

Performance • Reliability
195 W/48 - 156 m/2

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Cost Effective: Optimum Price-Performance Balance

Made in Germany

Built to German automotive industry's highest quality standards

Guaranteed high energy yields – high efficiency cells, max power tolerance of 2,5% and optimum edge distances

Durable and reliable – 25-years performance warranty*

* under special conditions of asola GmbH

Reliable Construction:

State of the art, crystalline high efficiency cells 156 mm

Encapsulation materials – made by world wide market leader

Metallic junction boxes for highest security and excellent cooling of by-pass diodes

Best of class cables and plug system

50 mm aluminum frame for mechanical load of 5.400 Pa
acc. IEC 61215 / UL 1703

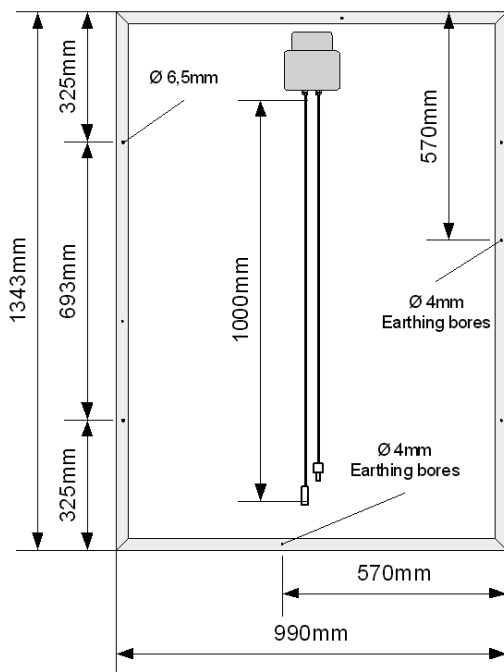
Quality Beyond Industry Standards

We exceed industry test standards by a factor of 2 to 3.

Available from your specialist dealer:

Technical data*

195 W/48 - 156 m/2



Module technology

Glass foil laminate with 48 single crystalline high efficiency solar cells "6"+
weight 21,4 kg
Low iron, tempered, safety solar glass
Encapsulation with UV stable, super transparent ethylene vinyl acetate
Certified Junction box: asola AL
Cable/ plug: MC4 4 mm² , alternative offers on request
Special anodized aluminum frame, 50 mm screwed for max. Mechanical load 5400 Pascal
Certified according to DIN IEC 61215 and IEC 61730

Output class ** (W)	190	195	200
Open-circuit voltage U_{OC} (V)	29,63	29,95	30,24
Rated voltage U_{MPP} (V)	24,94	24,96	24,96
Short-circuit current I_{SC} (A)	8,28	8,45	8,55
Rated current I_{MPP} (A)	7,75	7,90	8,10
tolerances	+ 5 W + 2,6 %	+ 5 W + 2,6 %	+ 5 W + 2,5 %

Partial load at 300w/m²

Open-circuit voltage U_{OC} (V)	27,98	28,28	28,55
Rated voltage U_{MPP} (V)	24,51	24,66	24,66
Short-circuit current I_{SC} (A)	2,48	2,54	2,56
Rated current I_{MPP} (A)	2,31	2,37	2,43

Temperature coefficients

$P_M = -0,48 \text{ %/K}$	$V_{OC} = -0,36 \text{ %/K}$	$I_{SC} = +0,034 \text{ %/K}$
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* Typical data

**The calibration laboratories are securing an absolute accuracy of $\pm 2 \text{ %}$ for asola's calibration modules