



# N TYPE TOPCON TWIN SERIES

FRAMED DUAL GLASS BIFACIAL MODULE



## Harvesting

THE POWER OF SUN

### KEY FEATURES

-  MBB N type Topcon Technology with smart soldering and excellent low light performance
-  Bypass diodes and innovative series parallel connections enable the module to perform better in Partial shadow conditions.
-  Three separate junction boxes reduce internal resistance and Improve heat dissipation
-  Improved field reliability due to multiple contact points on the cell, reduce micro cracks and lower risk of hot spot
-  First choice for millions of banks and investors, this size is well-suited for almost all PV applications
-  Higher module conversion efficiency(up to 22.25%) benefit from N type Topcon technology
-  IP68 junction box for long-term weather endurance
-  Heavy snow load up to 5400 Pa. Wind load upto 2400Pa.
-  Optimized electrical design and lower operating current for reduced hot spot loss and better temperature coefficient
-  Certified for PID free modules

ISO9001:2015, ISO 14001:2004, OHSAS 18001:2007 Certified Company  
IEC61215, IEC61730, IEC62804(PID), IEC61701, IEC62716, IEC61853 Certified Products



# N TOPCON TECHNOLOGY BI-FACIAL SOLAR MODULE, MBB, 144-HALF-CELL, 560 - 585 WATT

## FRAMED DUAL GLASS BIFACIAL MODULE

### ELECTRICAL PARAMETERS AT STANDARD TEST CONDITIONS STC & NOCT

Model Type	LE144T560H		LE144T565H		LE144T570H		LE144T575H		LE144T580H		LE144T585	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Power Output Pmax[W]	560	422.02	565	425.78	570	429.55	575	433.32	580	437.09	585	440.86
Voltage at Pmax V mpp[V]	42.4	39.90	42.6	40.11	42.8	40.31	43	40.48	43.2	40.68	43.4	40.88
Current at Pmax I mpp[A]	13.22	10.58	13.27	10.62	13.32	10.66	13.38	10.70	13.43	10.74	13.48	10.78
Open-circuit Voltage Voc[V]	50.68	48.15	50.88	48.34	51.08	48.53	51.28	48.72	51.48	48.91	51.68	49.10
Short-circuit Current Isc[A]	14.12	11.40	14.18	11.45	14.24	11.49	14.3	11.54	14.36	11.59	14.42	11.64
Module Efficiency % [%]	21.68		21.87		22.07		22.26		22.45		22.65	

STC : 1000 W/m<sup>2</sup> irradiance, 25°C cell temperature, AM 1.5g spectrum according to EN 60904-3 • NOCT : 800 W/m<sup>2</sup> irradiance, ambient temperature 20°C, wind speed 1 m/sec

### BI-FACIAL OUTPUT - BACKSIDE POWER GAIN\*

		LE144T560H	LE144T565H	LE144T570H	LE144T575H	LE144T580H	LE144T585H
		5%	Power Output[W]	588	593	599	604
	Module Efficiency[%]	22.76	22.97	23.17	23.37	23.57	23.78
15%	Power Output[W]	644	650	656	661	667	673
	Module Efficiency[%]	24.93	25.15	25.37	25.6	25.82	26.04
25%	Power Output[W]	700	706	713	719	725	731
	Module Efficiency[%]	27.1	27.34	27.58	27.82	28.07	28.31

\* The Bifacial gains are dependant on the power plant design and location.

### THERMAL CHARACTERISTICS

Nominal Operating Cell Temperature	NOCT	°C	44+/-2
Temperature Coefficient of Pmax	$\gamma$	%/°C	-0.30
Temperature Coefficient of Voc	$\beta$	%/°C	-0.25
Temperature Coefficient of Isc	$\alpha$	%/°C	0.046

### OPERATING CONDITIONS

Max. System Voltage	1500VDC
Max. Series Fuse Rating	30A
Operating Temperature Range	-40°C to 85°C
Max. Static Load, Front	5400Pa
Max. Static Load, Back (e.g., wind)	2400Pa
Max. Hailstone Impact (diameter / velocity)	25mm / 23.3 m/s

### MECHANICAL DATA

Dimensions (L / W / H)	2278mm / 1134mm / 35mm
Weight	32 ± 1 kgs
Cell (qty. / material / dim./no. of busbars)	144 / Topcon N-type Mono Bifacial / 91mm x 182mm / MBB
Encapsulate (material)	PID free & UV Resistant
Front/ Back Glass (Material/Thickness)	2 mm Low Iron ARC semi-tempered glass
Frame (material / color )	Anodized aluminum alloy / silver
Junction Box (protection degree)	IP68 Split Junction Box / Weatherproof PPO
Cable (length / cross-sectional area)	400mm / 4mm <sup>2</sup>
Plug Connector (type / protection degree)	MC4 / IP68

### PACKAGING SPECIFICATIONS

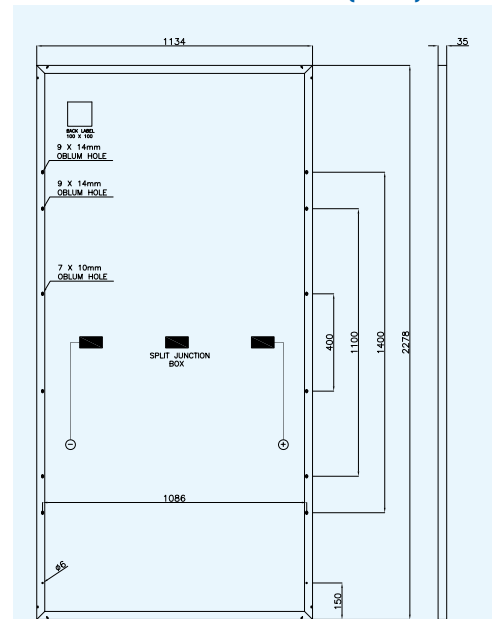
Number of Modules Per Pallet	30
Packaging Box Dimensions (L / W / H)	2331mm / 1140mm / 1351mm
Box Weight	900kg

### LINEAR PERFORMANCE WARRANTY

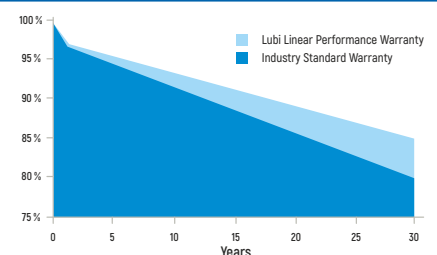
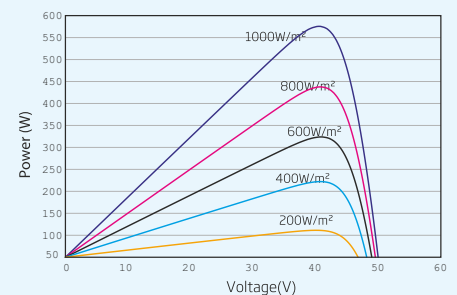
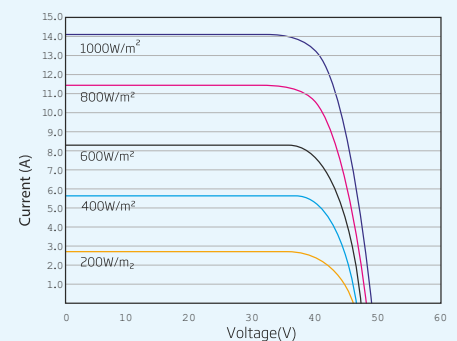
- Product Warranty - 12 Year
- Performance Warranty - 30 Year Linear Power Warranty with degradation of 1% in 1st year and 0.40% thereafter till 30 years.



### ENGINEERING DRAWING (±1mm)



### ELECTRICAL PERFORMANCE



## Lubi Electronics

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• The electrical data given here is for reference purpose only.  
• Lubi Reserves the right to change the specifications without prior notice.