.
- Dual Gig WAN: High-Speed, Redundancy, Network Segmentation.
- Dedicated Rectifier Communication Port.
- Dual RS-485 (Modbus) ports: variable baud rates, master/slave configurable
- Dual CAN bus ports
- Console: 100Mbps Ethernet, USB (Upgrade/Setup/Data).
  MicroSD slot: 128GB
  (Logs, Alarms, Config, Raw Data).
- Built-in buzzer with different cycles/intensity for alarm and event notifications.

Notes

- [1]Temperature will be degraded based on optional monitoring and remote monitoring load.

IO Module

IO Module	P3A	P3B
Voltage Inputs	2	2
Current	1	1
Alarm Inputs	10	10
Relay Outputs	10	10
1-wire Temp. Input	25	25
1-wire Humidity Input	2	2
Integrated LVD	No	Yes

Remote Monitoring Modules (Optional)

Remote Monitoring Modules (Optional)	M500	M1000
R485 – 3pin (Modbus)	2	-
1 Giga Ethernet Ports	-	4
SFP Copper/Fiber	-	1
Power-over-Ethernet Ports, PoE+ or 30W each	-	-
Alarm Inputs	24	-
USB Port	1	1
Analog/Digital Inputs		
• 0 - 10V	2	-
• 4 – 20mA	2	-
DC Power Outputs		
• 0 - 5V (max. 50mA)	2	-
• 0 - 12V / 24V (max. 100mA)	2	-

Remote monitoring modules support data aggregation from -
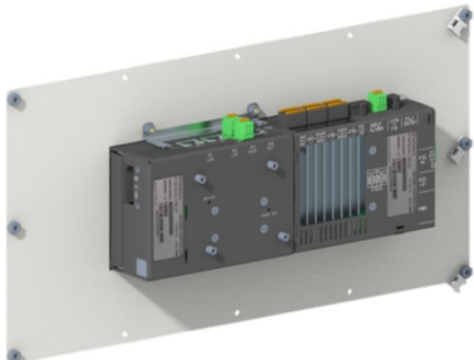
DC Power Systems	Grid – AC power
Diesel Generator / Fuel Tank	PoE Cameras
Automatic Transfer Switch (ATS)	Environment
Energy Storage Systems	Power IoT sensors
Heat Exchanger	Cooling
Analog/Digital sensor inputs	Cellular connectivity

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Pulser 200 Technical Specifications (Continued)

Infinity S / BPS with Pulsar Plus to Pulsar 200	
1600487492A	19-inch Infinity S/BPS Upgrade Kit: Includes new door with Pulsar 200, retrofit I/O module for seamless integration.
1600487494A	23-inch Infinity S/BPS Upgrade Kit: Includes all features of the 19-inch kit.
1600487493A	19-inch Infinity S/BPS Upgrade Kit with Integrated LVD: Includes new door with Pulsar 200, I/O module and integrated LVD.
1600487495A	23-inch Infinity S/BPS Upgrade Kit with Integrated LVD: Includes all features of the 19-inch kit with integrated LVD.

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Pulser 200 Technical Specifications (Continued)

Infinity M with Pulsar Plus to Pulsar 200	
1600487496A	Infinity M Upgrade Kit: Includes new panel with Pulsar 200 and retrofit I/O module.
1600487497A	Infinity M Upgrade Kit with Integrated LVD: Includes new panel with Pulsar 200, I/O module and integrated LVD.
1600487499A	Infinity M (H5692448 G222VN) Upgrade Kit: Includes new door with Pulsar 200 and retrofit I/O module.
1600487500A	Infinity M (H5692448 G223VN) Upgrade Kit: Includes new door with Pulsar 200 and retrofit I/O module.
(1600487496A or 1600487497A)	(1600487499A or 1600487500A)

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Pulser 200 Ordering Information

Part Number	Description
1600487492A	19" Infinity S/BPS to Pulsar 200 Retrofit Kit: Contains new door with Pulsar 200 and I/O module, ensuring plug-and-play compatibility with existing site infrastructure.
1600487493A	Same as 19" Infinity S/BPS to Pulsar 200 Retrofit Kit plus one integrated LVD.
1600487494A	23" Infinity S/BPS to Pulsar 200 Retrofit Kit: Contains new door with Pulsar 200 and I/O module, ensuring plug-and-play compatibility with existing site infrastructure.
1600487495A	Same as 23" Infinity S/BPS to Pulsar 200 Retrofit Kit plus one integrated LVD.
1600487496A	Infinity M to Pulsar 200 Retrofit Kit: Contains new panel with Pulsar 200 and I/O module, ensuring plug-and-play compatibility with existing site infrastructure.
1600487497A	Same as Infinity M to Pulsar 200 Retrofit Kit plus one integrated LVD.
1600487499A	Infinity M H5692448 G222VN to Pulsar 200 Retrofit Kit: Contains new door with Pulsar 200 and I/O module, ensuring plug-and-play compatibility with existing site infrastructure.
1600487500A	Infinity M H5692448 G223VN to Pulsar 200 Retrofit Kit: Contains new door with Pulsar 200 and I/O module, ensuring plug-and-play compatibility with existing site infrastructure.
Options	
1600485010A	2-LVD Module: Dual Low-Voltage Disconnect module (CAN bus). Requires EMH01.
1600485011A	M500 – Monitoring Module: Extends site visibility by integrating diverse alarms, sensors, and control points into a single platform.
1600481726A	M1000 – Ethernet Module: Expands networking flexibility with additional high-speed Ethernet and fiber options.
1600485015A	EMH04 Expansion Backpack: 4-slot expansion for base unit.
1600482560A	EMH01 Module Holder: 1-slot holder for door mounting.
1600485012A	Voltage Monitoring Module: 6x voltage measuring channels, 0-60 V_{DC}.
1600485013A	Shunt Monitoring Module: 6x shunt voltage measuring channels, -200mV to +200mV.
1600487637A	Binary Input Module: 6x measuring channels, polarity sensitive dry contact inputs.
1600487638A	Temperature Monitoring Module: 6x measuring channels, -40°C to +125°C, Input types: Thermocouple, RTD (Pt100, Pt1000)
Software Options	
1600487608A	Software for advanced control and optimization of power consumption through load shifting, based on demand.
1600487609A	Provides communication capabilities with several Lithium Battery Management Systems.
1600487672A	Radius Module - Integrates Radius authentication for secure network access.
1600487673A	TACAS+ Module - Integrates TACACS+ authentication for enhanced network device management.
1600487674A	SAML Module - Enables SAML-based Single Sign-On (SSO) for streamlined user authentication.
1600487675A	KAFKA Telemetry - Facilitates real-time data streaming and telemetry through Kafka integration.

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OmniOn Power Inc.
601 Shiloh Rd.
Plano, TX USA

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