

RM1860/48 1.8kW 60/48V DC Modular Rectifier

Efficient and reliable, these modular rack mount rectifiers allow for easy paralleling of modules to provide redundancy or higher power outputs. Designed for use in modern telecommunications networks these rectifiers offer unrivalled power densities.

The unique design allows for mounting four rectifiers in a 1U x 19" rack space.

"Plug and play" installation allows quick and easy installation and system expansion. These robust, reliable rectifiers are forced cooled by a speed controlled and monitored high reliability fan.

- Forced cooled.
- Thermally protected.
- Power factor corrected.
- Input/output voltage and current protected.
- Serial alarm and control interface.
- Microprocessor controlled.



Specifications

AC Input			
Nominal:	230V		
Voltage Range:	90-300V (reduced power below 175V)		
Frequency Range:	45-65 Hz		
Power Factor:	>0.99		
Efficiency:	>91% (>50% output power)		
Input Fuses:	HRC fuses in phase and neutral		
Maximum Input Current:	11A		
Protection:			
Input Voltage:	Auto shutdown, auto restart when correct voltage restored		
Input Inrush:	<2x maximum input current		
DC Output - Software Switchable	60V	48V	
Output Ratings:	Constant power output from 60V to 74V	Current limited to 30A	
Nominal Voltage:	60V	48V	
Rated Voltage:	68V	54V	
Voltage Range:	52-74V	43-60V	
Maximum Current:	30A	30A	
Regulation:			
Line:	±0.1%		
Load:	±0.5% (no load to full load)		
Hold-up Time:	>15ms for 20% output voltage drop		
Start-up Time:	Start up delay 1 second. (varies with AC supply voltage)		
	Walk-in delay 6 seconds at full output. (varies with DC output voltage)		
Protection:			
Current Limit:	Adjustable to 50-100% of maximum rated current		
Over Temperature:	Automatic current turndown, backup shutdown protection		
Polarity Reversal:	Output fuse with crowbar diode		
Over voltage:	Adjustable limit		
Noise: (under nominal conditions)			
Ripple <100Hz:	<1mV rms unweighted		
Voice band 100Hz-5KHz:	<1mV rms psophometric		
Wide band 5kHz-1MHz:	<5mV rms unweighted		
Peak to Peak 0-20MHz:	<50mV peak to peak		
Isolation:			
Input to Output:	3000V AC		
Input to Chassis:	2500V AC (VDR to chassis removed)		
Output to Chassis:	1500V AC		
Environmental Requirements			
Ambient Temperature:			
Nominal:	25+/-5°C		
Range:	-10°C to +70°C (maximum output power is derated above +50°C)		
Storage Temperature:	-20°C to +70°C		
Humidity:	5-95% RH (non-condensing)		
Altitude:	<2500m, De-rate maximum ambient temperature by 4°C per 1000m above sea level		
Mechanical			
Dimensions, W, H, D:	111.5mm , 44mm (1U), 282mm overall (rack depth 260mm)		
Weight:	1.5kg		
Shipping Dimensions W, H, D:	170mm, 52mm, 325mm		
Shipping Weight:	2.0kg		
Cooling:	Forced cooled		
Compliances			
Safety:	EN60950		
Electrostatic Discharge:	CISPR24		
Radiated Radio Frequency:	CISPR22		
AC Harmonics:	EN61000-3-2		
AC Flicker and Fluctuation:	EN61000-3-3 CE compliant		
Additional RM Series Rectifier Accessories			
ARS-4:	1U rectifier shelf including backplane for mounting 4 x RM18xx/RM20xx series rectifiers.		
ARS-9:	5U rectifier shelf inc. backplane for 9 x RM30xx rectifiers.		
ARS-9-3U:	3U rectifier shelf inc. backplane for 9 x RM18xx rectifiers.		
ARS-2:	1U Rectifier Shelf inc backplane for mounting 2 x RM30xx series rectifiers.		
ASM-AC3P:	AC 3 phase mains monitor for interface to SM2x, No CTs included.		
ASM-ABM-24:	24 input battery condition monitor PCB, No shunts included.		
ASM-FM24:	24 way load MCB/fuse monitor PCB		
SM21-00:	Intelligent monitor for RM1848 & RM3048, base version No TCP/IP, 4 relay o/p		
SM21-01:	Intelligent monitor for RM1848 & RM3048, 10 relay outputs, 6 GP digital i/p		
SM21-61:	Intelligent monitor for RM1860 & RM3060, 10 relay outputs, 6 GP digital i/p		
SM22-01:	Intelligent monitor for RM1848 & RM3048, inc TCP/IP, 10 relay o/p 6 GP Dig i/p		
SM22-61:	Intelligent monitor for RM1868 & RM3068, inc TCP/IP, 10 relay o/p 6 GP Dig i/p		
ACA-TC2U:	2 meter temperature compensation cable, for use with SM21/22		
ACA-TC7U:	7 meter temperature compensation cable, for use with SM21/22		
ACS-LT150:	150amp shunt level trans		
ACS-LT250:	250amp shunt level trans		
ACS-S150:	150amp current shunt ass		
ACS-S250:	250amp current shunt ass		
ARBP-2:	Rectifier blanking panel for ARS-9		
ARBP-1:	Rectifier blanking panel for ARS-4/ACM-4		