

Solid-State Power Controllers



PDC is the world leader in the design and manufacture of programmable solid-state power controllers (SSPC) for military vehicles, with more than 1,000,000 nodes installed since 1988. In addition to distributing and controlling power with reduced SWaP, protecting loads and wire harnesses with higher reliability and longer life, PDC SSPC's also enable smart power management that simplifies vehicle power control and provides health monitoring for diagnostics that allow the operator to focus their time on other mission critical activities.

PDC Solid-State Power Controllers Enable...

Smart Power Management

- Intelligent Overcurrent Protection – I²t and Instant Trip Protection, plus Controlled Rise/Fall Time
- Programmability and Flexibility – Reconfigure, Trip Levels, Channel Paralleling, Power-up Defaults
- Network Control – Load Channel Control and Status, Load Current and Voltage, Channel Reconfiguration, BIT
- Vehicle Health and Diagnostics – Autonomous Operation, Load Protection and Monitoring, Alarms (Current, Voltage, Temperature), Power-up Sequencing

Compared with Electromechanical Breakers and Relays, SSPC's Provide...

Reduced SWaP

- 7x Improvement in Power/Volume Density
- 5x Improvement in Power/Weight Density
- 70% Reduction in Dissipated Power

Higher Reliability and Longer Life

- Over 25x Improvement in MTBF
- No Vibration-Sensitive Contacts or Wearing Parts
- Reduced EMI Resulting from Controlled Switching Time

Applications

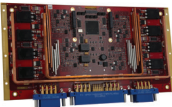
- Military Land Vehicles
- Commercial Trucks
- Industrial Controls
- Military and Commercial Ships
- Weapon Systems
- Unmanned Vehicles
- Primary Power Switching

SSPC Power Distribution Units

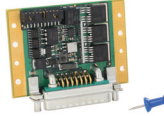
Product	Model Number	Channel Count	Total Current	Features
	RP-2032151XD0	32	120A	• Nominal 28V Operation, MIL-STD-1275D, MIL-STD-704F, MIL-STD-461E, Def Stan 61-5, and MIL-STD-810F Compliant • Independent Remote Control of Individual Channels/Groups • Channel Paralleling for High Current Loads • Low Power Dissipation Across Channels • Serial RS-485 and SAE J1939 CAN Interface • -40°C to +85°C Operating Temperature • RP-2032151XD0: Compact Lightweight (3 lbs) Form Factor / Ruggedized, IP-65 Rated Enclosure with D-Sub Power Connectors • RP-2F241XXX: Flight safety critical architecture certified to MIL-STD-461, MIL-STD-810, and DO-160G • RP-20161XXXC/D1: Ruggedized, IP-67 Rated Enclosure with Military Connectors or D-Sub Power Connectors • RP-20S14/6/9XXX: Compact (Stackable) Form Factor / Ruggedized, IP-67 Rated Enclosure with Military Connectors or Power Stud Inputs
	RP-2F241XXX	24	260A	
	RP-20161XXXC/D1	16	238A	
	RP-20S19XXX	8	200A	
	RP-20S16XXX RP-20S14XXX	4	300A	

Note: For more information on PDC's Solid-State Power Controllers, please visit: powerdevicecorp.com/SSPC

SSPC Boards

Product	Model Number	Channel Count	Total Current	Features
	RP-2661100N0	32	320A	- Nominal 28V Operation, MIL-STD-1275C, MIL-STD-704F, and Def Stan 61-5 Compliant - MIL-STD-1275D Compliant Options - Independent Remote Control of Individual Channels/Groups - Channel Paralleling for High Current Loads - Low Power Dissipation Across Channels - Serial RS-485 and SAE J1939 CANbus Interface - Ruggedized, Conduction Cooled Form Factor -40°C to 105°C Operating Temperature
	RP-2621X000	16	238A	
	RP-26231000NX	16	250A	
	RP-26401000N1	8	200A	
	RP-2630X00XNX	4	300A	
	RP-26311000NX	4	400A	
	RP-26321000Nx	2	200A	
	RP-27001X	10	120A	- Nominal 115V AC Operation, MIL-STD-704F Compliant - Serial RS-485 and SAE J1939 CANbus Interface
	High Voltage	Contact Factory	20KW	300V DC

SSPC Point-of-Load Modules

Product	Model Number	Channel Count	Total Current	Features
	RP-23031M1	1	3.5A to 35A	- Nominal 28V Operation, MIL-STD-1275 and MIL-STD-704 Compliant - Low Power Dissipation - Discrete I/O Control Interface -40°C to +85°C Operating Temperature - PM API Compatible Command Set - SAE J1939 Compatible CAN Interface - Contact Factory for Pulse Width Modulation (PWM) Version
	RP-20011601S0	1	3.5A to 35A	

For ordering assistance and technical support,

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