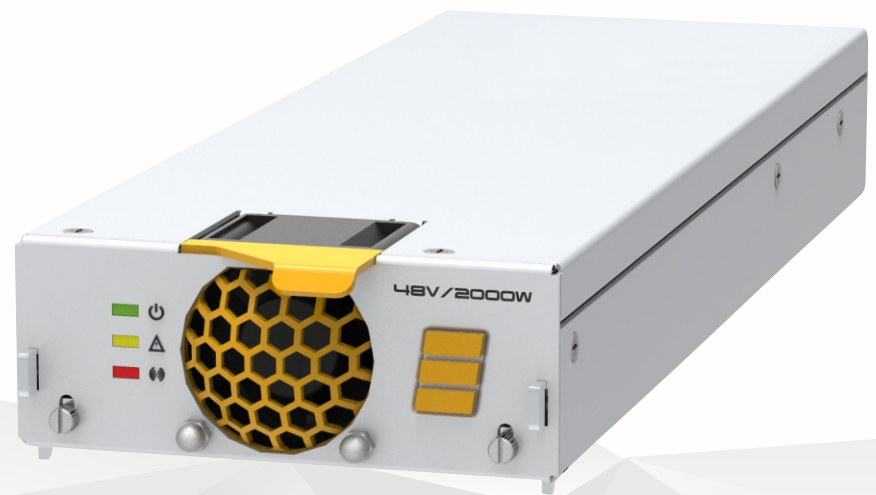


# Photon 48V/2000W Solar Charger



To support renewable installations in telecom networks in areas of poor grid or no grid, Exicom has introduced Photon 48V/2000W Solar Charger. With the MPPT algorithm ensuring close to 100% panel utilization and converter efficiency up to 95.0%, the galvanic isolated solar charger sets new standards for renewable power in telecom

## Key Features:

- High efficiency of 95.0% of solar charger and MPPT efficiency of >99%
- Galvanic isolation as required per telecom standards
- Inbuilt firmware for daily energy calculation of solar kWh
- Wide input voltage range of 120 - 400Vdc ensures max utilization of daylight and supports optimization of I&C costs
- Works with M1000/M2000 controller platform with minor configuration change making future expansion flexible
- Global compliance

## Applications:

- Telecom: Renewable or hybrid base station sites, LTE/WiMax, hub sites
- Smart Cities: Solar powered smart poles, surveillance etc.
- Commercial & Industrial solar installations, DC homes

# Photon 48V/2000W - Technical Specifications



DC INPUT	
Voltage (Nominal)	185 - 350Vdc
Voltage (Operating)	120 - 400Vdc
Input Protection	Off <120-400Vdc < Off Fuses on both lines (+ & -) Reverse polarity protection MOV transient protection
Galvanic Isolation	
Input to Output	3000Vac
Input to Ground	1500Vac
Output to Ground	650Vdc

DC OUTPUT	
Voltage	54.0V; Adj: 42.0 - 58.0V
Output Power	2000W above 185Vdc 1200W at 120Vdc
Maximum Current	42A @ 48V
Current Sharing	+/-5% of max. current
Static Voltage regulation	+/-0.5% for 10%-100% load
Dynamic Voltage Regulation	+/-5% for 90% - 10% load
Hold up time	>10ms
Ripple Noise	<200 mV p-p 30MHz bandwidth
Output Protection	Over voltage shutdown Short circuit proof Hot-plug inrush current limiting Output fuse Over temperature shut-off
Efficiency	Peak 95.0%

OTHER SPECIFICATIONS	
Operating Temperature	-40 to +75°C, linear derating from 50°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 (wxhxd)	106 x 41.5 x 360 (mm)
Weight	2.2 kg
LED Indications	
Green	On: No faults Flash - Charger comm. ok Slow flash - Sleep mode
Yellow (Alarms)	On - Input low / high, rectifier in power de-rate mode, current limit Flash - Charger comm. fail
Red (Alarms)	On - Abnormal temp or input shutdown, low O/p voltage alarm, over-voltage shutdown on output Flash - Charger fan fail

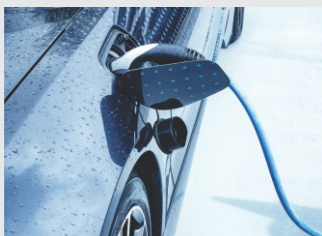
APPLICABLE STANDARDS	
Electrical Safety	EN 60950-1
EMC/EMI	EN 55022 (Class B), EN 55024
Environmental	EN 300019-1-1/-2/-3, ROHS complied

PART NO. DESCRIPTION	
HE-513180	Photon 48V/2000W Charger

Specifications are subject to change without notice

Web: [www.exicom-ps.com](http://www.exicom-ps.com)

## Mobility Solutions



## DC Telecom Solutions



## ESS Solutions



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