

Quantum - 4 48 V / 4000W

High Efficiency Rectifier



Exicom's new rectifier Quantum-4 48V/4000W combines advanced design for reliability and an industrial leading efficiency of 96.5%. The single phase, hot pluggable fan cooled rectifier provides outstanding power density while its intelligent & advanced protection features allow user to deploy it in any kind of environment-urban / rural/poor grid etc. It also comes with optional integrated distribution cabinet giving customer flexibility to meet higher power demands in tight space as per telecom market requirements.

Key Features:



High efficiency of 95.0% & high power density with 16KW in 1U shelf.



Wide operating input voltage and temperature range



Silent operation and very low audible noise



Multi - application use



Global compliance



Hot plug for easy maintenance

Applications:

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

Quantum -4 48V/ 4000W

Technical Specifications

AC Input

Voltage	90 - 300 Vac
Frequency	44- 66 Hz
Maximum Current	25A
THD	<5% (50% to 100% Load)
Power Factor	Typical 0.99
Input Protection	Off < 90-300 Vac<off Line & Neutral input fuse MOV transient protection
Galvanic Isolation	
Input to Output	3000 Vac
Input to Ground	1500 Vac
Output to Ground	500 DC

DC Output

Voltage	54.0V; Adj 42 - 58V
Output Power	4000 W above 176 Vac 2050 W at 90 Vac
Maximum Current	83.3A @ 48Vdc
Current Sharing	± 5% of max. current
Static Voltage regulation	± 0.5% for 10% - 100% load
Dynamic Voltage Regulation	± 5% for 10% - 90% & 90% - 10% load change over, regulation time < 20 ms
Hold up time	>10 ms
Ripple Noise	< 200mVp-p 20 MHz Bandwidth Limit
Output Protection	Over voltage shutdown , Short circuit proof Hot - plugin inrush current limiting , Output fuse Over temperature shut - off
Efficiency	Peak 96.5%

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Technical Specifications

Other Specifications

MTBF	> 5 Lac Hrs (55°C)
Operating Temperature	- 40°C to + 75°C, linear derating from 50°C onwards
Storage Temperature	- 40°C to + 85°C
Cooling	5% to 95% non-condensing
Humidity	Forced Air
Acoustic Noise	Less than 55 dB (A)
Communication Interface	CAN bus
Control & Monitoring	M2000 controller
Dimensions (wxhxd)	269x40.8x105 mm
Weight	< 2 kg
LED Indications	
Green	On : No Faults,Flash - Rectifier comm. Ok Slow Flash - Sleep mode
Yellow (Warnings)	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 shutdown on output Flash - Rectifier fan fail

Applicable Standards

Electrical Safety	EN62368 / IEC62368, UL 62368, REACH
EMC / EMI	Conducted Emission CISPR 32 (Class B) EN
Environmental	300019 - 1-1/-2/-3, ROHS complied

Part No. Description

HE513370	SMR Quantum - 4 48V / 4000W
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