

Serenity 48V/2000W

High Efficiency Rectifier



Exicom's new telecom rectifier Serenity 48V/2000W combines advanced design for reliability and an industrial leading efficiency of 96.0%. The single phase, hot pluggable fan cooled rectifier provides outstanding power density while its intelligent & advanced protection features allow users to deploy it any kind of environment – urban / rural / poor grid etc. Its compact size gives customers flexibility to meet higher power demands in tight spaces as per telecom requirements

Key Features:

- High efficiency of 96.0% & high power density with 12KW in 1U shelf
- Wide operating input voltage and temperature range
- Small and Large: Can support installations from 2KW to 200KW
- Hot plugin and user friendly registration for easy maintenance
- Multi-application use
- TUV and CE Compliance

Applications:

- Telecom: Cellular base station sites, LTE/WiMax, and hub sites
- Smart Cities: Smart poles, surveillance etc.
- Power Utilities: Control & protection and communication equipment
- Railways: Signalling, communication equipment and control & protection

Serenity 48V/2000W - Technical Specifications



AC INPUT	
Voltage	85–300V ac
Frequency	45-66Hz
Maximum Current	12.0A
THD	<5%
Power Factor	Typical 0.99
Input Protection	Off < 90 – 320V ac < Off Self Protection upto 420V ac Line & Neutral input fuses
Galvanic Isolation	
Input to Output	3000 V ac
Input to Ground	1500 V ac
Output to Ground	500 V ac

OTHER SPECIFICATIONS	
Operating Temperature	-10°C to +75°C, Linear derating from 45°C onwards
Storage Temperature	-40°C to +85°C
Cooling	5% to 95% non-condensing
Humidity	Forced Air
Acoustic Noise	Less than 55dB(A)
MTBF	>300,000 hrs. (25°C ambient)
Communication Interface	CAN Bus
Control & Monitoring	M1000 controller
Dimensions	106 x 41.5 x 360 (mm)
Weight	2.2 kg
LED Indications	
Green	On: No Faults Flash - Rectifier comm. Ok Slow flash - Sleep mode
Yellow (Alarms)	On - Input low / high, Rectifier in power de-rate mode Current limit Flash - Rectifier Comm. fail
Red (Alarms)	On - Abnormal temp or input shutdown, Low O/p voltage alarm, Overvoltage shutdown on output Flash - Rectifier fan fail

DC OUTPUT	
Voltage	54.0V; Adj: 42.0 - 58.0V
Output Power	2,000W above 185V ac 900W at 90V ac
Maximum Current	37.5A
Current Sharing	+/-5% of max. current
Static Voltage regulation	+/-0.5% from 10% - 100% load
Dynamic Voltage Regulation	+/-5% for 10% - 90% load
Dynamic Voltage Regulation	+/-5% for 90% - 10% load
Hold up time, Max Op. Power	>10ms; output voltage > 42Vdc
Ripple Noise	<200 mV p-p 30MHz bandwidth
Output Protection	Over Voltage Shutdown Overload Foldback Short Circuit Proof Output Fuse Protection Over Temperature Shut-Off
Efficiency	Peak 96.0%

APPLICABLE STANDARDS	
Electrical Safety	EN 60950
EMC/EMI	EN 55022, Class B
Environmental	EN 300 019-2-1/-2/-3

PART NO.	DESCRIPTION
HE-513140	Serenity 48V/2000W

Specifications are subject to change without notice

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