

STAR Pro SERIES N-TOPCon 156-cell MODULE BIFACIAL

EG-650NT78-HL/BF-DG

630~650W

0~3% POSITIVE TOLERANCE

KEY FEATURES



SMBB cell design
Super multi Busbar cells bring lower resistance and increased Busbar reflectance ensures higher power output



Low degradation
Adopt N-Type TOPCon cell technology, lower degradation and better temperature co-efficiency, greatly increased on generation performance



High Reliability
Strict in-house testing in PV Lab which is CNAS approved & TUV /VDE certified



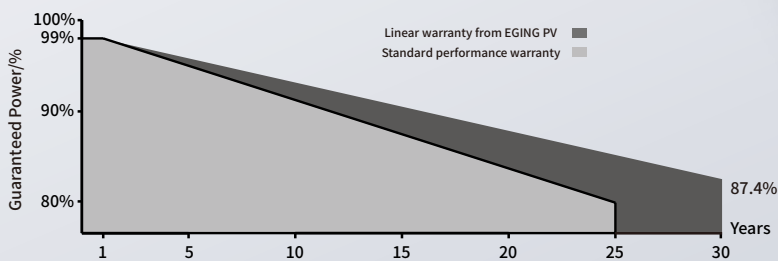
Excellent Low-light Performance
Advanced solar cell and glass surface texturing technology allows for excellent performance in low-light environments



PID Resistant
Excellent PID resistance performance optimized by unique structural design

LINEAR PERFORMANCE WARRANTY

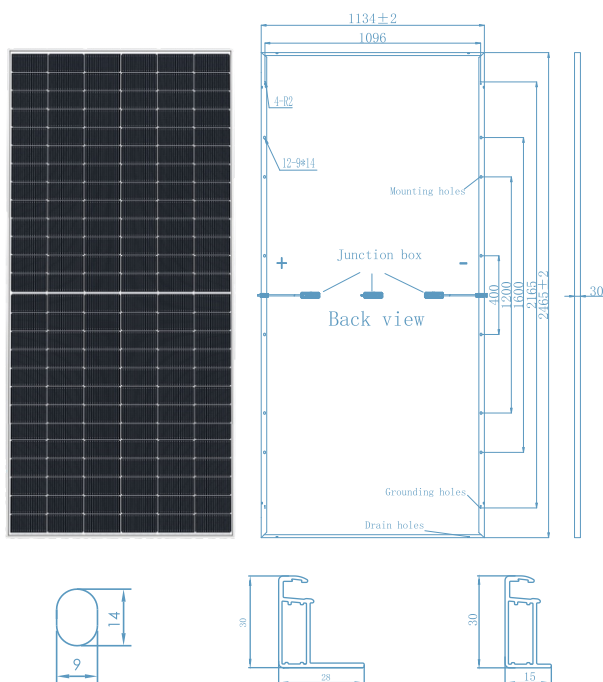
15 15 Year Product Warranty **30** 30 Year Linear Power Warranty



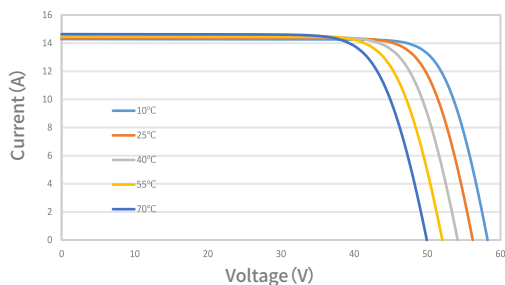
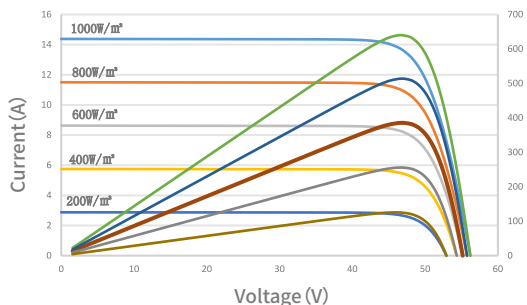
As a BloombergNEF Tier 1 and global leading manufacturer since 1998, EGING PV is committed to supplying reliable and durable PV products to customers to create together a greener planet.

EG-650NT78-HL/BF-DG

Engineering Drawings



I-V Curves(640W)



Packing Configuration

Pieces per pallet	36
Size of packing (mm)	2490*1135*1255
Weight of packing (kg)	1281
Pieces per container	576
Size of container	40'HC

Electrical Characteristics(STC)

Power level	630	635	640	645	650
Pmax (W)	630	635	640	645	650
Vmp (V)	46.19	46.36	46.52	46.68	46.85
Imp (A)	13.64	13.70	13.76	13.82	13.88
Voc (V)	55.87	56.04	56.21	56.38	56.55
Isc (A)	14.26	14.32	14.38	14.44	14.50
Module efficiency (%)	22.5	22.7	22.9	23.1	23.3
Maximum system voltage (V)	1500				
Fuse Rating (A)	25				
Temperature coefficient Pmax (%/°C)	-0.29				
Temperature coefficient Isc (%/°C)	0.046				
Temperature coefficient Voc (%/°C)	-0.24				

STC:Irradiance 1000W/m²,module temperature 25°C, AM=1.5

Bifacial Output-Backside Power Gain

10%	Pmax(W)	693	699	704	710	715
	Module efficiency (%)	24.8	25.0	25.2	25.4	25.6
20%	Pmax(W)	756	762	768	774	780
	Module efficiency (%)	27.1	27.3	27.5	27.7	27.9

Working Characteristics(NOCT)

Power level	630	635	640	645	650
Pmax (W)	474	478	481	485	489
Vmp (V)	42.82	42.92	43.03	43.13	43.24
Imp (A)	11.07	11.13	11.19	11.25	11.31
Voc (V)	53.07	53.20	53.33	53.46	53.59
Isc (A)	11.57	11.64	11.70	11.77	11.83
Power tolerance (%)	0~+3				
NOCT (°C)	44±2				

NOCT:Conditions:Irradiance 800W/m²,ambient temperature 20°C, wind speed 1m/s

Working Characteristics (BNPI)

Pmax (W)	698	703	709	714	720
Voc (V)	55.89	56.06	56.23	56.40	56.55
Isc (A)	15.80	15.86	15.93	16.00	16.07
Tolerance (%)	Pmax: ±3% Binning: ±5W Voc: ±5% Isc: ±5%				

BNPI:Front Irradiance1000W/m²,Rear Irradiance 135W/m², module temperature25°C, AM=1.5
Bifaciality:Pmax80%±10%,φVoc98%±2%,φIsc80%±10%

Mechanical Characteristics

Number of cells	156pcs
Size of cell (mm)	182*91
Type of cell	N-type Mono
Thickness of glass (mm)	2.0
Type of frame	Anodized aluminum alloy/S450GD
Junction box	IP68
Size of module (mm)	2465*1134*30
Weight (kg)	34.2
Cables/connectors	4mm², MC4 compatible
Length of Cable	Portrait: +300mm/-300mm

Maximum Ratings

Operating Temperature(°C)	-40~85
Operating humidity(%RH)	5~85
Allowable Hail Load	25mm ice-ball with velocity of 23m/s



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The specific content of the product warranty refers to EGING's latest warranty.