



Canadian Solar offers

**10 year** product warranty on materials and workmanship  
**25 year linear** power output warranty  
insured by leading investment grade Insurance companies.

Choose Canadian Solar modules  
for **bankability** and investment **security**.

 CanadianSolar



Canadian Solar is one of the world's largest solar module producers. As a leading vertically integrated provider of ingots, wafers, cells, modules and systems, Canadian Solar delivers uncompromising value to customers around the world. Canadian Solar was founded in Ontario, Canada in 2001, and listed on the Nasdaq (symbol:CSIQ) in 2006. Canadian Solar will expand its module manufacturing capacity to 2.05GW and cell manufacturing capacity to 1.3GW in 2011.

Canadian Solar is committed to customer's success. The cornerstones of products strategy are uncompromising quality, ultra reliability, high performance, and customer value. Our meticulous design and production techniques, combined with rigorous quality control, in-house testing and adherence to the strict international quality standards ensure a high return on investment for customers.

Module family of Canadian Solar is comprised of ELPS, standard modules, MaxPower, All-black series and BIPV series.

## Key Features

- Strong framed module, passing mechanical load test of 5400Pa to withstand heavier snow load
- Industry leading plus only power tolerance: +5W
- 10 year product warranty (materials and workmanship), and 25 year linear power output warranty, backed by international **AM best** rated insurance companies
- The 1st manufacturer in PV industry certified for ISO:TS16949 (The automotive quality management system) in module production since 2003
- ISO17025 qualified manufacturer owned testing lab, fully complying to IEC, TUV, UL testing standards

## Quality Certificates

- IEC 61215, IEC61730, UL1703, CEC Listed, JET, CE, KEMCO, MCS
- ISO9001:2008: Standards for quality management systems
- ISO/TS16949:2009: The automotive quality management system

## Environmental Certificates

- ISO14001:2004: Standards for Environmental management systems
- QC080000 HSPM: The Certification for Hazardous Substances Regulations
- Reach Compliance





# FAMILY



**1. One of the world's largest solar companies**

ranking top 6 for 2010 module shipment (IMS research)

**2. World class quality products with TOP PVUSA (PTC) performance rating**

PTC stands for PVUSA Test Condition, a mandatory testing required by the California Energy Commission.

**3. The tightest plus only power tolerance (+5W) among key players**

offering higher field output in your PV system by reducing module string losses

**4. Industry leading 10 year product warranty and 25 year linear performance warranty**

10 year product warranty on materials and workmanship, 25 year linear power output warranty

**5. Module warranties backed by international AM Best rated insurance companies**

warranties insured by leading insurance underwriters in Europe and USA

**6. Strong framed module, passing the mechanical load test of 5400pa**

backed up by one of the best financial balance sheets in the industry

**7. The 1st manufacturer in PV industry certified for ISO:TS16949**

(The automotive quality management system) in module production since 2003

**8. ISO17025 accredited manufacturer owned testing lab**

fully complying to IEC, TUV, UL testing standards

**9. An experienced senior management team of professionals in PV and semiconductor**

leading Canadian Solar with extensive business and technology experience

**10. World renowned technical expertise and innovative R&D**

chosen as a top 10 finalist for the InterSolar Award for outstanding industry innovation


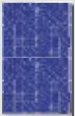
# ELPS Series

## Key Features

- **Delivers More Electricity**  
Delivers up to 6.3% more electricity than conventional solar modules
- **Highest Efficiency Module (P-type)**  
The metal wrap through (MWT) design increases light absorption up to 3% for more power output than conventional cells and modules
- **Best Power Tolerance**  
Industry leading plus-only power tolerance gives you up to 5 watts extra
- **Excellent Low Light Performance**  
Excellent performance in low light conditions (mornings, evenings and cloudy days)
- **Reduces Balance of System Cost**  
Get more watts in less space for savings on ground and rooftop, installation time, mounting systems and cables



## CS6 (6" ) ELPS Series

Module No		CS6P-255MM	CS6P-260MM	CS6P-265MM	CS6P-240PM	CS6P-245PM	CS6P-250PM	CS6P-255PM
								
<b>Electrical Characteristics</b>								
Rated Power	P <sub>max</sub>	255W	260W	265W	240W	245W	250W	255W
Voltage at typical power	V <sub>mp</sub>	30.5V	30.7V	30.9V	29.9V	30.0V	30.1V	30.2V
Current at typical power	I <sub>mp</sub>	8.35A	8.48A	8.61A	8.03A	8.17A	8.30A	8.43A
Open circuit voltage	V <sub>oc</sub>	37.7V	37.8V	37.9V	37.0V	37.1V	37.2V	37.4V
Short circuit current	I <sub>sc</sub>	8.87A	8.99A	9.11A	8.59A	8.74A	8.87A	9.00A
Power Tolerance		+5W (approx. +1.9%)			+5W (approx. +2.0%)			
Maximum System Voltage		1000V(IEC)/600V(UL)			1000V(IEC)/600V(UL)			
Maximum Series Fuse Rating		15A			15A			
NOCT		45±2°C			45±2°C			
Temp.Coefficient	V <sub>oc</sub>	-0.35%/°C			-0.34%/°C			
	I <sub>sc</sub>	0.060%/°C			0.065%/°C			
	P <sub>max</sub>	-0.45%/°C			-0.43%/°C			
Solar application		on-grid			on-grid			
Cell Information								
Cell Material		ELPS Mono			ELPS Poly			
Number of Cells		60			60			
Mechanical Specifications								
Dimensions		1638 x 982 x 40mm (64.5 x 38.7 x 1.57in)			1638 x 982 x 40mm (64.5 x 38.7 x 1.57in)			
Weight		20kg (44.1 lbs)			20kg (44.1 lbs)			

\*Standard Test Conditions (STC) Definition - Irradiance of 1000W/m<sup>2</sup>, Spectrum AM 1.5, and Cell Temperature of 25°C

\*\*Please refer to individual product datasheet for product certifications and warranty information.

## PROJECT Reference

### PROJECT IN CANADA

Location :	Toronto, Ontario
Module Type:	CS6P
System Size:	30KWp
Completion :	July 2009






### PROJECT IN ITALY

Location :	Rovigo (Northeast Italy)
Module Type:	CS6P-225P/230P
System Size:	70 MWp
Completion :	November 2010





# CS6 (6" Mono) Series

Module No		CS6P-235M	CS6P-240M	CS6P-245M	CS6P-250M	CS6A-185M	CS6A-190M	CS6A-195M	CS6C-135M	CS6C-140M
										
Electrical Characteristics										
Rated Power	Pmax	235W	240W	245W	250W	185W	190W	195W	135W	140W
Voltage at typical power	Vmp	30.1V	30.2V	30.3V	30.4V	23.9V	24.1V	24.2V	17.8V	18V
Current at typical power	Imp	7.82A	7.95A	8.09A	8.22A	7.74A	7.87A	8.04A	7.58A	7.76A
Open circuit voltage	Voc	37.2V	37.3V	37.4V	37.5V	29.7V	29.8V	29.9V	22.2V	22.3V
Short circuit current	Isc	8.34A	8.46A	8.61A	8.74A	8.26A	8.38A	8.56A	8.07A	8.28A
Power Tolerance		+5W(approx.+2%)				+5W(approx.+2.6%)			+5W(approx.+3.6%)	
Maximum System Voltage		1000V(IEC)/600V(UL)				1000V(IEC)/600V(UL)			1000V(IEC)/600V(UL)	
Maximum Series Fuse Rating		15A				15A			15A	
NOCT		45±2℃				45±2℃			45±2℃	
Temp.Coefficient	Voc	-0.35%/℃				-0.35%/℃			-0.35%/℃	
	Isc	0.060%/℃				0.060%/℃			0.060%/℃	
	Pmax	-0.45%/℃				-0.45%/℃			-0.45%/℃	
Solar application		on-grid				on-grid			on-grid and off-grid	
Cell Information										
Cell Material		Mono				Mono			Mono	
Number of Cells		60				48			36	
Mechanical Specifications										
Dimensions		1638x982x40mm (64.5x38.7x1.57in)				1324x982x40mm (52.1x38.7x1.57in)			1485x666x40mm (58.4x26.2x1.57in)	
Weight		20kg(44.1lbs)				16.0kg(35.3lbs)			12kg(26.5lbs)	

# CS6 (6" Poly) Series

Module No		CS6P-230P	CS6P-235P	CS6P-240P	CS6A-180P	CS6A-185P	CS6A-190P	CS6C-135P	CS6C-140P	CS6D-65P	CS6D-70P
											
Electrical Characteristics											
Rated Power	Pmax	230W	235W	240W	180W	185W	190W	135W	140W	65W	70W
Voltage at typical power	Vmp	29.6V	29.8V	29.9V	23.5V	23.7V	23.9V	17.6V	17.9V	17.5V	17.8V
Current at typical power	Imp	7.78A	7.90A	8.03A	7.65A	7.82A	7.95A	7.65A	7.84A	3.72A	3.93A
Open circuit voltage	Voc	36.8V	36.9V	37.0V	29.4V	29.4V	29.6V	22.0V	22.1V	21.9V	22.1V
Short circuit current	Isc	8.34A	8.46A	8.59A	8.19A	8.39A	8.50A	8.19A	8.4A	4.02A	4.21A
Power Tolerance		+5W(approx.+2.1%)			+5W(approx.+2.6%)			+5W(approx.+3.6%)		±3.5W(approx.±5%)	
Maximum System Voltage		1000V(IEC)/600V(UL)			1000V(IEC)/600V(UL)			1000V(IEC)/600V(UL)		1000V(IEC)/600V(UL)	
Maximum Series Fuse Rating		15A			15A			15A		10A	
NOCT		45±2℃			45±2℃			45±2℃		45±2℃	
Temp.Coefficient	Voc	-0.34%/℃			-0.34%/℃			-0.34%/℃		-0.34%/℃	
	Isc	0.065%/℃			0.065%/℃			0.065%/℃		0.065%/℃	
	Pmax	-0.43%/℃			-0.43%/℃			-0.43%/℃		-0.43%/℃	
Solar application		on-grid			on-grid			on-grid and off-grid		off-grid	
Cell Information											
Cell Material		Poly			Poly			Poly		Poly	
Number of Cells		60			48			36		36	
Mechanical Specifications											
Dimensions		1638x982x40mm (64.5x38.7x1.57in)			1324x982x40mm (52.1x38.7x1.57in)			1485x666x40mm (58.4x26.2x1.57in)		783x665x35mm (30.8x26.2x1.4in)	
Weight		20kg(44.1lbs)			16.0kg(35.3lbs)			12kg(26.5lbs)		6.5kg(14.33lbs)	

## PROJECT IN SPAIN

Location :	Mahora, Spain
Module Type:	CS6P
System Size:	15 MWp
Completion :	August 2008



## BIPV PROJECT IN LUO YANG, CHINA

Location :	Luoyang , China
Module Type:	BIPV-110W Poly
System Size:	5KWp
Completion :	Early 2009





## BIPV PROJECT FOR BEIJING OLYMPIC




Location :	Beijing, China
Module Type:	BIPV-88W Poly
System Size:	66KWp
Completion :	May 2008



# CS5 (5" Mono) Series

Module No		CS5P-245M	CS5P-250M	CS5P-255M	CS5P-260M	CS5A-185M	CS5A-190M	CS5A-195M
								
Electrical Characteristics								
Rated Power	Pmax	245W	250W	255W	260W	185W	190W	195W
Voltage at typical power	Vmp	48.4V	48.7V	49.0V	49.3V	36.4V	36.6V	37.0V
Current at typical power	Imp	5.06A	5.14A	5.21A	5.27A	5.09A	5.19A	5.27A
Open circuit voltage	Voc	59.5V	59.6V	59.8V	60.0V	44.6V	44.8V	45.0V
Short circuit current	Isc	5.43A	5.49A	5.55A	5.62A	5.46A	5.52A	5.62A
Power Tolerance		+5W(approx.+1.9%)				+5W(approx.+2.6%)		
Maximum System Voltage		1000V(IEC)/600V(UL)				1000V(IEC)/600V(UL)		
Maximum Series Fuse Rating		10A				10A		
NOCT		45±2℃				45±2℃		
Temp.Coefficient	Voc	-0.35%/℃				-0.35%/℃		
	Isc	0.060%/℃				0.060%/℃		
	Pmax	-0.45%/℃				-0.45%/℃		
Solar application		on-grid				on-grid and off-grid		
Cell Information								
Cell Material		Mono				Mono		
Number of Cells		96				72		
Mechanical Specifications								
Dimensions		1602x1061x40mm (63.1x41.8x1.57in)				1580x808x40mm (62.2x31.8x1.57in)		
Weight		21.0kg(46.3lbs)				15.8kg(34.8lbs)		

# CS5 (5" Mono) Series

Module No		CS5C-85M	CS5C-90M	CS5C-95M	CS5H-43M	CS5H-45M	CS5E-20M	CS5E-22M
								
Electrical Characteristics								
Rated Power	Pmax	85W	90W	95W	43W	45W	20W	22W
Voltage at typical power	Vmp	17.8V	18V	18.3V	17.8V	18.0V	17.6V	17.9V
Current at typical power	Imp	4.78A	4.99A	5.19A	2.41A	2.50A	1.14A	1.23A
Open circuit voltage	Voc	22.1V	22.3V	22.4V	22.2V	22.3V	21.9V	22.2V
Short circuit current	Isc	5.12A	5.34A	5.52A	2.57A	2.67A	1.23A	1.31A
Power Tolerance		+5W(approx.+5.3%)			±2.3W(approx.±5%)		±2.2W(approx.±10%)	
Maximum System Voltage		1000V(IEC)/600V(UL)			1000V(IEC)/600V(UL)		1000V(IEC)/600V(UL)	
Maximum Series Fuse Rating		10A			5.5A		2.5A	
NOCT		45±2℃			45±2℃		45±2℃	
Temp.Coefficient	Voc	-0.35%/℃			-0.35%/℃		-0.35%/℃	
	Isc	0.060%/℃			0.060%/℃		0.060%/℃	
	Pmax	-0.45%/℃			-0.45%/℃		-0.45%/℃	
Solar application		off-grid			off-grid		off-grid	
Cell Information								
Cell Material		Mono			Mono		Mono	
Number of Cells		36			36		36	
Mechanical Specifications								
Dimensions		1213x547x35mm (47.8x21.5x1.4in)			630x542x25mm (24.8x21.3x1.0in)		620x284x25mm (24.4x11.2x1.0in)	
Weight		8.0kg(17.6lbs)			3.5kg(7.7lbs)		2.1kg(4.6lbs)	

## BIPV Series

### Key Features

BIPV modules use double sided low iron tempered glass with solar cells laminated in between. BIPV modules are ideal for roofs, skylights and/or facades. BIPV modules can not only be used as a part of construction material for a building, but also as a source of electricity.

#### Summary

Ideal for roofs, skylights, or facades

#### Case Location

Beijing & Luoyang, China

#### Power Output

55W-115W/m<sup>2</sup> depending on cell spacing

#### Cell Information

Crystalline (mono or poly 125mm/156mm)

#### Size / Piece

100x100mm (3.93x3.93in)(min) up to 2000x3000mm (78.74x118.11in) (max)

#### Weight / Piece

5kg- 30kg/ m<sup>2</sup>

#### Cable Location

Edge

#### Transparency

Average 25% up to 50% +

#### Module Thickness

6mm+6mm (0.23in+0.23in) up to 12mm+12mm (0.47in+0.47in)

#### Frame

No Frame

#### Warranty Period

10 years, 90% power; 25 years, 80% power

#### Certificates

UL, IEC Pending

## Key Features

- Aesthetic all-black appearance
- Strong framed module, passing mechanical load test of 5400Pa to withstand heavier snow load
- Industry leading power tolerance: +5W
- 10 year product warranty (materials and workmanship); 25 year linear power output warranty
- The 1st manufacturer in PV industry certified for ISO:TS16949 (The automotive quality management system) in module production since 2003
- ISO17025 qualified manufacturer owned testing lab, fully complying to IEC, TUV, UL testing standards



## Quality Certificates

- IEC 61215, IEC61730, TUV Safety Class II UL 1703, CE
- ISO9001:2008: Standards for quality management systems
- ISO/TS16949:2009: The automotive quality management system

## Environmental Certificates

- ISO14001:2004: Standards for Environmental management systems
- QC080000 HSPM: The Certification for Hazardous Substances Regulations
- Reach Compliance

# All-black Series

Module No		CS5A-180M	CS5A-185M	CS5A-190M	CS5A-195M	CS6P-230P	CS6P-235P	CS6P-240P
								
Electrical Characteristics								
Rated Power	Pmax	180W	185W	190W	195W	230W	235W	240W
Voltage at typical powe	Vmp	36.1V	36.4V	36.6V	37.0V	29.6V	29.8V	29.9V
Current at typical power	Imp	4.99A	5.09A	5.19A	5.27A	7.78A	7.90A	8.03A
Open circuit voltage	Voc	44.6V	44.6V	44.8V	45.0V	36.8V	36.9V	37V
Short circuit current	Isc	5.34A	5.46A	5.52A	5.62A	8.34A	8.46A	8.59A
Power Tolerance		+5W(approx.+2.6%)				+5W(approx.+2.1%)		
Maximum System Voltage		1000V(IEC)/600V(UL)				1000V(IEC)/600V(UL)		
Maximum Series Fuse Rating		10A				15A		
NOCT		45±2℃				45±2℃		
Temp.Coefficient	Voc	-0.35%/℃				-0.34%/℃		
	Isc	0.060%/℃				0.065%/℃		
	Pmax	-0.45%/℃				-0.43%/℃		
Solar application		on-grid and off-grid				on-grid		
Cell Information								
Cell Material		Mono				Poly		
Number of Cells		72				60		
Mechanical Specifications								
Dimensions		1580x808x40mm (62.2x31.8x1.57in)				1638x982x40mm(64.5x38.7x1.57in)		
Weight		15.8kg(34.8lbs)				20kg(44.1lbs)		

# MaxPower Series

## Key Features



- Industry largest silicon solar module, generating more watt per panel and reducing BOS cost

## Quality Certificates

- CE, IEC61215/ IEC61730/ UL1703
- ISO9001:2008: Standards for quality management systems
- ISO/TS16949:2009: The automotive quality management system

## Environmental Certificates

- ISO14001:2004: Standards for Environmental management systems
- QC080000 HSPM: The Certification for Hazardous Substances Regulations
- Reach Compliance

Module No		CS6X-265P	CS6X-270P	CS6X-275P	CS6X-280P	CS6X-285P	CS6X-280M	CS6X-285M	CS6X-290M
									
Electrical Characteristics									
Rated Power	Pmax	265W	270W	275W	280W	285W	280W	285W	290W
Voltage at typical powe	Vmp	35.1V	35.3V	35.5V	35.6V	35.8V	36.0V	36.1V	36.3V
Current at typical power	Imp	7.55A	7.65A	7.76A	7.86A	7.96A	7.78A	7.89A	8.00A
Open circuit voltage	Voc	43.9V	44.1V	44.1V	44.2V	44.3V	44.6V	44.7V	44.7V
Short circuit current	Isc	8.10A	8.19A	8.31A	8.42A	8.53A	8.30A	8.40A	8.51A
Power Tolerance		+5W(approx.+1.8%)					+5W(approx.+1.7%)		
Maximum System Voltage		1000V(IEC)/600V(UL)					1000V(IEC)/600V(UL)		
Maximum Series Fuse Rating		15A					15A		
NOCT		45±2℃					45±2℃		
Temp.Coefficient	Voc	-0.34%/℃					-0.35%/℃		
	Isc	0.065%/℃					0.060%/℃		
		-0.43%/℃					-0.45%/℃		
Solar application		on-grid					on-grid		
Cell Information									
Cell Material		Poly					Mono		
Number of Cells		72					72		
Mechanical Specifications									
Dimensions		1954 x 982 x 40mm (76.93 x 38.7 x 1.57in)					1954 x 982 x 40mm (76.93 x 38.7 x 1.57in)		
Weight		27kg (59.52 lbs)					27kg (59.52 lbs)		



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