



CTDI Products: End-to-End Solutions



# Power Options





CTDI offers a full line of powering products from industry-leading manufacturers, including power supplies, rectifiers, battery chargers, batteries, and UPS. Customized power solutions are also available to fit your particular needs, such as extended-life battery backup, rack powering systems, or kitting with equipment enclosures.

Whatever the requirements, CTDI has a solution to power your CTDI equipment.

# Central Office Power Rectifiers



## Rectifiers

The CTDI line of power rectifiers supply -48VDC for rack-mounted applications, such as OLT chassis, rack-mounted ONTs, CTDI's RFoG products, and other equipment requiring up to 1000W. These units are available with optional integrated battery charger/disconnect functionality. Used in conjunction with the PSBFP210 fuse panel, these rectifiers form a complete powering solution.

## Ordering information

Part #	Description
PSBRCK1B	-48VDC, 500W, 10A rack-mounted power with UPS option
PSBRCK10	-48VDC, 500W, 10A rack-mounted power supply
PSBRCK2B	-48VDC, 1000W, 20A rack-mounted power with UPS option
PSBRCK20	-48VDC, 1000W, 20A rack-mounted power supply
PSBFP210	dual-feed, 10 position central office fuse panel

Model	PSBRCK10/PSBRCK1B	PSBRCK20/PSBRCK2B
<b>AC Input</b>		
Input Voltage Range	90VAC – 260VAC (Universal Input)	
Input Frequency Range	50/60Hz	
<b>DC Output</b>		
On Battery Output Voltage	48-56VDC adjustable	
Continuous Power Capability	10amp	20amp
<b>Surge Protection and Filtering</b>		
Lighting/Surge Protection	Yes	
Overload shutdown	110-120% max load	
Overtemp shutdown	90°C	
In-rush limiting	40A @ 240VACin, (single cycle)	
<b>Alarms/Diagnostics</b>		
LED Indicator	High rate charge, float charge, monitoring normal	
Voltage/current meter	Yes	
<b>Management</b>		
Auto-Charge	Yes	
Communications Interface	None	
<b>Physical</b>		
Maximum Dimensions (WxHxD)	19" rack mount, 2 RU 17.5" x 3.5" x 13" 44.45cm x 8.89cm x 33.02cm	
Weight	15lbs / 6.8kg	21lbs / 9.53kg
<b>Environment</b>		
Operating Temperature	0°C to +50°C	
Operating Humidity	8%-90% non-condensing	
Max Operating Elevation	10,000ft / 3,000m	

# Indoor and Outdoor Power with Battery Backup



## Power Supply with Battery Backup

The PSB1000 Series and PSB8000 Series units provide +12VDC or +48VDC power for CTDI ONTs. Complete with battery backup and alarms, they are suitable for applications such as lifeline voice services or critical security networks, when maintaining service during AC power outages is vital. These power systems are available in temperature-hardened and non-hardened models for outdoor or indoor applications.

### Ordering information

Part #	Description
PSB1001	-48VDC, 50W UPS with 20AH battery
PSB8000	+12VDC, 24W UPS with 7.2AH battery, no cables
PSB8002	+12VDC, 24W UPS with 7.2AH battery (outdoor use)
PSB8100	+12VDC, 24W UPS with 12AH battery, no cables
<b>Ancillary Equipment</b>	
BAT1002	Replacement battery for PSB8000, PSB8002, PSB1009, PSB1010
CBL0001	UPS to ONT cable, 10ft/3m
CBL0020	UPS to ONT cable, 3.5ft/1.1m
CBL0022	UPS TO COAX adapter cable, 8inch/20cm
PCON001	ONT power connector (Bag of 25 each)

Model	PSB8000	PSB8002	PSB1001
<b>AC Input</b>			
Input Voltage Range	85VAC – 264VAC (Universal input)		
Input Frequency Range	47-70Hz		
<b>DC Output</b>			
On Battery Output Voltage	12VDC	12VDC	48VDC
Output power (continuous)	24W	24W	50W
<b>Battery</b>			
Battery Type	Sealed, Maintenance-Free Lead-Acid Battery		
Battery Capacity	7.2AH / 12V	7.2AH / 12V	20AH / 12V
Typical Recharge time	18 Hours	18 Hours	24 Hours
Replaceable	Yes		
<b>Surge Protection and Filtering</b>			
Lighting/Surge Protection	Yes		
<b>Warning Diagnostics</b>			
Audible Indicator	AC Failure, Low Battery		
LED Indicator	AC, Output, Battery		
<b>Management</b>			
Auto-Charge	Yes		
Indicators & Alarms	On Battery, Replace Battery, Battery Missing, Low Battery		
<b>Physical</b>			
Maximum Dimensions (LxWxD)	16.7cm x 24cm x 8.1cm 6.6in x 9.4in x 3.2in	16.7cm x 24cm x 8.1cm 6.6in x 9.4in x 3.2in	30cm x 28cm x 9.9cm 11.8in x 11.0in x 3.9in
Weight	3.28kg / 7.2lbs	3.28kg / 7.2lbs	7.7kg / 17 lbs
<b>Environment</b>			
Application	Indoor	Indoor/Outdoor	Indoor
Operating Temperature	0°C to + 40°C	-20°C to + 50°C	0°C to + 40°C
Operating Humidity	5-95% non-condensing		
Max Operating Elevation	10,000ft / 3,000m		
Max Storage Elevation	50,000ft / 15,000m		

# 12VDC Indoor Power



## Indoor 12V Power Supply

The PSB1005 and PSB1006 are 12VDC power supplies that plug directly into an AC outlet to power CTDI products. The PSB1006 includes plug adapters compatible with most non-USA AC mains.

### Ordering information

Part #	Description
PSB1005	+12VDC, 24W brick, plug-mounted
PSB1006	+12VDC, 24W brick, plug-mounted with international adapters

### Model PSB1005, PSB1006

#### AC Input

Input Voltage Range	100VAC – 240VAC (Universal input)
Input Frequency Range	47-63Hz

#### DC Output

On Battery Output Voltage	12VDC
Output power (continuous)	24W

#### Physical

Maximum Dimensions (LxWxD)	9.8cm x 4.5cm x 3.35cm 3.9in x 1.7in x 1.3in
Weight	150g/5oz

#### Environment

Operating Temperature	0°C to + 40°C
Operating Humidity	8%-90% non-condensing
Max Operating Elevation	10,000ft / 3,000m



## MicroNode™ RFoG ONU Power Supply

The PSB1007 and PSB1008 are 12VDC supplies that plug directly into an AC outlet to power an CTDI MicroNode RFoG ONU. The DC current is carried over coaxial cable with the PSB1007, and over a 2 meter / 6 ft. wire terminated with a 5mm x 15mm barrel connector on the PSB1008. The PSB1008 also includes a set of international power plugs.

### Ordering information

Part #	Description
PSB1007	12VDC, 6W brick w/ "F"-connector, plug-mounted
PSB1008	12VDC, brick w/standard 5mm female barrel plug

### Model PSB1007 PSB1008

#### AC Input

Input Voltage Range	100VAC – 130VAC	90VAC – 264VAC
Input Frequency Range	60Hz	50/60Hz

#### DC Output

On Battery Output Voltage	12VDC
Output power (continuous)	6W

#### Physical

Maximum Dimensions (LxWxD)	7.4cm x 5.1cm x 4.1cm 1in x 2.8in x 1.7in	2.54cm x 7.37cm x 4.32cm 1in x 2.8in x 1.7in
Weight (g)	100g / 3.5oz	

#### Environment

Operating Temperature	0°C to + 40°C
Operating Humidity	8%-90% non-condensing
Max Operating Elevation	10,000ft / 3,000m

# Outdoor Power with Battery Backup



## Power Supply with Battery Backup for OSPE200 Series

The PSB1009 and PSB1010 power systems provide +12VDC power for CTDI ONTs mounted in the CTDI OSPE200 series enclosures. They are temperature-hardened, modular supplies with separate voltage converter and battery management. All components mount into the CTDI OSPE200 series enclosure. The PSB1009 operates with 240VAC AC mains, while the PSB1010 is used with 120VAC supply voltage. These power supplies include cables and mounting instructions for easy installation. Batteries are sold separately.

### Ordering information

Part #	Description
PSB1009	12VDC, 20W hardened UPS for OSPE200, international AC mains
PSB1010	12VDC, 20W hardened UPS for OSPE200, US domestic
BAT1002	Battery Backup for PSB1009, PSB1010

### Ancillary Equipment

ADPTR10	Mounting bracket for PSB1009 and PSB1010 UPS
BAT1002	Replacement Battery for PSB1009 and PSB1010

Model	PSB1009	PSB1010
<b>AC Input</b>		
Input Voltage Range	170 – 264VAC	85 – 132VAC
Input Frequency Range	50-60Hz	
<b>DC Output</b>		
On Battery Output Voltage	12VDC	
Output power (continuous)	20W	
<b>Warning Diagnostics</b>		
LED Indicator	AC Fail, Battery fault, Battery low	
<b>Management</b>		
Auto-Charge	Yes	
Indicators & Alarms	On Battery, Replace Battery, Battery Missing, Low Battery	
<b>Physical</b>		
Maximum Dimensions (LxWxD)	21.6cm x 7.6cm x 5.1cm 8.5in x 3in x 2in	
Weight	500g / 1.1lbs	
<b>Environment</b>		
Operating Temperature	-40°C to +45°C	
Operating Humidity	5-95% non-condensing	
Max Operating Elevation	50,000ft / 1,500m	

# Rack Mounted Fuse Panels



## Rack-Mounted Fuse Panel

PSBFP210 fuse panels supply fusing, visual indicators, and alarm contact closures for standard telecommunications products used in central offices, multimedia headends, remotes sites, and other locations requiring fused DC power. Fuse management is simplified by up to 15 amps of output power per fuse position, without the

### Ordering information

Part #	Description
PSBFP210	10 position, dual feed GMT fuse panel with alarm, 1RU
PSFGMT02	GMT fuse, 2 amp (bag of 10)
PSFGMT05	GMT fuse, 5 amp (bag of 10)
PSFGMT10	GMT fuse, 10 amp (bag of 10)
PSFGMT15	GMT fuse, 15 amp (bag of 10)

need to space fuses. A self-configuring voltage and polarity feature allows a single panel to support most applications providing  $\pm 24Vdc$  or  $\pm 48Vdc$  power. A dual power bus structure supplies up to 65A per bus / 130A total power from the unit. 10 fuse positions are supplied by each bus, for a total of 20 fused circuits from the fuse panel. All power and external alarm connections

are rear access, with front access fuses and visual indicators. The PSBFP210 is an ideal solution for general-purpose power management in standard 19-inch or 23-inch rack-mounted applications. Fuse packages are also available for convenient provisioning and spares.

# 48VDC Indoor Power



## -48VDC Powering Options

The PSAC power supplies convert AC to -48VDC to power CTDI rack-mounted equipment. The PSAC supplies support CTDI equipment, such as ONTs, channel banks, RF transmitters, EDFAs, and multiplexers. These supplies are ideal whenever there is a need to power a single device and -48VDC office power is not available.

### Ordering information

Part #	Description
PSAC001	48VDC, 60W brick
PSAC002	48VDC, 125W rack mounted power supply
PSAC003	48VDC, 150W brick

Model	PSAC001	PSAC002	PSA003
<b>AC Input</b>			
Input Voltage Range	90VAC – 264VAC	95VAC – 250VAC	90VAC – 264VAC
Input Frequency Range	47-63Hz		
<b>DC Output</b>			
On Battery Output Voltage	-48VDC		
Output power (continuous)	60W	125W	150W
<b>Physical</b>			
Maximum Dimensions (LxWxD)	11.8cm x 3.45cm x 5.2cm 4.65in x 1.36in x 2.05in	48.26cm x 4.45cm x 24.77cm 19in x 1.75in x 4.33in	20.8cm x 8.2cm x 4.97cm 8.19in x 3.23in 1.96in
Weight (Kg)	0.9lbs / 0.4kg	3.9lbs / 1.7kg	2.16lbs / 0.98kg
<b>Environment</b>			
Operating Temperature	0°C to + 70°C	-10°C to +60°C	0°C to +60°C
Operating Humidity	5%-95% non-condensing		
Max Operating Elevation	10,000ft / 3,000m		

## Power Product Compatibility Chart

Product Families	Product Type	Output Voltage	PSB1001	PSB8000						PSAC001			PSAC002		PSAC003		PSBRCK1B		
				PSB8100	PSB8002	PSB1009	PSB1010	PSB1005	PSB1006	PSB1007	PSB1008	Brick	Rack	Rack	Rack	Rack	Rack	Rack	
Home4000	ONT	12V		X		X		X											
Xgen1000	ONT	12V		X		X		X											
Xgen8000	ONT	12V		X		X		X											
Xgen6000	ONT	48V	X								X	X	X	X					
Xgen7500	ONT	48V	X								X	X	X	X					
Xgen9000	ONT	48V	X								X	X	X	X					
HDPS	TDM POTS	48V										X	X	X					
Edge200	OLT	48V										X	X	X					
Edge2000	OLT	48V																	X
MicroNode	RFoG ONU	12V		X		X		X	X	X									
EVL	RF Optical Tx	48V	X								X	X	X	X					
EVEA	RF EDFA	48V									X	X	X	X					
EVR	Ret. Rec.	48V									X	X	X	X					
EVTX	Ret. Trans.	48V									X	X	X	X					



CTDI Products: End-to-End Solutions



PRODUCTS

*Communications Test Design, Inc.*

1373 Enterprise Drive • West Chester, PA 19380  
610.436.5203 • [www.ctdi.com](http://www.ctdi.com)

©2010 CTDI. All rights reserved. MicroNode is registered trademarks of CTDI, Inc.  
Class 1 Laser Products. Information subject to change without notice. • REV031010

CTDI Product Sales ~ 866-953-9030 ~ [www.CTDI.com](http://www.CTDI.com)