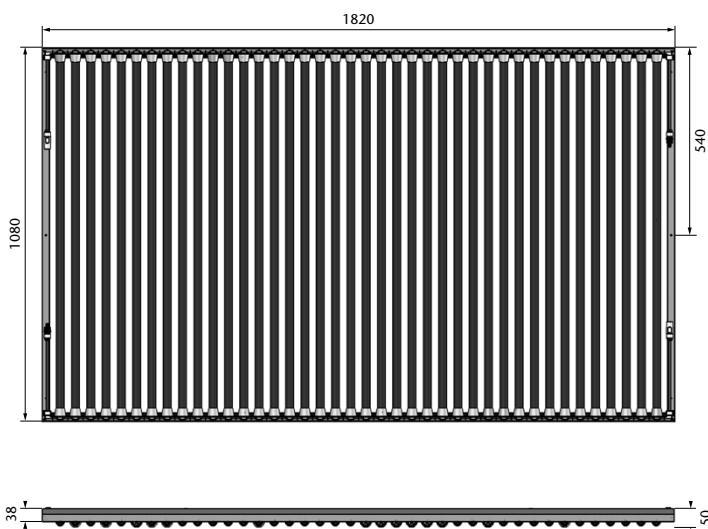


SOLYNDRA SL-001-157 / 165 / 173 / 182 / 191 / 200

SOLYNDRA is a totally new concept in photovoltaic complete systems. It was especially developed for flat roofs and roofs with a low pitch, and enables solar energy systems to be installed on low load-bearing roofs and roofs which were previously otherwise unsuitable. Solyndra's unique thin-film tube technology converts not only direct sunlight but also diffuse and reflected sunlight.

The modules are ready for installation upon delivery and can be seamlessly connected without the need for a mounting frame system. Roof fastenings or weighting are unnecessary due to the minimised wind load. Rapid installation, the improved energy efficiency and the complete roof coverage result in increased yield and greater profitability compared to frame-mounted systems.



The advantages at a glance:

- Higher yields and greater profitability
- Quick, easy and cost-effective
- No roof penetration, no weighting
- Complete roof coverage without shading clearances
- Enhanced surface performance
- Improved sunlight conversion

Manufacturer's guarantee

Product guarantee	5-years product guarantee*
Performance guarantee	10 years at 90 % of the minimal rated power output* 25 years at 80 % of the minimal rated power output*

* The manufacturer's terms and conditions of guarantee apply

Qualifications and Certificates

IEC 61646 IEC 61730
UL 1730



Electrical parameters

Electrical parameters for STC (1,000 W/m², T_{Module} = 25 (+/- 2) °C, AM 1.5, according to EN/IEC 60904-1 to 60904-3)

Article number	100761	100762	100840	100764	100839	100841
Power output [P _{mpp}]	157	165	173	182	191	200
Power output tolerances [%]	± 4	± 4	± 4	± 4	± 4	± 4
Efficiency [%]	7.99	8.39	8.80	9.25	9.72	10.02
Max. voltage V _{mpp} [V]	72.30	74.00	71.70	78.00	76.10	78.30
Max. current I _{mpp} [A]	2.20	2.25	2.41	2.35	2.51	2.55
Open circuit voltage V _{oc} [V]	97.60	99.00	95.20	102.50	98.20	99.70
Short circuit current I _{sc} [A]	2.54	2.60	2.57	2.70	2.77	2.78

Electrical parameters for 800 W/m², T_{Module} = NOCT, AM 1.5, according to EN/IEC 60904-1 to 60904-3
NOCT = Nominal Operating Cell Temperature, cell temperature under nominal operating conditions

Max. power output P _{mpp} [Wp]	113.40	121.30	131.30	135.00	144.90	151.80
Max. voltage V _{mpp} [V]	67.10	68.20	68.20	72.90	72.30	74.40
Max. current I _{mpp} [A]	1.69	1.78	1.92	1.83	2.00	2.04
Open circuit voltage V _{oc} [V]	88.30	88.60	89.70	94.20	92.60	94.00
Short circuit current I _{sc} [A]	1.95	2.00	2.20	2.06	2.22	2.22

Electrical parameters for 200 W/m², T_{Module} = 25 (+/- 2) °C, AM 1.5, EN/IEC 60904-1 to 60904-3

Max. power output P _{mpp} [Wp]	28.40	31.40	32.70	32.70	36.10	37.80
Max. voltage V _{mpp} [V]	69.30	72.20	69.90	71.40	74.20	76.30
Max. current I _{mpp} [A]	0.41	0.43	0.47	0.45	0.49	0.49
Open circuit voltage V _{oc} [V]	86.90	88.20	87.60	90.80	90.40	91.70
Short circuit current I _{sc} [A]	0.49	0.50	0.56	0.52	0.56	0.56
Reverse current loading capability I _R [A]	31	31	23	31	23	23
Max. permissible system voltage V _{sys} [V]	1,000					

Parameters of the thermal characteristics

NOCT [°C]	45	45	41.70	45	41.70	41.70
Temperature coefficient of the short circuit current I _{sc} [%/K]	- 0.06	- 0.06	- 0.02	- 0.06	- 0.02	- 0.02
Temperature coefficient of the open circuit voltage V _{oc} [%/K]	- 0.35	- 0.35	- 0.29	- 0.35	- 0.29	- 0.29
Temperature coefficient of the MPP power P _{mpp} [%/K]	- 0.38	- 0.38	- 0.38	- 0.38	- 0.38	- 0.38

Operating conditions

Max. operating temperature [°C]	- 40 to + 85
Max. snow load [Pa] according to IEC 61646	2,800
Max. wind load [km/h]	tested to 208

Mechanical parameters

Length x width x depth (depth with connection socket) [mm]	1,820 x 1,080 x 50 (not relevant)
Weight [kg]	31.80
Connection socket (manufacturer)	not relevant
Positive & negative cable (manufacturer/length [mm]/ cable cross-section [mm ²])	Tyco/200/2.5
Plugs/sockets (manufacturer/type)	Tyco/Solarlok
Front cover (material)	Glass tubes
Cells (technology)	CIGS
Cell embedding (material) / rear cover (material/thickness [mm])	not relevant
Frame (material)	Aluminium
Feet (material)	Aluminium

Subject to modifications and errors