

Quantum 48V/3000W

High Efficiency Rectifier



Telecom operators and infrastructure companies look for reliable, high quality, high efficiency and cost effective power solutions. With over 125,000 modules in operation globally in some of the harshest environments; Quantum 48V/3000W is a perfect choice for achieving energy saving and reliability

Key Features:

- High efficiency of 95.5% & high power density with 12KW in ~1U shelf
- Wide operating input voltage and temperature range
- Small and Large: Can support installations from 3KW to 300KW
- Hot plugin and user friendly registration for easy maintenance
- Multi-application use
- TUV and CE Compliance

Applications:

- Telecom: 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 48V/3000W - Technical Specifications



AC INPUT	
Voltage	85–300V ac
Frequency	45-66Hz
Maximum Current	18.0A
THD	<5%
Power Factor	Typical 0.99
Input Protection	Off < 85 – 310V 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

DC OUTPUT	
Voltage	54.0V; Adj: 42.0 - 58.0V
Output Power	3,000W above 185V ac 1400W at 90V ac
Maximum Current	62.5A
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	<300 mV p-p 30MHz bandwidth
Output Protection	Over Voltage Shutdown Overload Foldback Short Circuit Proof Output Fuse Protection Over Temperature Shut-Off
Efficiency	Peak 95.5%

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 50 x 360 (mm)
Weight	2.9 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 limitFlash - Rectifier Comm. fail
Red (Alarms)	On - Abnormal temp or input shutdown, Low O/p voltage alarm, Overvoltage shutdown on output Flash - Rectifier fan fail

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

PART NO. DESCRIPTION	
HE-512862	Quantum 48V, 3kW SMR

Specifications are subject to change without notice

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