



# Micropack 48/250 CC

## Rectifier Module

**GREAT SMALL POWER**

Convection cooled rectifier for system installation in harsh and noise sensitive environments.



### Product Description

Wide input operating and temperature range give the system a true wide data and telecom network application approach.

A rectifier for small power systems that can extend your network one step further. Suitable for load ranges typically between 250W and 1000W. Perfect for broadband extension and other high speed data and telecom applications. Suitable for both indoor and outdoor applications.

A complete power system consist of a few DIN rail mountable building blocks , designed for on site configuration and assembly. This allows a fast and efficient logistics and more flexibility.

Stand-alone DIN rail mounting available for rectifier.



See reverse side for specifications

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## Additional Technical Specifications

AC Input	
Voltage	85-300 VAC (Nominal 185 – 275 VAC) Linear output derating below 185VAC
Frequency	45 to 66Hz
Maximum Current	1.2 A <sub>rms</sub> maximum at 230VAC at full load 1.9 A <sub>rms</sub> maximum at 85VAC and 140W load
Maximum earth leakage	2.0 mA at 250VAC/50Hz
Power Factor	> 0.98 at 55% load or more
THD	< 4.7% at nominal input and full load
Input Protection	<ul style="list-style-type: none"> <li>o Varistor for transient protection</li> <li>o Mains fuse in both lines (2x 2.5A)</li> <li>o Disconnect above 300 VAC</li> </ul>

DC Output	
Voltage	Default: 53.5 VDC Float/Boost: 48-57.6VDC Standby test range: 43.5 – 48VDC  Stand alone: adj. range: 43.5-57.6 VDC
Output Power	250 W at nominal input 140W at 85VAC
Maximum Current	5.2 Amps at 48 VDC and nominal input
Current Sharing	±5% of maximum current from 10 to 100% load
U/I Characteristics	Constant Power: 48-57.6VDC Constant Current: < 48VDC
Static voltage regulation	±0.5% from 10% to 100% load
Dynamic voltage regulation	±5.0% for 10-90% or 90-10% load variation, regulation time < 10ms
Hold up time	> 20ms; output voltage > 43 VDC at 250W load
Ripple and Noise	<ul style="list-style-type: none"> <li>o &lt; 150 mV peak to peak,</li> <li>o 30 MHz bandwidth</li> <li>o &lt; 2 mV rms psophometric</li> </ul>
Output Protection	<ul style="list-style-type: none"> <li>o Overvoltage shutdown</li> <li>o Hot plug-in - Inrush current limiting</li> <li>o Short circuit proof</li> <li>o High temperature protection</li> <li>o Fuse</li> </ul>

Other Specifications	
Efficiency	>93% at 55-100% load
Isolation	3.0 KVAC – input and output 1.5 KVAC – input earth 0.5 KVDC – output earth
Alarms:	<ul style="list-style-type: none"> <li>o Low mains shutdown</li> <li>o High temperature shutdown</li> <li>o Rectifier Failure</li> <li>o Overvoltage shutdown on output</li> <li>o Low voltage alarm at 43.5V</li> <li>o CAN bus failure</li> </ul>
Warnings:	<ul style="list-style-type: none"> <li>o Low temperature shutdown</li> <li>o Rectifier in power derate mode</li> <li>o Remote battery current limit activated</li> <li>o Input voltage out of range, flashing at overvoltage</li> <li>o Loss of CAN communication with control unit, stand alone mode</li> </ul>
Visual indications	<ul style="list-style-type: none"> <li>o Green LED: ON, no faults</li> <li>o Red LED: rectifier failure</li> <li>o Yellow LED : rectifier warning</li> </ul>
Alarm output (isolated)	<ul style="list-style-type: none"> <li>o NC (positive terminal)</li> <li>o COM (negative terminal)</li> <li>o 60V / 100mA max</li> </ul>
Operating temp	-40 to +75°C (-40 to +167°F), derating linear above +55°C to 140W at +75°C
Storage temp	-40 to +85°C (-40 to +185°F)
Cooling	Convection
MTBF	> 500, 000 hours Telcordia SR-332 Issue I, method III (a) (T <sub>ambient</sub> : 25°C)
Humidity	Operating: 5% to 95% RH non-condensing Storage: 0% to 99% RH non-condensing
Dimensions	39.0 x 88.5 x 149mm (wxhxd) (1.54 x 3.48 x 5.87")
Weight	0.5 kg (1.1 lbs)

Applicable Standards	
Electrical safety	IEC 60950-1 UL 60950-1 CSA 22.2
EMC	ETSI EN 300 386 V.1.3.2 EN 61000-6-1 (immunity, light industry) EN 61000-6-2 (immunity, industry) EN 61000-6-3 (emission, light industry) EN 61000-6-4 (emission, industry)
Mains Harmonics	EN 61000-3-2
Environment	ETSI EN 300 019-2-1 Class 1.2 ETSI EN 300 019-2-2 Class 2.3 ETSI EN 300 019-2-3 Class 3.2 ETSI EN 300 132-2 RoHS compliant

Specifications are subject to change without notice

241120.100.DS3 – vB

### Ordering Information

Part no.	Description
241120.100	Micropack 48/250
241120.900	Stand alone DIN rail fixing