

Easy-In System



SOLARWATT ORANGE 60M Easy-In style

- Module dimensions: 1.764 x 1.035 x 47 mm
- Cover dimensions: 1.715 x 1.016 x 47 mm
- Black anodized aluminium frame

- Monocrystalline solar cells
- 250 Wp – 260 Wp (100% plus sorting)



*Test requirements: see rear of data sheet



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Certified acc. to DIN EN ISO 9001 und 14001 | BS OHSAS 18001:2007

SOLARWATT Service



SOLARWATT Total Protection
included (up to 1.000 kWp)



Take-back service
as per Delivery Terms for SOLARWATT Solar Modules



Country of origin
Quality made in Germany

12
years

Product-warranty
as per Special Warranty Conditions for SOLARWATT Solar Modules

25
years

Performance-warranty
as per Special Warranty Conditions for SOLARWATT Solar Modules

Product Quality



long-lasting



innovative



resistant against ammonia



resilient



low-glare



resistant against hail



high-yield



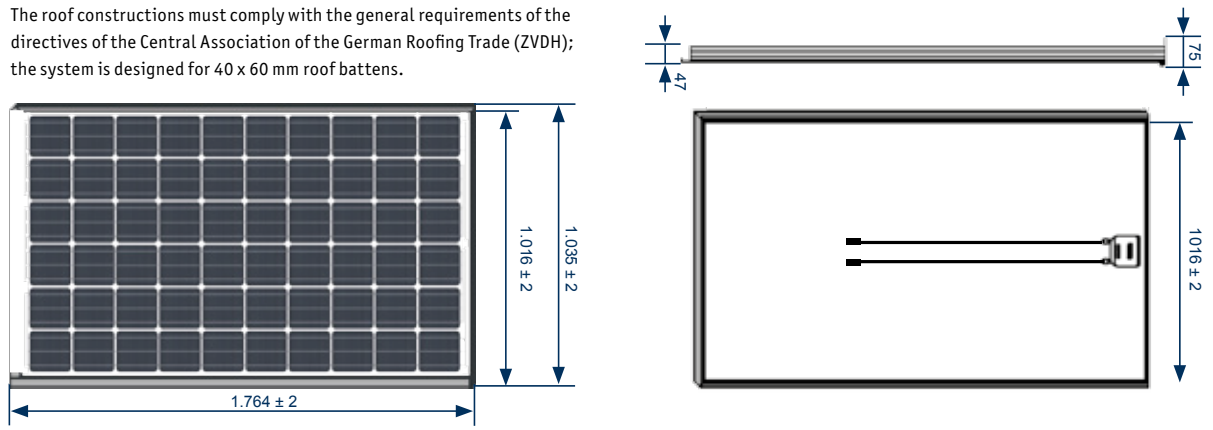
safe



resistant against salt mist

SOLARWATT Expert Installer

Technical Data SOLARWATT Easy-In System

Dimensions	
<p>The roof constructions must comply with the general requirements of the directives of the Central Association of the German Roofing Trade (ZVDH); the system is designed for 40 x 60 mm roof battens.</p> 	
L x B x D	Module dimensions: 1.764 x 1.035 x 47 mm; Cover dimensions: 1.715 x 1.016 x 47 mm
Connection technology	Cabels 2 x 1,00 m / 4 mm ² , MC4 Connector
Weight	appr. 24 kg

Electrical Data (STC)

STC: Standard Test | Conditions: Irradiation intensity 1000 W/m², spectral distribution AM 1.5 | temperatur 25±2 °C, in accordance EN 60904-3

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Nominal power P_N	250 Wp	255 Wp	260 Wp
Nominal voltage U_{mpp}	31,0 V	31,2 V	31,4 V
Nominal current I_{mpp}	8,07 A	8,18 A	8,29 A
Open circuit voltage U_{oc}	38,3 V	38,5 V	38,7 V
Short circuit current I_{sc}	8,51 A	8,56 A	8,61 A
IR*	20 A		

Measurement tolerance in reference to P_{max} ±5%;
 Reduction of module efficiency when irradiance is reduced from 1000 W/m² to 200 W/m² (at 25 °C): 4 ± 2% (relative) / -0,6 ± 0,3% (absolute).
 * Reverse- current power rating: Operating modules with an external power source is only permissible if using a phase fuse with a tripping current of < 20 A.

Electrical Data (NOCT)

NOCT: Normal Operation Cell Temperature: Irradiation intensity 800 W/m², AM 1,5 | temperatur 20 °C, Wind speed 1m/s, open circuit operation

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Nominal power P_N	183 W	186 W	190 W
Nominal voltage U_{mpp}	28,4 V	28,6 V	28,7 V
Nominal circuit voltage U_{oc}	35,7 V	35,9 V	36,0 V
Short circuit current I_{sc}	6,88 A	6,92 A	6,96 A

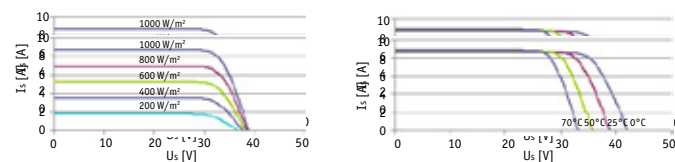
General Data

Module technology	Glass-Foil-Laminate; Aluminium frame, black onodized
Covering material	Highly transparent solar glass (tempered), 4 mm
Encapsulation	EVA solar cells EVA
Backing material	Multi-layer composite film, black
Solar cells	60 monocrystalline solar cells
Cell dimensions	156 x 156 mm
Bypass diodes	3
Application class	Application class A (acc. to IEC 61730)
Max. system voltage	1000 V
Mechanical Ratings as per IEC 61215 Ed.	Approved for loads up to 5,400 Pa, Approved for suction loads up to 2,400 Pa (uplift resistance in accordance with DIN 14437) (Wind speed 130 km/h with safety factor 3) Please refer to the specifications in the installation instructions.
Qualifications	IEC 61215 Ed.2 IEC 61730 (including Protection Class II)
Hail Resistance	Tested with simulated hailstones (Ø 25 mm, at ~83km/h)
Fire Resistance Test	DIN ENV 1187
Application site	Upright as roof integration in pitched roofs on buildings up to 25 m high; 22° - 65° roof pitch; 16° minimum roof pitch with usage of a water-tight sub-roof according to the guidelines of the ZVDH (Central Association of German Roofers)
System Components	Solar modules with special frame, seals, suction protection measures, special screws, sarking membrane, aluminum guide rail

Characteristic Lines

Voltage characteristic line at different temperatures and irradiation

Performance class 260 Wp Orange 60M Easy-In style



Thermal Features

	SOLARWATT Orange 60M Easy-In style
Operating temperature range	-40 ... +85 °C
Ambient temperature range	-40 ... +45 °C
Temperature coefficient P_N	-0,41 %/K
Temperature coefficient U_{oc}	-0,33 %/K
Temperature coefficient I_{sc}	0,05 %/K
NOCT	45 °C