

# LIFEPOWR A3



**USER GUIDE**

*Freedom at your fingertips*

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# INTRODUCTION

Well hello,

We finally meet!

You are now the owner of me! A classy, versatile, fast charging USB-C PD and AC portable power pack. *(Some say I am a truly unique device!)* Not only that, but I have been specially designed to be massively powerful, compact and lightweight so that we can hang out more, anywhere you want.

Now my kind human, you have the freedom to go anywhere you want and power up all of your every day low power devices just like at home.

There are some instructions here and there, these are beneficial for our mutual understanding, and if you want this partnership to last you will need to take the time to know me.

# IMPORTANT SAFETY INSTRUCTIONS

## READ CAREFULLY BEFORE USE

**CAUTION:** TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



### **DANGEROUS VOLTAGE**

This symbol indicates that dangerous voltage is present within this device constituting a risk of electric shock or personal injury.




### **WARNING!**

This symbol indicates that there are important operating and maintenance instructions in the user guide accompanying the device.

## THIS PRODUCT IS NOT A TOY.

It will produce the same potentially lethal AC power as your regular household outlet. TREAT THE PRODUCT WITH RESPECT AND FOLLOW ALL INSTRUCTIONS. KEEP AWAY FROM CHILDREN.

- NEVER TRY TO INSERT AN OBJECT INTO THE PRODUCT THROUGH VENTS OR OPENINGS. High voltage flows within and inserting an object can cause electric shock and/or short internal parts.
- MISUSE OR INCORRECT CONNECTIONS MAY DAMAGE THE PRODUCT AND/OR YOUR EQUIPMENT AND/OR CREATE HAZARDOUS CONDITIONS FOR THE USER.
- Keep these instructions. (*I recommend that one junk drawer that almost everyone has that is usually filled with rubber bands, loose screws, pens without caps, takeout menus, etc.*)
- Pay careful attention to all warnings. The LIFEPOWR A3 USB-C PD is referred to as the Product.
- Use caution while inserting an AC plug into the AC outlet: Keep your fingers clear of the outlet at all times. Ensure that your fingers never make contact with the prongs of a plug when it is partially inserted into the Product.
- Always plug-in equipment before powering on the Product.
- Always turn off the Product before plugging-out equipment.

- AC Output not sinusoidal! Never try to power equipment that needs a pure sine wave power source.
- Never connect the AC output straight to an AC utility power outlet: this will destroy the Product. *(Ouch!)*
- To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.
- Never use this unit near water *(I am not a cat, I just don't like water).*
- The device should not be exposed to dripping, splashing, or have objects filled with liquids, such as vases, placed on or near the device. *(Unlike Gremlins, I will not multiply when exposed to water but instead will be harmed. You wouldn't want to hurt a defenceless device, would you?)*
- Clean only with a dry cloth. *(To reiterate, do not expose me to water. You're not training an Olympic swimmer here).*
- Do not use the product in ambient temperatures above **40°C (100F)**. *(Some like it hot! I don't).*
- The product and its power adapter may become uncomfortably warm under extended high power usage (**60°C/140F**) *(keep me fresh).*
- Do not use the product on your lap for more than 30 minutes without at least a 5-minute break.
- To avoid overheating, do not leave the product in a non-ventilated space *(e.g. a laptop bag)* when it is turned on.
- Do not use near any heat sources such as radiators, heat registers, stoves or other appliances *(including amplifiers)* that produce heat.
- Only use Class II double insulated devices with this product. They are marked with a square  and do not require a grounded connection.

## SAFETY INSTRUCTIONS

- Protect any power cord from being walked on or pinched, particularly plugs and adaptors. *(After all, nobody likes to be bullied like that).*
- Only use accessories specified by the manufacturer.
- The use of universal (*travel*) adaptors to connect overseas plugs is at your own risk, even when this adapter is included by the manufacturer.
- **Unplug** this unit during lightning storms or when unused for long periods of time.
- Do not overload wall outlet. Use power source only as indicated.
- Upon completion of any service or repairs to this product, ask the service technician to perform safety checks.
- Keep the device away from metallic objects (*coins, keys, etc.*). Do not leave it near magnetic fields.
- When charging the product, make sure that the charger and outlet are readily accessible.
- Do not drop the device. Do not expose it to mechanical shock, friction, impact or any other mechanical load. *(Don' kick me, please).*
- When transporting the device, put it in a proper protective carrier. *(I like to travel with class, thank you!)*
- Do not touch the power cord when your hands are wet and do not pull on the charger to unplug it.
- To prevent interference, do not use the device near other electronic devices, artificial pacemakers or near medical equipment. *(Some tools just can't hide their jealousy).*
- Shut off the device in locations that are susceptible to explosions and when travelling by aeroplane. *(ooooh! Scary).*
- Do not use the product near flammable or explosive sources. *(I hate fire*



*just as much as water).*

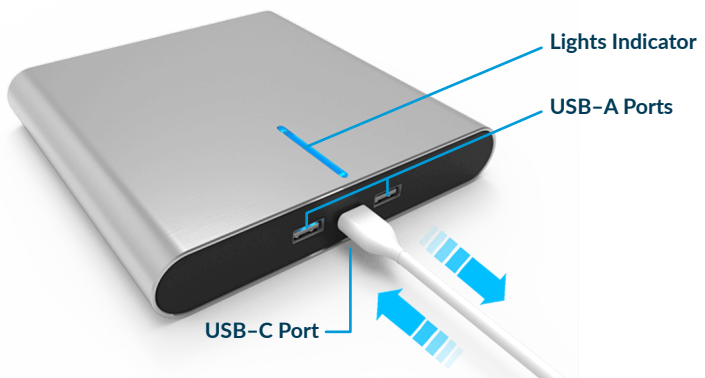
- Keep the device out of prolonged exposure to sunlight and away from other sources of extreme heat or cold.
- Do not attempt to disassemble the device; it would no longer be covered by the warranty.
- Do not place objects on top of the device. *(No one likes to be smothered like that).*
- Any device is sold or supplied on the basis that the product is used and/or handled only by a person who is sufficiently competent, qualified and experienced in working in the necessary capacity, with the device.
- LIFEPOWR provides this manual "as is". Any specifications or information contained herein are for informational purpose only and are in no way a commitment by LIFEPOWR. This manual is subject to change at any time without notice.

## **LIMITATION OF LIABILITY**

In no event shall LIFEPOWR be liable for any damages of whatever nature, to property or life, resulting from or connected with the use or misuse of our products, nor for damages arising from unforeseen events such as natural disasters, lightning,... All resulting costs are therefore exclusively at the expense of the user and will not be covered by the warranty terms.

# PRODUCT OVERVIEW

*Read all safety instructions, please!*



The A3 USB-C PD is a portable power bank unit that offers both an AC outlet and three USB outputs. It stores energy that can be used to power and charge a wide variety of applications and devices at any location you desire, but you know this already!

**Here are some things you might not know:**

- It supports Pass-through charging so you can recharge while feeding other devices, useful as UPS!
- The USB ports are Auto-On (*All you have to do is plug in your device, and it'll start charging automatically*).
- The built-in AC Outlet is capable of powering all devices that consume 100W or less.
- The USB-C Power Delivery output allows for every USB-C PD device to automatically receive the optimal and fastest charge available (**up to 20V 4.3A**).
- The USB-A ports and the AC Output can work simultaneously. (*Keep in mind that you can't use the AC 100W output and USB-C PD 87W output at the same time*).
- When no usage is detected the blue capacity LEDs will fade after 10 seconds, and the A3 will automatically shut down after 30 seconds to conserve energy.

**There are several safety features built in:**

- Overload protection with automatic shutdown and recovery.
- Overheating protection with automatic shutdown.
- Non-usage automatic shutdown.
- Output short circuit protection.
- Low voltage battery cut-off.
- Overcurrent/voltage battery cut-off.

The AC waveform is created by a method called *Pulse Width Modulation* and is therefore known as “modified sine wave” rather than a “pure sine wave”. It was designed in a way that it will act very similar to a standard utility power outlet.

Upon arrival the A3 is partly charged, we suggest that you fully charge it before using it the first time.



# POWER UP

Plug your USB-C device, and you are good to go!



- There's only one button on the A3 that activates the AC outlet.
- To **turn on** the **A3 AC capabilities**, tap The Button quickly twice.
- To **turn off** the **A3 AC capabilities**, tap The Button quickly twice.
- Hold it for three seconds or longer to shut down everything down.
- Always plug the device you want to charge **FIRST**, then press The Button quickly twice.

# LIGHTS INDICATOR

- Powering-up is indicated by a red light (*initiate*).
- AC on is indicated by a green light.
- The remaining capacity is indicated by a blue light.

The red light also indicates error situations such as an overload (*When trying to power a device that demands too much current*). The A3 will automatically reboot when this occurs, if however, the light remains red, please shut down the plugged-in device immediately.

**The blue light consists of a strip with four LED dots that decreases accordingly to the capacity levels:**

- 75-100% Four LED dots lit.
- 50-75% Three LED dots lit.
- 25-50% Two LED dots lit.
- 5-25% One LED dot lit.
- 0% (*Nada, empty*), no dots, lights out.



# RECHARGING

Connect to any USB-C PD Charger, charging will start automatically  
*(I really try to make your life simple).*

The capacity LEDs will light up and increase according to the state of charge. When fully loaded, the four LED dots will show and you should disconnect the charger *(takes me approximately two hours to fully recharge, beat that!)*

- You can use the other USB ports and the AC while charging the A3 *(Remember, I support Pass-through charging and many other movements, but let's not get political, I am a machine after all).*
- With our 65W USB-C charger you can reach 50% of the charge in one hour and 90% of the charge in two hours.
- Using lower power chargers, such as the 45W USB-C charger will result in slightly longer charge times of approx three to three and a half hours.



**Make sure to keep your battery charged and ready to go for whenever you need it.**

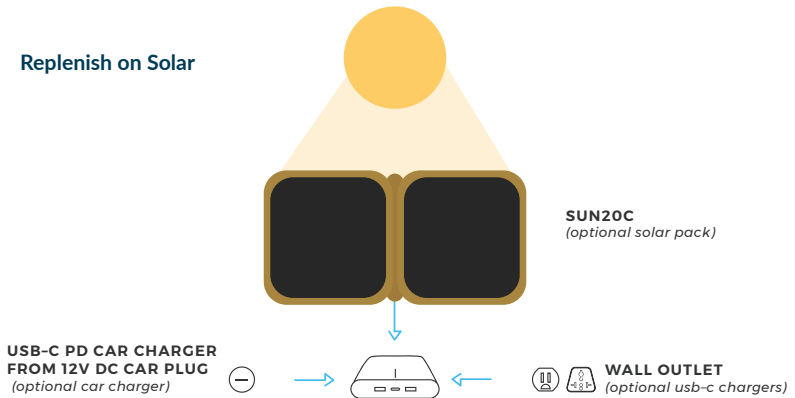
*\* Sold separately*

## Alternatively

You can use any standard cable to recharge your A3 or you can use any of the following LIFEPOWR approved methods:

- SUN20C (Solar Pack) [lifepowr.co/product/sun20c/](https://lifepowr.co/product/sun20c/)
- Car Charge-a-lot (Car Charger) [lifepowr.co/product/usb-c-car-charger/](https://lifepowr.co/product/usb-c-car-charger/)
- 65W (USB-C Charger) [lifepowr.co/product/65w-usb-c-charger/](https://lifepowr.co/product/65w-usb-c-charger/)
- 45W (USB-C Charger) <https://lifepowr.co/product/45w-usb-c-charger/>

## Replenish on Solar





# WHAT YOU CAN CHARGE

All these devices plus way more!

If you have a fun application, let us know! Send in a picture of the A3 charging your device and we can share it on our socials! **Thank you.**

Full Recharges:



5



1½



3



6



1½



10

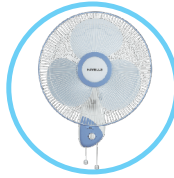
## Hours of use:



2½



3



5



1½



3



2



3

**YOU CAN CHARGE**

**Note:** The above values are for continuous operation. When no load is detected, the A3 will shut down automatically after 30 seconds to ensure that it is not left on unintentionally (The truth is that I get bored, sorry). This may cause unwanted shutdown situations for very low power AC loads that consume less than 0.5W or USB loads that consume less than 60mA.

# BATTERY CAPACITY

If you frequently charge and discharge your A3, not waiting for a full charge but unplugging at 80 to 90% can save you time and extend the battery's lifespan.

## Capacity Disclaimer:

To calculate how long you can power a specific device with the A3, divide the total capacity (**99Wh**) with the power consumption of your device. For example, a 10W lamp.

$$\frac{99Wh}{10W} = 9.9h \quad \frac{99Wh}{50W} = 2h \quad \frac{99Wh}{95W} = 1h$$

However, during discharge, about 15% to 20% of the battery capacity will be lost due to conversion losses. This means the A3 99Wh built-in battery will only provide approximately 87Wh of useful capacity at its best.

# TIPS AND TRICKS

We've listed some excellent advice for those that want to get the most out of their A3. To ensure extended lifetime and maximal performance for all your lithium-based batteries.

- Ambient temperature also affects the relative capacity of the battery. Below 0°C or above 40°C only 80% of the capacity will be available.
- The A3 has been tested to work at 40°C ambient temperature under full load (100W) for approximately 20 minutes, beyond this point, the internal temperature may rise above 60°C, and the thermal overload protection will be activated.

## **Two situations might destroy a lithium cell:**

- Over discharge (*under-voltage*) and overcharge (*over-voltage*).
- A lithium battery should have a built-in circuit (*BMS*) to prevent this from happening by cutting off the battery from discharge or charge and thus protecting the battery (*The A3's built-in Battery Management System and Microcontroller will protect your device to keep it within safe ranges, but following these instructions will definitely have a positive impact on your lithium batteries behaviour over time.*)

Pushing your battery to its limits by dropping to 0% charge or keeping it plugged into its charger (100%+) will drastically decrease the life of your battery so you should always try to prevent these situations:

- When your battery is empty (*fully discharged*) always recharge it as soon as possible.
- Never store a lithium battery that is completely empty, and at least charge it once every six months if you do not use it for more extended periods of time (*Ideally store a lithium battery around 50% state of charge when not in use*).
- Never charge too long (*overnight*) or recharge after a recent charge (*from 95% to 100%*).
- Ideally, you should charge your lithium batteries between 20%-80% or 10%-90% Some people might think you must fully deplete a battery before recharge: this is entirely **not the case** for lithium batteries.

# TECHNICAL SPECIFICATIONS

- USB-C Output/Input:** USB Power Delivery 87W  
Supports all power profiles, with automatic voltage selection.  
5V 3A / 9V 3A / 12V 3A / 15V 3A / 20V 4.3A  
USB-C PD recharge input 60W
- AC Outlet:** 100W continuous  
AC 230V / 50 Hz / max. 120W peak (**Global model**)  
AC 120V / 60 Hz / max. 120W peak (**US model**)  
Simulated sinewave output using advanced PWM
- USB-A Output:** 1x QC3.0 5V 3A / 9V 2A / 12V 1.5A  
1x 5V 2.4A
- Recharge Time:** (**60W charger**) 1hr to 50% | 2hrs 90%  
(**45W charger**) 1hr to 35% | 2.5hrs 90%
- Power Output:** DC ports **combined** 117W Max  
AC + USB ports combined 150W Max  
Pass-through charging (UPS)  
Limited to 60W / input power rating

**Conversion Efficiency:** 90% DC / DC and DC / AC

**Battery Pack:** 99Wh / 27,000mAh at the single cell voltage  
Lithium-ion

**Nominal voltage** 14.4V

**Nominal capacity** 6.7Ah

**Shelf Life:** After a full charge, usable up to two years with  
only a few % capacity loss each month

**Cycle Life:** **100% depth of discharge** after 500 cycles, 70%  
capacity remaining  
**80% depth of discharge or less** 1000's of cycles

**Size:** 15 cm x 15 cm x 2.5 cm (5.9" x 5.9" x 1")

**Weight:** 800g +-25g

#### **DECLARATION OF CONFORMITY**

Products with the CE marking comply with the EMC Directive (2004 / 108 / EC) and the Low Voltage Directive (2006 / 95 / EC) issued by the Commission of the European Community.

## AIR TRAVEL NOTIFICATION

You are allowed to carry devices with built-in Li-ion batteries up to 100Wh, without any limitation. This means you may take multiple A3's as Carry-on baggage.

However, airlines restrict battery powered equipment in Check-in baggage, but you may always take them with you as Carry-on.

## Troubleshooting

Please read through our FAQ and troubleshooting page before contacting our customer service: [www.lifepowr.co/contact/](http://www.lifepowr.co/contact/)



This symbol indicates that the relevant electrical product or battery should not be disposed of as general household waste in Europe. To ensure the correct waste treatment of the product and battery, please dispose of them following any applicable local laws for disposal of electrical equipment or batteries. In so doing, you will help to conserve natural resources and improve standards of environmental protection in treatment and disposal of electrical waste.

*(Waste Electrical and Electronic Equipment Directive)*



# WARRANTY AND RETURN INFORMATION

Within the European Union, our products are covered by a two (2) year warranty. Battery cells are covered by a one (1) year warranty. International product sales are covered by a standard one (1) year warranty which can be extended to two (2) years. If you wish to benefit from this, please contact us at [hi@lifepowr.co](mailto:hi@lifepowr.co)

The Warranty period starts on the day of purchase. LIFEPOWR is responsible for the repair or replacement of the product in the case that issues are caused by manufacturing faults or component errors. LIFEPOWR is not required to replace or repair any product if the defect has been created by damage, misuse, modifications or alterations that were applied by the user after the date of purchase. However, we can always service the device after mutual agreement of a repair fee. Return the faulty unit to your original local dealer and include the purchase receipt along with a note describing the problem.

Please contact LIFEPOWR before returning the product, many issues have been solved this way. When contacting us through the details below to report a product issue, please prepare visual content (*photo and/or video*) along with your description. With this information, we can provide better and faster help and make the necessary actions.

## Service and support

LIFEPOWR offers service and warranty under European law, which means that in case of repair (*both during and after the warranty period*), you should contact your local dealer.

**Please note:** It is not possible to send repairs to LIFEPOWR directly. However, we will assist you during the process.

Please note that the customer is responsible for returning goods under warranty, including possible shipping charges. LIFEPOWR and/or distributing partners will be responsible for the return of serviced or replaced products.

## Notice of Copyright

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**Note:** *No user-serviceable parts inside. When the device is opened, a seal will break, and your warranty will be void. If the unit is opened by a non-official service centre, the warranty will expire as well.*

# LIFEPOWR A3

## Contact Information

LIFEPOWR  
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Museumstraat 39  
2000 Antwerp  
Belgium

+32484 81 94 98  
[hi@lifepowr.co](mailto:hi@lifepowr.co)

We will be happy to help you on our help-desk from  
Monday to Friday from 9AM till 6PM CET.

For more information and if you wish to be sure you have the latest  
version of this user guide, please visit [www.lifepowr.co](http://www.lifepowr.co)

For your preferred language please send us a request at [hi@lifepowr.co](mailto:hi@lifepowr.co)  
with the subject matter: *"Language Request"*

