



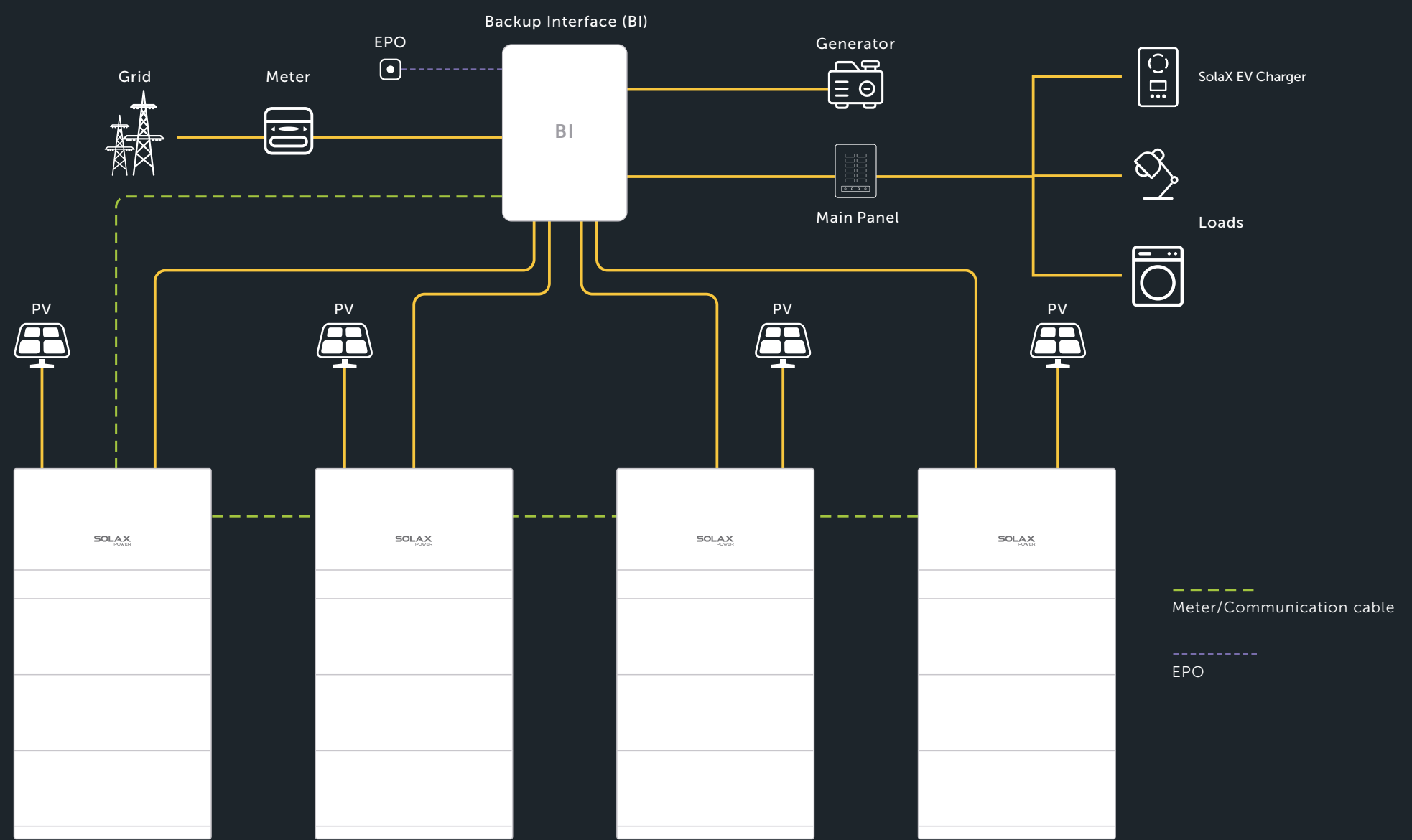
# ULTRA-THIN DESIGN A1-ESS-G2

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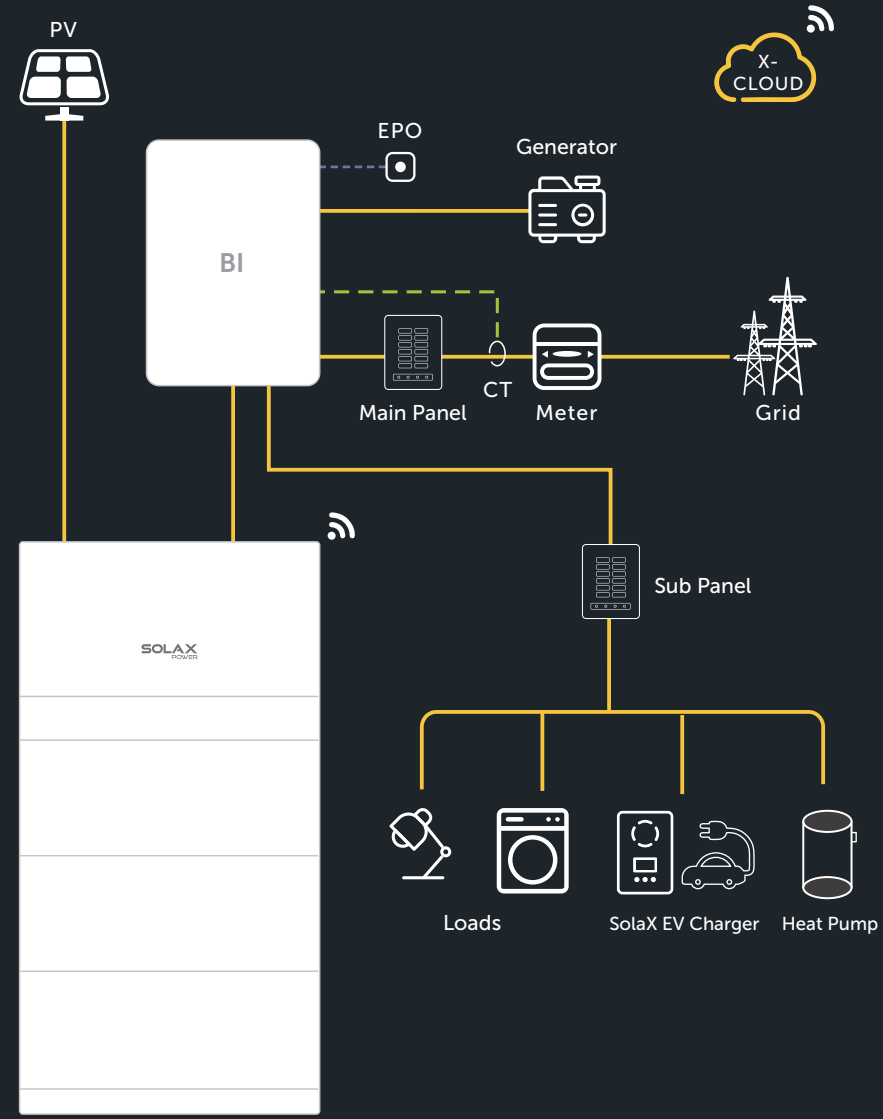
\*Noth America area only.

## ENERGY STORAGE SYSTEM (PARALLEL OPERATION)

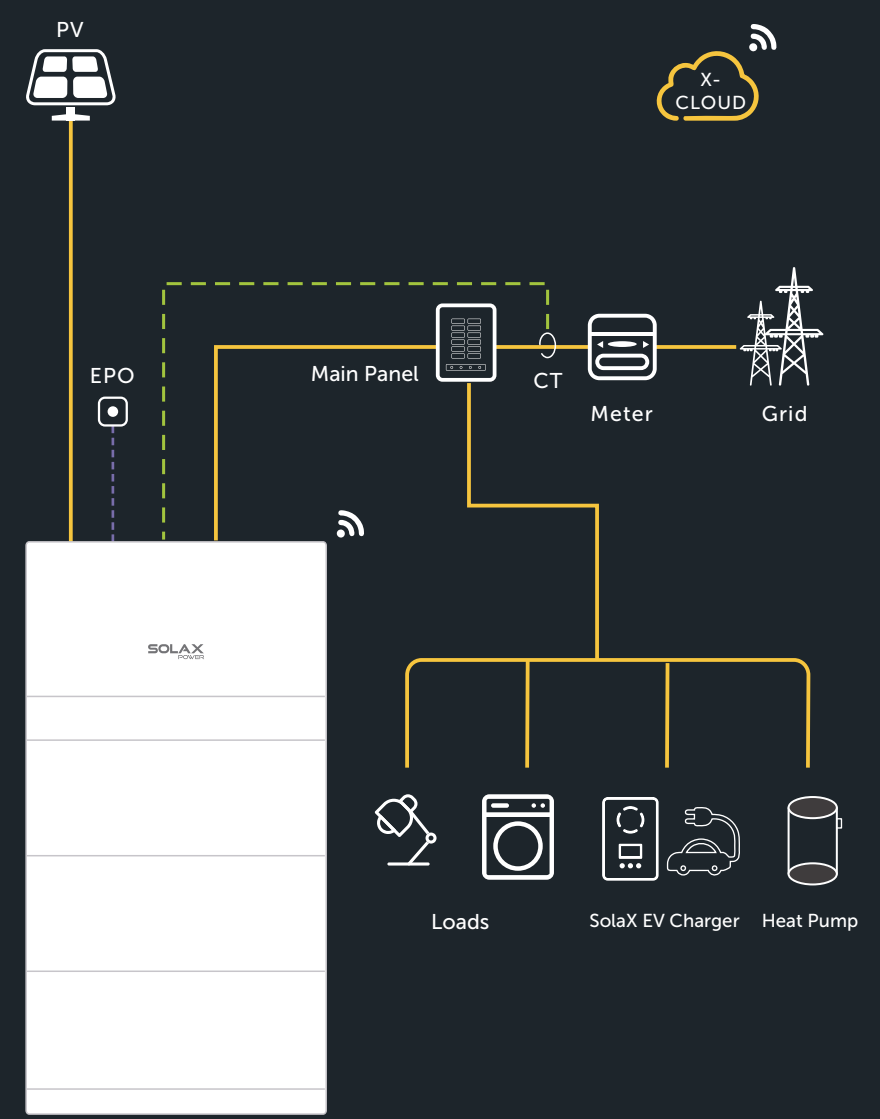
- Friendly with existing PV system
- Up to 4 battery modules stackable, 20kWh each system
- Up to 4 systems in parallel, 7.6kW \*4 =30.4kW, 20kWh\*4=80kWh
- 160A BI supported



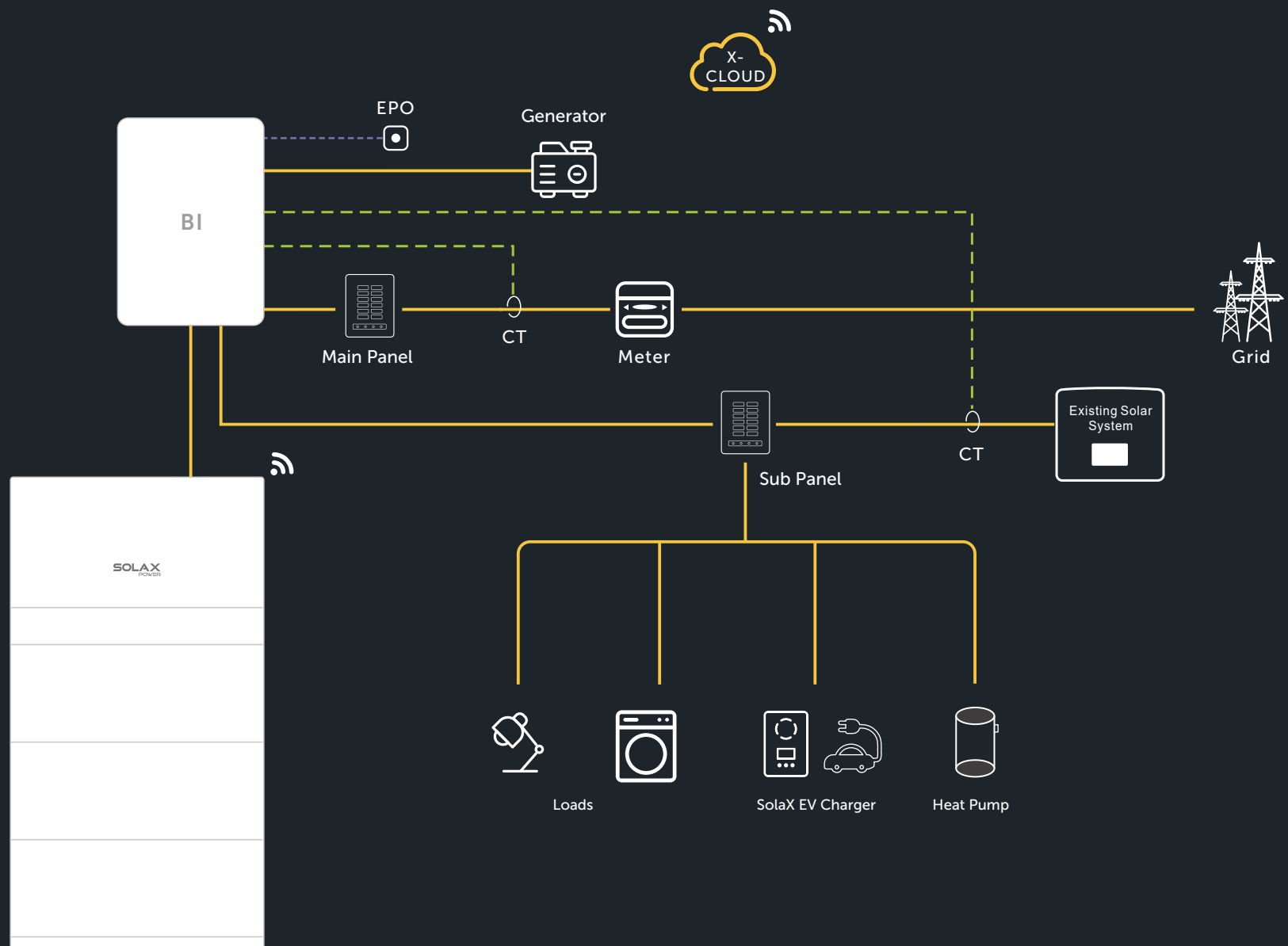
## FLEXIBLE HOME BACKUP SOLUTION



## FLEXIBLE HOME ON-GRID SOLUTION



## FLEXIBLE HOME BACKUP SOLUTION AC COUPLED



# A1-ESS-G2



## A1-HYB-G2

- Up to 200% oversizing allowed
- Up to 3 MPPTs
- Maximum 16A PV input current
- Microgrid supported
- Optional revenue grade metering
- Up to 4 systems in parallel<sup>①</sup>
- Peak efficiency: 98%
- Integrated arc fault protection and rapid shutdown transmitter

## T-BAT-SYS-HV-5.0

- Long life & Safe LPF battery
- Up to 4 battery modules stackable, 20kWh each system
- Modular design & Quick installation
- Floor or wall mounted



## A1-BI-200-G2

- Maximum 160A AC current
- Flexible home backup
- Up to 4 systems in parallel
- 64A generator supported
- Built-in energy management meter
- Smart load management<sup>②</sup>
- Heat pump extendable<sup>③</sup>
- EV charger extendable<sup>④</sup>

## A1-HYB-G2

	A1-HYB-3.8-G2	A1-HYB-5.0-G2	A1-HYB-6.0-G2	A1-HYB-7.6-G2
<b>INPUT PV</b>				
Maximum recommended PV power [W]	7600	10000	10000	15200
Maximum DC voltage [V]			550	
Normal DC operating voltage [V]			360	
Maximum input current [A]	A: 16 / B: 16	A: 16 / B: 16	A: 16 / B: 16	A: 16 / B: 16 / C: 16
Maximum 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	
<b>INPUT/OUTPUT AC</b>				
Nominal AC power [VA]	3816	5016	6000	7608
Maximum apparent AC power [VA]	3816	5016	6000	7608
Nominal AC voltage [V] / Nominal AC frequency [Hz]			240 / 50, 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%	
<b>INPUT/OUTPUT BAT</b>				
Battery type			Li-ion	
Maximum output power [W]	3816	5016	6000	7600
Maximum charge / discharge current [A]	54	54	54	54
Reverse-polarity protection			YES	
Cycle efficiency charging to discharging (PCS)	88.5%	90.5%	91.5%	92.5%
<b>ADDITIONAL FEATURES</b>				
AFCI			YES	
Revenue grade metering, ANSI C12.20			Optional	
Rapid shutdown transmitter			Integrated PLC controller to RSD	
<b>EFFICIENCY</b>				
CEC weighted efficiency			97.50%	
Maximum inverter efficiency			98.00%	
<b>POWER CONSUMPTION</b>				
Internal consumption (night) [W]			< 3	
<b>STANDARD</b>				
Safety	UL1741, UL1741 SA, UL1699B, CSA - C22.2 No. 1071-01, Canadian AFCI according to T.I.L. M-07			
Emissions	FCC Part 15 Class B			
Grid connection standards	IEEE1547, Rule 21, Rule14 (HI)			
<b>INSTALLATION SPECIFICATIONS</b>				
Protection class	NEMA 4X			
Operating temperature range [°F / °C]	-13 to +140 / -25 to +60			
De-rating start temperature [°F / °C]	113 / 45 or above			
Storage temperature range [°F / °C]	-13 to +167 / -25 to +75			
Relative humidity [%]	0 to 95			
Altitude [ft / m]	9843 / 3000 MAX			
Typical noise emission [dBA]	< 30			
Over voltage category	IV (electric supply side), II (PV side)			
<b>GENERAL</b>				
Dimensions (W x H x D) [in / mm]	33.5 x 17.9 x 5.8 / 850 x 455 x 148			
Weight [lb / Kg]	75 / 34			
Cooling	Natural convection			
Topology	Transformerless			
Communication interfaces	RS485, CAN, WIFI (optional) / 4G (optional), Dry Contact			
Warranty	12 years <sup>⑤</sup>			

## A1-AC-G2

	A1-AC-3.8K-G2	A1-AC-5.0K-G2	A1-AC-6.0K-G2	A1-AC-7.6K-G2
<b>INPUT/OUTPUT AC</b>				
Nominal AC power [VA]	3816	5016	6000	7608
Maximum apparent AC power [VA]	3816	5016	6000	7608
Nominal AC voltage [V] / Nominal AC frequency [Hz]			240 / 50, 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%	
<b>INPUT/OUTPUT BAT</b>				
Battery type			Li-ion	
Maximum output power [W]	3816	5016	6000	7600
Maximum charge / discharge current [A]	54	54	54	54
Reverse-polarity protection			YES	
Cycle efficiency charging to discharging (PCS)	88.5%	90.5%	91.5%	92.5%
<b>ADDITIONAL FEATURES</b>				
Revenue grade metering, ANSI C12.20			Optional	
<b>Efficiency</b>				
Maximum inverter efficiency			98.00%	
<b>POWER CONSUMPTION</b>				
Internal consumption (night) [W]			< 3	
<b>STANDARD</b>				
Safety	UL1741, UL1741 SA, CSA - C22.2 No. 1071-01			
Emissions	FCC Part 15 Class B			
Grid connection standards	IEEE1547, Rule 21, Rule14 (HI)			
<b>INSTALLATION SPECIFICATIONS</b>				
Protection class	NEMA 4X			
Operating temperature range [°F / °C]	-13 to +140 / -25 to +60			
De-rating start temperature [°F / °C]	113 / 45 or above			
Storage temperature range [°F / °C]	-13 to +167 / -25 to +75			
Relative humidity [%]	0 to 95			
Altitude [ft / m]	9843 / 3000 MAX			
Typical noise emission [dBA]	< 30			
Over voltage category	IV (electric supply side)			
<b>GENERAL</b>				
Dimensions (WxHxD) [in / mm]	33.5 x 17.9 x 5.8 / 850 x 455 x 148			
Weight [lb / Kg]	75 / 34			
Cooling	Natural convection			
Topology	Transformerless			
Communication interfaces	RS485, CAN, WIFI (optional) / 4G (optional), Dry Contact			
Warranty	12 years <sup>⑤</sup>			

## T-BAT-SYS-HV-5.0

	T-BAT H 10.0	T-BAT H 15.0	T-BAT H 20.0
<b>MODEL</b>			
Battery type	100Ah Lithium (LFP)		
Component	TBMS-MCS60060 + 2*TP-HS50	TBMS-MCS60060 + 3*TP-HS50	TBMS-MCS60060 + 4*TP-HS50
<b>NOMINAL CHARACTER</b>			
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] <sup>⑥</sup>	9	13.5	18
Battery roundtrip efficiency [%] <sup>⑦</sup>		95%	
Maximum power [kW]	5.5	8.3	11.1
Maximum charge / discharge current [A]		54	
Cycle life (90% DOD)		6000 cycles	
Warranty	12 years <sup>⑤</sup> (Details refer to Solax Power warranty statement.)		
<b>INSTALLATION SPECIFICATIONS</b>			
Charge / Discharge temperature range [°F / °C]	Charge: 32 to 127.4 / 0 to 53, Discharge: 14 to 127.4 / -10 to 53		
Storage temperature range [°F / °C]	3 months: 4 to 122 / -20 to 50, 1 year: 32 to 104 / 0 to 40		
Relative humidity [%]	0 to 100		
Altitude [ft / m]	9843 / 3000 MAX		
Protection class	NEMA 4X		
<b>STANDARD</b>			
Certification	UN38.3, UL1973, UL9540, UL9540A		
Hazardous materials classification	Class 9		
<b>GENERAL</b>			
Cooling	Natural convection		
Dimensions (W x H x D) [in / mm] - TBMS-MCS60060 (BMS)	33.5 x 5.2 x 5.8 / 850 x 133 x 148		
Dimensions (W x H x D) [in / mm] - TP-HS50 (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 (W x H x D) [in / mm] - Base	33.5 x 3.0 x 5.8 / 850 x 75 x 148		
Weight [lb / kg]	TBMS-MCS60060: 22 / 10 + 2*TP-HS50: 238 / 108	TBMS-MCS60060: 22 / 10 + 3*TP-HS50: 357 / 162	TBMS-MCS60060: 22 / 10 + 4*TP-HS50: 476 / 216

## A1-BI-200-G2

<b>GRID INPUT</b>	
Nominal AC input voltage [V]	120 / 240
Nominal AC frequency [Hz]	50 / 60
Maximum AC input current [A]	160
<b>OUTPUT TO MAIN PANEL IN GRID TIED OPERATION</b>	
Nominal AC output voltage [V]	120 / 240
Maximum AC input current [A]	160
<b>OUTPUT TO MAIN PANEL IN BACKUP OPERATION</b>	
Nominal AC output voltage [V]	120 / 240
Imbalance compensation in backup operation [VA]	5000
Split phase imbalance output current [A]	41.7
Maximum AC output current [A]	126.8
<b>INPUT FROM INVERTER</b>	
Maximum number of inverter inputs	4
Maximum AC power [W]	7600
Maximum continuous input current @240V [A]	31.7
Maximum inverter input AC circuit breaker [A]	40 (optional)
Upgradability	Up to 4 x 40A circuit breaker
<b>GENERATOR</b>	
Maximum AC power [W]	15000
Maximum continuous input current [A]	63
Auto generator start	Yes
<b>GENERAL</b>	
Dimensions (HxWxD) [in / mm]	27.8 x 17.7 x 5.9 / 706 x 450 x 151
Weight [lb / kg]	69.4 / 31.5
Energy meter accuracy	1%
Communication interfaces	RS485, CAN, Dry Contact
Cooling	Fan
Warranty	12 years <sup>⑤</sup>
<b>STANDARD</b>	
Safety	UL1741, CSA 22.2 NO.107
Emissions	FCC part 15 Class B
<b>INSTALLATION SPECIFICATIONS</b>	
Altitude [ft / m]	9843 / 3000 MAX
Operating temperature range [°F / °C]	-13 to +140 / -25 to +60
Protection class	NEMA 3R
Typical noise emission [dBA]	< 50

① To be released in Q4 2022. ② To be released in Q2 2023. ③ To be released in Q3 2023. ④ Test Conditions: 90% DOD, 0.2C charge & discharge at + 25 °C.

⑤ Maximum Charge/Discharge power may be variant with different inverter models.

⑥ The 12-year warranty is valid only in North America.

\*V1.3 Information may be subject to change without notice. 650.00024.00