SOLAR'S MOST TRUSTED

REC

REC ALPHA®
PRO M SERIES

DATASHEET



610-640 W_P

HETEROJUNCTION TECHNOLOGY

22.5% MAX. EFFICIENCY

-0.24% /K TEMP. COEFF. P_{MAX}

92% MIN. POWER IN YEAR 25

PRODUCT
REC 25 YEAR ProTrust WARRANTY
PERFORMANCE
LABOR

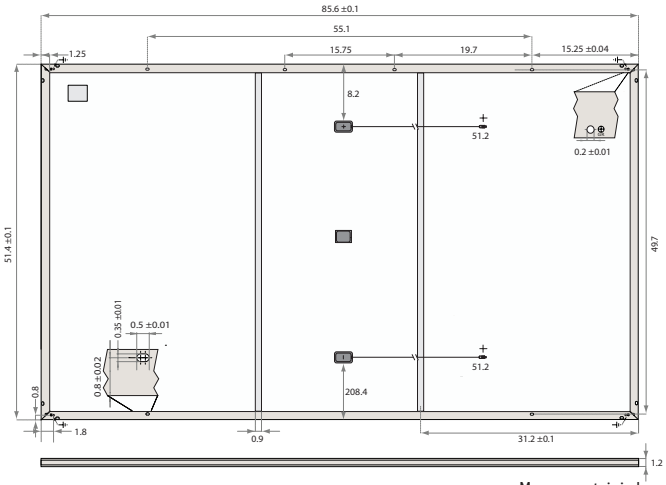
ELIGIBLE

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DATASHEET

GENERAL DATA

Cell Type	120 half-cut REC bifacial heterojunction cells
Glass	0.13 in solar glass with anti-reflective surface treatment in accordance with EN12150
Backsheet	Highly resistant polymer (White)
Frame	Anodized aluminum (Silver)
Junction Box	3-part, 3 bypass diodes, lead-free IP68 rated, in accordance with IEC 62790
Connectors	Stäubli MC4-EVO2 (12AWG) in accordance with IEC 62852, IP68 only when connected
Cable	12 AWG solar cable, 51.2 in + 51.2 in in accordance with EN50618
Dimensions	85.6 x 51.4 x 1.2 in (30.6 ft²)
Weight	71.6 lbs
Origin	Made in Singapore



Measurements in inches

ELECTRICAL DATA

	PRODUCT CODE*: RECxxxAA Pro M			
STC	**610**	**620**	**630**	**640**
Power Output - P_{MAX} (W_P)				
Watt Class Sorting - (W)	0/+10	0/+10	0/+10	0/+10
Nominal Power Voltage - V_{MPP}(V)	36.3	36.6	36.8	37.1
Nominal Power Current - I_{MPP}(A)	16.81	16.94	17.12	17.26
Open Circuit Voltage - V_{OC} (V)	44.4	44.6	44.7	44.9
Short Circuit Current - I_{SC} (A)	17.56	17.67	17.78	17.89
Power Density (W/ft²)	19.9	20.3	20.6	20.9
Panel Efficiency (%)	21.5	21.8	22.2	22.5
NMOT				
Power Output - P_{MAX} (W_P)	464	469	477	485
Nominal Power Voltage - V_{MPP} (V)	34.2	34.3	35.5	34.8
Nominal Power Current - I_{MPP} (A)	13.85	13.69	13.84	13.95
Open Circuit Voltage - V_{OC} (V)	41.9	41.8	41.9	42.1
Short Circuit Current - I_{SC} (A)	14.18	14.28	14.37	14.46

Values at standard test conditions (STC: air mass AM 1.5, irradiance 1000 W/m², temperature 77°F (25°C)), based on a production spread with a tolerance of P_{MAX}, V_{OC} & I_{SC} ±3% within one watt class. 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_{MAX}) at STC above.

MAXIMUM RATINGS*

Operational Temperature	-40 °F - 185 °F
System Voltage	1500 V
Maximum Test Load (front)	+5400 Pa (112.6 lb/ft²)
Maximum Test Load (rear)	-2400 Pa (50.2 lb/ft²)
Max Series Fuse Rating	35 A
Max Reverse Current	35 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_{MAX}	-0.24% /K
Temperature coefficient of V_{OC}	-0.24% /K
Temperature coefficient of I_{SC}	0.04% /K

*The temperature coefficients stated are linear values

DELIVERY INFORMATION

Panels per Pallet	33
Panels per 40 ft GP/high cube container	528 (16 Pallets)
Panels per 53 ft truck	594 (18 Pallets)

CERTIFICATIONS

IEC 61215:2021; IEC61730:2016; UL61730	
ISO 11925-2	Ignitability (EN 13501-1 Class E)
IEC 62716	Ammonia Resistance
IEC 61701	Salt Mist (SM6)
IEC 61215:2016	Hailstone (35mm)
UL 61730	Fire Type 1
ISO 14001; ISO9001; IEC45001; IEC62941	

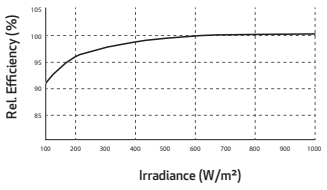
WARRANTY

	Standard	REC ProTrust	
Installed by an REC Certified 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%

The REC ProTrust Warranty is only available on panels purchased through an REC Certified Solar Professional installer. Warranty conditions apply. See www.recgroup.com for more details

LOW LIGHT BEHAVIOR

Typical low irradiance performance of module at STC:



Available from:

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.

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Specifications subject to change without notice.

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