

Product introduction:

1. Mechanical data and design

Product Mono-Crystalline Silicon PID free Solar cell

Dimension $(156.75 \pm 0.25)\text{mm} \times (156.75 \pm 0.25)\text{mm}$

Diagonal $210\text{mm} \pm 1.0\text{mm}$

Thickness $200\mu\text{m} \pm 30\mu\text{m}$

Front(-) Alkali textured surface with dark blue silicon nitride AR coating

The front pattern with 5 busbars

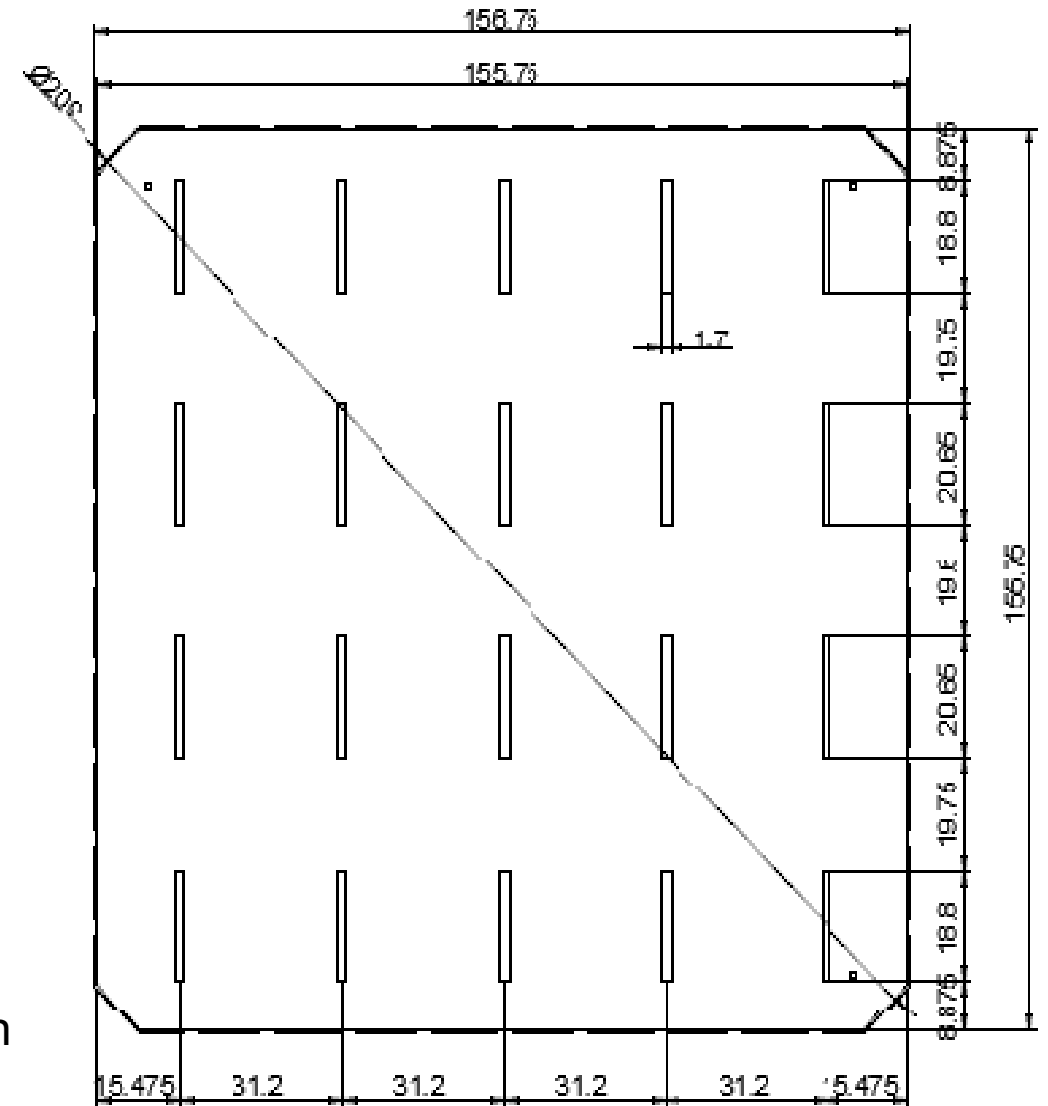
Distance of 31.2mm between two $(0.8 \pm 0.1)\text{mm}$ wide silver bus bars

Back(+) Passivated emitter rear contact back side surface

Distance of 31.2mm between two $(1.7 \pm 0.2)\text{mm}$ wide Ag/Al bus bars

2. High performance

Monocrystalline silicon solar cells are 6" cells with high efficiency reaches up to 21.8%. The dark blue anti-reflection coating on the front surface and good passivation on the rear surface result in an increases in both UV and infrared.



M5-P2

Product introduction:

3. Electrical Data

Grade	Eff (%)	Pmpp (W)	Umppp(V)	Imppp(A)	Uoc(V)	Isc(A)
19	19.4	4.740	0.543	8.729	0.639±5%	9.466±5%
18	19.6	4.789	0.544	8.803	0.641±5%	9.498±5%
17	19.8	4.838	0.545	8.876	0.644±5%	9.521±5%
16	20.0	4.886	0.546	8.949	0.646±5%	9.526±5%
15	20.2	4.935	0.546	9.039	0.648±5%	9.556±5%
14	20.4	4.984	0.548	9.101	0.650±5%	9.596±5%
13	20.6	5.033	0.554	9.080	0.652±5%	9.605±5%
12	20.7	5.057	0.555	9.106	0.654±5%	9.613±5%
11	20.8	5.082	0.556	9.134	0.656±5%	9.636±5%
10	20.9	5.106	0.561	9.096	0.658±5%	9.661±5%
9	21.0	5.131	0.562	9.134	0.659±5%	9.677±5%
8	21.1	5.155	0.564	9.139	0.661±5%	9.687±5%
7	21.2	5.180	0.566	9.158	0.662±5%	9.705±5%
6	21.3	5.204	0.566	9.201	0.664±5%	9.724±5%
5	21.4	5.228	0.567	9.221	0.665±5%	9.752±5%
4	21.5	5.253	0.568	9.248	0.666±5%	9.789±5%
3	21.6	5.277	0.569	9.291	0.667±5%	9.811±5%

The electrical data apply to standard test conditions(STC):

Irradiance at the module level of 1000W/m², with spectrum AM 1.5 and a cell temperature of 25°C

The above data are average figures presently measured. Reference data are calibrated by Fraunhofer ISE

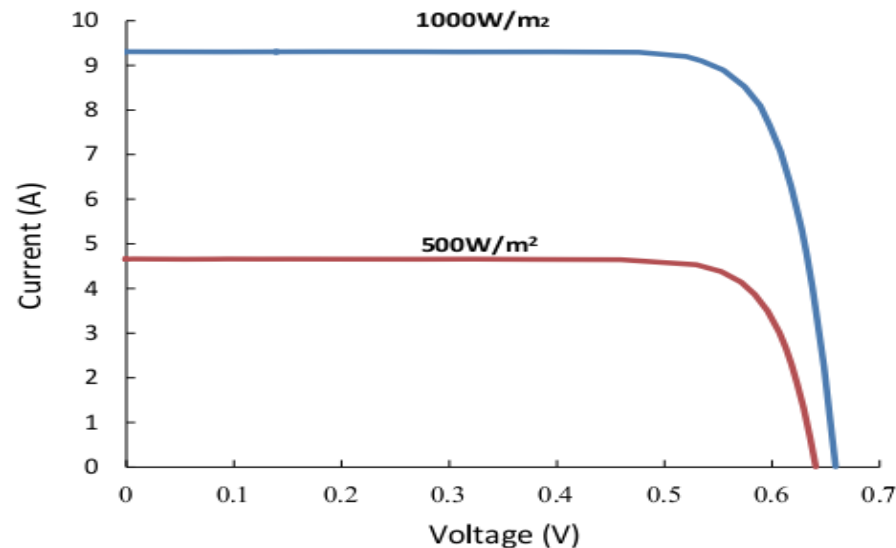
4. Temperature Coefficient

Power $-(0.42 \pm 0.02)\%/K$

Voltage $-(0.34 \pm 0.03)\%/K$

Current $+(0.068 \pm 0.015)\%/K$

5. Electrical



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Diagonal $210\text{mm} \pm 1.0\text{mm}$

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Front(-) Alkali textured surface with dark blue silicon nitride AR coating

The front pattern with 5 busbars

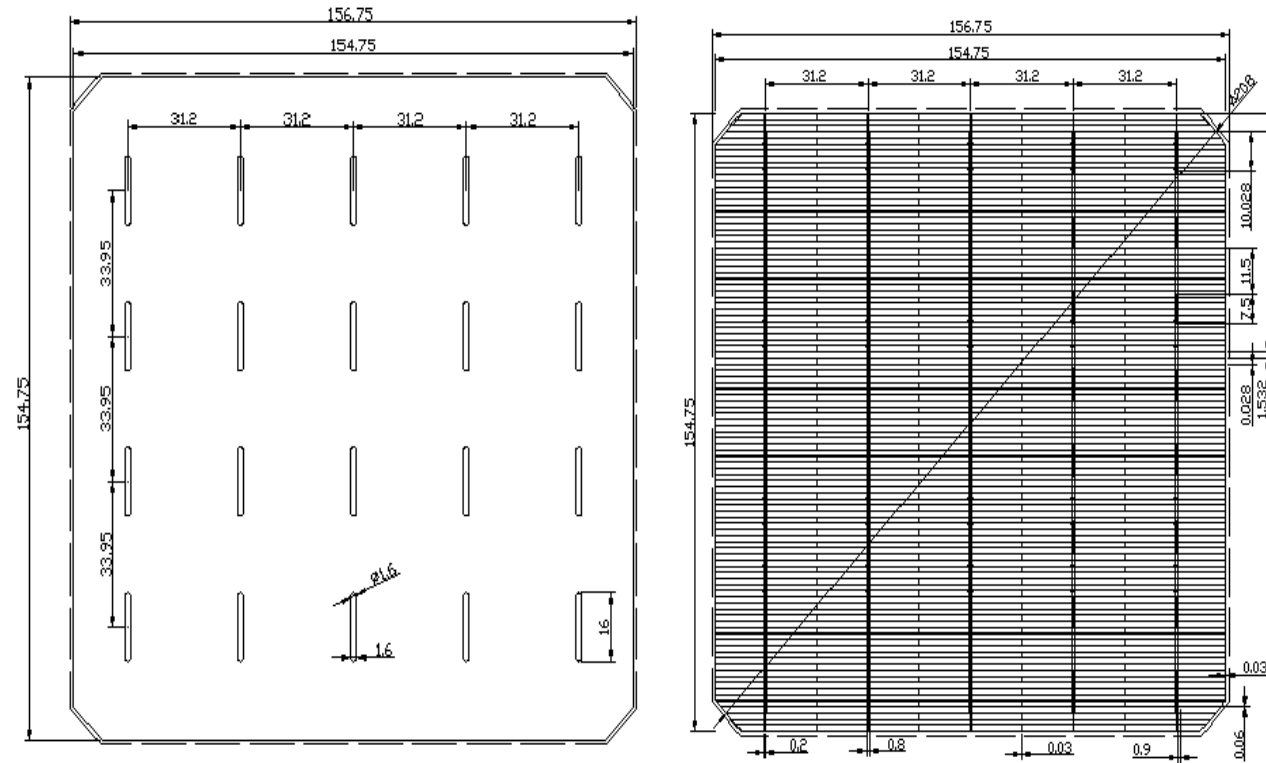
Distance of 31.2mm between two $(0.8 \pm 0.1)\text{mm}$ wide silver bus bars

Back(+) Aluminum back side surface

Distance of 31.2mm between two $(1.6 \pm 0.2)\text{mm}$ wide Ag/A bus bars

2. High performance

Monocrystalline silicon solar cells are 6" cells with high efficiency, reaches up to 21.0%. The dark blue anti-reflection coating on the front surface and good passivation on the rear surface result in an increase in both UV and infrared.



M5-C3

Product introduction:

3. Electrical Data

Grade	Eff (%)	Pmpp (W)	Umpp(V)	Impp(A)	Uoc(V)	Isc(A)
17	19.4	4.740	0.543	8.729	0.639±5%	9.466±5%
16	19.5	4.764	0.543	8.774	0.64±5%	9.481±5%
15	19.6	4.789	0.544	8.803	0.641±5%	9.498±5%
14	19.7	4.813	0.544	8.848	0.642±5%	9.501±5%
13	19.8	4.838	0.545	8.876	0.644±5%	9.512±5%
12	19.9	4.862	0.545	8.921	0.645±5%	9.511±5%
11	20.0	4.886	0.546	8.949	0.646±5%	9.526±5%
10	20.1	4.911	0.546	8.994	0.647±5%	9.533±5%
9	20.2	4.935	0.546	9.039	0.648±5%	9.556±5%
8	20.3	4.960	0.547	9.067	0.649±5%	9.576±5%
7	20.4	4.984	0.548	9.101	0.650±5%	9.596±5%
6	20.5	5.009	0.550	9.106	0.651±5%	9.601±5%
5	20.6	5.033	0.550	9.151	0.652±5%	9.605±5%
4	20.7	5.057	0.552	9.162	0.654±5%	9.613±5%
3	20.8	5.082	0.553	9.190	0.656±5%	9.636±5%
2	20.9	5.106	0.554	9.217	0.658±5%	9.661±5%
1	21.0	5.131	0.555	9.245	0.659±5%	9.677±5%

The electrical data apply to standard test conditions(STC):
Irradiance at the module level of 1000W/m², with
spectrum AM 1.5 and a cell temperature of 25°C

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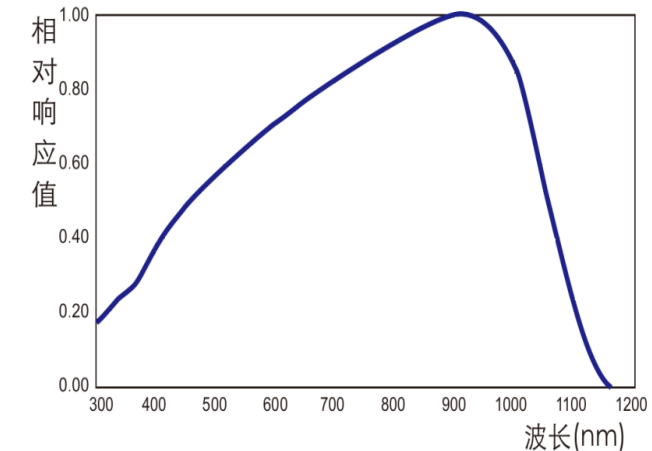
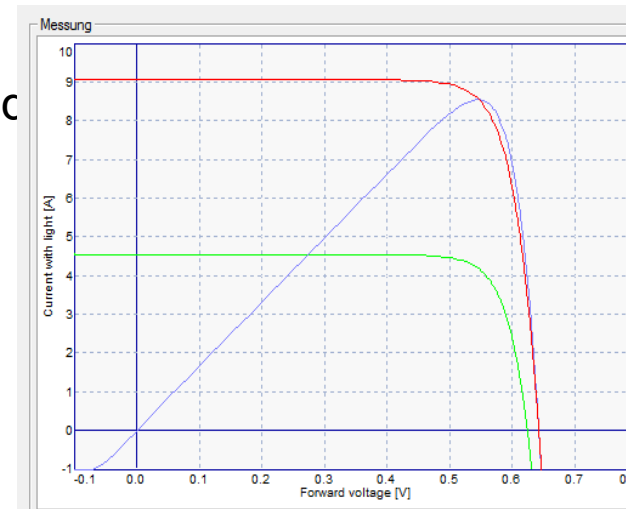
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Diagonal $220\text{mm} \pm 1.0\text{mm}$

Thickness $200\mu\text{m} \pm 20\mu\text{m}$

Front(-) Metal catalyzed chemical etched surface
with dark blue silicon nitride AR coating

The front pattern with 5 busbars

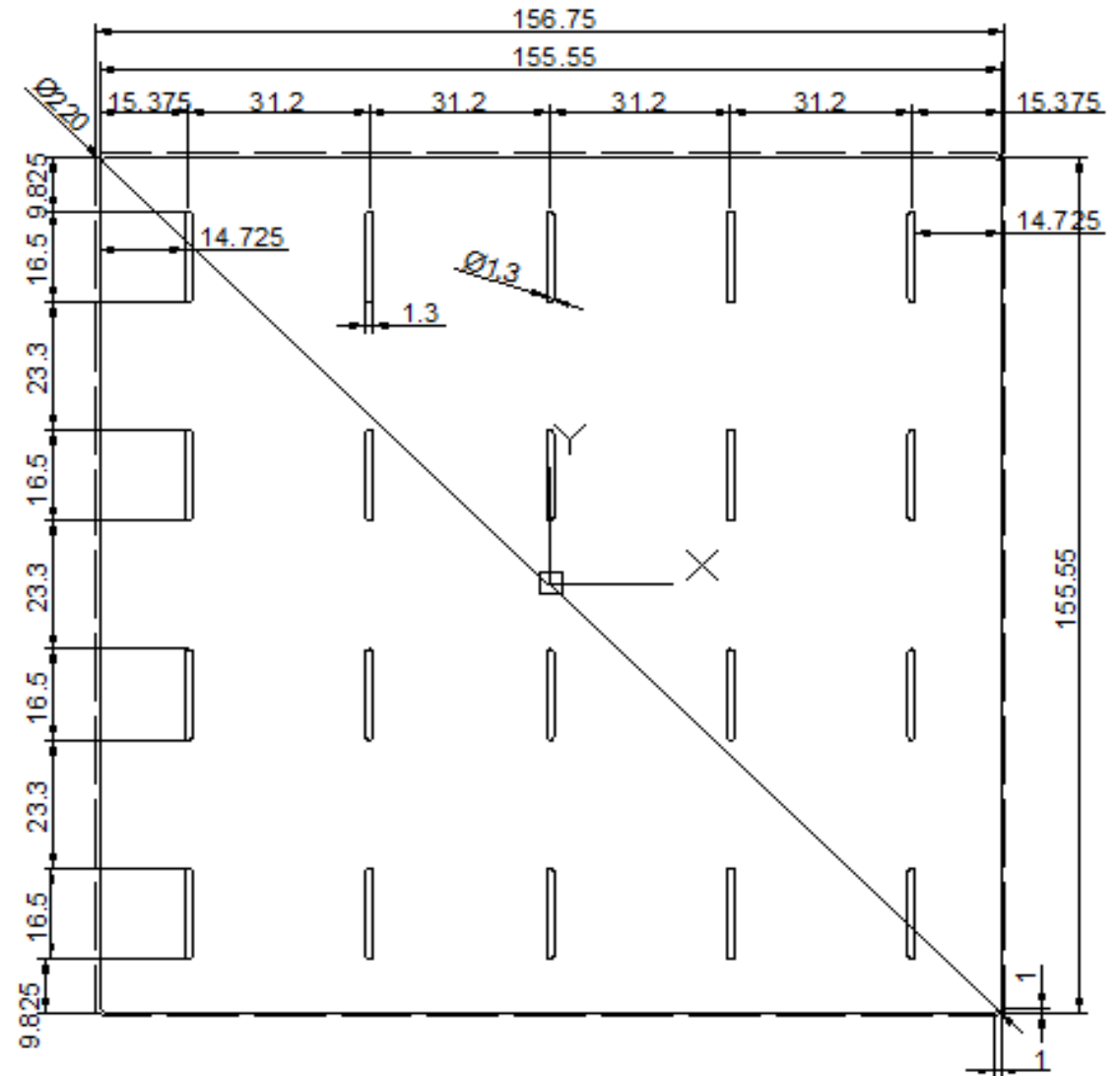
Distance of 31.2mm between two $(0.7 \pm 0.3)\text{mm}$ wide
silver bus bars

Back(+) Aluminum back side surface

Distance of 31.2mm between two $(1.5 \pm 0.3)\text{mm}$
wide Ag/Al bus bars

2. High performance

Polycrystalline silicon solar cells are 6" cells with high efficiency, reaches up to 19.6%. The dark blue anti-reflection coating on the front surface and good passivation on the rear surface result in an increase in both UV and infrared.



Product introduction:

3. Electrical Data

Grade	Eff (%)	Pmpp (W)	Umpp(V)	Impp(A)	Uoc(V)	Isc(A)
20	17.6	4.324	0.528	8.189	0.627±5%	8.721±5%
19	17.8	4.373	0.530	8.251	0.628±5%	8.732±5%
18	17.9	4.397	0.531	8.282	0.630±5%	8.745±5%
17	18.0	4.422	0.532	8.317	0.631±5%	8.755±5%
16	18.1	4.447	0.534	8.330	0.632±5%	8.786±5%
15	18.2	4.471	0.535	8.354	0.634±5%	8.806±5%
14	18.3	4.496	0.536	8.388	0.635±5%	8.831±5%
13	18.4	4.520	0.537	8.418	0.636±5%	8.852±5%
12	18.5	4.545	0.538	8.443	0.638±5%	8.869±5%
11	18.6	4.569	0.540	8.466	0.638±5%	8.885±5%
10	18.7	4.594	0.542	8.483	0.639±5%	8.911±5%
9	18.8	4.619	0.544	8.497	0.640±5%	8.936±5%
8	18.9	4.643	0.545	8.520	0.641±5%	8.956±5%
7	19.0	4.668	0.546	8.549	0.642±5%	8.991±5%
6	19.1	4.692	0.546	8.594	0.643±5%	9.015±5%
5	19.2	4.717	0.547	8.623	0.645±5%	9.033±5%
4	19.3	4.741	0.547	8.668	0.647±5%	9.057±5%
3	19.4	4.766	0.548	8.697	0.649±5%	9.073±5%
2	19.5	4.791	0.548	8.742	0.65±5%	9.095±5%
1	19.6	4.815	0.549	8.771	0.651±5%	9.121±5%

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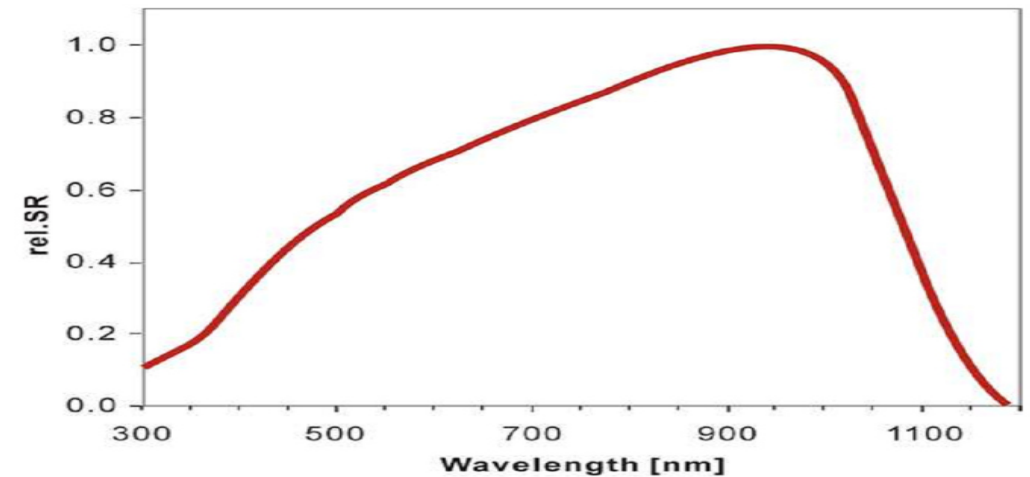
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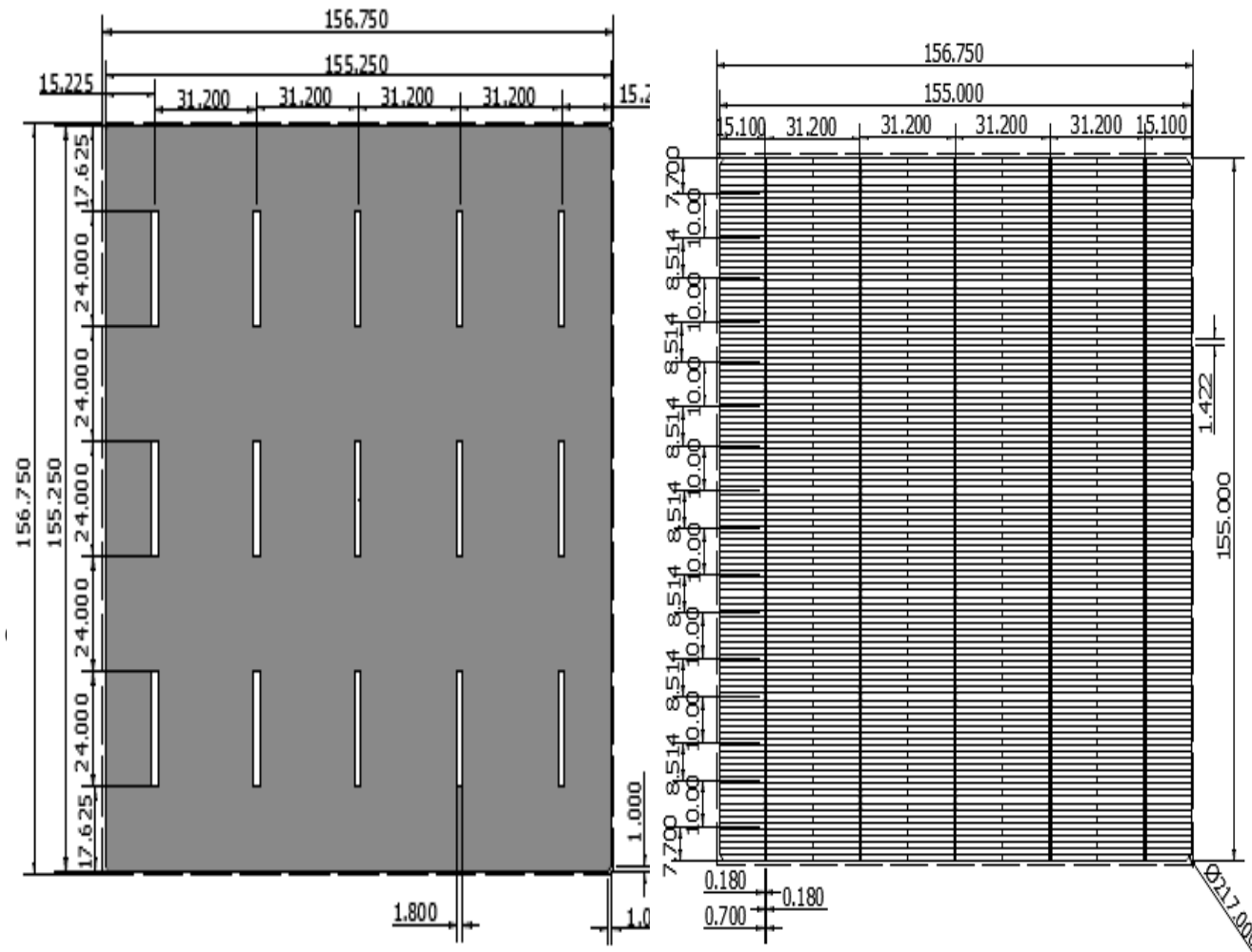
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3. Electrical Data

Grade	Eff (%)	Pmpp (W)	Umppp(V)	Imppp(A)	Uoc(V)	Isc(A)
21	18.0	4.422	0.535	8.266	0.653±5%	9.234±5%
20	18.2	4.471	0.535	8.357	0.654±5%	9.245±5%
19	18.4	4.520	0.535	8.449	0.655±5%	9.249±5%
18	18.6	4.569	0.536	8.524	0.656±5%	9.050±5%
17	18.8	4.619	0.538	8.580	0.636±5%	9.071±5%
16	19.0	4.668	0.540	8.646	0.636±5%	9.135±5%
15	19.1	4.692	0.540	8.684	0.647±5%	9.140±5%
14	19.2	4.717	0.541	8.717	0.648±5%	9.201±5%
13	19.3	4.741	0.545	8.704	0.649±5%	9.228±5%
12	19.4	4.766	0.543	8.777	0.649±5%	9.241±5%
11	19.5	4.791	0.546	8.778	0.650±5%	9.258±5%
10	19.6	4.815	0.548	8.786	0.649±5%	9.266±5%
9	19.7	4.840	0.549	8.816	0.655±5%	9.287±5%
8	19.8	4.864	0.550	8.838	0.651±5%	9.300±5%
7	19.9	4.889	0.554	8.818	0.656±5%	9.311±5%
6	20.0	4.913	0.556	8.831	0.657±5%	9.317±5%
5	20.1	4.938	0.559	8.835	0.660±5%	9.325±5%
4	20.2	4.963	0.560	8.866	0.660±5%	9.363±5%
3	20.3	4.987	0.561	8.890	0.661±5%	9.372±5%
2	20.4	5.012	0.561	8.933	0.661±5%	9.383±5%
1	20.5	5.036	0.562	8.961	0.661±5%	9.403±5%

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