EVOLUTION™ LI - ION

REVOLUTION™ LIFEPO4

PSI

PowerTec Solutions International

CUSTOM POWER

INNOVATIVE SOLUTIONS

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WHO WE ARE

PowerTec Solutions International (PSI) is a privately held technology design and manufacturing company based in the United States, focused on providing custom DC Power, UPS, and other standby power solutions to compliment global FTX, Wireline and Wireless applications.

OUR INNOVATION

- World's smallest DC output UPS for Telecom, Wireless, Industrial, Hospitality and Enterprise Markets
- World's only VDC UPS with patented (Patent 10637264 & 10714954) stackable Li Ion battery packs for scalable standby capacity
- World's first revolutionary universal all-in-one FTTx Enclosure to house ONT, UPS and Fiber Management
- Industry's highest rated frontend VAC surge protection for residential FTTx power and standby solutions
- Industry leading LIFEPO4 Rackmount Smart Battery Systems to replace legacy sealed lead acid batteries, offering a 20 year design life and 1/3 the size of sealed lead acid
- Industry's first scalable voltage outdoor VDC UPS to offer 12-48VDC and optional LIFEPO4 or Sealed Lead Acid Standby Power
- Global leader in FTTx ONT Power Supply only options where battery backup is not required

PSI

PowerTec Solutions International

LI-36 MICRO UPS

#PS36SP-P7 POWER SUPPLY ONLY

#PS36L-U7-2 KIT INCLUDES POWER SUPPLY & BATTERY

AWARD WINNING DESIGN

NOW WITH SERIAL PORT OPTION!

SPECS

Input Voltage Range: 100VAC-240VAC

Frequency: 50/60Hz

Output Voltage (on VAC): 12VDC (nominal)

Output Voltage (on battery): 12VDC (nominal)

Continuous Power Capacity: 3A (36WATT)

Battery Type: Lithium Ion Battery Pack

Design Life: 10-15 years

Typical Recharge Time: < 12 hrs

Replaceable Pack: Yes

Lightning/Surge Protection: Yes (IEC 61000-4-5 2005 Level D, GR1089 K21)

Battery Auto-Charge: Yes

Battery Self-Test: Optional

Telemetry Interface: Yes

Local Alarming (audible/visual): Yes

Alarm Silence: Yes

ONT Reset: Yes

Cold Start: Yes

Maximum Dimensions: 155mmx89mmx31mm

Weight (with one battery pack): 1.76lb

Operating Temperature: -10° to 49°C (14° to 120.2°F) at full power

Storage Temperature: -30° to 65°C (-22° to 149°F)

Battery Temperature Range

Discharge: -20° to 60°C (-4° to 140°F)

Charge: 0° to 45°C (32° to 113°F)

Battery Storage Temperature: -20° to 60° (-4° to 140°F)

The Li-36 Micro UPS is designed to supply continuous commercial and standby power to 12VDC Customer Premise Equipment (CPE), rated for use with all CPE devices 12VDC 36 Watts (3 Amps) or less and offers PSI Patent-Pending Stackable Battery technology to offer over 24 hours of backup, with up to 3 attachable battery packs.

APPLICATIONS

- Fiber-to-home (FTTH, FTTP, FTTx)
- Customer Premise Equipment
- VoIP Backup
- Cable Modems (eMTA)
- Portable Power
- Multi-Dwelling Unit (MDU)
- Single Family Unit (SFU)
- Wireless Local Loop
- Passive PoE Option

FEATURES

DESKTOP OR WALL-MOUNTABLE
Versatile design allows for world's easiest wall-mountable solution or out-of-the-box desktop install

SCALABLE CAPACITY
Innovative stackable battery design allows user to connect up to three battery packs for increased capacity on demand for over 24 hours of battery backup on most CPE devices

SURGE PROTECTION - VAC AND VDC
Providing the industry's highest rated frontend surge protection, rated GR1089 enhanced and providing the industry's only reverse surge protection on VDC output connection to offer a fully protected solution for any indoor deployment

STATIONARY OR PORTABLE POWER
Install as stationary UPS or charge and use a portable battery power for off grid applications

USER REPLACEABLE / STACKABLE BATTERY PACK
Battery pack can be easily added or replaced without network interruption

NETWORK INTERFACE RESET (N.I.R.) CONTROL FUNCTION
Allows end user option for push button control to reset VDC power to ONT or CPE device saving costly truck rolls to reset power

TELEMETRY INTERFACE
Battery Signal Alarming to ONT or CPE device: On Battery, Replace Battery, Battery Missing, Low Battery

LOCAL VISUAL AND AUDIBLE ALARMING
Onsite Battery Alarming: On Battery, Low Battery, and Replace Battery

EXTENDED LIFE BATTERY
10 year design life battery pack

BATTERY MANAGMENT SYSTEM (BMS)
Integrated battery management system manages battery charge

LI-36C MICRO UPS

#PS36L-EX-ECON

SPECS

Input Voltage Range: 100VAC-240VAC

Frequency: 50/60Hz

Output Voltage (on VAC): 12VDC (nominal)

Output Voltage (on battery): 12VDC (nominal)

Continuous Power Capacity: 3A (36WATT)

Battery Type: Lithium Ion Battery Pack

Design Life: 10-15 years

Typical Recharge Time: < 12 hrs

Replaceable Pack: Yes

Lightning/Surge Protection: Yes (IEC 61000-4-5 2005 Level D)

Battery Auto-Charge: Yes

Battery Self-Test: Optional

Telemetry Interface: Yes

Local Alarming (audible/visual): Yes

ONT Reset: Yes

Cold Start: Yes

Maximum Dimensions: 155mmx89mmx31mm

Weight (with one battery pack): 1.76lb

Operating Temperature: -10° to 49°C (14° to 120.2°F) at full power

Storage Temperature: -30° to 65°C (-22° to 149°F)

Battery Temperature Range

Discharge: -20° to 60°C (-4° to 140°F)

Charge: 0° to 45°C (32° to 113°F)

Battery Storage Temperature: -20° to 60° (-4° to 140°F)

The Li-36C was designed as an economical version of our Li-36 model and to provide a competitive alternative to SLA (Sealed Lead Acid) desktop UPS/BBU devices. The world's only scalable capacity VDC UPS, the Li-36C Micro UPS is designed to supply continuous commerical and standby power to 12VDC Customer Premise (CPE). The Li-36C Micro UPS is rated for use with all CPE devices 12VDC 36 watts (3 amps) or less and offers PSI patented stackable battery technology to offer over 24 hours of backup, with up to 3 attachable battery packs. The Li-36C Micro UPS can be partnered throughout the home or small business to support one or multiple optical network terminals (ONT), optical network units (ONU), access points, wireless modems, routers, and embedded multimedia terminal adapters (eMTA). Designed for optimal performance and scalability, providig hours of scalable battery backup during electrical outages, the Li-36C Micro UPS also offers an integrated battery management system (BMS), Li-Ion Technology, user replaceable battery pack. With a design life of 10+ years and a 5 year warranty, our Li-36C solution will improve your battery back up needs over SLA by a great margin at an affordable price.

APPLICATIONS

- Fiber-to-home (FTTH, FTTP, FTTx)
- Customer Premise Equipment
- VoIP Backup
- Cable Modems (eMTA)
- Portable Power
- Multi-Dwelling Unit (MDU)
- Single Family Unit (SFU)
- Wireless Local Loop
- Passive PoE Option

FEATURES

DESKTOP OR WALL-MOUNTABLE
Versatile design allows for world's easiest wall-mountable solution or out-of-the-box desktop install

SCALABLE CAPACITY
Innovative stackable battery design allows user to connect up to three battery packs for increased capacity on demand for over 24 hours of battery backup on most CPE devices

SURGE PROTECTION - VAC AND VDC
Providing the industry's highest rated frontend surge protection, rated GR1089 enhanced and providing the industry's only reverse surge protection on VDC output connection to offer a fully protected solution for any indoor deployment

STATIONARY OR PORTABLE POWER
Install as stationary UPS or charge and use a portable battery power for off grid applications

USER REPLACEABLE / STACKABLE BATTERY PACK
Battery pack can be easily added or replaced without network interruption

NETWORK INTERFACE RESET (N.I.R.) CONTROL FUNCTION
Allows end user option for push button control to reset VDC power to ONT or CPE device saving costly truck rolls to reset power

TELEMETRY INTERFACE
Battery Signal Alarming to ONT or CPE device: On Battery, Replace Battery, Battery Missing, Low Battery

EXTENDED LIFE BATTERY
10 year design life battery pack

BATTERY MANAGMENT SYSTEM (BMS)
Integrated BMS controls battery charging

LI-75 MICRO UPS

#PS75SP-P7-12 #PS75SP-P7-48

SPECS

Input Voltage Range: 100VAC-240VAC

Frequency: 50/60Hz

Output Voltage (on VAC): 12VDC (nominal) or 48VDC (nominal)

Output Voltage (on battery): 12VDC (nominal) or 48VDC (nominal)

Continuous Power Capacity: 6.25A (12VDC/75W) 1.5A (48V/75V)

Battery Type: Lithium Ion Battery Pack

Design Life: 10-15 years

Typical Recharge Time: < 12 hrs

Replaceable Pack: Yes

Lightning/Surge Protection: Yes (IEC 61000-4-5 2005 Level D)

Battery Auto-Charge: Yes

Battery Self-Test: Optional

Telemetry Interface: Yes

Local Alarming (audible/visual): Yes

Alarm Silence: Yes

ONT Reset: Yes

Cold Start: Yes

Maximum Dimensions: 155mmx89mmx55mm

Weight (with one battery pack): 1.76lb

Operating Temperature: -10° to 49°C (14° to 120.2°F) at full power

Storage Temperature: -30° to 65°C (-22° to 149°F)

Battery Temperature Range

Discharge: -20° to 60°C (-4° to 140°F)

Charge: 0° to 45°C (32° to 113°F)

Battery Storage Temperature: -20° to 60° (-4° to 140°F)

The PSI Li-75 Micro UPS Series introduces the future of uninterruptable DC power supplies with it's patented stackable battery technology and world's smallest form factor Commercial/MDU UPS. Designed to supply continuous 12VDC or 48VDC power with stackable Li-ion Battery Pack technology, the PSI Li-75 Micro UPS Series offers the most versatile power solution and long-life battery to compliment 1000's of stationary or portable applications and support hours of backup.

APPLICATIONS

- Fiber-to-home (FTTH, FTTP, FTTx)
- Customer Premise Equipment
- VoIP Backup
- Cable Modems (eMTA)
- Portable Power
- Multi-Dwelling Unit (MDU)
- Single Family Unit (SFU)
- Wireless Local Loop
- Passive PoE Option

FEATURES

- Extended life Li-Ion battery pack
- 1/6 the size of competitor solution
- More usable capacity than similar amp hour lead acid battery
- Integrated battery management system (BMS) for highest level of operational efficiency
- World's smallest stationary or portable power UPS
- Innovative stackable battery packs for a scalable backup time
- User replaceable battery pack
- Local visual and audible battery alarming
- Telemetry alarming
- Desktop or wall-mountable

CORE SOLUTIONS

Micro UPS Series

- Service provider lease or maintenance contract
- Tiered level contract based on standby time required
- Residential and commercial package
- 12VDC 75 watt and 48V 75 watt models
- Stack up to 4 standard or extended capacity battery packs in parallel for 24+ hours of backup in most cases
- Custom cabling for standby power to multiple CPE devices
- Modular use with PSI Micro Stack Wall Mountable backplate
- VAC and VDC Surge Protection

PS36L-EX BATTERY PACK

8 CELL *#PS36L-EX-L* **4 CELL** *#PS36L-EX-04*

12 CELL *#PS36L--EL-2*

- Versatile design allows for world's easiest wall-mountable solution or out-of-the-box desktop install
- Providing the industry's only reverse surge protection on VDC output connection to offer a fully protected solution for any indoor deployment
- Install as stationary UPS or charge and use portable battery power for off-grid applications

Electrical / BMS Characteristics

Cell Over Voltage Protection:	Over Voltage Protection (Max: 4.25 +/- 0.025V Over Charge Detection Delay: 0.5S ~ 1.5s Over Charge Release Voltage: 4.15 +/- 4.15 +/- 0.08V
Cell Over Discharge Protection:	Over Discharge Detection Voltage: 2.50 +/- 0.08V Over Discharge Detection Delay: 50 ~ 150 ms Over Discharge Release Voltage: 3.0V +/- 0.1V
Over Current Protection:	Over Current Detection Voltage: 0.1 +/- 0.025V Over Current Detection Circuit: 6 ~ 10 A Detection Delay Time: 5 ~ 15ms Release Condition: No Load
Short Circuit Protection:	Detection Condition: Hard short to battery pack. Detection Delay Tims: 100 to 600 microseconds Release Condition: Short removed.
Main Loop resistance:	RSS </= 40 milliohm
BMS Current Consumption:	40 microamps (Max)
Max Discharging Current:	</= 5A

Thermal Safety Switch

Temperature Control Swich Part Number:	TB02-BB8D -65C (Thermal Safety Switch)
Device Temperature Resistance:	392F (200C)
Combustion Grade:	V-0
Thermal Cutoff Temperature:	149F +/- 9F (65C +/- 5C)
Reset Temperature:	118F +/- 18F (48C +/- 10C)

Temperature Fuse Protection

Fuse Part Number:	F00093C
Fusing Temperature:	199.4F (93C)
Maximum Ambient Temp:	172.4F (78C)
Max Current:	10A, 250Vac
Recovery Temperature:	NONE, the fuse is permanently damaged once it is triggered.

Over Voltage Protection

Reverse Stand-off Voltage:	22Vdc
Breakdown Voltage (VBR):	24.4Vdc (min), 26.9 (max)
Test Current:	1mA
Max Clamping Voltage:	35.5Vdc
Max Peak Pulse Current:	11.27A
Max Reverse Leakage:	5 microamps

Item	Specification
Typical Capacity:	5200 mAhr
Minimum Capacity:	5100 mAhr
Nominal Voltage:	14.8 Vdc
Charge Modes:	Constant Current (CC), Constant Voltage (CV
Maximum Charge Voltage:	16.8V (+/- 0.5) V
Maximum Continuous Charge Current:	2600 mA
Charging Cut Off Current:	156 +/- 20 mA
Maximum Continuous Discharging Current:	5000 mA
Discharging Ending Voltage:	12Vdc
Recommended Charge and Discharge: Temperatures:	Charge: 32F ~ 113F (0c~45C) Discharge: -4F ~ 140F (-20C ~ 60C)
Humidity Range:	0 to 90% RH (non-condensing)
Battery System Dimensions:	6.1" X 3.5" X 1.3" (Max 155mm X 89mm X 34mm)
Weight:	1.1lbs +/- 0.02 lbs.(505 +/- 10 g)
Cycle Life:	~ 300 cycles
Self-Discharge Rate:	< 5% per month.
Cell Type:	18650E2600
Battery Pack Configuration:	4S2P

Procedure for Recommended Storage and Maintenance of Lithium-Ion Battery Packs

1. STORAGE CONDITIONS

1.1 Temperature

1.1.1 Store batteries in a cool, dry place.

1.1.2 Optimal storage temperature is between 15*C and 25*C (59*F to 77*F)

1.1.3 Avoid storing in temperatures above 40*C (104*F) or below 0*C (32*F)

1.2 Humidity

1.2.1 Keep batteries in a low-humidity environment

1.2.2 Ideal relative humidity is between 20% and 60%

1.3 Ventilation

1.3.1 Ensure storage area is well-ventilated to prevent heat accumulation

1.4 Isolation

1.4.1 Store batteries away from flammable materials and direct sunlight

2. CHARGE STATE

2.1 Storage Charge Level

2.1.1 Store batteries at around 50% charge (3.7-3.8V per cell; 14.8-15.2 per pack)

2.1.2 Avoid storing fully charged (4.2V per cell or 16.8V per pack) or completely discharged (below 3.0V per cell or 12V per pack)

2.2 Periodic Maintenance

2.2.1 Check the charge level every 6 months

2.2.1.1 Typically, the PS36L-EX battery packs can last up to one year

2.2.2 Recharge up to 50% if the charge level drops below 20%

3. PHYSICAL HANDLING

3.1 Protection

3.1.1 Use protective casings or covers to prevent physical damage

3.1.2 Avoid placing heavy objects on top of stored batteries

3.2 Orientation

3.2.1 Store batteries in a stable orientation to prevent them from falling or being knocked over

3.2.2 Avoid stacking batteries directly on top of one another without protective layers in between

4. INSPECTION AND MAINTENANCE

4.1 Regular Inspection

4.1.1 Inspect batteries for signs of damage, leakage, or swelling every 3 months

4.1.2 Remove and properly dispose of any damaged batteries immediately

4.2 Cleaning

4.2.1 Keep battery contacts clean and free of dust or debris

4.2.2 Use a dry cloth to wipe contacts if necessary

4.3 Battery Testing

4.3.1 Test battery voltage and capacity periodically to ensure they are within safe operating ranges

4.3.2 Use a multimeter or battery analyzer for accurate measurements

5. DISPOSAL

5.1 End of Life

5.1.1 Follow local regulations for battery disposal

5.1.2 Recycle batteries at designated recycling centers to prevent environmental harm

5.2 Safe Handling

5.2.1 Discharge batteries to around 50% before disposal if possible

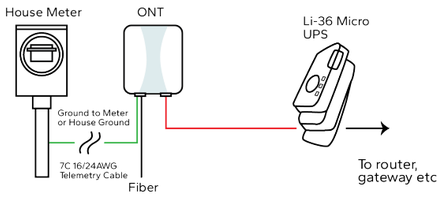
5.2.2 Use protective gloves and goggles when handling damaged or leaking batteries

By following these procedures, you can ensure the safe storage and maintenance of lithium-ion batteries, prolonging their lifespan and reducing the risk of accidents or damage.

CONFIGURATION EXAMPLES

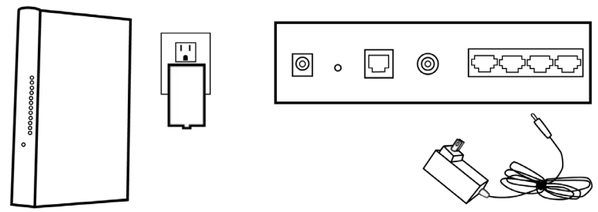
Li-36 Micro UPS
Outdoor ONT - Indoor Li-36 Wall Mount

Step 1: Disconnect power supply from VAC wall outlet and from customer premise equipment (i.e. wireless router, gateway, modem, camera, etc)

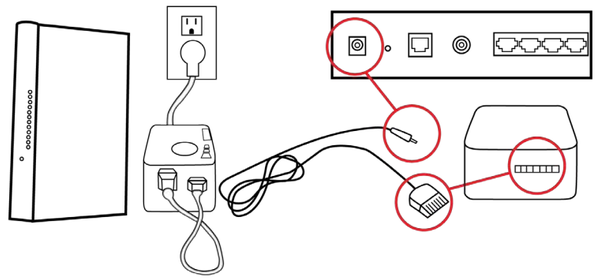


Li-36C Micro UPS

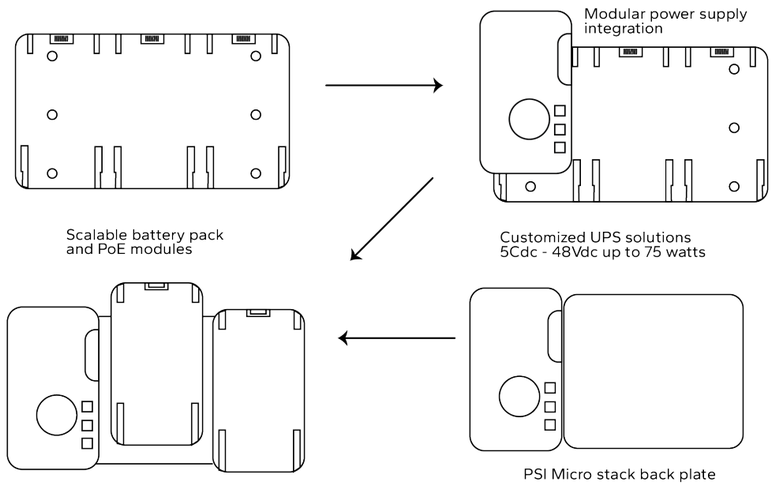
Step 1: Disconnect power supply from VAC wall outlet and from customer premise equipment (i.e. wireless router, gateway, modem, camera, etc)



Step 2: Connect Li-36 Micro UPS to customer premise equipment using provided UPS VDC Cable then connect provided VAC power cord to Li-36 AC input to VAC wall outlet.



OPTIONAL SIDE-BY-SIDE MOUNTING PLATE



PS7P8M-A SERIES - NOKIA, ZHONE AND HUAWEI TELEMETRY CABLES

The PS7P8M-C Series Premade Telemetry cable is designed specifically to partner with Nokia, Zhone and Huawei FTTx ONT's requiring 8 pin molex connection and offers easy, out-of-box installation of FTTx UPS to ONT, providing full battery alarming capability. Compatible with all PSI and CyberPower series residential UPS's. The PS7PM8-A Series Telemetry Cable is offered in 1', 2' and 6' lengths. Custom lengths also available.

8P MOLEX TO UPS BLUNT END TELEMETRY CABLE

The PSI 8 Pin Molex ONT to UPS Blunt End Telemetry Cable offers ease of install at FTTx ONT and customized length to FTTx UPS. Compatible with Calix, Adtran and iPhotonix Indoor ONT's as well as PSI series residential UPS's. Offered in 12', 20' lengths. Custom lengths also available.

PS7P8M-C SERIES - CALIX, ADTRAN AND IPHOTONIX TELEMETRY CABLES #1234

The PS7P8M-C Series Premade Telemetry cable is designed specifically to partner with Calix, Adtran and iPhotonix FTTx ONT's requiring 8 pin molex connection and offers easy, out-of-box installation of FTTx UPS to ONT, providing full battery alarming capability. Compatible with all PSI and CyberPower series residential UPS's. The PS7PM8-C Series Telemetry Cable is offered in 1.5', 2', 4', 6' and 8' lengths. Custom lengths also available.

7P UPS TO ONT BLUNT END TELEMETRY CABLE

The PSI 7 Pin UPS to ONT Blunt End Telemetry Cable offers ease of install at FTTx UPS and customized length to FTTx ONT. Compatible with all residential FTTx ONT's as well as PSI and CyberPower series residential UPS's. Offered in 10', 30' and 60' lengths. Custom lengths also available.

PS7PCDIN SERIES - CALIX 716-I AND 836GE TELEMETRY CABLE

The PS7PCDIN Series Premade Telemetry Cable is designed specificially to partner with Calix 716-I and Calix 836GE FTTx ONT's requiring 9 Pin Din connection and offers easy, out-of-box installation of FTTx UPS to ONT, providing full battery alarming capability. Compatible with all PSI and CyberPower series residential UPS's. The PS7PCDIN Series Telemetry Cable is offered in 1', 2', 4' and 8' lengths. Custom lengths also available.

RFOG DONGLE

The PSI RFoG Dongle is designed specifically to partner with FTTx ONU deployments requiring standard coax connection for VDC power. Compatible with all PSI and CyberPower series residential UPS's. Custom lengths also available.

NON-TELEMETRY CABLE

Part #PS7P55-25-2 12VDC 5.5ml X 2.5ml
Standard 12VDC input connector that fits most devices.

NXG-VISION MICRO UPS

#PS18L-U2
#PS18L-U7

SPECS

Input Voltage Range: 100VAC-240VAC

Frequency: 50/60Hz

Output Voltage (on VAC): 12VDC (nominal)

Output Voltage (on battery): 12VDC (nominal)

Continuous Power Capacity: 1.5A (18WATT)

Battery Type: Lithium Ion Battery Pack

Design Life: 10-15 years

Typical Recharge Time: < 10 hrs

Replaceable Pack: Yes

Lightning/Surge Protection: Yes (IEC 61000-4-5 2005 Level D)

Battery Auto-Charge: Yes

Battery Self-Test: Yes

Telemetry Interface: No / Yes*

Local Alarming (audible/visual): Yes

Alarm Silence: Yes

ONT Reset: Yes

Cold Start: Yes

Maximum Dimensions: 6.4 x 1.69 x 1.96 (in.)

Weight (with one battery pack): 1.25lb

Operating Temperature: -15° to 50°C at full power

Storage Temperature: -30° to 65°C (-22° to 149°F)

Battery Temperature Range

Discharge: -20° to 60°C (-4° to 140°F)

Charge: 0° to 45°C (32° to 113°F)

Battery Storage Temperature*: -20° to 60°C (-4° to 140°F)

**only applicable to #PS18L-U7*

#PS18L-U7

Introducing the World's smallest DC UPS, the NXG-Vision Micro UPS is designed to supply continuous commerical and standby power to 12VDC Customer Premise Equipment (CPE). The NXG-Vision Micro UPS is rated for use with all CPE devices 12VDC 18 Watts (1.5 amps) or less and offers a unique design for stationary in home CPE devices or portable battery backup for trouble shooting, test and turn up of CPE devices anywhere within the network. The NXG-Vision Mico UPS can be partnered throughout the home or small business to support one or multiple optical network terminals (ONT), optical network units (ONU), access points, wireless modems, routers, and embedded mutli-media terminal adapters (eMTA). Designed for hours of battery backup during electrical outages, the NXG-Vision Micro UPS also offers an integrated battery management sysmtem (BMS), L-ion Technology, audible and visual alarming, user replaceable battery pack, remote signal alarming (telemetry), and 5 year warranty.

APPLICATIONS

- Fiber-to-home (FTTH, FTTP, FTTx)
- Customer Premise Equipment
- VoIP Backup
- Cable Modems (eMTA)
- Portable Power
- Multi-Dwelling Unit (MDU)
- Single Family Unit (SFU)
- Wireless Local Loop

#PS18L-U2

FEATURES

WORLD'S SMALLEST DC UPS
Innovative design offers hours of battery backup in a footprint smaller than a dollar bill

DESIGNED FOR USE WITH MICRO ONT'S
Supports all Micro ONT Applications: Adtran 401/411, Calix GigaPoint 801/803 and iPhotonix 8201

SURGE PROTECTION - VAC AND VDC
Providing the industry's highest rated frontend surge protection, rated IEC 61000-4-5-2005 Level D and providing the industry's only reverse surge protection on VDC output connection to offer a fully protected solution for any indoor deployment

WALL MOUNTABLE
Standard wall mount with optional PSI all-in-one micro enclosure or UPS cradle

STATIONARY OR PORTABLE POWER
Install as stationary UPS or charge and use a portable battery power for test and turn up of CPE devices

USER REPLACEABLE / STACKABLE BATTERY PACK
Battery pack can be easily added or replaced without network interruption

NETWORK INTERFACE RESET (N.I.R.) CONTROL FUNCTION
Allows end user options for push button control to reset VDC power ONT or CPE device, saving costly truck rolls to reset power

LOCAL VISUAL AND AUDIBLE ALARMING
Onsite battery alarming: On Battery, Low Battery, and Replace Battery

TELEMETRY INTERFACE*
Battery signal alarming to ONT or CPE device: On Battery, Replace Battery, Battery Missing, Low Battery
**only available with #PS18L-U7*

EXTENDED LIFE BATTERY
10 year design life battery pack

BATTERY MANAGMENT SYSTEM (BMS)
Integrated battery management system manages battery charging, cell balancing and performs battery self test to protect and extend battery life

NXGM - INDOOR POWER SUPPLY

#PS1236PB-L #PS1236PB-2

STANDARD VAC

Nominal Voltage: 120VAC
Voltage Range: 100VAC - 240VAC
Frequency: 50/60Hz
Max Current Limit: 0.5A
Input Interface: 3 - Prong US Plug
Surge Resistance: IEC 61000-4-5-2005

Custom designed to deliver power to network devices such as Optical Network Terminals (ONT), the PS1236PB-L leads the charge as the most effective and efficient choice to protect and power residential Optical Network Terminals and, in addtion, provides a very short term battery backup for brown out and short power outages to help prevent devices from incurring lengthy reboots. Designed for long life and clean power to one ONT, the PS1236PB-L ONT power supply also offer IEC 61000-4-5-2005 Level D surge protection and 3-year warranty.

OUTPUT

Nominal Voltage: 12VDC / 2.5A, 3A maximum
Continuous Power Capacity: 30 WATT, 36 WATT maximum
Nominal Efficiency: 82% (AC), 85% (Battery)
Transfer Time (battery) at power loss 11mS (11.4V) max @ full load 3A
Input Interface: 2 pin terminal block
Power Time: Approx. 8 min for a 2.5A load
Physical: 2.5" x 3" x 4.5" (HxWxL)
Weight: 9oz (250 gram)
Environment: RoHs
Operating Temperature: 0°C to 40°C
Storage Temperature: -40°C to 65°C

FEATURES

LED INDICATORS:

a. Green / Slow Blinking → Charging
b. Green / Solid → Charged
c. Green / Fast Blinking → Battery Mode
d. Red / Fast Blinking → Low Battery or Bad Battery
e. Red / Slow Blinking → Overload or Short-Circuited

KEY BUTTON:

a. AC ON: press on & cut off output, press off & output recovered
b. BATTERY MODE: cut off output when press on 2 seconds output recovered press on again for 2 seconds

BATTERY
5 second brownout
7+ minute reboot time

ELIMINATES REBOOT TIME

#PS1236PB-L

NXGM - MICRO ONT OUTDOOR POWER SUPPLY

#PS1236PB-EX

Input Voltage Range: 100VAC-240VAC
Frequency: 50/60Hz
Output Voltage: 12VDC
Continuous Power Capacity: 36 WATT
Output Interface: 3 position terminal
Output Charging Voltage Control: 5VDC (5mA DC max)
Battery Module (optional): Alpha FlexPoint BBPS
Lightning/Surge Protection: Yes (IEC 61000-4-5 2005 Level D)
Operating Temperature: -20° to 60°C
Storage Temperature: -40° to 65°C

APPLICATIONS

- Fiber-to-the-home (FTTH, FTTP, FTTx)
- Utility FTTx
- Customer Premise Equipment
- Multi-Dwelling Unit (MDU)
- Single Family Unit (SFU)
- Wireless Local Loop

Custom designed to deliver FTTx power, the NXGM leads the charge as the most effective and efficient choice to protect and power residential Optical Network Terminals (ONT). The NXGM model PS1236PB-EX offers the industry's leading VAC and VDC surge protection and is designed to supply continuous commercial power to 12VDC Optical Network Terminals 36 watts (3A) or less. Hardened for outdoor use, the NXGM model PS1236PB-EX is the perfect solution for FTTx deployments where battery backup is not required for all installations, saving service providers thousands of dollars in ongoing battery repair / replacement and truck rolls. If needed, the NXGM model PS1236PB-EX has integrated battery charger to be used with inline Alpha FlexPoint BBPS battery backup. Designed for long life and clean power to one of multiple Optical Network Terminals (ONT), the NXGM series ONT power supplies also offer 12KVA surge protection, ONT reset capabilities and 3 year warranty.

FEATURES

WORLD'S SMALLEST FTTX ONT POWER SUPPLY
Innovative design offers FTTx's most efficient ONT power solution

DESIGNED FOR USE WITH ANY RESIDENTIAL ONT/ONU
Supports all residential ONT/ONU deployments. 12VDC 36 watt potential output

SURGE PROTECTION - VAC AND VDC
Providing the industry's highest rated frontend surge protection, rated IEC 61000-4-5-2005 Level D and providing the industry's only reverse surge protection on VDC output connection to offer a fully protected solution for any indoor deployment

INTEGRATED CHARGE CONTROLLER
Partner with inline FTTx Battery Backup for optional "add-on" ONT backup power

OUTDOOR RATED
The NXGM "EX" is designed with hardened components and weather proof casing for outdoor installation

NETWORK INTERFACE RESET (N.I.R.) CONTROL FUNCTION
Allows end user options for push button control to reset VDC power to ONT or CPE device, saving costly truck rolls to reset power

EXTENDED LIFE WARRANTY
The NXGM Series ONT power supplies offer standard 3 year replacement warranty

BATTERY OPTION:
NXGM with direct 12VDC power to outdoor ONT - no battery backup

PSI POE PASSIVE INJECTOR

#POE-INJ-10GM

OPTIONAL SPLITTER

#POE-SPL-12V

PASSIVE POE INJECTOR

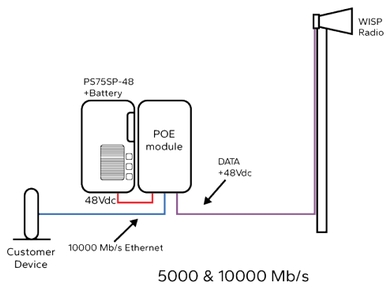
Data Rate: 10/100/1000 Mbps
Input Voltage: 44-57 VDC
Output Voltage: Passive PoE (same as input)
Connector Typer: RJ45 (input and output)
Power Pin Assignment: 1/2 (+), 3/6 (-)
Operating Temperature: -10°C to 60°C (14°F to 140°F)
Storage Temperature: -20°C to 70°C (-4° to 158°F)
Humidity: 10% to 90% non-condensing
Dimensions: 90mm x 55mm x 20mm (LxWxH)
Weight: <1 lbs

OPTIONAL POE SPLITTER

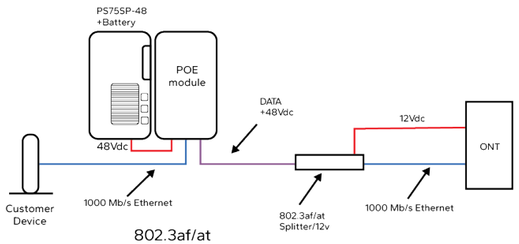
Data Rate: 10/100/1000 Mbps
Input Voltage: 44-57 VDC
Output Voltage: 12 VDC
Output Current: 1A
Output Connector: 5.5mm x 2.5mm
Power Pin Assignments: (+)1, 2 and (-)3, 8 or (+)4, 5 and (-)7, 8
Connector Type: RJ45 (input), DC Jack (output)
Power Pin Assignment: 4/5 (+), 7/8 (-)
Operating Temperature: -10°C to 60°C (14°F to 140°F)
Storage Temperature: -20°C to 70°C (-4° to 158°F)
Humidity: 10% to 90% non-condensing
Dimensions: 80mm x 30mm x 20mm (LxWxH)
Weight: <1 lbs

Passive PoE Injector: Our Passive PoE Injector is engineered to provide seamless power and data connectivity for your network devices, supporting speeds up to 10Gb/s. It's an ideal solution for powering IP cameras, wireless access pointsm VoIP phones, routers/gateways, Optical Network Terminals (ONT) and other PoE-enabled devices, ensuring your network operates efficiently and effectively.

Optional PoE Splitter: Complement your PoE Injector with our 10Gb/s PoE Splitter, offering a 12V DC 1A output to power non-PoE devices. This splitter allows you to extend PoE benefits to a broader range of network equipment, enhancing your network's versatility and functionality.



5000 & 10000 Mb/s
Passive POE for WISP
and Battery Backup



802.3af/at
Ethernet 1000Mb/s
48 Vdc POE
NOTE: Could be up to 100m distance

APPLICATIONS

- **IP Cameras**: Provides power and data to surveillance cameras
- **Wireless Access Points**: Powers access points for wireless network coverage
- **Routers and Gateways**: For customer service backup during outages with PS75SP
- **VoIP Phones**: Ensures stable power supply to VoIP phones for clear communication
- **Non-PoE Devices**: With the optional PoE splitter, power non-PoE devices requiring 12V DC

FEATURES

HIGH-SPEED DATA TRANSFER
Supports data speeds up to 1Gb/s, ensuring efficient and fast network performance

PLUG-AND-PLAY INSTALLATION
Easy setup

COST EFFECTIVE
Reduces the need for running power and data lines to devices

VERSATILE USE
Compatible with a wide range of PoE and non-PoE devices

COMPACT DESIGN
Sleek and compact, it fits seamlessly into any network setup

BACK UP POWER
Designed to interface to the PS75SP-P7-48 Micro UPS

MOUNTING
Modular version mountable on PSI backplates, or seperate standalone

↑ POWER SUPPLY ↑ POE 10G INJ ↑ BATTERY

PSI 48 NPFC REMOTE MONITORING UNIT (RMU)

FOR PSI RACKMOUNT BATTERIES

#48NPFC-RMU-1.1

SPECS

Size: 5.6" x 1.8" x 4.7" (141mm x 45.45mm x 120mm) 1RU 19" rack compatible

Weight: 4.4lbs (2kg)

Power: 0.7A @ 48V (max) (6.4mm x 2.0mm coaxial connector)

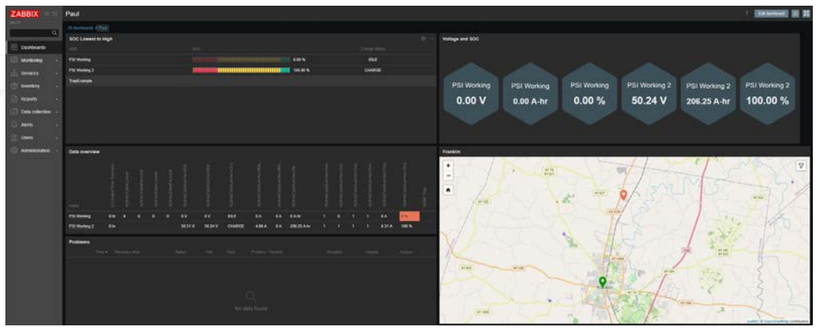
SNMP Version: 2

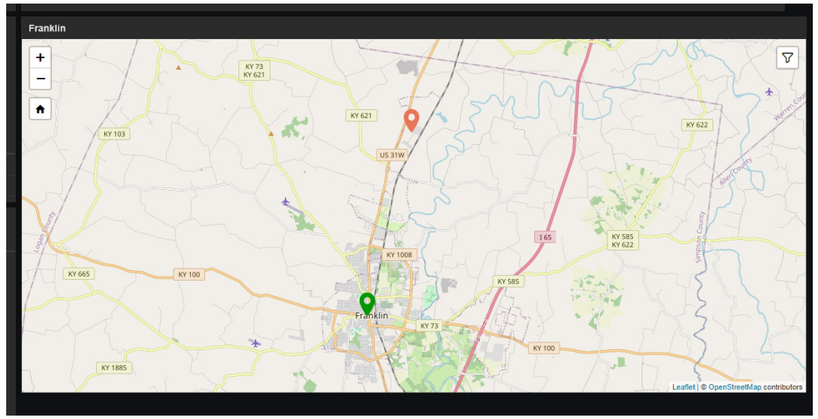
Sensor Type: 4 Normally Open (NO) / Normally Closed (NC) switch contact

Battery Communications: RS485

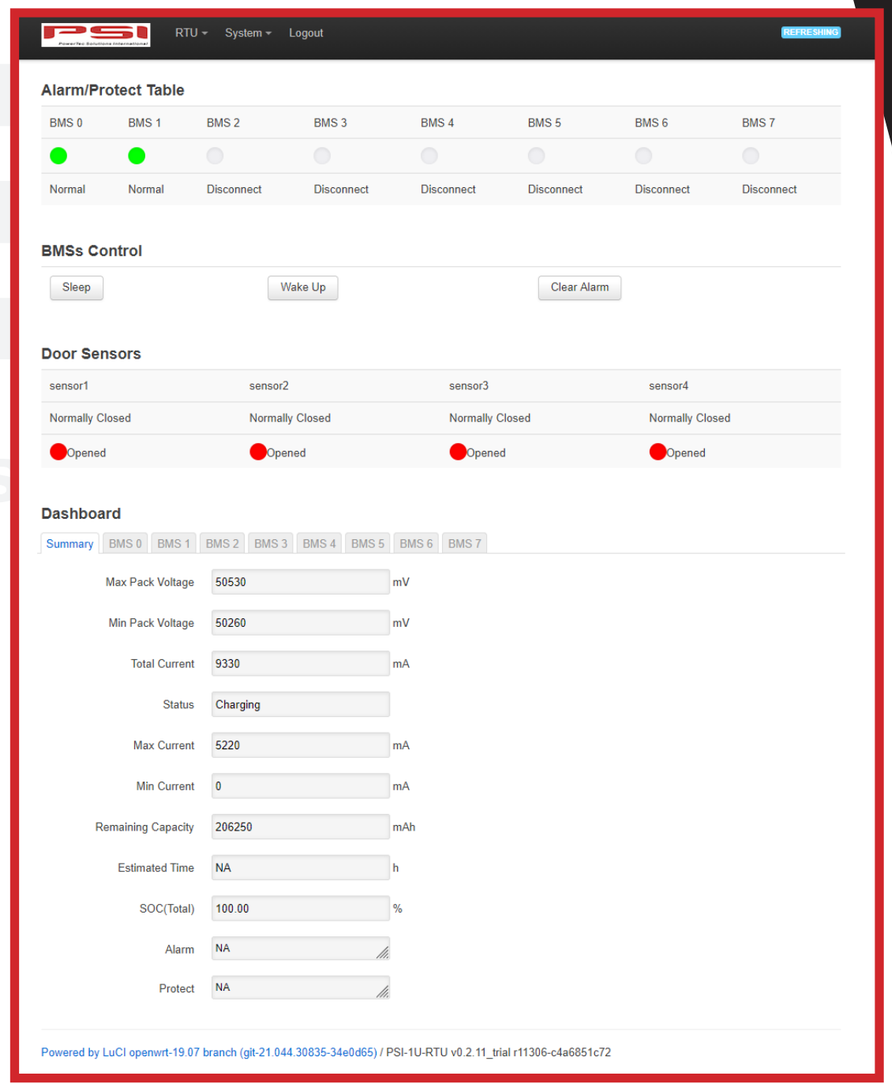
Network Communications: Ethernet / DHCP or static

- **Integrates data of 8 rackmount batteries**
- **1 RU 19 inch rack compatible**
- **Easy-to-use interface and setup**
- **Compatible with all PSI rackmount batteries**
- **Convenient local web interface and graphics**
- **SMTP email client for sending alarms**
- **Sensor input for door sensors**
- **48V power input from power shelf output or batteries**
- **SNMP v2 real time monitoring**
- **Ethernet connection to local networks**
- **Field updateable**
- **Displays battery management system (BMS) data**





PSI's proprietary Remote Monitoring Unit (RMU) is designed for piece of mind for OSP rackmount batteries and provides a way for customers to monitor rackmount batteries in remote locations. It can be securely installed behind firewalls and accesses to view battery status. There are two ways to monitor: first, users can simply look at the webpage hosted by the RMU alone. An email client can be set up to alert users of alarms via an email alert. Secondly, SNMP allows users monitoring equipment with network management software to monitor their batteries remotely. No matter what method you use, you can rest better knowing the status of your batteries without a trip to remote locations.



PSI 48V RACKMOUNT BATTERY (20AHR)

#48NPFC-20-2.0L

SPECS

Rated Voltage: 48VDC
Rated Capacity: 20Ah
Discharge Current (max.): 20A
Discharge Voltage Cutoff: 40.5V
Charge Current (max.): 20A
Charge Voltage: 52-55V

Design Life: 20 years
Dimensions (HxWxD): 88mm x 442m x 245mm (3.46" x 17.4" x 9.65")
Rack Units: 2RU
Weight: 13.4kg (29.54 lbs)
Operating Temperature: -20°C to 60°C

PSI's Remote Monitoring / Management Software provides real-time visibility to all battery key indicators and alarms to ensure your critical sites never go down. Customers can communicate with the RS-485 (Modbus protocol) to download data. Proactive monitoring was never easier with battery statistic, remaining capacity, temperature, alarm status with its own local webpage and SNMP available through RTU.

APPLICATIONS

- Customer Premise Equipment
- Alarm "Status" LED
- Communications port for battery health statistics, temperature monitoring, alarm alert, current, voltage, etc.
- Dry contact battery alarm - major / minor fault (optional)
- 48VDC output - two wire connection (+/-) to rectifier
- Safe, easy install by anyone in less than 5 minutes
- Connects to any standard 48V charging system
- Direct drop-in replacement to 48V string of sealed lead acid

FEATURES

- Compatible with all standard Telecom rectifiers
- More usable capacity than similar amp hour lead acid battery
- Comprehensive communication
- Parallel operation for scalability
- Built-in battery management for highest level of operational efficiency
- State of charge and state of health indicator
- Redundant safety
- Internal cell balancing
- Communication of monitored data via Battery Management System (BMS)

PSI 48V RACKMOUNT BATTERY (100AH)

#48NPFC-100-2.0L

SPECS

Rated Voltage: 48VDC
Rated Capacity:100Ah
Discharge Current (max.): 100A
Discharge Voltage Cutoff: 40.5V
Charge Current (max.): 100A
Charge Voltage: 52-55V
Design Life: 20 years
Dimensions (HxWxD):
132.5mm x 442.5m x 390mm (5.2" x 17.42" x 15.35")
Weight: 32kg (70.5lbs)
Rack Units: 3RU
Terminal Size: M6 (Screw Size)
LCD Screen: Optional
Breaker: Optional
Parallel Capacity (Max): 16 units
Operating Temperature: -20°C to 60°C

Reversible mounting bracket to accommodate 19 or 23 inch rack

The 48V Rackmount Battery System delivers the most efficient, intelligent, and cleanest long-life battery backup solution to 48Vdc Telecommunications Systems. Developed specifically for Telecom equipment as a drop-in replacement to legacy 48Vdc Sealed Lead Acid Battery strings, its ease of installation, integrated Battery Management System (BMS) and maintenance free design offers the Industry's future for Telecom Standby Power. The 48V Rackmount Battery Series is offered in 20AH, 50AH and 100AH models and is compatible with all standard Telecom Rectifiers or for use with standard 48V Solar and Charge Controller deployments. With a 40-70% smaller footprint, 40-70% less weight than legacy Sealed Lead Acid, and the highest level of operational efficiency with intelligent Battery Management System, the 48V Rackmount Battery Series offers the future of Telecom Standby power.

APPLICATIONS

- xDSL/FTTH/FTTX Standby Power
- 48V Standby Power
- Sealed Lead Acid Replacement
- Wireless Standby Power
- Portable Power
- Multi-Dwelling Unit (MDU)

FEATURES

- 20 Year Battery (Design Life)
- 40%-70% Smaller Footprint than Sealed Lead Acid (SLA) Batteries
- 40%-70% Less Weight than Sealed Lead Acid (SLA) Batteries
- Parallel Operation for Ease of Scalability
- Installed by Anyone in Less than 5 Minutes
- Stationary or Portable Power
- State of Charge and State of Health Indicator
- Redundant Safety
- More Usable Capacity than Sealed Lead Acid (SLA)
- Built-in Automatic Protection - Over-Charge/Over-Discharge/Over-Temperature Protection
- Internal Cell Balancing
- Communication of Monitored Data via Battery Management System (BMS)

DC POWER SYSTEMS, AC INVERTERS
WITH REMOTE MANAGEMENT

Ask us about our **revolutionary DC power systems, AC inverters and smart distribution with remote management** now available and changing the way datacenters, telecom, and new-grid applications harness energy. Backed by more than four decades of leadership in mission-critical power system development our innovation and expertise are able to tackle the most demanding challenges in the power industry.

Our products set the benchmark for **power-density, energy-efficiency and scalability** with data and software features that enable never before possible remote network management and automated control.

60 AMP 1RU POWER SYSTEM

Compact power, distribution and control in 1RU of rack height.

60 AMP 1RU POWER WITH SMART DISTRIBUTION

Intelligently monitor system loads and remotely troubleshoot equipment to avoid truck rolls.

120 AMP 2RU POWER SYSTEM

Expanded power and distribution in 2RU of rack height.

Products Catalog 2026

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REVOLUTION™ LIFEPO4

PSI

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