

# Technical Specifications (Quantum 48V, 3000W)

AC Input	
Voltage	90 – 300V ac
Frequency	45-66Hz
Maximum Current	18.0A
THDI	< 5%
Power Factor	Typical 0.99
Quiescent Power	< 15W typical
Input Protection	Off < 85 – 310V ac < Off Self Protection upto 420V ac Auto Shut-off, Auto-restart Line & Neutral input fuses MOV transient protection
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 185 Vac
Maximum Current	62.5A at 48V
Current Sharing	+/-5% of max. current above 10% Load
Static Voltage regulation	+/-0.5% from 10% - 100% load
Dynamic Voltage Regulation	+/-5% for 10% - 90% load
Ripple Noise	<300 mV p-p 30MHz bandwidth <2mVrms psophometric
Output Protection	Over Voltage Shutdown Overload Foldback Short Circuit Proof Output Fuse Protection Over Temperature Shut-Off Hot-plug Inrush Current Limiting
Efficiency	Peak 96.0% (see graph)

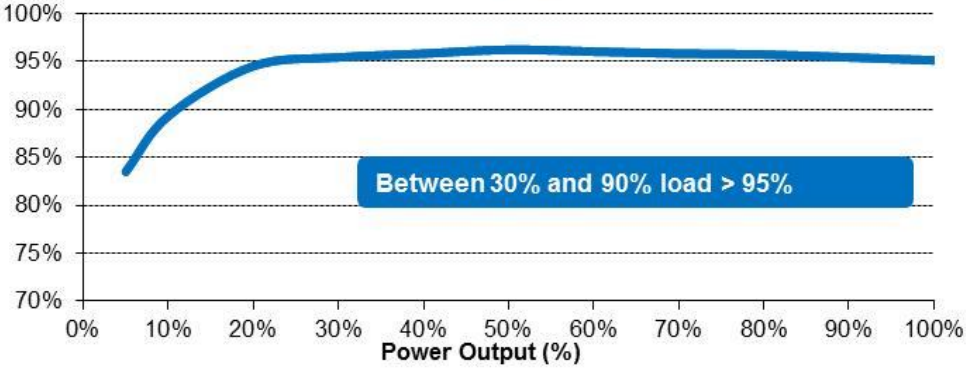
Other Specifications	
Operating Temperature	-40°C to +75°C, Linear derating from 40°C onwards
Storage Temperature	-40°C to +85°C
Cooling	Forced Air
Humidity: Operating Storage	5% to 95% non-condensing Upto 99% non-condensing
Acoustic Noise	Less than 55dB(A)
M TBF	>300.000 hrs. Telcordia SR-332
Dimensions	106 x 50 x 360 (mm) 4.1" x 1.9" x 14.2"
IP rating	IP20
Weight	2.2kg (4.8 lbs)
Alarms	AC Input Abnormal AC over / Under Voltage Rectifier OK /Fail Communication Failure Fan Fail Output OVP Output Low Voltage 2 Phase Operation Temperature Shut Down
Visual Indicator	Rectifier OK / Fail AC Over / Under Voltage Output Over/Under Voltage Communication Fail Fan Fail / Temp. Shut Down

Applicable Standards	
Electrical Safety	EN 60950
EMC	EN 61000-6-1
	EN 61000-6-2
	EN 61000-6-4
Harmonics	EN 61000-3-2
Environmental	EN 300 019-2-1
	EN 300 019-2-2
	EN 300 019-2-3

Part No. Description	
HE512862	Quantum 48V, 3kW SMR

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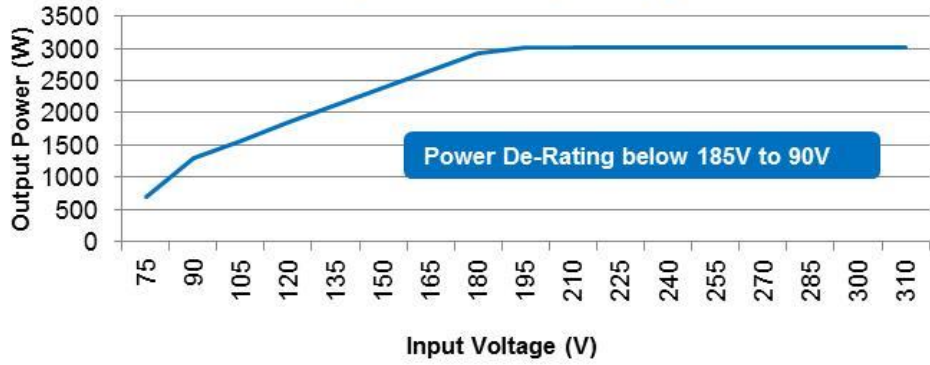
Efficiency Graph



Almost flat efficiency curve between 30% and 90% load

Peak Efficiency of >95.5%

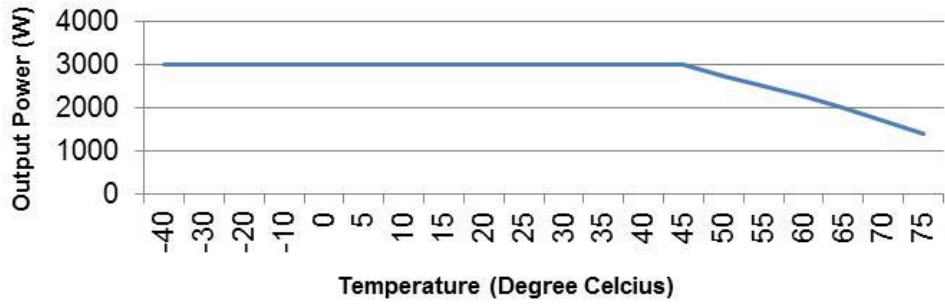
Output Power Vs. Input Voltage



Wide operating voltage of 90V-300V

Power de-rating beyond 185V up to 90V. Power output at 90V is 1305W

Output Power Vs. Temperature



Wide temperature operating range from -40 to +75 degree Celcius

Power de-rating beyond +45 degrees till 75 degrees (1395W)



Our vision is to enable CO2 neutral energy solutions for our customers with an attractive Opex and CapEx solution

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## LED Indications and Connector Details

Green	Yellow	Red
ON - AC OK OFF - AC Fail Flash - SMR Comm OK Slow Flash - Sleep Mode	OFF - Normal Flash - SMR Comm Fail ON - AC Low / High Cutoff I/P Voltage Temperature De-Rating Output De-rating	OFF - Normal Flash - SMR Fan Fail ON - High Temp Shutdown Output Overvoltage Output Under voltage Output Overvoltage AC Low / High Cutoff



## Connector Details

1	2	3	4	5	6	7	8
AC Input Pins			DC Output Pins				Comm Pins
Phase	Neutral	Earth	Positive		Negative		Comm Pins