



Micropack 12/120 WOR

Rectifier Module

GREAT SMALL POWER

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

Product Description

Wide ranges of both input voltage and operating temperature give the system superior system availability with extendable system blocks and high current ability for selective fuse tripping.

The Micropack 12V/120W is a power supply for small power systems. Suitable for load ranges typically between 120W and 480W. Perfect for control cabinets, safety systems and building automation applications.

Whether you are in need of a simple stand alone power supply or a complete power system with battery backup, distribution, remote control and monitoring, the Micropack family is the perfect choice. Its modularity with DIN rail mountable building blocks allows for high flexibility, on site configuration and assembly.

Micropack rectifiers are CE marked and UL recognized. Accompanied by a small DIN railed mounted filter the rectifiers can also be used in marine and offshore applications.



See reverse side for specifications

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Additional Technical Specifications

AC Input	
Voltage	85-300 VAC (Nominal 130 – 275 VAC) Linear output derating below 130VAC
Frequency	0 to 66Hz
Maximum Current	0.6 A _{rms} maximum at 230VAC at full load 2 A _{rms} maximum at 85VAC and boost mode
Maximum earth leakage	2.0 mA at 250VAC/50Hz
Power Factor	0.97 at 70% load or more
THD	< 5% at nominal input and 50-100% load
Input Protection	<ul style="list-style-type: none"> ○ Varistor for transient protection ○ Mains fuse in both lines (2x 2.0A) ○ Shut down above 300 VAC

DC Output	
Voltage	Default: 13.6 VDC Float/Boost: 12.0-18.0VDC Standby test range: 10.7 – 12.0VDC Stand alone: adj. range: 10.7-15VDC
Output Power	<ul style="list-style-type: none"> ○ 120 W at nominal input (160W during boost) ○ 100W at 85VAC
Maximum Current	<ul style="list-style-type: none"> ○ 10 A at 12 VDC and nominal input ○ Capacitive load start-up: 15 A for 1min at 10.7V ○ Selective fuse tripping: 55 A for 35ms < 5V
Current Sharing	±5% of maximum current from 10 to 100% load
U/I Characteristics	Constant Power: 10.7 - 18VDC Constant Current: 10.7 - 5VDC Selective fuse tripping < 5VDC
Static voltage regulation	±0.5% from 0% to 100% load and nominal input
Dynamic voltage regulation	±5.0% for 10-90% or 90-10% load variation, regulation time < 10ms
Hold up time	> 20ms; output voltage > 10.7 VDC at 125W load
Ripple and Noise	<ul style="list-style-type: none"> ○ < 200 mV peak to peak, 30 MHz bandwidth ○ < 5 mV rms psophometric
+Output Protection	<ul style="list-style-type: none"> ○ Overvoltage shutdown ○ Hot plug-in - Inrush current limiting ○ Short circuit proof ○ High temperature protection ○ Fuse

Part no.	Description
241120.300	Micropack 12/120 WOR
Related parts	Description
241120.900	Stand alone DIN rail fixing
241120.930	Marine Filter
241120.901(2)	Micropack power core 2(4) rectifiers
241120.911	Bulk Feed (40A)
242100.400	Compack Controller

Other Specifications	
Efficiency	89,5% peak, >88% at 50-100% load and nominal input
Isolation	3.0 KVAC – input and output 1.5 KVAC – input earth 0.5 KVDC – output earth
Alarms:	<ul style="list-style-type: none"> ○ Low mains shutdown ○ High temperature shutdown ○ Rectifier Failure ○ Overvoltage shutdown on output ○ Low voltage alarm at 10.8V ○ CAN bus failure
Warnings:	<ul style="list-style-type: none"> ○ Low temperature shutdown ○ Rectifier in power derate mode ○ Remote battery current limit activated ○ Input voltage out of range, flashing at overvoltage ○ Loss of CAN communication with control unit, stand alone mode
Visual indications	<ul style="list-style-type: none"> ○ Green LED: ON, no faults ○ Red LED: rectifier failure ○ Yellow LED : rectifier warning
Alarm output (isolated)	<ul style="list-style-type: none"> ○ NO (+positive terminal) ○ COM (-negative terminal) ○ 60V / 100mA max
Operating temp	-40 to +70°C (-40 to +158°F), output power derates linear above +55°C to 50W at +70°C
Storage temp	-40 to +85°C (-40 to +185°F)
Cooling	Convection
MTBF	> 480, 000 hours Telcordia SR-332 Issue I, method III (a) (T _{ambient} : 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) EN 61000-6-5 (immunity, power station and substation)
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
Marine compliant (w/ additional filter module)	DnV Rules for Classification of Ships, High Speed & Light Craft and DnV Offshore Standards

Specifications are subject to change without notice

241120.300.DS3 – v1