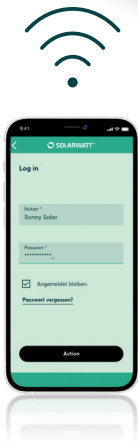## PRODUKT

SOLARWATT Battery flex base AC-1 1.3 (6.0 kW)

The SOLARWATT Battery flex base AC-1 is a highly efficient battery inverter used to charge and discharge SOLARWATT Battery flex pack battery modules.

- connection of 2 to 8 Battery flex pack modules
- peak power of up to 6 kW per Battery flex base AC-1
- online-updates can easily be done via integrated network interface with maximum data security
- discharge efficiency of up to 94.9 %
- fast load response of < 1 s
- easy installation with cable-free, plug-in connection
- simple commissioning with the SOLARWATT Pro app
- certified as per „Safety guidelines for Li-ion household battery systems"

in cooperation with

BENEFITS

- ## automotive batteries
- ## certified safety
- ## easy installation
- ## retrofit ready

PREMIUM QUALITY
MADE IN GERMANY

10 YEARS WARRANTY

SERVICE

FullCoverage insurance
included

product warranty[1]
10 years after successful warranty activation

simple return policy
as per electrical and electronic equipment legislation

competent consulting
experts via Hotline or on site

country of origin
quality Made in Germany

SOLARWATT Manager ready
perfect system integration

1) Individual product components are excluded from the warranty. The warranty conditions for SOLARWATT Battery flex AC-1 apply.

Subject to change. Errors excepted.
Datasheet SOLARWATT Battery flex base AC-1 | EN

Technical datasheet
SOLARWATT Battery flex base AC-1 1.3 (6.0 kW)

GENERAL INFORMATION

Grid connection	AC (1-phase), 230 V, 50 Hz
Battery modularity	2 to 8 (in series)
Max. charge efficiency (AC2BAT)	93.6 %
Max. discharge efficiency (BAT2AC)	94.9 %
Internal consumption in standby	14 W
Step response (time to supply a load demand)	< 1 s
Dead time (time to stop discharging)	0.1 s
DC voltage	25 bis 350 V
Max. rated real power P_{max}	6.0 kW
Max. rated apparent power S_{max}	6.0 kVA
Power factor cos phi	0.8 overexcited to 0.8 underexcited (can be smaller depending on the gridcode)
AC rated current	30 A

GENERAL INFORMATION

AC voltage	230 V
Initial symmetrical short-circuit current I_k	> 1 A
Data communication connection technology	2x RS485 (RJ11), 1x CAN (RJ45), 2x Ethernet (RJ45), Bluetooth (BTLE), LED Status display
(Online) monitoring platforms	SOLARWATT Pro app, SOLARWATT Home app; SOLARWATT Manager portal
Noise emission	max. 30 dB
AC-connection	Screw-type-terminal (L/N/PE) up to 6 mm²
Grid and plant protection	integrated
Fault current protection	integrated, Type B 30 mA
Dimensions (W x H x D)	540 x 248 x 303 mm
Weight	23 kg
Housing	Aluminum
FullCoverage Insurance	5 years included (optional 10 years)
Warranty[1]	10 years after successful warranty activation

ENVIRONMENTAL AND AMBIENT CONDITIONS

Operating temperature [2]	-20 °C to 55 °C
Ambient temperature for optimum operation	10 °C to 30 °C (min. 0 °C)
Relative humidity	≤ 100 %
IP rating	IP54
Protection class I	I
Overvoltage category	III
Installation location	up to 2,000 m above sea level
Installation	Wall installation (optional floor installation)

SUPPORTED DEVICES

Battery module	SOLARWATT Battery flex middle pack 1.3 (2.4 kWh, 30 A) SOLARWATT Battery flex top pack 1.3 (2.4 kWh, 30 A)
Current sensor	AC-Sensor Flex
Energy management	EnergyManager pro, SOLARWATT Manager flex

POWER [3,4]

Number of Battery flex pack	Discharging		Charging	
	P_{max}	P_{nom}	P_{max}	P_{nom}
2	1,900 W	1,400 W	1,700 W	1,400 W
3	2,800 W	2,200 W	2,600 W	2,100 W
4	3,800 W	3,000 W	3,550 W	2,600 W
5	4,600 W	3,650 W	4,500 W	3,000 W
6	5,700 W	4,300 W	5,450 W	3,500 W
7	6,000 W	5,000 W	6,000 W	4,000 W
8	6,000 W	6,000 W	6,000 W	4,800 W

TESTED BY ACCREDITED LABORATORIES ACCORDING TO:

Product Safety:
Safety guidelines for Li-ion household battery systems Version 1.0
IEC/ DIN EN 62619:2017 (VDE 0510-39) [5]
IEC 21A/722/ CDV / E DIN EN 62619:2020 (VDE 0510-39) [6]
IEC/ DIN EN 62109-1:2010 (VDE 0510-39)
IEC/ DIN EN 62109-2:2012 (VDE 0510-39)
IEC/ DIN EN 62477-1:2017 (VDE 0558-477-1)
IEC / DIN EN 61000-6-1:2007 (VDE 0839-6-1)
IEC / DIN EN 61000-6-3:2007 (VDE 0839-6-3)
Grid connection:
VDE-AR-N 4105:2018, EN 50549-1:2019, CEI 0-21:2019, TOR Typ A: 2019, C10/11:2019

IN COMPLIANCE WITH:

EU directives (CE)	2014/35/EU (NSR) 2014/30/EU (EMV) 2011/65/EU (RoHS) 2014/53/EU (RED)
Product and system standards	FNN note "Connection and operation of storage devices on low-voltage power supply" (Anschluss und Betrieb von Speichern am Niederspannungsnetz) 2020, VDE-AR-E 2510-2, KIT brief check list for Li-ion household battery systems (150 points), IET / Code of Practice for Electrical Energy Storage Systems (UK, 2017) MIS 3012, OIB Guideline 2 Fire Safety (Austria 2019)

1) Individual product components are excluded from the warranty. The warranty conditions for SOLARWATT Battery flex AC-1 apply.
2) for detailed operating behavior depending on temperature see SOLARWATT Battery flex AC-1 installation and operating instructions
3) the actual charging and discharging power depends on the state of charge, the operating temperature and the operating time of the storage system and may deviate from the specified values
4) Pmax: power the system has been designed for and which can be achieved for a short time under optimum operating conditions
   Pnom: Power that can be achieved at an ambient temperature of 20 °C for at least 15 minutes
5) as system components in conjunction with SOLARWATT Battery flex middle pack + top pack
6) including propagation tests as per Section 7.3.3