

The ES-AC series

Single-phase • 2.3 kW • 3 kW • 4.5 kW

The perfect solution for retrofitting



- AC storage inverter with high charging capacity
- Flexible storage system due to wide choice of battery type (lithium or lead) and manufacturer
- Integrated data logger with free portal
- Colour graphic display
- Emergency power capability
- 5 year warranty (optional 10 year warranty)
- Service hotline

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Technical specifications

		2300 ES-AC	3000 ES-AC	4500 ES-AC
Battery charge	Battery type	Lead-acid / Lithium		
	Battery voltage range	40 V - 65 V		
	Battery current range	35 A (programmable)	66 A	100 A
	Maximum charging / discharging power	2.3 kW	3.2 kW	4.8 kW
	Discharge strategy	3 stage, adaptive with maintenance		
	Temperature compensation	As standard		
AC inputs	Mains connection	Single-phase		
	AC voltage range	230 Vac \pm 15 % (*)		
	Mains frequency	50 Hz		
	Maximum input current	32 A		
AC-output	Mains connection	Single-phase		
	Sn nominal power	1.7 kVA	3 kVA	4.5 kVA (*)
	P maximum active power	2.2 kW	3 kW	4.5 kW (*)
	Q maximum reactive power	2.2 kVA	3 kVA	4.5 kVA (*)
	AC voltage range	230 Vac \pm 15 % (*)		
	Output nominal current	7.4 A	13 A	19.6 A
	Contribution to the short-circuit current	32 A		
	Mains nominal frequency	50 Hz		
	Frequency range	47 Hz - 53 Hz (*)		
	Cos ϕ	1 (adj \pm 0.80)		
	Maximum smax power in BACKUP	2.2 kVA	3 kVA (*)	4.5 kVA (*)
	Intervention time	< 5 sec (*)		
	THD	< 3 %		
Operating performance	Maximum efficiency	97 %		
	European efficiency	96 %		
	Battery typical efficiency	94 %		
Protective devices	BATTERY polarity reversal	As standard		
	BATTERY overload protection	As standard		
	Safety interlock	Built-in		
	AC short-circuit protection	As standard		
	Interface protection and anti-islanding	In compliance with local legislation		
	RCMU (Residual Current Monitoring Unit)	As standard		
	BATTERY galvanic isolation	As standard		
	AC Overvoltage protective device (MOV + SURGE PROTECTOR)	As standard		
	BATTERY Overvoltage protection (MOV)	As standard		
Accessories supplied	AC connector	Screw terminal strip, M25 cable gland		
	BATTERY connection	Screw terminal strip, M25 cable gland		
	BATTERY automatic isolator	Built-in		
	Circuit breaker AC inputs	As standard		
	Circuit breaker AC output	As standard		
	AC-BY-PASS switch	As standard		
	Display	Graphic Touch Screen 4.3" colour LCD		
	Interface	USB, CAN Bus, Ethernet, RS485, WLAN (optional via USB-Stick)		
	External alarm signal	As standard		
	Data logger	Built-in		
	Warranties	5 years (as standard), 10 years (optional)		

(*) The range depends on the grid connection standard valid in the country of installation.



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Ambient conditions	Ambient temperature	- 20 °C ... + 60 °C		
	Power derating temperature range	+ 40 °C ... + 60 °C		
	Storage temperature	- 30 °C ... + 70 °C		
	Relative humidity	5 % ... 95 % without condensation		
	Noise levels	< 50 dB(A) @ 1 m		
	Maximum operating altitude without derating	2,000 m		
	Classification of the degree of pollution	PD 3		
	Category of the installation environment	Interiors without air conditioning		
Standard data	Protection rating	IP21		
	Overvoltage category (IEC 62109-1)	II (battery input), III (AC input and output)		
	Ventilation	I-cool		
	Dimensions (W x H x D)	476 mm x 730 mm x 160 mm	710 mm x 650 mm x 150 mm	
	Weight	20 kg	< 30 kg	
	Fitting system	Wall bracket		
Safety	Protection class	I		
	Insulation level battery - AC	Safety transformer		
	Certifications	CE		
	EMC and Safety standards	EN 62109-1; EN 62109-2; EN 61000-6-2; EN 61000-6-3; EN 61000-3-2; EN 61000-3-3; EN 61000-3-11; EN 61000-3-12		
	Mains connection standards	CEI 0-21; VDE 0-126-1-1; VDE AR-N 4105		
Other features	BACKUP/OFF-GRID mode operation	Yes, with integrated lock (*)		
	ON-GRID/BACKUP/OFFGRID selection mode	Yes, automatically		
	Network support (network service)	Yes, if the norm requires it		
	Management of residential loads	Yes, with home automation board (optional)		

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Data, dimensions, design, weight and dimensions are subject to change.



The quality management system of the SolarMax Produktions GmbH is certified according to ISO 9001:2015.

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Storage systems and inverters for photovoltaic systems

- Storage systems
- Inverters
- Energy management
- Data communication
- System monitoring
- RePowering
- Services



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