



VP4860-A1B1

1U Embedded AC-to-DC Communication Power Supply

Key Features:



Dual power module redundancy
Autonomous current sharing design



Support hot swapping
& Intelligent control



Wide-range single-phase input
(100VAC-240VAC)

Introduction:

The VP4860-A1B1 is a 1U rack-mount embedded communication power supply with dual rectifier modules for flexible power regulation. Each module delivers up to 2000W, and with dual redundant modules, the configurable output reaches 3200W. It features 3 standard load outputs and 1 battery input, supplying loads from AC mains while enabling intelligent battery charging. Designed for 19-inch racks, its compact structure ensures easy installation and high space efficiency.

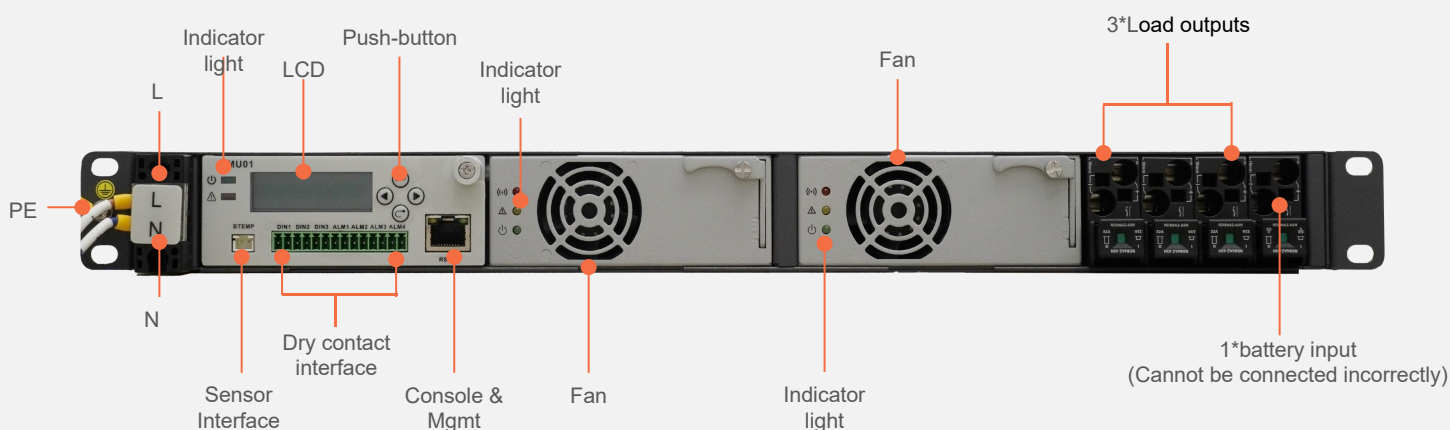
Equipped with a PMU01 monitoring module and LCD control panel, it supports local key operation, status indication, northbound RS485 and southbound CAN communication for system data output and remote management. It provides over-temperature, over-voltage and short-circuit protection, and operates reliably from -30°C to 60°C with strong environmental adaptability.

Widely used in telecommunications, railways, broadcasting and enterprise networks, it offers stable and efficient DC power for various equipment, making it an ideal power solution for industrial applications.

VP4860-A1B1 Module Introduction:



VP4860-A1B1 Interface Introduction:



Electrical Performance Parameters:



	Item	Parameter	Unit	Note
Input characteristics	Input Voltage Type	Single Phase		
	Rated Input Voltage	100~240	Vac	100~175Vac: Output load reduction 176~240Vac: Full load
	Maximum Input Voltage	300	Vac	
	Input Frequency Range	45~65	Hz	
	Maximum Input Current	30	A	
	Efficiency	≥95%		Rated input voltage at full load
Output characteristics	Output rated voltage	-53.5	Vdc	
	Output voltage range	-42~-58	Vdc	
	Maximum output current	50@100~175Vac 60@176~240Vac	A	25 °C, dual rectifier module, with a power limit of 3200W for the entire machine configuration
	Maximum output power	2000/3200	W	Default 2000W; Configurable up to 3200W via the LCD (AC power cord required)
	output ripple	<200	mV	
	startup time	<10	S	
	Load balancing	±5	%	
	number of interfaces	3*load outputs+1 *battery input		The three on the left are load circuits, each equipped with a 32A circuit breaker; The one on the far right is the battery circuit, equipped with a 63A circuit breaker.
Protection Features	Over-temperature protection	Rectification module 75	°C	
	Input overvoltage protection	300	Vac	
	Input Undervoltage Protection	80	Vac	
	Output overvoltage protection	-59.5	Vdc	
	Output short-circuit protection	Rectifier module protection + circuit breaker protection		

Monitoring Function Parameters:

	Item	Parameter	Note	
Monitoring Module	Model	PMU01		
	Rated input voltage	48Vdc		
	input voltage range	40~60Vdc		
	static operating current	<80mA	Under battery circuit-off conditions	
	Sensor Interface	Battery temperature sensor interface * 1	Use 3950 10K NTC	
	Dry contact interface	DIN*3、ALAM*4		
	Console & Mgmt		Southbound CAN	Communication with rectifier module
			Northbound RS485	Console port (Console) : 1IAP update (requires an external RS485-to-USB adapter) 2Output system information
	LCD	128×32 monochrome		
	push-button	Left, Right, Confirm (Up), Back (Down)— 4 buttons in total		
	indicator light	Operation, Alarms		
Rectifier Module	Mode	4850 rectifier module		
	Maximum Access Quantity	2		
	Management Interface	CAN		

Indicator Light Parameters:

Power module indicator light	Content
Green light (work light)	On: Module is functioning normally Flashing: Module system is functioning normally; the controller is reading module data
Yellow light (warning light)	On: Power load reduction (temperature and input voltage changes)
Red light (warning light)	On: EEPROM Failure Low Input Voltage Alarm Overvoltage Input Alarm Low Output Voltage Alarm Overvoltage Shutdown Alarm Ambient Over-Temperature Alarm Ambient Under-Temperature Alarm DC-DC Over-Temperature PFC Over-Temperature Primary-to-Secondary Communication Failure AC Input Overvoltage Disconnection CAN Bus Alarm Flashing: Fan Alarm
Control panel indicators	Content
System light (green)	Flashing: Monitoring panel is operating normally
Warning light (red)	On: System Alarms Battery Alarms Load Alarms External Alarms

Usage Environment:

Item	Parameter	Note
Operating temperature	-30°C~60°C	Full load at 30 °C~50 °C, load reduction at 50 °C~60 °C Screen operating temperature -20 °C~60 °C
Storage temperature	-40°C~70°C	
Operating Humidity	5-95% (non-condensing)	
Altitude	<2000 meters in height	Load reduction above 2000 meters
Cooling method	Forced air cooling	

Order Information:

Product Name	Product Description	Content
VP4860-A1B1	1U Embedded AC to DC Communication Power Supply	Whole machine+load output+battery input
SR4850M	Power module with 90VAC~300VAC input and 42V-58VDC output	Optional (minimum 1, optional 2)
PMU01	Control panel	Required