

SUNFORGE

VULCAIN SERIES

490~515W

Heterojunction



HJT
TECHNOLOGY



Independent **TRIPLE**
Quality Control
by **Greenwire**



Reinsurance
by **Ariel Re**



22.8% Max efficiency
95% Bifaciality
ZBB Technology

EFFICIENCY DEGRADATION OVER TIME



SUNFORGE

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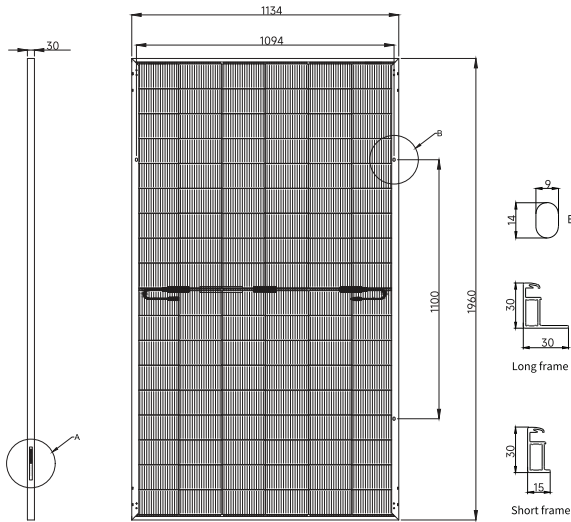
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Engineering Drawings

Unit: mm



Mechanical Characteristics

Cell Type	HJT
No. of Cells	108 (6x18)
Dimensions	1960x1134x30mm
Weight	27.4 kg
Junction Box	IP68
Cable	4mm ² ; 1250mm or customized; UV resistant
Connector	MC4 / MC4-Evo2A / PV-H4 / Z4S-abcd / ST4
Frame	Anodized aluminum alloy frame
Max Static Load (front side/rear side)	5400Pa / 2400Pa
Glass	Dual glass, 2.0mm

Front & back glass

2x2mm

Length cable
(customizable)

1200mm

Black busbar
black silicone

Full black

EVO2 connectors

MC4 STAUBLI

Electrical Characteristics

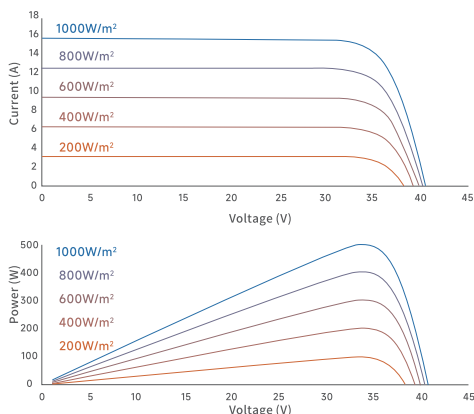
Reference Number	SF-210R-BH108DSN490			SF-210R-BH108DSN495			SF-210R-BH108DSN500			SF-210R-BH108DSN505			SF-210R-BH108DSN510			SF-210R-BH108DSN515		
Testing condition	STC*	BSTC*	NOCT*	STC*	BSTC*	NOCT*	STC*	BSTC*	NOCT*	STC*	BSTC*	NOCT*	STC*	BSTC*	NOCT*	STC*	BSTC*	NOCT*
Maximum Power (Pmax/W)	490	549	374	495	555	377	500	560	381	505	566	385	510	571	389	515	577	393
Voltage at Pmax (Vmp/V)	33.94	34.06	32.42	34.05	34.17	32.53	34.16	34.28	32.63	34.27	34.39	32.73	34.38	34.50	32.83	34.49	34.61	32.93
Current at Pmax (Imp/A)	14.44	16.14	11.54	14.54	16.25	11.62	14.64	16.36	11.70	14.74	16.47	11.78	14.84	16.58	11.86	14.94	16.69	11.94
Open Circuit Voltage (Voc/V)	40.54	40.68	38.69	40.65	40.79	38.80	40.76	40.90	38.90	40.87	41.01	39.01	40.98	41.12	39.11	41.09	41.23	39.22
Short Circuit Current (Isc/A)	15.26	17.11	12.20	15.37	17.24	12.28	15.48	17.36	12.37	15.59	17.48	12.46	15.70	17.61	12.55	15.81	17.73	12.64
Module Efficiency (%)	22.0%			22.3 %			22.5 %			22.7 %			22.9 %			23.2%		

STC: AM1.5, 1000W/m², 25°C.

BSTC: AM1.5, 1000W/m², 135W/m², 25°C.

NOCT: AM1.5, 800W/m², 20°C, 1m/s.

I-V Curve



Operating Conditions

Nominal Operating Cell Temp.	44±2°C
Operating Temperature	-40~+85°C
Maximum System Voltage	DC1500V (IEC)
Maximum Series Fuse Rating	30A
Tolerance of Pmax	0~+3%
Power Selection	0~+5W
Bifaciality	90±5%
Safety Class	Class II

Temperature Characteristics

Temperature Coefficient of Pmax	-0.24%/°C
Temperature Coefficient of Voc	-0.22%/°C
Temperature Coefficient of Isc	+0.04%/°C

Packaging

	40HQ
Modules Per Pallet	36
Pallets Per Container	24
Modules Per Container	864