

Residential Solar Power System

Reducing emissions for a greener tomorrow

System Overview

Canadian solar offers home owners complete residential solar system solutions to meet their green energy needs. Canadian Solar's residential solar power systems are designed to meet different building applications in system sizes of 1.5kW(CS1500), 3.0kW(CS3000), 5.0kW(CS5000) and 10kW(CS10000). Canadian Solar also provides customized solar system solutions for special solar energy requirements.



Benefits of a Solar Power System

Solar power is an environmental friendly safe energy with abundant supply. Installing a residential solar power system is a good way to meet the rising renewable energy portfolio standards.

With various level of governments' financial support for solar power system installation and feed-in-tariff for purchasing solar power fed into the grid, solar power system investment has become a risk-free financial product with a very attractive rate of return.

Main components of solar home system

CS1500:1.5 KW system

6 pcs CS6P-250P panels
1.5KW transformer-less inverter
mounting system, DC combiner, isolator and cables

CS5000: 5 KW system

20 pcs CS6P-250W panels.
5KW transformer-less inverter (Dual MPPT)
mounting system, DC combiner, isolator and cables

CS3000:3KW system

12 pcs CS6P-250P panels
3KW transformer-less inverter
mounting system, DC combiner,
isolator and cables

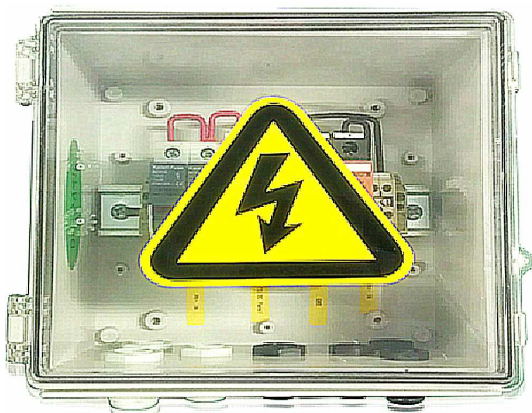
CS10000: 10 KW system

40 pcs CS6P-250W panels.
10KW transformer-less inverter (Dual MPPT)
mounting system, DC combiner,
isolator and cables



Electrical Components

All electrical components use latest IP66 switch gear to meet changing electricity requirements for rugged solar outdoor DC applications.



DC switch box



DC isolator



PV fuse holder

CS6P - 250P



CS6P is a robust solar module with 60 solar cells. These modules can be used for on-grid solar applications. Our meticulous design and production techniques ensure a high-yield, long-term performance for every module produced.

Our rigorous quality control and in-house testing facilities guarantee Canadian Solar's modules meet the highest quality standards possible.



Inverter



97.8% High Efficiency

IP 65, stainless steel housing

5 years standard warranty

Advanced MPPT automatic tracking

Parallel running mode with a string of inverters

In-built protection for overvoltage, islanding, overload, overheating, etc.

Light weight

Waterproof input and output plug connectors for easy installation and maintenance

Inverter General Specifications

		CSI-1500TL-GW	CSI-2000TL-GW	CSI-3000TL-GW	CSI-4600TLD-GW	CSI-10KDT-GW
DC Input Data	Max. PV-generator Power (W)	1800	2300	3200	5400	10200
	Max. DC Voltage (V)	450	500	500	580	1000
	MPPT Voltage Range (V)	125-450	125-450	125-450	125-550	260-850
	Turn On DC Voltage (V)	125	125	125	125	250
	Max. DC Work Current (A)	12	15	18	2*15	22/11
	Number of Inputs/MPPT Trackers	1/1	2/1	2/1	4/2 (Can Parallel)	4/2
	DC Connector	MC IV Connector				
AC Output Data	Standby Power Consumption (W)	5				10
	Nominal AC Power (W)	1500	2000	3000	4600	10000
	Max. AC Power (W)	1650	2000	3000	5100	10000
	Max. AC Current (A)	8	10	15	25	17
	Nominal Output Voltage Range	According to VDE-AR-N 4105, VDE 0126-1-1/A1, RD1699, ENEL, G83/1, G592, AS4777.2/.3				
	AC Grid Frequency	According to VDE-AR-N 4105, VDE 0126-1-1/A1, RD1699, ENEL, G83/1, G592, AS4777.2/.3				
	THDi	<1%			<1.5%	
Efficiency	Power Factor	~1 (Nominal Power)			0.95 leading...0.95 lagging	0.90 leading...0.90 lagging
	AC Connector	Single Phase				3W/N/PE, 230/400V
Safety Equipment	Leakage Current Monitoring Unit	Integrated				
	DC Switch	Optional				
	Island Protection	AFD				
Normative Reference	Grid Monitoring	According to VDE-AR-N 4105, VDE 0126-1-1/A1, RD1699, ENEL, G83/1, G592, AS4777.2/.3				
	EMC Compliance	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4				
	Safety Compliance	According to IEC 62109-1, AS3100				
General Data	Dimensions (W*H*D) (mm)	330*350*125	330*350*125	330*350*125	390*417*165	516*650*203
	Net Weight (kg)	12	12	13	20	39
	Housing	For Outdoor and Indoor				
	Mounting Information	Wall Mounting				
	Operating Temperature Range	-20-60°C (Up 45°C Derating)				
	Relative Humidity	0~95%				
	Site Altitude (m)	2000				
	IP Protection Class	IP65				
	Topology	Transformerless				
	Cooling Concept	Natural Convection				Fan Cooling
	Noise Level (dB)	<25				<45
	Display	4LCD				5LCD
	Communication	USB2.0: RS485 (Wireless ZigBee Optional)				
	Standard Warranty (Years)	5/10/15/20/25 (Optional)				

Mounting System

Anodized aluminum structure with stainless steel fittings. Versatile roof-mounting solution design applicable to most types of pitched and flat roofs. Innovative rail with zigzag supporting structure or standard roof hooks for easy installation. Rigorously tested to withhold 5400PA mechanical load.



Base Rail 60



Module End Clamp



Module Middle Clamp



Roof Hook

Installation Site:	Pitched or flat roof
Applicable Roof Cladding:	Tile, tin, slate
Roof Slope:	Up to 60 degree
Max. Building Height:	Up to 20m
Applicable Module:	Framed
Module Orientation:	Landscape or portrait
Standards:	AS/NZS 1170, TUV
Material:	Anodised aluminum, stainless fittings, rubber pads
Product Warranty:	10 years

Options: Black frame solar panel; additional cable length; string junction box; and product materials and specifications are subject to change without notice, due to continual design, material and performance improvements.

Project References for Roof-top Applications



System Size:
9KW
Module Type:
CS6P-P
Location: USA



System Size:
2KW
Module Type:
CS6P-P
Location:
New Zealand

Canadian Solar Inc.

Founded in 2001 in Canada, Canadian Solar Inc., (NASDAQ:CSIQ) is one of the world's largest and foremost solar power companies. As a leading manufacturer of solar modules and PV project developer with about 6 GW of premium quality modules deployed around the world in the past 12 years, Canadian Solar is one of the most bankable solar companies in Europe, USA, Japan and China. Canadian Solar operates in six continents with customers in over 70 countries and regions. Canadian Solar is committed to providing high quality solar products, solar system solutions and services to customers around the world.

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Partner Section