

Sun⁺

CELLS

108

MAXIMUM EFFICIENCY %

22.7

POSITIVE POWER TOLERANCE WP

0~+5.00

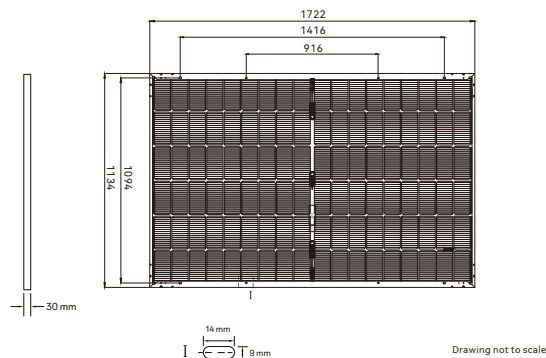
WATTAGE RANGE WP

425-445



■ Mechanical Specification

Dimension	1722x1134x30mm (67.80x44.64x1.18 in)
Weight	24.5kg(54.01 lb)
Front Cover	2.0 mm (0.08 in) tempered glass , Anti-Reflection Coated
Back Cover	2.0 mm (0.08 in) glass
Frame	Anodized Aluminium Alloy
Cell	N-Type Monocrystalline
Junction Box	Protection class IP68, with bypass diodes
Cable	4mm ² , 12AWG; (+)≤13.7 in (350 mm) (-)≤9.8 in (250 mm)
Connector	MC 4 or MC 4 Compatible; -IP68



■ Electrical Characteristics

	SR4-54HTB -425	SR4-54HTB -430	SR4-54HTB -435	SR4-54HTB -440	SR4-54HTB -445
POWER CLASS	425	430	435	440	445

MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5W / -0W)

			BSTC *		BSTC *		BSTC *		BSTC *	
			425	471	430	476	435	481	440	487
Minimum	Power at MPP ¹	P _{MPP} [W]	425	471	430	476	435	481	440	487
	Short Circuit Current ¹	I _{SC} [A]	13.84	15.33	13.92	15.42	14.01	15.52	14.10	15.62
	Open Circuit Voltage ¹	V _{OC} [V]	38.40	38.40	38.60	38.60	38.80	38.80	39.00	39.00
	Current at MPP	I _{MPP} [A]	13.07	14.48	13.15	14.57	13.23	14.66	13.31	14.74
	Voltage at MPP	V _{MPP} [V]	32.54	32.54	32.71	32.71	32.88	32.88	33.05	33.05
	Efficiency ¹	η [%]	≥21.7		≥22.0		≥22.2		≥22.5	

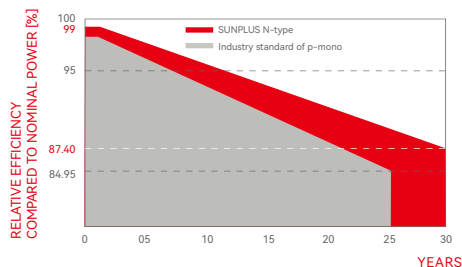
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS NMOT²

			320	323	327	330	334
Minimum	Power at MPP	P _{MPP} [W]	320	323	327	330	334
	Short Circuit Current	I _{SC} [A]	11.17	11.24	11.31	11.38	11.46
	Open Circuit Voltage	V _{OC} [V]	36.49	36.67	36.85	37.04	37.23
	Current at MPP	I _{MPP} [A]	10.43	10.50	10.57	10.64	10.70
	Voltage at MPP	V _{MPP} [V]	30.63	30.79	30.95	31.11	31.27

¹Measurement tolerances P_{MPP} ± 3 %; I_{SC}; V_{OC} ± 5 % at STC: 1000 W/m², 25 ± 2 °C, AM 1.5 according to IEC 60904-3 • ²800 W/m², NMOT, spectrum AM 1.5

*at BSCT: 1000 W/m² + φ × 135 W/m², φ = 80 %, 25 ± 2 °C, AM 1.5 according to IEC 60904-3

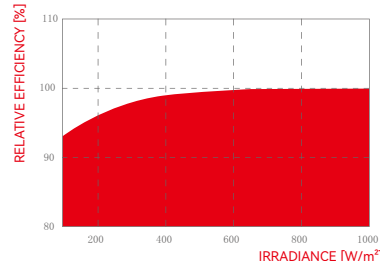
MODULE PERFORMANCE WARRANTY



At least 99 % of nominal power during first year. Thereafter max. 0.4% degradation per year. At least 95 % of nominal power up to 10 years. At least 87.40 % of nominal power up to 30 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the SUNPLUS sales organization of your respective country.

PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions (25 °C, 1000 W/m²).

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I _{SC}	α	[% / K]	+0.043	Temperature Coefficient of V _{OC}	β	[% / K]	-0.25
Temperature Coefficient of P _{MPP}	γ	[% / K]	-0.29	Nominal Module Operating Temperature	NMOT	[°C]	43±3

■ Properties for system Design

Maximum System Voltage	V _{SYS}	1500VDC (IEC)	PV module classification	Class II
Maximum Reverse Current	I _R	25A	Fire Rating based UL61730	Type 29
Max. Design Load, Push / Pull		5400 / 2400	Permitted Module Temperature	-40°C~+85°C
Max. Test Load, Push / Pull		8100 / 4000	on Continuous Duty	

■ Qualifications and Certificates

Quality Controlled PV -
CSA;
UL 61730-1;
UL 61730-2;

Packaging Information

Vertical packaging	1750 mm	1120 mm	1250 mm	910 kg	24 pallets	26 pallets	36 modules
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SUNPLUS pursues minimizing paper output in consideration of the global environment