

LC80-12M

High-efficiency PV Module

Features

- high energy yields ensured by high conversion efficiency
- sturdy, clear-anodized aluminum frame with pre-drilled holes for quick installation
- advanced EVA encapsulation with triple-layer backsheet, meets the most stringent safety requirements for high-voltage operation
- pre-wired junction box equipped with connectors "plug'n'play"
- reliable bypass diodes to prevent overheating (hot spot effect) and to minimise power loss by shading
- manufactured in ISO 9001:2000-certified factory

Applications

- water pumping
- water purification systems
- remote village lighting
- solar home systems
- street and camp lights
- traffic signals
- medical facilities in remote areas
- microwave/radio repeater stations
- battery charging
- etc.



photo may differ from actual product

Warranty

- Warranty: 2 years
- Performance guarantee:
up to 10 years (90% power output)
up to 20 years (80% power output)

Details according to warranty issued by LORENTZ

Standards

LC80-12M is certified according to IEC 61215 and 61730 by TÜV Rheinland and meets the requirements for CE.



- Qualified, IEC 61215
- Safety tested, IEC 61730
- Periodic Inspection



Specifications

Electrical Data

| | | | |
|---|------------------|--------|----------|
| Peak power | P _{max} | [Wp] | 80 |
| Tolerance | | [%] | + 15/- 5 |
| Max. power current | I _{mp} | [A] | 4.6 |
| Max. power voltage | V _{mp} | [V] | 17.2 |
| Short circuit current | I _{sc} | [A] | 5.0 |
| Open circuit voltage | V _{oc} | [V] | 22.4 |
| Temperature co-efficient for P _{max} | | [%/°C] | -0.50 |
| Temperature co-efficient for V _{oc} | | [%/°C] | -0.35 |
| Temperature co-efficient for I _{sc} | | [%/°C] | 0.09 |
| Max. system voltage | | [V] | 600 |

All technical data at standard test condition:
AM = 1.5, E = 1,000W/m², cell temperature: 25 °C

Cells

| | |
|-----------------------------|-----------------|
| Number of cells in series | 36 |
| Number of cells in parallel | 1 |
| Cell technology | monocrystalline |
| Cell shape | rectangular |

To find out more visit www.lorentz.de

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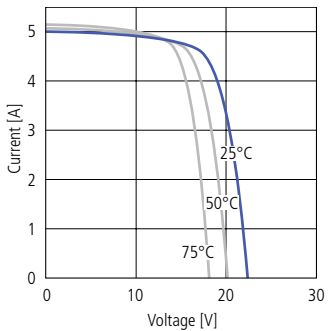
Errors excepted and possible alterations without prior notice.

Sun. Water. Life.

Electrical Performance

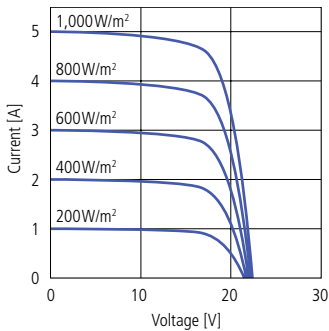
Electrical Performance

for different temperatures, at AM=1.5, E=1,000W/m²



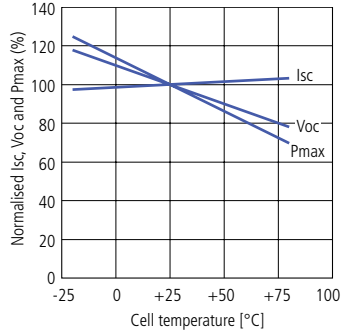
Electrical Performance

for different irradiation, at 25 °C



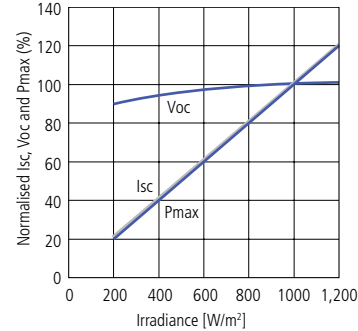
Temperature Dependence

of I_{sc}, V_{oc} and P_{max}

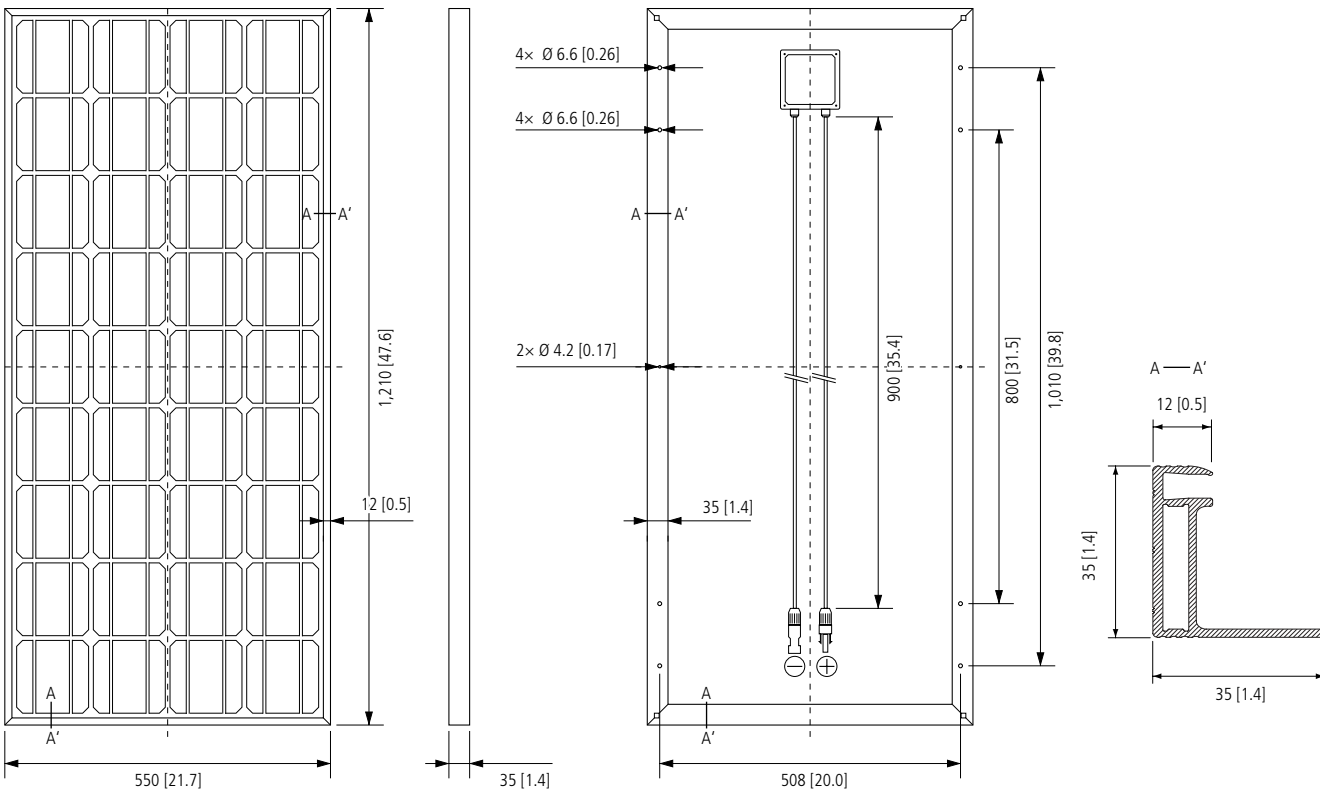


Irradiation Dependence

of I_{sc}, V_{oc} and P_{max} at 25 °C



Physical Specifications mm [in]



| | | |
|------------|---------------------|--|
| Weight | [kg] | 9.6 |
| Dimension | [mm] | 550 × 1,210 × 35 |
| Strength | [N/m ²] | 2,400 |
| Cable | | approx. 900 mm / 35 in, 4 mm ² / AWG 12 |
| Connectors | | NBZH PV-ZH202 |

To find out more visit www.lorentz.de