

# **Lanberg PDU 03 Series Power Distribution Unit User Manual**

Home » Lanberg » Lanberg PDU 03 Series Power Distribution Unit User Manual



#### **Contents**

- 1 Power distribution unit
- 2 User's manual
- 3 1. Important pre-recommendations and information on the use of power distribution units (PDU)
- 3.1 1.1 Introduction
- 3.2 1.2 Compliance with legal and regulatory requirements concerning safety and environment
- 3.3 1.3 General safety instructions and precautions
- 3.4 1.4 Transport
- **3.5 1.5 Warranty**
- 3.6 1.6 Proper unpacking, inspection, storage and ventilation
- 4 2. Assembly within ICT rack / 19" / 10" rack cabinets
- 5 3. Connecting and disconnecting the PDU and connecting and disconnecting the devices to or from the PDU
- 6 4. Meaning of elements, located on the power distribution unit (PDU)
- 7 Documents / Resources
- 7.1 References
- **8 Related Posts**

Power distribution unit

PDU 03/04/07/08/09/10 series

User's manual



**VERSION: 2021/04** 

#### 1. Important pre-recommendations and information on the use of power distribution units (PDU)

#### 1.1 Introduction

PLEASE SAVE THIS MANUAL – This set of recommendations and manual instructions, for Lanberg the use of power distribution units (PDU), including the following models supported:

- PDU-03E-0200-BK, PDU-03E-0200-IEC-BK
- PDU-03F-0200-BK, PDU-03F-0200-IEC-BK
- PDU-04E04I-0200-BK, PDU-04E04I-0200-IEC-BK
- PDU-06E-0200-BK
- PDU-07E-0200-BK, PDU-07E-0200-IEC-BK, PDU-PRO-07E-0200-BK
- PDU-07F-0200-BK, PDU-07F-0200-IEC-BK, PDU-PRO-07F-0200-BK
- PDU-08E-0200-BK, PDU-08F-0200-BK
- PDU-08I-0200-C20-BK, PDU-02I1906I-0200-C20-BK
- PDU-09E-0300-BK, PDU-09F-0300-BK
- PDU-02I1908I-0200-C20-BK, PDU-10I-0200-IEC-BK

contains logistical, technical instructions and regulations that must be followed during the transport, assembly, usage and maintenance of the, above mentioned, products. Do not use the device, before reading the manual thoroughly, and appropriately following all safety information, included within the manual. Keep this manual for later use. All pictures, illustrations contained in this manual are for visual purposes only. The information in this manual has been verified and is considered sufficient. The Supplier is not liable for any inaccuracies that may be contained in this document, nor does he / she is responsible for updating, maintaining current information within this manual or to notify its users or organizations regarding manual updates. Lanberg owners, in particular, will not be responsible for any hardware, software or data (stored or used along with) the product, including repair, replacement, integration, installation or recovery of hardware, software or data, in case of misuse of the power distribution unit (PDU) and / or its components.

Lanberg owners reserve the right to introduce changes to this manual, at any given time, and without notice. The products mentioned in this manual, including documentation, are the property of the owners of the Lanberg brand and / or its licensors, and are provided only under contract. Any use or reproduction of these products, including documentation, is prohibited, except as expressly permitted under the applicable license terms.

NOTE: For the most up-to-date version of this manual, please visit our website at www.lanberg.eu.

#### 1.2 Compliance with legal and regulatory requirements concerning safety and environment

This product complies with the European Union (EU) safety and environmental regulations.

The products listed in this manual are authorized in the EU by obtaining a European Union Declaration of Conformity which complies with the essential requirements and other relevant provisions of the following directives and that the following harmonized standards apply.

The Declaration of Conformity (CE) is on the page: www.lanberg.eu

NOTE: The use of the WEEE symbol (crossed out bin symbol) means that this product cannot be treated as household waste. Proper disposal of used equipment avoids risks to human health and the environment, resulting from the possible presence of hazardous



substances, mixtures and components in the equipment, as well as, improper storage and processing of such equipment. Selective collection also allows you to recover materials and components, from which the device was manufactured. For more information about the recycling of this product, please contact the retail outlet, where the product was purchased, or request information from the local authority. The use of the RoHS symbol means, that this particular product is manufactured in accordance with the European RoHS standard. Main goal of this norm, is to reduce the amount of hazardous substances getting into the environment, resulting from electrical and electronic waste. The use of the CE symbol means that the product is safe and compliant with EU standards and requirements.

#### 1.3 General safety instructions and precautions

- Usage of this particular device does not require any specialized training nor electrical qualifications. The power
  distribution unit (PDU) performs a similar function as a regular power supply strip (domestic use only) with
  switch and over voltage protection in applications such as: server rooms, data centers, surveillance or CCTV
  systems of small / medium / large companies etc.
- PDU is designed to operate in a controlled environment (Controlled temperature and humidity, device should work indoors, without any conductive contaminants [dust, flammable gases, corrosive substances, etc.]).
- All potential assembly, connections, wiring and circuits in which the PDU strip will be used, must be made in a
  manner compliant with the local electricity regulations, and in such a way, as to eliminate the risk of stepping on
  or tripping over them. Use only power cables with VDE and CE certification when connecting loads to the strip.
- The power socket should be easily accessible and located near the device. Be sure to connect the strip to the grounded outlet.
- Do not disassemble the case of the PDU. Inside the device there are no parts that can be repaired by the user. Refer (including replacement of varistors) servicing to qualified maintenance personnel.
- During the warranty period it is forbidden to replace the elements of the PDU. The varistors can be replaced by qualified technical personnel.
- Do not place any containers filled with water (e.g. cups, bottles, etc.) or other substances that could get into the device to avoid the dangers associated with improper handling of the PDU. Internal short-circuit of the PDU system can lead to hazards such as spikes, fire or electric shock.
- In case of the smoke coming from the device, promptly disconnect the mains power supply. In the event of a
  fire, immediately disconnect the mains and notify the fire department of the situation by dialing the proper
  number in the country of your stay.
- In the case of mandatory maintenance requirement, it should be performed or supervised by a person with appropriate electrical qualifications.
- Before taking any action related to connecting or disconnecting the cables of the strip (PDU), make sure, beforehand, it is turned off (half of the red switch with the white circle icon should be tilted down).
- Make sure that all elements previously attached to the power distribution unit (PDU), as well as the strip itself, are properly screwed to the 19" / 10" rack cabinet, or properly unscrewed in case of disassembly. It is

unacceptable, if any elements of the strips or constituting its integrity are not properly fixed / applied or pose a threat by their incorrect isolation from other functioning elements, that would cause hazard in contact.

- In the case of external devices connected to the strip (PDU), the manufacturer's user manual must be strictly followed.
- In order to ensure the highest safety precautions and compliance, please only use components, that are recommended by the server chassis manufacturer, or fully comply with this particular device specifications.
- Never lead to a situation, in which the strip will be covered from any side. It is necessary to keep the minimum spacing between devices installed within the 19" / 10" rack cabinet and the strip (PDU) (approx. 10 mm) to allow the minimum heat flow generated by the operation of the strip (PDU).
- It is strictly forbidden to use strips in a series (even if they are only two of them, one connected to the other with a small load).
- On the sockets found on the PDU strip, as well as its cables, it is forbidden to use switches, adapters (e.g. for another socket), extension cables or other devices that would in any way mediate the power distribution, but they were not an original part of the strip itself, with the exception of attached devices, for direct power supply.
- Connect only these devices to the power distribution units (PDU) that are compatible and compliant with the specification given by the manufacturer of the specific, connected device, as well as, the PDU itself.
- Do not use the power distribution unit (PDU) to operate beyond the rated load values. It is forbidden to connect individual or multiple devices that will exceed the individual current values specified within the specification, provided by the PDU manufacturer, or may result in the strip being overloaded.

#### 1.4 Transport

During transport, store the power distribution units (PDU) only in the original packaging in order to protect against shocks and impacts. Do not dispose of the packaging into garbage disposal. In the case of warranty shipment of the PDU, it must be categorically packed in the original packaging, it came with.

### 1.5 Warranty

The warranty does not apply if there are faults and defects, resulting from misuse of the PDU and improper handling of the unit (noncomplying with this manual). Mechanical damage is the basis for rejecting a complaint.

#### 1.6 Proper unpacking, inspection, storage and ventilation

Carefully unpack the device from the transport carton. Check if the following items are in the package:

- Power distribution unit (PDU) 19" / 10",
- · User's manual,
- Accessories for fixing the PDU to a 19" / 10" rack cabinet (4 M6 screws, 4 washers, 4 metal baskets).

In the event of any above mentioned elements being missing or damaged, a discrepancy / shortage report should be listed, as long as it is possible, and it is obligatory to inform the seller and the carrier, immediately, regarding this situation, on the same day, as the delivery date. This product should only be installed in a specific location with restricted access (separate rooms for ICT equipment etc.). In addition to that, do not install or store this device in places, where excessive humidity, electrical noise or electromagnetic fields, occur. Condensation may occur if the device is moved directly from cold to warm environment. In that case, make sure that PDU is completely dry, before using it.

# 2. Assembly within ICT rack / 19" / 10" rack cabinets

- 1. Select 1 unused 1U slot on the vertical mounting rails of the ICT rack / 19" / 10" rack and align those holes with the holes found on the power distribution unit (PDU).
- 2. Insert up to 4 metal baskets, bent at the end, with mounting basis inside them, into up to 4 designated holes (mentioned in point (1)), in such way, so the bent ends of metal baskets will slide, click into and grab the designated holes on the vertical mounting rails, from the outside.
- 3. Enter up to 4 screw washers and then insert and screw up to 4 M6 screws from the outside through the selected holes (point (1)) of the vertical mounting rails.

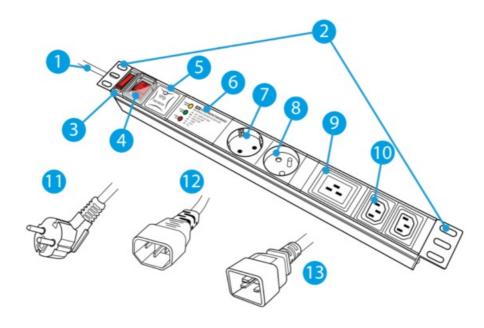
#### 3. Connecting and disconnecting the PDU and connecting and disconnecting the devices to or from the PDU

- 1. To connect the power strips to the mains or the UPS, insert the plug of the input cable of the switched off power strip into the appropriate socket of the power source, which will correspond fully to the specification of the PDU's plug. Then turn on the strip by switching the switch to the "ON" position only PDU for 19" racks. In the case of PDU 03 series (intended only for assembling in 10" cabinets) connecting the plug of PDU to the source power socket will cause the current will appear on PDU output sockets.
- 2. To disconnect the power strip, turn it off first, and then remove the plug of the input cable from the source power outlet only PDU for 19" racks. In the case of PDU 03 series (intended only for assembling in 10" cabinets) turn off the connected devices and pull out their plugs from the outlet sockets of PDU, and then pull out the PDU plug from the source power socket.
- 3. To connect an external device to the terminal, insert the plug of this device in its appropriate socket, which will correspond fully to the specification of the plug of the output socket of the strip.
- 4. To disconnect the external device from the PDU, remove the plug from its socket by switching off, beforehand, the external device (if it is possible).

#### 4. Meaning of elements, located on the power distribution unit (PDU)

- 1. VDE cable with IEC C14 plug (models with the IEC indication in the product name) or with Uni-Schuko plug, at the end of cable.
- 2. Mounting brackets intended for fixing the strip in the ICT server rack / 19" / 10" rack.
- 3. Power switch with overload protection. If the switch is tilted to the,,OFF"position, it means that the power strip is turned on. If it is toggled the other way, it means that the protection has been activated and the strip is switched off.
- 4. Power switch. If the side of the switch with the white circle icon is tilted upwards, it means that the strip is turned off. If this half is tilted
  - the opposite way, it means that the strip is turned on.
- 5. Surge protection LED. If the LED is green, the protection has been activated.
- 6. Surge protection LEDs with active filter. If the 3 LEDs are actively, the protection is active.
- 7. Schuko socket.
- 8. French socket.
- 9. IEC C19 socket.
- 10. IEC C13 socket.
- 11. Uni-Schuko plug of the input cable (only models without IEC indication in the name).
- 12. IEC C14 plug of the input cable (only models with IEC indication in the name).
- 13. IEC C20 plug of the input cable (only models with C20 indication in the name).

The electric path is follows: L (phase wire) - red, N (neutral wire) - blue, G (ground wire) - yellow.



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# **Documents / Resources**



<u>Lanberg PDU 03 Series Power Distribution Unit</u> [pdf] User Manual PDU 03 Series Power Distribution Unit, PDU 03 Series, Power Distribution Unit

## References

- <u>Peryferia do rozbudowy sieci aktywnej i pasywnej | lanberg.pl</u>
- ^ Peryferia do rozbudowy sieci aktywnej i pasywnej | lanberg.pl

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