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# INSTALLATION MANUAL REC 72-CELL MODULES

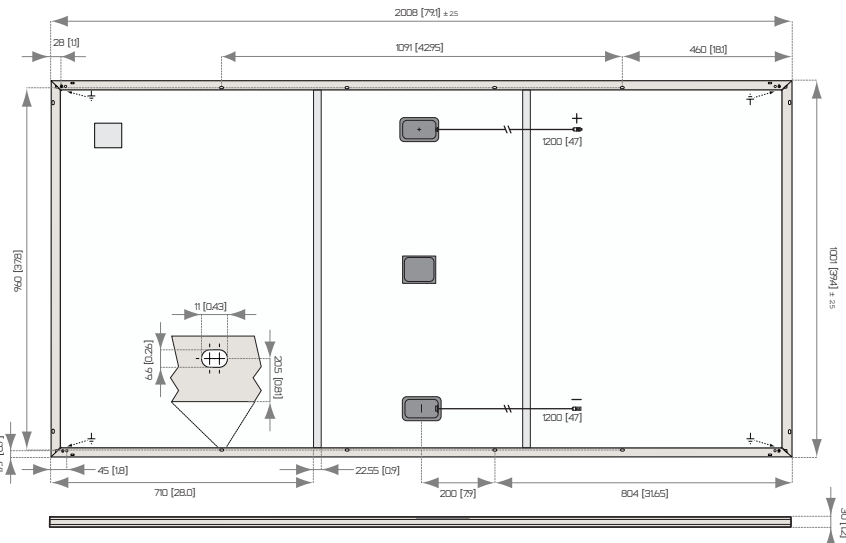
Installation instructions for all REC 72-cell size solar panels certified according to IEC 61215 & UL 61730:

- REC TwinPeak 3S Mono 72 Series



# TECHNICAL CHARACTERISTICS: REC TWINPEAK 3S MONO 72 SERIES

Fig. 17: Panel dimensions: REC TwinPeak 3S Mono 72 Series



All measurements in mm [in]

ELECTRICAL DATA @ STC	Product code*: RECxxxTP3SM 72					
Power Output - $P_{MAX}$ (Wp)	380	385	390	395	400	405
Watt Class Sorting - (W)	0/+5	0/+5	0/+5	0/+5	0/+5	0/+5
Nominal Power Voltage - $V_{MPP}$ (V)	40.4	40.7	40.9	41.1	41.4	41.7
Nominal Power Current - $I_{MPP}$ (A)	9.41	9.47	9.54	9.60	9.67	9.72
Open Circuit Voltage - $V_{OC}$ (V)	46.9	47.2	47.6	47.9	48.2	48.6
Short Circuit Current - $I_{SC}$ (A)	10.30	10.33	10.35	10.38	10.42	10.44
Panel Efficiency (%)	18.9	19.2	19.4	19.7	19.9	20.1

Values at standard test conditions STC (airmass AM 1.5, irradiance 1000 W/m<sup>2</sup>, cell temperature 77°F (25°C).  
At low irradiance of 200 W/m<sup>2</sup> (AM 1.5 and cell temperature 77°F (25°C)) at least 95% of the STC module efficiency will be achieved.  
\*xxx indicates the nominal power class ( $P_{MAX}$ ) at STC, and can be followed by the suffix XV for modules with a 1500 V maximum system rating.

ELECTRICAL DATA @ NMOT	Product code*: RECxxxTP3SM 72					
Power Output - $P_{MAX}$ (Wp)	283	287	291	294	298	302
Nominal Power Voltage - $V_{MPP}$ (V)	37.6	37.9	38.1	38.3	38.5	38.8
Nominal Power Current - $I_{MPP}$ (A)	7.53	7.58	7.63	7.68	7.73	7.78
Open Circuit Voltage - $V_{OC}$ (V)	43.7	44.0	44.3	44.6	44.9	45.3
Short Circuit Current - $I_{SC}$ (A)	8.24	8.26	8.28	8.31	8.34	8.35

Nominal cell operating temperature NOCT (800 W/m<sup>2</sup>, AM 1.5, windspeed 1 m/s, ambient temperature 68°F(20°C).  
\*xxx indicates the nominal power class ( $P_{MAX}$ ) at STC, and can be followed by the suffix XV for modules with a 1500 V maximum system rating.

## CERTIFICATION



UL 61730, Fire classification: Type I (1500 V XV);  
IEC 61215, IEC 61730,  
ISO 9001: 2015, ISO 14001: 2004, OHSAS 18001: 2007

## WARRANTY

20 year product warranty  
25 year linear power output warranty  
Max. performance degradation of 0.5% p.a. from 97.5% in year 1  
See warranty conditions for further details.

**20.1%** EFFICIENCY  
**20** YEAR PRODUCT WARRANTY  
**25** YEAR LINEAR POWER OUTPUT WARRANTY

## GENERAL DATA

Cell type:	144 half-cut monocrystalline PERC cells 6 strings of 24 cells in series
Glass:	0.13" (3.2 mm) solar glass with anti-reflection surface treatment
Backsheet:	Highly resistant polymeric construction
Frame:	Anodized aluminum
Support bars:	Anodized aluminum
Junction box:	3-part, 3 bypass diodes, IP67 rated in accordance with IEC 62790
Cable:	4 mm <sup>2</sup> solar cable, 1.2 m + 1.2 m in accordance with EN 50618
Connectors:	Stäubli MC4-Evo2 PV-KBT4-EVO-2/PV-KST4-EVO-2 (4 mm <sup>2</sup> ) in accordance with IEC 62852, IP68 only when connected Tonglin TL-Cable015-F (4 mm <sup>2</sup> ) in accordance with IEC 62852, IP68 only when connected
Origin:	Made in Singapore

## MAXIMUM RATINGS

Operational temperature:	-40 ... +185°F (-40 ... +85°C)
Maximum system voltage:	1000 V / 1500 V
Design load (+): snow	75.2 lbs/ft <sup>2</sup> (3600 Pa)*
Maximum test load (+):	112.8 lbs/ft <sup>2</sup> (5400 Pa)*
Design load (-): wind	33.4 lbs/ft <sup>2</sup> (1600 Pa)*
Maximum test load (-):	50.1 lbs/ft <sup>2</sup> (2400 Pa)*
Max series fuse rating:	25 A
Max reverse current:	25 A

\* Calculated using a safety factor of 1.5  
\* See installation manual for mounting instructions

## TEMPERATURE RATINGS

Nominal Module Operating Temperature:	44.6°C (±2°C)
Temperature coefficient of $P_{MAX}$ :	-0.37 %/°C
Temperature coefficient of $V_{OC}$ :	-0.28 %/°C
Temperature coefficient of $I_{SC}$ :	0.04 %/°C

\*The temperature coefficients stated are linear values

## MECHANICAL DATA

Dimensions:	79.1" x 39.4" x 1.2" (2008 x 1001 x 30 mm)
Area:	21.6 ft <sup>2</sup> (2.01 m <sup>2</sup> )
Weight:	49.2 lbs (22.3 kg)

Specifications subject to change without notice.

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