
DATASHEET N-Type Topcon 144 Cells



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**SOLAR PANEL MANUFACTURING UNIT
M10 MONO PERC/TOPCON SOLAR PANELS**

TOPCon Bifacial Module 580Wp (RSPLT144P580)



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RSPL PV Modules are manufactured with the highest A grade materials and features best in class quality and performance. Our Meticulous product design and stringent process control ensures our modules deliver an exceptional high PV yield and stand the test of time.



PRODUCT | KEY FEATURES



Linear Performance warranty*



Excellent Module Efficiency with Bifacial Power Gain



Positive Power Tolerance with Current Binning to Prevent Mismatch Losses



Pre and Post EL Checking With High Resolution Camera



IP68 Junction Box for Long Term Endurance



100% Hi-Pot Testing to Ensure Safety



MBB Half-Cell Technology provides Better Performance under Partial Shading

MANAGEMENT SYSTEM CERTIFICATES

ISO 9001:2015 / Quality management system

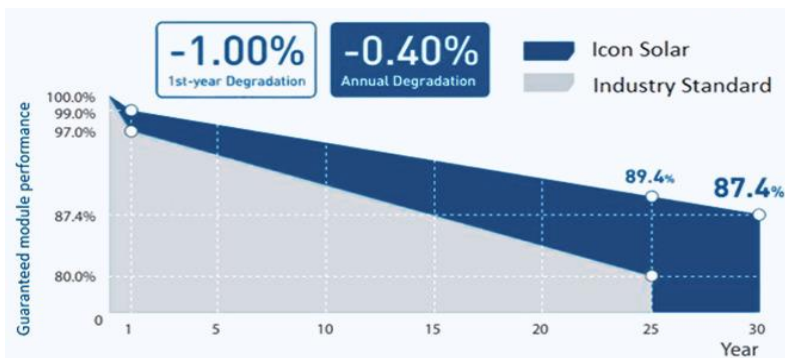
ISO 14001:2015 / Environmental management system

ISO 45001: 2018 / Occupational health & safety

IEC 61215/ IS14286/ IEC 61730

IEC 61701 / IEC 62804

LINEAR PERFORMANCE WARRANTY

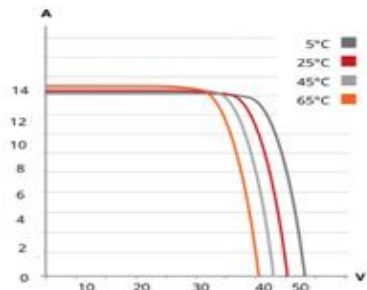
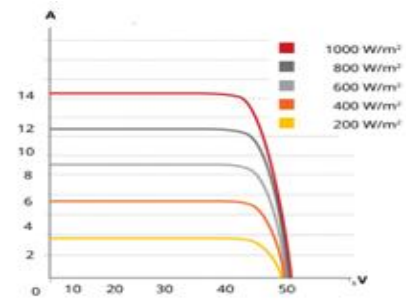
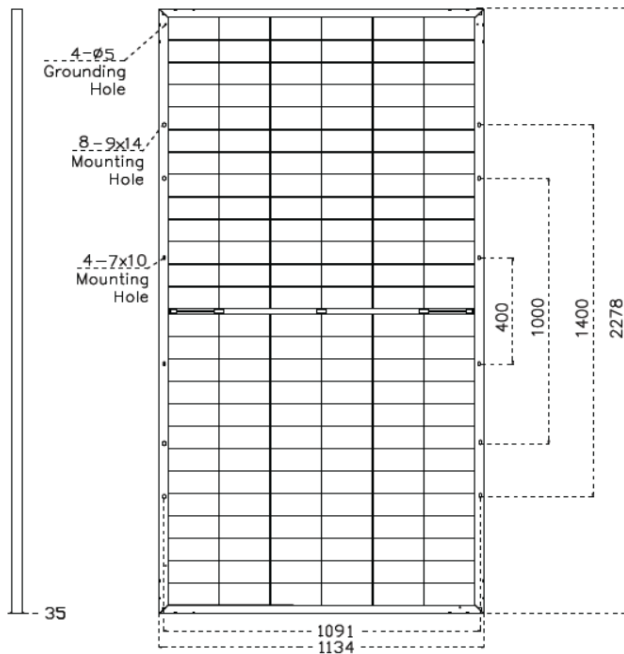


Electrical Characteristics	Monofacial (STC)	Bifacial Gain (580 Wp Module)			
		5%	10%	15%	20%
Power (Pmax)	580	610	639	668	697
Optimum Operating Voltage (Vmp)	43.56	43.56	43.56	43.56	43.56
Optimum operating Current (Imp)	13.33	14.00	14.66	15.33	16.00
Open Circuit Voltage (Voc)	51.60	51.60	51.60	51.60	51.60
Short Circuit Current (Isc)	14.10	14.81	15.51	16.22	16.92

****Bifacial gains depends on the albedo of the installation site**

STC: Irradiance 1000W/m ² , Cell Temperature 25°C, Air Mass AM1.5. NOCT: Irradiance 800W/m ² , Ambient Temperature 20°C, Wind Speed 1m/s.			
Maximum Rating		Temperature Rating	
Fuse Rating	30 Amps	Temperature Co-efficient for Isc %/°C (α)	0.048
System Voltage	1500 VDC	Temperature Co-efficient for Voc %/°C (β)	-0.26
Operating Conditions	- 40°C to + 85°C & 85% RH	Temperature Co-efficient for power %/°C (γ)	-0.3
NOCT	45°C ± 2°C		

Mechanical Characteristics			
Weight (kg)	28 kg	Back cover	Composite film
Module Dimension (L) x (W) x (H)	2278 x 1134 x 35 mm	Junction Box rating	IP68
Mounting Hole (Oblong) (l x j)	9 x 14 mm & 7 x 10 mm	Cable cross section & length	4mm ² & 300 mm
Mounting Hole CTC distance - vertical (Y)	(A) 1400 mm, (B) 1000 mm & (C) 400mm	Bypass Diode	3 Nos.
Mounting Hole CTC distance - horizontal (X)	1091 mm	Fire safety Class	Class C
No. of Cell	144 Half Cells	Application Class	Class A
System Voltage	1500 V	Safety Class	Class II



**** Bifacial Gain:** The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground

Compliance of Simulator readings with an accuracy of class AAA (±2%)

- Note:**
1. Due to constant product modifications RSPL reserves the right to amend the above specifications without prior notice. The Electrical data given here is for reference purpose only.
 2. For handling & installation instructions, refer RSPL Installation Manual.
 3. Please read RSPL warranty documents thoroughly
 4. Please confirm our exact requirements with sales representative while placing your order. All dimensions have standard variations of 3 mm**. Black and Transparent Back sheet and black frame module without IEC certification.

+91-8800564525

info@ritikasytems.in

www.ritikasytems.in

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TOPCon Bifacial Module 585 Wp (RSPLT144P585)










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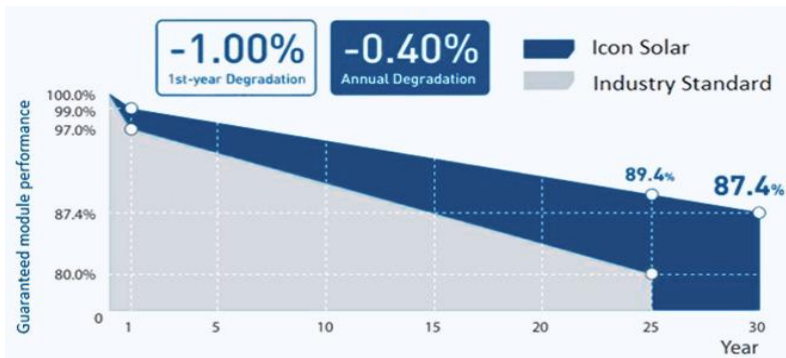
PRODUCT | KEY FEATURES

-  Linear Performance warranty*
-  Excellent Module Efficiency with Bifacial Power Gain
-  Positive Power Tolerance with Current Binning to Prevent Mismatch Losses
-  Pre and Post EL Checking With High Resolution Camera
-  IP68 Junction Box for Long Term Endurance
-  100% Hi-Pot Testing to Ensure Safety
-  MBB Half-Cell Technology provides Better Performance under Partial Shading

MANAGEMENT SYSTEM CERTIFICATES

- ISO 9001:2015 / Quality management system
- ISO 14001:2015 / Environmental management system
- ISO 45001: 2018 / Occupational health & safety
- IEC 61215/ IS14286/ IEC 61730
- IEC 61701 / IEC 62804

LINEAR PERFORMANCE WARRANTY

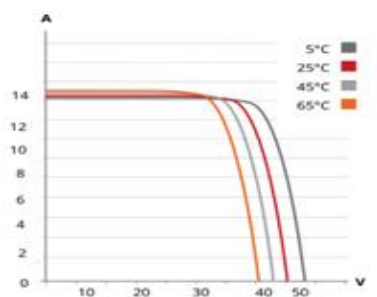
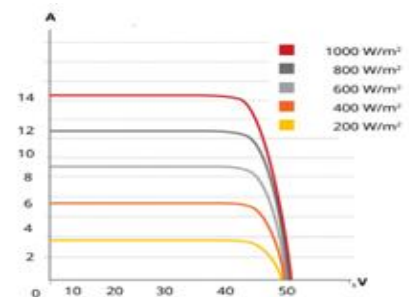
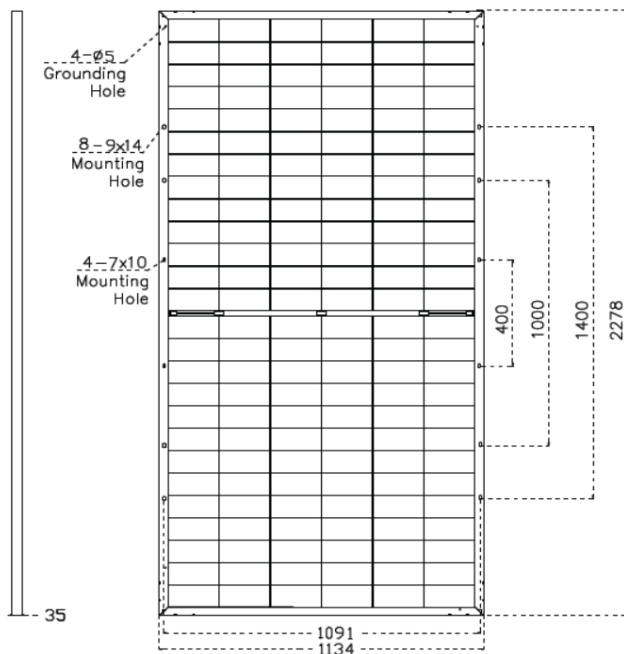


Electrical Characteristics	Monofacial (STC)	Bifacial Gain (585 Wp Module)			
		5%	10%	15%	20%
Power (Pmax)	585	615	644	673	703
Optimum Operating Voltage (Vmp)	43.80	43.80	43.80	43.80	43.80
Optimum operating Current (Imp)	13.37	14.04	14.71	15.38	16.04
Open Circuit Voltage (Voc)	51.74	51.74	51.74	51.74	51.74
Short Circuit Current (Isc)	14.14	14.85	15.55	16.26	16.97

****Bifacial gains depends on the albedo of the installation site**

STC: Irradiance 1000W/m ² , Cell Temperature 25°C, Air Mass AM1.5. NOCT: Irradiance 800W/m ² , Ambient Temperature 20°C, Wind Speed 1m/s.			
Maximum Rating		Temperature Rating	
Fuse Rating	30 Amps	Temperature Co-efficient for Isc %/°C (α)	0.048
System Voltage	1500 VDC	Temperature Co-efficient for Voc %/°C (β)	-0.26
Operating Conditions	- 40°C to + 85°C & 85% RH	Temperature Co-efficient for power %/°C (γ)	-0.3
NOCT	45°C ± 2°C		

Mechanical Characteristics			
Weight (kg)	28 kg	Back cover	Composite film
Module Dimension (L) x (W) x (H)	2278 x 1134 x 35 mm	Junction Box rating	IP68
Mounting Hole (Oblong) (l x j)	9 x 14 mm & 7 x 10 mm	Cable cross section & length	4mm ² & 300 mm
Mounting Hole CTC distance - vertical (Y)	(A) 1400 mm, (B) 1000 mm & (C) 400mm	Bypass Diode	3 Nos.
Mounting Hole CTC distance - horizontal (X)	1091 mm	Fire safety Class	Class C
No. of Cell	144 Half Cells	Application Class	Class A
System Voltage	1500 V	Safety Class	Class II



**** Bifacial Gain:** The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground

Compliance of Simulator readings with an accuracy of class AAA (±2%)

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TOPCon Bifacial Module 590 Wp (RSPLT144P590)



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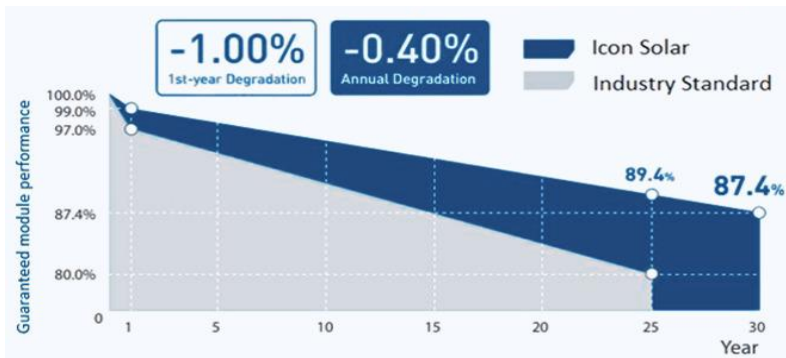
PRODUCT | KEY FEATURES

- 30 YEARS** Linear Performance warranty*
- Excellent Module Efficiency with Bifacial Power Gain
- Positive Power Tolerance with Current Binning to Prevent Mismatch Losses
- Pre and Post EL Checking With High Resolution Camera
- IP68 Junction Box for Long Term Endurance
- 100% Hi-Pot Testing to Ensure Safety
- MBB Half-Cell Technology provides Better Performance under Partial Shading

MANAGEMENT SYSTEM CERTIFICATES

- ISO 9001:2015 / Quality management system
- ISO 14001:2015 / Environmental management system
- ISO 45001: 2018 / Occupational health & safety
- IEC 61215/ IS14286/ IEC 61730
- IEC 61701 / IEC 62804

LINEAR PERFORMANCE WARRANTY

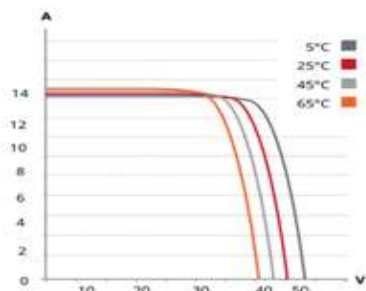
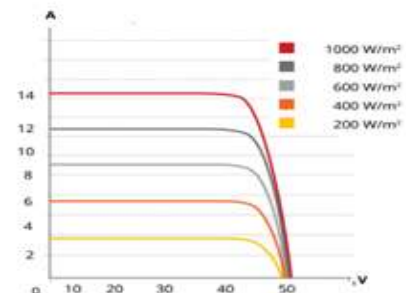
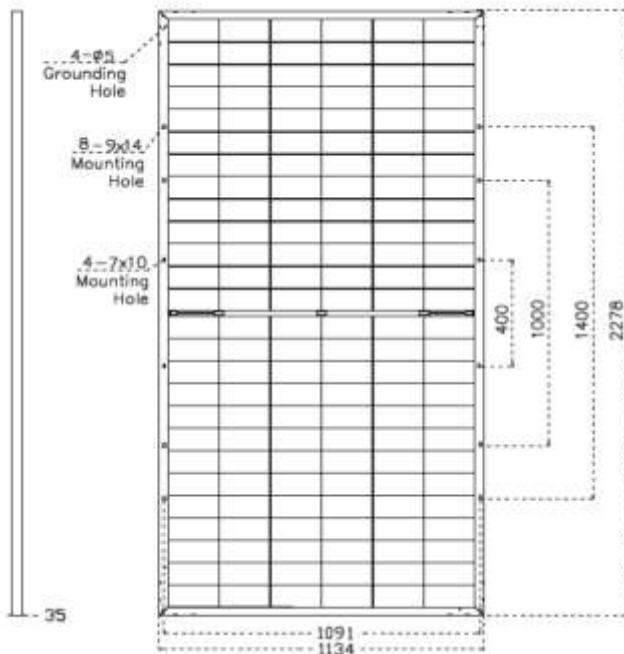


Electrical Characteristics	Monofacial (STC)	Bifacial Gain (590 Wp Module)			
		5%	10%	15%	20%
Power (Pmax)	590	620	649	679	708
Optimum Operating Voltage (Vmp)	44.05	44.05	44.05	44.05	44.05
Optimum operating Current (Imp)	13.40	14.07	14.74	15.41	16.08
Open Circuit Voltage (Voc)	51.88	51.88	51.88	51.88	51.88
Short Circuit Current (Isc)	14.18	14.89	15.60	16.31	17.02

****Bifacial gains depends on the albedo of the installation site**

STC: Irradiance 1000W/m ² , Cell Temperature 25°C, Air Mass AM1.5. NOCT: Irradiance 800W/m ² , Ambient Temperature 20°C, Wind Speed 1m/s.			
Maximum Rating		Temperature Rating	
Fuse Rating	30 Amps	Temperature Co-efficient for Isc %/°C (α)	0.048
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Operating Conditions	- 40°C to + 85°C & 85% RH	Temperature Co-efficient for power %/°C (γ)	-0.3
NOCT	45°C ± 2°C		

Mechanical Characteristics			
Weight (kg)	28 kg	Back cover	Composite film
Module Dimension (L) x (W) x (H)	2278 x 1134 x 35 mm	Junction Box rating	IP68
Mounting Hole (Oblong) (l x j)	9 x 14 mm & 7 x 10 mm	Cable cross section & length	4mm ² & 300 mm
Mounting Hole CTC distance - vertical (Y)	(A) 1400 mm, (B) 1000 mm & (C) 400mm	Bypass Diode	3 Nos.
Mounting Hole CTC distance - horizontal (X)	1091 mm	Fire safety Class	Class C
No. of Cell	144 Half Cells	Application Class	Class A
System Voltage	1500 V	Safety Class	Class II



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