

Image shown may not reflect actual configuration

# Cat® Photovoltaic Module **PVT115**

The Cat® thin film high photovoltaic efficiency modules provide a proven performance advantage over conventional crystalline silicon solar modules. Generating more energy than competing modules with the same power rating, the Cat PVT115 module delivers superior performance and reliability to our customers. The photovoltaic panels lower your cost of energy – reducing utility bills for grid-connected systems and offsetting the cost of fuel and maintenance for generator set powered facilities. And when integrated with Cat energy storage and microgrid master controls, the renewable energy can replace virtually all of the energy from traditional sources.

# **Features**

## **Proven Energy Yield Advantage**

- Generates more energy than conventional crystalline silicon solar.
- Higher efficiency when compared to typical c-SI modules, resulting in more installed capacity per square meter.
- Superior temperature coefficient, better spectral response in humid conditions and better shading response means more specific annual energy yield than c-SI modules.

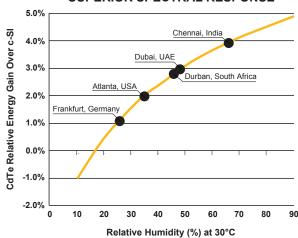
SUPERIOR TEMPERATURE COEFFICIENT

#### 105 DC Power Output Relative to Power at STC (%) Typical Field **←** STC Operating Temperatures 100 95 More Energy for Same 90 Nameplate Watts 85 Linear (Thin Film) Linear (Multicrystalline SI) 75 40 60 70 Module Temperature (°C)

### **Advanced Performance and Reliability**

- Compatible with advanced 1500V plant architectures.
- Independently tested to pass accelerated life and stress tests beyond industry standards
- Highly predictable energy in all climates and applications
- Independently certified for reliable performance in high temperature, high humidity, extreme desert and coastal environments

#### SUPERIOR SPECTRAL RESPONSE

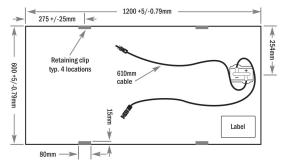




# **Technical Data**

Mechanical Description		
Length	1200 mm (47.2 in)	
Width	600 mm (23.6 in)	
Thickness	6.8 mm (0.27 in)	
Weight	12 kg (26.5 lbs)	
Area	0.72 m <sup>2</sup>	
Leadwire	2.5 mm², 610 mm	
Connectors	488-1778 (female)	
	488-1779 (male)	
Bypass Diode	None	
Cell Type	Thin-film CdTe semiconductor, up to 216 cells	
Frame Material	None	
Front Glass	3.2 mm heat strengthened	
Back Glass	3.2 mm tempered	
Encapsulation	Laminate material with edge seal	
Load Rating	2400 Pa	

#### **MECHANICAL DRAWING**



## **Certification and Tests**

- Thresher Test, Long-Term Sequential Test, and ATLAS 25+
- IEC 61646 1500V, IEC 61730 1500V, CE
- IEC 61701 Salt Mist Corrosion, IEC 60068-2-68 Dust and Sand Resistance
- ISO 9001:2008 and ISO 14001:2004
- UL 1703 and ULC 1703 Listed Class B Fire Rating (Class A Spread of Flame)
- CSI Eligible (CA-USA), FSEC (FL-USA), MCS (UK), CEC Listed (Australia), SII (Israel), InMetro (Brazil)

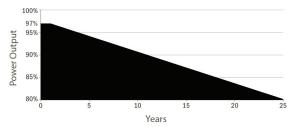
Module Rating at Standard Test Conditions (STC) 1000 W/m², AM 1.5, 25°C			
Nominal Values		PVT115	
Nominal Power (-0/+5 W)	P <sub>MPP</sub> (W)	115.0	
Voltage at P <sub>MAX</sub>	V <sub>MPP</sub> (V)	69.3	
Current at P <sub>MAX</sub>	I <sub>MPP</sub> (A)	1.66	
Open Circuit Voltage	V <sub>OC</sub> (V)	87.6	
Short Circuit Current	I <sub>SC</sub> (A)	1.83	
Module Efficiency	%	16.0	
Maximum System Voltage	V <sub>SYS</sub> (V)	1500	
Limiting Reversing Current	I <sub>R</sub> (A)	4.0	
Maximum Series Fuse	I <sub>CF</sub> (A)	4.0	
Rating at Nominal Operating Cell Temperature of 45°C			
		g	
	ure of 45°C	_	
Cell Temperat	ure of 45°C	_	
Cell Temperat 800 W/m², 20°C Air Temperature	ure of 45°C , AM 1.5, 1 m	/w Wind Speed	
Cell Temperat 800 W/m², 20°C Air Temperature Nominal Power	ure of 45°C , AM 1.5, 1 m P <sub>MPP</sub> (W)	/w Wind Speed 87.0	
Cell Temperat 800 W/m², 20°C Air Temperature Nominal Power Voltage at P <sub>MAX</sub>	ver of 45°C , AM 1.5, 1 m P <sub>MPP</sub> (W) V <sub>MPP</sub> (V)	/w Wind Speed 87.0 64.9	
Cell Temperat 800 W/m², 20°C Air Temperature Nominal Power Voltage at P <sub>MAX</sub> Current at P <sub>MAX</sub>	vire of 45°C , AM 1.5, 1 m P <sub>MPP</sub> (W) V <sub>MPP</sub> (V) I <sub>MPP</sub> (A)	/w Wind Speed 87.0 64.9 1.3	
Cell Temperat 800 W/m², 20°C Air Temperature Nominal Power Voltage at P <sub>MAX</sub> Current at P <sub>MAX</sub> Open Circuit Voltage	VMPP (W)  VMPP (W)  VMPP (A)  VOC (V)  VSC (A)	/w Wind Speed 87.0 64.9 1.3 82.7	
Cell Temperat 800 W/m², 20°C Air Temperature Nominal Power Voltage at P <sub>MAX</sub> Current at P <sub>MAX</sub> Open Circuit Voltage Short Circuit Current	VMPP (W)  VMPP (W)  VMPP (A)  VOC (V)  VSC (A)	/w Wind Speed 87.0 64.9 1.3 82.7	
Cell Temperat 800 W/m², 20°C Air Temperature Nominal Power Voltage at P <sub>MAX</sub> Current at P <sub>MAX</sub> Open Circuit Voltage Short Circuit Current Temperature Characteristic	V <sub>MPP</sub> (W)  V <sub>MPP</sub> (V)  I <sub>MPP</sub> (A)  V <sub>OC</sub> (V)  I <sub>SC</sub> (A)	/w Wind Speed 87.0 64.9 1.3 82.7 1.5	
Cell Temperat 800 W/m², 20°C Air Temperature Nominal Power Voltage at P <sub>MAX</sub> Current at P <sub>MAX</sub> Open Circuit Voltage Short Circuit Current Temperature Characteristic Module Operating Range	V <sub>MPP</sub> (W)  V <sub>MPP</sub> (V)  I <sub>MPP</sub> (A)  V <sub>OC</sub> (V)  I <sub>SC</sub> (A)	/w Wind Speed 87.0 64.9 1.3 82.7 1.5	

# **End of Life Recycling**

 Recycling services available through the Caterpillar industry-leading recycling program or customer selected third-party recycler.

## **Module Warranty**

- 10-year limited product warranty
- 25-year linear power warranty



# **Questions? Contact:**

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