

VANTA^{Pro}

ET-NR48TBH440-460GL/GB

23.0%

Maximum Efficiency

440-460W

Maximum Power Output



SMBB Technology

Uses advanced technology to enhance light trapping and optimize current collection, resulting in increased module power output and reliability.



PID Resistance

Excellent Anti-PID performance guarantees via optimized mass- production process and materials control.

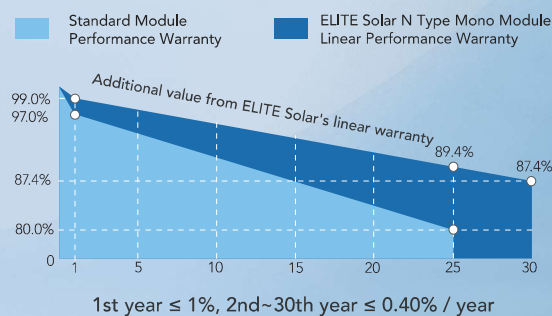
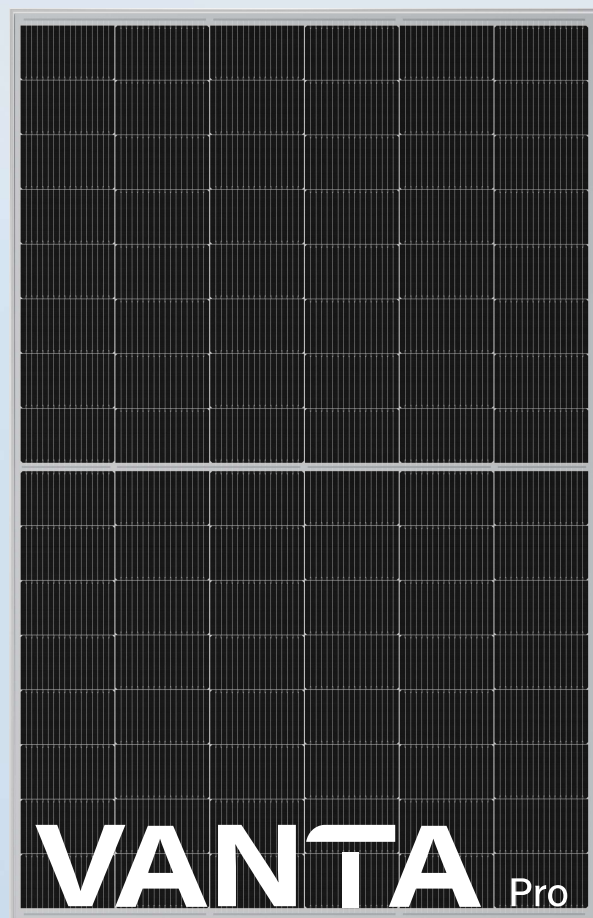
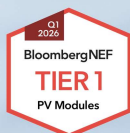


Increased Power Output

Module power increases approximately 5-25% , resulting in significantly lower LCOE and higher IRR.



IEC61215
IEC61730
UL61215
UL61730



Guarantee on product material and workmanship

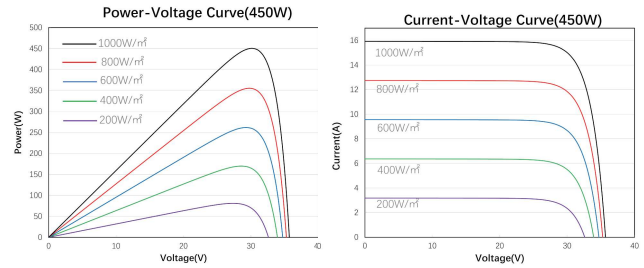
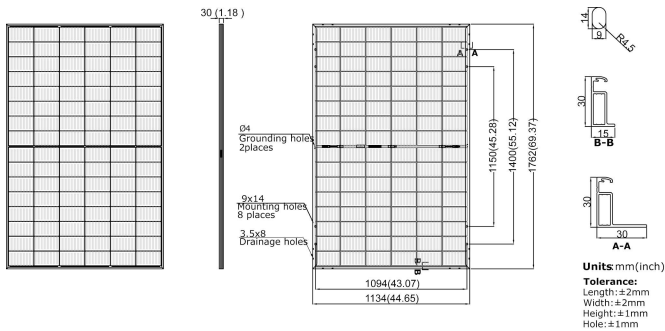


Linear power output warranty

PHYSICAL CHARACTERISTICS

Unit:mm/inch

CURVE



ELECTRICAL SPECIFICATIONS

STC : AM1.5 1000W/m² 25°C. NOCT : AM1.5 800W/m² 20°C 1m/s. Test uncertainty for Pmax: ±3%.

Module Type	ET-NR48TBH440GL ET-NR48TBH440GB	ET-NR48TBH445GL ET-NR48TBH445GB	ET-NR48TBH450GL ET-NR48TBH450GB	ET-NR48TBH455GL ET-NR48TBH455GB	ET-NR48TBH460GL ET-NR48TBH460GB
STC/NOCT	STC NOCT	STC NOCT	STC NOCT	STC NOCT	STC NOCT
Maximum Power -P _{mp} (W)	440 333	445 337	450 341	455 345	460 350
Open Circuit Voltage -V _{oc} (V)	35.29 33.83	35.49 34.02	35.69 34.21	35.89 34.40	36.09 34.59
Short Circuit Current -I _{sc} (A)	15.79 12.69	15.86 12.75	15.93 12.81	16.00 12.87	16.07 12.93
Maximum Power Voltage -V _{mp} (V)	29.38 27.48	29.57 27.67	29.76 27.86	29.96 28.05	30.15 28.24
Maximum Power Current -I _{mp} (A)	14.98 12.10	15.05 12.17	15.12 12.24	15.19 12.31	15.26 12.38
Module Efficiency STC-η _m (%)	22.0%	22.3%	22.5%	22.8%	23.0%
Power Tolerance (W)	0~+3%				
Pmax Temperature Coefficient	-0.30%/°C				
Voc Temperature Coefficient	-0.22%/°C				
Isc Temperature Coefficient	+0.042%/°C				
Fire Performance	Type 29(UL)				

REAR SIDE POWER GAIN (ET-NR48TBH450GL)

Power Gain	10%	15%	20%	25%
Maximum Power -P _{mp} (W)	495	517	540	562
Open Circuit Voltage -V _{oc} (V)	35.69	35.69	35.69	35.69
Short Circuit Current -I _{sc} (A)	17.70	18.50	19.31	20.11
Maximum Power Voltage -V _{mp} (V)	29.76	29.76	29.76	29.76
Maximum Power Current -I _{mp} (A)	16.63	17.39	18.15	18.90

MECHANICAL SPECIFICATIONS

External Dimension	1762 x 1134 x 30mm/69.37 x 44.65 x 1.18inch
Weight	24.5kg/54.01lbs
Solar Cells	N-Type Mono-crystalline (96pcs)
Front Glass/Back Glass	2.0mm/2.0mm(0.08inch)
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Cable Length	4.0 mm²(12AWG), Portrait: 200mm(+)/400mm(-); Or customized
Connector	CD2/MC4 Compatible
Power Bifaciality*	80%±10%

APPLICATION CONDITIONS

Maximum System Voltage	1500VDC
Maximum Series Fuse Rating	30A
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature	45±2 °C
Mechanical Load	5400Pa/2400Pa

PACKAGING

Container	40'HQ
Pieces per Pallet	36
Size of packing (mm/inch)	1785*1130*1264/70.28*44.49*49.76
Weight of packing (kg/lbs)	921/2030.46
Pieces per Container	936/720

Please contact info@elite-solar.com for technical support. This parameter is for reference only and it is not a part of the contracts. The specifications are subject to change without prior notice.