

DAFTAR PUSTAKA

- Bagaskoro, B., Windarta, J., & Denis. (2019). Perancangan dan Analisis Ekonomi Teknik Pembangkit Listrik Tenaga Surya Sistem Off-Grid Menggunakan Perangkat Lunak HOMER di Kawasan Wisata Pantai Pulau Cemara. *Transient*, Vol 8. No 2, hal 152-157.
- Bambang, H, P., Jatmiko, Muhamad, A, F., & Ilham, F, H. (2018). Efisiensi Penggunaan Panel Surya Sebagai Sumber Energi Alternatif . *Jurnal Teknik Elektro*, Vol 18, No 01, hal 10–14.
- Chandra, Y. (2016). Analisis Ekonomi Energi Perencanaan Pembangunan PLTS (Studi Kasus Gedung Kuliah Politeknik Negeri Ketapang). *Jurnal ELKHA*, Vol 8. No 1, hal 25-31.
- Hajir, N., Haddin, M., & Suprajitno, A. (2022). Analisa Perencanaan Pembangkit Listrik Tenaga Surya Atap dengan Sistem Hybrid di PT. Koloni Timur. *Jurnal Elekrika*, Vol 14. No 1, hal 20-25.
- Hidayat, F., Winardi, B., & Nugroho, A. (2019). Analisis Ekonomi Perencanaan Pembangkit Listrik Tenaga Surya (Plts) Di Departemen Teknik Elektro Universitas Diponegoro. *Transient*, Vol 7. No 4, hal 875-882.
- Kahar, B. (2016). Studi Dan Pemodelan Penyediaan Energi Di Pulau Moti Kota Ternate Berbasis Energi Terbarukan [Thesis]. Institut Teknologi Sepuluh Nopember.
- Kanata, S. (2015). Kajian Ekonomis Pembangkit *Hybrid* Renewable Energi Menuju Desa Mandiri Energi di Kabupaten Bone-Bolango. *Jurnal Rekayasa Elekrika*, Vol 11, No 3, hal 79-122.
- Kiki, Y. (2017). *Techno-Economic Analysis Of Solar Power Plant System Design In Commercial Building In Surabaya, Indonesia* . Institut Teknologi Sepuluh Nopember.

- Miharja, F., Studi, B., Sistem, T., Jurusan, T., Elektro, T., & Industri, F. T. (2012). Perencanaan Dan Manajemen Pembangkit Listrik Tenaga Hybrid (Angin/Surya/Fuel Cell) Pulau sumba menggunakan Software Homer.
- Muhammad, N (2020). Rancangan Sistem Kelistrikan Plts Off Grid 1000 Watt Di Desa Loeha Towuti. *Vertex Elektro*, Vol 12, No 01, hal 17-25
- Muljianto, W. P., Agusini, N. P., & Lasthari, Gi. P. (2022). Perencanaan Desain Sistem Pembangkit Listrik Tenaga Hibrid Pltb Dan Plts Di Lokasi Ekowisata Desa Gunungrejo Kecamatan Singosari Kabupaten Malang [Thesis]. ITN Malang.
- Navies, A. (2021). Analisis Teknis dan Ekonomi Pembangkit Listrik Tenaga Hybrid Biomass-Biogas. Skripsi, Fakultas Sains dan Teknologi. Pekanbaru: Universitas Islam Negeri Sultan Syarif Kasim Riau.
- Noor, H. (2021). Rancang Bangun Komponen Utama Plts Off-Grid Untuk Menunjang Operasi Incinerator Sipesat. *Arifia Ekayuliana*, Vol 20, hal 95–105.
- Nugroho, Y. A. (2016). Analisis Tekno-Ekonomi Pembangkit Listrik Tenaga Surya (PLTS) Di PT Pertamina (Persero) Unit Pengolahan IV Cilacap. Institut Teknologi Sepuluh Nopember Surabaya,
- Prabowo, E. (2016). Peningkatan Energi Dalam Negeri terhadap Perkembangan Ekonomi Global dapat Meningkatkan Ketahanan Nasional. *Kajian Lemhannas RI*, Vol 27, No 9, hal 2-58.
- PT. PLN (PERSERO). (2021). Rencana Usaha Penyediaan Tenaga Listrik (RUPTL) PT PLN (Persero) 2021-2030. *Rencana Usaha Penyediaan Tenaga Listrik 2021-2030*, 2019–2028.
- Rijal, A. S., Huda, N., & Ikram, A. (2023). Studi Perencanaan Pembangkit Hybrid (PLTS-PLTD) di Pulau Kodingare Kabupaten Sinjai. *Skripsi*, Teknik Mesin. Makassar: Politeknik Negeri Ujung Pandang.

- Samsurizal, Kartika T, M., Miftahul, F., Nurmiati, P., dan Christono. (2021). Penganalan Pembangkit Listrik Tenaga Surya (PLTS) [Buku]. Institut Teknologi PLN.
- Sitohang, M. P. (2019). Perancangan Pembangkit Listrik Tenaga Surya (PLTS) Terpusat Off-Grid System. Skripsi, Fakultas Sains dan Teknologi. Pekanbaru: Universitas Islam Negeri Sultan Syarif Kasim Riau.
- Suhendar. (2022). Dasar – Dasar Perencanaan Pembangkit Listrik Tenaga Surya [Buku]. Media Edukasi Indonesia (Anggota IKAPI) .
- Tarsisius, K. (2023). Peluang Pengembangan Pembangkit Listrik Berbasis Energi Baru Terbarukan Di Indonesia. Penerbit Itenas.
- Wijaya, F. D., Adiyasa, I. W., & Winata, E. (2021). Analisis Faktor Kapasitas Pembangkit Listrik Hibrida PLTB dengan PLTD di Pulau Terpencil: Studi Kasus Elat Pulau Serau Maluku. *ELKOMIKA: Jurnal Teknik Energi Elektrik, Teknik Telekomunikasi, & Teknik Elektronika*, Vol 9. No 4, hal 746-756.
- Yuniarti, N., & Aji, I. W. (2019). Pembangkit Tenaga Listrik.

LAMPIRAN



MAXPOWER (1500 V) CS6U-325 | 330 | 335 | 340M

Canadian Solar's new 1500 V module is a product for high voltage systems, which can increase the string length of solar systems by up to 50%, saving BOS costs.

KEY FEATURES

-  Designed for high voltage systems of up to 1500 V_{DC}, saving on BoS costs
-  Cell efficiency of up to 20.0 %
-  Outstanding low irradiance performance: 96.5 %
-  High PTC rating of up to 91.7 %
-  IP67 junction box for long-term weather endurance
-  Heavy snow load up to 5400 Pa, wind load up to 2400 Pa

25 years linear power output warranty

10 years product warranty on materials and workmanship

MANAGEMENT SYSTEM CERTIFICATES*

ISO 9001:2008 / Quality management system
ISO 14001:2004 / Standards for environmental management system
OHSAS 18001:2007 / International standards for occupational health & safety

PRODUCT CERTIFICATES*

IEC 61215 / IEC 61730: VDE / CE
UL 1703 / IEC 61215 performance: CEC listed (US)
UL 1703: CSA / IEC 61701 ED2: VDE / IEC 62716: VDE / Take-e-way

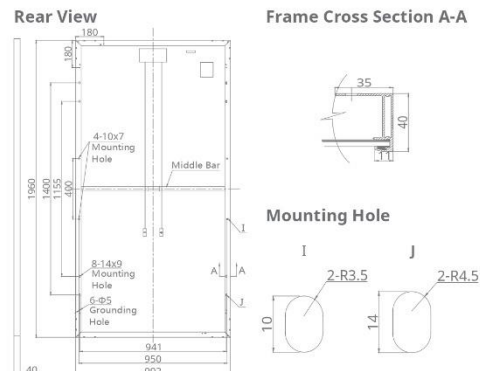
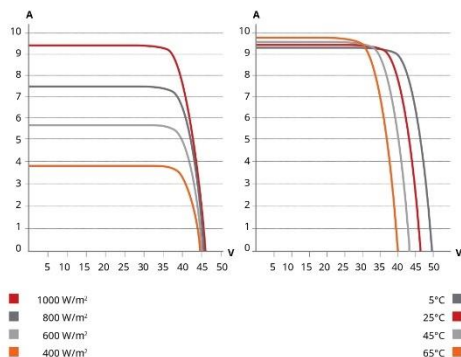


* As there are different certification requirements in different markets, please contact your local Canadian Solar sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

CANADIAN SOLAR INC. is committed to providing high quality solar products, solar system solutions and services to customers around the world. As a leading PV project developer and manufacturer of solar modules with over 15 GW deployed around the world since 2001, Canadian Solar Inc. (NASDAQ: CSIQ) is one of the most bankable solar companies worldwide.

CANADIAN SOLAR INC.

545 Speedvale Avenue West, Guelph, Ontario N1K 1E6, Canada, www.canadiansolar.com, support@canadiansolar.com

ENGINEERING DRAWING (mm)**CS6U-335M / I-V CURVES****ELECTRICAL DATA | STC***

CS6U	325M	330M	335M	340M
Nominal Max. Power (Pmax)	325 W	330 W	335 W	340 W
Opt. Operating Voltage (Vmp)	37.4 V	37.5 V	37.8 V	37.9 V
Opt. Operating Current (Imp)	8.69 A	8.80 A	8.87 A	8.97 A
Open Circuit Voltage (Voc)	45.8 V	45.9 V	46.1 V	46.2 V
Short Circuit Current (Isc)	9.21 A	9.31 A	9.41 A	9.48 A
Module Efficiency	16.72 %	16.97 %	17.23 %	17.49 %
Operating Temperature	-40°C ~ +85°C			
Max. System Voltage	1500 V (IEC) or 1500 V (UL)			
Module Fire Performance	TYPE 1 (UL 1703) or CLASS C (IEC 61730)			
Max. Series Fuse Rating	15 A			
Application Classification	Class A			
Power Tolerance	0 ~ + 5 W			

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.

MECHANICAL DATA

Specification	Data
Cell Type	Mono-crystalline, 6 inch
Cell Arrangement	72 (6 × 12)
Dimensions	1960 × 992 × 40 mm (77.2 × 39.1 × 1.57 in)
Weight	22.4 kg (49.4 lbs)
Front Cover	3.2 mm tempered glass
Frame Material	Anodized aluminium alloy
J-Box	IP67, 3 diodes
Cable	PV1500DC-F1 4 mm² (IEC) & 12 AWG 2000 V (UL), 1160 mm (45.7 in)
Connector	T4 series or PV2 series
Per Pallet	26 pieces, 635 kg (1400 lbs)
Per container (40' HQ)	624 pieces

ELECTRICAL DATA | NOCT*

CS6U	325M	330M	335M	340M
Nominal Max. Power (Pmax)	235 W	238 W	242 W	245 W
Opt. Operating Voltage (Vmp)	34.1 V	34.2 V	34.5 V	34.6 V
Opt. Operating Current (Imp)	6.88 A	6.96 A	7.01 A	7.10 A
Open Circuit Voltage (Voc)	42.0 V	42.1 V	42.3 V	42.4 V
Short Circuit Current (Isc)	7.46 A	7.54 A	7.62 A	7.67 A

* Under Nominal Operating Cell Temperature (NOCT), irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.41 % / °C
Temperature Coefficient (Voc)	-0.31 % / °C
Temperature Coefficient (Isc)	0.053 % / °C
Nominal Operating Cell Temperature	45±2 °C

PERFORMANCE AT LOW IRRADIANCE

Outstanding performance at low irradiance, average relative efficiency of 96.5 % from an irradiance of 1000 W/m² to 200 W/m² (AM 1.5, 25°C).

The specification and key features described in this datasheet may deviate slightly and are not guaranteed. Due to on-going innovation, research and product enhancement, Canadian Solar Inc. reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain the most recent version of the datasheet which shall be duly incorporated into the binding contract made by the parties governing all transactions related to the purchase and sale of the products described herein.

Caution: For professional use only. The installation and handling of PV modules requires professional skills and should only be performed by qualified professionals. Please read the safety and installation instructions before using the modules.

PARTNER SECTION



E-5

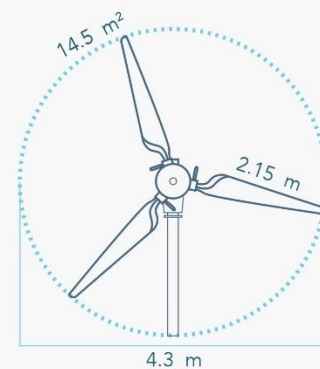
DATA SHEET

The E-5 is capable of off-setting greenhouse gas emissions from 38,902 miles driven by a passenger vehicle each year.



GENERATOR	Type	Permanent Magnet
	Maximum Power	5.5 kW
	Rated Power	4 kW
ROTOR	Configuration	Horizontal Axis
	No. of Blades	3
	Blade Material	Glass fibre
	Blade Length	2.15 m
	Rotor Diameter	4.3 m
	Swept Area	14.5 m ²
	Nominal Rotor Speed	250 rpm
WIND	Pitch/Yaw	Upwind passive system with steering rudder
	Cut-In Speed	2 m/s
	Rated Wind Speed	11 m/s
	Cut-Out Speed	60 m/s
	Survival Speed	70 m/s
WEIGHTS	Nacelle/Rotor	165 kg
TOWERS	Lattice	6 – 27 m
	Monopole	6 – 27 m
	Tilt-Up	6 – 27 m
DESIGN PARAMETERS	Turbine Design Class	IEC 61400-2 Class I
	Temperature Range	-20° to 50°C
	Lifespan & Servicing	20 years, subject to regular maintenance

TECHNICAL PROFILE



CLASS I

PASSIVE REGULATION

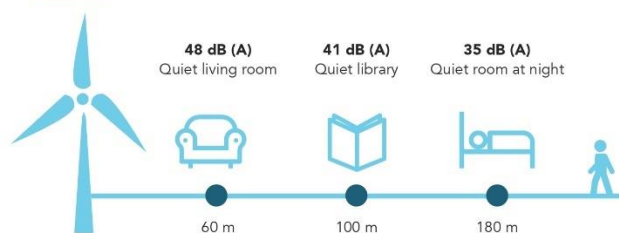


48 V DC



GRID

NOISE



Approx. Data

SAFETY

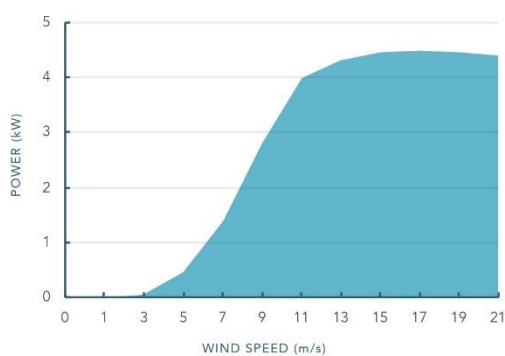

- Base Level: Electronic control system activates mechanical brake with shaft lock.
- Second Level: Passive blade pitch control, with 45° of movement and 2 reaction speeds, limits power output.
- Third Level: Electronic control system activates electromagnetic induction brakes.

DATA INPUT & MANAGEMENT


- Remote Control: Allows the remote customization of the wind turbine in order for Ryse to provide optimum performance in every site.
- Storm Detection: Intelligent storm detection algorithm and automatic safety lock protect the turbine in the event of dangerous gusts / hurricane weather.
- LCD display in control box. Can output to local PC or be monitored remotely via the internet.

CONSTRUCTION & MAINTENANCE


- Anti-Corrosive Blades: The blades and nacelle are treated with epoxy paint and hermetically sealed. This gives corrosion and saline protection, making the turbine ideal for island, coastal or desert deployments.
- Ryse service contract available.
- Online store for easy purchase of spare parts & equipment: ryse.energy/shop

POWER CURVE

ENERGY OUTPUT

Annual Mean Wind Speed (m/s)	Estimated Annual Output (kWh)
2	290
3	1,900
4	3,900
5	6,900
6	10,000
7	14,300
8	17,700
9	20,000
10	22,500

PWG2-50/100K-NA**PWG2-50/100K-EX****Sinexcel****Features**

- Modular design and wide power range in single cabinet
- Bi-directional Power Conversion System
- Built-in transformer
- Grid-support functions
- Flexible configuration
- Support PV access

Supported Battery Types:

- Lithium-ion based battery
- Lead-carbon battery

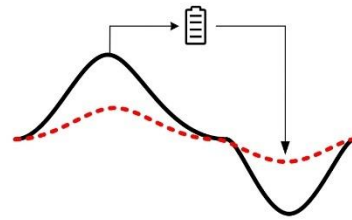
Specification

Model	PWG2-50K-NA	PWG2-100K-NA	PWG2-50K-EX	PWG2-100K-EX
Utility-interactive Mode				
Battery voltage range	400V(250~520V)		400V(250~520V)	
Batter DC Max Current	150A	300A	150A	300A
PV Voltage Range	520~900V (MPPT 520V~800V)		520~900V (MPPT 520V~800V)	
PV DC. Max Current (in case of completely consumption)	192A	384A	192A	384A
AC voltage	480V(423V~528V)		400V(340V~460V)	
AC current	60A	120A	72A	144A
Nominal power	50kVA	100kVA	50kVA	100kVA
AC frequency	60Hz(59.5Hz~60.5Hz)		50/60Hz(±2.5Hz)	
Output THDI	≤3%	≤3%	≤3%	≤3%
AC PF	Listed: 0.8~1 leading or lagging (Controllable)		Listed: 0.8~1 leading or lagging (Controllable)	
	Actual: 0.1~1 leading or lagging (Controllable)		Actual: 0.1~1 leading or lagging (Controllable)	

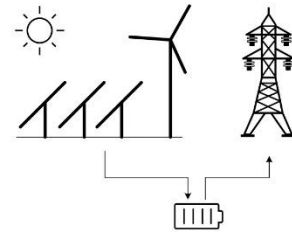
Stand-alone Mode				
Battery voltage range	250~520V		250~520V	
Battery DC Max Current	150A	300A	150A	300A
PV Voltage Range	520~900V (MPPT 520V~800V)		520~900V (MPPT 520V~800V)	
PV DC. Max Current (in case of completely consumption)	192A	384A	192A	384A
AC output voltage	480V(±10% configurable)		400V(±10% configurable)	
AC output current	60A(Max 66A)	120A(Max 132A)	72A(Max 79A)	144A(Max 159A)
Nominal AC output power	50kVA	100kVA	50kVA	100kVA
AC Max Power	55kVA	110kVA	55kVA	110kVA
Output THDu	≤2%	≤2%	≤2%	≤2%
AC frequency	60Hz		50/60Hz	
AC PF	Listed: 0.8~1 leading or lagging (Load-depend)		Listed: 0.8~1 leading or lagging (Load-depend)	
	Actual: 0.1~1 leading or lagging (Load-depend)		Actual: 0.1~1 leading or lagging (Load-depend)	
	105%~115% 10min; 115%~125% 1min; 125%~150% 200ms		105%~115% 10min; 115%~125% 1min; 125%~150% 200ms	
Physical				
Cooling	Forced air cooling		Forced air cooling	
Noise	70dB		70dB	
Enclosure	NEMA / IP20		IP20	
Max elevation	3000m/10000feet (> 2000m/6500feet derating)		3000m/10000feet (> 2000m/6500feet derating)	
Operating temp.	-20°C to 50°C (De-rating over 45°C)		-20°C to 50°C (De-rating over 45°C)	
Humidity	0~95% (No condensing)		0~95% (No condensing)	
Size (W*H*D)	800*2160*800mm		800*2160*800mm	
	31.5*85*31.5 inches		31.5*85*31.5 inches	
Weight	520kg	750kg	520kg	750kg
Installation	Floor standing		Floor standing	
Other				
Peak efficiency	95.50%	95.50%	95.50%	95.50%
CEC efficiency	-	-	-	-
Protection	OTP, AC OVP/UVP, OFP/UFP, EPO, AC Phase Reverse,		OTP, AC OVP/UVP, OFP/UFP, EPO, AC Phase Reverse,	

	Fan/Relay Failure, OLP, GFDI, Anti-islanding	Fan/Relay Failure, OLP, GFDI, Anti-islanding
Configurable protection limits	Upper/Lower AC Voltage/Frequency limit, Battery EOD voltage.	Upper/Lower AC Voltage/Frequency limit, Battery EOD voltage.
AC connection	3-Phase 4-Wire	3-Phase 4-Wire
Display	Touch Screen	Touch Screen
Communication	RS485,CAN,Ethernet	RS485,CAN,Ethernet
Isolation	Built-in Transformer	Built-in Transformer
Compliance	UL1741 /UL 9540, CPUC RULE 21, IEEE1547, CSA 22.2	CE LVD, IEC 62109, CE EMC, IEC 61000, AS61000 VDE 4105, VDE 0126-1 AS4777 PEA, MEA TOR Erzeuger

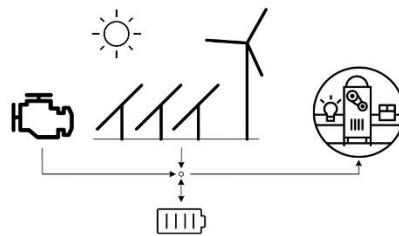
Applications



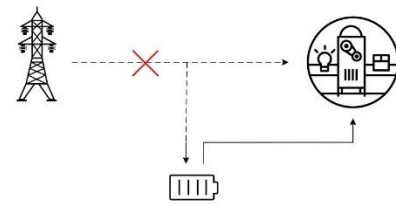
Demand Charge Management



Customer Self Supply



Micro-Grid



Backup power

Life Is On

Schneider
Electric

MPPT PV Optimization

600 Vdc Solar Charge Controllers

6 kW MPPT 100 600 (Part Number 865-1034)

4.8 kW MPPT 80 600 (Part Number 865-1032)



The MPPT 80 and MPPT 100 600 Vdc Solar Charge Controllers optimize the power from PV arrays for DC coupled solar and storage installations, with easy, flexible installation.

Optimum System Performance

- High power, 600 Vdc MPPT PV optimization and battery charge control
- Flexibility for oversized PV array power ratings up to 8.5 kW with the MPPT 100 or 6.8 kW with the MPPT 80
- High efficiency from PV to battery to grid, ideal for the self-consumption of solar energy
- Black start batteries from solar, providing maximum energy resilience for longer duration grid outages
- Harvest more energy with shade tolerant fast sweep MPPT algorithm

Flexible

- Flexible string sizing with a wide MPPT and PV operating voltage range
- Compatible with XW Pro and SW series hybrid inverters for a complete grid tied or off grid solar and storage solution

Easy to Install

- 2 string installations and smaller wire sizing with 600 Vdc PV arrays, allowing faster, lower cost installations
- No need for a combiner box with DC breakers or fuses
- Easy to install PV disconnect and NEC 2017 compliant rapid shutdown transmitter with the MPPT Disconnect RS accessory, UL1741 PVRSS certified

Compatible with Insight Energy Management

- Setup and configuration
- Remote monitoring & control with advanced data security
- Web and mobile app
- Multi-site management for installers



Insight Energy Management

solar.se.com

Technical Specifications

	MPPT 80 600	MPPT 100 600
Electrical Specifications		
Max PV array open circuit voltage	600 V	600 V
MPPT voltage range	195 to 510 VDC	195 to 510 VDC
PV array operating voltage	195 to 550 V	195 to 550 V
Max. array short circuit current at STC	28 A	35 A
Max. input operating current	23 A	29 A
Max. output power	4800 W (nominal 48 V systems)	6000 W (nominal 48 V systems)
Nominal battery voltage	24 and 48 VDC	24 and 48 VDC
Battery voltage operating range	16 to 67 VDC	16 to 67 VDC
Max. output charge current	80 A	100 A
Charger regulation method	Three-stage (bulk, absorption, float) plus manual equalization Two-stage (bulk, absorption) plus manual equalization	
Supported battery types	Flooded, GEL, AGM, Lithium-ion, Custom	
Efficiency		
Max. power conversion efficiency	95% (nominal 48 V), 92% (nominal 24 V)	
General Specifications		
Power consumption, night time	< 1 W	
Battery temperature sensor	Included	
Auxiliary output	Dry contact switching up to 60 VDC, 30 VAC, 8 A	
Enclosure material	Enclosure material: Indoor, ventilated, aluminium sheet metal chassis	
Knockout dimensions	44.0 mm, 35.0 mm , 28.2 mm, and 22.2 mm knockouts for 1-1/4, 1, ¾, and ½ inch trade size fittings	
IP degree of protection	IP20	
Product weight	13.5 kg (29.8 lb)	
Shipping weight	20.4 kg (45 lb)	
Product dimensions (H x W x D)	76.0 × 22.0 × 22.0 cm (30.0 × 8.6 × 8.6 in)	
Shipping dimensions (H x W x D)	113.39 × 28.68 × 31.90 cm (44.64 × 11.29 × 12.56 in)	
Ambient air temperature for operation	-20 °C to 65 °C (-4 °F to 149 °F), power derating above 40 °C	
Storage temperature range	-40 °C to 85 °C (-40 °F to 185 °F)	
Operating altitude	Sea level to 2000 m (6562 ft)	
System network and remote monitoring	Available with Insight Energy Management	
Warranty	Please refer to our website, solar.se.com for the latest version of the warranty statement.	
Part number	865-1032	865-1034
Regulatory Approvals		
Safety	CSA certified (UL1741, CSA 107.1) and CE marked for the Low-voltage Directive (EN50178)	
EMC	FCC and Industry Canada (Class B), CE marked for the EMC Directive (EN61000-6-1, -6-3)	
Compatible Products List		
XW Pro hybrid inverter	XW Pro 6848 120/240 VAC (865-6848-21), XW Pro 8548 230 VAC 865-8548-55)	
XW+ hybrid inverter	XW+ 8548 230 VAC (865-8548-61)	
SW IEC (230 VAC)	SW 4024 230 VAC (865-4024-55), SW 4048 230 VAC (865-4048-55)	
SW UL (120/240 VAC)	SW 4024 120/240 VAC (865-4024-21), SW 4048 120/240 VAC (865-4048-21)	
XW Power Distribution Panels	865-1015-01, 865-1014-01	
XW Mini Power Distribution Panels	865-1013-01	
MPPT Disconnect RS and RS initiator Switch	865-1036, 865-1039	
Insight Energy Management	InsightHome (865-0330), InsightFacility (865-0335), Insight	
Conext Automatic Generator Start	865-1060-01	
Conext Battery Monitor	865-1080-01	



Blue Carbon
蓝晶易碳



48V/300Ah

LiFePO₄ Battery Pack

Name: LITHIUM ION BATTERIES
Model: BCT-UU 48-300

BCT

BCT-UU 48-300 LiFePO₄ Battery Pack



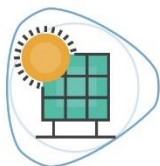
Application Places

For no city power areas, the battery pack can be charged by solar panels and used for night lighting; For the areas that city power is expensive, the battery pack can be charged during the electricity valley value period, and used at the peak power period; For the areas which power off from time to time, the battery pack can be used as UPS, to avoid information loss caused by sudden power outage. The battery pack is applicable to commercial lighting, industrial lighting, home lighting, outdoor lighting, camping tourism, farming, planting, the night market stalls, etc.

Blue Carbon, no need electricity bill at all.



Blue Carbon
蓝晶易碳



Clean energy

Using sunlight to achieve clean energy charging, can supply power to household appliances.



Storing energy

Realize the freedom of electricity consumption in the area where there is no electricity and less electricity.



Household appliances

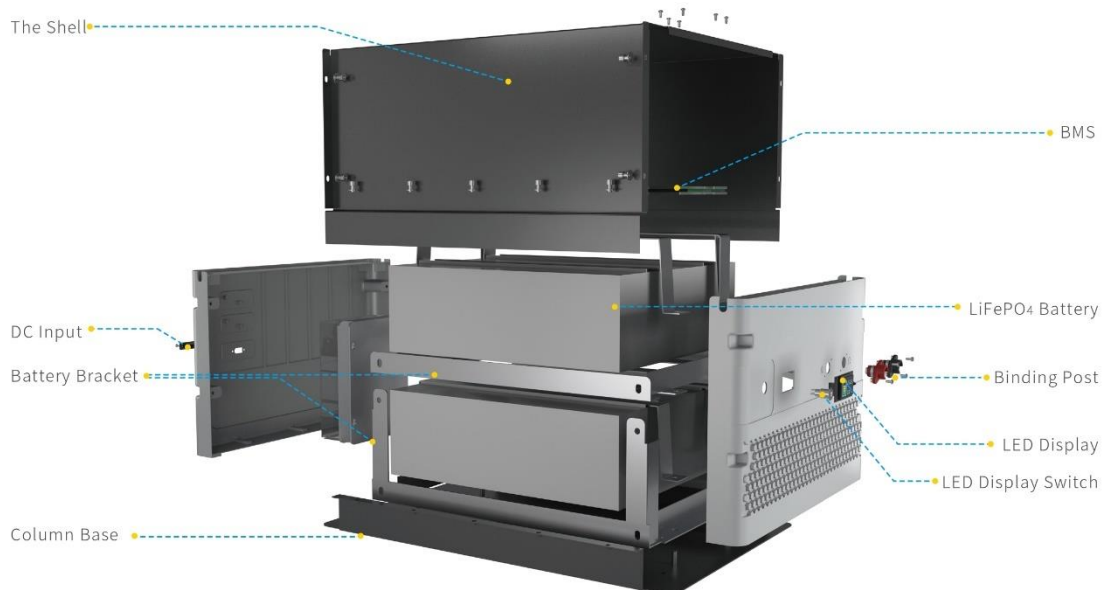
Free electricity

Storing the power from the solar panel, to be used as reserve power or emergency power supply.

At night or at the time of power outage, it can supply the power to electrical appliances by using the stored energy, to avoid the inconvenience caused by power outage, so that you can calmly deal with the situation of power outages.

BCT

INSTRUCTIONS



15360Wh



DC Output



Solar Panel
Charging



Multiple Appliances

Blue Carbon, no need electricity bill at all.



Blue Carbon
蓝晶易碳

6 KINDS OF SAFETY PROTECTION



Charging Overvoltage
Protection



Discharge Undervoltage
Protection



Charging Overcurrent
Protection



Discharge Overcurrent
Protection



Short Circuit
Protection



Temperature
Protection

Product Details

LiFePO4 battery

Stable discharge, long cycle life,
safe and environmental protection,
high safety performance.



Battery bracket



BMS

Protect the battery,
Prevent battery damage,
Extend battery life.



Imported components



Comply with UL standard
safety certification



Separate driver modules



Use insulation materials

LED display

Observe the power usage at any time.



Function Introduction

Battery Remaining Capacity Real time battery voltage



Real time output



Main switch

Stainless steel push button switch,
Protect the upgrade.

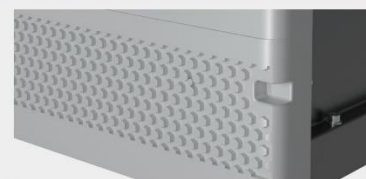
Binding post

Insulated flame retardant,
fast and efficient.



High quality aluminium magnesium alloy

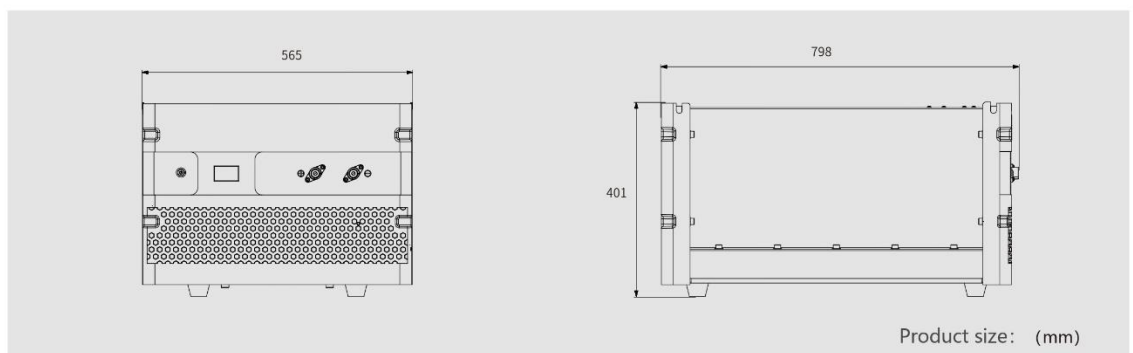
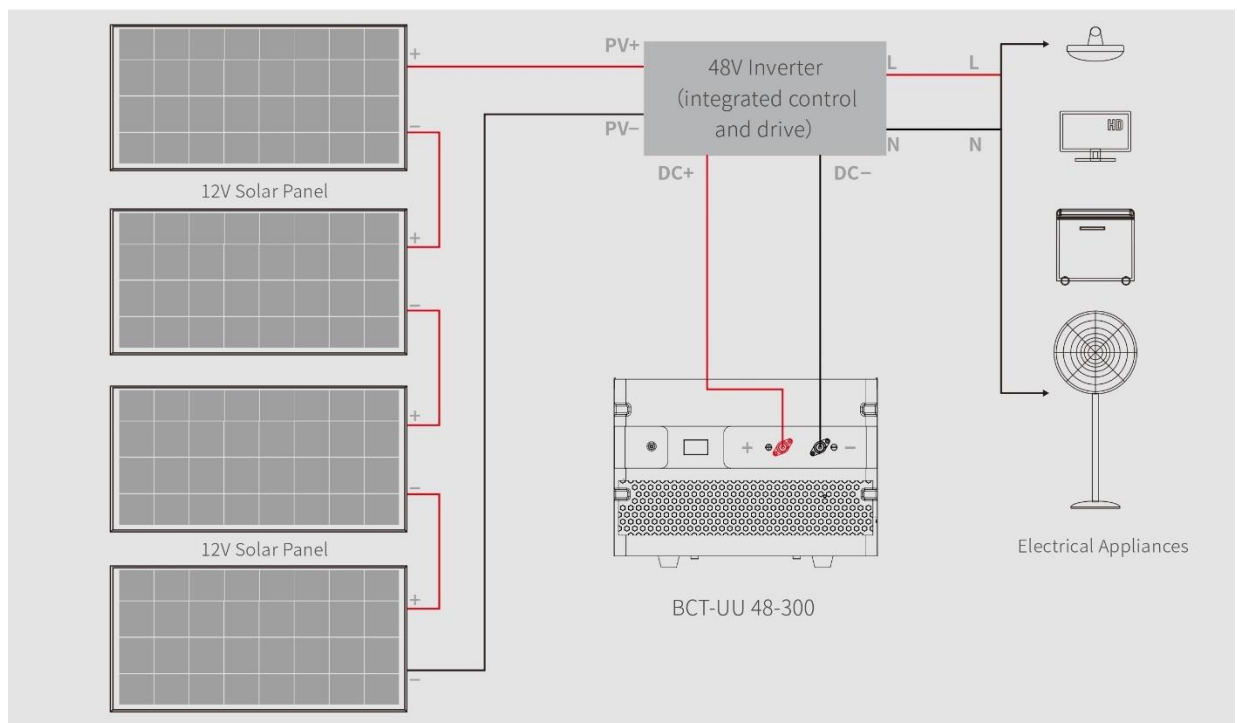
Anti-corrosion, substantial, durable,
artistic, practical.



Blue Carbon, no need electricity bill at all.



Blue Carbon
蓝晶易碳



Advantages

- High quality aluminium magnesium alloy, anti-corrosion, substantial, durable, artistic, practical.
- All in one mould design and production, easy to install.
- With longer span life LiFePO₄ battery, over 12 years lifespan, ensure the whole set products' life span.
- Dustproof structure design, DC output, safe and reliable.
- Integrated packaging, safe and convenient to transport.

Tel: +86-06332190373 Fax: +86-0633-2165720
Email: sales@bluecarbontech.com



Blue Carbon
蓝晶易碳

Technical Parameters

Model	BCT-UU 48-300	
Basic Specifications	Nominal Capacity	300Ah
	Nominal Voltage	48V(51.2V)
	Electricity(kWh)	15.36kWh
Input	Full charge Voltage	57.6V-60V
	Maximum Charging Voltage	90V
	Input Voltage Range	60V-100V
	Continuously Use Input Current	100A
	Maximum Solar Panel Input Current	100A
	Rshoot delay protection	1000ms
Output	Continuously Use Output Current	100A
	Discharge Cut-off Voltage	40V-46V
	Over-Discharge Delay Protection	1000ms
	Short Circuit Protection Delay	300us
	Short Circuit Protection Recovery	Disconnect load
	Instant Start Current	300A
	Instant Start Current Time	10S
Battery	Cell Type	LiFePO ₄ Battery/LFP
	Storage Temperature Range	Short-Term -20°C-40°C(Within 1 month)
		Long-term 10°C-35°C(Within 1 year)
	Operating Temperature Range	-15°C-60°C
	Recommended Temperature Range	10°C-40°C
	Storage Humidity	≤75% RH
	Atmospheric Pressure	Below 5000 above sea level
	Self-Discharge (25°)	<3%/Month
	Depth of Discharge	>80%
	C-rate Discharge	<0.8C
Other	Cycle Life	> 6000 Times (< 0.5c)
	Certification Standards	UN38.3/CE/MSDS/DGM
	Warranty	5 years
	Product Size	798±2×565±2×401±2mm
	Packing Size	903±2×671±2×451±2mm

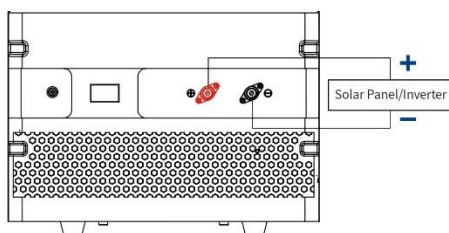
BCT

Instructions

Attention:

1. It is forbidden to use any high-voltage to charge it. The open circuit voltage of 12V battery pack can not exceed 22V, 24V battery pack can not exceed 44V and 48V battery pack can not exceed 88V. The maximum open circuit voltage of solar panel can not exceed twice of the voltage of battery.
2. Please use a MPPT controller with lithium iron phosphate battery mode.
3. The output must have high-voltage isolation function when using high-voltage MPPT controller.
4. When the source voltage of the charging terminal is higher than 88V, in order to prevent the failure of the voltage conversion device in the middle and cause overcharging of the battery. The high-voltage circuit breaker with charging protection function must be connected between the charging controller and the battery.
5. 12V battery pack, maximum support 4 battery packs in series, the highest charging voltage of 4 battery packs in series is less than 88V, and the highest charging voltage of 2 battery packs in series is less than 44V. 24V battery pack, maximum support 2 battery packs in series, the highest charging voltage of 2 battery packs in series is less than 88V. 48V battery pack, it is forbidden to use in series. Ensure the batteries are discharged to empty condition or fully charged before connecting them in parallel. Ensure the voltage of batteries are consistent before connecting the batteries in parallel.
6. It is forbidden to connect the positive and negative poles reversely and short circuit the positive and negative poles of the battery pack; The overload is strictly prohibited.
7. The battery pack should not be used in severe vibration scenarios.
8. It is strictly prohibited to put in water and clean the battery pack, and do not place the product in the outdoor exposed place for a long time to prevent rain or moisture.
9. It is forbidden to use or place the battery at high temperature. If battery is used for a long time, the recommended optimal ambient temperature is 10-40°C.
10. The battery should not be placed in the room where any combustible gas or flammable items are stored, and should be used in a clean, dry and ventilated environment.
11. It is strictly prohibited to knock, throw, reverse or trample on the battery pack. It is strictly prohibited to use the battery pack when the appearance is seriously damaged (artificial knocking, scraping, falling from height, unauthorized disassembly of the products, etc.).
12. It is strictly forbidden to dump or invert the product.

Please strictly following the above operating rules when using the battery pack.



Tel: +86-06332190373 Fax: +86-0633-2165720
Email: sales@bluecarbontech.com