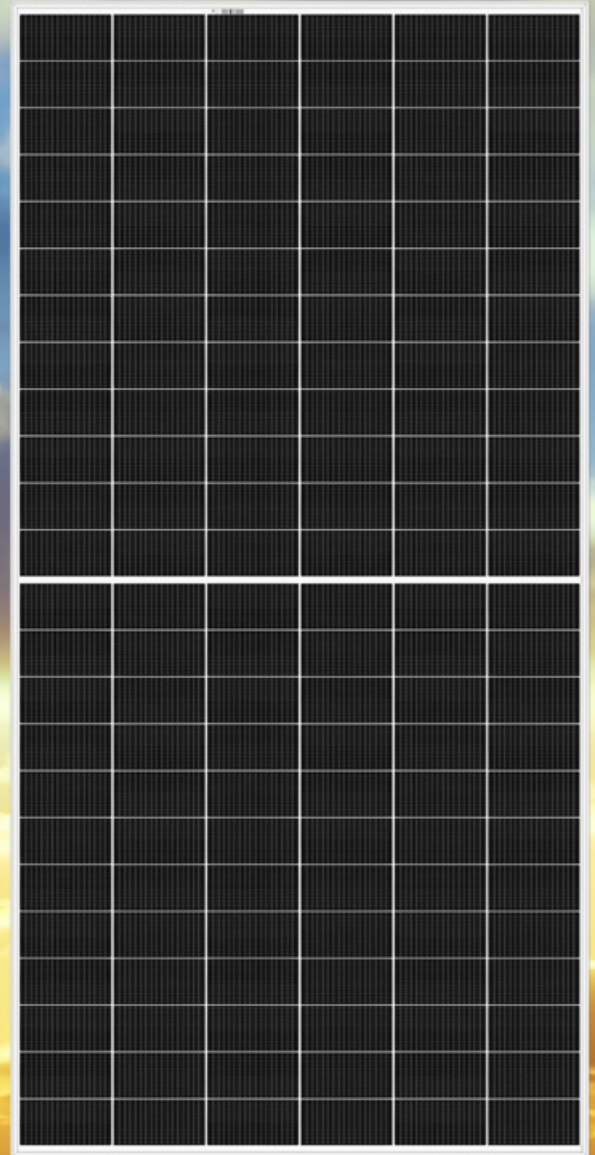


SOLAR'S MOST TRUSTED



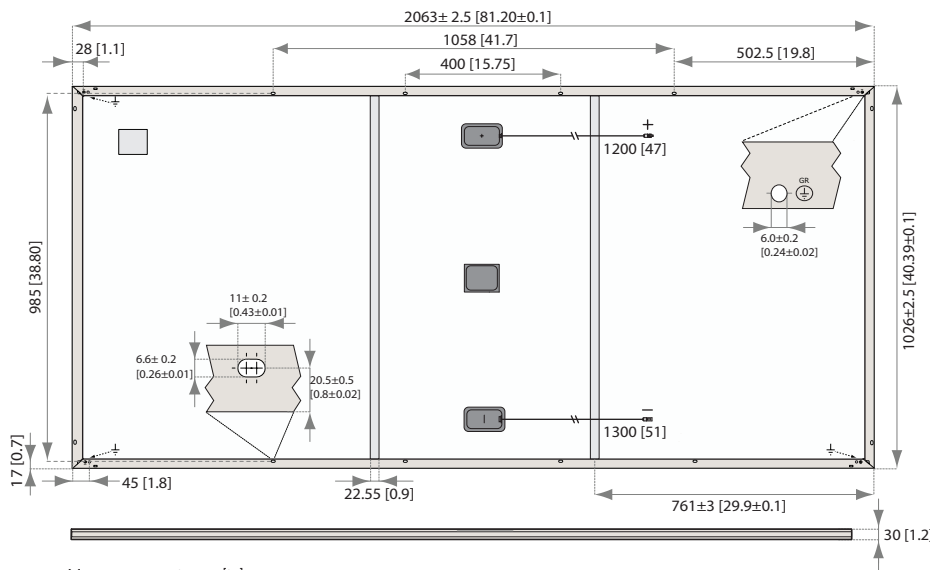
# REC ALPHA 72 SERIES

PRODUCT SPECIFICATIONS

450  
WP  
POWER



EXPERIENCE  
 $\alpha$   
PERFORMANCE



Measurements in mm [in]

**CERTIFICATIONS**

IEC 61215:2016, IEC 61730:2016, UL 61730	
IEC 62804	PID
IEC 61701	Salt Mist
IEC 62716	Ammonia Resistance
ISO 11925-2	Ignitability (Class E)
IEC 62782	Dynamic Mechanical Load
IEC 61215-2:2016	Hailstone (35mm)
AS4040.2 NCC 2016	Cyclic Wind Load
ISO 14001:2004, ISO 9001:2015, OHSAS 18001:2007, IEC 62941	



**WARRANTY\***

	Standard	REC ProTrust	
Installed by an REC Certified Solar Professional	No	Yes	Yes
System Size	All	≤25 kW	25-500 kW
Product Warranty (yrs)	20	25	25
Power Warranty (yrs)	25	25	25
Labor Warranty (yrs)	0	25	10
Power in Year 1	98%	98%	98%
Annual Degradation	0.25%	0.25%	0.25%
Power in Year 25	92%	92%	92%

See warranty documents for details. Conditions apply.

**MAXIMUM RATINGS**

Operational temperature:	-40 ... +85°C
Maximum system voltage:	1500 V
Maximum test load (front):	+5400 Pa (550 kg/m <sup>2</sup> )*
Maximum test load (rear):	-2400 Pa (245 kg/m <sup>2</sup> )*
Max series fuse rating:	25 A
Max reverse current:	25 A

\*See installation manual for mounting instructions.  
Design load = Test load / 1.5 (safety factor)

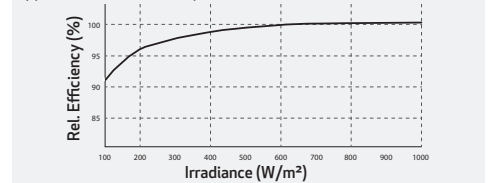
**TEMPERATURE RATINGS\***

Nominal Module Operating Temperature:	44°C (±2°C)
Temperature coefficient of P <sub>MAX</sub> :	-0.26 %/°C
Temperature coefficient of V <sub>OC</sub> :	-0.24 %/°C
Temperature coefficient of I <sub>SC</sub> :	0.04 %/°C

\*The temperature coefficients stated are linear values

**LOW LIGHT BEHAVIOUR**

Typical low irradiance performance of module at STC:



**GENERAL DATA**

Cell type:	144 half-cut cells with REC heterojunction cell technology 6 strings of 24 cells in series	Connectors:	Stäubli MC4 Evo 2 PV-KBT4-EVO-2/PV-KST4-EVO-2 (4 mm <sup>2</sup> ) in accordance with IEC 62852 IP68 only when connected
Glass:	3.2 mm solar glass with anti-reflection surface treatment	Cable:	4 mm <sup>2</sup> solar cable, 1.2 m + 1.3 m in accordance with EN 50618
Backsheet:	Highly resistant polymeric construction	Dimensions:	2063 x 1026 x 30 mm
Frame:	Anodized aluminum	Weight:	23.5 kg
Junction box:	3-part, 3 bypass diodes, IP67 rated in accordance with IEC 62790	Origin:	Made in Singapore

**ELECTRICAL DATA**

Product Code\*: RECxxxAA 72

	430	435	440	445	450
Power Output - P <sub>MAX</sub> (Wp)	430	435	440	445	450
Watt Class Sorting - (W)	-0/+5	-0/+5	-0/+5	-0/+5	-0/+5
Nominal Power Voltage - V <sub>MPP</sub> (V)	44.1	44.5	44.8	45.3	45.6
Nominal Power Current - I <sub>MPP</sub> (A)	9.76	9.79	9.84	9.85	9.88
Open Circuit Voltage - V <sub>OC</sub> (V)	52.6	52.8	52.9	53.0	53.1
Short Circuit Current - I <sub>SC</sub> (A)	10.46	10.50	10.52	10.54	10.55
Power Density (W/m <sup>2</sup> )	203.2	205.5	207.9	210.2	212.6
Panel Efficiency (%)	20.3	20.6	20.8	21.0	21.3
Power Output - P <sub>MAX</sub> (Wp)	328	332	336	339	343
Nominal Power Voltage - V <sub>MPP</sub> (V)	41.6	41.9	42.2	42.7	43.0
Nominal Power Current - I <sub>MPP</sub> (A)	7.88	7.91	7.95	7.95	7.98
Open Circuit Voltage - V <sub>OC</sub> (V)	49.6	49.8	49.8	49.9	50.0
Short Circuit Current - I <sub>SC</sub> (A)	8.45	8.48	8.50	8.51	8.52

Values at standard test conditions (STC: air mass AM1.5, irradiance 1000 W/m<sup>2</sup>, temperature 25°C), based on a production spread with a tolerance of P<sub>MAX</sub>, V<sub>OC</sub> & I<sub>SC</sub> ±3% within one watt class.  
Nominal module operating temperature (NMOT: air mass AM1.5, irradiance 800 W/m<sup>2</sup>, temperature 20°C, windspeed 1 m/s).  
\*Where xxx indicates the nominal power class (P<sub>MAX</sub>) at STC above and is followed by the suffix XV for 1500V rated modules.

Founded in 1996, REC Group is an international pioneering solar energy company dedicated to empowering consumers with clean, affordable solar power. As Solar's Most Trusted, REC is committed to high quality, innovation, and a low carbon footprint in the solar materials and solar panels it manufactures. Headquartered in Norway with operational headquarters in Singapore, REC also has regional hubs in North America, Europe, and Asia-Pacific.

