

CENTRIX 48V MODULE

5600W/100A



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, 5.6KW module.

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

- Cradle to grave sustainable designs.
- Creating a great customer experience.
- Professional Responsibility towards our stakeholders.
- Ethical pursuit of our long term strategies.

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 : 320V – 480V; self-protection up to 550V; 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.



Hot Pluggable

CENTRIX 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.

AC Input

Voltage	320 - 480V AC		
Frequency	45Hz-66Hz		
Current	<12A		
THD	≤10%		
Power Factor	>0.98 Typical		
Protection	Internal fuse	MOV for transient	Galvanic Isolation

DC Output

Voltage	42 - 58V DC		
Output Power	5600W		
Max. Current	117A at 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

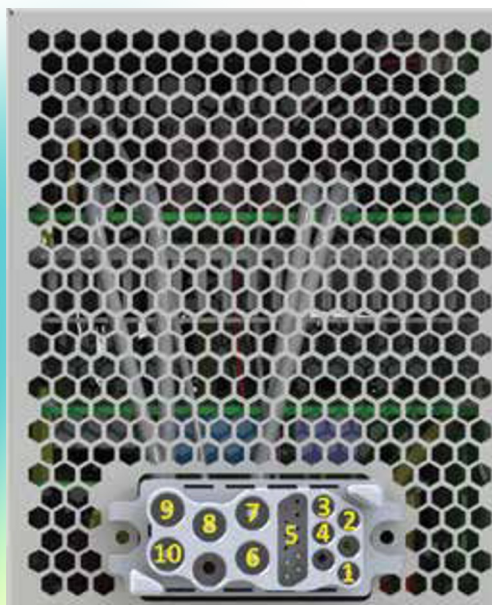
Other Specifications

Operating Temp.	-10°C to +75°C linear de-rating from +50°C		
Storage Temp.	-40°C to +85°C		
Humidity	5% to 95% RH non-condensing		
Efficiency	94% 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 FailTemp. 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	DESCRIPTIO
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



ITEM	PINS	DESCRIPTION
1	AC Input Pins	Earth
2		Yellow
3		Red
4		Blue
5	Communication Pins	Communication with MCM
6		Negative
7	DC Output Pins	
9		Positive
10		
8	Hot Swapping	

Mobility Solutions



DC Telecom Solutions



ESS Solutions



INDIA

Plot No 38, Institutional Area,
Sector 32, Gurugram, Haryana
122001, India
cpsales.india@exicom.in

AFRICA

Business Center 1, M Floor, The
Meydan Hotel, Nad Al Sheba,
Dubai, U.A.E.
cpsales.africa@exicom.in

MIDDLE EAST

Business Center 1, M Floor, The
Meydan Hotel, Nad Al Sheba,
Dubai, U.A.E.
cpsales.mea@exicom.in

SOUTH EAST ASIA COUNTRY

No 23, Jalan Linggis 15/24, Taman
Perindustrian Linggis, Seksyen 15,
40200 Shah Alam Selangor, Malaysia
cpsales.sea@exicom.in

SAUDI ARABIA

14181, 8667 King Fahad Road
Olaya, Riyadh 12611 , Saudi
Arabia cpsales.sa@exicom.in

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