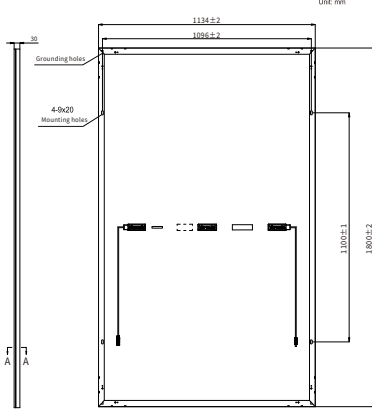


Dimensions of PV Module



ELECTRICAL DATA (STC)

Model Type	RSM108-10-440N	RSM108-10-445N	RSM108-10-450N	RSM108-10-455N	RSM108-10-460N
Rated Power in Watts-Pmax(Wp)	440	445	450	455	460
Open Circuit Voltage-Voc(V)	38.61	38.83	39.03	39.23	39.43
Short Circuit Current-Isc(A)	14.56	14.63	14.70	14.77	14.84
Maximum Power Voltage-Vmpp(V)	32.08	32.27	32.43	32.62	32.81
Maximum Power Current-Impp(A)	13.74	13.82	13.90	13.97	14.04
Module Efficiency (%) *	21.6	21.8	22.1	22.3	22.5

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM 1.5 according to EN 60904-3

* Module Efficiency(%): Round-off to the nearest number

Sorting and binning tolerances: 0-4.99W Measurement tolerance: ±3%

Short Circuit Current tolerance: ±4% Open Circuit Voltage tolerance: ±3%

25 Years Limited Product Warranty applies for residential applications only (15 years for other rooftop applications);

30 Years Limited Power Warranty

The first year degradation:1%,annual degradation:0.4%,power retention rate within 30 years:87.4%

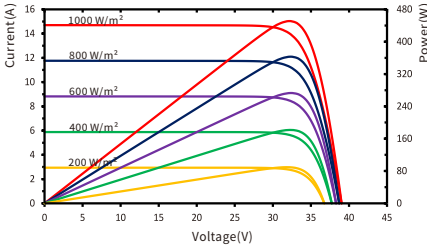
ELECTRICAL DATA (NMOT)

Model Type	RSM108-10-440N	RSM108-10-445N	RSM108-10-450N	RSM108-10-455N	RSM108-10-460N
Maximum Power-Pmax (Wp)	333.9	337.7	341.5	345.1	348.8
Open Circuit Voltage-Voc (V)	35.91	36.11	36.30	36.48	36.67
Short Circuit Current-Isc (A)	11.94	12.00	12.06	12.11	12.17
Maximum Power Voltage-Vmpp (V)	29.77	29.94	30.10	30.27	30.45
Maximum Power Current-Impp (A)	11.21	11.28	11.35	11.40	11.46

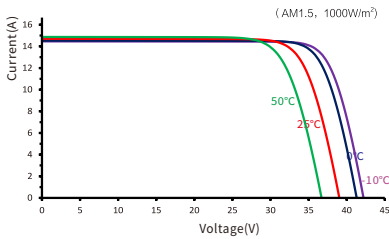
NMOT: Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1 m/s.

RSM108-10-450N

I-V characteristics at different irradiances



I-V characteristics at different temperatures



MECHANICAL DATA

Solar cells	n-type TOPCon
Cell configuration	108 cells (6×9+6×9)
Module dimensions	1800×1134×30/35/40mm
Weight	20~29kg
Superstrate	High Transmission, Low Iron, Tempered ARC Glass
Substrate	Tempered Glass
Frame	Anodized Aluminium Alloy, Silver Color
J-Box	Potted, IP68, 1500VDC, 3 Schottky by pass diodes
Cables	4.0mm ² , Positive(+)1200mm, Negative(-)1200mm (Connector Included)
Connector	Zhejiang Twinsel Electronic Technology Co.,Ltd. PV-SY02, IP68

PACKAGING CONFIGURATION

	40ft(HQ)	20ft
Number of modules per container	936	216
Number of modules per pallet	36	36
Number of pallets per container	26	6
Packaging box dimensions (LxWxH) in mm	1816×1140×1260	
Box gross weight[kg]	945	

TEMPERATURE & MAXIMUM RATINGS

Nominal Module Operating Temperature (NMOT)	44°C±2°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	0.046%/°C
Temperature Coefficient of Pmax	-0.29%/°C
Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500VDC
Fire Class According to UL790	CLASS C
Max Series Fuse Rating	25A
Limiting Reverse Current	25A



RISEN ENERGY CO., LTD.

Tashan Industry Zone, Meilin, Ninghai 315609, Ningbo | PRC

Tel: +86-574-59953239

Fax: +86-574-59953599

E-mail: marketing@risenenergy.com

Website: www.risenenergy.com

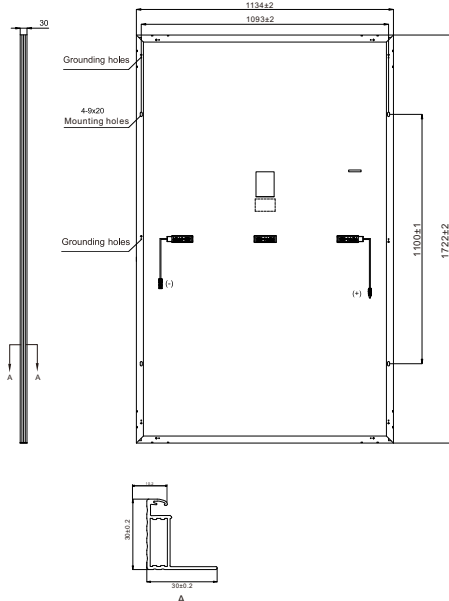
CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

© 2024 Risen Energy. All rights reserved. Contents included in this datasheet are subject to change without notice.

No special undertaking or warranty for the suitability of special purpose or being installed in extraordinary surroundings is granted unless as otherwise specifically committed by manufacturer in contract document.

Dimensions of PV Module

Unit: mm



ELECTRICAL DATA (STC)

Model Number	RSM108-9-415N	RSM108-9-420N	RSM108-9-425N	RSM108-9-430N	RSM108-9-435N	RSM108-9-440N
Rated Power in Watts-Pmax(Wp)	415	420	425	430	435	440
Open Circuit Voltage-Voc(V)	38.67	38.87	39.07	39.27	39.47	39.67
Short Circuit Current-Isc(A)	13.70	13.78	13.86	13.94	14.00	14.06
Maximum Power Voltage-Vmpp(V)	32.37	32.56	32.75	32.95	33.15	33.34
Maximum Power Current-Impp(A)	12.84	12.92	13.00	13.07	13.13	13.18
Module Efficiency (%) ★	21.3	21.5	21.8	22.0	22.3	22.5

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM 1.5 according to EN 60904-3

* Module Efficiency(%): Round-off to the nearest number

Sorting and binning tolerances: 0-4.99W Measurement tolerance: ±3%

Short Circuit Current tolerance ±4% Open Circuit Voltage tolerance: ±3%

15 Years Limited Product Warranty; 30 Years Limited Power Warranty

The first year degradation: 1%, annual degradation: 0.4%, power retention rate within 30 years: 87.4%

ELECTRICAL DATA (NMOT)

Model Number	RSM108-9-415N	RSM108-9-420N	RSM108-9-425N	RSM108-9-430N	RSM108-9-435N	RSM108-9-440N
Maximum Power-Pmax (Wp)	314.8	318.6	322.5	326.1	329.5	332.8
Open Circuit Voltage-Voc (V)	35.78	36.15	36.34	36.52	36.71	36.89
Short Circuit Current-Isc (A)	11.16	11.30	11.37	11.43	11.48	11.53
Maximum Power Voltage-Vmpp (V)	29.86	30.22	30.40	30.57	30.76	30.94
Maximum Power Current-Impp (A)	10.48	10.54	10.61	10.67	10.71	10.76

NMOT: Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1 m/s.

MECHANICAL DATA

Solar cells	n-type
Cell configuration	108 cells (6×9+6×9)
Module dimensions	1722*1134*30/35/40mm
Weight	20~29kg
Superstrate	High Transmission, Low Iron, Tempered ARC Glass
Substrate	White Back-sheet
Frame	Anodized Aluminium Alloy
J-Box	Potted, IP68, 1500VDC, 3 Schottky bypass diodes
Cables	4.0mm ² , Positive(+)1200mm, Negative(-)1200mm (Connector Included) or customized length
Connector	Zhejiang Twinsel Electronic Technology Co.,Ltd. PV-SY02, IP68

TEMPERATURE & MAXIMUM RATINGS

Nominal Module Operating Temperature (NMOT)	44°C±2°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	0.046%/°C
Temperature Coefficient of Pmax	-0.30%/°C
Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500VDC
Fire Class According to UI790	CLASS C
Max Series Fuse Rating	25A
Limiting Reverse Current	25A

PACKAGING CONFIGURATION

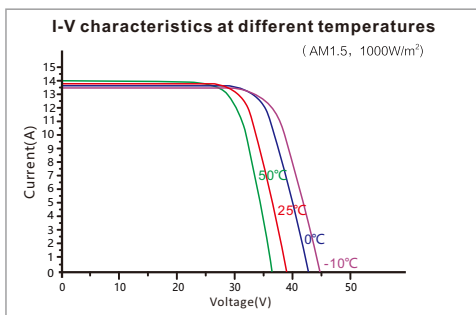
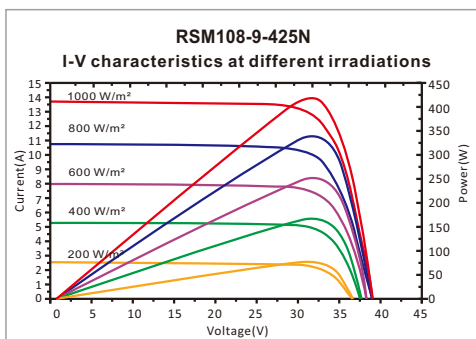
	40ft(HQ)	20ft
Number of modules per container	936	216
Number of modules per pallet	36	36
Number of pallets per container	26	6
Packaging box dimensions (LxWxH) in mm	1738×1140×1260	1738×1140×1260
Box gross weight[kg]	835	835

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

©2023 Risen Energy. All rights reserved. Contents included in this datasheet are subject to change without notice.

No special undertaking or warranty for the suitability of special purpose or being installed in extraordinary surroundings is granted unless as otherwise specifically committed by manufacturer in contract document.

THE POWER OF RISING VALUE



RISEN ENERGY CO., LTD

Tashan Industry Zone, Meilin,
Ninghai 315609, Ningbo | PRC

Tel: +86-574-59953239

Fax: +86-574-59953599

E-mail: marketing@risenenergy.com

Website: www.risenenergy.com

RSM108-N-16BB-EN-H2-1-2023-AU