



EST SERIES SOLAR MODULES

ENN Solar's EST series is designed to provide high performance, top quality and cost effective solar modules for a wide range of applications employing the most advanced silicon thin film production technology.

ENN Solar modules are manufactured with environmentally friendly processes and use approximately 1% of the silicon material required for typical crystalline silicon modules. By combining a cutting-edge production line and the expertise of our core technology team, we are committed to continuous technology innovation, and to making clean, renewable energy more affordable and available worldwide.

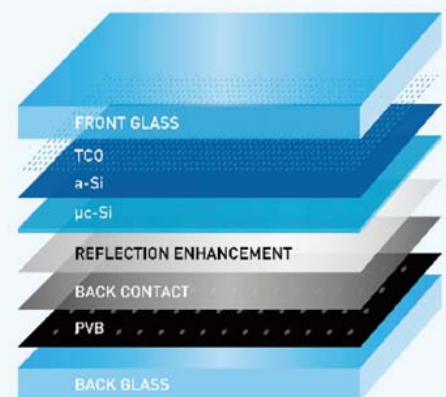
KEY FEATURES

- » Environmentally safe production process and no toxic materials used in module
- » Four module sizes up to 5.7m² suited to a variety of applications
- » Up to 480Wp power output
- » Available with or without bonded rails according to customer needs
- » Shorter energy pays back period

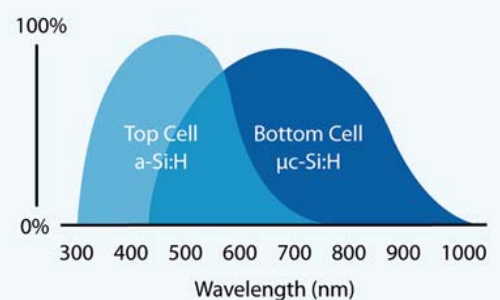
KEY ADVANTAGES

- » Lower heat coefficient than crystalline silicon
- » Higher power output in low or diffused light
- » More power output than crystalline silicon at the same power
- » Higher voltage and lower current require smaller gauge wiring
- » Full size modules reduce BOS costs

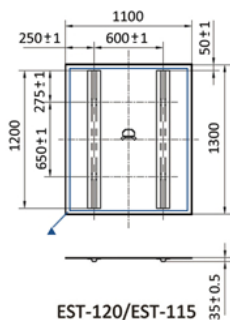
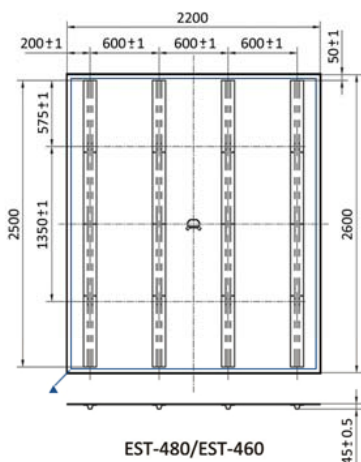
EST MODULE CONSTRUCTION
ENN Solar's silicon thin film tandem junction solar modules. Total thickness: 7.5mm / .295"



QUANTUM EFFICIENCY YIELD
Two PIN junctions absorb a wide solar spectrum from visible light to IR.



EST SERIES SPECIFICATIONS



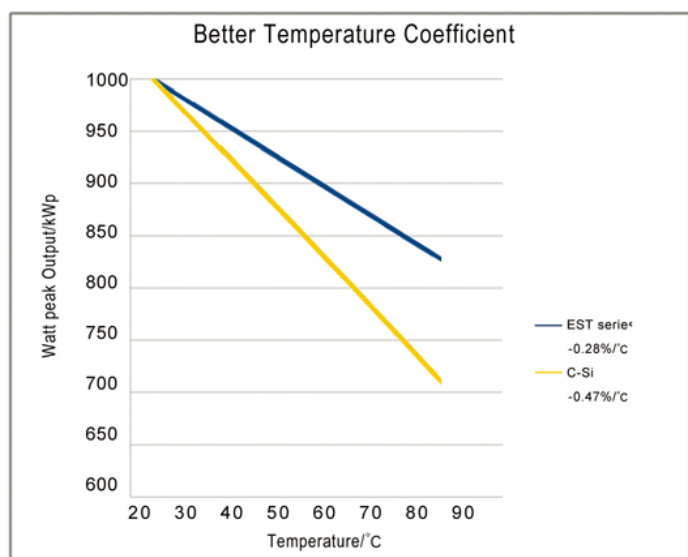
Mechanical Data									
Model	Unit	EST-480	EST-460	EST-240V*	EST-230V*	EST-240H*	EST-230H*	EST-120	EST-115
Length	mm	2600(8.5')	2600(8.5')	2600(8.5')	2600(8.5')	1300(4.26')	1300(4.26')	1300(4.26')	1300(4.26')
Width	mm	2200(7.2')	2200(7.2')	1100(3.6')	1100(3.6')	2200(7.2')	2200(7.2')	1100(3.6')	1100(3.6')
Thickness(excl.J-box & rail)	mm	7.5(0.295")							
Thickness(incl.J-box & rail)	mm	45(1.77")				35(1.38")			
Weight	kg	117	117	59	59	59	59	29.5	29.5

Electrical Data									
Model	Unit	EST-480	EST-460	EST-240V*	EST-230V*	EST-240H*	EST-230H*	EST-120	EST-115
Nominal power(pmax)	Wp	480	460	240	230	240	230	120	115
Open Current Voltage(Voc)	V	286	283	141	140	286	283	141	139
Short Circuit Current(Isc)	A	2.66	2.62	2.69	2.67	1.33	1.31	1.32	1.31
Max.power Voltage(Vmpp)	V	222	218	109	107	222	218	110	107
Max.power Current(Imp)	A	2.16	2.11	2.21	2.15	1.08	1.06	1.10	1.08

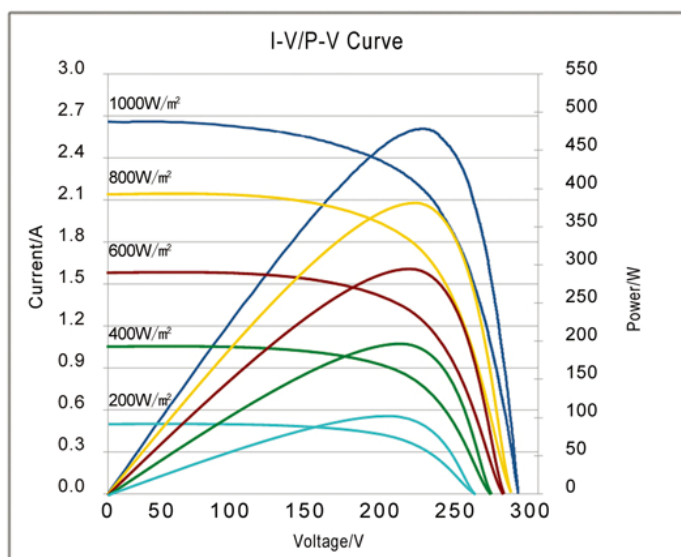
Packaging Data									
Model	Unit	EST-480	EST-460	EST-240V*	EST-230V*	EST-240H*	EST-230H*	EST-120	EST-115
Quantity/case	Pcs	20	20	20	20	20	20	25	25
Quantity/40'HQ	Pcs	160	160	320	320	320	320	800	800

* is customized product.

▲ The distance between generation region and the edge of module is 12mm, don't cover the generation region during installation.



*The ratio is connected with the local conditions



*Test conditions:AM1.5,25°C

QUALITY ASSURANCE

ENN Solar modules are performance guaranteed for 10 years at 90% of rated power output and 25 years at 80% of rated power output. ENN Solar is striving to continuously improve module performance. Specifications are subject to change.

