

## *n*-type TOPCon

### HIGH PERFORMANCE DUAL GLASS MODULE

#### RSM108-9-415-440NDG



The module picture is for reference only



As there are different certification requirements in different markets, please contact your local Risen Energy sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

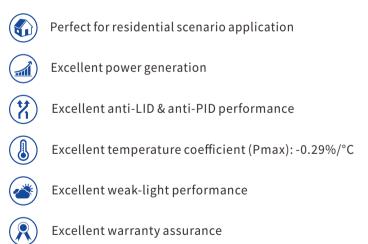
# 415-440 Wp

Power Output Range

0~+3%

Positive power tolerance

#### **KEY FEATURES**



22.5 %

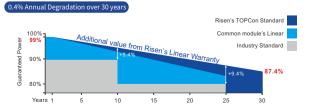
Maximum Efficiency

1500<sub>VDC</sub>

Maximum System Voltage

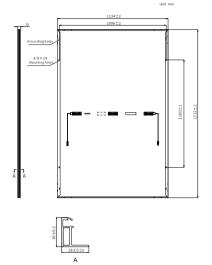
#### LINEAR PERFORMANCE WARRANTY

15 years Product Warranty / 30 years Linear Power Warranty



Please check the valid version of Limited Product Warranty which is officially released by Risen Energy Co., Ltd

**Dimensions of PV Module** 



RSM108-9-425NDG I-V characteristics at different irradiations

I-V characteristics at different temperatures

**PACKAGING CONFIGURATION** 

(AM1.5, 1000W/m<sup>2</sup>)

Voltage(V)

40ft(HQ)

936

36

26

20ft

216

36

6

1745×1110×1260

904

Ower(W)

400 350

300

250

200 150 100

50

Current(A) 16

14

12

10

0.

1000 W/n

800 W/m

600 W/I

10 15 20 25 30 35 40 49 Voltage(V)

10 15 20 25 30 35 40 45

Number of modules per container

Number of modules per pallet

Box gross weight[kg]

Number of pallets per container

Packaging box dimensions (LxWxH) in mm

5

#### **ELECTRICAL DATA (STC)**

Model Type	RSM108-9-415-440NDG					
Rated Power in Watts-Pmax(Wp)	415	420	425	430	435	440
Open Circuit Voltage-Voc(V)	38.67	38.87	39.07	39.26	39.46	39.65
Short Circuit Current-Isc(A)	13.69	13.78	13.86	13.94	14.01	14.09
Maximum Power Voltage-Vmpp(V)	32.39	32.59	32.78	32.98	33.18	33.38
Maximum Power Current-Impp(A)	12.83	12.91	12.99	13.06	13.12	13.19
Module Efficiency (%) \star	21.3	21.5	21.8	22.0	22.3	22.5

STC: Irradiance 1000 W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3.

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

#### **ELECTRICAL DATA (NMOT)**

Model Type	RSM108-9-415-440NDG					
Maximum Power-Pmax (Wp)	314.8	318.6	322.4	326.0	329.6	333.4
Open Circuit Voltage-Voc (V)	35.96	36.15	36.34	36.51	36.70	36.87
Short Circuit Current-Isc (A)	11.23	11.30	11.36	11.43	11.49	11.55
Maximum Power Voltage-Vmpp (V)	30.06	30.24	30.42	30.61	30.79	30.98
Maximum Power Current-Impp (A)	10.47	10.54	10.60	10.65	10.71	10.76

#### **MECHANICAL DATA**

Solar cells	<i>n</i> -type TOPCon			
Cell configuration	108 cells (6×9+6×9)			
Module dimensions	1722×1134×30mm			
Weight	24kg			
Superstrate	High Transmission, Low Iron, AR Coated Heat Strengthened Glass			
Substrate	Heat Strengthened Glass			
Frame	Anodized Aluminium Alloy, Black			
J-Box	Potted, IP68, 1500VDC, 3 Schottky by pass diodes			
Cables	4.0mm <sup>2</sup> , Positive(+)1200mm, Negative(-)1200mm (Connector Included ), or customized length			
Connector	Risen Twinsel 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	-0.29%/°C
Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500VDC
Max Series Fuse Rating	30A
Limiting Reverse Current	30A

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

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# NMOT: Irradiance at 800 W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1 m/s.

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