

Quantum-3 48V/3000W

High Efficiency Rectifier



Exicom's new rectifier Quantum-3 48V/3000W combines advanced design for reliability and an industrial leading efficiency of 96%. 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 spaces as per telecom market 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 3kW to 180kW
- Hot Plug and user friendly registration for easy maintenance
- Multi-application use
- Global Compliance

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-3 48V/3000W - Technical Specifications

AC INPUT

Voltage	90 - 300Vac
Frequency	44-66Hz
Maximum Current	19A
THD	<5% (50% to 100% Load)
Power Factor	Typical 0.99
Input Protection	Off < 90-300Vac < Off Line & Neutral input fuses MOV transient protection
Galvanic Isolation	
Input to Output	3000Vac
Input to Ground	1500Vac
Output to Ground	500V DC

DC OUTPUT

Voltage	54V ; Adj:42V – 58V
Output Power	3000W above 176Vac 1520W at 90Vac
Maximum Current	62.5A @ 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 < 20ms
Hold up time Ripple	>10ms
Noise	<300mV p-p 20MHz Bandwidth Limit
Output Protection	Over voltage shutdown Short circuit proof Hot-plugin inrush current limiting Output fuse Over temperature shut-off
Efficiency	Peak 96.0%

OTHER SPECIFICATIONS

MTBF	>5 Lac Hrs (at 55°C)
Operating Temperature	-40 to +75°C, linear derating from 50°C onwards
Storage Temperature	-40°C to +85°C
Cooling	Forced Air
Humidity	5% to 95% non-condensing
Acoustic Noise	Less than 55dB(A)
Communication Interface	CAN bus
Control & Monitoring	M2000 controller
Dimensions (wxhxd)	269x40.8x105 mm
Weight	<2KG
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 alarm, over-voltage shutdown on output Flash - Rectifier fan fail

APPLICABLE STANDARDS

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

PART NO. DESCRIPTION

HE513470	SMR Quantum-3 48V/3000W
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Specifications are subject to change without notice

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