

QUANTUM 48V MODULE

3000W

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**.



REAR 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.



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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	0.5% for 10% - 100% load			
Regulation				
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			
Storage remp.	-40°C to +85°C			
Humidity	-40°C to +85°C 5% to 95% RH non-conde	ensing		
		ensing		
Humidity	5% to 95% RH non-conde	ensing		
Humidity Efficiency	5% to 95% RH non-conde 95% Typical			
Humidity Efficiency Acoustic Noise	5% to 95% RH non-conde 95% Typical <55dBA > 300,000 hrs., Telcordia AC input abnormal	SR-332 AC over/under voltage	Rectifier OK/Fail	
Humidity Efficiency Acoustic Noise MTBF	5% to 95% RH non-conde 95% Typical <55dBA > 300,000 hrs., Telcordia AC input abnormal Communication fail	SR-332	Rectifier OK/Fail Output over/under voltage	
Humidity Efficiency Acoustic Noise MTBF Alarms Cooling	5% to 95% RH non-conde 95% Typical <55dBA > 300,000 hrs., Telcordia AC input abnormal Communication fail Forced Cooling	SR-332 AC over/under voltage	· · · · · · · · · · · · · · · · · · ·	
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Humidity Efficiency Acoustic Noise MTBF Alarms Cooling APPLICABLE STAN	5% to 95% RH non-conde 95% Typical <55dBA > 300,000 hrs., Telcordia AC input abnormal Communication fail Forced Cooling DARDS	SR-332 AC over/under voltage Fan Fail Temp. Shut-off UL 60950	· · · · · · · · · · · · · · · · · · ·	

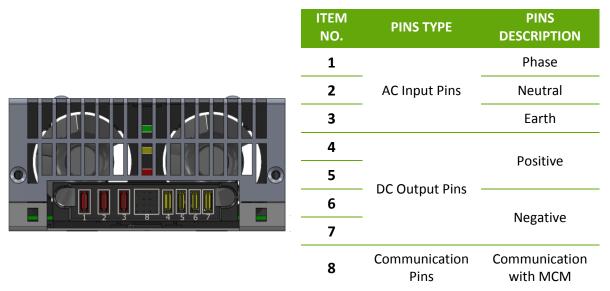


3000W

LED INDICATIONS

	LED INDICATION	DESCRIPTION
LED INDICATORS	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



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