

Description:



**48V/2900Wx2, 5.8kW 3U Energy Shelf
M/N. HR9002-001**

The 5800W/2900W energy shelf is specially designed for the -48V art switching mode rectifier and advanced microprocessor technology, the shelf is able to perform efficient AC to DC power conversion. The energy shelf is N+1 redundant design with hot swappable capability, hence, particular easy and convenient for maintenance. The shelf is particularly suited for mobile communication base station, switch exchanges, optical fiber communications, microwave base station and others -48V telecommunications equipment.

The shelf can be divided into four (4) major block: (1) AC PDU, (2) DC PDU, (3) Supervisory Unit, and (4) Rectifier Module.

The AC PDU distributes AC power to the rectifiers and other portions of the shelf. AC MCB is available within the AC PDU to isolate the shelf from the mains. The AC PDU is also installed with an array of surge suppressers (SPD) which protect the shelf against line surge.

The DC PDU distributes DC power from the rectifiers to external loads and batteries. Within the DC PDU, there are MCBs to be connected to external loads. The DC PDU also incorporates battery connections which are equipped with battery MCBs for protection purposes. The battery connections allow the system to have power backup capability in the event of an AC failure.

The supervisory unit CSM6, it monitors and controls the operating parameters of the entire system as well as featuring the battery management and support local and remote monitoring through RS-232 or RJ45 (optional).

Last, the heart of the energy shelf, the OT7014 (2900W) switching mode rectifier. It is specially designed for the -48V telecommunication power applications. By using the advanced PWM and zero current soft-switching technologies, the rectifiers perform AC to DC power conversion at high input power factor and efficiency. It is capable of delivering up to 2900W under a wide range of AC input. The rectifier is modular and hot swappable in design. All power signal connections are located on a single connector at the rear of the rectifier. As a result, rectifier installation and maintenance can be carried out swiftly and conveniently.

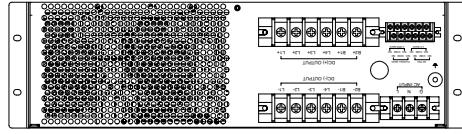
Specifications:

AC INPUT	
Voltage	220Vac/1P
Frequency	45~65Hz
Current / Rectifier	14.5A
Efficiency	91.0% (typical)
Power Factor	>0.99
OTHERS	
Temperature Operating	-20 °C ~ 70 °C
Storage	-40 °C ~ 80 °C
Humidity	10~95% RH(non-condensing)
Altitude	<3000 meters
Life	>10 years
Dimension(WxHxD)	482.6 x 132.6 x 400.0 (mm)

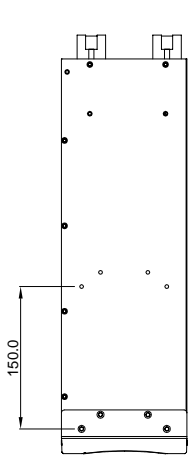
DC OUTPUT	
Voltage	54Vdc (40~58V Adjustable)
Rated power	5,800W
Maximum current	100.0A
MODULAR UNIT	
Part No. of Rectifier	OT7014
Quantity of Rectifier	2pcs
AC I/P Main Switch	MCB /1P 40A *1
DC Distribution MCB	MCB /1P 6~63A*4 (Optional)
Battery Switch	MCB /1P 50A*2
LVDS	48V/100A*1
Control Supervisor Unit	CSM6
Dry Contacts	4 Voltage free relay

i. All illustrations are for reference only and specifications subject to change without notice.
ii. The listed Energy Shelves are our standard models and the custom design is available upon request.

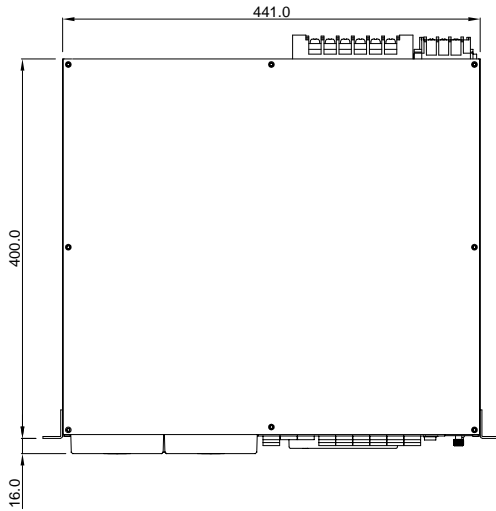
Outline Drawing:



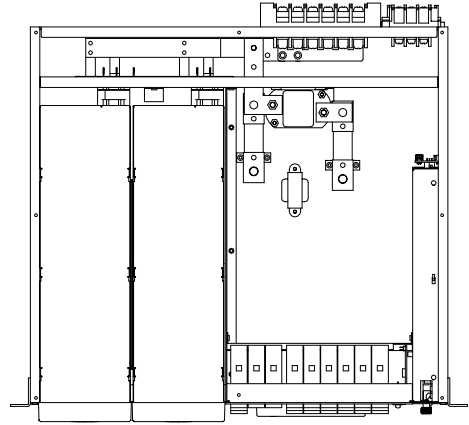
BACK VIEW



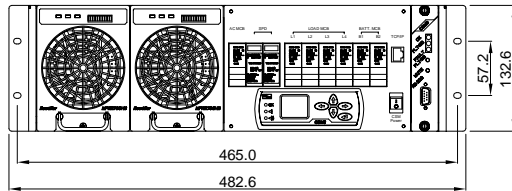
SIDE VIEW



TOP VIEW



TOP VIEW
(Without Top Cover)



FRONT VIEW

Fig 1. Outline Drawing of HR9002-001