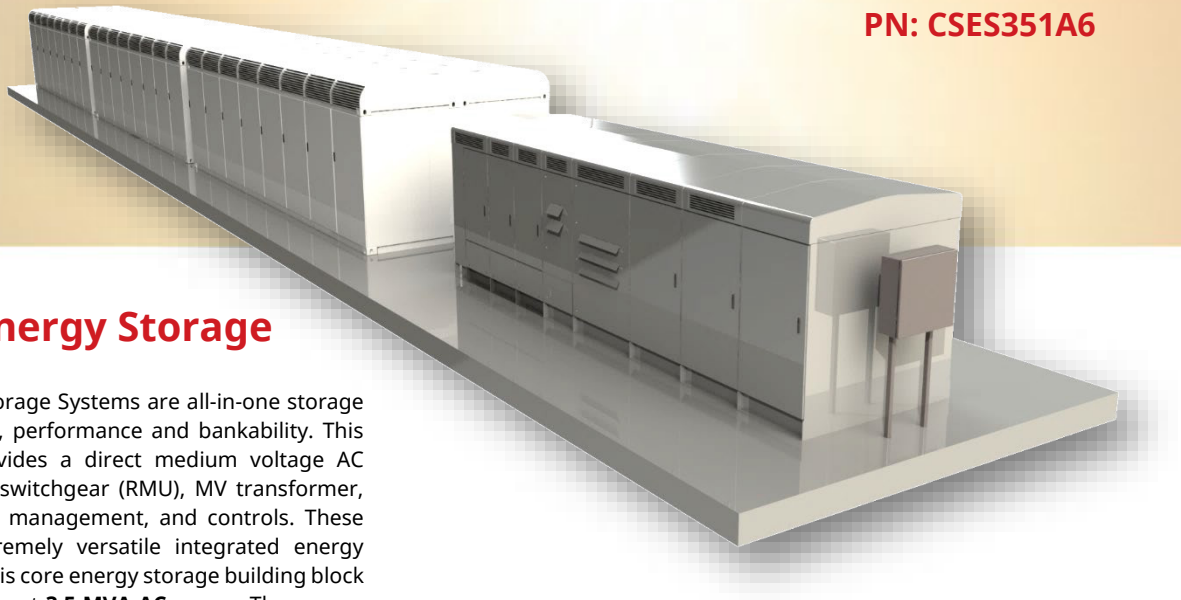
NEW

Preliminary Technical Information Sheet

CanadianSolar

Energy Station

PN: CSES351A6



Utility Scale Energy Storage

Canadian Solar's Battery Storage Systems are all-in-one storage systems optimized for cost, performance and bankability. This best in class solution provides a direct medium voltage AC interface and includes MV switchgear (RMU), MV transformer, inverter, batteries, thermal management, and controls. These storage solutions are extremely versatile integrated energy storage system platform. This core energy storage building block provides **14 MWh AC** energy at **3.5 MVA AC** power. The energy storage systems can operate in grid-tied mode to perform peak demand reduction, PV peak shifting and many other grid services. Units can be paralleled directly on the MV side to provide utility scale power output to GWH scales. Our meticulous product design and stringent quality control ensure our products deliver high efficiency and reliability. Our accredited in-house testing facilities guarantee all components meet the highest quality standards possible.

Key Features

- Modular design options for peak load shaving, Demand response, PV firming
- Comprehensive performance and availability guarantee available
- Best fire safety with LiFePO4 battery
- Long Term Service Agreements and full Warranty Wrap available
- Intelligent thermal management systems
- Rated at Medium Voltage Interface
- Outdoors rated (-20 to 55°C)

20 Years equipment warranty & performance guarantee available

Product Certifications

UL1973, UN38.3, UL1741SA, FCC Part 15

CSI SOLAR CO., LTD. is committed to providing high quality solar products, solar system solutions and services to customers around the world. No. 1 module supplier for quality and performance/price ratio in IHS Module Customer Insight Survey. As a leading PV project developer and manufacturer of solar modules with over 53 GW deployed around the world since 2001.

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

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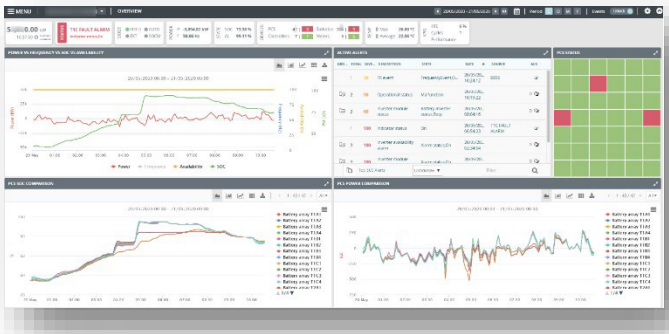
ELECTRICAL SYSTEM/TECHNICAL DATA

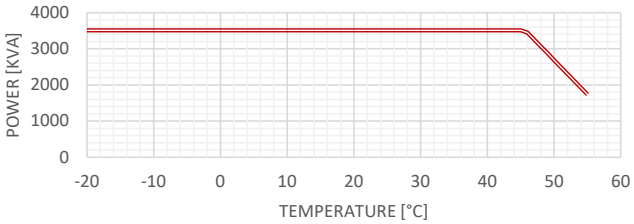
Rated AC Output Power	3,5 MVA
Rated Output Voltage	34.5 kV +10%/-12%
Rated Energy Storage (at 34.5KV AC MV connection)	14.2 MWh (AC)
Grid Connection Type	3 Φ/PE
Nominal AC Output Current	60A (@34.5 kV)
Rated Output Frequency	59.3..60.5Hz
Power Factor	-0.5 to 0.5
Current THD	<5%
AC Disconnection Type	Vacuum circuit-breaker module
Topology	Turnkey MV Skid (Battery, Inverter, Transformer, and AC Protection)
Round-trip Efficiency	90% (BOL 87.5% (Y20)
Communication Interface	Modbus TCP Web-based local UI (Performance history, remote control, alerts)

MECHANICAL SYSTEM DATA

Dimensions (meters)	39.4x3.4x2.7
Weight	177,820kg
Protection Degree	Nema 3R (UL)
Cooling	Forced Air Inverter/ Liquid Cooled Battery
Operating Temperature Range	-20..45°C (Rated Power) -20..55°C (w. derating)
Storage Temperature Range	-20..45°C
Operating Humidity	5..100%
Operating Altitude	2000m
Audible Noise	<79dB
Installation Type	Pad-mount



Power vs. Temperature Rating



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

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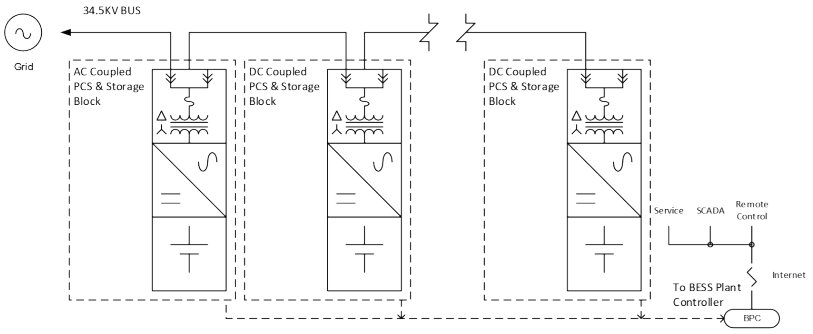
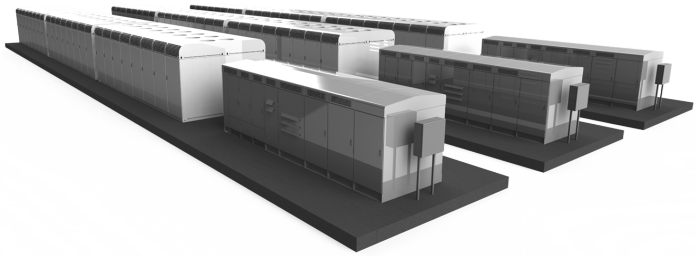
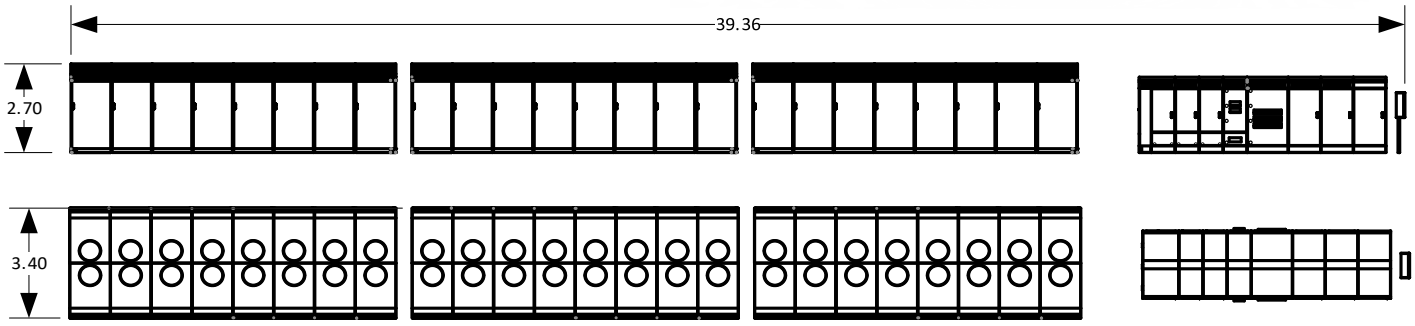


BATTERY PERFORMANCE GUARANTEE
(At ~95% daily average DOD)

At beginning of life	14.2 MWH AC
At 1 year	13.5 MWH AC
At 2 years	13.2 MWH AC
At 3 years	13.0 MWH AC
At 4 years	12.7 MWH AC
At 5 years	12.5 MWH AC
At 10 years	11.8 MWH AC
At 15 years	11.1 MWH AC
At end of life (20 years)	10.6 MWH AC



MECHANICAL DIMENSIONS
(in meters)



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.

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