

PowerQ

ALL-IN-ONE RESIDENTIAL ENERGY STORAGE SYSTEM

PowerQ is the latest generation of an integrated residential energy storage system. With up to 80kWh total backup capacity, PowerQ is designed to meet various backup scenarios via modular system design and scalability.



11.4kW/20kWh

3.8kW ...>>> 11.4kW



FLEXIBILITY

Modular design to meet various backup scenarios.



EASY INSTALLATION

No cables required between the inverter and batteries.



TYPE 4X

Engineered to last with maximum flexibility. Suitable for outdoor installation.



REMOTE MONITORING

Monitor your system remotely via smartphone App or Web portal.

TECHNICAL SPECIFICATIONS

MODEL	AIO-AC1-3.8-US	AIO-AC1-5.7-US	AIO-AC1-7.6-US	AIO-AC1-9.6-US	AIO-AC1-11.4-US
PV INPUT (ONLY FOR HYBRID)					
Max. Solar STC Power [W]	7600	11400	15200	19200	22800
Max. Input Voltage [V]			600		
Start-up Input Voltage [V]			100		
Rated Input Voltage [V]			380		
MPPT Operating Voltage Range [V]			80 ~ 550		
MPPT Operating Voltage Range [V] (Full Load)	204 ~ 500	204 ~ 500	271 ~ 500	257 ~ 500	305 ~ 500
Max. Input Current [A]	28 / 14	28 / 14	28 / 14	28 / 14 / 14	28 / 14 / 14
Max. Short-circuit Current [A]	44 / 22	44 / 22	44 / 22	44 / 22 / 22	44 / 22 / 22
No. of Independent MPP Trackers	2	2	2	3	3
No. of Strings per MPP Tracker	2 / 1	2 / 1	2 / 1	2 / 1 / 1	2 / 1 / 1
BATTERY CONNECTION					
Battery Type			LFP (LiFePO ₄)		
Battery Voltage Range [V]			85 ~ 460		
Rated Battery Voltage [V]			360		
Max. Continuous Charge / Discharge Current [A]			50		
Max. Continuous Charge / Discharge Power [W](for H1)	5700/4180	8550/6270	11400/8360	14400/10560	17100/12540
(for AC1)	3800/4180	5700/6270	7600/8360	9600/10560	11400/12540
Max. Discharge Current (60s) [A]			60		
AC INPUT AND OUTPUT (GRID)					
Max. AC Input Power [VA]	3800	5700	7600	9600	11400
Max. AC Input Current [A]	16	24	32	40	48
Input Voltage Range [V]			211 ~ 264		
Input Frequency Range [Hz]			57 ~ 63		
Rated Output Power [W]	3800	5700	7600	9600	11400
Max. Output Apparent Power [VA]	3800	5700	7600	9600	11400
Rated Output Current [A]	15.8	23.8	31.7	40.0	47.5
Max. Output Current [A]	15.8	23.8	31.7	40.0	47.5
Rated Grid Voltage [V]			240 (211 ~ 264)		
Rated Grid Frequency [Hz]			57 ~ 63		
Power Factor		>0.99 (Adjustable from 0.8 leading to 0.8 lagging)			
THDi [%]		<3 @rated power			
AC OUTPUT (BACKUP)					
Rated Output Power [W]			11400		
Rated output power @different batteries [W]			5760 @H2 Battery, 8640 @H3 Battery, 11400 @H4 Battery, 11400 @H5 Battery, 11400 @H6 Battery*, 11400 @H7 Battery*		
Max. Output Apparent Power [VA]			12540		
Peak Output Apparent Power (10min) [VA]			13680		
Peak Output Apparent Power (60s) [VA]			15390		
Max. Continuous Output Current [A]			52.3		
LRA [A]			160		
Rated Output Voltage [V]			120 / 240		
Rated Output Frequency [Hz]			60		
Load Start Capacity [A] LRA			50 @H2 Battery, 75 @H3 Battery, 110 @H4 Battery, 160 @H5 Battery, 160 @H6 Battery*, 160 @H7 Battery*		
THDv (Linear Load) [%]			<3 @rated power		
Imbalance for Split-Phase Loads [%]			100		
EFFICIENCY					
CEC Efficiency [%]			97.00		
Max. Efficiency [%]			97.60		
Max. Battery Discharge Efficiency (BAT to AC) (@full load, 340Vdc) [%]			97.40		
PROTECTION					
Insulation Monitoring			YES		
Residual Current Monitoring			YES		
DC Reverse Polarity Protection			YES		
Anti-islanding Protection			YES		
AC Short-circuit Protection			YES		
AC Overcurrent / Overvoltage Protection			YES		
DC Switch			YES		
SPD			DC: Type II / AC: Type II		
AFCI			YES		
GENERAL DATA					
Topology			Transformerless		
Cooling Method			Natural convection		
Noise Emission [dB]			<35		
Max. Operating Altitude [ft / m]			9843 / 3000 (Derating above 6560 / 2000)		
Operating Temperature [°F / °C] (North America)			-13 ~ +131 / -25 ~ +55 (Derating above 104 / 40)		
Operating Temperature [°F / °C] (Non-North America)			14 ~ +131 / 10 ~ +55 (Derating above 104 / 40)		
Humidity [%]			0 ~ 100 (No Condensation)		
Protection Degree			Type 4X		
Standby consumption [W]			<25		
Monitoring Module			WiFi, LAN		
Communication			CAN2.0, RS485, Meter, CT, ISO alarm, SUNSPEC		
Display			LED, App, Website		
Warranty [Year]			12.5		
STANDARD COMPLIANCE (MORE AVAILABLE UPON REQUEST)					
Safety	UL1741 SA, UL 1741 SB, UL1741 CRD, HECO SRD-V2.0, CSA C22.2 No.107.1-16, UL1998, UL1699B, Rule 21, ANSI/CAN/UL9540				
EMC	FCC part15 CLASS B				
Grid Regulation	IEEE1547-2018, IEEE1547a-2020, IEEE1547.1-2020				

* The 24 kWh and 28 kWh configurations of this model have successfully passed UL 9540A Unit-Level testing, allowing them to exceed the 20 kWh configuration limit.
For specific maximum battery capacity restrictions regarding residential energy storage systems, please refer to local fire safety regulations.

MODEL	AIO-US-EQL2	AIO-US-EQL3	AIO-US-EQL4	AIO-US-EQL5	AIO-US-EQL6	AIO-US-EQL7
MECHANICAL CHARACTERISTICS						
Dimensions (W*H*D) [mm]	570*848*380	570*986*380	570*1124*380	570*1262*380	570*1400*380	570*1538*380
Dimensions (W*H*D) [inch]	22.4*33.4*15.0	22.4*38.8*15.0	22.4*44.3*15.0	22.4*49.7*15.0	22.4*55.1*15.0	22.4*60.6*15.0
Weight [kg/lbs]	128.3 / 282.9	165.2 / 364.2	202.1 / 445.6	239.0 / 526.9	275.9 / 608.3	312.8 / 689.6