ULTRA-THIN DESIGN

A1-ESS-G2

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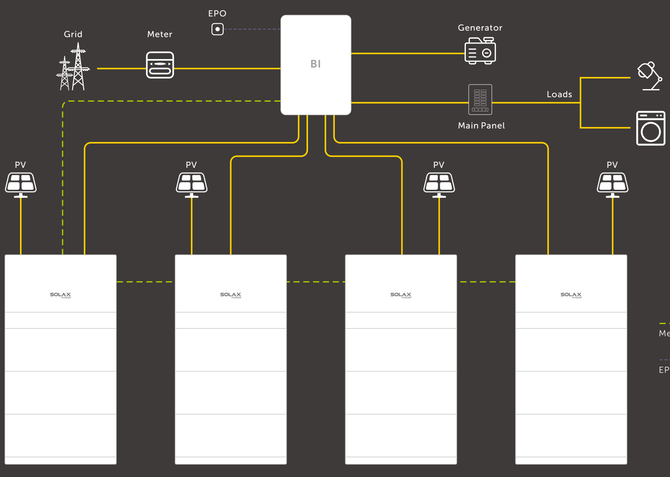
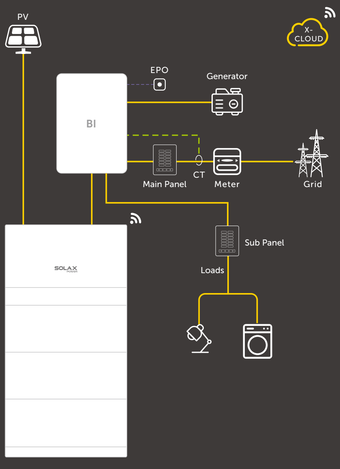
ENERGY SYSTEM SOLUTION (PARALLEL)

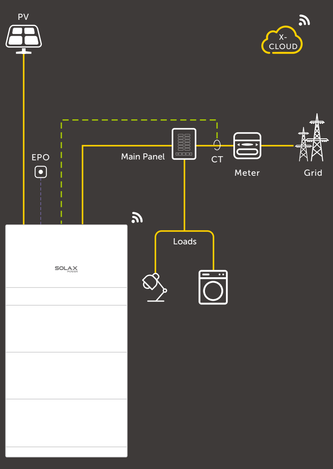
- Friendly with existing PV system
- Up to 4 inverters in parallel, 7.6kW *4 =30.4kW
- Up to 4 battery modules stackable, 20kWh per inverter, 80kWh max
- 160A BI supported



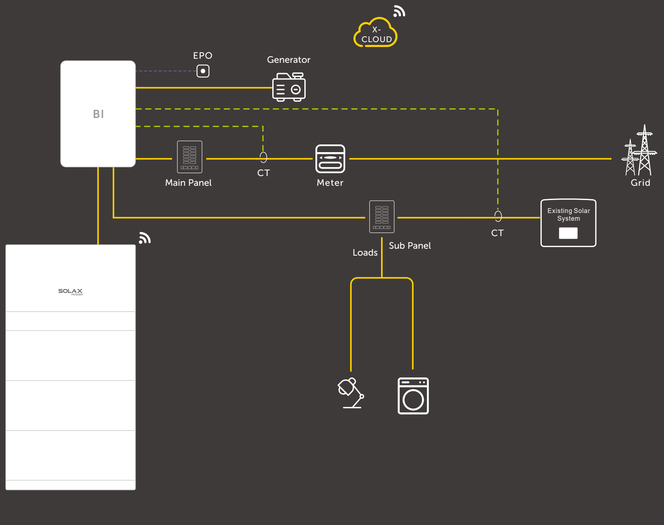
FLEXIBLE HOME BACKUP SOLUTION



PARTIAL HOME On-grid SOLUTION



FLEXIBLE HOME BACKUP SOLUTION AC COUPLED



A1-ESS-G2

A1-HYB-G2

- 200% PV oversize
- 3 MPPT
- Max 16A PV input operating current
- Support Micro grid function
- Built-in RGM meter
- Up to 4 inverters in parallel*(under development)
- Peak efficiency(PV-GRID): 98%

T-BAT-SYS-HV-5.0

- Long life & Safe LPF battery
- Up to 4 batteries modules stacked, 20kWh
- Plug and play
- Module design & Easy installation
- Floor or wall mounted

A1-BI-200-G2

- MAX 160A AC current
- Flexible home backup
- Up to 4 inverters in parallel, 30kW/80kWh
- 64A Generator Support
- Built-in Energy Management Meter
- Smart load control*(under development)

A1-HYB-G2

	A1-HYB-3.8-G2	A1-HYB-5.0-G2	A1-HYB-6.0-G2	A1-HYB-7.6-G2
INPUT PV				
Max. recommended PV power [W]	7600	10000	10000	15200
Max. DC voltage [V]	550			
Nominal DC operating current [A]	360			
Max. input current [A]	A: 16 / B: 16	A: 16 / B: 16	A: 16 / B: 16	A: 16 / B: 16 / C: 16
Max. short circuit current [A]	A: 20 / B: 20	A: 20 / B: 20	A: 20 / B: 20	A: 20 / B: 20 / C: 20
MPPT voltage range [V]	90-500			
Start input voltage [V]	120			
No. of MPP trackers,Strings per MPP tracker	2(1/1)	2(1/1)	2(1/1)	3(1/1/1)
DC disconnection switch	YES			
AFCI	YES			
INPUT/OUTPUT AC				
Nominal AC power [VA]	3816	5016	6000	7608
Max. apparent AC power [VA]	3816	5016	6000	7608
Nominal AC Voltage [V] / Nominal AC Frequency[Hz]	240 / 60			
Nominal AC current [A]	15.9	20.9	25	31.7
Displacement power factor	0.8 leading to 0.8 lagging			
Total harmonic distortion (THD, rated power)	< 3%			
INPUT/OUTPUT BAT				
Battery type	Li-ion			
Max. output power [W]	3816	5016	6000	7600
Max. charge/discharge current [A]	54	54	54	54
Reverse-Polarity Protection	YES			
Cycle efficiency charging to discharging (PCS Only)	88.5%	90.5%	91.5%	92.5%
EFFICIENCY				
CEC weighted efficiency (PV→GRID)	97.50%			
Max. inverter Efficiency	98.00%			
POWER CONSUMPTION				
Internal consumption (night) [W]	<3W			
STANDARD				
Safety	UL1741,UL1741 SA,UL1699B, CSA - C22.2 No. 107.1-01, Canadian AFCI according to T.I.L. M-07			
EMC	FCC Part 15 Class B			
Cetification	IEEE1547, Rule 21,Rule14 (HI)			
ENVIRONMENT LIMIT				
Protection class	NEMA 4X			
Operating temperature range [°F (°C)]	-13°F to 140°F (-25°C to 60°C)			
De-rating start temperature [°F (°C)]	113°F (45°C) or above			
Storage temperature range [°F (°C)]	-13°F to 167°F (-25°C to 75°C)			
Relative humidity [%]	0%-95%			
Altitude [ft (m)]	9843(3000) MAX			
Typical Noise emission [dBA]	< 30			
Over voltage category	IV(electric supply side), II(PV side)			
GENERAL				
Dimensions with safety switch (WxHxD) [in (mm)]	33.1 x 15.7 x 5.7 (840 x 400 x 145)			
Weight with safety switch [lb (kg)]	75 lbs (34 kg)			
Cooling concept	Natural convection with internal fan			
Topology	Transformerless			
Communication	RS485, CAN, WIFI (optional) / 4G (optional)			
Revenue grade data, ANSIC12.20	Optional			
Warranty	10 years			

A1-AC-G2

	A1-AC-3.8K-G2	A1-AC-5.0K-G2	A1-AC-6.0K-G2	A1-AC-7.6K-G2
INPUT/OUTPUT AC				
Nominal AC power [VA]	3816	5016	6000	7608
Max. apparent AC power [VA]	3816	5016	6000	7608
Nominal AC Voltage [V] / Nominal AC Frequency[Hz]	240 / 60			
Nominal AC current [A]	15.9	20.9	25	31.7
Displacement power factor	0.8 leading to 0.8 lagging			
Total harmonic distortion (THD, rated power)	< 3%			
NPUT/OUTPUT BAT				
Battery type	Li-ion			
Max. output power [W]	3816	5016	6000	7600
Max. charge/discharge current [A]	54	54	54	54
Reverse-Polarity Protection	YES			
Cycle efficiency charging to discharging (PCS Only)	88.5%	90.5%	91.5%	92.5%
Efficiency				
Max. inverter efficiency	98.00%			
POWER CONSUMPTION				
Internal consumption (night) [W]	< 3			
STANDARD				
Safety	UL1741,UL1741 SA, CSA - C22.2 No. 107.1-01			
EMC	FCC Part 15 Class B			
Cetification	IEEE1547, Rule 21,Rule14 (HI)			
ENVIRONMENT LIMIT				
Protection class	NEMA 4X			
Operating temperature range [°F (°C)]	-13°F to 140°F (-25°C to 60°C)			
De-rating start temperature [°F (°C)]	113°F (45°C) or above			
Storage temperature range [°F (°C)]	-13°F to 167°F (-25°C to 75°C)			
Relative humidity [%]	0%-95%			
Altitude [ft(m)]	9843(3000) MAX			
Typical Noise emission [dBA]	< 30			
Over voltage category	IV(electric supply side)			
GENERAL				
Dimensions with safety switch (WxHxD) [in (mm)]	33.1 x 15.7 x 5.7 (840 x 400 x 145)			
Weight with safety switch [lb (kg)]	75 lbs (34 kg)			
Cooling concept	Natural convection with internal fan			
Topology	Transformerless			
Communication	RS485, CAN, WIFI (optional) / 4G (optional)			
Revenue grade data, ANSIC12.20	Optional			
Warranty	10 years			

T-BAT-SYS-HV-5.0

	T-BAT H 10.0	T-BAT H 15.0	T-BAT H 20.0
MODEL			
Battery type	100Ah Lithium (LFP)		
Component	MC60060 + 2*HV51100	MC60060 + 3*HV51100	MC60060 + 4*HV51100
NOMINAL CHARACTER			
Voltage [V]	102.4	153.6	204.8
Operating voltage range [V]	90 - 116	135 - 174	180 - 232
Total energy [kWh]	10	15	20
Usable energy[kWh]*	9	13.5	18
Battery roundtrip efficiency [%]*	95%		
Max. power [kW]	5.5	8.3	11.1
Max. charge/discharge current [A]	54		
Cycle life (90% DOD)	6000 cycles		
Warranty	10 years		
ENVIRONMENT REQUIREMENT			
Charge/Discharge temperature range [°F (°C)]	Charge: 32°F to 127.4°F (0°C to 53°C)/Discharge: 14°F to 127.4°F (-10°C to 53°C)		
Storage temperature[°F (°C)]	3 months: 4°F to 122°F (-20°C to 50°C) / 1 year: 32°F to 104°F (0°C to 40°C)		
Relative humidity[%]	0% to 100%		
Altitude [ft (m)]	9843(3000) MAX		
Protection	NEMA 4X		
COMMUNICATION			
System to inverter	RS485 / CAN		
Battery to battery/BMS	CAN		
CERTIFICATION			
Cetificate	UN38.3,UL1973,UL9540,UL9540A		
Hazardous materials classification	Class 9		
GENERAL			
Dimensions (WxHxD) [in (mm)] - MC60060 (BMS)	33.5 x 5.2 x 5.8 (850 x 133 x 148)		
Dimensions (WxHxD) [in (mm)] - HV51100 (BAT)	33.5 x 23.6 x 5.8 (850 x 600 x 148)	33.5 x 35.4 x 5.8 (850 x 900 x 148)	33.5 x 47.2 x 5.8 (850 x 1200 x 148)
Dimensions (WxHxD) [in (mm)] - Base	33.5 x 2.2 x 5.8 (850 x 55 x 148)		
Weight [lb (kg)]	TBMS-MC560060: 22lb/10kg +2*TP-HS50: 238lb/108kg	TBMS-MC560060: 22lb/10kg +3*TP-HS50: 357lb/162kg	TBMS-MC560060: 22lb/10kg + 4* TP-HS50: 476lb/216kg

* Test Conditions: 90% DOD, 0.2C charge & discharge at + 25 °C / * Max. Charge/Discharge power may be variant with different inverter models

A1-BI-200-G2

GRID INPUT	
Nominal AC input voltage [V] /Nominal AC frequency [Hz]	120/240,60
Max. AC current input [A]	160
OUTPUT TO MAIN DISTRIBUTION PANEL AT GRID TIE	
Nominal AC output voltage [V]	120/240
Max. AC current input [A]	160
OUTPUT TO MAIN DISTRIBUTION PANEL AT BACKUP OPERATION	
Nominal AC output voltage [V]	120/240
Imbalance compensation in backup operation [VA]	5000
Split phase imbalance output current [A]	41.7
Max. AC output current [A]	160
INPUT FROM INVERTER	
Number of inverter inputs	4
Rated AC power [W]	3800/5000/6000/7600
Max. continuous input current @240V [A]	15.9/20.9/25/31.7
Inverter input AC circuit breaker [A]	20/25/30/40
GENERATOR	
Max. rated AC power [W]	15000
Max. continuous input current [A]	63
Auto generator start	Yes
OTHERS	
Energy meter accuracy	1%
Communication	RS485
Number of communication ports	2
Manual control over micro-grid interconnection device	Yes
STANDARD COMPLIANCE	
Safety	UL1741, CSA 22.2 NO.107
Emissions	FCC part 15 Class B
INSTALLATION SPECIFICATIONS	
Altitude [ft/m]	9843/3000 MAX
Weight [lb/kg]	69.4 lbs (31.5kg)
Cooling	Fan (user replaceable)
Typical Noise emission [dBA]	< 50
Operating temperature range [°F/ °C]	-13 to +140/-25 to +60
Protection rating	NEMA 3R
Dimensions (HxWxD) [in/mm]	27.8*17.7*5.9/ 706*450*151
Warranty	10 years

*V1.0 Information may be subject to change without notice 650.00024.00