

RAYZON SOLAR

L'LIOS

425 Wp – 440 Wp

N-TYPE TOPCON 16BB
BIFACIAL (GLASS TO GLASS)

30 Years Warranty for
Linear Performance*



15 Years Product Warranty on
Materials and Workmanship*



PRODUCT | CERTIFICATES

IS 14286, IEC: 61215, 61730, 62804, 61853, 61701, 62716 •
Quality Management System : ISO 9001:2015 •
Environment Management System : ISO 14001: 2015 •
Occupational Health and Safety : ISO 45001:2018 •



PRODUCT | KEY FEATURES

- Anti-reflective (AR) Coated Glass for Enhanced Power
- Excellent Module Efficiency with Bifacial Power Gain
- Rayzon Solar Module ensures Long-term reliability
- Positive Power Tolerance with Current Binning to Prevent Mismatch Losses

TECHNICAL DATA

ELECTRICAL PERFORMANCE [Note: Power tolerance: 0 ~ +4.99 W. Power measurement uncertainty: < ±3%. Average value of NOCT: 45.08 ± 2 °C]

ELECTRICAL CHARACTERISTICS*	RS425108TBC		RS430108TBC		RS435108TBC		RS440108TBC	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Nominal Maximum Power (Pmax)	425 W	319 W	430 W	323 W	435 W	326 W	440 W	330 W
Optimum Operating Voltage (Vmp)	33.15 V	31.13 V	33.42 V	31.39 V	33.56 V	31.52 V	33.70 V	31.65 V
Optimum Operating Current (Imp)	12.84 A	10.25 A	12.87 A	10.28 A	12.97 A	10.35 A	13.07 A	10.43 A
Open Circuit Voltage (Voc)	39.14 V	36.91 V	39.45 V	37.20 V	39.60 V	37.34 V	39.75 V	37.49 V
Short Circuit Current (Isc)	13.54 A	10.91 A	13.65 A	11.00 A	13.71 A	11.05 A	13.77 A	11.10 A
Module Efficiency	21.78 %		22.04 %		22.30 %		22.55 %	

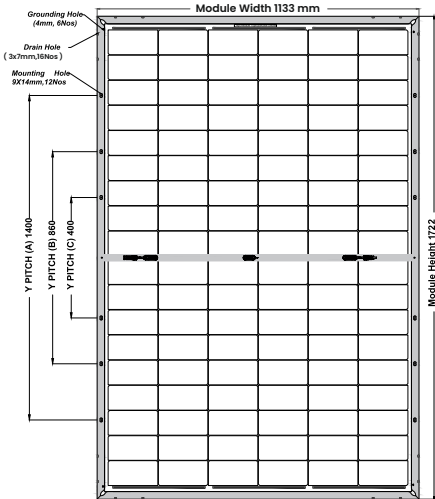
BIFACIAL OUTPUT – BACKSIDE POWER GAIN @ STC* [Bifaciality Factor: 80% ± 10%]

[Note: The bifacial gain depends on the power plant design and site conditions. Electrical component ratings should be selected as per actual Bifacial gain at site (module currents indicated below)]

5%	Nominal Maximum Power (Pmax)	446 W	452 W	457 W	462 W
	Module Short Circuit Current / Efficiency	14.22 / 22.87 %	14.34 / 23.14 %	14.40 / 23.41 %	14.46 / 23.68 %
10%	Nominal Maximum Power (Pmax)	468 W	473 W	479 W	484 W
	Module Short Circuit Current / Efficiency	14.89 / 23.96 %	15.02 / 24.24 %	15.08 / 24.53 %	15.15 / 24.81 %
25%	Nominal Maximum Power (Pmax)	531 W	538 W	544 W	550 W
	Module Short Circuit Current / Efficiency	16.92 / 27.23 %	17.07 / 27.55 %	17.14 / 27.87 %	17.21 / 28.19 %

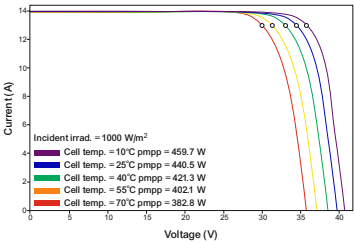
BACK VIEW

SIDE VIEW

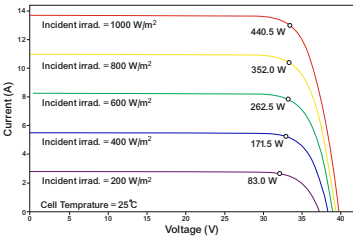


*All dimensions are in mm with +/- 2mm tolerance.

IV Curve Variation with Temperature

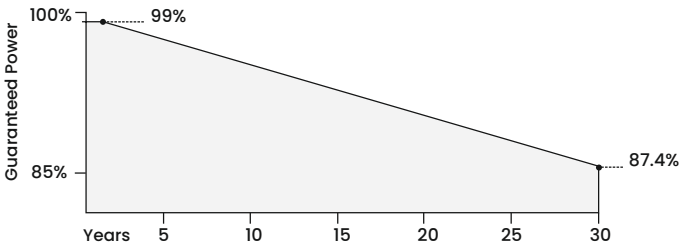


IV Curve Variation with Irradiance



IV Curves for Front-Side Illumination of 440 Wp Panel

LINEAR PERFORMANCE WARRANTY



MECHANICAL SPECIFICATIONS

Dimensions	1722(L) x 1133(W) x 35(T) In mm
Weight(kg)	25
Cell type / No Of Cell	108 Half-cut N-type TOPCon Bifacial Solar cells
Frame	Anodized Aluminum Alloy (6005, Temper T6, Black colour)
Front Cover	Semi-Tempered AR coated Glass (2 mm thick)
Encapsulate	PID resistant and UV resistant Polymeric Film
Back Cover	Semi-Tempered Glass (2 mm thick)
Junction Box	30A Split Junction Box (3 nos. with individual Bypass Diode) – Weatherproof (IP68)
Bypass Diode	50 A, 45 V, 200 °C max. junction temperature
Cable	4 sq. mm, 300 mm length (Customised cable length available on request)
Connectors	MC4 compatible (MC4 original available on request)
Application Class Rating	Class A
Safety Class Rating	Class II
Mechanical Load Test	5400 Pa-Front; 2400 Pa-Back (as per IEC & UL)
Mounting Holes Pitch (Y) -mm	[A] 1400, [B] 860,[C] 400
Mounting Holes Pitch (X) -mm	1095

Caution: Please read safety and installation instructions before using the product. *Warranty: Linear performance warranty for 30 years, with degradation up to 1% in 1st year and 0.4 %/year from year 2 to year 30. Please read Rayzon warranty documents thoroughly. Disclaimer: Specifications included in the datasheet are subject to change without prior notice owing to continuous innovation in the Product Development and R&D Activities. RAYZON SOLAR LTD. reserves the right to make any adjustment to the information described here. Dataset contained in this specification do not form a representative of a single module data. @T&C Apply.

MAXIMUM OPERATING CONDITIONS

Operating Temperature:	-40°C to +85°C
Maximum System Voltage:	1500V
Maximum Series Fuse Rating:	30 A

TEMPERATURE COEFFICIENTS

Current α (Isc) :	0.0265%/°C
Voltage β (Voc) :	-0.2261%/°C
Power γ (Pmax) :	-0.2909%/°C

STACKING STANDARD

	20FT	40FT
No. of Modules per Container:	186	806
No. of Pallets per Container:	6	26
No. of Modules per Pallet/Weight:	31 Nos/815 Kg	
Pallet Dimensions in mm :	1760(L)*1130(W)*1275(H)	