

We Make Solar Evolve

ELITE BLACK

Monocrystalline Module



ET-M648230BB 230W

ET-M648225BB 225W

ET-M648220BB 220W

ET-M648215BB 215W

Rich Product Portfolio & Innovative Product Strategy, satisfy customer needs to the best, and keep the customers' overall costs to the lowest.



High Conversion Efficiency

Industry-leading processing techniques realize great module efficiency to a maximum of 17.51%, steady power output guaranteed.



Anti-reflective Coating and Reduce O&M Costs

Easier to clean by rainwater to remove dirt on the glass surface, making higher power output and lower maintenance costs.



0 to +5W Positive Tolerance

Gain more power yields than expected.



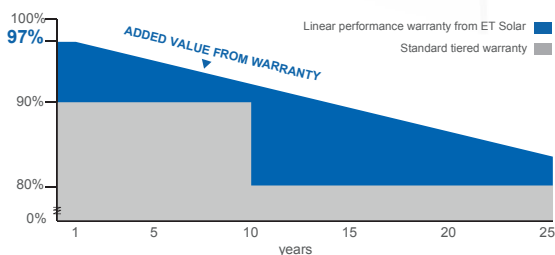
Excellent Loading Capability

2400Pa wind loads, 5400Pa snow loads.
Durable and long-lasting.



Top-quality & Trustworthy Product

Rigorous Quality Management System built.
Multiple internationally recognized PV industry standard certifications attained.



25 25-year performance warranty

10 10-year warranty on materials and workmanship

IEC 61215 Ed.2
IEC 61730



ET Solar

www.etsolar.com

M/ET-PD-EN-AP2017V4

ELECTRICAL SPECIFICATIONS

Model Type	ET-M648230BB	ET-M648225BB	ET-M648220BB	ET-M648215BB
Peak Power (Pmax)	230W	225W	220W	215W
Module Efficiency	17.51%	17.13%	16.75%	16.37%
Maximum Power Voltage (Vmp)	25.33V	25.29V	25.21V	25.12V
Maximum Power Current (Imp)	9.09A	8.9A	8.73A	8.56A
Open Circuit Voltage (Voc)	31.74V	31.41V	31.26V	30.94V
Short Circuit Current (Isc)	9.59A	9.23A	9.14A	9.12A
Power Tolerance	0 to +5W			
Operating Temperature	- 40 ~ + 85°C			
Maximum System Voltage	DC 1000V			
Nominal Operating Cell Temperature	45±2°C			
Fire Safety	Class C			
Maximum Series Fuse Rating	20A			

MECHANICAL SPECIFICATIONS

Cell Type	156.75mm x 156.75mm
Number of Cells	48 cells in series
Weight	15 kg (33.07 lbs)
Dimension	1324×992×35mm (52.13×39.06×1.38 inch)
Max Load	5400 Pascals (112 lb/ft ²)
Junction Box	≥IP67 rated
Connector	TLCABLE01 Or QC4.10 Or PV-KST4/xy, PV-KBT4/xy
EN50521	Or PV-CF-S 2,5-6(+)/ PV-CM-S 2,5-6(-)

TEMPERATURE COEFFICIENT

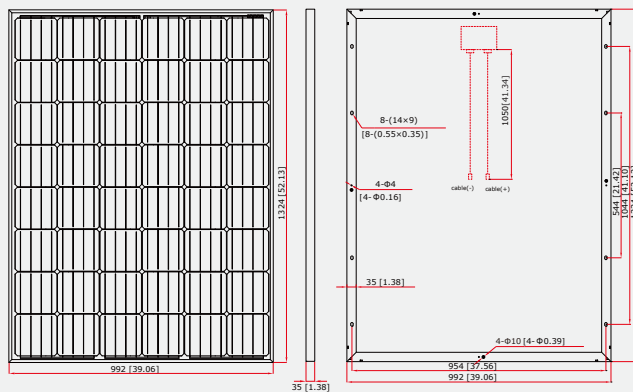
Temp. Coeff. of Isc (TK Isc)	0.06% /°C
Temp. Coeff. of Voc (TK Voc)	-0.30% /°C
Temp. Coeff. of Pmax (TK Pmax)	-0.43% /°C

PACKING MANNER

Container	20' GP	40' GP
Pieces per Pallet	30	30
Pieces per Container	480	960

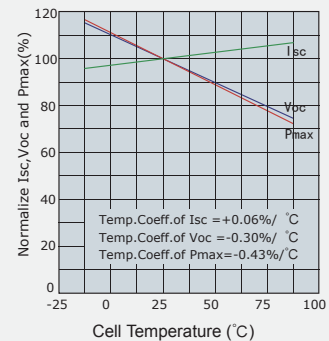
PHYSICAL CHARACTERISTICS

Unit:mm (inch)

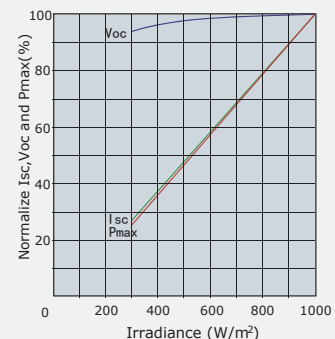


ELECTRICAL CHARACTERISTICS

Temperature Dependence of Isc, Voc and Pmax



Irradiance Dependence of Isc, Voc and Pmax (AM1.5, Cell Temperature 25°C)



Note: the specifications are obtained under the Standard Test Conditions (STCs): 1000 W/m² solar irradiance, 1.5 Air Mass, and cell temperature of 25°C. The NOCT is obtained under the Test Conditions: 800 W/m², 20°C ambient temperature, 1m/s wind speed, AM 1.5 spectrum.

Please contact support@etsolar.com for technical support. The actual transactions will be subject to the contracts. This parameters is for reference only and it is not a part of the contracts. The specifications are subject to change without prior notice.

The connectors listed in the datasheets are for reference only and it is not a part of the contract. The connector we use for the customer's order is not limited to the types listed in the datasheet, which is subject to change without prior notice. The installers need to use the same connector type to PV system.