

# RM Series Modular Rectifier

1-2K WATTS COMMUNICATIONS

## FEATURES

- Forced cooled
- Modular for hot swap system
- Thermally protected
- Power factor corrected
- Input /output voltage & current protected
- Serial alarm & control interface
- Microprocessor controlled



## SPECIFICATIONS

### AC INPUT

Nominal	230VAC
Voltage range	90-300V (reduced power below 175V)
Frequency range	45-65 Hz
Power factor	>0.99
Efficiency	>92% (>50% output power)
Total harmonic distortion (THD)	<5% (>30% output power)
Input fuses	HRC fuses in phase and neutral
Maximum input current	11 to 13A model dependant

### PROTECTION

Input voltage	Auto shutdown, auto restart when correct voltage restored
Input inrush	<2x maximum input current

### DC OUTPUT

Output ratings	48V constant power output from (48V to 58V) 24V current limited to 41.7A
Nominal voltage	See table
Rated voltage	24V (29V) & 48V (58V)
Voltage range	See table
Maximum current	See table

### 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 (under nominal conditions)

### NOISE

Ripple <100Hz	<1mV rms unweighted
Voice band 100Hz-5KHz	<1mV rms psophometric
Wide band 5kHz-1MHz	<5mV rms unweighted
Peak to peak 0-20MHz	<50 - 100mV peak to peak model dependant

### ISOLATION

Input to output	4000V DC
Input to chassis	3500V DC (VDR to chassis removed)
Output to chassis	2100V DC

### ENVIRONMENT

Ambient temperature Nominal	+25 +/- 5°C
Range	-10°C to +70°C (maximum output power derated above +50°C)
Storage temperature	-20 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 111.5mm x H 44mm x D 282mm
Weight	1.5kg
Cooling	Forced cooled

### COMPLIANCES

Safety	EN 60950-1:2006
RF emissions	CISPR 22 Class
RF immunity	CISPR 24: EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-11
AC harmonics	EN 61000-3-2
AC flicker and fluctuation	EN61000-3-3
Other	CE & RoHS compliant

## RM SERIES RECTIFIER MODULE

MODEL	VOLTAGE RANGE	MAXIMUM CURRENT	POWER
RM1860/48	48V (43-60V)	30A	1.8kW
RM2048XP	48V (43-60V)	41.7A	2kW
RM2048/24	24V (21-30V)	41.7A	1kW