

RM1848 1.8kW 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	
Output Ratings:	Constant power output from 54V to 58V
Nominal Voltage:	48V
Rated Voltage:	58V
Voltage Range:	43-60V
Maximum Current:	33.3A
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