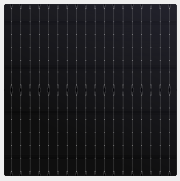
STANDARD ENERGY CO.,LTD.
Web:www.stdard-energy.com
Email：info@standard-thailand.com

STD-TM1218
N-Type TOPCon

KEY FEATURES

- High Photoelectric Conversion Efficiency
- Higher Power Generation
- Excellent Resistance to Hidden Cracks
- Higher Efficiency in Power Generation


Front

Back

Size : 210mm*210mm±0.25mm

Thickness :170±20μm

Solderability： ⩾0.5N/mm

The results may vary depending to DS,welding methods and conditions.

Technical Data And Design

Power: -0.32%/K **Voltage:** -0.26 %/K **Current:** +0.046%/K

Front (-): 18 * 0.04 ± 0.03mm main gate line (silver), 120 ± 12 secondary gate lines blue (dark blue), anti-reflective film (silicon nitride)

Back (+): 18 * 0.04 ± 0.03mm Back electrode width (silver) 138± 14 mm sub-grid lines Rsh⩾35Ω, Irev2⩽1.0A

Front Electrical Performance Parameters

Productiveness Eff(%)	24.4	24.3	24.2	24.1	24.0	23.9	23.8	23.7	23.6	23.5	23.4
Maximum output power Pmpp(W)	10.76	10.72	10.67	10.63	10.58	10.54	10.49	10.45	10.41	10.36	10.32
Maximum output voltage Umpp(V)	0.623	0.621	0.619	0.619	0.617	0.616	0.615	0.614	0.612	0.610	0.609
Maximum output current Impp(A)	17.343	17.313	17.264	17.217	17.195	17.131	17.110	17.085	17.053	17.032	16.994
Open-circuit voltage Uoc(V)	0.717	0.715	0.713	0.712	0.711	0.710	0.709	0.708	0.707	0.706	0.705
Short-circuit current Isc(A)	18.119	18.113	18.101	18.096	18.032	17.996	17.920	17.914	17.885	17.867	17.832
Fill factor FF(%)	82.82	82.74	82.68	82.48	82.55	82.48	82.60	82.40	82.30	82.15	82.08

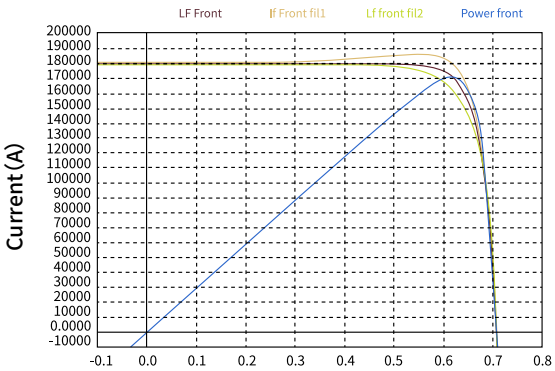
Back Electrical Performance Parameters

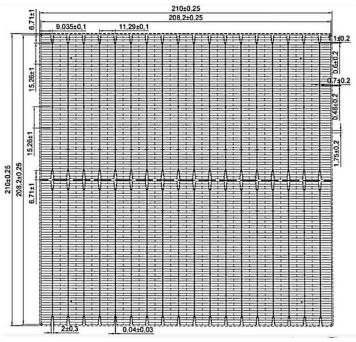
Productiveness Eff(%)	>20.5%	20.3-20.5%	20.1-20.3%	<20.1%
Maximum output power Pmpp(W)	8.95	8.91	8.86	8.82
Maximum output voltage Umpp(V)	0.617	0.616	0.615	0.614
Maximum output current Impp(A)	14.508	14.460	14.412	14.364
Open-circuit voltage Uoc(V)	0.703	0.702	0.701	0.700
Short-circuit current Isc(A)	15.240	15.196	15.153	15.125

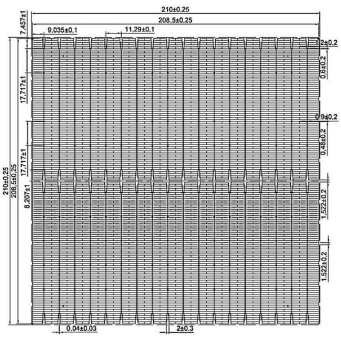
Light Intensity Reliability

Intensity(W/m2)	Voc	Isc
1000	1.000	1.000
900	0.996	0.903
800	0.991	0.803
600	0.988	0.602
400	0.962	0.403

Iv Curve




FRONT


BACK

As different markets have different cetification requirements,please consult our STD sales group to obtain the corresponding certification for the local market.