# **Crystalline Solar Modules by Bosch.**

Complete satisfaction for the long term.







# The product family

Bosch Solar Energy offers photovoltaic modules consisting of highly efficient monocrystalline and polycrystalline silicon solar cells in 156 x 156 mm format. The product family is divided into two product series according to the number of cells. These two product series impress thanks to their optimum price-performance ratio and efficiency.



Bosch Solar Module	c-Si M 48 EU	c-Si M 48 S EU	c-Si M 60 EU	c-Si M 60 S EU	c-Si P 60 EU
Power classes	185-200 Wp	180-195 Wp	240-260 Wp	230-245 Wp	230-240 Wp
max. Efficiency	15,1%	14,7%	15,5%	14,9%	14,6%
Ammonia resistance	✓		✓		$\checkmark$
Salt spray resistance	✓	✓	✓	✓	$\checkmark$
Mechanical and wind suction load test	5400 Pa / 2400 Pa	5400 Pa / 2400 Pa	5400 Pa / 2400 Pa	5400 Pa / 2400 Pa	5400 Pa / 2400 Pa
Suitable for	<ul> <li>Optimal use of small surfaces</li> <li>Private and commercial on-roof systems</li> </ul>	<ul> <li>Aesthetically pleasing surfaces</li> <li>Private and commercial on-roof systems</li> </ul>	<ul> <li>High-capacity use of surfaces, all sizes</li> <li>Private and commercial on-roof and ground- mounted systems</li> </ul>	<ul> <li>Aesthetically pleasing surfaces</li> <li>Private and commercial on-roof systems</li> </ul>	<ul> <li>Large and small surfaces</li> <li>Commercial on-roof systems</li> </ul>

# **Ready to face any challenge**

Certified module quality

### Salt spray resistance (IEC 61701)

The test verifies that our solar modules provide resistance to corrosion caused by salt spray, a problem which may arise in coastal areas.



#### Mechanical load of 5400 Pa (IEC 61215 Edition 2)

TÜV Rheinland verifies the mechanical load of over 5400 Pa in tests. This means that Bosch Solar Modules are able to withstand most conditions, come rain, wind, hail or snow.

#### Ammonia resistance (IEC 62716)

Our solar modules offer certified resistance to high exposure to ammonia, a problem which may arise in systems installed in locations such as agricultural buildings.

# **High-performance on every level**

Bosch solar modules are expertly crafted using the best components in compliance with European standards, thus ensuring maximum capacity and long-term stability.

#### Glass

The structured, hardened safety glass impresses thanks to its high bearing loads. Effective light transmission ensures that the cell layer is used to optimum advantage, thus increasing the power output.

#### **EVA encapsulant**

The EVA encapsulant securely bonds the different module layers permanently, preventing harmful substances from getting inside. Thanks to the same refractive index for the encapsulant as for the glass on top, there is virtually no waste coverage and light falls directly onto the cell layer.

#### **Current collectors**

The wide design with current collectors arranged in a straight line ensures that solar electricity is supplied directly to the junction box as quickly as possible. This reduces any energy losses to a minimum during transmission.

#### **Junction box**

Complies with Protection Rating IP65 – Protected against contact and ingress of water and dust. As the connection between junction box and the current collectors is short, there is less load in the cell layer.

#### MC4 Coupler and Bushing

Thanks to the asymmetric cable lengths (+/-), the coupler connection is not fitted at the lowest point in the system and any water draining off is able to flow past the coupler. The snap-in MC4 Coupler complies with IP65 requirements when plugged in and is thus protected from damp or dirt.



Cell layer Available with: Monocrystalline cells Polycrystalline cells



#### Supporting film

Offers mechanical stability. Bright white, it is visible between cells and offers an additional reflective surface for incident light, thus ensuring more energy is generated. Resistant to UV light and weatherproof, it offers a safe insulation layer to the outside.



## Frame

- Available with:
- ► Silver, anodized aluminum frame
- ▶ Black, anodized aluminum frame

Two important requirements are fulfilled thanks to the interlocking connection assembly of frame components:



Corrosion-free components.
 Grounding of assembled frame.

The connection assembly interlocked under high pressure ensures that the anodized aluminum layer is interrupted at the connection point and is therefore conductive. The frame also contains ready-made holes for grounding and fastening, which will save you time when installing modules.

### Bosch Solar Energy AG

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