

PRODUCT



in cooperation with



SOLARWATT Battery vision (three phase version)

Inverter vision max 1.0

Battery vision 1.0 (2.6 kWh)

Battery vision, Solarwatt's powerful battery system:

this three phase version of Battery vision consists of Inverter vision max and Battery vision packs. The components are perfectly matched and guarantee optimum efficiency. The modular design can be flexibly adapted to many customer requirements..

- Up to 18.2 kWh of usable energy per battery tower (20.2 kWh total energy capacity, including a 10% depth of discharge (DoD) reserve to ensure a long service life)
- Possibility of connecting two DC-coupled battery towers to the Inverter vision max (36.4 kWh), charging via PV and the AC grid
- Clustering of up to 10 systems possible with the Battery vision clusterbox
- Can be installed as DC- or AC-battery, suitable for both new installations and retrofittable to existing PV systems
- Can be installed indoors and outdoors
- Built-in port for delivering 3-phase backup power to select circuits, or the whole home
- Fulfills the requirements of the 'Safety guidelines for Li-ion household battery systems' and the European battery regulation

Battery vision was developed for sector coupling:

An EV charger, heat pump or other devices can be easily connected, reducing energy costs. The SOLARWATT Manager controls charging and discharging to ensure an optimal use of the available PV power and / or time-variable power grid tariffs.

Solarwatt also features a single-phase version of Inverter vision which can be used with the same battery packs. Documentation is available as a separate datasheet.

Please note: this datasheet only applies to the UK and Ireland.

BENEFITS

- Top charging / discharging performance (11.5 - 30 kW)
- Built to meet the highest safety standards
- Exclusive BMW design
- Data stored on European servers

SERVICE

Warranty¹⁾

12 years performance warranty on Battery vision packs
10 years product warranty on Inverter & Battery packs
Warranty requires online activation. Installation & removal costs covered in the event of a claim

Simple return policy

as per electrical and electronic equipment legislation

Sales & Service

support available from the local team

SOLARWATT Manager ready

perfect system integration for sector coupling

1) The warranty conditions for SOLARWATT Battery vision (en-UK) apply.

BATTERY VISION TOP PACK 1.0	BATTERY VISION PACK 1.0	
Cell Technology	LiFePO ₄	
Total energy capacity	2.9 kWh	
Usable energy	2.6 kWh	
Usable energy capacity	45 Ah	
Nominal voltage	57.6 V _{DC}	
Voltage range	52.2 - 65.7 V _{DC}	
Max. charge/discharge current	50 A / 50 A	
Number of battery modules per system	4 to 7 in series	
Temperature behaviour during charging	Optimal charging: between 20 and 45 °C Restricted charging: between 46 and 55 °C and between 19 and 4 °C Operation in winter mode: from 3 to 0 °C only at SoC >60% ¹⁾	
Temperature behaviour during discharging	Optimal discharging: between 20 and 45 °C Restricted discharging: between 46 and 55 °C and between 19 and 4 °C Operation in winter mode: from 3 to -10 °C only at SoC >65% ¹⁾	
Storage and ambient temperature	-20 °C to +55 °C	
Cooling method	passive cooling system for silent operation	
Relative humidity	≤ 100 % (outdoor)	
Maximum efficiency	> 95 % (round trip efficiency)	
IP rating	IP65 (indoor/outdoor)	
Connectors ²⁾	Power plug & socket with integrated communication (touch-proof and reverse polarity protected)	
Interface	Data, DC, Ground	Ground
Display	Status LED, SoC LED, BMS LED	Status LED
Supported devices	SOLARWATT Inverter vision one 1.0, SOLARWATT Inverter vision three 1.0	
Dimensions (W x H x D)	570 mm x 182 mm x 436 mm	570 mm x 120 mm x 436 mm
Mass	39.5 kg	33.5 kg
Housing	Robust metal enclosure	
Warranty ³⁾	12 years performance warranty, 10 years product warranty	
Cycles ⁴⁾	≥ 10,000	
DC switches	integrated (manually and automatically)	
Installation location	max. 2,000 m AMSL, indoor and outdoor	
Installation method	Floor stacking	
Battery module designation acc. to IEC 62620	IFPP/42/151/108/[(18S)XS]E/-10+50/95	

CERTIFICATIONS AND STANDARDS

Tested in accredited labs:

EN IEC 62619:2022 (VDE 0510-39)

EN 62477-1:2012 (VDE 0558-477-1)

UN 38.3

VDE-AR-E 2510-50 (Draft 2nd ed.) for battery alone

and in combination with inverter

Safety Guidelines for Li-ion household battery system, Version 1.0

KIT short checklist (full points)

EN 61000-6-2 (VDE 0839-6-2)

EN 61000-6-3 (VDE 0839-6-3)

VDE pre-standards for (EU) 2023/1542 (batteries regulation):

Art. 10 & Annex IV (Performance and Durability)

Art. 12 & Annex V (Safety of stationary battery energy storage systems)

Art. 14 & Annex VII (Information on state of health)

For CE and UKCA marking:

(EU) 2023/1542 (Batteries Regulation)

2014/35/EU (LVD)

2011/65/EU (ROHS) (voluntary)

2014/30/EU (EMC)

In compliance with the product requirements in fire safety standards:

BVES Guidelines Preventive and protective fire security with large scale

lithium ion storage System, 2nd Ed. 2021 (Germany, only requirements that are

also applicable for residential storage systems)

OIB Richtlinie 2 (2023, Austria, no specific battery room required for indoor

installation of Battery vision)

PAS 63100:2024 (UK)

In general for all fire safety standards:

The system has passed the propagation test according to EN IEC 62619 cl.

7.3.3 (no fire outside the system, no enclosure rupture)

Cells also separately tested to following standards:

UN38.3 (Rev. 7)

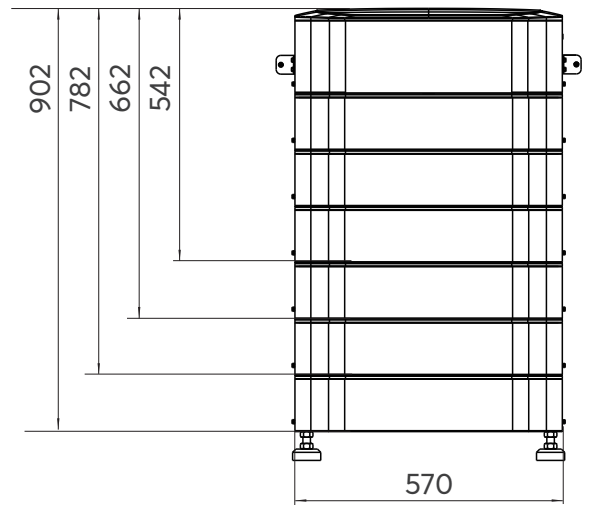
EN IEC 62619:2022

EUCAR hazard level 3 (no venting, no fire, or flame; no rupture; no explosion.

Weight loss <50% of electrolyte weight)

UL 9540A (2019), UL 1642:2020 ed. 6, UL 1973:2018 (2nd ed.)

DIMENSIONS



1) For further information on operation in winter mode, see the online manual.

2) The battery poles are voltage-free when the battery is removed.

3) The warranty conditions for SOLARWATT Battery vision (en-UK) apply.

4) Determined at the cell level under laboratory conditions at 25°C, 90% DoD, reduced charging current from 90% SoC

ELECTRICAL DATA INVERTER VISION MAX

INVERTER VISION MAX 1.0	(15.0 kW)	(20.0 kW)	(24.9 kW)	(25.0 kW)	(30.0 kW)
DC					
Max. total PV output	30,000 Wp	40,000 Wp	50,000 Wp	50,000 Wp	60,000 Wp
Max. input power DC	22,500 W	30,000 W	37,500 W	37,500 W	45,000 W
Max. input power DC per MPP-Tracker	7,500 W	10,000 W	12,500 W	12,500 W	15,000 W
Max. input voltage	1,000 V				
Operating PV Voltage	150 V - 950 V				
Start-up input voltage	160 V				
Rated input voltage	750 V				
MPPT operating voltage range	150 V to 850 V				
Max. input current	16+16 A / 16+16 A / 16+16 A				
Max. short-circuit current	20+20 A / 20+20 A / 20+20 A				
No. of independent MPP trackers	3				
No. of strings per MPP tracker	2				
AC					
Max. AC Input Power	22,500 VA	30,000 VA	35,000 VA	35,000 VA	35,000 VA
Max. AC Input Current (per phase)	34.1 A	45.5 A	53.0 A	53.0 A	53.0 A
Rated Output Power	15,000 W	20,000 W	24,900 W	25,000 W	30,000 W
Max. Output Apparent Power	16,500 VA	22,000 VA	24,900 VA	27,500 VA	33,000 VA
Rated Output Current (per phase)	22.7 A	30.3 A	37.7 A	37.9 A	45.5 A
Max. Output Current (per phase)	25.0 A	33.3 A	37.7 A	41.7 A	50.0 A
Rated grid voltage	400/230 Vac; 380/220 Vac, 3L/N/PE				
Rated grid frequency	50 Hz / 60 Hz				
Power factor	1 (adjustable from 0.8 leading to 0.8 lagging)				
THDi	< 3 % @rated power				
Parallel operation	ten devices				
BACKUP					
Max. Output Apparent Power	15,000 VA	20,000 VA	25,000 VA	25,000 VA	30,000 VA
Peak Output Apparent Power (60s)	18,000 VA	24,000 VA	30,000 VA	30,000 VA	36,000 VA
Max. Current (per phase)	22.7 A	30.3 A	37.9 A	37.9 A	45.5 A
Rated output voltage	400/230 Vac; 380/220 Vac, 3L/N/PE				
Rated output frequency	50 Hz / 60 Hz				
Power factor	1 (adjustable from 0.8 leading to 0.8 lagging)				
THDv (linear load)	< 3 % @rated power				
Switch time	<10 ms				
EFFICIENCY					
Euro Efficiency inverter	96.3 %		96.6 %		
Max. Efficiency inverter	97.2 %		97.1 %		
Max. battery charge efficiency (PV to BAT) (@full load)	96.3 %		96.6 %		
Max. battery discharge efficiency (BAT to AC) (@full load)	97.2 %		97.1 %		

TECHNICAL DATA INVERTER VISION MAX

GENERAL INFORMATION

Dimensions (WxHxD)	590 mm x 627 mm x 250 mm
Mass	52,5 kg
Installation	Wall mounted
Topology	Non-isolated
Cooling method	Fan cooling
Noise emission	5.0 to 20.0 kW: < 45 dB 24.9 to 30.0 kW: < 55 dB
Installation location	up to 4,000 m above sea level
Operating temperature	-25 °C to +60 °C (derating at +45°C)
Storage temperature	-40 °C to +70 °C
Relative humidity	≤ 95 % (no condensation)
IP rating	IP65
Standby consumption	200 W for hot standby 20 W for cold standby
Monitoring	Inverter: via LC Display Pro app, Home app, Manager portal Data stored on European servers
Communication	LAN, Bluetooth, Wi-Fi, RS485, DRM, USB
Warranty ¹⁾	10 years product warranty

BATTERY CONNECTION

Battery type	SOLARWATT Battery vision top pack SOLARWATT Battery vision pack
Battery voltage	150 to 800 V
Max. charge/discharge Current	50 A
Communication interface	CAN (communication with inverter, upgrade BMS)

CERTIFICATIONS AND STANDARDS

EN 62109-1:2011 (VDE 0126-14-1)
EN 62109-2:2011 (VDE 0126-14-1)
EN 61000-6-2 (VDE 0839-6-2)
EN 61000-6-3 (VDE 0839-6-3)
EN IEC 63000:2019

In compliance with EU and UK directives and regulations (CE/UKCA)

2014/35/EU (LVD)
2011/65/EU (RoHS) (voluntary)
2014/30/ EU (EMC)
2014/53/EU (RED)

Grid codes:

VDE-AR-N 4105:2018
CEI 0-21: 2022-03, CEI 0-21:V1 2022-11, CEI 0-21:V2 2024-01,
CEI 0-21:V2/EC 2024-03, CEI 0-21:V2/EC 2025-02
EREC G98-1:2022, G99-1:2022, G100:2022
EN 50549-1:2019
C10/11:2021

1) The warranty conditions for SOLARWATT Battery vision (en-UK) apply.
2) DTSU 666 is part of the scope of delivery of the Inverter vision max

SAFETY

Insulation monitoring	yes
Residual current monitoring	yes
DC reverse polarity protection	yes
Battery reverse protection	yes
Anti-islanding protection	yes
AC short-circuit protection	yes
AC Overcurrent/ overvoltage protection	yes
Leakage current protection	yes
DC switch	yes
Battery wake-up function	yes
Overvoltage category	AC: Type III/ DC: Type II
AC/DC overvoltage protection	AC: Type II/ DC: Type II
Protection class	I
AFCI	yes



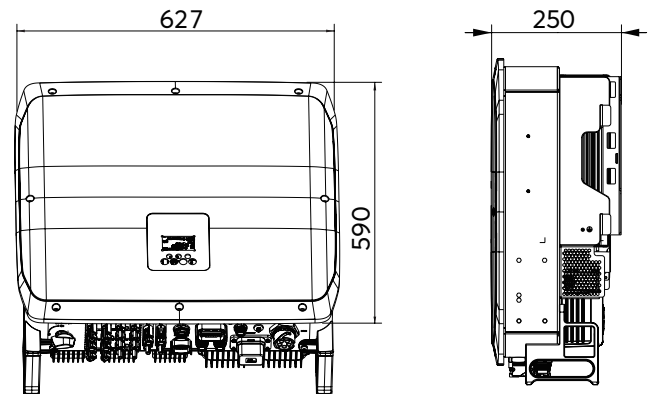
For information in accordance with the EU Data Act, scan the QR code or follow the link:

www.solarwatt.com/eu-data-act-en

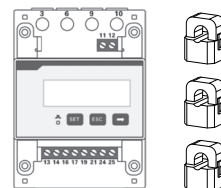
SUPPORTED DEVICES

Meter	Meter DTSU 666 RS485 CT (Solarwatt version) ²⁾
Manager	SOLARWATT Manager flex 1.0 SOLARWATT Manager flex 1.5 SOLARWATT Manager rail
Supplementary products	SOLARWATT Battery vision clusterbox

DIMENSIONS



INCLUDED IN THE DELIVERY



3-phase meter DTSU 666 with Solarwatt firmware

ELEKTRICAL DATA INVERTER VISION MAX AND BATTERY VISION 1.0

	(15.0 kW)		(20.0 kW)		(24.9 kW)		(25.0 kW)		(30.0 kW)	
RATED AND MAXIMUM BATTERY POWER [W] FOR CHARGING AND DISCHARGING										
	Nenn	Max	Nenn	Max	Nenn	Max	Nenn	Max	Nenn	Max
4 Battery pack 1.0 (10.4 kWh)	11,520	13,140	11,520	13,140	11,520	13,140	11,520	13,140	11,520	13,140
5 Battery pack 1.0 (13.0 kWh)	14,400	16,425	14,400	16,425	14,400	16,425	14,400	16,425	14,400	16,425
6 Battery pack 1.0 (15.6 kWh)	15,000	16,500	17,280	19,710	17,280	19,710	17,280	19,710	17,280	19,710
7 Battery pack 1.0 (18.2 kWh)	15,000	16,500	20,000	22,000	20,160	22,995	20,160	22,995	20,160	22,995
8 (4+4) Battery pack 1.0 (20.8 kWh)	15,000	16,500	20,000	22,000	23,040	24,900	23,040	26,280	23,040	26,280
9 (5+4) Battery pack 1.0 (23.4 kWh)	15,000	16,500	20,000	22,000	24,900	24,900	25,000	27,500	25,920	29,565
10 (5+5) Battery pack 1.0 (26.0 kWh)	15,000	16,500	20,000	22,000	24,900	24,900	25,000	27,500	28,800	32,850
11-14 Battery pack 1.0 (28.6 - 36.4 kWh)	15,000	16,500	20,000	22,000	24,900	24,900	25,000	27,500	30,000	33,000

POSSIBLE CONFIGURATIONS WITH SOLARWATT BATTERY VISION				
Battery vision top pack / pack	1 / 3	1 / 4	1 / 5	1 / 6
Total energy capacity [kWh]	11,5	14,4	17,3	20,2
Usable energy [kWh]	10,4	13,0	15,6	18,2
Nom. voltage [Vdc]	230	288	346	403

POSSIBLE CONFIGURATIONS WITH SOLARWATT BATTERY VISION							
Battery vision top pack / pack	1 / 3 + 1 / 3	1 / 4 + 1 / 3	1 / 4 + 1 / 4	1 / 5 + 1 / 4	1 / 5 + 1 / 5	1 / 6 + 1 / 5	1 / 6 + 1 / 6
Total energy capacity [kWh]	23,0	25,9	28,8	31,7	34,6	37,4	40,3
Usable energy [kWh]	20,8	23,4	26,0	28,6	31,2	33,8	36,4
Nom. voltage [Vdc]	230	288 230	288	346 288	346	403 346	403