Minipack 4.8kW System, 6 rectifiers


Minipack 3.2kW System, 4 rectifiers

# Minipack System

## Power Supply Systems 48V, 3.2 or 4.8kW

### Compact and cost effective power supply system

The Minipack system has been specifically designed to meet any requirement in terms of power functionality and cost. Realization of Minipack systems is possible by fitting up to 4 or 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/in$^3$ 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.

## Product Description

The Minipack system is a compact power system containing a Monitoring and Control Unit (Smartpack), LVD, battery and load MCBs. Switch mode technology with resonant topology and high switching frequency is used to minimize volume and weight and to obtain high reliability. The system accepts large variations on the input voltage (85-300 VAC) and draws sinusoidal current with a soft start power-up.

## Key Features

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

### Digital controllers
Controller is digitalized, enabling excellent monitoring and regulation characteristics. Thus, the number of component has been reduced by 40% - for highly reliable, long life, trouble free DC power systems.

### Heat management
Front-to-back air flow with chassis-integrated heat sinks gives the module the most suitable working environment and no limitations in the scalability of the desired system solution.

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

### Global approvals
Minipack is CE marked, UL recognized for worldwide installation.

# Minipack PS Systems — 48V, 3.2kW or 4.8kW

## Additional Technical Specifications

### AC Input

| | |
|---|---|
| Voltage | 4 pos: 2 x AC feeds (230VAC 1 ph ) <br> 6 pos: 3 x AC feeds (230VAC 1 ph) |
| Frequency | 45 to 66Hz |
| Maximum Current | See Minipack datasheet |
| Input Protection | o Surge protection <br> o Internal fuses (L & N) <br> o Disconnect above 300VAC |

### Monitoring

| | |
|---|---|
| Monitoring Unit | See Smartpack datasheet |
| Local Operation | Menu driven software via keypads and LCD or PC (PowerSuite) |
| Remote Operation | PowerSuite via modem or Monitoring via WebPower (WEB Interface, SNMP protocol and email) |
| Alarm Relays | 6 relays |
| Visual Indications | o Green LED – System ON <br> o Yellow LED – Minor alarm(s) <br> o Red LED – Major alarm(s) <br> o LCD – system status |
| Digital Inputs | o 6 (for monitoring of external equipment) |
| Current Measurements | o Battery current <br> o Rectifier current |
| Alarms | o Load fuse alarm <br> o Battery fuse alarm <br> o LVD operated <br> o Low output voltage alarms (2 individual alarm levels) <br> o High output voltage alarms (2 individual alarm levels) <br> o Battery capacity <br> o Temperature alarm <br> o Symmetry alarm <br> o and more |

### DC Output

| | |
|---|---|
| Voltage | 48VDC |
| Power | 4 pos: 3.2kW (66.7A at 48VDC) <br> 6 pos: 4.8kW (100A at 48VDC) |

### DC Distribution Options

| | |
|---|---|
| No. of Load breakers | o 4 pos: Up to 10 mini MCB type (2-30A) <br> o 6 pos: Up to 8 mini MCB type (2-30A) |
| No. of Battery fuses | o 4 pos: Up to 4 MCB type (60A) <br> o 6 pos: Up to 2 MCB type (100A) |
| Programmable LVD | o LVBD: 125A <br> o Optional LVLD: 80A <br> o 4 pos: Connection options in blocks of 2 breakers (2-8, 4-6, 6-4 or 8-2) <br> o 6 pos: Connection options in blocks of 2 breakers (2-6, 4-4 or 6-2) |

### Connections

| | |
|---|---|
| Battery connections | Screw terminals (up to 35mm2 lug) |
| Load MCB connections | Terminal blocks (up to 4 mm2) |
| Alarm connections | Terminal blocks (up to 1.5 mm2) |
| System | Extractable from frame for easy access |

### Other Specifications

| | |
|---|---|
| Isolation | o 3.0 KVAC – input and output <br> o 1.5 KVAC – input earth <br> o 0.5 KVDC – output earth |
| Operating temp. | -40 to +75°C (-40 to +167°F) |
| Storage temp. | -40 to +80°C (-40 to +176°F) |
| Dimensions | 19" mounting (446mm + brackets) <br> 2U height and 250mm depth <br> Recommended cabinet depth is min 300mm |
| Weight (excl. rectifiers) | 4 pos: Approx. 4.38kg (9.66lbs) <br> 6 pos: Approx. 4.28kg (9.44lbs) |

### Applicable Standards

| | |
|---|---|
| Electrical safety | IEC 60950-1 <br> UL 60950-1 |
| EMC | o ETSI EN 300 386 V.1.3.2 (telecommunication network) <br> o EN 61000-6-1 (immunity, light industry) <br> o EN 61000-6-2 (immunity, industry) <br> o EN 61000-6-3 (emission, light industry) <br> o EN 61000-6-4 (emission, industry) |
| Environment | ETSI EN 300 019-2 <br> ETSI EN 300 132-2 |

Specifications are subject to change without notice

900920.DS3 – v5

Ordering Information

| Part no. | Description |
|---|---|
| 241117.110 | Minipack 48/800 FC |
| 900920-xxxxx | Minipack – Sales configured system (CTO) |
| CTOM0602.000 | Minipack standard configuration 6 position, 2 rectifiers |

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