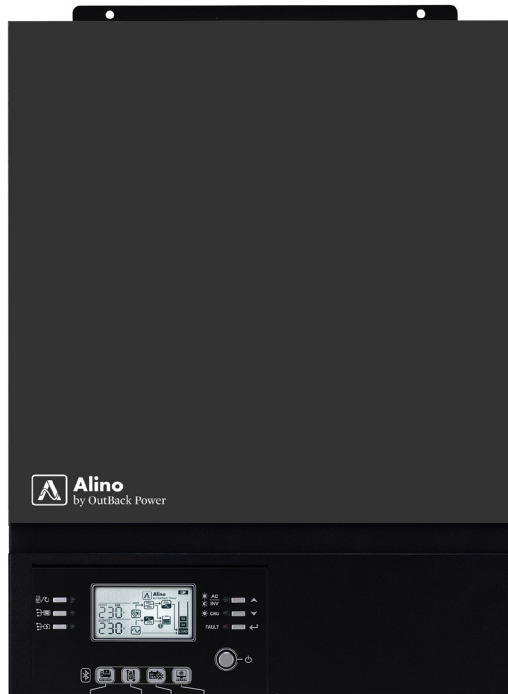
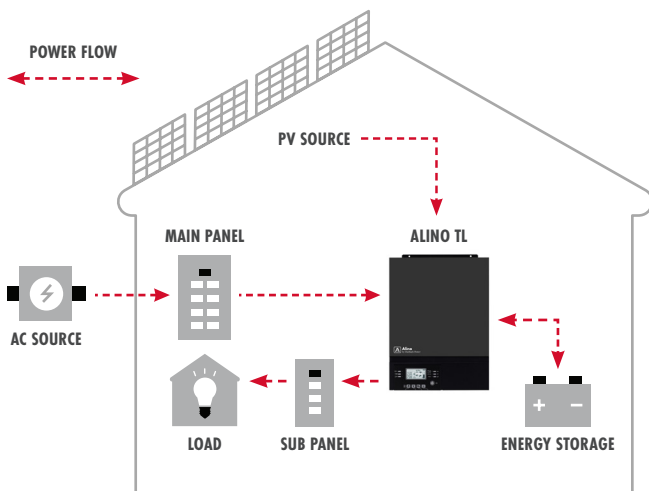


Alino TL

Solar Power Conditioning Unit



- Available as ATL3024E (24VDC 3000W) and ATL5048E (48VDC 5000W), 50/60Hz
- Built-in 80A, 450VDC solar charge controller; can drive AC loads off of PV array
- Max PV array 6500W at 48V and 5200W at 24V
- Rugged (-10 to 50°C), proven design with twin replaceable fans
- Battery optional design provides daytime PV driven loads
- Full programmable battery charger for lead-acid batteries
- CE Mark, certified to IEC62109-1,-2



The Alino TL is a compact, lightweight off-grid inverter that is ideal for rugged installations that require OutBack Power reliability.

The Alino TL by OutBack Power offers a complete inverter and a solar charge controller in one attractive, compact package. This inverter is certified to IEC62109-1 and -2 and carries the CE mark. The Alino TL family can work with a wide variety of batteries, from sealed VRLA (AGM and Gel) to flooded lead-acid. This solar power product has the ability to start with a small battery bank and add batteries later, flexibility that is valued in international markets. The Alino TL product can also be used as a backup power source in applications where no solar panels are available, and comes with numerous modes that can help the user optimize its use for the market. A 24-hour timer helps to switch the modes.

Alino TL Specifications

Models:	ATL3024E	ATL5048E
Parameters		
Type	Single-phase transformerless solar charge controller and inverter/charger	Single-phase transformerless solar charge controller and inverter/charger
Nominal DC Input Voltage	24VDC	48VDC
Maximum Continuous Power Rating	3000W (pf of 1.0)	5000W (pf of 1.0)
Surge Maximum Power Rating (at 5 sec)	6000VA	10000VA
Nominal Output	230VAC ± 5% 50/60Hz (auto-sensing)	230VAC ± 5% 50/60Hz (auto-sensing)
Electrical—Solar		
Charger Technology	MPPT	MPPT
PV Charge Controller Rating	4000W	5000W
Battery Input Range	24 to 33VDC	46 to 63VDC
Absolute Maximum VOC	450VDC @ 25°C 500VDC @ minimum temperature	450VDC @ 25°C 500VDC @ minimum temperature
MPPT Voltage Limit	120 to 450VDC	120 to 450VDC
Panel High Voltage Cut-Off	>450VDC	>450VDC
Recommended PV Panel	72 and 60 cells	72 and 60 cells
Recommended PV Panel Configuration	5 to 10 panels per string and up to 2 strings in parallel	5 to 10 panels per string and up to 2 strings in parallel
Maximum Battery Charging Current	60ADC	80ADC
MPPT Tracking Efficiency	>99.5%	>99.5%
Charging Modes	Four modes (bulk/absorption/float/equalization)	Four modes (bulk/absorption/float/equalization)
Battery Type Selection	Default flooded or sealed maintenance-free (VRLA/GEL/AGM)	Default flooded or sealed maintenance-free (VRLA/GEL/AGM)
Battery High Cut-Off	>33VDC	>63VDC
Electrical—AC Source		
Input Voltage Range	170 to 280VAC	170 to 280VAC
Input Frequency Range	40 to 65Hz	40 to 65Hz
Frequency (Nominal)	50Hz	50Hz
Battery Charging Current @ Nominal AC Input	60ADC	60ADC
Transfer Time (AC Source to Inverter)	<15ms for electronic loads and <20ms for heavy loads	<15ms for electronic loads and <20ms for heavy loads
Electrical—Inverter		
Output Voltage Regulation	230VAC	230VAC
Frequency	50Hz	50Hz
Output Wave Form	Pure sinewave	Pure sinewave
Load Regulation	±2%	±2%
Peak Efficiency	93%	93%
THD (Linear Load)	<5% and <10% non-linear load when Vbat >25V	<5% and <10% non-linear load at Vbat >50VDC
Electrical—PCU		
Mode of Operation	Solar/AC/battery, solar/battery/AC, AC/solar/battery, solar only, UPS, bypass	Solar/AC/battery, solar/battery/AC, AC/solar/battery, solar only, UPS, bypass
Self Consumption	<40W	<50W
Mechanical		
Dimensions L × W × D (mm/in)	400 × 300 × 115 / 4.5 × 11.8 × 17.3	400 × 300 × 115 / 4.5 × 11.8 × 17.3
Net Weight (kg/lb)	9/19.8	10/22
Communications Interface	USB / RS232 / RS485 / Bluetooth / dry contact	USB / RS232 / RS485 / Bluetooth / dry contact
Environmental		
Operating Temperature	-10° to 50°C	-10° to 50°C
Relative Humidity Range (Non-Condensing)	5 to 95%	5 to 95%
Storage Temperature	-15° to 60°C	-15° to 60°C
Altitude	1,500m above sea level	1,500m above sea level
Operating Environment	Indoor/protected. IP21.	Indoor/protected. IP21.
Charger Default Settings		
Bulk Charging Voltage	29.2VDC flooded battery 28.2VDC AGM/Gel battery	58.4VDC flooded battery 56.4VDC AGM/Gel battery
Float Charging Voltage	27.0VDC	54.0VDC



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