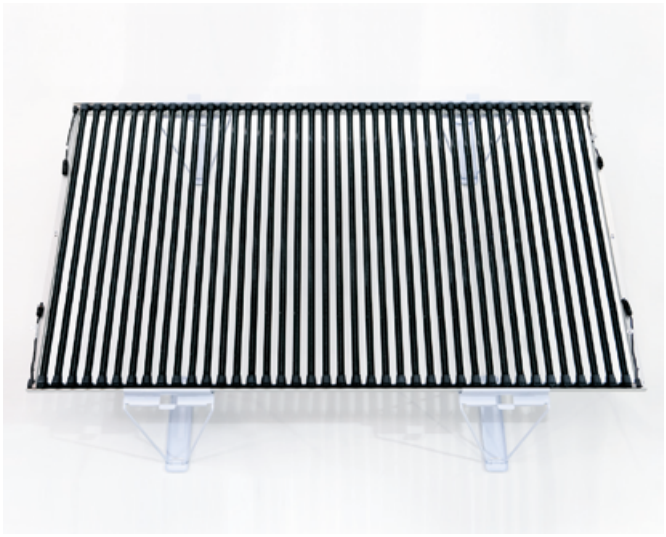
SOLYNDRA – SL-001-150C / 157C / 165C / 173C / 182C

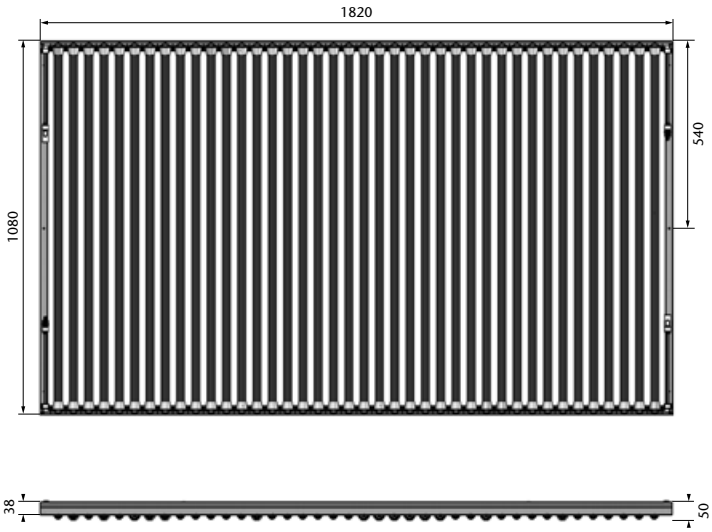
SOLYNDRA is a totally new concept in photovoltaic complete systems. It was especially developed for flat roofs and roofs with a low pitch, and enables solar energy systems to be installed on low load-bearing roofs and roofs which were previously otherwise unsuitable. Solyndra's unique thin-film tube 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-year 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 guarantee conditions apply

Qualifications and Certificates

IEC 61646, IEC 61730

UL 1703

Parameters

Electrical parameters

Electrical parameters for STC (1000 W/m², 25 (+/- 2)°C, AM 1.5 according to IEC 60904-3)

Article number	100760	100761	100762	100763	100764
Power output [P_{mpp}]	150	157	165	173	182
Power output tolerances [%]	+/- 4	+/- 4	+/- 4	+/- 4	+/- 4
Efficiency [%]	7.63	7.99	8.39	8.80	9.25
Max. voltage V_{mpp} [V]	70.50	72.30	74.00	76.10	78.00
Max. current I_{mpp} [A]	2.15	2.20	2.25	2.32	2.35
Open circuit voltage V_{oc} [V]	96.00	97.60	99.00	101.00	102.50
Short circuit current I_{sc} [A]	2.50	2.54	2.60	2.63	2.70

Electrical parameters for 800 W/m², NOCT, AM 1.5
(NOCT = Nominal Operating Cell Temperature, cell temperature under nominal operating conditions)

Max. power output P_{max} [Wp]	106.40	113.40	121.30	129.40	135.00
Max. voltage V_{max} [V]	66.00	67.10	68.20	71.50	72.90
Max. current I_{mpp} [A]	1.60	1.69	1.78	1.81	1.83
Open circuit voltage V_{oc} [V]	88.00	88.30	88.60	93.90	94.20
Short circuit current I_{sc} [A]	1.90	1.95	2.00	2.04	2.06

Electrical parameters for STC (200 W/m², 25 (+/- 2)°C, AM 1.5)

Max. power output P_{max} [Wp]	25.60	28.40	31.40	31.30	32.70
Max. voltage V_{max} [V]	65.90	69.30	72.20	68.20	71.40
Max. current I_{mpp} [A]	0.39	0.41	0.43	0.46	0.45
Open circuit voltage V_{oc} [V]	85.60	86.90	88.20	89.50	90.80
Short circuit current I_{sc} [A]	0.48	0.49	0.50	0.52	0.52
Reverse current loading capability I_R [A]			31.00		
Max. permissible system voltage V_{max} [V]			1000		

Parameters of the thermal characteristics

NOCT [°C]	45
Temperature coefficient of the short circuit current I_{sc} [%/K]	- 0.06
Temperature coefficient of the open circuit voltage V_{oc} [%/K]	- 0.38
Temperature coefficient of the MPP power P_{mpp} [%/K]	- 0.35

Operating conditions

Max. operating temperature [°C]	- 40 to + 85
Max. snow load [Pa] according to IEC 61646	2800
Max. wind load [km/h]	tested to 208

Mechanical parameters

Length x width x depth (depth with connection socket) [mm]	1820 x 1080 x 50 (not relevant)
Weight [kg]	31.80
Connection socket (manufacturer)	not relevant
Positive & negative cable (manufacturer/length [mm]/ cable cross-section [mm²])	Tyco/200/2.5
Plugs/sockets (manufacturer)	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