

PD24V-SRC | 24V PDU

24V Tactical Vehicle Power Distribution Panel

MODEL: PD24V-SRC | CATEGORY: PDU | RATED POWER: 1000W | FORM: Vehicle Integration

PRODUCT OVERVIEW



Key Product Features

- 24V DC centralized power distribution system
- 6 auxiliary outputs (AUX1–AUX6) for subsystem integration
- 3 dedicated service power sockets (configurable 12V/24V)
- Integrated thermal circuit breakers (15A / 30A protection)
- High-current busbar architecture for efficient load distribution
- MIL-DTL-5015 circular connectors for rugged connectivity
- Sealed connectors with protective caps for environmental protection
- Panel-mounted design for secure vehicle integration
- High resistance to vibration, dust, and moisture
- Field-serviceable configuration for maintenance efficiency

PRODUCT DESCRIPTION

The PD24V-SRC is a ruggedized 24V DC power distribution panel engineered for tactical, emergency, and specialty vehicle platforms. It provides centralized, protected power delivery to multiple onboard subsystems through a high-current busbar architecture with integrated circuit protection.

Designed for harsh operating environments, the unit combines sealed MIL-grade connectors, structured wiring, and thermal circuit breakers into a compact, field-serviceable interface. The system ensures reliable power routing, simplified integration, and enhanced operational safety for mission-critical applications.

Applications

- 📁 Military and defense vehicles
 📁 Industrial mobile equipment
- 📁 Emergency response and utility vehicles
 📁 Off-road and heavy-duty transport systems
- 📁 Law enforcement and surveillance vehicles
 📁 Off-road and heavy-duty transport systems

PRODUCT OVERVIEW

Key Differentiators

- Reduces wiring complexity and integration time
- Improves system reliability with protected distribution
- Enables modular subsystem expansion
- Simplifies maintenance with accessible circuit protection
- Designed for compliance with military vehicle standards

Customization & OEM Support

- Custom circuit configurations available
- Harness and connector customization
- Branding / panel layout options
- Engineering support from concept to deployment

Safety & Compliance

- MIL-DTL-5015 – Military circular connectors
- MIL-STD-1275 – Vehicle power compatibility
- MIL-STD-461 – EMI/EMC compliance
- MIL-STD-810 – Environmental durability (shock, vibration, temperature)
- UL1015 / VW-1 – Automotive wiring standards
- Military-grade circuit protection components

For quotes and customization requests, contact Digital Power sales at (877) 634-0982 or sales@digipwr.com.

ELECTRICAL SPECIFICATIONS

Parameter	Value
Nominal Input Voltage	24V DC
Input Interface	J10 Circular Connector
Distribution Type	Busbar with Thermal Circuit Breakers
Number of Outputs	9 (6 AUX + 3 Service Sockets)
Output Voltage	24V DC
Circuit Protection	Thermal Circuit Breakers
Breaker Ratings	15A (CB1–CB6), 30A (CB7)
Grounding	Common Ground Bus

Circuit Protection Configuration

Circuit	Function	Rating
CB1	AUX 1	15A
CB2	AUX 2	15A
CB3	AUX 3	15A
CB4	AUX 4	15A
CB5	AUX 5	15A
CB6	AUX 6	15A
CB7	Service Bus / High Load	30A

Connectors & Interfaces

Connector	Type	Description
J101	DT04-48P-B016	Dashboard harness interface
J103	HDP24-24-31ST	Secondary dashboard interface
J100	HDP24-18-6PN	Auxiliary harness
J0 / P0	DTM 2-pin	Signal interface

Connector Pin Functions (AUX Outputs J1–J6)

Pin	Signal	Description
A	+24V	Primary Power Output
B	GND	Return
C	+24V (Switched/Redundant)	Secondary Feed

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ELECTRICAL SPECIFICATIONS

Connectors & Interfaces

Parameter	Value
Panel Type	Metal Front Panel
Mounting	Vehicle Panel Mount
Connector Layout	Linear Multi-Port
Construction	Ruggedized, Sealed
Cable Interface	Rear Harness

Wiring & Power Distribution

Feature	Description
High-Current Input	Supports centralized 24V DC power entry via main connector
Distribution Output Harness	Structured harness distributes power to all AUX outputs
Busbar Architecture	Separate +24V and return (GND) busbars for efficient current flow
Power Routing	Parallel distribution to AUX connectors for simultaneous loads
Grounding System	Centralized grounding for stable and reliable return path

Environmental & Reliability

Parameter	Specification
Operating Temperature	-40°C to +105°C (wiring rated)
Connector Sealing	Gasketed, Sealed Pins
Vibration Resistance	High (Vehicle-Grade)
Environmental Protection	Dust, Moisture Resistant
Construction	Heavy-Duty Mechanical Design

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