PRODUCT COLLECTION

2026

Solard

Solar cooling & energy storage

POWER / REFRIGERATION / COMFORT

ILLUSTRATIVE PRODUCT SCENE



Shandong Solard New Energy Technology Co., Ltd.

SOLAR AIR CONDITIONING • ENERGY STORAGE • COLD ROOMS

A portfolio built around your project



PRODUCT ASSEMBLY ILLUSTRATION

Based in Shandong, China, Solard brings together energy storage, inverters, solar cooling and PV system components. Equipment is matched around the site supply, operating load and required runtime.

US-market configurations are available across the product range. Voltage, frequency and wiring are specified for each model and project.

AC-input models: 110 V / 220 V options available, depending on model.

01

SYSTEM MATCHING

Coordinate capacity, electrical interfaces, PV input, battery storage and backup requirements.

02

OEM / ODM

Branding, labels, manuals and packaging for distributor and project orders.

03

DELIVERY SUPPORT

Agree inspection, protective packing, technical documents, shipment and after-sales support.

Product images illustrate equipment formats. Final configuration follows the selected model and project requirements.

Find the right product family

01 Solar air conditioning

Hybrid and DC splits; window, VRF, floor and cassette formats. Thermal AC and DC appliances.

PAGES 04-09



02 Energy storage & power

Home batteries, integrated ESS and commercial storage. Inverters, PV, MPPT and diesel backup.

PAGES 14-19



03 Cold-room refrigeration

Matched outdoor units and indoor air coolers. Solar / grid supply and a nine-model range.

PAGES 20-23



US-market configurations available. AC-input models: 110 V / 220 V options, depending on model.

POWER INTEGRATION / 10-13 Project references, your brief and an integrated system.

Hybrid solar air conditioning

AC/DC HYBRID SPLIT / SOLAR DC + UTILITY AC



9,000-36,000

BTU/h cooling classes

220-240 V

AC supply / 1 phase

AC-input versions: 110 V / 220 V options available, depending on model.

80-380 V

DC input range

50 / 60 Hz

Utility frequency



MOUNTING + PV CABLES

THREE OPERATING MODES

Solar only	Sufficient PV powers the unit.
Solar + grid	Solar priority with AC support.
Grid only	Utility operation without PV.

PROJECT FIT

For sites with utility power and daytime cooling demand. Match PV strings to model input limits.

PACKAGE SCOPE

Hybrid AC, PV array, mounting, DC cables and protection.

9,000 / 12,000 / 18,000 / 24,000 / 30,000 / 36,000 BTU/h

System components and quantities are configured per quotation.

Direct DC cooling

OFF-GRID DC SPLIT

24 / 48 V

Direct DC supply, selected by model. PV charging + battery storage.



9,000-36,000

BTU/h cooling classes



SOLAR PV



MPPT CONTROLLER



MATCHED BATTERY



PV CABLES

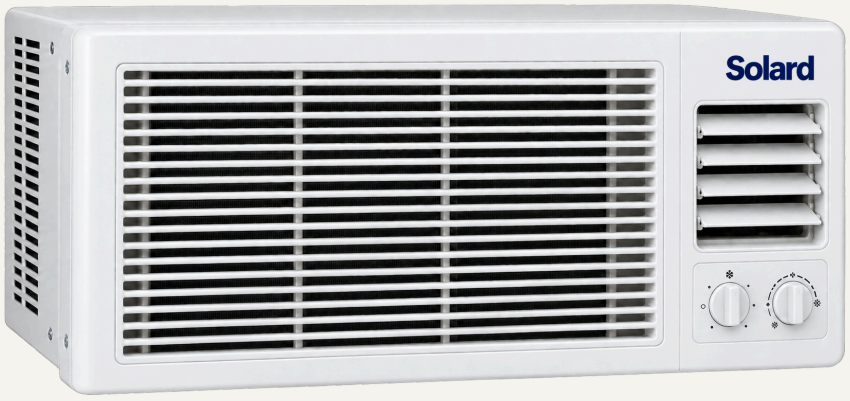
For remote or battery-based applications. Match PV, controller, battery capacity and the DC model as a complete system.
Package: DC air conditioner, PV, MPPT controller, battery storage, mounting and cables.

SYSTEM ELEMENT	SELECTION BASIS
PV + MPPT	Daily solar charging and DC voltage.
Battery storage	Daily energy and required night hours.
DC air conditioner	Room load and compatible DC supply.

9,000 / 12,000 / 18,000 / 24,000 / 30,000 / 36,000 BTU/h

System components and quantities are configured per quotation.

Window & multi-room systems



WINDOW AC

9,000-24,000

BTU/h hybrid

Integrated window format for suitable openings.

DC series:
6,000-24,000 BTU/h classes.

POWER OPTIONS Hybrid / direct DC

MULTI-ROOM / VRF

18,000-60,000

BTU/h classes

Wall, cassette and duct indoor formats serve different room layouts. Match indoor and outdoor equipment.





POWER OPTIONS Project-specific equipment pairing

Cooling for larger spaces



Solar-thermal configuration shown



Solar-thermal configuration shown

Floor-standing

SHOPS, LOBBIES & RECEPTION

A visible floor-level format for open rooms. The thermal series includes 18,000-60,000 BTU/h classes.

Ceiling cassette

SHOPS & DINING SPACES

Ceiling-integrated installation keeps floor space available. Allow drainage, ceiling clearance and service access.

AVAILABLE POWER APPROACHES

Hybrid

Solar DC with utility AC support.

Direct DC

A compatible DC supply selected for the model.

Solar thermal

A matched collector assembly; utility AC still operates the equipment.

Thermal & portable DC cooling



SOLAR THERMAL AC

An integrated solar collector assists the refrigeration system. Utility AC still powers the equipment.

Wall split, floor-standing and cassette formats.

THERMAL SYSTEM	EQUIPMENT
Indoor unit	Selected room format
Outdoor unit	Matched solar collector assembly
Electrical supply	Utility AC for equipment operation

PORTABLE DC COOLING

24 V DC

7,000 / 9,000 / 12,000 BTU/h

Plan battery runtime, exhaust routing and condensate drainage for the installation.



DC refrigeration appliances



Chest freezer

118-698 L

Refrigerator

98-295 L

Upright freezer

185-280 L

CABINET SELECTION

Choose volume for the goods, daily loading and installation space. Upright freezer models use 24 V DC supply.

COMPLETE DC PACKAGE

Match PV, MPPT, batteries and DC protection to demand, ambient temperature and operating hours. Confirm DC voltage for each model.

Selected project configurations



IBADAN, NIGERIA

Garment factory

26.46 kWp	30 kW	40 kWh
PV	INVERTER	STORAGE



ROMANIA

Car wash

58 kWp	2 × 30 kW	60 kWh
PV	INVERTER	STORAGE



CAPE TOWN, SOUTH AFRICA

Residential system

5.8 kWp	5 kW	15 kWh
PV	INVERTER	STORAGE

A clear brief for your next project

Use this checklist during your project discussion. The details below help us select the equipment and prepare a quotation.

01

PRODUCT & QUANTITY

Product family, quantity, installation location and intended use.

Product / quantity

02

LOAD & OPERATING HOURS

Running and starting load, daily use, battery-only backup hours or cooling capacity.

Load / hours / capacity

03

SITE & ELECTRICAL SUPPLY

Voltage, phase and frequency. For cooling: room dimensions, climate, target temperature and stored goods.

Supply / room conditions

04

PACKAGE & BRANDING

Equipment scope, PV and batteries, accessories, logo, packaging and delivery needs.

Scope / branding

05

DELIVERY & CONTACT

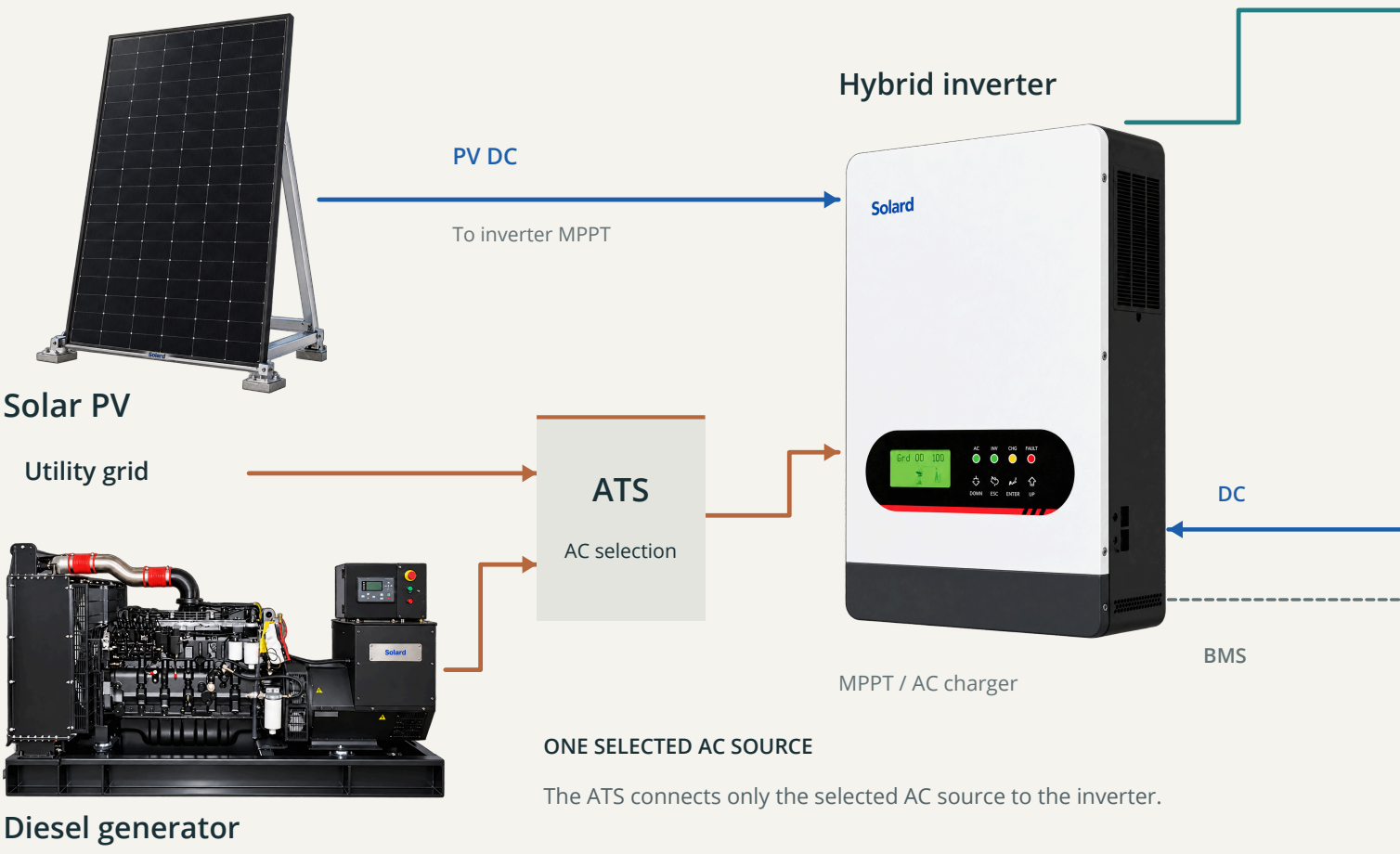
Country, city, complete delivery address, postal code, contact name and email.

Destination / contact

PROJECT ENQUIRIES admin@solard.com.cn

Solar, storage and backup power

A SINGLE AC INPUT SYSTEM



ONE SELECTED AC SOURCE

The ATS connects only the selected AC source to the inverter.

INDEPENDENT CATALOG OPTIONS

PV modules

630-730 W

N-type bifacial TOPCon

630 / 640 / 650 W and
710 / 720 / 730 W. Double glass.

Backup supply

Grid / diesel

Alternative AC sources

Match phase, voltage and frequency.
Coordinate ATS and start-stop control.

Independent portfolio options, not a preconfigured package. Match phase, voltage, power, battery interface and controls.

01

USE SOLAR

PV supplies the load; available surplus charges the battery.

02

SIZE STORAGE

Match usable energy to the load and battery-only runtime.

03

ADD BACKUP

Select grid or generator for extended operating periods.

CONCEPT ARRANGEMENT

AC OUTPUT TO ESSENTIAL LOADS



Matched DC + BMS

Essential loads

Lighting, equipment and cooling selected for the system capacity.

SELECT AND VERIFY FOR EACH PROJECT

Inverter options

1 / 3 phase

HG / HDSX families

HG: 6.3-15.3 kW, 1 phase.
HDSX / HDSX-T: 8-40 kW, 3 phase.

Wheeled batteries

5.12-32.15 kWh

51.2 V nominal

100-628 Ah.
CAN / RS485 communication.

Final compatibility, protection, earthing, switching and settings follow the project design. Equipment imagery is illustrative.

Residential battery formats

51.2 V

NOMINAL DC



Wheeled



Rack



Wall



Stackable

FORMAT / SERIES	NOMINAL ENERGY	CAPACITY
Wheeled	5.12-32.15 kWh	100-628 Ah
Rack / IBattery-EA	5.12 / 10.24 / 15.36 kWh	100 / 200 / 300 Ah
Wall / IBattery-PL	5.12 / 10.24 kWh	100 / 200 Ah
Stack / F51.2 100	5.12 kWh per module	100 Ah / module

PRACTICAL INSTALLATION

Wheeled models use 1.5 mm cold-rolled steel, castors and IP54. BMS protection covers overcharge, overdischarge, overcurrent and short circuit.

COMMUNICATION & EXPANSION

CAN / RS485; Wi-Fi / Bluetooth options on wheeled models. Rack and wall series also list RS232 and support parallel connection.

ILLUSTRATIVE PRODUCT IMAGERY

Integrated home energy storage



INVERTER + BATTERY

3-10 kW

ESS-Li AC output.

HES 63248:
6.3 kW / 5.12 kWh.

Integrated PV and AC charging; indoor installation.

ESS-Li MODEL	AC POWER	BATTERY
302H	3 kW	5.12 kWh
502H/200	5 kW	10.24 kWh
802H	8 kW	15.36 kWh
103H	10 kW	15.36 kWh

COMPACT 12 V / 24 V LITHIUM

12.8 V: 100 / 150 / 200 / 300 Ah.
25.6 V: 100 / 200 Ah.
Nominal energy: 1.28-5.12 kWh.

Match battery voltage, BMS communication, current limits and usable energy to the selected load and inverter.



Commercial storage



AC OUTPUT

20 kW

Three phase
380 / 400 V
50 Hz

LiFePO4 battery storage

IP55

Enclosure with forced-air cooling

MODEL	NOMINAL ENERGY	AC OUTPUT
DS-45ESSC	43.01 kWh	20 kW
DS-48ESSC	48.23 kWh	20 kW

CABINET & ENVIRONMENT

800 × 1250 × 1400 mm.
Operating environment: +5 to +45°C.

SITE PLANNING

Allow ventilation, cable entry, service access and a suitable foundation.

High-voltage & industrial storage



HV PRO BATTERY CABINETS

25.60-102.40 kWh

256-512 V nominal DC
100 Ah / 200 Ah module options
51.2 V LiFePO4 modules

Eight configurations. Match the full high-voltage battery bank to the inverter DC interface and control equipment.

COMMERCIAL & INDUSTRIAL ESS

200.96-261.25 kWh

200.96 / 217.04 / 241.15 /
261.25 kWh nominal energy.
314 Ah LiFePO4 cells.



CONFIGURATION CLASS	RATED CONVERSION
200 / 217 kWh	100 kVA
241 / 261 kWh	125 kVA

Inverter selection



HG HYBRID SERIES

6.3-15.3 kW

1 phase / 220 / 230 / 240 V AC
48 V battery platform
50 / 60 Hz output

Select output, battery interface and PV input around the project supply and operating load.

FAMILY	AC POWER	OUTPUT
HG hybrid	6.3 / 8.3 / 10.3 / 12.3 / 15.3 kW	220-240 V 1 phase
LU / LUT / HU	3 / 6 / 10 / 12 kW	120 V L-N 240 V L-L
HDSX / HDSX-T	8 / 12 / 20 / 32 / 40 kW	380 / 400 V 3 phase

HG PV INPUT & MONITORING

80-450 V MPPT range; 500 V maximum PV open-circuit voltage. Dual MPPT on 8.3-15.3 kW models. RS485 / Wi-Fi options.

HDSX nominal battery voltage varies by rating: 48 / 96 / 192 V. Select the battery and inverter together.

Solar input and backup supply



N-TYPE BIFACIAL PV

630-730 W

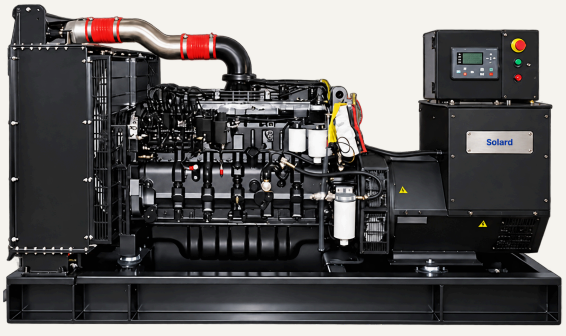
630 / 640 / 650 W and 710 / 720 / 730 W.
TOPCon cells, double-glass construction. Match strings to PV voltage and current limits.



MPPT SOLAR CONTROLLERS

80 / 100 A

Wonder3 8048 / 10048 charging.
36 / 48 V battery systems; 300 V maximum PV open-circuit voltage. Lead-acid / lithium settings.



DIESEL BACKUP GENERATORS

20 kW / 25 kVA

20GF prime rating. 400 / 230 V, 3 phase, 50 Hz. Cummins / Weichai engine configurations; enclosure and ATS options.

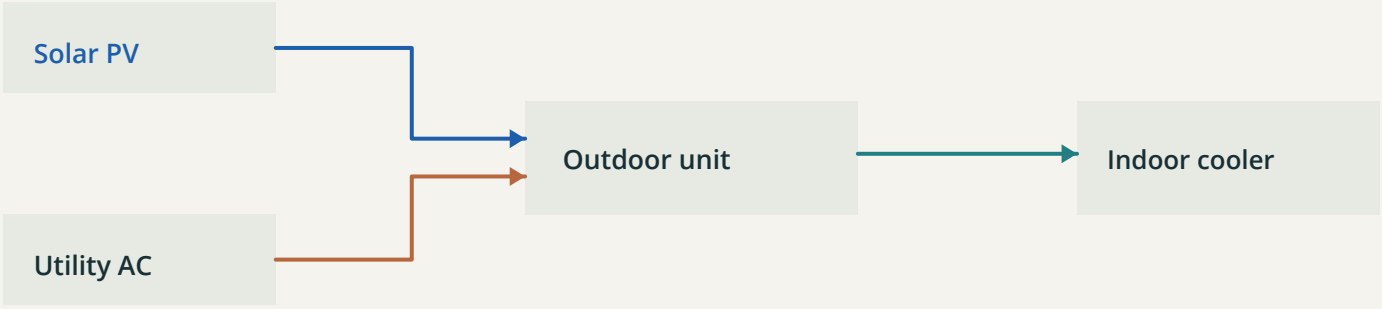
Solar-assisted cold rooms



4.0-23.8 kW

9 outdoor models

SOLAR / GRID CONNECTION



PV input and AC grid connect at the outdoor unit, which supplies the matched indoor air cooler. Grid support covers controls, auxiliaries and low-solar operation.

Six practical system features

Refrigeration control, defrost and monitoring are selected as part of the complete indoor / outdoor package.



01 VARIABLE-SPEED CONTROL

Compressor and outdoor fan output adapt to demand for efficient part-load operation.

02 EVI TECHNOLOGY

Enhanced vapor injection supports refrigeration performance in low-temperature storage.

03 ELECTRONIC EXPANSION

Refrigerant flow responds to changing load and operating conditions.

04 HOT-GAS DEFROST

Refrigerant heat removes coil frost and helps restore airflow and heat transfer.

05 PROTECTED DRAINAGE

Drain-pan de-icing and a 100 W drain-pipe heater help prevent ice blockage.

06 OPTIONAL 4G MONITORING

View room temperature, operating history and fault information remotely.

Outdoor model comparison

SELECT CAPACITY AT THE DUTY POINT

MODEL	COOLING[1] kW	AT -20°C[2] kW	INPUT[1] kW
HWLN-020S	4.00	2.2	1.53
HWLN-030S	5.90	3.2	2.27
HWLN-040S	9.00	4.7	3.42
HWLN-050S	9.80	5.5	3.77
HWLN-060S	12.00	6.7	4.61
HWLN-060T	12.00	6.7	4.61
HWLN-080T	16.00	9.4	6.18
HWLN-100T	19.70	11.3	7.82
HWLN-120T	23.80	13.6	9.33

MODEL & SUPPLY

Full model suffix: /ZDBPFG-B1.
S: 220 V / 1 phase / 50 Hz. T: 380 V / 3 phase + N / 50 Hz.

RATING CONDITIONS

1. Nominal cooling and input: 0°C room / 32°C outdoor.
2. Low-temperature cooling: -20°C room / 32°C outdoor.

Select the heat load for the goods, room and operating conditions.

Match the full cooling package



R410A

Refrigerant

IPX4

Outdoor protection

TEMPERATURE & INDOOR SUPPLY

Room control: -20°C to +40°C. Indoor air cooler: 220 V AC / 1 phase / 50 Hz, supplied by the matched outdoor unit.

INFORMATION FOR ROOM SIZING

Internal dimensions, insulation thickness, stored goods and intake temperature, daily loading, target temperature, door openings and outdoor conditions.



Fresh food



Frozen storage



Cold chain

Solard

Let's plan your next project.

Matched equipment for homes, businesses and cold-chain projects.



ILLUSTRATIVE PRODUCT SCENE

PRODUCTS & PROJECT ENQUIRIES

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