



FlexCore-ID

60-261 kWh Indoor Stackable Energy Storage System (ESS)

Simple Installation, **Flexible** Expansion
Scalable Energy Storage Solutions

- Uses A+ grade cells, $\geq 8,000+$ cycle life ^①
- Four-layer hardware redundancy safety protection as standard
- Supports a max. 21A string input current, perfectly matching high-power PV modules
- Supports 200% PV oversizing, maximizing solar energy utilization
- Supports 160% overload within 200ms in off-grid mode
- Supports seamless on-grid and off-grid switching with transfer times $< 10\text{ms}$
- Supports fast charging with a max. charging current of 200A
- Intelligent thermal management with patented cooling, delivering full output at 45°C
- Dual independent battery ports, supporting mixing of different brands, capacities, and old/new batteries
- 20kWh per pack, supports up to 6 clusters in parallel, max. expandable to 1566kWh
- Dedicated VPP communication channel, plug-and-play direct connection to third-party EMS/VPPs with an open protocol
- Solis AI – smart energy management with generator support
- High-voltage series stackable system for easy installation
- Supports OTA remote upgrades for efficient operation and maintenance



FlexCore-ID 261kWh ESS

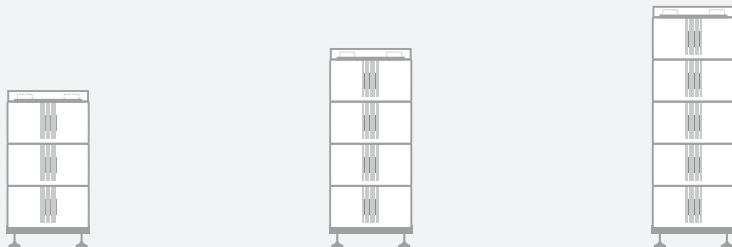


DATASHEET

FlexCore Indoor Stackable Series

Hybrid Inverter	S6-EH3P 30K-H(21A)	S6-EH3P 40K-H(21A)	S6-EH3P 50K-H(21A)	S6-EH3P 60K-H(21A)	S6-EH3P 80K10-NV-YD-H	S6-EH3P 100K10-NV-YD-H	S6-EH3P 125K10-NV-YD-H
Input DC (PV side)							
Recommended max. PV array size	60 kW	80 kW	100 kW	100 kW	160 kW	200 kW	250 kW
Max. usable PV input power	60 kW	80 kW	100 kW	100 kW	160 kW	200 kW	250 kW
Max. input voltage	1000 V						
Rated voltage	600 V						
Start-up voltage	180 V						
MPPT voltage range	150 - 850 V				150 - 950 V		
Max. input current	3 × 42 A	4 × 42 A			10 × 42 A		
Max. current per DC input	42 A						
Max. short circuit current	3 × 60 A	4 × 60 A			10 × 60 A		
MPPT number / Max. input strings number	3 / 6	4 / 8			10 / 20		
Battery							
Battery type	Li-ion						
Battery voltage range	150 - 800 V				300 - 950 V		
Max. charge / discharge current	80 A × 2 / 80 A × 2			84 A × 2 / 84 A × 2		100 A × 2 / 100 A × 2	
Number of battery port / Number of BMS port	2						
Max. charge / discharge current of each port	80 A			84 A		100 A	
Communication	CAN / RS485						
Output AC (Grid side)							
Rated output power	30 kW	40 kW	50 kW	60 kW	80 kW	100 kW	125 kW
Max. apparent output power	30 kVA	40 kVA	50 kVA	60 kVA	80 kVA	100 kVA	125 kVA
Rated grid voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V						
Rated grid frequency	50 Hz / 60 Hz						
Rated grid output current	45.6 A / 43.3 A	60.8 A / 57.7 A	76 A / 72.2 A	91.2 A / 86.6 A	121.6 A / 115.5 A	151.9 A / 144.3 A	189.9 A / 180.4 A
Power factor	> 0.99 (0.8 leading - 0.8 lagging)						
THDi	< 3%						
Input AC (Grid side)							
Max. input power	60 kW	60 kW	100 kW	100 kW / 105 kW	160 kW	164.5 kW / 173.2 kW	164.5 kW / 173.2 kW
Input voltage range	304 - 460 V						
Max. input current	91.2 A / 86.6 A	121.6 A / 115.4 A	152 A / 144.4 A	152 A / 152 A	250 A		
Output AC (Back-up)							
Rated output power	30 kW	40 kW	50 kW	60 kW	80 kW	100 kW	125 kW
Max. apparent output power	30-60K: 1.6 times of rated power, 2 s; 1.5 times of rated power, 10 s; 80-100K: 1.6 times of rated power, 10 s; 2 times of rated power, 200 ms; 125K: 1.4 times of rated power, 10 s; 1.6 times of rated power, 200 ms						
Back-up switch time	< 10 ms						
Rated output voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V						
Rated frequency	50 Hz / 60 Hz						
Rated output current	45.6 A / 43.3 A	60.8 A / 57.7 A	76 A / 72.2 A	91.2 A / 86.6 A	121.6 A / 115.5 A	151.9 A / 144.3 A	189.9 A / 180.4 A
Max. AC passthrough current	45.6 A / 43.3 A	60.8 A / 57.7 A	76 A / 72.2 A	91.2 A / 86.6 A	121.6 A / 115.5 A	151.9 A / 144.3 A	189.9 A / 180.4 A
THDv (@linear load)	< 2%				< 3%		
Input AC (Generator side)							
Max. input power	30 kW	40 kW	50 kW	60 kW	80 kW	100 kW	125 kW
Rated input current	45.6 A / 43.3 A	60.8 A / 57.7 A	76 A / 72.2 A	91.2 A / 86.6 A	121.6 A / 115.5 A	151.9 A / 144.3 A	189.9 A / 180.4 A
Rated input voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V						
Rated input frequency	50 Hz / 60 Hz						
Efficiency							
Max. efficiency	97.7%				97.5%		
EU efficiency	97.3%				96.9%	97.1%	97.2%
BAT charged by PV / AC max. efficiency	98.5% / 97.8%				98.2% / 97.0%		
Battery discharged efficiency	97.5%				97.0%		
General Data							
Max. power per phase (grid & back-up)	33% rated power						
Dimensions (W × H × D)	530 × 880 × 290 mm				1174 × 814 × 400 mm		
Weight	76 kg				170 kg		
Inverter topology	Transformerless						
Self-consumption	< 35 W				< 45 W		
Operating temperature range	-25 ~ +60°C						
Relative humidity	0 - 100%						
Ingress protection	IP66						
Cooling concept	Intelligent redundant fan-cooling						
Max. operation altitude	4000 m				3000 m		
Grid connection standard	30-60K: G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1/EN 50549-10, PTPIREE, VDE 0126 / XP C15/VFR:2019, NTS 631/RD 1699/RD 244 / UNE 217002, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, DEWA, MEA, PEA, PORTARIA Nº 140/PORTARIA Nº 515; 80-125K: G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1&2/EN 50549-10, VDE 0126 / UTE C 15/VFR:2019, NTS 631/UNE 217001, CEI 0-21, C10/11, NRS 097-2-1, TOR, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA, PORTARIA Nº 140, PORTARIA Nº 515						
Safety / EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4, EN 55011						

Hybrid Inverter	S6-EH3P 15K-H-LV(21A)	S6-EH3P 20K-H-LV(21A)	S6-EH3P 25K-H-LV(21A)	S6-EH3P 30K-H-LV(21A)	S6-EH3P 35K-H-LV(21A)	S6-EH3P 60K10-LV-YD-H	S6-EH3P 75K10-LV-YD-H
Input DC (PV side)							
Recommended max. PV array size	30 kW	40 kW	50 kW	60 kW	70 kW	120 kW	150 kW
Max. usable PV input power	30 kW	40 kW	50 kW	60 kW	70 kW	120 kW	150 kW
Max. input voltage	1000 V						
Rated voltage	600 V						
Start-up voltage	180 V						
MPPT voltage range	150 - 850 V					150 - 950 V	
Max. input current	3 × 42 A					10 × 42 A	
Max. current per DC input	42 A						
Max. short circuit current	3 × 60 A					10 × 60 A	
MPPT number / Max. input strings number	3 / 6					10 / 20	
Battery							
Battery type	Li-ion						
Battery voltage range	150 - 800 V					300 - 950 V	
Max. charge / discharge current	80 A × 2 / 80 A × 2					100 A × 2 / 100 A × 2	
Number of battery port / Number of BMS port	2						
Max. charge / discharge current of each port	80 A					100 A	
Communication	CAN / RS485						
Output AC (Grid side)							
Rated output power	15 kW	20 kW	25 kW	30 kW	35 kW	60 kW	75 kW
Max. apparent output power	15 kVA	20 kVA	25 kVA	30 kVA	35 kVA	60 kVA	75 kVA
Rated grid voltage	3/(N)/PE, 127 V / 220 V, 133 V / 230 V						
Rated grid frequency	50 Hz / 60 Hz						
Rated grid output current	39.4 A / 37.7 A	52.5 A / 50.2 A	65.6 A / 62.8 A	78.7 A / 75.3 A	91.8 A / 87.8 A	157.5 A / 150.6 A	196.8 A / 188.2 A
Power factor	> 0.99 (0.8 leading - 0.8 lagging)						
THDi	< 3%						
Input AC (Grid side)							
Max. input power	30 kW	40 kW	50 kW	60 kW	70 kW	95.2 kW / 99.6 kW	
Input voltage range	176 - 265 V						
Max. input current	78.8 A / 75.4 A	105 A / 100.4 A	131.2 A / 125.6 A	152 A / 152 A		250 A	
Output AC (Back-up)							
Rated output power	15 kW	20 kW	25 kW	30 kW	35 kW	60 kW	75 kW
Max. apparent output power	15-35K: 1.6 times of rated power, 2 s; 1.5 times of rated power, 10 s; 60K: 1.6 times of rated power, 10 s; 2 times of rated power, 200 ms; 75K: 1.4 times of rated power, 10 s; 1.6 times of rated power, 200 ms						
Back-up switch time	< 10 ms						
Rated output voltage	3/(N)/PE, 127 V / 220 V, 133 V / 230 V						
Rated frequency	50 Hz / 60 Hz						
Rated output current	39.4 A / 37.7 A	52.5 A / 50.2 A	65.6 A / 62.8 A	78.7 A / 75.3 A	91.8 A / 87.8 A	157.5 A / 150.6 A	196.8 A / 188.2 A
Max. AC passthrough current	39.4 A / 37.7 A	52.5 A / 50.2 A	65.6 A / 62.8 A	78.7 A / 75.3 A	91.8 A / 87.8 A	157.5 A / 150.6 A	196.8 A / 188.2 A
THDv (@linear load)	< 2%					< 3%	
Input AC (Generator side)							
Max. input power	15 kW	20 kW	25 kW	30 kW	35 kW	60 kW	75 kW
Rated input current	39.4 A / 37.7 A	52.5 A / 50.2 A	65.6 A / 62.8 A	78.7 A / 75.3 A	91.8 A / 87.8 A	157.5 A / 150.6 A	196.8 A / 188.2 A
Rated input voltage	3/(N)/PE, 127 V / 220 V, 133 V / 230 V						
Rated input frequency	50 Hz / 60 Hz						
Efficiency							
Max. efficiency	96.3%					96.0%	
EU efficiency	95.5%					94.5%	94.6%
BAT charged by PV / AC max. efficiency	97.4%					97.6% / 95.6%	
Battery discharged efficiency	95.8%					95.6%	
General Data							
Max. power per phase (grid & back-up)	33% rated power						
Dimensions (W × H × D)	530 × 880 × 290 mm					1174 × 814 × 400 mm	
Weight	76 kg					170 kg	
Inverter topology	Transformerless						
Self-consumption	< 35 W					< 45 W	
Operating temperature range	-25 ~ +60°C						
Relative humidity	0 - 100%						
Ingress protection	IP66						
Cooling concept	Intelligent redundant fan-cooling						
Max. operation altitude	4000 m					3000 m	
Grid connection standard	15-35K: G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1/EN 50549-10, PTPIREE, VDE 0126 / XP C15/VFR:2019, NTS 631/ RD 1699/RD 244 / UNE 217002, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, DEWA, MEA, PEA, PORTARIA Nº 140/PORTARIA Nº 515; 60-75K: G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1&2/EN 50549-10, VDE 0126 / UTE C 15/VFR:2019, NTS 631/ UNE 217001, CEI 0-21, C10/11, NRS 097-2-1, TOR, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA, PORTARIA Nº 140, PORTARIA Nº 515						
Safety / EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4, EN 55011						

Battery		FlexCore-ID-(60-261)kWh	
Battery Pack			
Battery pack model	FlexCore-ID-BAT20kWh		
Battery type	LiFePO ₄		
Cell capacity	314 Ah		
Cycle life ^①	≥ 8000		
Depth of discharge	Max. 100% DOD		
Configuration	1P20S		
Rated voltage	64 V		
Recommended charge & discharge current	157 A		
Nominal energy	20.09 kWh		
Fire suppression mode	Pack level aerosol		
Dimensions (W × H × D)	532 × 308 × 955 mm		
Weight	154 kg		
Control Box			
Control box model	FlexCore-ID-CB250A		
Max. current	250 A		
Dimensions (W × H × D)	532 × 350 × 1000 mm		
Weight	60 kg		
Communication	CAN / LAN / 4G / WIFI		
Cluster			
Cluster model	FlexCore-ID-(60-261)kWh		
Number of packs in series	3~13		
Nominal energy per cluster	60~261 kWh		
Scalability	Up to 6 units in parallel		
Recommended charge & discharge current	157 A		
Recommended charge & discharge power rate	0.5P		
Operating ambient temperature range	Discharge: -20~55°C; Charge: 0~55°C		
Storage temperature range	-10~45°C		
Relative humidity range	5~85%		
Communication	CAN / LAN / 4G / WIFI		
Max. operating altitude	4000 m		
Ingress protection	IP20		
Cooling	Smart fan-cooling		
Installation method	Indoor stackable		
Noise level	< 75 dB		
Certificates	IEC/EN 62619, IEC 63056, IEC/EN 62477, EN 61000, UN38.3		
			
Number of packs per stand	3	4	5
Nominal energy	60.27 kWh	80.36 kWh	100.45 kWh
Dimensions (W × H × D) (with base&top cover)	532 × 1050 × 955 mm	532 × 1330 × 955 mm	532 × 1610 × 955 mm
Weight	470 kg	625 kg	780 kg

① This is provided by the battery cell manufacturer. Defined with standard test condition: the battery is within 70%SOH, charge and discharge at a constant current (0.2C) and an ambient temperature at 25°C±2°C.