

CdTe Thin Film Solar Module

78 W, 80 W, 83 W

fact sheet

Introduction

GE's CdTe thin film solar module combines industry leading solar technology with GE's continued commitment to quality and customer value. The CdTe thin film module is a cost-competitive solar solution that requires less material than alternative technologies to achieve high levels of performance. Designed with the expertise developed over a combined 100+ years of thin-film deposition experience, GE's CdTe thin film module is an efficient and affordable way to meet your sustainable energy needs.

Technical Description

Incorporating the latest advancements in thin film PV module technology, GE's CdTe thin film module is comprised of 116 thin film cells connected in series. Our proprietary module will reach peak powers up to 83 watts at 75 volts. The module is frameless and has a durable glass laminate construction designed to withstand weather extremes such as snow, hail, and wind while being more cost effective than traditional modules. It is also designed for long life in harsh environments.

GE's CdTe thin film module is optimized for use in large-scale grid connected installations and is well suited for both rooftop and ground mount applications.

Certifications (Scheduled)

GE's CdTe thin film modules are undergoing rigorous safety and reliability testing to achieve the following certifications: UL 1703 (Class C), CE Mark, CEC, IEC 61646, IEC 61730

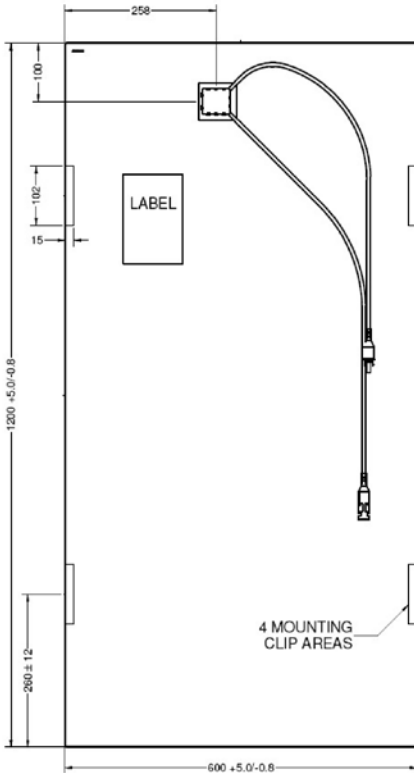


Features and Benefits

- Warranty backed by the strength of GE
- Out-performs traditional PV in low-light and high-temperature applications
- Robust glass laminate design stands up to climate extremes of temperature, humidity, and UV
- Individually serialized modules for convenient field tracking
- Frameless module offers a cost-effective robust solution for large-scale installations
- End-of-life recycling on all modules
- Available for global applications



Physical Characteristics



Electrical Specifications†

Typical Performance at STC (1000 W/m² AM 1.5, 25°C)

Model Numbers		GE-CdTe78	GE-CdTe80	GE-CdTe83
Nominal Efficiency	(%)	10.8	11.1	11.5
Nominal Power (+/- 5%)	P _{mpp} (W)	77.5	80.0	82.5
Voltage at P _{max}	V _{mpp} (V)	72.4	73.5	75.0
Current at P _{max}	I _{mpp} (A)	1.07	1.09	1.10
Open Circuit Voltage	V _{oc} (V)	94.0	95.0	95.0
Short Circuit Current	I _{sc} (A)	1.23	1.24	1.25
Maximum System Voltage	V _{sys} (V)	600 (UL) / 1000 (IEC)		
Temp. Coefficient of P _{mpp}	T _k (P _{mpp})	-0.25%/°C		
Temp. Coefficient of V _{oc}	T _k (V _{oc})	-0.29%/°C		
Temp. Coefficient of I _{sc}	T _k (I _{sc})	+0.04%/°C		
Limiting Reverse Current	I _R (A)	2 A		
Maximum Source Circuit Fuse	I _{cr} (A)	2 A		

Typical Performance at NOCT (800 W/m² AM 1.5, 45°C)

Model Numbers		GE-CdTe78	GE-CdTe80	GE-CdTe83
Nominal Power (+/- 5%)	P _{mpp} (W)	58.1	60.0	61.9
Voltage at P _{max}	V _{mpp} (V)	67.9	68.9	70.3
Current at P _{max}	I _{mpp} (A)	0.86	0.88	0.90
Open Circuit Voltage	V _{oc} (V)	87.4	88.3	88.3
Short Circuit Current	I _{sc} (A)	1.01	1.02	1.03

Mechanical Specifications†

Length	1200 mm (47.2 in)
Width	600 mm (23.6 in)
Thickness	7.5 mm (0.30 in)
Weight	13 kg (28.7 lb)
Front Glass	3.2 mm (0.13 in) Heat Strengthened Glass
Back Glass	4.0 mm (0.16 in) Tempered Glass
Frame	None
Cell Type	CdS/CdTe, 116 Active Cells
Cell Orientation	Parallel to the 600 mm Dimension
Bypass Diode	None
Cable Length	610 mm (24 in)
Connectors	MC4 Compatible
Encapsulation	EVA with Edge Seal

† Unless otherwise specified, all ratings +/-10%.
Specifications are preliminary and subject to change.



Contact your local GE Representative for assistance
or for additional information