

RESS PE20



ALL-IN-ONE RESIDENTIAL ENERGY STORAGE SYSTEM (LOW VOLTAGE)



Highly Integrated Design

Integrated design of PCS, BMS, and EMS (3S) to enhance system stability.



High Reliability

Compliance with the latest VDE-AR-E 2510-50 battery certification.

KEY FEATURES



Wide Environmental Compatibility

Support for temperatures as low as -20°C with an integrated heating function.



High usable energy

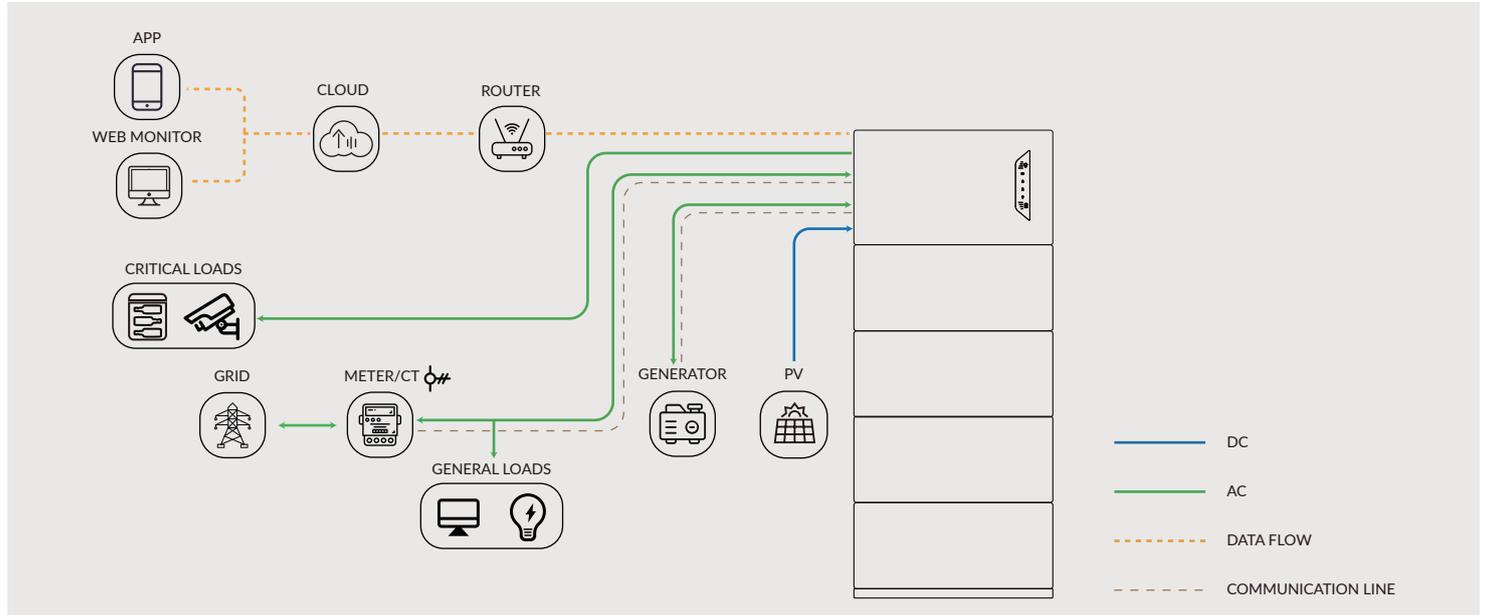
95% DOD.



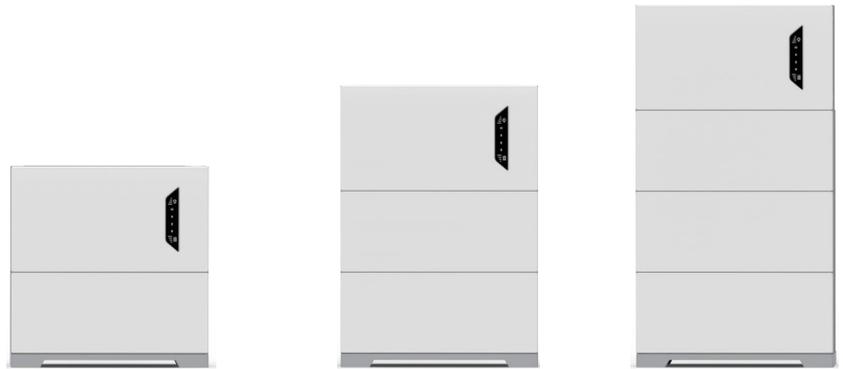
Quick Installation

Quick insert design for both power module and battery module to save installation time and cost.

CONNECTION



TECHNICAL DATA



All-in-One RESS Model	RESS-1A-5-L2-3.68K RESS-1A-10-L2-3.68K RESS-1A-15-L2-3.68K RESS-1A-20-L2-3.68K	RESS-1A-5-L2-5K RESS-1A-10-L2-5K RESS-1A-15-L2-5K RESS-1A-20-L2-5K	RESS-1A-5-L2-6K RESS-1A-10-L2-6K RESS-1A-15-L2-6K RESS-1A-20-L2-6K
All-in-One PCS Model	RESS-1P-3.68K-L02	RESS-1P-5K-L02	RESS-1P-6K-L02
Grid AC Input and AC Output			
Rated Output Apparent Power (VA)	3680	5000[1]	6000
Rated Output Active Power (W)	3680	5000[1]	6000
MAX Output Apparent Power (VA)	3680	5000	6000
Rated Input Apparent Power (VA)	7368	9200	9200
Rated Output Current	16.0 A ac	21.7 A ac	26.1 A ac
Rated Input Current	16.0 A ac	21.7 A ac	26.1 A ac
MAX Output Current	16.7 A ac	22.7 A ac	27.3 A ac
MAX Input Current	32.0 A ac	40.0A ac	40.0A ac
Rated AC Voltage		220/230/240 a.c.,	
Output Voltage Range (V)		180~260 a.c.,	
AC Rated Frequency (Hz)		50 / 60	
Wiring		L+N+PE	
Power Factor (cosΦ)		0.8 leading - 0.8 lagging	
THDI		<3%	
Backup(EPS)			
MAX. Output Apparent Power (VA)	3680	5000	6000
MAX. Output Current	16.0 A ac	21.7 A ac	26.1 A ac
Rated Output Active power (W)	3680	5000	6000
Rated Output Voltage		230 Vac	
Rated Output Frequency (Hz)		50/60	
THDV(@Linear Load)		<3%	
Switch Time		10ms	

TECHNICAL DATA

All-in-one RESS Model	RESS-1A-5-L2-3.68K RESS-1A-10-L2-3.68K RESS-1A-15-L2-3.68K RESS-1A-20-L2-3.68K	RESS-1A-5-L2-5K RESS-1A-10-L2-5K RESS-1A-15-L2-5K RESS-1A-20-L2-5K	RESS-1A-5-L2-6K RESS-1A-10-L2-6K RESS-1A-15-L2-6K RESS-1A-20-L2-6K
All-in-one PCS Model	RESS-1P-3.68K-L02	RESS-1P-5K-L02	RESS-1P-6K-L02
PV String Input			
Recommended Max. PV Input Power (W)	7200	10000	10000
MAX.PV Input Voltage		500Vdc	
Startup Voltage		120Vdc	
Nominal Input Voltage (V)		360Vdc	
MPPT Voltage Range		120-480Vdc	
MPPT Voltage Range at Nominal Power (V)	200-425Vdc		250-425Vdc
Number of MPPTs		2	
Max. Number of PV Strings per MPPT		1	
Max. Input Current per MPPT (A)		20	
Max. Short-circuit Current per MPPT (A)		25	
Reverse Connect Protection		Yes	
Efficiency			
MPPT Efficiency	99.90%	99.90%	99.90%
Euro Efficiency	96.30%	96.30%	96.30%
MAX. Efficiency	97.00%	97.00%	97.00%
Battery			
Battery Type		Lithium-ion Battery	
System Energy (kWh)		5 / 10 / 15 / 20	
Usable Energy (kWh) [2]		4.75 / 9.5 / 14.25 / 19	
Battery Module Model		RESS-BM-051100-L0	
Rated Battery Voltage (V)		51.2	
Recommend Charging/Discharging Current		50A/module	
Number of Battery Modules	1 / 2 / 3 / 4	1 / 2 / 3 / 4	1 / 2 / 3 / 4
Max Charging/Discharging Current (A)	80 / 80 / 80 / 80	100 / 120 / 120 / 120	100 / 125 / 125 / 125
Max Chargingpower (W)	3680	5000	6000
Max Discharging Power (W)	3900	5400	6400
Cycle Life		>=7000 cycles [3]	
Battery Auto Wakeup		Yes	
Function			
CT/ Meter (Option)		Yes	
OTA		Yes	
Safety Protection			
PV String Reverse Polarity Protection		Yes	
DC Short Circuit Current Protection		Yes	
DC Over Current Protection		Yes	
DC Over Voltage Protection		Yes	
AC Output Short Circuit Current Protection		Yes	
AC Output Over Current Protection		Yes	
AC Over Voltage Protection		Yes	
Anti-island Protection		Yes	
Leakage Current Detection		Yes	
Ground Connection Detection		Yes	
Overvoltage Category		AC III ; DC II	
General			
Dimensions (W*H*D) (mm)		725*(740/1040/1340/1640)*230	
Net Weight (kg)		75 / 121 / 167 / 213	
Installation		Floor-mounted	
Operating Temperature Range		Charge: 0°C-50°C Discharge: -20°C-50°C	
Operating Temperature Range (With Integrated Heating Module)		Charge: -20°C-50°C Discharge: -20°C-50°C	
Max. Operating Altitude		<4000m(>2000m power Derating)	
Relative Humidity Range		0-95% (No Condensation)	
Ingress Protection Rating		IP66	
Climatic Category		4K4H	
Cooling		Natural convection	
Noise		<40dB	
Communication		RS485 / WLAN / Bluetooth / DRY / DRM / Meter, LAN / 4G(Optional)	
Display		LED indicators / APP / Web	
Warranty		Inverter: 5 years (expand to 10 years); Battery:10 years	
Standard			
Safety		IEC/EN 62109-1&-2 IEC62619/CE/UN38.3	
EMC		IEC/EN 61000-6-1/-2 IEC/EN 61000-3-2/-12 IEC/EN 61000-6-3/-4 IEC/EN 61000-3-3/-11	IEC/EN 62920
Grid			
		EN 50549-1:2019/AC:2019/RfG:2016; CEI 0-21:2022; Arret du 9 juin 2020; G98/G99/G100; UNE 217001/217001/NTS V2.1/RD 244; VDE-AR-N 4105:2018-11(VDE V 0124-100:2020-06);	

[1]4600VA/4600W for VDE-AR-N4105 & NRS 097-2-1.

[2]Test Conditions - Temperature 25°C, at the beginning of life, cell charge voltage between 2.8-3.5V, 0.5C.

[3]25°C ambient temperature, recommended charging/discharging current.



LinkedIn

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