

DESCRIPTION

Unipower Telecom's Sigma Series Wall-Mount rectifiers are designed as a quick and easy solution in providing DC power to a variety of Telecom equipment.

The 6 available models range in output power from 450W to 650W. Output voltages of 12V, 24V and 48V are available for applications without batteries. For battery supported applications output voltages are pre-set to 13.6V, 27.2V or 54.4V.

Green LEDs indicate AC and DC power good. The rectifiers also have control and monitoring features and a +5V standby output. Operating temperature range is -20°C to +70°C.

FEATURES

- 48, 24 and 12V Versions
- Low Fan Noise
- Class B Conducted EMI
- DC Good LED
- Universal 85 to 264VAC Input
- Active Power Factor Correction
- ORing Diode on Output *
- Active Current Sharing *
- Control & Monitoring Features

* Where higher power levels than can be obtained from a single unit are required it is possible to connect two units in parallel. Alternatively, two units connected in parallel where the total load is less than that available from a single unit will provide N+1 redundant operation.

TWO-YEAR WARRANTY

SAFETY STANDARDS

UL60950
CSA22.2, No. 60950
EN60950



1.6"H x 4.6"W x 14.0"L
(42 x 118 x 356 mm)

CE
LVD73/23/EEC

Patent Protected

STANDARD MODELS

MAX. POWER	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT VOLTAGE	MODEL NUMBER
650W	54.4VDC	11.9A	85-264VAC	RSJ48/12-WM
450W	13.6VDC	33.0A	85-264VAC	RSG12/33-WM
500W	27.2VDC	18.4A	85-264VAC	RSG24/18-WM
550W	54.4VDC	10.1A	85-264VAC	RSG48/10-WM
450W	12VDC	37.5A	85-264VAC	TSG3000-WM
500W	24VDC	20.8A	85-264VAC	TSG5000-WM
550W	48VDC	11.5A	85-264VAC	TSG7000-WM

NOTE: The table does not show the independent 5V, 100mA standby output which is standard on all models.

AC LINE CORDS

Part Number	Description
364-1412-0000	125VAC with NEMA 5-15 plug
364-1414-0000	205VAC with NEMA 6-15 plug
364-1421-0000	85-264VAC, Unterminated

Note:

All Line Cords are 6ft. (approx. 1.8m) long, terminated one end with an IEC60320 C-13 connector.

SPECIFICATIONS, WALL-MOUNT RECTIFIERS

Typical at Nominal 115/230VAC Line, Full Load and 25°C Unless Otherwise Noted.

OUTPUT SPECIFICATIONS

Total Output Power, Continuous, Max 450-650 Watts
 Voltage Adjustment Range, Min. ±5%
 Total Regulation¹, 2.0%
 Total Regulation, Standby Supply 5.0%
 Ripple & Noise, PK-PK² 1%
 Holdup Time 10mS
 Dynamic Response³ 300µS
 Temperature Coefficient ±0.02%/°C
 Minimum Load 0A
 Overload Protection Auto Recovery
 Overvoltage Protection Latched Shutdown
 Remote Sense Up to 0.25V Per Wire
 Current Share ±10% Full Load Rating
 Standby Output +5V, 100mA
 DC Power Good Signal Logic Low
 AC Power Fail Signal Logic High
 Inhibit Logic Low
 Overtemp. Warning Logic High

INPUT SPECIFICATIONS

Input Voltage Range 85-264VAC
 Power Factor 0.99
 Input Frequency 47-63Hz
 Inrush Current Limiting 30A Peak
 Harmonic Distortion EN61000-3-2
 Input Protection Internal Fuse, 10A

GENERAL SPECIFICATIONS

Efficiency⁴ 85-90% at Full Load
 Switching Frequency, PFC Converter 48-110kHz
 Output Converter 275kHz Nominal
 Conducted EMI EN55022 Curve B
 FCC20780 pt 15J Curve B
 Isolation, Class I, min.⁵
 Input-Output 3000VAC
 Input-Ground 1500VAC
 Output-Ground 50VDC
 Input Immunity, Conducted
 Fast Transients, Line-Line ±2kV (EN61000-4-4 Level 3)
 Surges, Line-Line ±2kV (EN61000-4-5 Level 3)
 Surges, Line-Ground ±4kV (EN61000-4-5 Level 4)
 MTBF (Bellcore) 200,000 Hours
 Safety Standards EN60950, UL60950, CSA22.2 No.60950

ENVIRONMENTAL SPECIFICATIONS

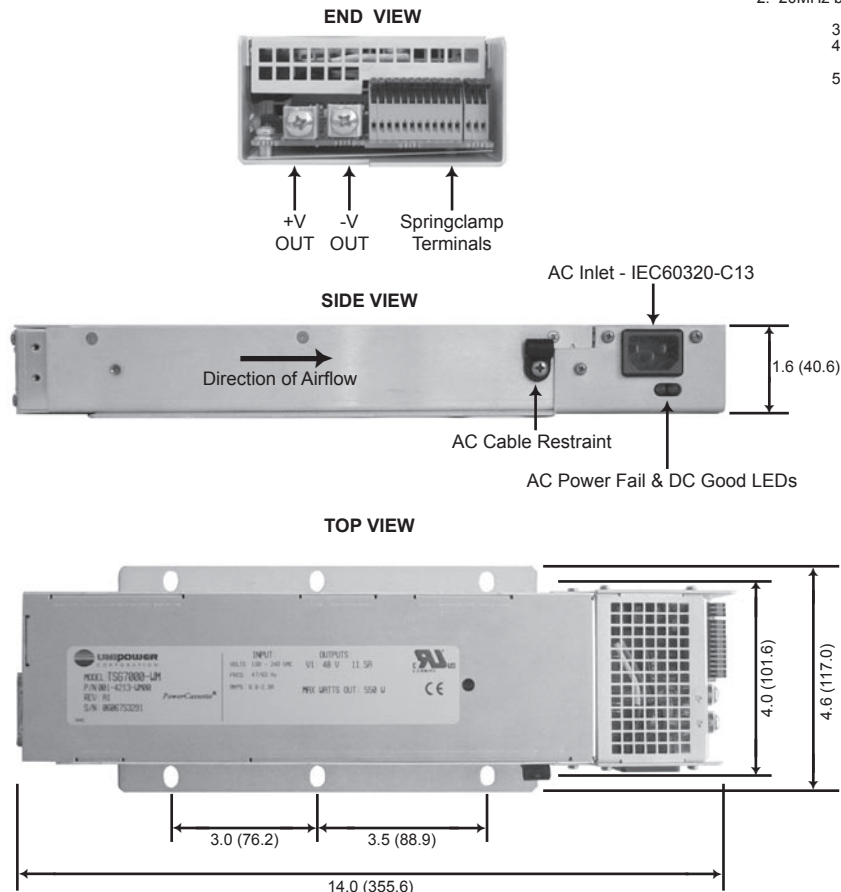
Operating Temperature -20°C to 70°C Ambient
 Derating 2.5% / °C, 50°C to 70°C
 Storage Temperature -40°C to +85°C
 Cooling Integral Ball Bearing Fan

PHYSICAL SPECIFICATIONS

Case Material Aluminum
 Dimensions, Inches(mm) 1.6 H x 4.6 W x 14.0 D
 (40.6 x 117.0 x 355.6)
 Weight 2.65 lbs. (1.2 kg.)

NOTES: 1. No load to full load, including line regulation and load regulation.

2. 20MHz bandwidth. Measure with 0.1µF ceramic and 10µF tantalum capacitors in parallel across the output.
3. <4% deviation recovering to within 1% for 25% load change.
4. Typical efficiency is at low end of range for 12V output and at high end of range for 48V output.
5. Input-output isolation figure is for isolation components only. 100% production Hipot tested.



SPRING TERMINAL CONNECTIONS	
IDENT	FUNCTION
+S	Remote Sense +ve
+Vo	Output +ve
-S	Remote Sense -ve
-Vo	Output -ve
INH	Inhibit
SDA	Not Used
SCL	Not Used
MP	Not Used
ACPF	AC Power Fail
DCG	DC Good
TRIM	Output Trim
OTW	Over Temperature Alarm
CS	Current Share
CM	Not Used
5VSB	+5V Standby

NOTES: When the remote sense facility is not required link wires must be inserted from +S to +Vo and from -S to -Vo. The +5V standby return is to -S. All signals are referenced to -S.

ALL DIMENSIONS IN INCHES (mm).
 All specifications subject to change without notice.

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