



BLUETTI AC300 Plus B300 Backup System User Manual

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BLUETTI AC300 Plus B300 Backup System



Declaration

1. It must be installed by an licensed electrician,because improper operation,incorrectly install might cause the serious damage of personal safety and property.BLUETTI will not be responsible for the direct or indirect responsibilities arising from the installation.
2. This document is only for reference. Please consult the local licensed electrician for details.

How to make a backup system with AC300+B300 for 120 Volt power system

“Single Phase” is set as the default machine type if you are operating a single AC300+B300. This is the only and correct setting if a single AC300+B300 is being used.

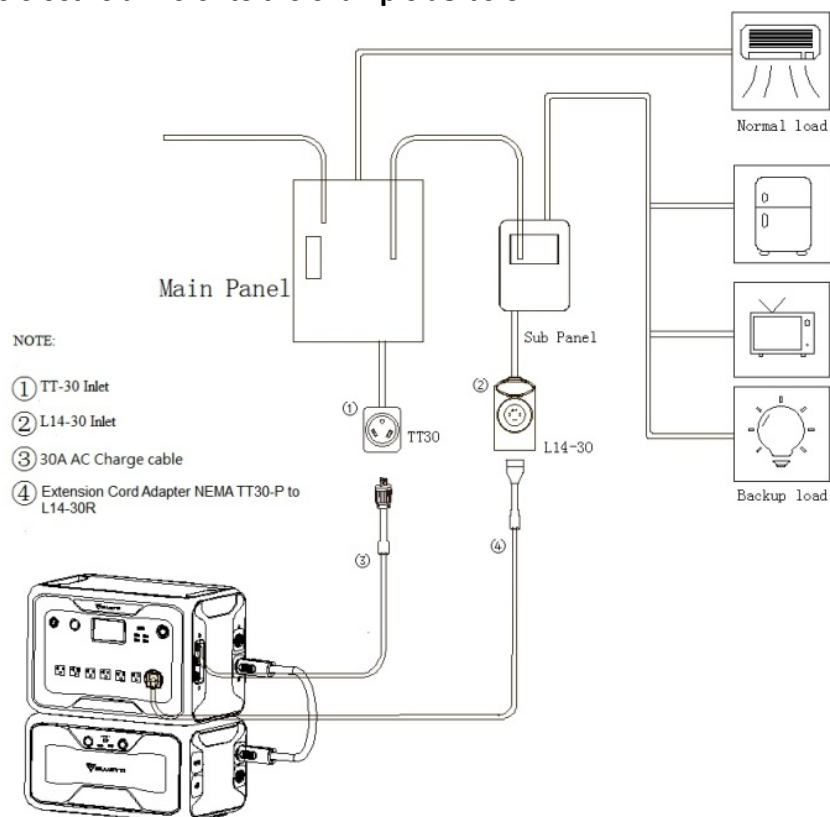
Firstly please purchase a manual transfer switch and the accessories as following:

NO.	Accessories	Picture
1	Transfer switch : Reliance 310A Pro/Tran2	1
2	Extension Cord Adapter NEMA TT30-P to L14-30R	1
3	30A AC Charging cable	1

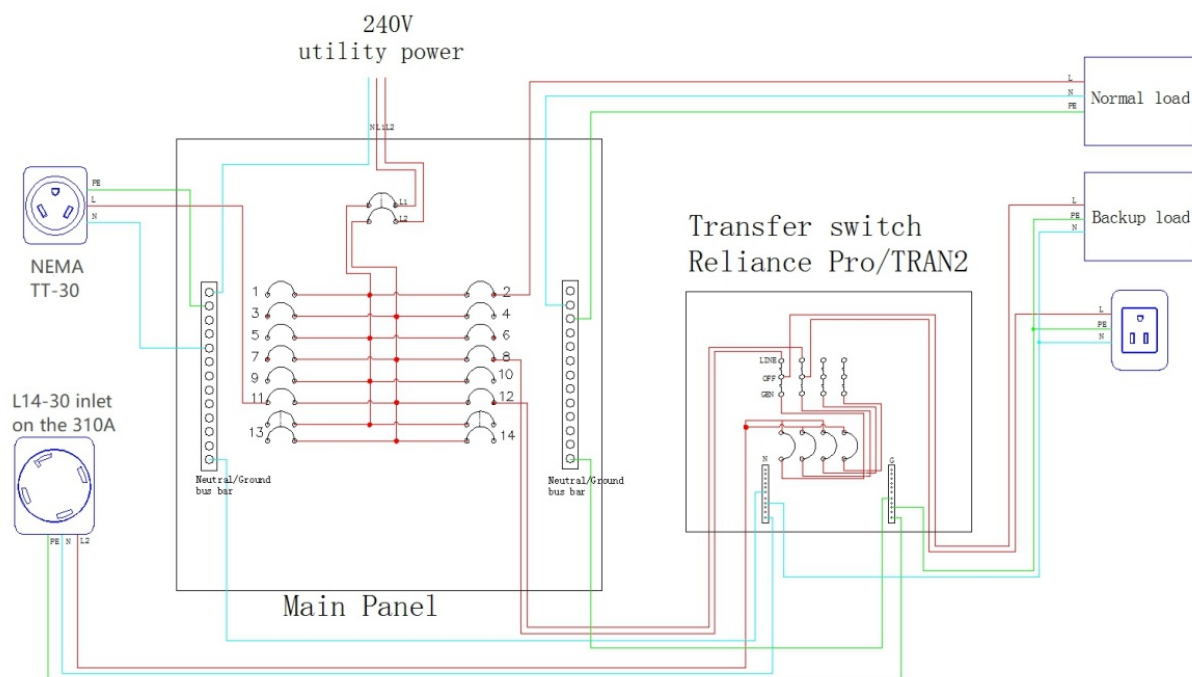
NOTE: Please read the Reliance 310A Pro/Tran2 manuals before installing.

<http://www.reliancecontrols.com/Documents/PT2%20Loadside%20Installation%20and%20Operating%20Ins>

Then installed by the electrician refer to the example as below:



How to make a backup system with AC300+B300



NOTE

1. It must be installed by an licensed electrician
2. Please check the voltage of outlets before plugging in the household appliances
3. This is the electrical schematic, the actual wiring diagram should refer to Reliance PRO/TRAN2 installation instructions

How to make a backup system with AC300+B300 for 240 Volt power system

If you purchased two AC300+B300 to get the back-up power for household as 240 Volt Circuits. Firstly, please purchase a manual transfer switch and the accessories as following:

NO.	Parts	Quantity
1.	Transfer switch : Reliance 310A Pro/Tran2	1
2.	AC300 split-phase output cable from BLUETTI	1
3.	NEMA L14-30R outlet	1
4.	BLUETTI 30A-AC-charging-cable	1

Secondly, please read the manuals before installing.

<http://www.reliancecontrols.com/Documents/PT2%20Loadside%20Installation%20and%20Operating%20Instructions.pdf>

Note:

1. Please disconnect the AC charging cable for both AC300+B300 units while binding into split phase box.
2. Certificated electrician is required to build the split phase system to connect the main panel and sub Panel.
3. The "Machine Type" setting on screen.

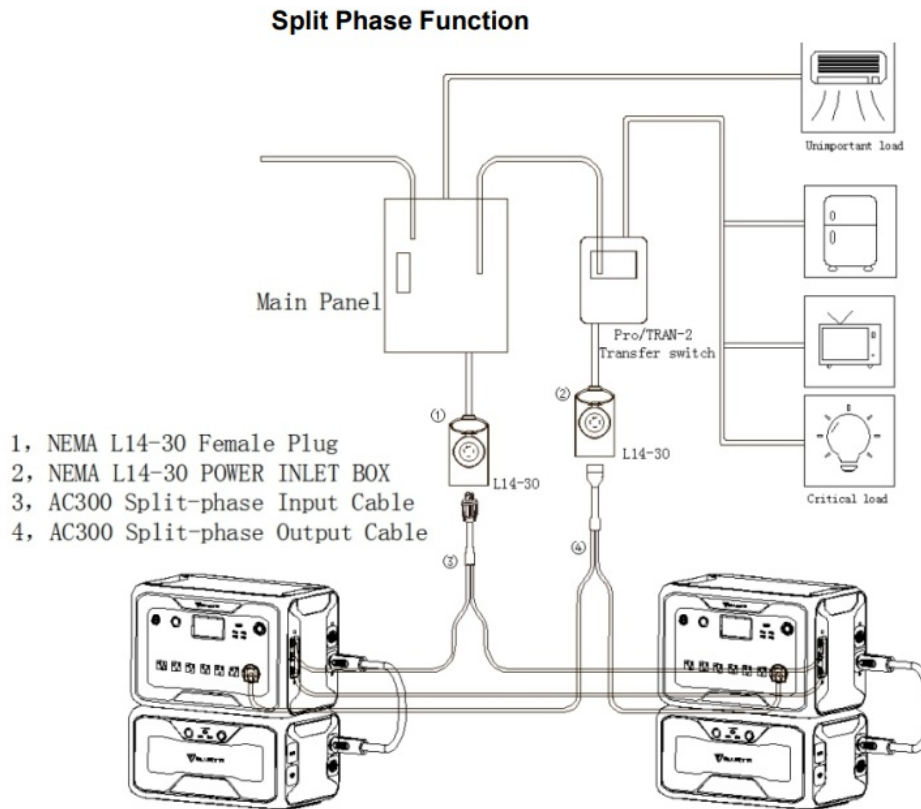
Split-Phase output is achieved by bonding two AC300+B300 into one power system to double the available output power, voltage, and capacity.

"Split Phase" is only used for connecting two AC300+B300 together (only for the 100-120V version of the AC300+B300).

Launch Split Phase Function:

4. Only one touchscreen will be active when two AC300+B300 units are connected in split phase system.
5. If one of the AC300+B300 is out of power, the Split Phase Bonding function will deactivate automatically.

Split Phase Function



Warning:

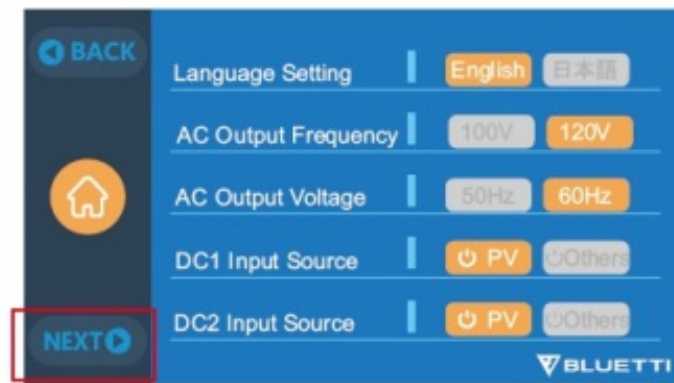
If you insist to charge the AC300+B300 which has been connected into split phase box already, please make sure the L1/L2/N wires are set at the right place otherwise the AC300+B300 will be damaged. L: Live wire N: Neutral wire

HOW TO CONFIGURE BOTH OF THE AC300+B300:

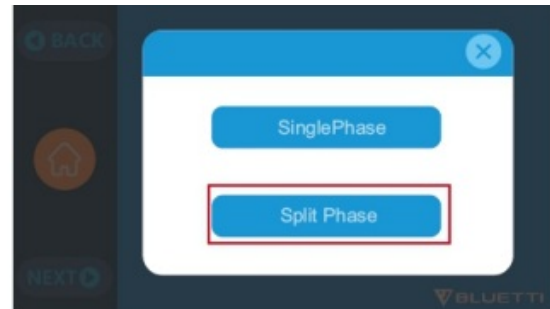
- **Step 1:** Turn off both of AC300+B300.
- **Step 2:** Plug the two TT30 plugs from AC300 split-phase output cable into both AC300+B300's outlet, and plug the L14-30R from AC300 split-phase output cable into the L14-30 inlet on the transfer switch : Reliance 310A Pro/Tran2
- **Step 3:** Plug in the communication cables to each of the two AC300+B300's.
- **Step 4:** Turn on one AC300+B300.
- **Step 5:** Click the setting button on the LCD,



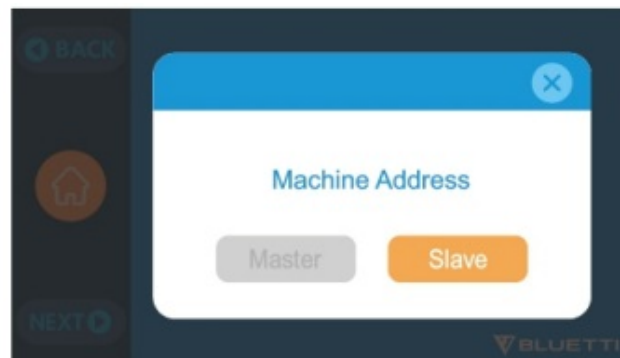
- **Step6:** Click the NEXT,



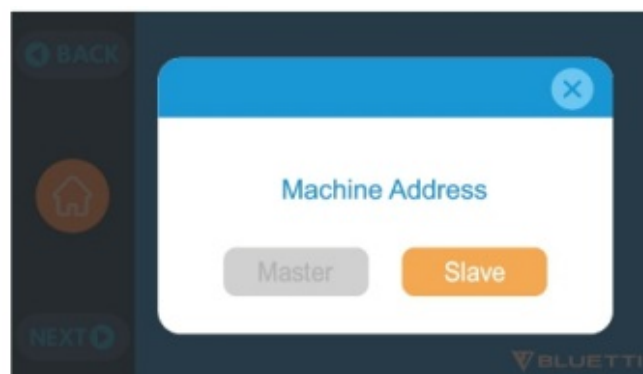
- **Step7:** Click the “single phase” of the Machine Type setting, then click the “Split phase”
Machine Type: Select split phase



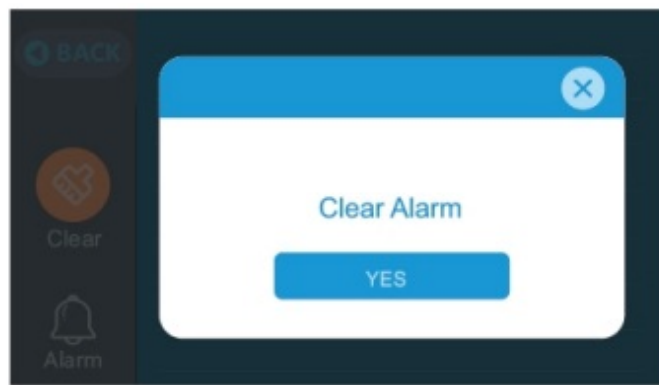
- **Step8:** Click the “Master”



- **Step 9:** Turn on another AC300+B300.
- **Step10:** Click the setting button on the LCD.
- **Step11:** Following the Step 6- step 7: click the NEXT, then click the “single phase” and then click the “Split phase”.
- **Step12:** Click the “Slave”



- **Note:** click clear the alarm history if the buzzer sounded

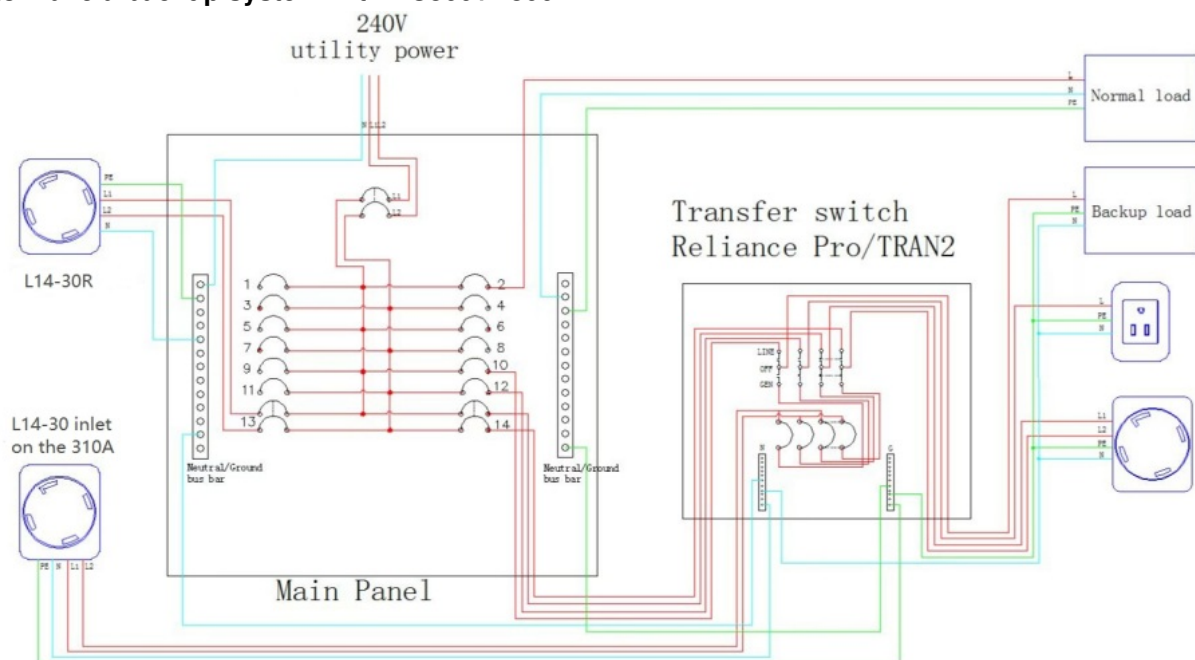


NOTE:

1. The selected "Master" unit will sets the operating AC300+B300 as the one to control both two AC300+B300.
2. Before you begin installing your Reliance Controls transfer switch system, you need to create a plan for the appliances you choose to run during a power outage. In setting up a transfer switch to get the most power from your two power stations in split phase power system, it is desirable to "balance the load" between the two phases of your transfer switch. Devices which will consume the most of the two power stations' wattage should be divided between the two.

Thirdly, connect the AC300+B300 to the transfer switch . Please installed by the electrician refer to the example as below:

How to make a backup system with AC300+B300



NOTE

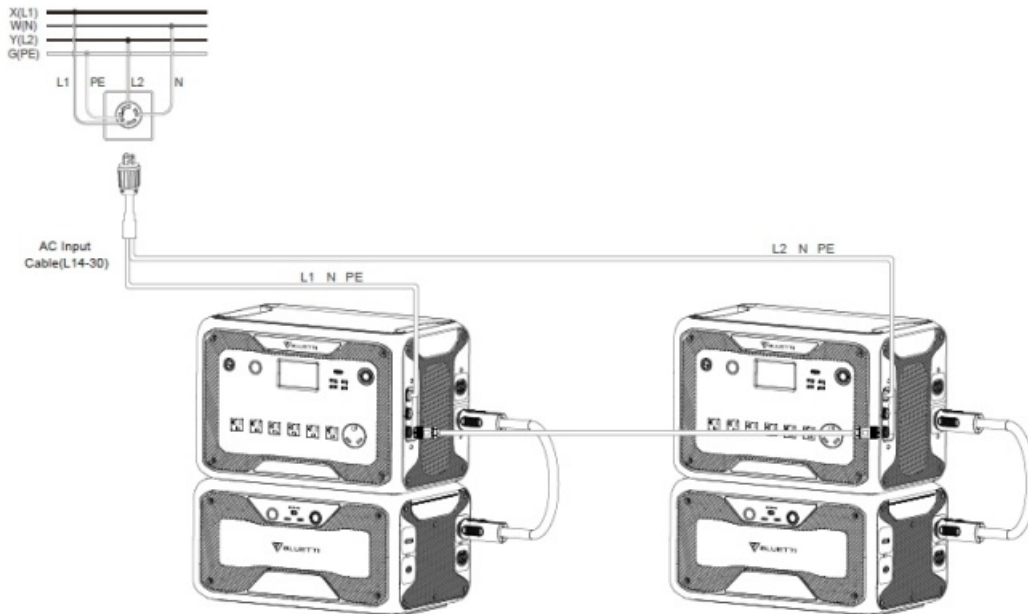
1. It must be installed by an licensed electrician
2. Please check the voltage of outlets before plugging in the household appliances.
3. In the main panel ,two Neutral/Ground bus bar have been connected together with copper strips
4. This is the electrical schematic, the actual wiring diagram should refer to Reliance PRO/TRAN2 installation instructions

About charge cable connection :

Machine type is just used to set for Split Phase,

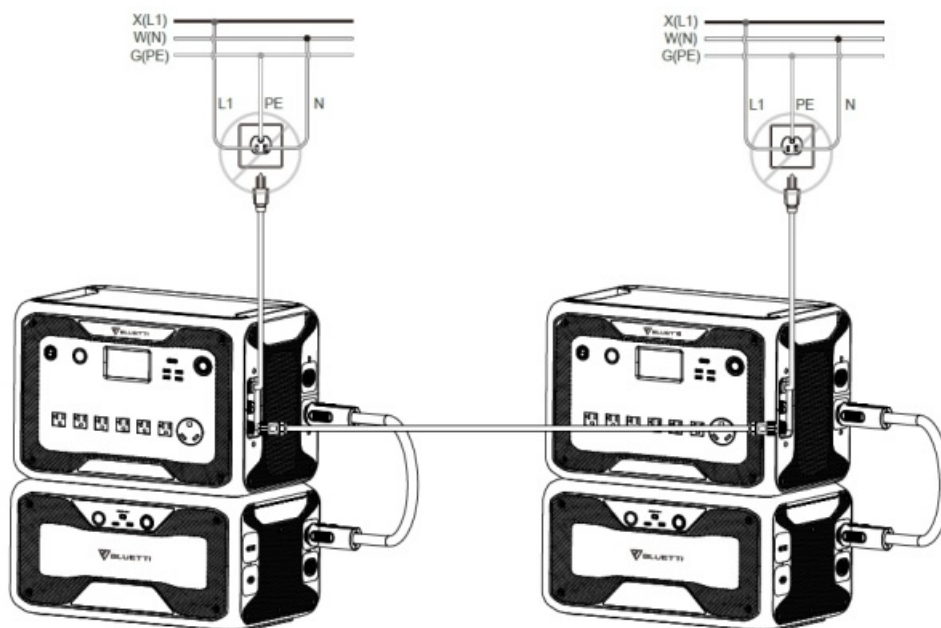
The AC Input Cable (Optional Purchase) is designed to match Split Phase System. One end of the cable is connected to the NEMA L14-30 socket, and the other end is connected to the AC input interface of both two units through aviation plug. it is recommended that you choose our matching AC input cable (BLUETTI 30A-AC-charging-cable). The AC input ports of the two machines are connected to L1, N, PE and L2, N, PE. Make sure that the phase of the two machines is correct. The current capacity of AC input plug shall be $\geq 30A$.

We need purchase a BLUETTI 30A-AC-charging-cable ,refer to 3.3. the connect method as following:



WRONG CONNECTION

It's forbidden to connect AC300+B300 into Split Phase System when AC charging is ON, please use AC Input Cable(Optional Purchase) to charge both of your power stations in Split Phase System. Wrong Connection will damage the battery inside the power station and your warranty will be invalid.




NOTE: In split phase system, you can charge it via PV with the same method which you charge one of them through DC Input port on AC300. You can charge it by PV and the BLUETTI 30A-AC-charging-cable simultaneously. (AC input only through the BLUETTI 30A-AC-charging-cable but not the standard AC charging cable)

Accessories:

Transfer switch

please purchase a manual transfer switch as following: <https://www.bluettipower.com/> or <https://www.amazon.com/30-Amp-10-Circuit-Manual-Transfer-Optional/dp/B00YHLCMHM/ref=sr11crid=39Q2LGVYX2BK6&keywords=310A&qid=1666357623&qu=eyJxc2MiOiJwLjAwLiwicXNhIjojMC4wMCIscInFzcCI6IjAuMDAifQ%3D%3D&sprefix=310a%2Caps%2C299&sr=8-1>



310A Pro/Tran2 30-Amp 10-Circuit 2 Manual Transfer Switch with Optional Power Inlet

Visit the Reliance Controls Store
★★★★☆ 72 ratings

\$453⁵⁷

Get 3% back on this item with the Amazon Rewards Visa Card.

Product details

Operation Mode	Manual
Brand	Reliance Controls
Material	Alloy Steel
Item Dimensions LxWxH	11.75 x 4.5 x 11 inches
Mounting Type	Surface Mount
International Protection Rating	IP54

• This refurbished product is tested and certified to look and work like new. The refurbishing process includes functionality testing, basic cleaning, inspection, and repackaging. The product ships with all

~ See more product details


Customer ratings by feature

Instruction quality	★★★★☆ 4.6
Easy to install	★★★★☆ 4.4

See all reviews

30A AC CHARGING CABLE

AC300 30A AC Charging Cable



30A AC CHARGING CABLE

★★★★☆ 5.0 (3 reviews) | Ask a question

US\$79.00

Klarna. 4 interest-free payments of \$19.75. [Learn More](#)

Function: Used to charge the BLUETTI AC300 via 30A wall socket to reach Max 3000W input.

Application Model:

☒ AC300-AC CHARGING CABLE ☐ EP500PRO-AC CHARGING CABLE

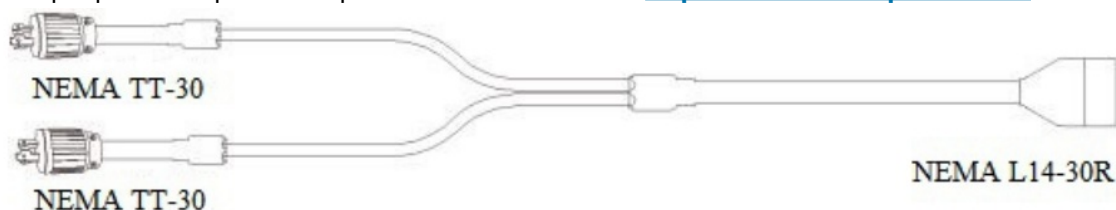
Quantity:

— 1 +

PayPal Pay in 4 interest-free payments of \$19.75. [Learn more](#)

Pay in 4 interest-free installments of **\$19.75** with [shop](#) [Learn more](#)

Purchase website: <https://www.bluettipower.com/products/ac300-30a-ac-charging-cable>
3.3AC300 split-phase output cable purchase from BLUETTI <https://www.bluettipower.com>



BLUETTI 30A-AC-charging-cable

If you purchased two AC300+B300 to get 240V, you need to purchase one 30A AC Charging Cable for split-phase function

Purchase address: <https://www.bluettipower.com/products/30a-ac-charging-cable-for-split-phase-function>



30A AC Charging Cable For Split-Phase Function

★★★★★ Write a review | Ask a question

US\$99.00

Klarna. 4 interest-free payments of \$24.75. [Learn more](#)

Applicable Models:
AC300/EP500Pro/EP500

Quantity :

— 1 +

Pay in 4 interest-free instalments of \$24.75 with [shop](#) [Learn more](#)

ADD TO CART

BUY IT NOW

Communication Cable for Split-Phase function



Communication Cable For Split-Phase Function

★★★★★ 0.0 (reviews) | Ask a question

US\$39.00

Klarna. 4 interest-free payments of \$9.75. [Learn More](#)

Applicable Models:
AC300/EP500Pro/EP500/AC500
Communication Cable For Split-Phase Function

Quantity :

— 1 +

[PayPal](#) Pay in 4 interest-free payments of \$9.75. [Learn more](#)

Purchase address: <https://www.bluettipower.com/products/communication-cable-for-split-phase-function>

NEMA L14-30R outlet

The BLUETTI 30A-AC-charging-cable need plug into a L14-30R outlet for charging both EP500 pro. The purchase address as following

https://www.amazon.com/Journeyman-Pro-Receptacle-Industrial-Grounding-Generator/dp/B07P8CGH52/ref=sr_1_7?crid=1WRMKA4V397S&keywords=l14-30r+receptacle&qid=1657944329&s=hi&srefix=%2Ctools%2C405&sr=1-7

[Back to results](#)



Journeyman-Pro 2710, NEMA L14-30R, 30A 125/250 Volt, Flush Mounting Locking Receptacle Socket/Outlet, Black Industrial Grade, Grounding Welding/Generator Rated 7500 Watts (1, 2710 w/SS Faceplate)

Visit the Journeyman-Pro Store
★★★★★ 219 ratings

\$15⁹⁷

Get Fast, Free Shipping with Amazon Prime
& FREE Returns

Get \$50 off instantly: Pay \$0.00 upon approval for the Amazon Rewards Visa Card.

Item Package Quantity: 1

1 2

Size: 2710 w/SS Faceplate

2710 2710 w/SS Faceplate

Brand

Journeyman-Pro

Extension Cord Adapter NEMA TT30-P to L14-30R

It is look like as following , please purchase on the Amazon. the length is depended on what your need.



Roll over image to zoom in



Parkworld 885446 NEMA TT-30P to L14-30R Generator Adapter Cord, Transfer Switch Adapter, RV 30A TT-30 Male Plug with Handle to Generator 30A 4-Prong L14-30 Female Receptacle (10 Foot)

Visit the Parkworld Store

★★★★★ 166 ratings | 8 answered questions

Length: 10 Foot

1 Feet \$21.99	10 Foot 2 options from \$59.99	25 Foot 1 option from \$138.08	36 Foot \$114.99
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- Recreational Vehicle Adapter cord TT-30P to L14-30R (Two hots bridged), Used STW 10AWG*3 stranded copper inner wire, support max 30 Amp loading.
- RV 30 AMP 3-prong right angle male with handle, easy to pull and push. Generator 30 AMP 4-prong twist lock female.
- Molded with electroplate copper terminal in order to avoid surface oxidation effectively.
- 100% copper conductor inside, Heavy-duty AC power adapter cord , also for Trailer and Mobile Home, Auto house.
- Length : 10FT. Color : Black

https://www.amazon.com/Parkworld-885446-L14-30R-Generator-Receptacle/dp/B08BHVFSN7/ref=sr_1_31?crd=E1CT2MYTUF6Z&keywords=TT30-P+to+L14-30R&qid=1669196060&srefix=tt30-p+to+l14-30r%2Caps%2C150&sr=8-31

Distribution Box for Solar PV Breaker

If you have a residential solar panel array whose voltage is above 12V and below 150V, we suggest you configure a DC circuit breaker panel to turn off or turn on.



Roll over image to zoom in



Share

Awclub Plastic Transparent Cover Power Distribution Protection Box IP65 ABS for Circuit Breaker Indoor on The Wall 5 Way (160mmx120mmx95mm)

Visit the Awclub Store

★★★★★ 276 ratings

-13% \$13.99

Was: \$16.99 @

\$28.64 Shipping & Import Fees Deposit to China Details

Size: 160mmx120mmx95mm

160mmx120mmx95mm \$13.99	200mmx155mmx92mm \$18.99	365mmx195mmx110mm \$34.99
------------------------------------	-----------------------------	------------------------------

- [GREAT QUALITY]: Made of high quality plastic(ABS). Waterproof Rating: IP65; Qualification ECE/ROHS
- [Designed]: This distribution box is designed for 5 ways circuit breaker, durable and sturdy.
- [TRANSPARENT COVER]: The blue cover is transparent, you can check the condition easily without open the box.
- [EASY TO INSTALL]: This distribution box can be easily installed and very convenient to use, just need a few steps to mount it on your wall.
- [WIDELY APPLICATION]: Great to mount indoors, widely used for home, hotel shop and many other places.

Please visit the website as following :

https://www.amazon.com/gp/product/B07S75TV3V/ref=ppx_yo_dt_b_asin_title_o00_s00?ie=UTF8&psc=1 3.9 DC breaker for Solar PV circuit



Roll over image to zoom in

Share

16A Low-Voltage Miniature Air Circuit Breaker, Acogedor 250V DC 2P DIN Rail Mount Miniature Circuit Breaker for Solar Panels Grid System, Wind and Solar Hybrid System and Other DC Systems(16A)

Visit the Acogedor Store

★★★★★ 12 ratings

\$15.00

\$27.75 Shipping & Import Fees Deposit to China Details

Prime Delivery Promotion Available: 1 Applicable Promotion

Brand	Acogedor
Current Rating	16 Amps
Voltage	250 Volts
Circuit Breaker Type	Standard
Mounting Type	DIN Rail Mount

About this item


- This is a great circuit breaker used to protect an electrical circuit from damage caused by excess current resulting from an overload or short circuit
- Fast Closing to ensure reliable operation of the load and prolong the life of electrical circuit breakers
- It is easy and reliable to use, which supports short circuit protection, overload protection
- It can be mounted conveniently on DIN rail, DIN rail is not included
- Widely used for solar panels grid system, wind and solar hybrid system and many other DC systems

Please visit the website as following :

https://www.amazon.com/gp/product/B07GR32KCT/ref=ppx_yo_dt_b_asin_title_o00_s00?ie=UTF8&psc=1

NOTE : If there are two solar panel arrays (open circuit **voltage range:** 12-150V.) , need two 2P 16A DC breakers.

Solar Extension cable with Solar panel female and male connector



Share

iGreely 10 Feet 12 AWG Solar Extension Cable with Solar Panel Female and Male Connector
Solar Panel Adapter 12 Gauge (10FT Red + 10FT Black)

Visit the iGreely Store
★★★★★ 2,223 ratings
Amazon's Choice for "12 awg solar cable"

\$16⁹⁹
\$23.54 Shipping & Import Fees Deposit to China Details ▾

Size: **10Ft 12AWG**

3Ft 8AWG	3Ft 10AWG	3Ft 12AWG	6Ft 10AWG	6Ft 12AWG
10Ft 8AWG	10Ft 10AWG	10Ft 12AWG	20Ft 8AWG	
20Ft 10AWG	20Ft 12AWG	30Ft 10AWG	50Ft 10AWG	
70Ft 10AWG	100Ft 10AWG			

- One pair (1 piece black + 1 piece red) 10ft 12AWG solar extension cable. Made with copper.
- Two cables with solar panel connectors at one end connecting to solar panel and bare on the other end connecting to solar charge controller.
- The wiring is weatherproof and designed to withstand extreme heat and cold.
- Stable self-locking system which is easy to lock and open.

Roll over image to zoom in

Please visit the website as following :

https://www.amazon.com/gp/product/B08KZNTYP5/ref=ppx_yo_dt_b_asin_title_o00_s00?ie=UTF8&th=1

NOTE: The length of cable is based on the actual demand.

How to install Reliance Controls

Website: www.reliancecontrols.com

How to install Reliance Controls ProTran2 – Part1, Tools and Planning

<https://www.youtube.com/watch?v=xTqjw6WJ7o&list=PLpYCE0n7d22iDNwpVnOF9HULSUYYBBRY86>

How to install Reliance Controls ProTran2 – Part2, Mounting

<https://www.youtube.com/watch?v=wNbBHVHgW0Y&list=PLpYCE0n7d22iDNwpVnOF9HULSUYYBBRY86&index=2>

<https://www.youtube.com/watch?v=wNbBHVHgW0Y&list=PLpYCE0n7d22iDNwpVnOF9HULSUYYBBRY86&index=2>

How to install Reliance Controls ProTran2 – Part3, Wiring

<https://www.youtube.com/watch?v=TKrui9BpZM8&list=PLpYCE0n7d22iDNwpVnOF9HULSUYYBBRY86&index=3>

<https://www.youtube.com/watch?v=TKrui9BpZM8&list=PLpYCE0n7d22iDNwpVnOF9HULSUYYBBRY86&index=3>

How to install Reliance Controls ProTran2 – Part4, Replacing Circuit Breakers

<https://www.youtube.com/watch?v=lkOuauT-YP8&list=PLpYCE0n7d22iDNwpVnOF9HULSUYYBBRY86&index=4>

<https://www.youtube.com/watch?v=lkOuauT-YP8&list=PLpYCE0n7d22iDNwpVnOF9HULSUYYBBRY86&index=4>

How to install Reliance Controls ProTran2 – Part5, Installing The Power Inlet Box

<https://www.youtube.com/watch?v=0M8sYRhEVPY&list=PLpYCE0n7d22iDNwpVnOF9HULSUYYBBRY86&index=5>

<https://www.youtube.com/watch?v=0M8sYRhEVPY&list=PLpYCE0n7d22iDNwpVnOF9HULSUYYBBRY86&index=5>

How to install Reliance Controls ProTran2 – Part6, How To Operate


<https://www.youtube.com/watch?v=O4GA9AK8Tmo&list=PLpYCE0n7d22iDNwpVnOF9HULSUYYBBRY86&index=6>

<https://www.youtube.com/watch?v=O4GA9AK8Tmo&list=PLpYCE0n7d22iDNwpVnOF9HULSUYYBBRY86&index=6>

More information:

- Website: www.bluettipower.com
- Email: service@bluettipower.com

Documents / Resources

	BLUETTI AC300 Plus B300 Backup System [pdf] User Manual AC300 Plus B300, Backup System, AC300 Plus B300 Backup System
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References

- [BLUETTI: Portable Power Station, Solar Generator Kit](#)
- [Reliance Controls Corporation](#)
- [Amazon.com: 310A Pro/Tran2 30-Amp 10-Circuit 2 Manual Transfer Switch with Optional Power Inlet : Patio, Lawn & Garden](#)
- [Amazon.com: Air Circuit Breaker, 250V 2 Pole DIN Rail Mount Miniature DC Circuit Breaker for Solar Panels Grid System, Wind and Solar Hybrid System and Other DC Systems \(16A\): Amazon.com: Tools & Home Improvement](#)
- [Amazon.com: Awclub Plastic Transparent Cover Power Distribution Protection Box IP65 ABS for Circuit Breaker Indoor on The Wall 5 Way \(160mmx120mmx95mm\) - - Amazon.com](#)
- [Amazon.com: 10 Feet 12 AWG Solar Extension Cable with Solar Panel Female and Male Connector Solar Panel Adapter 12 Gauge \(10FT Red + 10FT Black\) : Patio, Lawn & Garden](#)
- [Amazon.com: Journeyman-Pro 2710, NEMA L14-30R, 30A 125/250 Volt, Flush Mounting Locking Receptacle Socket/Outlet, Black Industrial Grade, Grounding Welding/Generator Rated 7500 Watts \(1, 2710 w/SS Faceplate\) - - Amazon.com](#)
- [Amazon.com: Parkworld 885446 NEMA TT-30P to L14-30R Generator Adapter Cord, Transfer Switch Adapter, RV 30A TT-30 Male Plug with Handle to Generator 30A 4-Prong L14-30 Female Receptacle \(10 Foot\) : Patio, Lawn & Garden](#)
- [BLUETTI: Portable Power Station, Solar Generator Kit](#)
- [30A AC Charging Cable For Split-Phase Function](#)
- [30A AC CHARGING CABLE](#)
- [Communication Cable For Split-Phase Function](#)