

WHEN DESIGN  
MEETS INNOVATION.

The All New  
AIO2 from Soltaro



All-in-One ESS - 2ND Generation

Expandable Storage

Australian Designed & Engineered

Available in Hybrid or AC Coupled  
Inverter Options

Wall Mounted

[WWW.SOLTARO.COM](http://WWW.SOLTARO.COM)



10 Year Warranty or  
10,000  
Charging Cycles



Local &  
Remote  
Monitoring



Plug and Play



Expandable  
Storage



Expert  
Engineering



Clean Energy

CONTACT US

+44 1909 807 577 **EUR** / +61 1300 276 582 **AUS** / +27 11 318 6583 **SA**



MODEL NUMBER	AIO2-INS-5000/AIO2-BTLV-5KWH	AIO2-INS-5000/AIO2-BTLV-10KWH	
<b>PV STRING INPUT (DC)</b>			
Max. DC Input Power (W)	7500W	7500W	
Max. DC Input Voltage (V)	600V	600V	
MPPT Voltage Range (V)	125V~500V	125V~500V	
Max. Input Current (A)	12A/12A	12A/12A	
Max. Short Circuit Current (A)	15A/15A	15A/15A	
No. of MPP Trackers	2	2	
Strings per MPP Tracker	1	1	
Galvanic Isolation for PV Modules	Transformerless	Transformerless	
Max. Backfeed Current to PV Array	0A	0A	
<b>BATTERY INPUT SIDE**</b>			
Battery Capacity	LiFePO4 5KWH/10KWH (Maximum 3 modules of the same type)		
Useable Energy	4.5 kWh	9kWh	
Nominal Battery Voltage	51.2V	51.2V	
Battery Voltage Range	40-58.4V	40-58.4V	
Galvanic Isolation for Battery	YES	YES	
Max. Charge Current*1	50A xN (Max 100A)	100A	
Max. Charge Power	2.56KW	5.12kKW	
Max. Discharge Current*1	100A	100A	
Max. Discharge Power	5.12KW	5.12KW	
Rated DC Power	2.56KW Charge, 5.12KW Discharge		
Max Short Circuit Current	2500A	2500A	
Protection	Over Voltage, Less Voltage, Over Current, Short Circuit, Over Temperature Lithium Ion: 0~90% DOD Adjustable		
<b>GRID AC OUTPUT (ON-GRID)</b>			
Nominal Apparent Power Output to Utility Grid (VA)*2	5000VA	5000VA	
Nominal Output Voltage (V)	190 - 260 (V)	190 - 260 (V)	
Nominal Output Frequency (HZ)	50/60 HZ	50/60 HZ	
Max. AC Current Output to Utility Grid (A)	21.7 A	21.7 A	
Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)		
Output THDI (@Nominal Output)	<3%	<3%	
<b>EPS AC OUTPUT DATA (BACK-UP)</b>			
Max. Output Apparent Power (VA)	5000VA	5000VA	
Max. Output Current (A)	21.7 A	21.7 A	
Nominal Output Voltage (V)	220V	220V	
Nominal Output Frequency (HZ)	50/60 (±2%)	50/60 (±2%)	
Output THDv (@Linear Load)	<3%	<3%	
Power Factor	0.8 inductive to 0.8 capacitive	0.8 inductive to 0.8 capacitive	
<b>EFFICIENCY</b>			
MPPT Efficiency	99.9%	99.9%	
Euro Efficiency	97.0%	97.0%	
Max. Efficiency	97.5%	97.5%	
Max. Battery to Load Efficiency	95%	95%	
Topology	High Frequency Isolation	High Frequency Isolation	
<b>PROTECTION</b>			
Anti-islanding Protection	YES	YES	
PV String Input Reverse Polarity Protection	YES	YES	
Insulation Resistance Detection	YES	YES	
Residual Current Monitoring Unit	YES	YES	
Output Over Current Protection	YES	YES	
Output Short Protection	YES	YES	
Output Over Voltage Protection	YES	YES	
<b>GENERAL DATA</b>			
DC Switch	Standard	Inverter PV Switch optional	Standard
Dimensions (W*H*D) (mm)	540x430x210mm	540x630x210mm	540x680x210mm
Net Weight (KG)	45KG	34kg	85KG
Protection Degree	IP 65	IP 65	IP 65
Mounting Information	Wall Mount	Wall Mount	Wall Mount
Operating Temperature Range	0-45°C charge / -10°C - 50°C discharge	-10°C ~ + 60°C	0-45°C charge / -10°C - 50°C discharge
Noise Emission (typical) (dB)	<25dB	<40dB	<25dB
User Interface	APP		APP
Communication with BMS*3	RS 485 & CAN		RS 485 & CAN
Communication with Meter	RS 485		RS 485
Communication with Portal	Wi-Fi (Ethernet option)		Wi-Fi (Ethernet option)
Relative Humidity (%)	95% no condensation	95% no condensation	95% no condensation
Site Altitude (m)	<2000m		<2000m
Cooling Concept	Natural Convection	Natural Convection	Natural Convection
Protective Class		I	
Over Voltage Category		III (mains) II (PV)	
<b>CERTIFICATIONS &amp; STANDARDS</b>			
Grid Regulation	EN50549, VDE-AR-N 4105, VDE0126-1-1, AS4777.2, G83/2, G99, CE10-21, NRS 097-2-1, En50438		
Safety Regulation	IEC/EN62109-1&2, IEC62040-1		
EMC Standard	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-4.16, EN6100-4.18, EN6100-4.29		
Warranty	10 Years Standard Warranty		

\*1 N is the number of battery modules  
\*3 21.7A for AS4777.2  
\*5 The standard configuration is CAN  
Manufactured in China

\*2 4600 for VDE 0126-1-1 & VDE-AR-N4105, 4950 for AS4777.2, 4050 for CE10-21  
\*4 Can be reached only if PV and battery power is enough  
\*\* Soltaro AIO2-INS-5000 is compatible with the following battery chemistries: LiFePO4