

When design meets innovation

The All New AI02 from SOLTARO



All-One ESS-2ND Generation
Australian Designed & Engineered
Wall Mounted

Expandable Storage
Available in Hybrid or AC Coupled
Inverter Options

WWW.SOLTARO.COM



10 Year Warranty or
6000
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	AI02-INSP-3680/AI02-BTLVP-5KWH	AI02-INSP-5000/AI02-BTLVP-5KWH	AI02-INSP-5000/AI02-BTLVP-11KWH	
PV STRING INPUT (DC)				
Max. DC Input Power (W)	5.4kW	7.5kW	7.5kW	
Max. DC Input Voltage(V)	600V	600V	600V	
MPPT Voltage Range (V)	100V-550V	100V-550V	100V-550V	
Start-up Voltage (V)	100V	100V	100V	
Max. Input Current (A)	16A	16A	16A	
Max. Short Circuit Current (A)	24A	24A	24A	
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 5.12kWH/11.77kWH			
Useable Energy	4.61kWh	4.61kWh	10.59kWH	
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*5	50A xN (Max 80A)	50A xN (Max 100A)	100A	
Max. Charge Power	2.56kWxN(Max3.68kW)	2.56kWxN(Max 5kW)	5.12kW	
Max. Discharge Current*1*5	80A	100A	100A	
Max. Discharge Power	3.68kW	5.12kW	5.12kW	
Rated DC Power	2.56kW Charge, 3.68kW Discharge	2.56kW Charge, 5.12kW Discharge	5.12kW Charge & Discharge	
Max Short Circuit Current	330A	330A	330A	
Protection	Over Voltage, Less Voltage, Over Current,Short Circuit, Over Temperature,Under temperature Lithium Ion: 0~90% DOD Adjustable			
GRID AC OUTPUT(ON-GRID)				
Nominal Apparent Power Output to Utility Grid (VA)*2	3.68KVA	5KVA	5KVA	
Nominal Output Voltage (V)	230V			
Nominal Output Frequency (HZ)	50Hz/60Hz			
Max. AC Current Output to Utility Grid (A)*3	16A	22.7A	22.7A	
Output Power Factor	(Adjustable from 0.8 leading to 0.8 lagging)			
Output THDI (@Nominal Output)	<3%	<3%	<3%	
EPS AC OUTPUT DATA(BACK-UP)				
Rated output power	3.68KVA	5KVA	5KVA	
Max. Output Current(A)*3	16A	22.7A	22.7A	
Rated output voltage, frequency	230V,50Hz			
THDv (@ rated power)	<3%	<3%	<3%	
Switch Time	10ms (typical)			
EFFICIENCY				
MPPT Efficiency	99.9%	99.9%	99.9%	
Euro Efficiency	97.2%	97.2%	97.2%	
Max.Efficiency	97.5%	97.5%	97.5%	
Max. Battery to Load Efficiency	95%	95%	95%	
Topology	Non-isolated	Non-isolated	Non-isolated	
PROTECTION				
Anti-islanding Protection (Frequency Shift: Clause4.3 of AS/NZS 4777.2: 2020)	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	
I-V curve scanning	YES	YES	YES	
Ground Fault Detection	YES	YES	YES	
Battery soft start protection	YES	YES	YES	
GENERAL DATA				
	3.68KW INVERTER	5KWH BATTERY	5KW INVERTER	11KWH BATTERY
DC Switch	Standard	Standard	Standard	Standard
Dimensions (W*H*D) (mm)	540*430*222	540*460*222	540*430*222	540*680*222
Net Weight (KG)	24	51	24	92
Protection Degree	IP65	IP65	IP65	IP65
Mounting Information	Wall Mount	Wall Mount	Wall Mount	Wall Mount
Operating Temperature Range	-30~60°C	0-50°C charge/-20°C-50°C discharge	-30~60°C	0-50°Ccharge/-20°C-50°C discharge
Noise Emission (typical) (dB)	<35dB			
User Interface	LCD&APP			
Communication with BMS*4	CAN&RS485			
Communication with Meter	RS 485			
Communication with Portal	Wi-Fi/ GPRS			
Relative Humidity (%)	95% no condensation			
Site Altitude (m)	<2000m			
Cooling Concept	Natural Convection			
Protective Class	I			
Over Voltage Category	DC type II /AC type II			
CERTIFICATIONS & STANDARDS				
Grid Regulation	EN50549,IEC61727/62116,G98/G99,VDE4105,C10/C11,NRS097-2-1,CEI0-21,UNE217001,UNE217002, RD647,NTS,BIS,AS4777.2			
Safety Regulation	IEC/EN 62109-1/2,			
EMC Standard	IEC/EN 61000-1/3,			
Warranty	10 Years Standard Warranty/5Years Off-Grid Usage			

*1 N is the number of battery modules

*2 4600 for VDE-AR-N4105, 4050 for CE10-21

*3 not exceed 21.7 A for more than 15 s.(AS NZS 4777.2-2020)

*4 The standard configuration is CAN

*5 This value may be reduced by high/low ambient temperatures

** Soltaro AI02-INSP-5000 is compatible with the following battery chemistries: LiFePO4 Manufactured in China

MODEL NUMBER**AI02-INSP-6000/AI02-BTLVP-11KWH****PV STRING INPUT (DC)**

Max. DC Input Power (w)	9kW
Max. DC Input Voltage (V)	600V
MPPT Voltage Range (V)	100~550V
Start-up Voltage (V)	100V
Max. Input Current (A)	16A
Max. Short Circuit Current (A)	24A
No.of MPPT Trackers	2
Strings per MPPT Tracker	1
Galvanic Isolation for PV Modules	Transformerless
Max. Backfeed Current to PV Array	0A

BATTERY INPUT SIDE

Battery Capacity	LiFeP04 11.77kWH
Useable Energy	10.59kWh
Nominal Battery Voltage	51.2V
Battery Voltage Range	40-58.4V
Galvanic Isolation for Battery	YES
Max. Charge Current ^{*1}	100A
Max. Charge Power	5.12kW
Max. Discharge Current ^{*1}	100A
Max. Discharge Power	5.12kW
Rated DC Power	5.12kW Charge & Discharge
Max Short Circuit Current	330A
Protection	Over Voltage, Less Voltage, Over Current,Short Circuit, Over Temperature,Under temperature Lithium Lon:0~90% DOD Adjustable

GRID AC OUTPUT (ON-GRID)

Nominal Apparent Power Output to Utility Grid (VA) ^{*2}	6KVA
Nominal Output Voltage (V)	230V
Nominal Output Frequency (HZ)	50Hz/60Hz
Max. AC Current Output to Utility Grid (A) ^{*3}	27.3A
Output Power Factor	Adjustable from 0.8 leading to 0.8 lagging
Output THDI (@Nominal Output)	<3%

EPS AC OUTPUT DATA (BACK-UP)

Rated Output Power	6KVA
Max. Output Current (A) ^{*3}	27.3A
Rated Output Voltage, Frequency	230V,50Hz
THDv (@ rated power)	<3%
Switch Time	10ms (typical)

EFFICIENCY

MPPT Efficiency	99.9%
Euro Efficiency	97.2%
Max.Efficiency	97.5%
Max. Battery to Load Efficiency	95%
Topology	Non-isolated

PROTECTION

Anti-Islanding Protection	YES
PV String Input Reverse Polarity Protection	YES
Insulation Resistance Detection	YES
Residual Current Monitoring Unit	YES
Output Over Current Protection	YES
Output Short Protection	YES
Output Over Voltage Protection	YES
I-V Curve Scanning	YES
Ground Fault Detection	YES
Battery Soft Start Protection	YES

GENERAL DATA**6KW INVERTER**

DC Switch	Standard
Dimensions (W*H*D)(mm)	540*430*222
Net Weight (KG)	24
Protection Degree	IP65
Mounting Information	Wall Mount
Operating Temperature Range	-30~60°C
Noise Emission (typical) [dB]	<35dB
User Interface	LCD&APP
Communication with BMS ^{*4}	CAN&RS485
Communication with Meter	RS485
Communication with Portal	Wi-Fi/GPRS
Relative Humidity (%)	95% No Condensation
Site Altitude (m)	<2000m
Cooling Concept	Natural Convection
Protective Class	I
Over Voltage Category	DC Type II/AC Type II

GENERAL DATA

Grid Regulation	EN50549,IEC61727/62116,G99,VDE4105,C10/C11,NRS097-2-1,CE10-21,UNE217001,UNE217002, RD647,NTS,BIS,AS4777.2
Safety Regulation	IEC/EN 62109-1/2
EMC Standard	IEC/EN 62109-1/2
Warranty	10 Years Standard Warranty/5Years Off-Grid Usage

*1 This value may be reduced by high/low ambient temperatures

*2 4600 for VDE-AR-N4105,4050 for CE10-21

*3 Not exceed 21.7A for more than 15s.(AS NZS 4777.2-2020)

*4 The standard configuration is CAN

**Soltaro AI02-INSP-6000 is compatible with the following battery chemistries: LiFeP04 Manufactured in China