

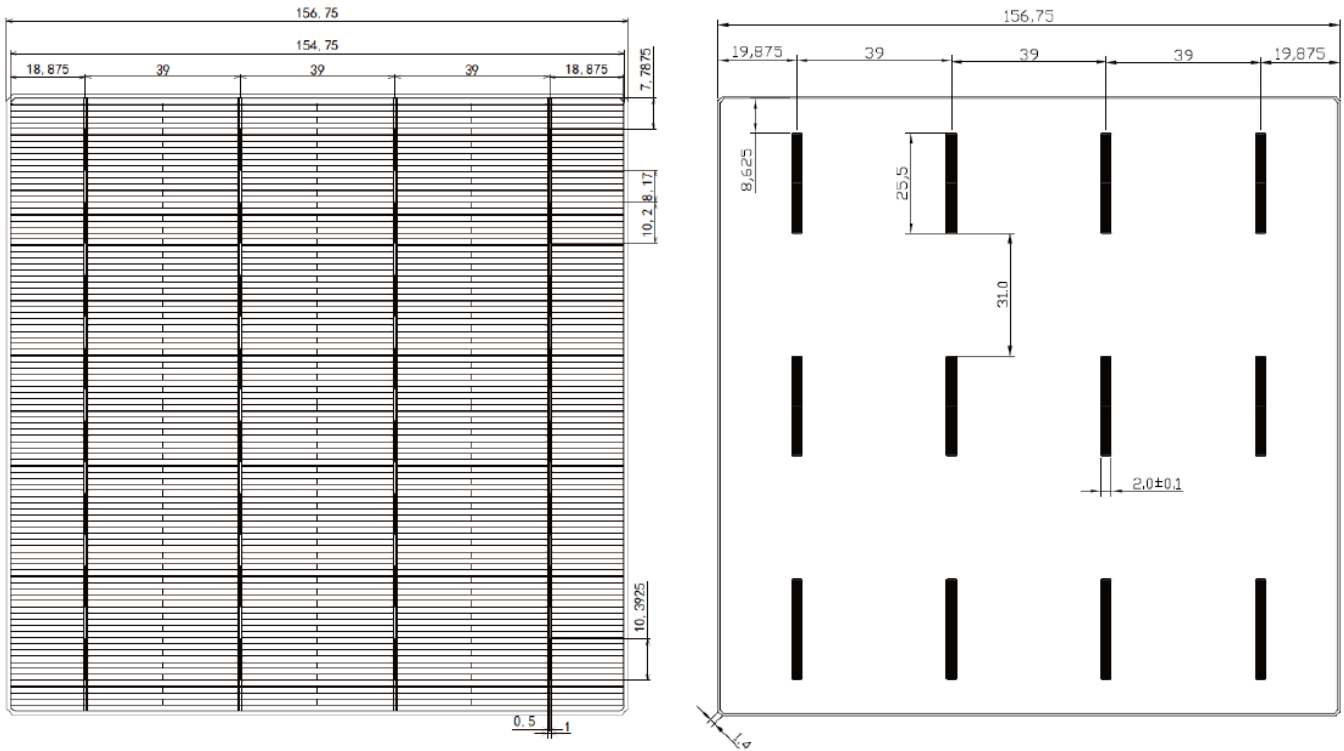
Multi-crystalline Silicon COLOR Solar Cell

Classic Series

4BB

Rev 02 ; Date: Nov 30 Y2017

PHYSICAL CHARACTERISTICS



Color	True Steel Forest Green Lavender Golden Brown Tile Red
Dimension	156.75 mm x 156.75 mm +/- 0.25 mm
Thickness (si)	180 um +/- 20um , 200 um +/- 20um
Front	Blue silicon nitride anti-reflection coatings 1.0 mm silver busbars
Back	Full-surface aluminum back-surface field 2.0mm (silver / aluminum) discontinuous soldering pads

TYPICAL ELECTRICAL CHARACTERISTICS

Efficiency Code		1860	1840	1820	1800	1780	1760
Efficiency Range	[%]	18.7-18.5	18.5-18.3	18.3-18.1	18.1-17.9	17.9-17.7	17.7-17.5
Average Power	[W]	4.57	4.52	4.47	4.42	4.37	4.32
Power Range	[W]	4.59-4.54	4.54-4.49	4.49-4.44	4.44-4.39	4.39-4.34	4.34-4.30
Short Circuit Current	I _{sc} [A]	8.95-8.89	8.89-8.86	8.86-8.83	8.83-8.79	8.79-8.75	8.75-8.71
Open Circuit Voltage	V _{oc} [mV]	631-629	629-627	627-625	625-623	623-620	620-618
Maximum Power Current	I _{MPP} [A]	8.50-8.42	8.42-8.37	8.37-8.32	8.32-8.27	8.27-8.22	8.22-8.19
Maximum Power Voltage	V _{MPP} [mV]	541-539	539-536	536-534	534-531	531-528	528-525

Efficiency Code		1740	1720	1700	1680	1660	1640
Efficiency Range	[%]	17.5-17.3	17.3-17.1	17.1-16.9	16.9-16.7	16.7-16.5	16.5-16.3
Average Power	[W]	4.27	4.22	4.17	4.12	4.07	4.03
Power Range	[W]	4.30-4.25	4.25-4.20	4.20-4.15	4.15-4.10	4.10-4.05	4.05-4.00
Short Circuit Current	I _{sc} [A]	8.71-8.67	8.67-8.64	8.64-8.60	8.60-8.56	8.56-8.53	8.53-8.49
Open Circuit Voltage	V _{oc} [mV]	618-616	616-614	614-611	611-609	609-607	607-605
Maximum Power Current	I _{MPP} [A]	8.19-8.15	8.15-8.10	8.10-8.04	8.04-7.99	7.99-7.96	7.96-7.92
Maximum Power Voltage	V _{MPP} [mV]	525-521	521-519	519-516	516-513	513-509	509-505

*The above data are presently measured average. Data calibrated by Fraunhofer ISE Freiburg STC: 1000W/m², AM1.5, 25°C

All figures bear ±1.5% tolerance.

POWER RANGE AT CELL LEVEL

Color	True Steel	Forest Green (a.k.a. Army Green)	Lavender
Efficiency range(%)	18.60 ~ 17.40	18.60 ~ 17.40	17.60 ~ 16.40
Power range(W)	4.57 ~ 4.27	4.57 ~ 4.27	4.32 ~ 4.03
Power in majority	4.39	4.39	4.12

Color	Golden Brown	Tile Red	
Efficiency range(%)	17.40 ~ 16.40	17.80 ~ 16.40	
Power range(W)	4.27 ~ 4.03	4.37 ~ 4.03	
Power in majority	4.12	4.12	

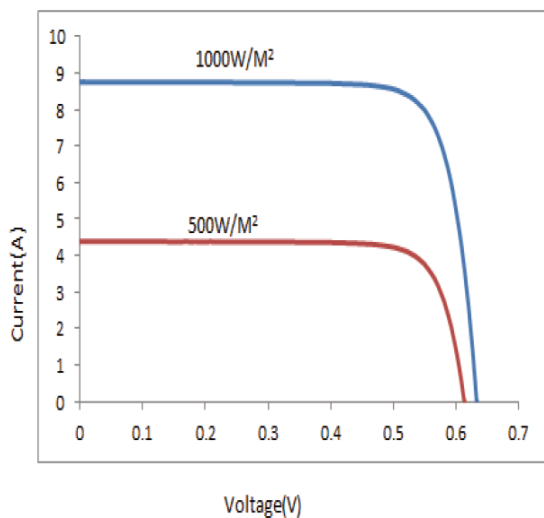
TYPICAL TEMPERATURE COEFFICIENTS

Current temperature coefficient α(I_{sc}) 0.05%/°C

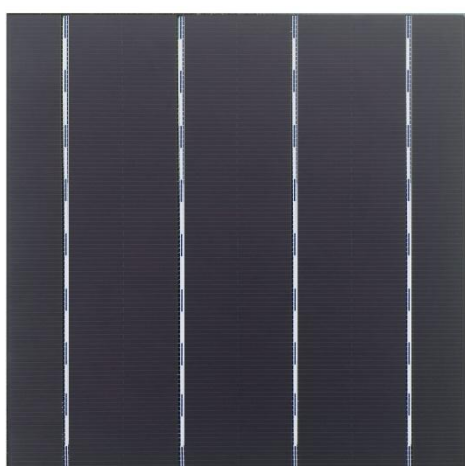
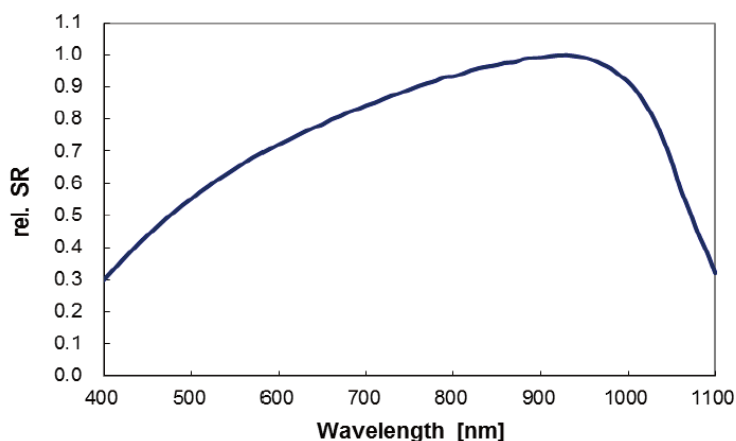
Voltage temperature coefficient β(V_{oc}) -0.33%/°C

Power temperature coefficient γ(P_{max}) -0.38%/°C

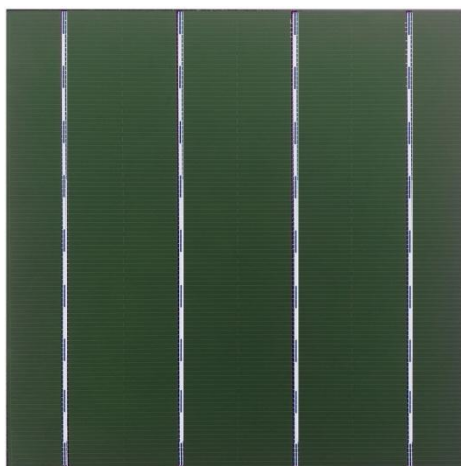
I-V CURVE



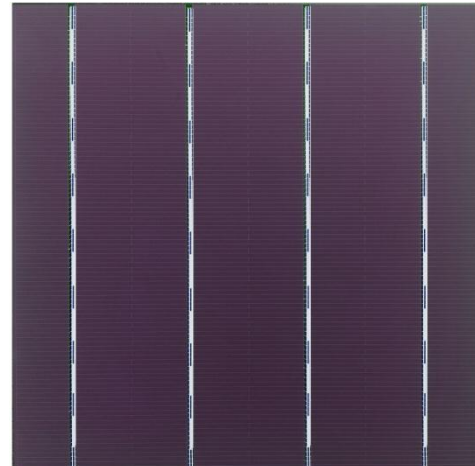
SPECTRAL RESPONSE



TRUE STEEL



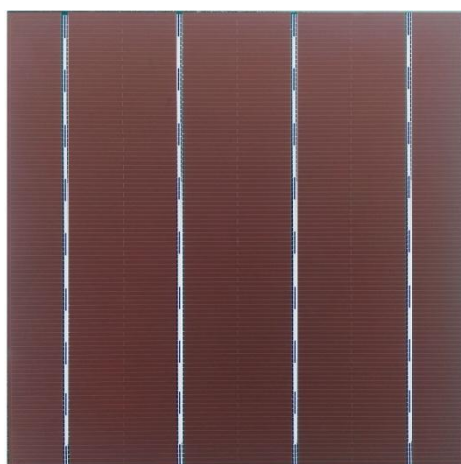
FOREST GREEN



LAVENDER



GOLDEN BROWN



TILE RED

Note: LOF Solar Corp reserves the rights of final interpretation and revision of this datasheet.

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