

Compact, efficient and technically superior

MINI SWITCH MODE VOLTAGE CONVERTOR

The success of the “Maxi” Switch Mode Voltage Convertor range of heavy duty 24-12VDC voltage converters has led to RCT developing a new, compact version for low power applications.

The innovative “Mini” series range is targeted at the light vehicle market and is ideal for powering communications, instrumentation and other electronic equipment.

The new Switch Mode Voltage Convertor is enclosed in an extruded aluminium housing which is not only technically superior but practical and stylish.



Reference: SBAP0513061



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Features

- Purpose designed - The new purpose built extruded housing with moulded end caps is as functional as it is attractive. The new design features effective heat dissipation, easy mounting, compact size and no sharp edges.
- Self diagnostics - Visual indication of the system status provides important information for both users and installers. The tri-colour LED will display an array of symptoms to assist in troubleshooting on-board problems.
- Corrosion resistant - Only high quality, marine grade components are used in construction. All hardware used in assembly is non-ferrous and the terminals are all plated brass. Circuit boards are tropicalized for ultimate protection.
- Heavy duty terminals - Connection is made safe and sure by using heavy-duty custom designed terminals. The connectors are protected by insulated barriers to prevent inadvertent shorting. All hardware is electrical grade and non-corrosive.
- Easy access cover - The unique extruded cover closes to protect the terminals and electronics from external objects including fingers. This prevents inadvertent short circuiting, ensuring safety and providing peace of mind.
- Diagnostics - This design provides valuable feedback to installers and operators. An LED displays the system status and will indicate standby power, low input voltage, over temperature, overload and output short circuit.
- Protection - Featuring a range of devices designed to protect the electronics from various connection and application problems. The units are protected against short circuit, overloading and excessive temperature. An internal fuse protects the electronics
- Performance - Designed to operate in high ambient temperatures under constant load with precise voltage regulation and superior noise filtering.

Specifications

| | | |
|---|---|----------------------|
| Model | 7819 | 7823 |
| Continuous Load Rating @ 30°C (80°F) | 7 Amps @ 13.7VDC | 10 Amps @ 13.7VDC |
| Peak Load Rating @ 30°C (80°F)* | 10 Amps @ 13.7VDC | 13 Amps @ 13.7VDC |
| Length Overall | 120mm (4.725") | 145mm (5.710") |
| Width Overall | 80mm (3.150") | 80mm (3.150") |
| Height Overall | 40mm (1.575") | 40mm (1.575") |
| Weight | 270 grams (9.55 oz) | 325 grams (11.45 oz) |
| Input Voltage Range | 19 – 33VDC | - |
| Output Voltage | 13.7VDC nominal (up to the maximum rated load) | |
| Standby Current Draw | ≈20mA | |
| Power Conversion Efficiency @ 30°C (80°F) | Typically 93% | |
| Output Ripple | Less than 20mV Peak to Peak | |
| Operating Temperature | -25°C to + 45°C | |
| Operating Humidity | Ideally less than 90% | |
| Enclosure Material | Marine grade aluminium dye anodised | |
| End Cap Material | Injection moulded electrical grade ABS/PC plastic | |
| Terminal Cover Material | Extruded temperature resistant ABS | |
| Transient Voltage Protection | Filtering - Purpose designed circuit | |
| Overload/Short Circuit Protection | Shutdown - Current sensing circuit (automatic reset) | |
| Input Under Voltage Protection | Shutdown - Voltage sensing circuit (automatic reset) | |
| Over Temperature Protection | Shutdown - Temperature sensing circuit (automatic reset) | |
| Output Over Voltage Protection | Internal Fuse – Zener crowbar circuit (not user serviceable) | |
| Input Reverse Polarity Protection | Internal Fuse – Diode bypass circuit (not user serviceable) | |
| Termination | Power – 6-32 UNC H/D screw terminal. Auxiliary – Euro terminal block | |
| Conformity | EMC – Australian AS2064 and European EN50081-1 / EN50082-1 | |
| Certification | EMC – Australian C Tick mark and European CE mark | |

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