S48-400LFP STACK-LV-INV160

20.48 kWh / 400 Ah Energy Storage Solution

STOCK CODE: ROL-S48-400LFP STACK-LV-INV160 | REV: 1.0 | 09-26



OVERVIEW

North American residential 48 V hybrid energy storage solution pairing Rolls S48-400LFP STACK-LV battery and Solis Solarator Series S6-EH2P-16K03-SV-YD-L-US split phase low voltage hybrid inverter.

SYSTEM FEATURES

- 16K Solis Solarator Series split phase low voltage hybrid inverter
- Rolls STACK-LV 20.48 kWh / 400Ah prismatic $LiFePO_4$ lithium battery (ESS)
- 48 V system with on-grid, off-grid or micro-grid capability
- SolisCloud remote monitoring (optional)
- Scalable to 40.96 kWh / 800 Ah storage capacity with the addition of up to four (4) S48-100LFP STACK-LV-INVADD modules.

TECHNICAL SPECIFICATIONS

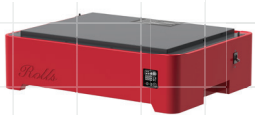
Nominal Battery Voltage	51.2 V
Usable Energy / Capacity	20.48 kWh / 400 Ah
Continuous Output Power / AC Current	16 kW / 66.7 A
Maximum DC Charge / Discharge Current	290 A
Operating Temperature (Battery)	-20 to 60 °C (-4 °F to 140 °F) [Charge: 0 to 55 °C (32 °F to 131°F)]
Communication / Monitoring	Battery-Inverter: CAN bus, Optional Cellular, Wi-Fi, LAN / SolisCloud
Safety	Battery: External output breaker, BMS switch, Relay Inverter: AFCI + SunSpec rapid-shutdown transmitter

CERTIFICATIONS

Battery: UL 9540, UL 9540A, UL 1973, UL 1642 (cell) IEC62619 (cell), UN38.3 (cell/pack)

Inverter: UL 1741 PVRSS, UL 1699B, UL 1998 (US), UL 1741, UL 1741 SB, CSA C22.2107.1-1
Grid Certifications: IEEE 1547-2018, IEEE1547.1-2020, CA Rule 21, SRD 2.0

Increase system capacity with additional modules.



S48-100LFP STACK-LV-INVADD
5.12kWh / 100Ah module



PAIRED ENERGY STORAGE SOLUTIONS

With premium quality components tailored for North American homes, these hybrid energy storage solutions are available in three seamlessly paired, scalable system configurations—designed to deliver flexible, connected, and reliable energy for every home.

SYSTEM SPECIFICATIONS	S48-300LFP STACK-LV-INV96	S48-400LFP STACK-LV-INV114	S48-400LFP STACK-LV-INV160
System positioning **Inverter configuration**	**Essential-to-whole-home backup or off-grid application.** Solis S6-EH2P 9.6K03-SV-YD-L-US Split phase low voltage hybrid inverter	**Higher-power whole-home backup or off-grid application.** Solis S6-EH2P 11K03-SV-YD-L-US Split phase low voltage hybrid inverter	**Maximum-power whole-home / large-load applications** Solis S6-EH2P 16K03-SV-YD-L-US Split phase low voltage hybrid inverter
Battery configuration	Rolls S48-300LFP STACK-LV [3 x S48-100LFP STACK-LV modules, LFP STACK Base+Top Assembly]	Rolls S48-400LFP STACK-LV [4 x S48-100LFP STACK-LV modules, LFP STACK Base+Top Assembly]	Rolls S48-400LFP STACK-LV [4 x S48-100LFP STACK-LV modules, LFP STACK Base+Top Assembly]
Battery capacity / energy	300 Ah / 15.36 kWh + up to 5 additional 100Ah modules [800Ah / 40.96 kWh]	400 Ah / 20.48 kWh + up to 4 additional 100Ah modules [800Ah / 40.96 kWh]	400 Ah / 20.48 kWh + up to 4 additional 100Ah modules [800Ah / 40.96 kWh]
Continuous AC output	9.6 kW	11.4 kW	16 kW
Whole-home ready	200 A continuous AC pass-through	200 A continuous AC pass-through	200 A continuous AC pass-through
Backup performance	<10 ms transfer; 3x rated apparent power for 1 sec	<10 ms transfer; 3x rated apparent power for 1 sec	<10 ms transfer; 3x rated apparent power for 1 sec
Generator ready	Up to 30 kW / 125 A generator input	Up to 30 kW / 125 A generator input	Up to 30 kW / 125 A generator input
Recommended max PV	15.36 kW	18.24 kW	25.6 kW
PV flexibility	3 MPPT; 2 strings/MPPT; 40 A/MPPT	3 MPPT; 2 strings/MPPT; 40 A/MPPT	3 MPPT; 2 strings/MPPT; 40 A/MPPT
Battery architecture	Modular 48 V Rolls S48-300LFPSTACK-LV battery Prismatic LiFePO4 lithium cells	Modular 48 V Rolls S48-400LFP STACK-LV battery Prismatic LiFePO4 lithium cells	Modular 48 V Rolls S48-400LFP STACK-LV battery Prismatic LiFePO4 lithium cells
Operating flexibility	On-grid, off-grid or microgrid	On-grid, off-grid or microgrid	On-grid, off-grid or microgrid
Smart-port flexibility	Generator or AC-coupling support	Generator or AC-coupling support	Generator or AC-coupling support
Backup configuration	Dedicated loads or whole-home	Dedicated loads or whole-home	Dedicated loads or whole-home
North American compatibility	120/240 V split phase	120/240 V split phase	120/240 V split phase
Integrated safety	Battery: External output breaker, BMS switch, Relay Inverter: AFCI + SunSpec rapid-shutdown transmitter	Battery: External output breaker, BMS switch, Relay Inverter: AFCI + SunSpec rapid-shutdown transmitter	Battery: External output breaker, BMS switch, Relay Inverter: AFCI + SunSpec rapid-shutdown transmitter
Indoor installation	Battery: IP 52 Inverter: IP 66	Battery: IP 52 Inverter: IP 66	Battery: IP 52 Inverter: IP 66
Interface / monitoring	Battery: front display, Bluetooth + Rolls LFP Connect app Inverter: 7" LCD; Bluetooth + app; SolisCloud	Battery: front display, Bluetooth + Rolls LFP Connect app Inverter: 7" LCD; Bluetooth + app; SolisCloud	Battery: front display, Bluetooth + Rolls LFP Connect app Inverter: 7" LCD; Bluetooth + app; SolisCloud
Primary advantage	Balanced residential storage with substantial PV and backup capability. Scalable storage options from 15.36 kWh to 40.96 kWh	More storage and AC output for larger whole-home applications. Scalable storage options from 20.48 kWh to 40.96 kWh	Highest AC and PV capability for large homes and demanding backup loads. Scalable storage options from 20.48 kWh to 40.96 kWh

WHY ROLLS + SOLIS

Rolls and Solis bring together decades of residential energy storage expertise, industry-leading products, and trusted support to deliver modular, scalable 48 V energy storage solutions you can count on. Engineered for flexibility and performance, each system features 200 A whole-home pass-through, dedicated generator integration, high-current PV inputs, and seamless on-grid, off-grid, and microgrid operation.

REV: 1.0 I 09-26