

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



10 Year Warranty or
10,000
Charging Cycles



Local &
Remote
Monitoring



Plug and Play



Expandable
Storage



Expert
Engineering



Clean Energy

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MODEL NUMBER	AIO2-INS-3680/AIO2-BTLV-5KWH	AIO2-INS-5000/AIO2-BTLV-5KWH	AIO2-INS-5000/AIO2-BTLV-10KWH
PV STRING INPUT (DC)			
Max. DC Input Power (W)	5520KW	7500W	7500W
Max. DC Input Voltage (V)	600V	600V	600V
MPPT Voltage Range (V)	125V~500V	125V~500V	125V~500V
Max. Input Current (A)	12A/12A	12A/12A	12A/12A
Max. Short Circuit Current (A)	15A/15A	15A/15A	15A/15A
No. of MPP Trackers	2	2	2
Strings per MPP Tracker	1	1	1
Galvanic Isolation for PV Modules	Transformerless	Transformerless	Transformerless
Max. Backfeed Current to PV Array	0A	0A	0A

BATTERY INPUT SIDE**			
Battery Capacity	LiFePO4 5KWH/10KWH (Maximum 3 modules of the same type)		
Useable Energy	4.5 kWh	4.5 kWh	9kWh
Nominal Battery Voltage	51.2V	51.2V	51.2V
Battery Voltage Range	40-58.4V	40-58.4V	40-58.4V
Galvanic Isolation for Battery	YES	YES	YES
Max. Charge Current *1 *6	50AxN (Max 80A)	50A xN (Max 100A)	100A
Max. Charge Power	2.56KWxN (Max 3.68KW)	2.56KWxN (Max 5KW)	5.12kW
Max. Discharge Current *1 *6	80A	100A	100A
Max. Discharge Power	3.68KW	5.12KW	5.12KW
Rated DC Power (per battery)	2.56KW Charge, 3.68KW Discharge	2.56KW Charge, 5.12KW Discharge	5.12KW Charge & Discharge
Max Short Circuit Current (per battery)	2500A	2500A	2500A
Protection	Over Voltage, Less Voltage, Over Current, Short Circuit, Over Temperature Lithium Ion: 0~90% DOD Adjustable		

GRID AC OUTPUT (ON-GRID)			
Nominal Apparent Power Output to Utility Grid (VA)*2	3680VA	5000VA	5000VA
Nominal Output Voltage (V)	190 - 260 (V)	190 - 260 (V)	190 - 260 (V)
Nominal Output Frequency (HZ)	50/60 HZ	50/60 HZ	50/60 HZ
Max. AC Current Output to Utility Grid (A)	16A	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%	<3%

EPS AC OUTPUT DATA (BACK-UP)			
Max. Output Apparent Power (VA)	3680VA	5000VA	5000VA
Max. Output Current (A)	16A	21.7 A	21.7 A
Nominal Output Voltage (V)	220V	50/60 (±2%)	50/60 (±2%)
Output THDv (@Linear Load)	<3%	<3%	<3%
Power Factor	0.8 inductive to 0.8 capacitive	0.8 inductive to 0.8 capacitive	0.8 inductive to 0.8 capacitive

EFFICIENCY			
MPPT Efficiency	99.9%	99.9%	99.9%
Euro Efficiency	97.0%	97.0%	97.0%
Max. Efficiency	97.5%	97.5%	97.5%
Max. Battery to Load Efficiency	95%	95%	95%
Topology	High Frequency Isolation	High Frequency Isolation	High Frequency Isolation

PROTECTION			
Anti-islanding Protection	YES	YES	YES
PV String Input Reverse Polarity Protection	YES	YES	YES
Insulation Resistance Detection	YES	YES	YES
Residual Current Monitoring Unit	YES	YES	YES
Output Over Current Protection	YES	YES	YES
Output Short Protection	YES	YES	YES
Output Over Voltage Protection	YES	YES	YES

GENERAL DATA	3.68KW INVERTER	5KWH BATTERY	5KW INVERTER	10KWH BATTERY
DC Switch	Inverter PV Switch optional	Standard	Inverter PV Switch optional	Standard
Dimensions (W*H*D) (mm)	540x630x210mm	540x430x210mm	540x630x210mm	540x680x210mm
Net Weight (KG)	29KG	45KG	34kg	85KG
Protection Degree	IP65	IP 65	IP 65	IP 65
Mounting Information	Wall Mount	Wall Mount	Wall Mount	Wall Mount
Operating Temperature Range	-10°C ~ + 60°C	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)	<40dB	<25dB	<40dB	<25dB
User Interface	APP			
Communication with BMS*3	RS 485 & CAN			
Communication with Meter	RS 485			
Communication with Portal	Wi-Fi (Ethernet option)			
Relative Humidity (%)	95% no condensation			
Site Altitude (m)	<2000m			
Cooling Concept	Natural Convection			
Protective Class	I			
Over Voltage Category	III (mains) II (PV)			

CERTIFICATIONS & STANDARDS	
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/ 5 Years Off-Grid Usage

*1 N is the number of battery modules
 *3 217A for AS4777.2
 *5 The standard configuration is CAN
 ** Soltaro AIO2-INS-5000 is compatible with the following battery chemistries: LiFePO4

*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
 *6 This value may be reduced by high/low ambient temperatures
 Manufactured in China