



Picture shown may not reflect actual configuration

## Features

### Proven Energy Yield

- 18.7% up to 19.6% efficiency
- +5 / -0% positive power tolerance
- Linear shading response enables true-tracking in single-axis tracking systems, generating more energy than conventional systems that require backtracking.

### Higher Efficiency

The panel design minimizes white space between solar cells, eliminates reflective metal lines on the cells, and lowers electrical resistance between cells, increasing efficiency compared to conventional commercial modules.

### Increased Energy Production

- Linear shading response can generate more energy than conventional mono-crystalline modules.

### Anti-PID

- Anti-PID (performance induced degradation) techniques for processing solar cells and encapsulation of modules applied.

### Robust Frame

- Robust module construction enables installed module to withstand 2400Pa wind load and up to 5400Pa snow load

## PVC385-405 MP Monocrystalline PERC Photovoltaic (PV) Module

The monocrystalline PERC (passivated emitter rear cell) photovoltaic modules provide excellent performance with low temperature coefficient. The modules provide high efficiency and power per module, maximizing energy capture.

### Tests

- Standard Tests: IEC 61215, IEC 61730 Rated to 1000V  
UL Fire Rating Class C per UL790
- ISO 9001:2008: ISO Quality Management System
- ISO 14001:2004: ISO Environment Management System
- OHSAS 18001: 2007 Occupational Health and Safety
- IEC62716 Ammonia Test
- 10.1109/PVSC.2013.6744437 Desert Test
- IEC 61701 (maximum severity) Salt Spray Test
- Potential-induced degradation free: 1000V

### Certifications

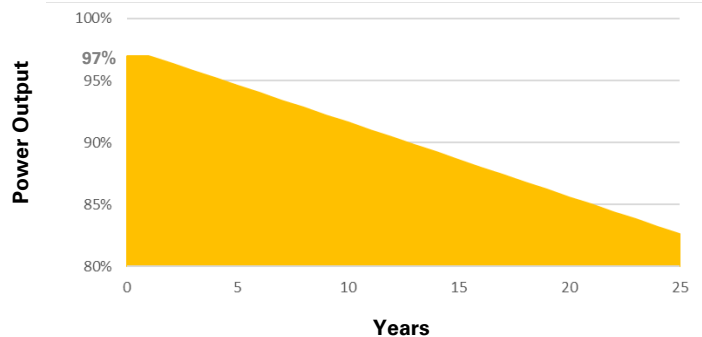
- Available listings: TUV Rheinland

### Worldwide Product Support

- Cat dealers have over 1,800 dealer branch stores operating in over 200 countries
- Your local Cat dealer provides extensive pre-sale and post-sale support, including design consultation, service contracts, and all maintenance agreement.

### Module Warranty

- 25-year warranty for materials and processing
- 25-year power assurance program for linear power output. Produces more than 97% power in the first year, then declining by 0.6% per year, ending at 82.6% power after 25 years.



MODULE RATING <sup>†</sup>						
Model <sup>†</sup>	PVC	385 MP	390 MP	395 MP	400 MP	405 MP
Test Conditions		STC	STC	STC	STC	STC
Nominal Power (+5/-0 W)	$P_{MPP}$ (W)	385	390	395	400	405
Voltage at $P_{MAX}$	$V_{MPP}$ (V)	43.8	44.1	44.4	44.8	45.3
Current at $P_{MAX}$	$I_{MPP}$ (A)	8.80	8.85	8.90	8.93	8.94
Open Circuit Voltage ( $\pm 3\%$ )	$V_{OC}$ (V)	52.5	52.9	53.4	53.6	54.0
Short Circuit Current ( $\pm 3\%$ )	$I_{SC}$ (A)	9.44	9.45	9.47	9.50	9.53
Module Efficiency	%	18.7%	18.9%	19.2%	19.4%	19.6%
Maximum System Voltage	$V_{SYS}$ (V)	DC 1000 V				
Maximum Series Fuse	$I_{CF}$ (A)	18A				
Standard Test Conditions	STC	Irradiance 1000W/m <sup>2</sup> , Spectra AM 1.5, cell temperature 25°C				

TEMPERATURE CHARACTERISTICS (STC)		
Module Operating Temp. Range	(°C)	-40 to +85
Temperature Coefficient of $P_{MPP}$	$T_K(P_{MPP})$	-0.36%/°C
Temperature Coefficient of $V_{OC}$	$T_K(V_{OC})$	-0.29%/°C
Temperature Coefficient of $I_{SC}$	$T_K(I_{SC})$	+0.05%/°C

MECHANICAL LOADS	
Front Snow Load Rating	5400 Pa
Front & Back Wind Load Rating	2400
Impact Test	25 mm hailstone at 23 m/s

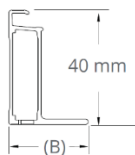
MECHANICAL DETAILS	
Cell Type	Shingled Monocrystalline PERC
Junction Box	IP67, three diodes
Leadwire	4 mm <sup>2</sup> , 1000 mm $\pm$ 15mm
Connectors (Polymetric)	ZJRH Renhe Solar 05-8, Stäubli MC4-EVO2
Application Safety Class	Class II (per IEC 61140)
Tempered Glass	High-transmission tempered anti-reflective
Frame Material	Class 2 silver anodized

DIMENSION DETAILS		
Length	2067 mm	(81.4 in)
Width	998 mm	(39.3 in)
Thickness	40 mm	(1.6 in)
Weight	23.1 kg	(50.9 lbs.)
Area	2.06 m <sup>2</sup>	(22.2 ft <sup>2</sup> )

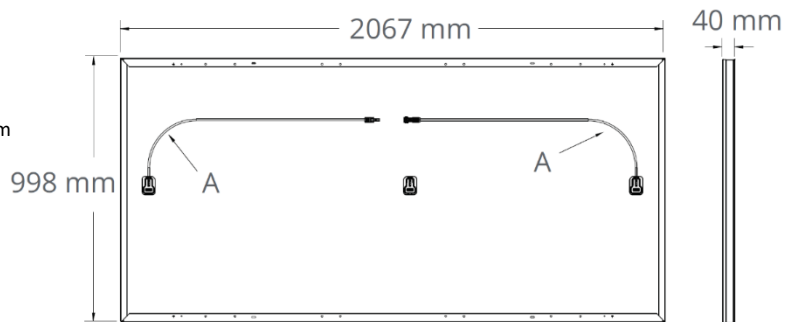
<sup>†</sup> Listed ratings are dependent on project time frames and may not all be available. Contact your local Cat dealer to confirm module rating availability.

<sup>‡</sup> Models and ratings are subject to change without notice and may vary by territory.

FRAME PROFILE



**Units: mm**  
**Tolerance:**  
 (A) Cable Length: 1000 mm  $\pm$  15 mm  
 (B) Long Side: 32 mm  
 Short Side: 24 mm  
 Designed in USA  
 assembled in China



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