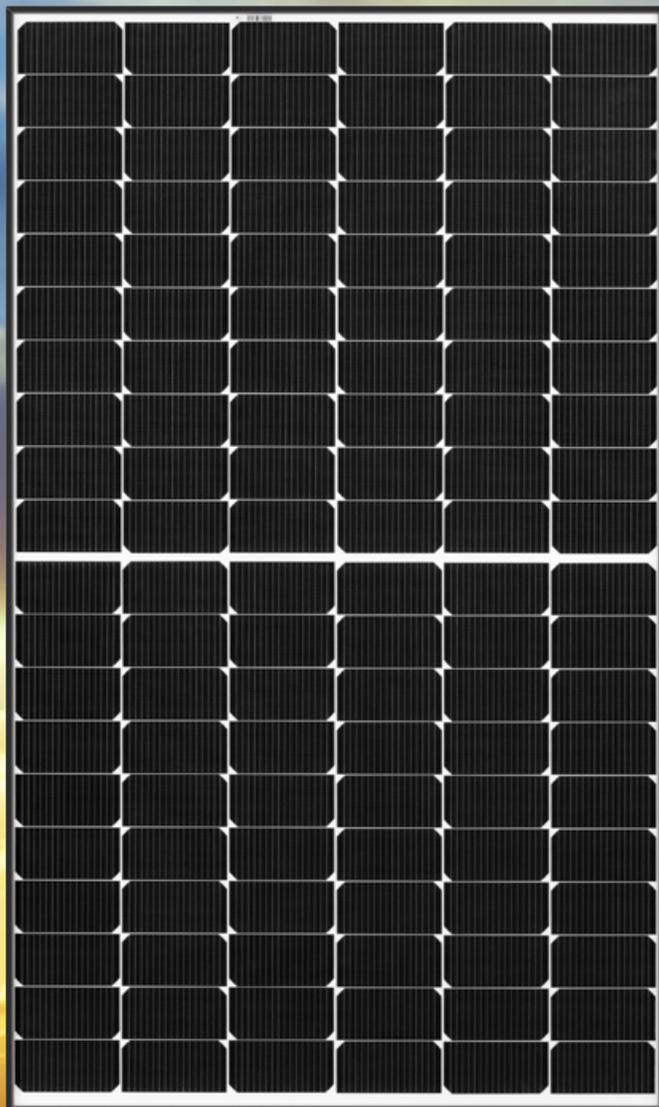SOLAR'S MOST TRUSTED

REC

REC ALPHα
SERIES

380 Wp   POWER

20 YEAR   PRODUCT WARRANTY
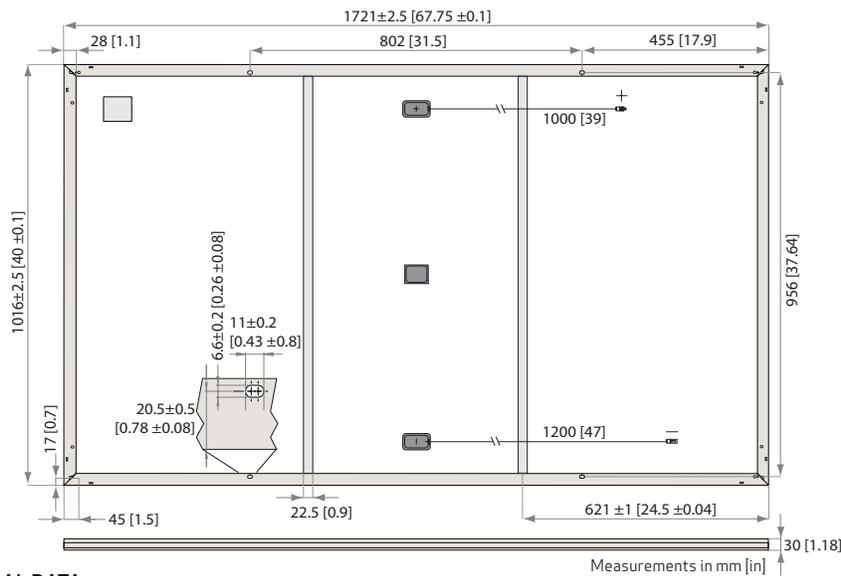
25 YEAR   POWER OUTPUT WARRANTY

α

recgroup.com/alpha

REC ALPHα SERIES
PRODUCT DATASHEET

Measurements in mm [in]

Dimensions in diagram: 1721±2.5 [67.75 ±0.1], 28 [1.1], 802 [31.5], 455 [17.9], 1000 [39], 1016±2.5 [40 ±0.1], 956 [37.64], 6.6±0.2 [0.26 ±0.08], 11±0.2 [0.43 ±0.8], 20.5±0.5 [0.78 ±0.08], 17 [0.7], 1200 [47], 45 [1.5], 22.5 [0.9], 621 ±1 [24.5 ±0.04], 30 [1.18]

CERTIFICATIONS

IEC 61215:2016, IEC 61730:2016, UL 1703, UL 61730	
IEC 62804	PID
IEC 61701	Salt Mist
IEC 62716	Ammonia Resistance
UL 1703	Fire Type Class 2
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	

WARRANTY

20 year product warranty
25 year linear power output warranty
Maximum annual power degression of 0.25% p.a.
Guarantees 92% of power after 25 years
See warranty conditions for further details.

MECHANICAL DATA

Dimensions:	67.8 x 40 x 1.2 in (1721 x 1016 x 30 mm)
Area:	18.8 sq ft (1.75 m²)
Weight:	43 lbs (19.5 kg)

GENERAL DATA

Cell type:	120 half-cut cells with REC heterojunction cell technology 6 strings of 20 cells in series	Junction box:	3-part, 3 bypass diodes, IP67 rated in accordance with IEC 62790
Glass:	0.13 in (3.2 mm) solar glass with anti-reflection surface treatment	Cable:	12 AWG (4 mm²) PV wire, 39 + 47 in (1 + 1.2 m) in accordance with EN 50618
Backsheet:	Highly resistant polymeric construction	Connectors:	Stäubli MC4 PV-KBT4/KST4, 12 AWG (4 mm²) in accordance with IEC 62852 IP68 only when connected
Frame:	Anodized aluminum (black)	Origin:	Made in Singapore

MAXIMUM RATINGS

Operational temperature:	-40 ... +85°C
Maximum system voltage:	1000 V
Design load (+): snow	4666 Pa (97.5 lbs/sq ft)[+]
Maximum test load (+):	7000 Pa (146 lbs/sq ft)[*]
Design load (-): wind	2666 Pa (55.6 lbs/sq ft)[+]
Maximum test load (-):	4000 Pa (83.5 lbs/sq ft)[*]
Max series fuse rating:	25 A
Max reverse current:	25 A

[+] Calculated using a safety factor of 1.5
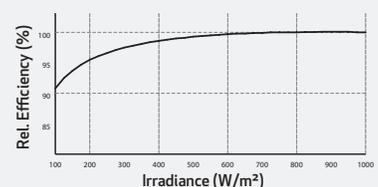[*] See installation manual for mounting instructions

ELECTRICAL DATA @ STC

Product Code*: RECxxxAA

Nominal Power - P_{MPP} (Wp)	360	365	370	375	380
Watt Class Sorting - (W)	-0/+5	-0/+5	-0/+5	-0/+5	-0/+5
Nominal Power Voltage - V_{MPP} (V)	37.7	38.0	38.3	38.7	39.0
Nominal Power Current - I_{MPP} (A)	9.55	9.60	9.66	9.72	9.76
Open Circuit Voltage - V_{OC} (V)	44.1	44.3	44.5	44.6	44.7
Short Circuit Current - I_{SC} (A)	10.23	10.26	10.30	10.40	10.46
Panel Efficiency (%)	20.6	20.9	21.2	21.4	21.7

Values at standard test conditions (STC: air mass AM 1.5, irradiance 10.75 W/sq ft (1000 W/m²), temperature 77°F (25°C), based on a production spread with a tolerance of V_{OC} & I_{SC} ±3% within one watt class. * Where xxx indicates the nominal power class (P_{MPP}) at STC above.

TEMPERATURE RATINGS*

Nominal Module Operating Temperature:	44°C (±2°C)
Temperature coefficient of P_{MPP}:	-0.26 %/°C
Temperature coefficient of V_{OC}:	-0.24 %/°C
Temperature coefficient of I_{SC}:	0.04 %/°C

*The temperature coefficients stated are linear values

ELECTRICAL DATA @ NMOT

Product Code*: RECxxxAA

Nominal Power - P_{MPP} (Wp)	274	278	282	286	290
Nominal Power Voltage - V_{MPP} (V)	35.5	35.8	36.1	36.4	36.7
Nominal Power Current - I_{MPP} (A)	7.71	7.76	7.80	7.85	7.88
Open Circuit Voltage - V_{OC} (V)	41.6	41.7	41.9	42.0	42.1
Short Circuit Current - I_{SC} (A)	8.26	8.29	8.32	8.40	8.45

Nominal module operating temperature (NMOT: air mass AM 1.5, irradiance 800 W/m², temperature 68°F (20°C), windspeed 3.3 ft/s (1 m/s). * Where xxx indicates the nominal power class (P_{MPP}) at STC above.

LOW LIGHT BEHAVIOUR

Typical low irradiance performance of module at STC:

Rel. Efficiency (%) vs Irradiance (W/m²)

Founded in Norway in 1996, REC is a leading vertically integrated solar energy company. Through integrated manufacturing from silicon to wafers, cells, high-quality panels and extending to solar solutions, REC provides the world with a reliable source of clean energy. REC's renowned product quality is supported by the lowest warranty claims rate in the industry. REC is a Bluestar Elkem company with headquarters in Norway and operational headquarters in Singapore. REC employs around 2,000 people worldwide, producing 1.5 GW of solar panels annually.

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