

Minipack 48 / 800 FC

Fan Cooled Power Supply 48VDC



POWERFUL TECHNOLOGY

Product Description

The Minipack is a battery charger and rectifier for stand-alone use or for working in parallel as part of a DC power system controlled and monitored by the Smartpack.

Minipack is optimized for a wide range of system sizes. Digital communication over CAN bus with Smartpack simplifies system design and enhances flexibility.

Realization of Minipack systems is possible by fitting 6 rectifiers across 2U 19" shelf including controller and distribution.

Applications

Wireless, fiber and fixed line communication
Today's communications demand state of the art, cost efficient and compact DC power systems. Minipack delivers power density of 14W/in³ and superb reliability at lowest lifetime cost.

Broadband and network access
Increasing network speed demands flexible and expandable DC power solutions. Minipack is your key building block for future needs.

Key Features

ü **Highest efficiency in minimum space**
Resonant topology makes the module efficiency industry leading and contributes to the rectifier's ultra compact dimensions.

ü **Digital controllers**
Controller is digitalized, enabling excellent monitoring and regulation characteristics.

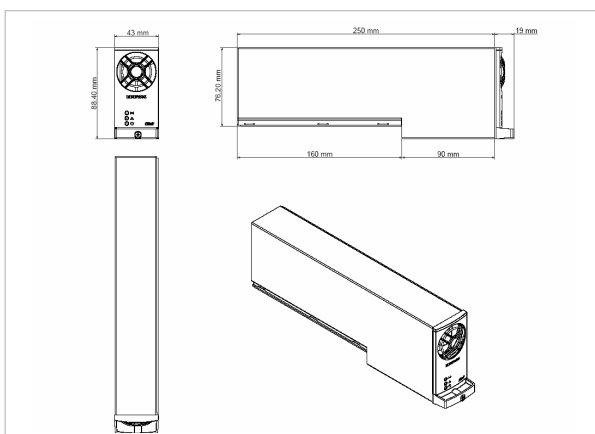
ü **Heat management**
Front-to-back air flow with optimal thermal design gives the module the most suitable working environment and no limitations in the scalability of the desired system solution.

ü **Unique connection**
A true plug-and-play connection system: time-to-install and cost-reducing solution.

ü **Global approvals**
Minipack is CE marked and UL recognized for world wide installation.



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Additional Technical Specifications

AC Input		DC Output	
Voltage	85-300 VAC (Nominal 185 – 276 VAC) Linear derating below 185VAC	Efficiency	Typ. 91% at 60-100% load
Frequency	44 to 66Hz	Isolation	3.0 KVAC – input and output 1.5 KVAC – input earth 0.5 KVDC – output earth
Maximum Current	Input: 4.9 A _{rms} maximum at nominal input and full load Earth leakage: 1.7mA at 250Vac/50Hz	Alarms:	Low mains shutdown (<85VAC) High temperature shutdown Rectifier Failure Overvoltage shutdown on output Low voltage alarm at 43.0V CAN bus failure
Power Factor	0.98 at 30% load or more	Warnings:	Rectifier in power derate mode Remote battery current limit activated Input voltage out of range, flashing at overvoltage
THD	3.1% (230Vac) 2.1% (115Vac)	Visual indications	Loss of CAN communication with control unit, stand alone mode Green LED: ON, no faults Red LED: rectifier failure Yellow LED : rectifier warning
Input Protection	Transient protection Mains fuse in both lines Disconnect above 300 VAC	Operating temp	-40 to +75°C (-40 to +167°F) Derating above +55°C linear to 450W at +65°C
DC Output		Storage temp	-40 to +80°C (-40 to +176°F)
Voltage	Nominal output: 53.5 VDC Float/Boost range: 48 – 57.6Vdc Standby test range: 43.5 – 48Vdc	Cooling	1 fan (front to back airflow)
Output Power	800 W at nominal input / 350W at 85VAC	Fan Speed	Temperature and current regulated
Maximum Current	16.7 Amps at 48 VDC and nominal input	MTBF	> 300, 000 hours Telcordia SR-332 Issue I, method III (a) (T _{ambient} : 25°C)
Current Sharing	±5% from true average current between modules	Acoustic Noise	< 45dBA at nominal input and full load
Static voltage regulation	±1.0% from 5% to 100% load	Humidity	Operating: 5% to 95% RH non-condensing Storage: 0% to 99% RH non-condensing
Dynamic voltage regulation	±5.0% for 25-100% or 100-25% load variation, regulation time < 10ms	Dimensions	42.5 x 88.9 x 250mm (1.67 x 3.5 x 9.84") (wxhxd)
Hold up time	> 20ms; output voltage > 43.0 VDC at 80% load	Weight	1.08 kg (2.38lbs)
Ripple and Noise	< 100 mV peak to peak, 20 MHz bandwidth < 2 mV rms psophometric		
Output Protection	Overvoltage shutdown Blocking diode Short circuit proof High temperature protection		

Applicable standards	
Electrical safety	IEC 60950-1 UL 60950-1 CSA 22.2
EMC	ETSI EN 300 386 V.1.3.2 (telecommunication network) 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)
Harmonics	EN 61000-3-2
Environment	ETSI EN 300 019-2 (-1, -2, -3) ETSI EN 300 132-2 RoHS compliant

Specifications are subject to change without notice.

ORDERING INFORMATION

Part no.	Description
241117.110	Minipack 48/800 FC

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