

# 590Wp N-Type TOPCon Bifacial Half cut Module

Exide's 590Wp N-Type TOPCon Bifacial Half-Cut Solar Modules are built for superior performance and reliability. Its advanced N-Type TOPCon technology and bifacial design maximize energy generation, while low degradation and excellent low-light efficiency ensure long-term sustainability. Engineered for durability, it delivers consistent power, even in challenging project site conditions.

## SPECIFICATIONS

Model	NSG-BFT144-M10-590
<b>Electrical Characteristics*</b>	
Rated maximum power- Pmax (Wp)	590
Voltage at maximum power- Vmp (V)	45.22
Current at maximum power- Imp (A)	13.05
Open circuit voltage- Voc (V)	51.48
Short circuit current- Isc (A)	13.84
Module Efficiency (%)	22.84%
NOCT (°C)	42°C ± 2°C
Maximum System Voltage (Vdc)	1500
Operating Temperature Range	-40°C to +85°C
Bifaciality	80±5%
Temp. Co-efficient of Voc	-0.25%/°C
Temp. Co-efficient of Isc	0.046%/°C
Temp. Co-efficient of Power	-0.30%/°C
<b>Mechanical Characteristics</b>	
Cell Type	Bifacial Half cut TOPCon
Number of Cells/Arrangement	144 / 6 x 24
Front and back cover	2mm High transmission, low iron, toughened glass in Glass-Glass arrangement
Maximum series fuse rating (A)	30
Junction Box	IP 68 split junction box
Frame	High Strength Silver Anodized Aluminium Alloy
Maximum front/rear static load (Pa)	5400/2400
Connector type	MC4 compatible
Dimension- L x W x T (mm)	2278 (±2) x 1134 (±2) x 30 (±1)
Mounting hole span-X (mm)	1094 (±2)
Mounting hole span-Y (mm)	400/790/1400 (±2)
Mounting hole dimension (mm x mm)	14 x 9 (±0.3)
Grounding hole diameter (mm)	5.5
Approximate Weight (kg)	33kg ±5%

\*All data measured in STC

Backside Power Gain*			
Gain	5%	Maximum Power	619.5
		Efficiency	23.98%
	15%	Maximum Power	678.5
		Efficiency	26.72%
	25%	Maximum Power	737.5
		Efficiency	28.55%

\*The bifacial gains are dependent on structure height, power plant design and albedo

**STC:** 1000 W/m<sup>2</sup> irradiance, AM 1.5 spectrum and 25°C cell temperature

**NOCT conditions:** 800 W/m<sup>2</sup> irradiance, AM 1.5 spectrum, ambient temperature 20°C, wind speed 1m/sec

