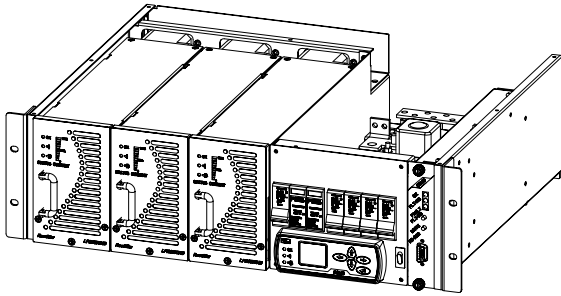


Description:



48V/1500Wx3, 4.5kW 3U Energy Shelf
M/N. HR8056-000

The 4500W/1500W 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 COM port.

Last, the heart of the energy shelf, the OT6002-000 (1500W) 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 1500W 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	8.0A
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 350.0 (mm)

DC OUTPUT	
Voltage	54Vdc (40~60V Adjustable)
Rated power	4,500W
Maximum current	94.5A
MODULAR UNIT	
Part No. of Rectifier	OT6002-000
Quantity of Rectifier	3pcs
AC I/P Main Switch	MCB /1P 32A *1
DC Distribution MCB	MCB /1P 50A*2 (Optional)
Battery Switch	MCB /1P 50A*2
LVDS	48V/100A*1
Control Supervisor Unit	CSM6
Dry Contacts	4 Voltage free relay

Outline Drawing:

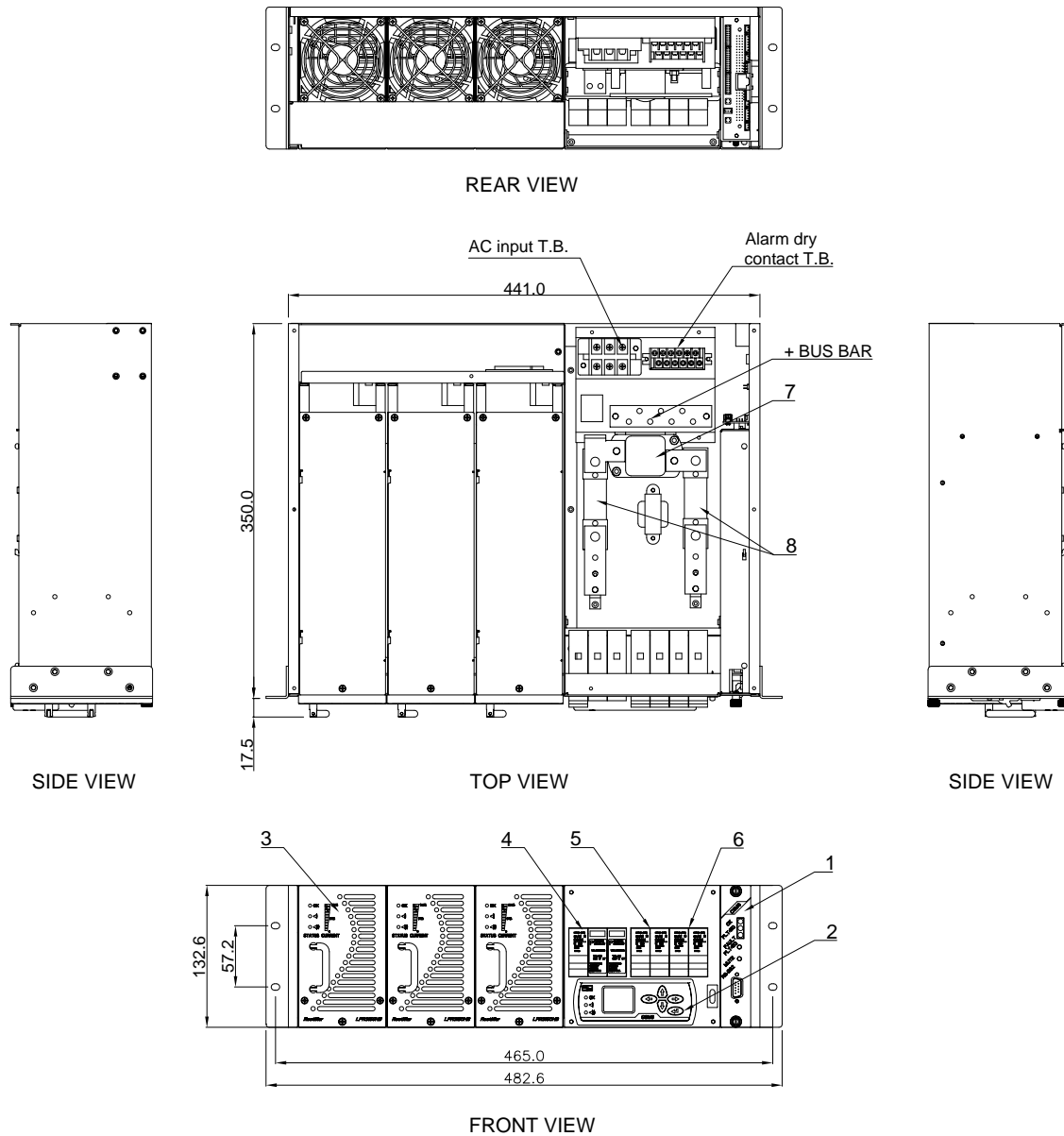


Table 1. Major Component List of HR8056-000

Major Component List				
No.	Description	Specifications	Q'ty	Supplier
1	Control Supervisor Module	CSM6-2 (R90000-9528I)	1 Set	AcBel
2	Mouniting & Display Interface	CSM6-1 (R90000-9539I)	1 Set	AcBel
3	Rectifier module	48V/1500W (OT6002-000)	3 Pcs	AcBel
4	AC Main Switch	MCB/1P 32A NDM1-63C	1EA	NADER
5	DC Load Switch	MCB/1P 50A NDM1-63C	2EA	NADER
6	Battery Switch	MCB/1P 50A NDM1-63C	2EA	NADER
7	LVDS	DC MC 48V 100A	1EA	TIANYI
8	Load & Battery current sensor	Shunt current sensor 100A	2EA	ATTEN