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MAXIMUM EFFICIENCY %

22.3

POSITIVE POWER TOLERANCE WP

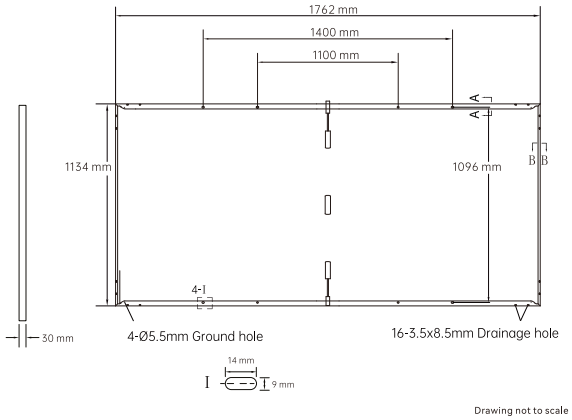
0~+5.00

WATTAGE RANGE WP

425-445

Merchanical Specification

Dimension	1762x1134x30mm (69.37×44.64×1.18 in)
Weight	21.5kg(47.39 lb)
Front Cover	2.0 mm (0.08 in) tempered glass , Anti-Reflection Coated
Back Cover	White backsheet
Frame	Anodized Aluminium Alloy
Cell	N-Type Monocrystalline
Junction Box	Protection class IP68, with bypass diodes
Cable	4mm² Solar Cable (+)≤13.7 in (350 mm) (-)≤9.8 in (250 mm)
Connector	MC 4 or MC 4 Compatible; -IP68



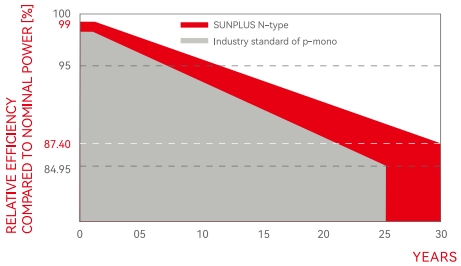
Drawing not to scale

Electrical Characteristics

POWER CLASS			425	430	435	440	445
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC[1] (POWER TOLERANCE +5W / -0W)							
Minimum	Power at MPP[1]	P_{MPP} [W]	425	430	435	440	445
	Short Circuit Current[1]	I_{SC} [A]	13.84	13.92	14.01	14.10	14.19
	Open Circuit Voltage[1]	V_{OC} [V]	38.40	38.60	38.80	39.00	39.20
	Current at MPP	I_{MPP} [A]	13.07	13.15	13.23	13.31	13.40
	Voltage at MPP	V_{MPP} [V]	32.54	32.71	32.88	33.05	33.22
	Efficiency[1]	η [%]	≥21.3	≥21.5	≥21.7	≥22.0	≥22.3
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS NMOT[2]							
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

[1]Measurement 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 • [2]800 W/m², NMOT, spectrum AM 1.5

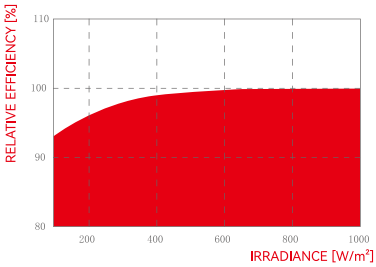
MODULE PERFORMANCE WARRANTY



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	30A	Fire Rating based UL61730		Type 29
Max. Design Load, Push / Pull		5400 / 2400	Permitted Module Temperature on Continuous Duty		-40°C~+85°C
Max. Test Load, Push / Pull		8100 / 4000			

Qualifications and Certificates

Quality Controlled PV - CSA, TUV SUD;
UL 61730-1;
UL 61730-2;
IEC 61730;
IEC 61215.

Packaging Information

Vertical packaging	1780 mm	1105 mm	1254 mm	820 kg	28 pallets	26 pallets	36 modules

SUNPLUS pursues minimizing paper output in consideration of the global environment

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