

LS PREMIUM 60P

HIGH PERFORMANCE AND RELIABILITY

225 Wp

230 Wp

235 Wp

240 Wp

245 Wp

250 Wp

The performance of photovoltaic power plants at the beginning and throughout their lifetime is mainly affected by the performance and reliability of photovoltaic panels.

Thanks to their thoughtful design, quality materials and quality control, the LS PREMIUM panels guarantee not only high performance but also excellent energy yields. The range of guarantees and long-term reliability are the basis for safe investment for all solar power plant owners.

Advantages of PREMIUM modules:

Guaranteed power

High efficiency cells 156 x 156 mm, with 3-BUS technology and a plus classification (0.0W / +4,9W) ensure high performance of PREMIUM panels.

High standard yields

Sophisticated construction of PREMIUM panels and the method of the circuitry of the cells reduce energy losses significantly. The ingenious solution, high efficient cells and high-tech materials are the basis for high standard energy yield.

Quality materials and excellent processing

Only high quality and certified materials from reputable suppliers are used for the production of PREMIUM panels. Our stable level of technological processes, skilled staff and permanent control in all stages of production are a guarantee of long-term reliability.

Extensive warranties

For PREMIUM panels, LINTECH-SOLAR provides a 12 year workmanship warranty*,
12 year power warranty at 92% nominal power*,
30 year warranty at 80% nominal power*.

* According to current guaranty conditions of LINTECH-SOLAR



Performance under standard test conditions (STC)

STC: 1000 W/m², 25°C, AM 1,5

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|-----------------------|------------------|---------|---------|---------|---------|---------|---------|
| Maximum power | P _{max} | 225 Wp | 230 Wp | 235 Wp | 240 Wp | 245 Wp | 250 Wp |
| Maximum power voltage | U _{mpp} | 29,60 V | 29,70 V | 29,80 V | 30,71 V | 30,90 V | 31,17 V |
| Maximum power current | I _{mpp} | 7,61 A | 7,80 A | 7,88 A | 7,91 A | 8,03 A | 8,12 A |
| Open circuit voltage | U _{oc} | 36,80 V | 36,85 V | 36,90 V | 37,41 V | 37,61 V | 37,80 V |
| Short circuit current | I _{sc} | 8,10 A | 8,35 A | 8,40 A | 8,39 A | 8,50 A | 8,60 A |
| Efficiency | | 13,5 % | 13,8 % | 14,1 % | 14,4 % | 14,7 % | 15,0 % |

Minor reduction in efficiency under partial load conditions at 25°C: at 200 W/m², 95% (+/-103%) of the STC efficiency (1000 W/m²) is achieved.

Performance under normal operating cell temperature NOCT

NOCT: 800 W/m², 47°C, AM 1,5

| | | | | | | | |
|-----------------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Maximum power | P _{max} | 165,40 Wp | 169,10 Wp | 171,64 Wp | 177,55 Wp | 181,25 Wp | 184,89 Wp |
| Maximum power voltage | U _{mpp} | 27,00 V | 27,25 V | 27,50 V | 28,07 V | 28,32 V | 28,54 V |
| Maximum power current | I _{mpp} | 6,12 A | 6,20 A | 6,24 A | 6,34 A | 6,42 A | 6,48 A |
| Open circuit voltage | U _{oc} | 33,80 V | 34,10 V | 34,40 V | 34,96 V | 35,15 V | 35,32 V |
| Short circuit current | I _{sc} | 6,57 A | 6,65 A | 6,73 A | 6,76 A | 6,85 A | 6,91 A |

Used material

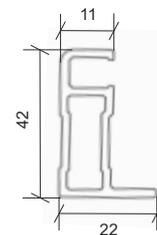
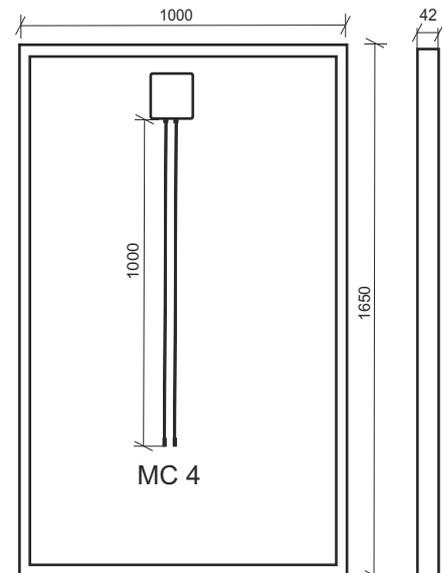
| | |
|---------------------|--|
| Panel | Glass sheets Laminate |
| Glass | tempered solar glass 3,2 mm |
| Encapsulation | EVA |
| Back sheet material | PET – Polyester sheet multiply |
| Solar cells | 60 cells 156x156, polycrystalline, Connection lengthwise 6 x 10 cells |
| Junction box | IP 65, 3 Bypass diodes |
| Junction cable | 2x 1,00 m, 4 mm ² , MC 4 connector |
| Frame | Aluminous box profile, anodised |
| Connection material | Silicone |
| Dimensions | 1650 x 1000 x 42 mm (H x B x T) |
| Weight | 19 kg |
| Mechanical loading | Loading pressure tested up to 5,4 kN/m ² |

Thermal characteristics

| | |
|----------------------------|------------------|
| Outdoor temperature | - 45°C až + 45°C |
| Operating temperature | - 45°C až + 80°C |
| Temperature coefficient PN | - 0,43 % / K |
| TK V _{oc} | - 0,35 % / K |
| TK I _{sc} | 0,05 % / K |
| NOCT | 47°C |

System integration parameters

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|----------------------------|--|
| System integration | Max. system voltage 1000 V |
| Reverse current | max. External power < U _{oc} |
| Reverse current protection | string protection max. I < 16 A |
| Output tolerance | measurement tolerance - simulation test +/- 3% |
| Panel protection | IP 65 |
| Application classification | IEC 61215 2nd ED, IEC 61730 |



dealers