

Dual Output Switching Powersupply
13.8V / 20A DC Power
100-110V or 220-240A AC Input
USB Charge Output

#93160

for distributor address, see packaging
www.nosram.com

Safety Instructions

Please read the complete warning notes on separate sheet!

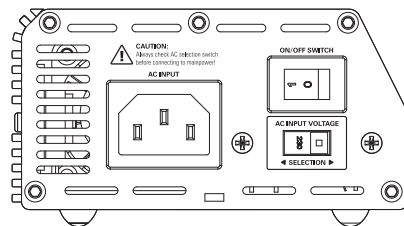
Not toy. Not suitable for children under 14 years.
Keep the product out of the reach of children.

Pay close attention to the following points, as they can destroy the product and void your warranty. Non-observance of these points can lead to property damage, personal and severe injuries!

- Never leave the product unsupervised while it is switched on, in use or connected with a power source. If a defect occurs, it could set fire to the product or the surroundings.
- Avoid incorrect connections or connections with reversed polarity of the product.
- All wires and connections have to be well insulated. Short-circuits can possibly destroy the product.
- Never allow this product or other electronic components to come in contact with water, oil or fuels or other electroconductive liquids, as these could contain minerals, which are harmful for electronic circuits. If this happens, stop the use of your product immediately and let it dry carefully.
- Always wire up all the parts of the equipment carefully. If any of the connections come loose as a result of vibration, you could lose control over your model.
- The Powersupply must be used in a well ventilated room.
- Do not cork the fan and it's window, ensure well ventilation of the Powersupply while in use.
- Do not open the case of the Powersupply at any time.
- Do not manipulate on the input cord wires.
- Do not overload power outlets or extension cords. An overload can result in fire or electric shock.
- Only use Powersupply on heatresistant surfaces and not on towels and/or carpet!
- Do not operate the power supply if it has been dropped or damaged in any way. Take it to a qualified service technician for repair.
- If your power supply does not operate normally, in particular if any unusual sounds or smells come from it, unplug it immediately and contact a qualified service technician for repair

The manufacturer can not be held responsible for damages, which are a result of non-observance of the warning notes and security advices.

Connections & Operation

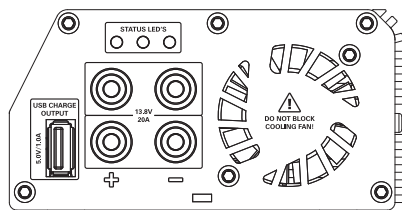


AC INPUT SOCKET: connect to main power with 100-240VAC after you have ensured the voltage selection switch is in correct position.

ON / OFF SWITCH: switches input power on and off. Make sure the powersupply is always in OFF position when not in use.

AC INPUT VOLTAGE SELECTION: make sure you use with correct voltage selection, failure to do so will result in damage to the powersupply!

STATUS LED's: these indicate operation and Multi-Protection System.



USB CHARGE OUTPUT: connect USB device you'd like to power/charge with the Nosram 20A Powersupply.

DUAL 13.8V/20A OUTPUT SOCKETS: conveniently attach two chargers to the 4mm sockets. Be careful with correct polarity!

COOLING FAN: never block the cooling slots on either side of the unit.

Multi-Protection-System

This unique monitoring system is the perfect protection for the *Nosram 20A-Powersupply* against short-circuit, over-load, over-voltage and overheating. Faults/Errors are indicated by Status LED's and these will stop the powersupplies operation.

Status LED meaning:

- Green LED: Power Indicator;
- Mid Red LED: Over current/ short circuit Indicator;
- Right Red LED: Over temperature Indicator

If the Status LED's all are still off after checking the above and the section „Multiprotection System“, then please follow the instructions how to proceed for repair / service.

Important: the integrated fan is part of this protection-system and will be turned on as soon as this will become necessary, it is not running all the time!

Thank you for your trust in this Nosram product. By purchasing a *Nosram Powersupply 20A*, you have chosen a high-quality product full of innovative features, such as:

- Compact & lightweight, aluminium housing
- 100-110V or 220-240V AC input
- Comes with all required main input wires
- Modern and bulletproof design
- 13.8V / 20A Dual Output
- USB Charge Output (5V/1A)
- Microprocessor controlled
- Multi-Protection-System, incl cooling fan

Please read the following instructions carefully before you start using your product. This user guide contains important notes for the installation, the safety, the use and the maintenance of this product. Thus protecting yourself and avoid damages of the product.

Proceed according to the user guide in order to understand your product better. Please take your time as you will have much more joy with your product if you know it exactly.

This user manual shall be kept in a safe place. If another customer is using this product, this manual has to be handed out together with it.

Specifications

Dimensions	[mm]	155 x 105 x 58
Weight	[g]	820
Input Voltage	[V AC]	100-110 / 220-240
Output Voltage	[V]	13.8
Output Current	[A]	20.0
USB Charge Output	[V + A]	5.0V / 1.0A

Integrated Cooling Fan	yes
Multi-Protection-System	yes
On/Off Switch	yes
Status LED's	3
Dual Output Connectors	yes
AC Input Connection	EU + US plug

Specifications subject to change without notice.

Usage

AC Input Voltage Selection (110 or 230V): the Nosram Powersupply has a selectable input of AC110V or AC230V 50/60Hz which makes it suitable for European-, Asian- and US-markets.

You need to adjust the AC Input Voltage Selection Switch to your required voltage setting. **Caution:** failure to do so will result in damage to the powersupply!

Dual DC 13.8V/20A Output: the strong 20A (275Watts) output will allow you to power up to 3 chargers, or any other devices requiring powerful and consistent 13.8Volt supply.

1. Adjust AC Input Voltage Selection Switch to required voltage setting
Caution: failure to do so will result in damage to the powersupply!

2. Connect the output leads of the power supply to the charger(s) or other load(s)
<> Red to + / Plus
<> Black to - / Minus

3. Connect powersupply AC mains socket.

4. Press the On/Off switch to ' I ' and check whether the green Status LED turns on.

If the Status LED is not green after above sequence, check the following points:

- the chargers/loads at DC outputs are operational (disconnect all DC loads to check!);
- the device connected to USB Charge Output is operational (disconnect all devices from USB to check!);
- the AC source is working.
- the power cord is properly connected to the socket.
- the On/Off switch is pressed to ' I ' position.

USB Charge Output (5V/1A): the convenient USB output can power/charge all your USB devices, using your device charge wire, such as mobile phones, tablet computers, digital camera's, etc.

Repair Procedures / Limited Warranty

All products from Nosram are manufactured according to the highest quality standards. Nosram guarantees this product to be free from defects in materials or workmanship for 90 days (non-european countris only) from the original date of purchase verified by sales receipt. This limited warranty doesn't cover defects, which are a result of misuse, improper maintenance, outside interference or mechanical damage.

„This applies among other things on:

- Power supply disassembly by customer
- Any modification of the power supply done by the customer
- Humidity/Water inside the power supply
- Over temperature failures due to blocking the fan or the cooling slots
- Reverse polarity at DC output
- Case opened by customer
- Manipulated input wires“

To eliminate all other possibilities or improper handling, first check all other components in your model and the trouble shooting guide, if available, before you send in this product for repair. If products are sent in for repair, which do operate perfectly, we have to charge a service fee according to our pricelist.

With sending in this product, the customer has to advise Nosram if the product should be repaired in either case. If there is neither a warranty nor guarantee claim, the inspection of the product and the repairs, if necessary, in either case will be charged with a fee at the customers expense according to our price list. A proof of purchase including date of purchase needs to be included. Otherwise, no warranty can be granted. For quick repair- and return service, add your address and detailed description of the malfunction.

If Nosram no longer manufactures a returned defective product and we are unable to service it, we shall provide you with a product that has at least the same value from one of the successor series.

The specifications like weight, size and others should be seen as guide values. Due to ongoing technical improvements, which are done in the interest of the product, Nosram does not take any responsibility for the accuracy of these specs.

With Nosram 25-Years Warranty products, the warranty terms on the Nosram 25-Years Warranty card do also apply. The legal warranty claims, which arose originally when the product was purchased, shall remain unaffected.

Nosram-Distributor-Service:

- Package your product carefully and include sales receipt and detailed description of malfunction.
- Send parcel to your national Nosram distributor.
- Distributor repairs or exchanges the product.
- Shipment back to you by COD (cash on delivery), subject to your national Nosram distributor's general policy.



The crossed-out wheeled bin means that within the European Union the product must be taken to separate collection at the product end-of-life. Do not dispose of these products as unsorted municipal waste.

