Solard

PRODUCT CATALOGUE 2026

ENERGY STORAGE
& POWER SYSTEMS





RESIDENTIAL STORAGE

Batteries and all-in-one systems

COMMERCIAL & INDUSTRIAL

Cabinet storage and integrated power

Product selection guide

Storage products and supporting equipment for your application.



HOME STORAGE

Wheeled, rack, stackable or wall batteries. All-in-one systems combine storage and conversion.



COMMERCIAL STORAGE

Compact systems, high-voltage batteries and C&I cabinets for larger loads.



INTEGRATED POWER

Inverter, solar and backup equipment selected around the site supply and load.

Product section	Pages
Wheeled home batteries	03
Rack / stack / wall batteries	04–06
12V / 24V batteries and all-in-one ESS	07–08
Commercial and high-voltage storage	09–11
Standard / US / three-phase inverters	12–14
PV modules and MPPT controllers	15–16
Diesel and integrated systems	17–18
Company and project references	19–21
Project enquiry	22

Solard

WHEELED HOME BATTERIES

51.2V LiFePO4



8,000+ cycles

Rated at 80% DOD
and room temperature.

1.5mm steel housing

Cold-rolled steel cabinet
with floor-standing castors.

Battery communication

CAN / RS485 interfaces.
Wi-Fi / Bluetooth options.

Protection built in

BMS protection against overcharge,
overdischarge and overcurrent.

WHEELED BATTERIES / MODEL SELECTION

Model	Ah	Energy kWh	BMS A	Dimensions, mm	Net / gross kg
5kWh	100	5.12	120	630 × 500 × 230	60 / 72
10kWh	200	10.24	150	745 × 550 × 260	90 / 105
15kWh	300	15.36	200	825 × 550 × 260	120 / 135
16kWh	314	16.08	200	825 × 550 × 260	125 / 142
20kWh	400	20.48	300	935 × 640 × 260	133 / 150
30kWh	600	30.72	300	1080 × 790 × 260	225 / 259
32kWh	628	32.15	300	1080 × 790 × 260	240 / 265

BATTERY & CONSTRUCTION

Parameter	Specification
Nominal voltage	51.2V, 16S
Chemistry	LiFePO4
Case material	1.5mm cold-rolled steel
Installation	Floor-standing / castors
Communication	CAN / RS485
Wireless options	Wi-Fi / Bluetooth

PERFORMANCE & PROTECTION

Parameter	Specification
Cycle rating	8,000+ at 80% DOD, room temperature
Charge / discharge temperature	0 to +55°C / -20 to +60°C
Enclosure protection	IP54
5kWh max. charge / discharge	100A / 120A
BMS protections	Overcharge / overdischarge
Current protection	Overcurrent / short circuit

BMS ratings are listed separately from continuous output limits.

Solard

RACK-MOUNTED BATTERIES

51.2V LiFePO4



51.2V
Nominal voltage

100–300Ah
Model capacities

LiFePO4
Battery chemistry

Three capacities

100Ah, 200Ah and 300Ah modules for cabinet installation.

Communication

CAN / RS485 / RS232 interfaces.

Parallel connection

Supported by the IBattery-EA series.

Protection detail

Cell-level voltage limits and short-circuit response listed.

RACK-MOUNTED BATTERIES / SPECIFICATIONS

Model: IBattery-EA series	51.2V-100AH-JJ	51.2V-200AH-JJ	51.2V-300AH-JJ
Battery chemistry	LiFePO4	LiFePO4	LiFePO4
Nominal voltage	51.2V	51.2V	51.2V
Rated capacity	100Ah	200Ah	300Ah
Nominal energy	5.12kWh	10.24kWh	15.36kWh
Charge voltage	58.4V	58.4V	58.4V
Discharge cut-off voltage	40V	40V	40V
Standard charge current	50A	50A	50A
Standard discharge current	50A	50A	50A
Max. continuous charge	100A	200A	200A
Max. continuous discharge	100A	200A	200A
Charge temperature	0 to +55°C	0 to +55°C	0 to +55°C
Discharge temperature	-20 to +55°C	-20 to +55°C	-20 to +55°C
Weight	40 ±3kg	79.5 ±3kg	113 ±3kg
Dimensions, L × W × H, mm	483 × 420 × 140	483 × 600 × 266	483 × 720 × 240
Communication	CAN / RS485 / RS232	CAN / RS485 / RS232	CAN / RS485 / RS232
Cell balancing voltage	3.40V	3.40V	3.40V
Cell overcharge detection	3.65 ±0.025V	3.65 ±0.025V	3.65 ±0.025V
Cell overdischarge detection	2.6 ±0.02V	2.6 ±0.02V	2.6 ±0.02V
Short-circuit response	≤350μs	≤350μs	≤350μs
Parallel connection	Supported	Supported	Supported

Solard

STACKABLE HOME BATTERIES

F51.2 100 / 5.12kWh per module



5.12kWh per module

51.2V nominal voltage
and 100Ah rated capacity.

Defined dimensions

555.2 × 497 × 199mm
per battery module.

LiFePO4 storage

Module specifications for
project equipment selection.

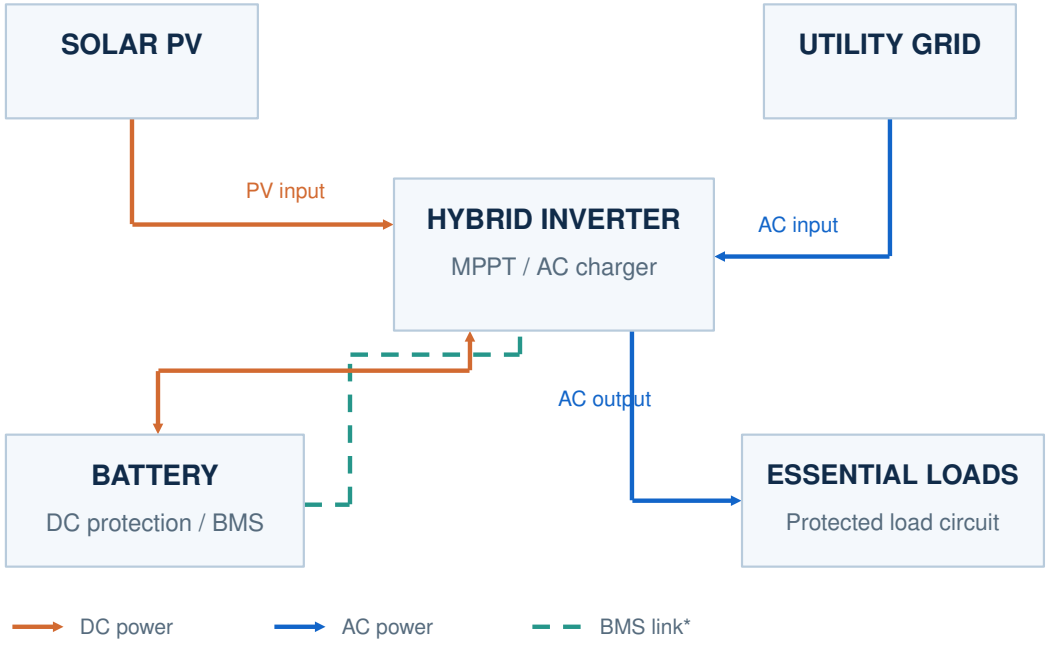
Space planning

Plan the complete stack around
the selected system configuration.

STACKABLE HOME BATTERIES / SPECIFICATIONS

Parameter	F51.2 100 Stack
Battery capacity	100Ah
Nominal voltage	51.2V
Nominal energy per module	5.12kWh
Module dimensions, mm	555.2 × 497 × 199
Storage temperature	-20 to +45°C
Internal resistance	≤100mΩ

TYPICAL HOME STORAGE CONNECTION



*BMS communication where supported by the selected equipment.

Typical AC-input backup arrangement. Final wiring follows the model manual.

Solard

WALL-MOUNTED BATTERIES

51.2V LiFePO4



Two energy options

5.12kWh and 10.24kWh nominal battery energy.

Wall installation

A dedicated wall-mounted battery format.

Battery communication

CAN / RS485 / RS232 interfaces.

Model comparison

Electrical, mechanical and protection data in one view.

WALL-MOUNTED BATTERIES / SPECIFICATIONS

Model: IBattery-PL series	51.2V-100AH	51.2V-200AH
Battery chemistry	LiFePO4	LiFePO4
Nominal voltage	51.2V	51.2V
Rated capacity	100Ah	200Ah
Nominal energy	5.12kWh	10.24kWh
Charge voltage	58.4V	58.4V
Discharge cut-off voltage	40V	40V
Standard charge / discharge	50A / 50A	100A / 100A
Max. continuous charge	100A	200A
Max. continuous discharge	100A	200A
Charge temperature	0 to +45°C	0 to +45°C
Discharge temperature	-20 to +55°C	-20 to +55°C
Storage temperature, ≤3 months	-10 to +45°C	-10 to +45°C
Dimensions, L × W × H, mm	620 × 380 × 160	840 × 478 × 160
Weight	44 ±3kg	82 ±3kg
Communication	CAN / RS485 / RS232	CAN / RS485 / RS232
Parallel connection	Supported	Supported
Cell overcharge detection	3.65 ±0.025V	3.65 ±0.025V
Cell overdischarge detection	2.6 ±0.02V	2.6 ±0.02V
Cell balancing voltage	3.40V	3.40V
Short-circuit response	≤350μs	≤350μs
Battery monitoring	Voltage / current / temperature	Voltage / current / temperature

Solard

COMPACT LITHIUM BATTERIES

12V / 24V system classes



Six configurations

12.8V and 25.6V models with rated Ah listed individually.

LiFePO4 chemistry

Nominal energy and cell configuration shown by model.

Charging details

Standard / maximum current for charger selection.

Installation dimensions

Length, width and height listed for each battery.

COMPACT LITHIUM BATTERIES / SPECIFICATIONS

Model	12.8V 100Ah	12.8V 150Ah	12.8V 200Ah	12.8V 300Ah	25.6V 100Ah	25.6V 200Ah
Rated capacity	100Ah	150Ah	200Ah	300Ah	100Ah	200Ah
Minimum capacity	100Ah	150Ah	200Ah	300Ah	100Ah	200Ah
Nominal voltage	12.8V	12.8V	12.8V	12.8V	25.6V	25.6V
Nominal energy	1.28kWh	1.92kWh	2.56kWh	3.84kWh	2.56kWh	5.12kWh
Cell configuration	4S1P	4S1P	4S2P	4S1P	8S1P	8S1P
Charge voltage	14.6V	14.6V	14.6V	14.6V	29.2V	29.2V
Standard charge current	50A	75A	100A	100A	50A	100A
Maximum charge current	100A	150A	200A	200A	100A	200A
Standard discharge current	50A	75A	100A	100A	50A	100A
Maximum discharge current	100A	150A	200A	200A	100A	200A
Internal resistance	≤200mΩ	≤200mΩ	≤200mΩ	≤200mΩ	≤200mΩ	≤200mΩ
Voltage at dispatch	≥12.0V	≥12.0V	≥12.0V	≥12.0V	≥24.0V	≥24.0V
Charge temperature	0 to +50°C	0 to +50°C	0 to +50°C	0 to +50°C	0 to +50°C	0 to +50°C
Discharge temperature	-20 to +65°C	-20 to +65°C	-20 to +65°C	-20 to +65°C	-20 to +65°C	-20 to +65°C
Storage, less than 1 month	-20 to +45°C	-20 to +45°C	-20 to +45°C	-20 to +45°C	-20 to +45°C	-20 to +45°C
Storage, less than 6 months	-20 to +35°C	-20 to +35°C	-20 to +35°C	-20 to +35°C	-20 to +35°C	-20 to +35°C
Dimensions, L × W × H, mm	330 × 173 × 221	502 × 186 × 243	522 × 238 × 222	522 × 268 × 222	522 × 238 × 222	522 × 268 × 222

Solard

ALL-IN-ONE HOME ESS

Solar + inverter + battery



ESS-Li series

Four power and battery configurations in one family.

HES 63248

6.3kW AC power with 5.12kWh nominal storage.

Integrated charging

PV and AC charging ratings listed separately by model.

Indoor installation

IP20 equipment with model-specific temperature limits.

ALL-IN-ONE HOME ESS / SPECIFICATIONS

ESS-Li model	302H	502H/200	802H	103H
Rated AC power	3kW	5kW	8kW	10kW
LiFePO4 battery	51.2V / 100Ah	51.2V / 200Ah	51.2V / 300Ah	51.2V / 300Ah
Nominal battery energy	5.12kWh	10.24kWh	15.36kWh	15.36kWh
Max. PV input power	2,240W	3,360W	5,600W	5,600W
Max. PV open-circuit voltage	180V	180V	180V	180V
MPPT voltage range	60–140V	60–140V	60–140V	60–140V
AC voltage options	110/120V 220/230/240V	110/120V 220/230/240V	110/120V 220/230/240V	110/120V 220/230/240V
AC frequency	50 / 60Hz ±1%	50 / 60Hz ±1%	50 / 60Hz ±1%	50 / 60Hz ±1%
Max. PV / AC charge current	40A / 15A	60A / 30A	100A / 35A	100A / 45A
Max. combined charge	55A	90A	135A	145A
Dimensions, L × W × H, mm	525 × 245 × 938	570 × 325 × 1257	700 × 370 × 1352	700 × 370 × 1352
Cabinet net weight, excl. battery	37kg	52.5kg	93kg	98kg
Operating temperature / IP	-10 to +40°C / IP20	-10 to +40°C / IP20	-10 to +40°C / IP20	-10 to +40°C / IP20
Cooling / display	Smart fan / LCD	Smart fan / LCD	Smart fan / LCD	Smart fan / LCD

HES 63248 / COMPACT ALL-IN-ONE

HES 63248	Specification	HES 63248	Specification
AC power / battery energy	6.3kW / 5.12kWh	Battery configuration	51.2V / 100Ah, LiFePO4
Max. PV power / voltage	7kW / 500V	MPPT range / PV current	80–450V / 27A
Max. PV / AC charge	120A / 80A	Max. combined charge	120A
AC output / frequency	220/230/240V, 50/60Hz	Operating temp. / IP	-10 to +50°C / IP20
Dimensions, L × W × H	525 × 180 × 900mm	Communication option	RS485 / Wi-Fi monitoring

Solard

COMMERCIAL STORAGE

20kW / three-phase



20kW AC output

380 / 400V, 50Hz
three-phase configuration.

Two battery options

43.01kWh or 48.23kWh
nominal energy.

IP55 enclosure

Cabinet protection rating
for the listed models.

Forced-air cooling

Operating environment:
+5 to +45°C, ≤95% RH.

COMMERCIAL STORAGE / SPECIFICATIONS

Model	DS-45ESSC	DS-48ESSC
Nominal battery energy	43.01kWh	48.23kWh
Rated AC output	20kW	20kW
AC voltage	380 / 400V	380 / 400V
AC connection	3P + N + PE	3P + N + PE
Frequency	50Hz	50Hz
Battery chemistry	LiFePO4	LiFePO4
Cell nominal voltage	3.2V	3.2V
Cell rated capacity	280Ah	314Ah
Dimensions, mm	800 × 1250 × 1400	800 × 1250 × 1400
Cabinet weight	580kg ±5%	600kg ±5%
Enclosure protection	IP55	IP55
Cooling method	Forced air	Forced air
Operating temperature	+5 to +45°C	+5 to +45°C
Operating humidity	≤95% RH	≤95% RH

SITE & ORDER CONFIGURATION

Installation Cabinet access, ventilation and cable entry.

System matching Site loads, backup demand and AC supply.

Solard

HIGH-VOLTAGE BATTERIES

HV PRO cabinet series



100Ah / 200Ah

Two module capacities for the HV PRO range.

Eight configurations

Bank voltage, module count and nominal energy listed.

Module-level detail

Dimensions and weight shown separately from cabinet.

LiFePO4 chemistry

51.2V, 1P16S battery module platform.

HIGH-VOLTAGE BATTERIES / SPECIFICATIONS

Model	Modules	Ah	Nominal Vdc	Energy, kWh
HV PRO 256V 100AH	5	100	256	25.60
HV PRO 307.2V 100AH	6	100	307.2	30.72
HV PRO 409.6V 100AH	8	100	409.6	40.96
HV PRO 512V 100AH	10	100	512	51.20
HV PRO 256V 200AH	5	200	256	51.20
HV PRO 307.2V 200AH	6	200	307.2	61.44
HV PRO 409.6V 200AH	8	200	409.6	81.92
HV PRO 512V 200AH	10	200	512	102.40

MODULE SPECIFICATIONS

Module specification	100Ah module	200Ah module
Chemistry / configuration	LiFePO4 / 1P16S	LiFePO4 / 1P16S
Nominal voltage / energy	51.2V / 5.12kWh	51.2V / 10.24kWh
Dimensions per module	650 × 440 × 150mm	660 × 440 × 230mm
Weight per module	50kg	105kg
Operating / storage temp.	-10 to +50°C / 0 to +30°C	-10 to +50°C / 0 to +30°C

Module dimensions and weights exclude cabinet and control equipment.

Solard

COMMERCIAL & INDUSTRIAL ESS

Cabinet-based energy storage



Battery selection

200 / 217 / 241 / 261kWh configuration classes.

Power conversion

100kVA or 125kVA rated apparent power.

314Ah cells

LiFePO4 chemistry across the listed models.

Electrical matching

Nominal DC voltage shown for each cabinet configuration.

Configuration	200kWh	217kWh	241kWh	261kWh
Battery chemistry	LiFePO4	LiFePO4	LiFePO4	LiFePO4
Rated capacity	314Ah	314Ah	314Ah	314Ah
Nominal DC voltage	640V	691.2V	768V	832V
Nominal energy	200.96kWh	217.04kWh	241.15kWh	261.25kWh
Installation	Cabinet	Cabinet	Cabinet	Cabinet
Rated apparent power	100kVA	100kVA	125kVA	125kVA
Operating temperature	-10 to +50°C	-10 to +50°C	-10 to +50°C	-10 to +50°C

CABINET SELECTION

Power demand

Running load, starting demand and power factor determine the required AC rating.

Backup energy

Essential load and backup duration determine the required usable battery energy.

Site integration

Match the DC interface, AC connection, protection and system control to the project.

Solard

HG HYBRID INVERTERS

220 / 230 / 240V



PV tracking efficiency

≥99.9% MPPT efficiency.
Dual MPPT on 8.3–15.3kW models.

Battery backup

Typical 10ms transfer time
for supported operating modes.

48V battery platform

42–60V battery operating window.
Supports VRLA / lithium batteries.

Monitoring options

RS485 / Wi-Fi options
for system communication.

HG SERIES / TECHNICAL SPECIFICATIONS

Parameter	HG 63248	HG 83248	HG 103248	HG 123248	HG 153248
AC OUTPUT					
Rated AC power	6.3kW	8.3kW	10.3kW	12.3kW	15.3kW
AC output, single-phase	220/230 /240V	220/230 /240V	220/230 /240V	220/230 /240V	220/230 /240V
AC frequency	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz
Rated AC current at 230V	27.4A	36.1A	44.9A	53.5A	66.5A
Peak battery-to-AC eff.	94%	94%	94%	94%	94%
AC accuracy: voltage / Hz	±2% / ±1%	±2% / ±1%	±2% / ±1%	±2% / ±1%	±2% / ±1%
SOLAR INPUT					
Max. PV input power	7kW	2 × 5kW	2 × 6kW	2 × 7kW	2 × 8kW
Max. PV open-circuit V	500V	500V	500V	500V	500V
MPPT voltage range	80–450V	80–450V	80–450V	80–450V	80–450V
MPPT input channels	1	2	2	2	2
Max. PV input current	18A	2 × 18A	2 × 18A	2 × 22A	2 × 27A
Nominal PV voltage	240V	280V	280V	280V	280V
MPPT efficiency	≥99.9%	≥99.9%	≥99.9%	≥99.9%	≥99.9%
BATTERY & CHARGING					
Nominal battery voltage	48V	48V	48V	48V	48V
Battery voltage window	42–60V	42–60V	42–60V	42–60V	42–60V
Battery chemistry	VRLA / lithium	VRLA / lithium	VRLA / lithium	VRLA / lithium	VRLA / lithium
Max. PV charge current	120A	150A	180A	200A	220A
Max. AC charge current	80A	100A	120A	140A	160A
Max. total charge current	120A	150A	180A	200A	220A
CONTROL & INSTALLATION					
Protection / cooling	IP20 / fan	IP20 / fan	IP20 / fan	IP20 / fan	IP20 / fan
Communication (options)	RS485 / Wi-Fi	RS485 / Wi-Fi	RS485 / Wi-Fi	RS485 / Wi-Fi	RS485 / Wi-Fi
Operating temperature	-10 to +50°C	-10 to +50°C	-10 to +50°C	-10 to +50°C	-10 to +50°C
Noise / max. altitude	≤55dB / 2,000m	≤55dB / 2,000m	≤55dB / 2,000m	≤55dB / 2,000m	≤55dB / 2,000m
Dimensions, L × W × H mm	375 × 297 × 102	375 × 297 × 102	515 × 365 × 117	535 × 462 × 117	630 × 540 × 130
Net weight	7kg	7kg	13kg	15kg	22kg
Transfer time, typical	10ms	10ms	10ms	10ms	10ms

Voltage configuration and communication options follow the selected model.

Solard

US-VOLTAGE INVERTERS

120V L-N / 240V L-L



LU / LUT series

Low-frequency design.
100A MPPT available as an option.

HU series

High-frequency design
with integrated dual MPPT.

48V batteries

42–60V battery window.
VRLA / lithium options.

Model-specific data

Compare PV limits, transfer time and charging current.

US-VOLTAGE INVERTERS / SPECIFICATIONS

Model	LU/LUT 30248	LU/LUT 60248	HU 10348	HU 12348
Rated AC power	3kW	6kW	10kW	12kW
Inverter design	Low-frequency	Low-frequency	High-frequency	High-frequency
Output L-N / L-L	120 / 240V	120 / 240V	120 / 240V	120 / 240V
AC frequency	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz
PV controller configuration	100A MPPT option	100A MPPT option	Integrated MPPT	Integrated MPPT
Max. PV input power	5.6kW	5.6kW	2 × 5.5kW	2 × 6.5kW
Max. PV open-circuit voltage	180V	180V	500V	500V
MPPT voltage range	60–140V	60–140V	125–425V	125–425V
MPPT channels / PV inputs	1 / 1	1 / 1	2 / 2	2 / 2
Nominal battery voltage	48V	48V	48V	48V
Battery voltage window	42–60V	42–60V	42–60V	42–60V
Battery chemistry	VRLA / lithium	VRLA / lithium	VRLA / lithium	VRLA / lithium
Max. PV charge current	100A	100A	200A	220A
Max. AC charge current	15A	30A	120A	140A
Battery-to-AC efficiency	≥85%	≥85%	92% peak	92% peak
Transfer time, typical	4ms	4ms	10ms	10ms
Display	LCD	LCD	LCD + LED	LCD + LED
Cooling method	Smart fan	Smart fan	Smart fan	Smart fan
Communication options	RS485 / Wi-Fi	RS485 / Wi-Fi	USB / RS485 / Wi-Fi	USB / RS485 / Wi-Fi
Operating temperature	-10 to +40°C	-10 to +40°C	-10 to +50°C	-10 to +50°C
Storage temperature	-15 to +60°C	-15 to +60°C	-15 to +60°C	-15 to +60°C
Noise / max. altitude	≤55dB / 2,000m	≤55dB / 2,000m	≤55dB / 2,000m	≤55dB / 2,000m
Dimensions, L × W × H, mm	547 × 335 × 150	547 × 335 × 150	630 × 445 × 136.5	630 × 445 × 136.5
Net weight	22.5kg	28.5kg	21kg	21.5kg

Solard

THREE-PHASE INVERTERS

HDSX / HDSX-T cabinet series



Three-phase output

380 / 400V, 3P + N + PE.
50 / 60Hz operation.

Optional solar charging

100A MPPT configuration.
PV limits follow battery voltage.

Battery selection

Lead-acid / lithium / custom battery settings.

Indoor cabinet design

LCD display, smart fan cooling and optional RS485 / monitoring.

THREE-PHASE INVERTERS / HDSX SERIES

HDSX / HDSX-T	8kW	12kW	20kW	32kW	40kW
Nominal battery voltage	48V	48V	96V	192V	192V
Battery voltage window	42–60V	42–60V	84–120V	168–240V	168–240V
MPPT charge current, optional	100A	100A	100A	100A	100A
Max. PV power, optional MPPT	5.6kW	5.6kW	11.2kW	2 × 11.2kW	2 × 11.2kW
Max. PV open-circuit voltage	150V	150V	300V	450V	450V
MPPT voltage range	60–120V	60–120V	120–240V	240–360V	240–360V
Dimensions, L × W × H, mm	725 × 365 × 1010	725 × 365 × 1010	725 × 365 × 1010	720 × 575 × 1275	720 × 575 × 1275
Packing, L × W × H, mm	785 × 425 × 1135	785 × 425 × 1135	785 × 425 × 1135	785 × 640 × 1400	785 × 640 × 1400
Net / gross weight, kg	120 / 140	149.5 / 157.5	176 / 200	226 / 255	260 / 293

AC PERFORMANCE & INSTALLATION

Parameter	Series specification
AC input / output	380 / 400V, 3P + N + PE
AC input voltage window	323–456V / 323–480V
AC input frequency window	43–53Hz (50Hz) / 53–63Hz (60Hz)
Output accuracy, voltage / frequency	±2% / ±1%, 50 / 60Hz
Waveform / inverter efficiency	Pure sine wave / >85%
No-load consumption, typical	1% of rated power
Battery types	Lead-acid / lithium / custom
Operating modes	Battery priority / utility priority
Display / cooling / protection	LCD / smart fan / IP20
Communication options	RS485 / app (Wi-Fi or GPRS)
Operating temperature / altitude	-15 to +40°C / 2,000m
Relative humidity	0–95%, non-condensing

Solard

N-TYPE BIFACIAL SOLAR MODULES

TOPCon / double-glass construction



Six power models

630 / 640 / 650W and
710 / 720 / 730W selections.

Bifacial construction

2.0mm front glass and
2.0mm rear glass.

Installation matching

Module dimensions, weight
and load data in one table.

Packing information

Pallet and container quantities
shown for each module family.

N-TYPE BIFACIAL SOLAR MODULES / SPECIFICATIONS

Model	Pmax W	Voc V	Vmp V	Isc A	Imp A	Eff. %
630N-66HL4M-BDV	630	49.48	41.02	16.20	15.36	23.3
640N-66HL4M-BDV	640	49.88	41.30	16.32	15.50	23.7
650N-66HL4M-BDV	650	50.28	41.58	16.44	15.64	24.1
710N-66HL5-BDV	710	48.73	40.65	18.53	17.47	22.86
720N-66HL5-BDV	720	49.04	40.89	18.67	17.61	23.18
730N-66HL5-BDV	730	49.36	41.11	18.81	17.76	23.50

MECHANICAL & OPERATING DATA

Mechanical / operating data	66HL4M-BDV	66HL5-BDV
Dimensions / weight	2382 × 1134 × 30mm / 32.4kg	2384 × 1303 × 33mm / 37.5kg
Cells / front + rear glass	132 half-cells / 2.0 + 2.0mm	132 half-cells / 2.0 + 2.0mm
Junction box / system / fuse	IP68 / 1500Vdc (IEC) / 35A	IP68 / 1500Vdc (IEC) / 35A
Operating temperature	-40 to +70°C*	-40 to +70°C*
Temp. coeff. Pmax / Voc / Isc	-0.29 / -0.25 / +0.045%/°C	-0.29 / -0.25 / +0.045%/°C
Power tolerance / bifaciality	0 to +3% / 80 ±5% (Pmax)	0 to +3% / 80 ±5% (Pmax)
Front / rear static test load	5400 / 2400Pa	5400 / 2400Pa
Modules per pallet / 40ft HC	36 / 720	33 / 594

STC: 1000W/m², 25°C cell temperature, AM1.5.
*Short-term module operating temperature: up to 85°C.

Solard

MPPT SOLAR CONTROLLERS

Wonder3 / 36V & 48V



Two controller models

Wonder3 8048 and 10048 for 36V / 48V systems.

PV input matching

Power and voltage limits listed by battery voltage.

Charging current

80A and 100A model selections.

System integration

Select the controller against PV input and battery ratings.

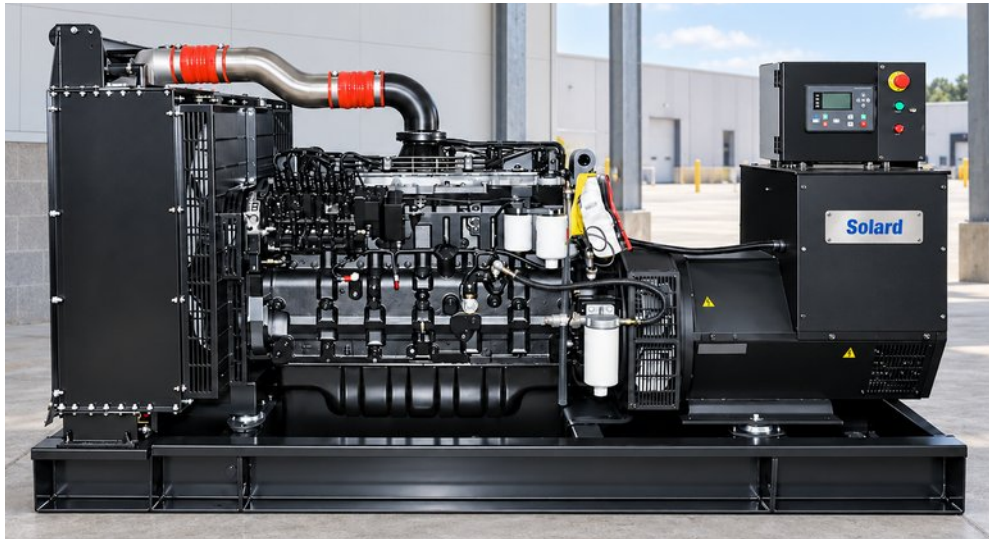
MPPT SOLAR CONTROLLERS / SPECIFICATIONS

Model: Wonder3 series	8048	10048
Rated charge current	80A	100A
Nominal battery systems	36V / 48V	36V / 48V
Max. PV open-circuit voltage	300V	300V
MPPT range, 36V battery	45–250V	45–250V
MPPT range, 48V battery	60–250V	60–250V
Max. PV power, 36V battery	3,360W	4,200W
Max. PV power, 48V battery	4,480W	5,600W
MPPT channels / PV inputs	1 / 1	1 / 1
Battery types	Lead-acid / lithium / custom	Lead-acid / lithium / custom
Lithium battery activation	Automatic	Automatic
MPPT tracking efficiency	>99%	>99%
Communication	RS485 / Wi-Fi / GPRS	RS485 / Wi-Fi / GPRS
Display	LCD	LCD
Enclosure protection	IP20	IP20
Cooling method	Temperature-controlled fan	Temperature-controlled fan
Operating temperature	-15 to +50°C	-15 to +50°C
Relative humidity	5–95%, non-condensing	5–95%, non-condensing
Maximum altitude	2,000m	2,000m
Dimensions, L × W × H, mm	265 × 200 × 107	265 × 200 × 107
Single-unit packing, mm	310 × 245 × 159	310 × 245 × 159
Net / gross weight	3.5 / 4kg	3.5 / 4kg

Solard

DIESEL BACKUP GENERATORS

20GF / 50Hz / three-phase



20kW
Prime power

25kVA
Prime apparent power

50Hz
Output frequency

Prime / standby power

20kW / 25kVA prime.
22kW / 27.5kVA standby.

Engine options

Cummins or Weichai configuration.

Remote-start input

DSE 6120 controller with remote-start support.

Package options

Enclosure, ATS and base fuel tank options.

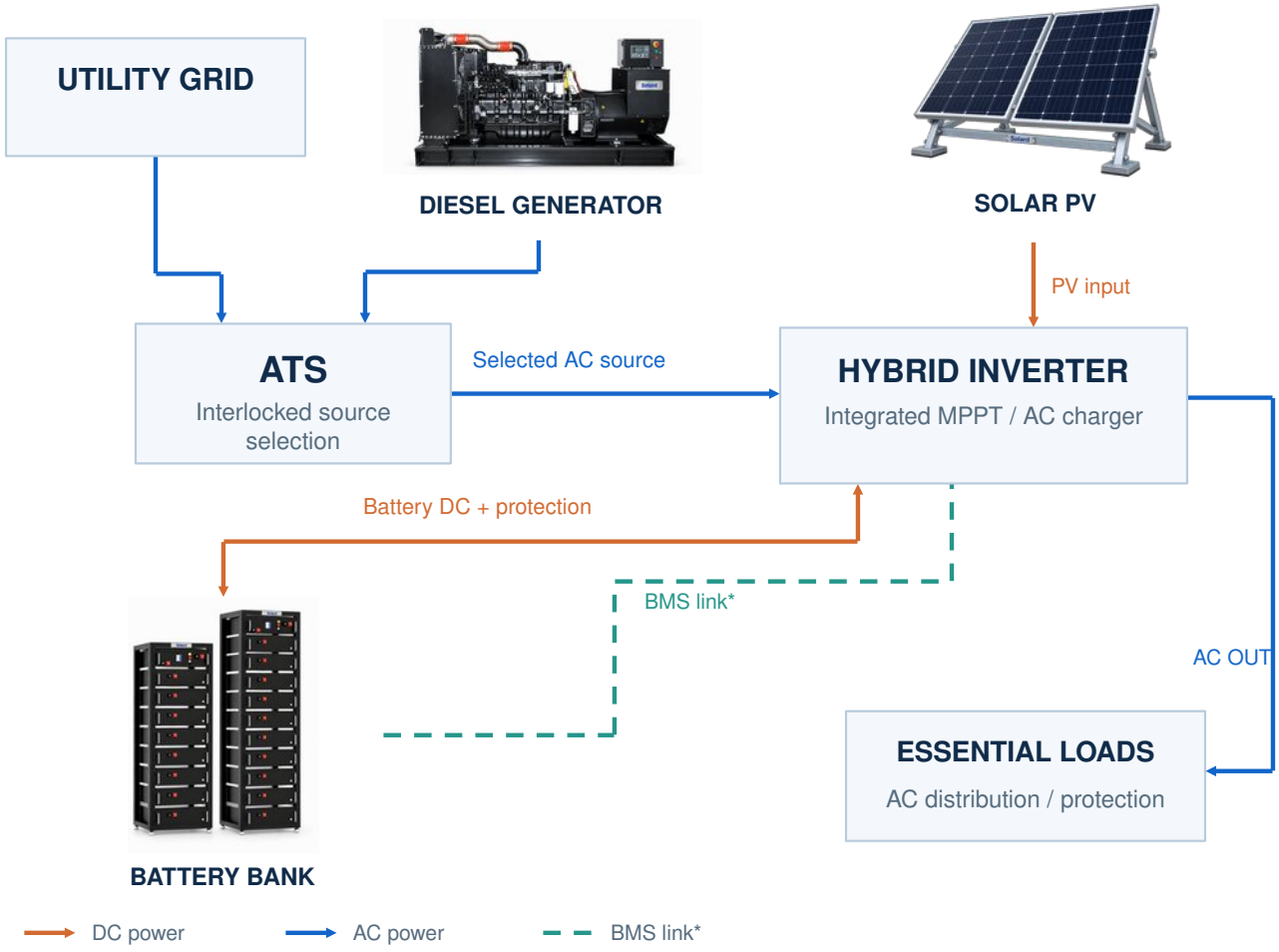
DIESEL BACKUP GENERATORS / SPECIFICATIONS

Configuration	Cummins engine	Weichai engine
Genset model	20GF	20GF
Engine model	4B3.9-G2	WP2.3D25E200
Prime power	20kW / 25kVA	20kW / 25kVA
Standby power	22kW / 27.5kVA	22kW / 27.5kVA
AC supply	400/230V, three-phase	400/230V, three-phase
Frequency / engine speed	50Hz / 1,500rpm	50Hz / 1,500rpm
Rated power factor	0.8	0.8
Displacement / cylinders	3.9L / 4	2.3L / 4
Fuel use at 100% prime load	6.7L/h	4.69L/h
Fuel use at 75% prime load	5.2L/h	3.94L/h
Fuel use at 50% prime load	3.9L/h	2.94L/h
Starting voltage	12V	12V
Alternator	Stamford S0L2-M1	Stamford S0L2-M1
Alternator protection / insulation	IP23 / Class H	IP23 / Class H
Controller	DSE 6120	DSE 6120
Remote-start input	Supported	Supported
Approx. open dimensions, mm	1600 × 700 × 1080	1600 × 700 × 1080
Approx. open net weight	500kg	500kg
Approx. enclosed dimensions, mm	2240 × 1130 × 1460	2240 × 1130 × 1460
Approx. enclosed net weight	800kg	800kg
Enclosure / ATS	Optional / optional	Optional / optional
Base fuel tank	Optional	Optional

Solar + storage + diesel systems

PV and battery supply, with interlocked grid / generator backup.

TYPICAL SINGLE-AC-INPUT ARCHITECTURE



*Where supported. Final protection, switching and settings follow the project design.

System element	Selection basis
Solar PV	Module count and strings matched to PV-input limits.
Battery bank	Energy, power, voltage and BMS matched to backup demand.
Hybrid inverter	AC rating, starting load and battery interface selected together.
Diesel generator	20GF reference: 20kW / 25kVA prime, 400/230V, 3-phase, 50Hz.
ATS & control	Selects one AC source. Start / stop and charging settings coordinated.
Protection	AC / DC isolation, overcurrent and surge protection, earthing and cables.
Capacity & cost	Agree battery-only hours and permitted generator support.

Operating state	Supply strategy
Solar available	PV serves loads; surplus charges battery.
Low solar / outage	Battery supports the agreed load.
Extended shortage	Genset supplies loads and allowed charging.

About Solard



PRODUCTION WORKSHOP



ASSEMBLY



CONNECTION CHECKS

SHANDONG SOLARD

NEW ENERGY TECHNOLOGY CO., LTD.

Shandong, China

Solar energy and storage for homes and businesses.

Manufacturing and project-service experience since 2009 supports equipment selection and export cooperation.

System matching

Equipment selected around site loads and backup needs.

OEM / ODM

Branding, labels, manuals and packaging.

Quality & export

Agreed inspections, packing and shipment documents.

Project support

Model details, supply scope and technical coordination.

Energy storage installations



Ibadan, Nigeria
PV 26.46kWp / INV 30kW / ESS 40kWh
Garment factory hybrid solar-storage system



Romania
PV 58kWp / INV 2 × 30kW / ESS 60kWh
Car wash hybrid solar-storage system



Cape Town, South Africa
PV 5.8kWp / INV 5kW / ESS 15kWh
Residential hybrid solar-storage system

Solar project references



Colombia: Factory solar + storage
160kW system / ESS 522kWh



Portugal: Hotel hybrid solar + storage
PV 249.48kWp / INV 125kW



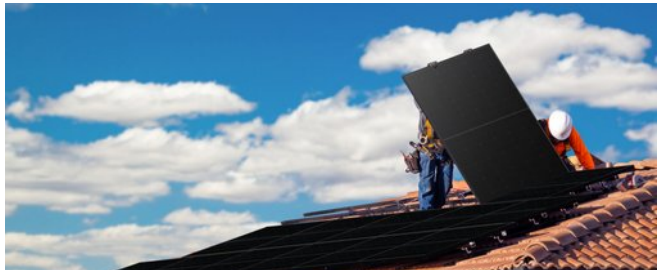
Zambia: Grain mill solar + storage
PV 51.12kWp / INV 4 × 12kW / ESS 64kWh



Saudi Arabia: Solar-storage-diesel microgrid
INV 60kW / Diesel ≥100kVA



Côte d'Ivoire: Estate hybrid solar + storage
PV 13kWp / INV 12kW / ESS 16kWh



Switzerland: Villa hybrid solar + storage
PV 24.8kWp / INV 2 × 15kW / ESS 60kWh



Senegal: Villa hybrid solar + storage
PV 14kWp / INV 16kW / ESS 32kWh



Lusaka, Zambia: Home hybrid solar + storage
PV 2.925kWp / INV 3kW / ESS 5kWh



Johannesburg, South Africa: Villa solar + storage
PV 20.7kWp / INV 20kW / ESS 32kWh

Solard

YOUR NEXT ENERGY PROJECT



SHANDONG SOLARD

NEW ENERGY TECHNOLOGY CO., LTD.

Shandong, China

Project enquiry

The information needed for a matched quotation

DESTINATION

Country, city, full address and postal code

ELECTRICAL SUPPLY

Voltage, frequency and single / three-phase supply

LOAD & BACKUP

Running power, starting loads and backup hours

SITE & EQUIPMENT

Available PV area and existing inverter / generator models

ORDER & CONTACT

Required quantity, contact name and email