

Telecom operators and infrastructure companies look for reliable, high quality, high efficiency cost effective power solutions. Exicom is proud to introduce one of the first commercially available dynamic and digitally controlled ultra high efficiency rectifiers, the **QUANTUM 48V, 3000W module**.



FRONT VIEW



REAR VIEW



ISOMETRIC VIEW

This building block continues our proud tradition of technical excellence while strengthens our four founding values:

- Creating a great customer experience;
- Ethical pursuit of our long term strategies.
- Cradle to grave sustainable designs;
- Social responsibility to our employees, suppliers and shareholders;

FEATURES AND BENEFITS

High efficiency

Extensive use of DSP controls, managing a dynamically optimized topology that yields a flat efficiency curve between 30 to 90% load while minimizing component count.

Ultra-high power density

Reduced energy losses with an optimized topology enables a small footprint, creating both a lower capital investment and lower operating cost, compared to similar installations.

Energy conservation w. dynamic source and load predictive algorithm to increase EB supply

This optional feature enables live statistical analysis results to manage the performance of the output, maximizing energy draw from the AC source, while reducing the load profile during stressed conditions.

Novel LIFE-cycle charging regime to increase useful battery lifespan by 40%

Our multi-mode intelligent charging algorithm combines energy conservation, SOC, Temp. and cycle life information to create an optimum V-I envelope for both charge and discharge curves.

Wide input voltage range - Operational: 80V – 310V; self protection up to 418V; auto restart

Intermittent, HV grid conditions are a norm in developing nations and even in developed ones. Rugged, high reliability, robust protection is designed into all Quantum products, to combat these EB weaknesses.

Plug and Play compatibility with previous generations –

Flexibility and freedom at minimal cost.

QUANTUM DC power solution lowers the total cost of ownership for wireless, fibre and fixed line telecom networks (efficiency, power density and conservation). Furthermore, the increased network speeds for broadband and optical network access lend themselves to the plug and play flexibility and expandability. Beyond its Telecom prowess, the emerging DC system architectures of Data/IT centers – network routers, switches and storage systems – and micro-grids for C&I buildings are also key vertical markets for our latest building block and systems that are expandable to 160kW.

400AUC POWER PLANT



AC INPUT			
Voltage	85 - 300V AC		
Frequency	45Hz-66Hz		
Current	≤18A Maximum		
THD	≤10%		
Power Factor	0.99 Typical		
Protection	Internal fuse	MOV for transient	Galvanic Isolation
DC OUTPUT			
Voltage	42 - 58V DC		
Output Power	3000W		
Max. Current	62.5A for 48V DC		
Current Sharing	± 5% of max. current		
Static Voltage Regulation	0.5% for 10% - 100% load		
Ripple and Noise	<300mV peak to peak	30MHz bandwidth	<4mV rms Psophometric
Output Protection	Overvoltage shutdown	Output Fusing	Hot-plug Inrush Current limiting
	Overload fold back	Over temp. shut-off	Short Circuit
OTHER SPECIFICATIONS			
Operating Temp.	-25°C to +75°C linear de-rating from +45°C		
Storage Temp.	-40°C to +85°C		
Humidity	5% to 95% RH non-condensing		
Efficiency	95% Typical		
Acoustic Noise	<55dBA		
MTBF	> 300,000 hrs., Telcordia SR-332		
Alarms	AC input abnormal	AC over/under voltage	Rectifier OK/Fail
	Communication fail	Fan Fail Temp. Shut-off	Output over/under voltage
Cooling	Forced Cooling		
APPLICABLE STANDARDS			
Electrical Safety	EN 60950	UL 60950	
EMC	EN 61000 - 6-1/6-2/6-3/6-4	EN 61000 - 3 - 2	
Environment	RoHS Compliance	EN 300 019-2-1/2-2/2-3	

LED INDICATIONS



LED INDICATION	DESCRIPTION
Green	OFF - AC Fail
	ON - AC OK
	Flash - SMR Comm. OK, Sleep Mode (Slow Flash)
Yellow	OFF - Normal
	ON - AC Low/High Cut-Off, I/P AC Derating, Temp. Derating, O/P Derating
	Flash - SMR Comm. Fail
Red	OFF - Normal
	ON - High Temp. Shutdown, O/P Over /Under Volt, AC Low/High Cut-Off
	Flash - SMR Fan Fail

CONNECTOR DETAILS



ITEM NO.	PINS TYPE	PINS DESCRIPTION
1	AC Input Pins	Phase
2		Neutral
3		Earth
4	DC Output Pins	Positive
5		Negative
6		
7		
8	Communication Pins	Communication with MCM

Exicom Tele-Systems Limited
 Plot No. 77A, Sector – 18, IFFCO Road,
 Gurgaon, Haryana – 122015, India
 Tel: 0124 – 6615200
 Fax: 0124 – 6615205/288
 Email: contact@exicom.in