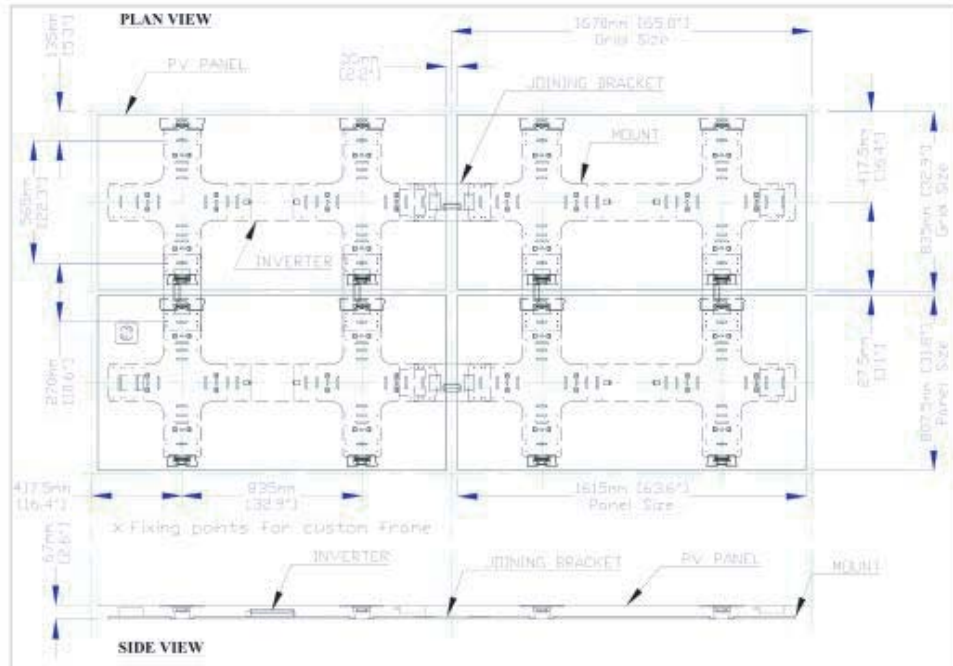


/Plug & Power/™ Technical Specification



System

Plug&Power™ is a grid-tied appliance that converts sunlight directly into grid-compatible electricity. It is completely modular. Each module consists of a solar panel and rooftop mount while every second module has its own inverter. This offers improved efficiency and a simple design and installation.

Certification UL

Features

- Completely modular in units of 150 W_{ac}
- Integrated and factory-assembled units consisting of rooftop mount, solar panel, inverter and cabling
- Performance tested up to 20 years
- Easily installed
- Plug&Power™ system monitor
- Sundown data logging computer software

Rooftop mount

General

grid size 1670 × 835 mm [65.8 × 32.9 in]
 grid area 1.39 m² [15.0 ft²]
 dead weight 18 kg/m² [3.48 lb/ft²]
 (incl. panel & inverter)
 material mild steel (galvanized & painted)
 wind load standards ASCE 7-98 100mph contour
 IEC 61215, AS1170.2 Region A and B

Features

- Galvanized steel construction for long life
- Removes requirement for system mount
- Easily installed



Solar panel

Electrical (at 1000 W/m², 25°C, AM1.5G)

maximum power rating	150 W
open circuit voltage	43.4 V _{oc}
maximum power voltage	34.0 V _{mp}
short circuit current	4.8 A _{sc}
maximum power current	4.4 A _{mp}

Certifications / standards

performance & reliability IEC 61215 / UL

Features

- Converts sunlight directly into electricity
- No moving parts
- 25 year warranty

Inverter IPC-2

Mechanical dimensions

187 × 122 × 48 mm
 [7 3/8 × 4 13/16 × 1 7/8 in]

mass 2.2 kg [4 lbs 13ozs]
 operating temperature -20 to +50°C [-4 to +122°F]

Electrical

input voltage range	24–50 V _{ac}
input current range	0.0–8.5 A _{ac}
nominal output voltage	240 V _{ac}
output current range	0.0–1.0 A _{ac}
frequency	50/60 Hz
peak efficiency	92.7%
efficiency at 75% of rated power	92.2%
MPPT efficiency	99.9%

Reliability

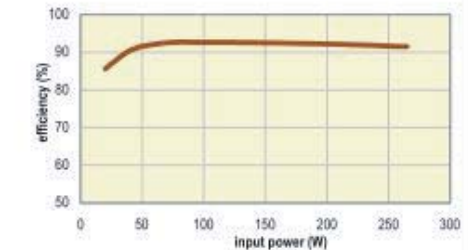
design MTTF 10⁶ hours

Certifications / standards

safety IEC 60950, UL 1741, AS 3260
 EMC EN55022 Class B, FCC Part 15 Class B
 grid connection UL 1741, AS 4777

Features

- Fully integrated with rooftop mounts
- High-performance maximum power point tracking (MPPT)
- Easy connection using proprietary plug and socket
- Internal kilowatt-hour metering
- Five-year warranty
- High efficiency at all power levels and temperatures



Sunlogger™

Electrical

nominal supply voltage	240 V _{ac}
current rating	10 A _{ac}
PV inverter capacity	10
user input	four-button keypad
display	128 × 64 backlit LCD
serial port	RS-232 (PC), V.28 Hayes (modem)

Parameter

	resolution	accuracy
system current	1 mA	± 100 mA
system power	0.1 W	± 1 W / ± 1%
system energy	0.1 Wh	± 1%
inverter power	1 W	± 2 W

Certifications / standards

Safety AS 3260, IEC 60950, UL 1741
 EMC EN55022 Class B, FCC Part 15 Class B

Features

- Monitoring of Plug&Power™ system performance
- Graphical display of current and long-term historical output
- Display of saved CO₂ emissions
- Simple four-key operation
- Automatic fault detection
- Serial communication ports for PC connection
- Five-year warranty