

Quantum-2 48V / 1800W

High Efficiency Rectifier



Exicom's new rectifier Quantum-2 48V/1800W 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 users to deploy it in any kind of environment - urban/ rural/ poor grid etc. It also comes with an optional integrated distribution cabinet giving customers flexibility to meet higher power demands in tight spaces as per telecom market requirements.

Key Features:



High efficiency of 96% & high power density with 10.8 KW in 1U shelf



Wide operating input voltage and temperature range



Small and Large: Can support installations from 1kW to 180kW



Hot Plugin and user-friendly registration for easy maintenance



Multi-application use



Global compliance

Application

- 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: Signaling, communication equipment and control & protection

Quantum-2 48V/1800W

Technical Introduction

AC Input

Voltage	90 - 300Vac
Frequency	44- 66Hz
Maximum Current	11 A
THD	<5% (50% to 100% Load)
Power Factor	Typical 0.99
Input Protection	0 <99-300Vac < 0 Line & Neutral input fuses MOV transient protection
Galvanic Isolation	
Input to Output	3000Vac
Input to Ground	1500Vac
Output to Ground	650 DC

DC Input

Voltage	54V; Adj: 42V - 58V
Output Power	Output Power 1800W above 176Vac 1520W at 90Vac
Maximum Current	37.5A@48VDC
Current Sharing	± 5% of max. current
Static Voltage regulation	± 0.5% for 10%-100% load
Dynamic Voltage regulation	± 0.5% for 90% - 10% load 90% - 10 %, load change over Regulation time <20ms
Hold up time	>10ms
Ripple Noise	Ripple Noise <300 mV 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 %

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Technical Introduction

Other Specification

MTBF	>5 Lac Hrs. (55°C)
Operating Temperature	- 40°Cz to + 75°C, linear derating from 50°(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)	72x40.8x217 (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, Under / over Alarm Flash - Rectifier fan fail

Applicable Standards

Electrical Safety	62368 / IEC 62368, 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

HE513600	SMR Quantum-2 48V / 1800W
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