

Mains Power Distributer

PD32-EU / PD30-US

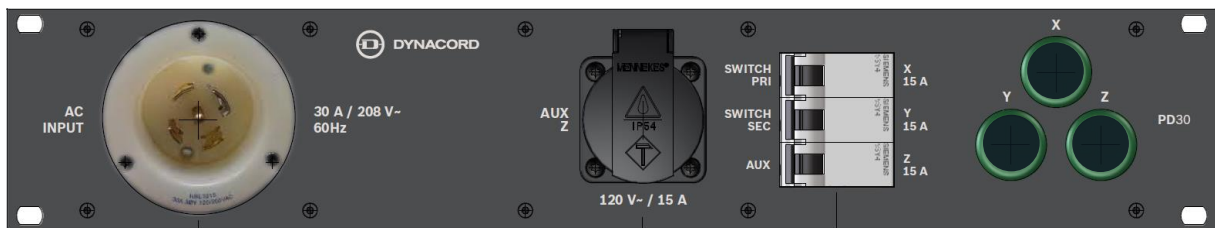
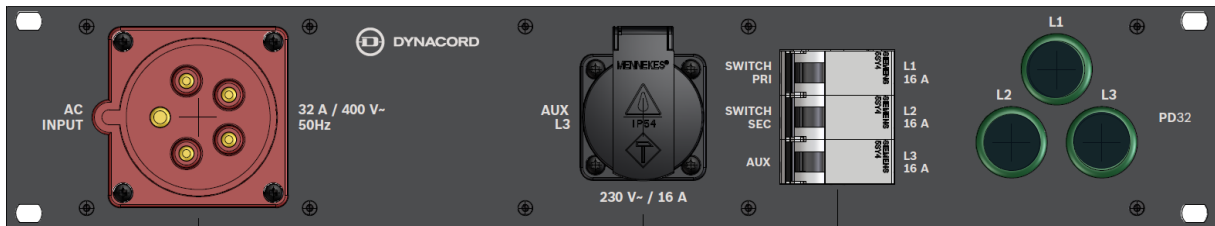


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1. Safety

1.1. Safety Messages Explained

Four types of signs can be used in this manual. The type is closely related to the effect that may be caused if it is not observed. These signs – from least severe effects to most severe effects are:

Notice!



Containing additional information. Usually, not observing a 'notice' does not result in damage to the equipment or personal injuries.

Caution!



The equipment or the property can be damaged, or persons can be lightly injured if the alert is not observed.

Warning!



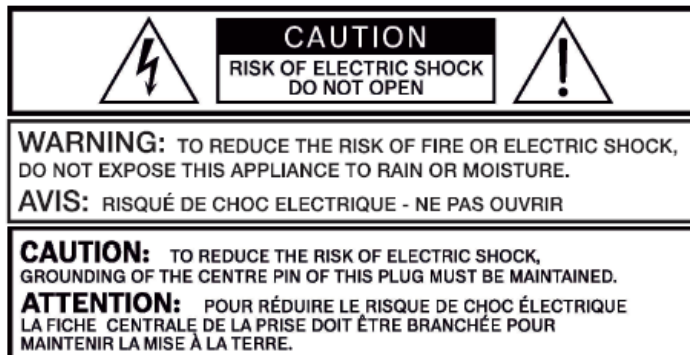
The equipment or the property can be seriously damaged, or persons can be severely injured if the alert is not observed.

Danger!



Not observing the alert can lead to severe injuries or death.

1.2. Important safety instructions



Danger!



The lightning symbol inside a triangle notifies the user of high-voltage, uninsulated lines and contacts inside the devices that could result in fatal electrocution if touched.

Warning!



An exclamation mark inside a triangle refers the user to important operating and service instructions in the documentation for the equipment.

1. Read these safety notes.
2. Keep these safety notes in a safe place.
3. Heed all warnings.
4. Observe all instructions.
5. Do not operate the device in close proximity to water.
6. Use only a dry cloth to clean the unit.

7. Do not cover any ventilation slots. Always refer to the manufacturer's instructions when placing the device.
8. Do not place the device close to heaters, ovens, or other heat sources.
9. Note: The device must only be operated via the mains power supply with a safety ground connector. Do not disable the safety ground connection function of the supplied power cable. If the plug of the supplied cable does not fit your mains socket, please contact your electrician.
10. Ensure that it is not possible to stand on the mains cable. Take precautions to ensure the mains cable cannot become crushed, particularly near the device connector and mains plug.
11. Only use accessories/extensions for the device that have been approved by the manufacturer.
12. Unplug the device if there is risk of lightning strike or in the event of long periods of inactivity. However, this does not apply if the device is to be used as part of an evacuation system!
13. Have all service work and repairs performed by a trained customer service technician only. Service work must be carried out immediately following any damage such as damage to the mains cable or plug, if fluid or any object enters the device, if the device has been used in rain or become wet, or if the device has been dropped or no longer works correctly.
14. Please ensure that no dripping water or spray can penetrate the inside of the device. Do not place any objects filled with fluids, such as vases or drinking vessels, on top of the device.
15. To ensure the device is completely free of voltage, unplug the device from the power supply.
16. When installing the device, ensure that the plug is freely accessible.
17. Do not place any sources of open flame, such as lit candles, on top of the device.
18. This PROTECTION CLASS I device must be connected to a MAINS socket with a safety ground connection.

Caution!

Use only manufacturer-approved carts, stands, brackets, or tables that you acquired together with the device. When using carts to move the device, make sure the transported equipment and the cart itself cannot tip over or cause injury or material damage.

IMPORTANT SERVICE INFORMATION**Caution!**

This service information is for use by qualified service personnel only. To avoid the risk of electric shock, do not perform any maintenance work that is not described in the operating instructions unless you are qualified to do so. Have all service work and repairs performed by a trained customer service technician.

1. Repair work on the device must comply with the safety standards specified in EN 60065 (VDE 0860).
2. A mains isolating transformer must be used during any work for which the opened device is connected to and operated with mains voltage.

3. The device must be free of any voltage before performing any alterations with upgrade sets, switching the mains voltage, or performing any other modifications.
4. The minimum distance between voltage-carrying parts and metal parts that can be touched (such as the metal housing) or between mains poles is 3 mm, and must be observed at all times.
5. The minimum distance between voltage-carrying parts and circuit parts that are not connected to the mains (secondary) is 6 mm, and must be observed at all times.
6. Special components that are marked with the safety symbol in the circuit diagram (note) must only be replaced with original parts.
7. Unauthorized changes to the circuitry are prohibited.
8. The protective measures issued by the relevant trade organizations and applicable at the place of repair must be observed. This includes the properties and configuration of the workplace.
9. Observe the guidelines with respect to handling MOS components.

**Danger!**

SAFETY COMPONENT (MUST BE REPLACED BY ORIGINAL PART)

1.3. Safety precautions

Speaker system damage and protection of human beings

Power amps provide extremely high power output that might be dangerous for human beings as well as for the connected speaker systems. High output voltages can damage or even destroy the connected speaker systems, especially, when the amplifier is operated in bridged mode. Prior to connecting any loudspeakers, make sure to check the speaker system's specifications for continuous and peak power handling capacities. Even if amplification has been reduced through lowering the input level controls on the amplifier's front panel, it is still possible to achieve full power output with a sufficiently high input signal.

Danger!

Danger at the loudspeaker/power outputs

Power amplifiers are capable of producing dangerously high voltage output that is present at the output connectors. To protect yourself from electric shock, do not touch any blank speaker cables during operation of the power amp.

Danger!

The terminals marked with a lightning bolt are hazardous live and the external wiring connected to these terminals requires installation by an instructed person or the use of readymade leads of cords.

Danger!

In case of using the amplifier with speakers including a primary tapped transformer, it is possible that during operation shock hazard voltages may be present at the taps of the transformer. Therefore, the taps have to be insulated sufficiently in accordance with applicable safety regulations.

1.4. High frequency – FCC / EN55032

IMPORTANT: Do not modify this unit! Changes or modifications not expressly approved by the manufacturer could void the user's authority, granted by the FCC, to operate the equipment.

Notice!



This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules and EN55032. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

1.5. Notices

Old electrical and electronic appliances



Electrical or electronic devices that are no longer serviceable must be collected separately and sent for environmentally compatible recycling (in accordance with the European Waste Electrical and Electronic Equipment Directive).

To dispose of old electrical or electronic devices, you should use the return and collection systems put in place in the country concerned.

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2. About this manual

2.1 Short Information

Items covered in the is manual are

CTN	Description
PD32-EU	Power distro 3x32A, 230V, CEE 32A
PD30-US	Power distro 3x30A, 208V, NEMA L21-30

2.2 Intended Use

The PD30-US and PD32-EU mains power distributors are designed and dimensioned to provide and distribute the mains power necessary to drive audio amplifiers, that feature a 32A powerCON® mains power connector, in a system rack.

The PD30-US and PD32-EU may never be used outside a system rack or non-audio applications.

3.Mains In

PD30-US is designed for a mains supply network configuration of:

30 A 3 ϕ Y 120/208 V~ VAC ~ 60 Hz

It has a NEMA 30A 3 ϕ Y 120/208V VAC male connector that accepts the corresponding NEMA female connector.

PD32-EU is designed for a mains supply network configuration of:

3-phase, 230/400 V~ -50/60 Hz – 32 A_{max}.

It has a 32A CEE (Cekon) male connector that accepts the corresponding CEE female connector.



NOTICE! The main power distributor device has no built-in circuit breaker for the three amplifier mains power lines. Protection is only provided by the onsite mains power sub-distribution.



DANGER! Potential Risk of electric shock!

The mains power distributor is a protective class 1 unit. A missing earth (ground) contact may cause dangerous voltages in the housing and controls and may lead to electric shock.

- Do not connect the NEMA/CEE mains connector under load or live!
- Ensure the mains connector is accessible at any time to disconnect the unit in case of malfunction or danger!
- Connect the unit to mains power supplies with protective earth only!
- If there's any sign of obvious damage to the power cord and/or mains connector, do not use the unit and replace it before further use!

When the rack is connected to onsite mains power supply, the three main indicators display the presence of the onsite mains supply lines (phase conductors L1,L2,L3 on PD32-EU, X,Y,Z on PD30-US).

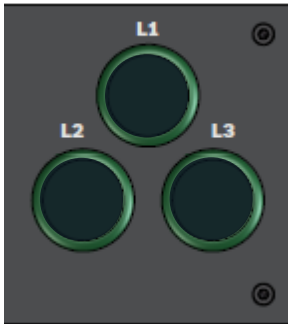


FIG2: Mains Voltage indicator LEDs (shown is PD32-EU)

4. Mains Outputs – Amplifiers

Both PD30-US and PD32-EU have three power lines that are terminated with a 32A powerCON® (NAC3FC-HC) mains power connector. They appear on the rear panel and should be connected to the three amplifiers.

Because there is no built-in circuit breaker, the amplifiers will be connected to mains power as soon as the mains power connector is put on the mains power distributor.

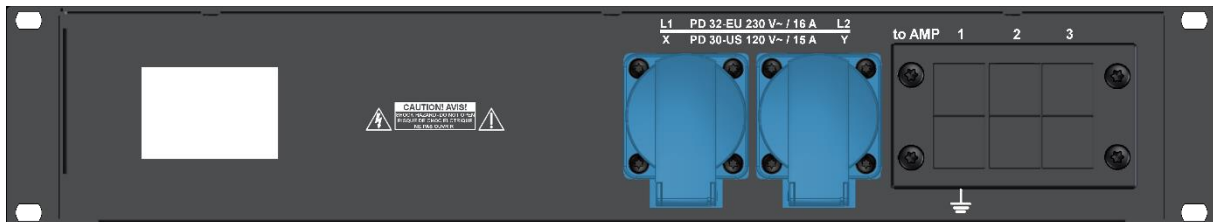


FIG3: Rear view of PD30/PD32- two auxiliary outlets and three 32A mains lines

5. Auxiliary Mains Outputs

The PD30-US, PD32-EU also feature three auxiliary mains outputs- one per phase. They are intended for the connection of low current devices such as notebooks, or Ethernet switches.

They have 230 V~ / 16 A (PD32-EU), respect. 120 V~/ 15 A (PD30-US) circuit breaker on the front panel. They are labeled:

PD32-EU: L1-16 A, L2-16 A, L3-16 A

PD30-US: X-15 A, Y-15 A, Z-15 A

The power outlets for L1/X and L2/Y are on the rear panel, while L3/Z appears on the front.

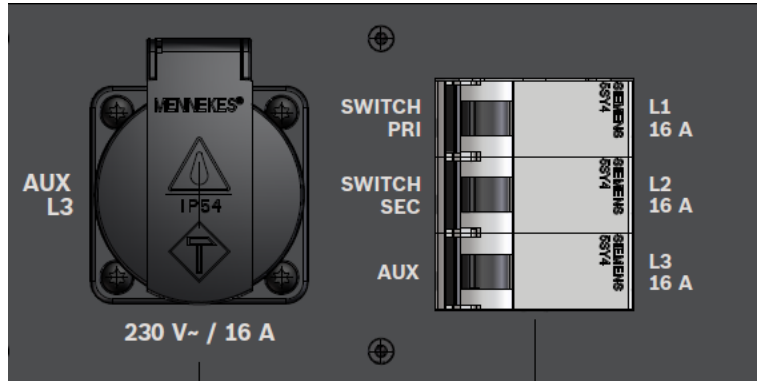


FIG4: Mains circuit breakers for auxiliary outlets PD32-EU

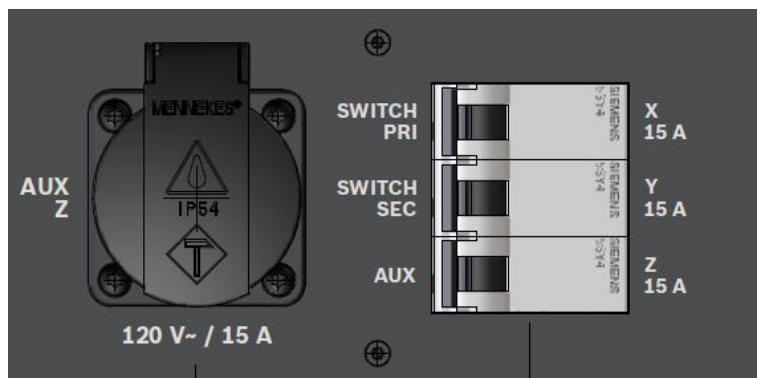


FIG5: Mains circuit breaker for auxiliary outlets PD30-US

6. Technical Specifications

	PD30-US	PD32-EU
Mains Power Inlet	NEMA L21-30, 208 VAC	CEE 32A-3phase-230/400 V
Mains Power Outputs	3 x 30 A, 208 V~	3 x 32 A, 230 V~
Mains Power Outlet	3x Neutrik NAC3FC-HC	
Aux Power Outputs	3 x 15 A, 120 V~	3 x 16 A, 230 V~
Ambient Temperature Limits	+5 °C to +40 °C (40 °F to 105 °F)	
Dimensions (W x H x D) in mm	483 x 88 x 160	
Weight:	5,7 kg [PD32-EU] / 5,8 kg (12,8 lb) [PD30-US]	

7. Schematics

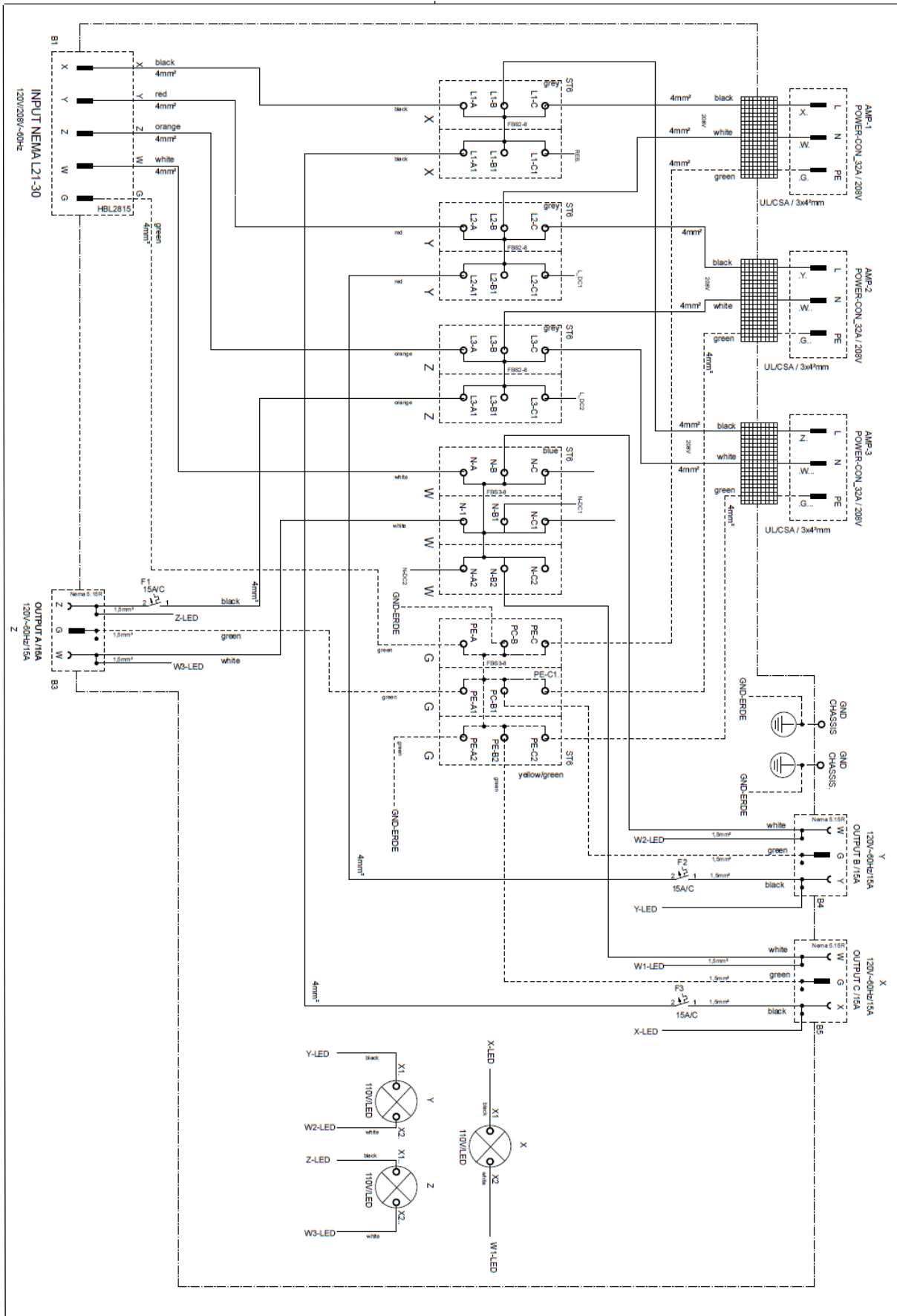


Fig6: Schematics PD30-US

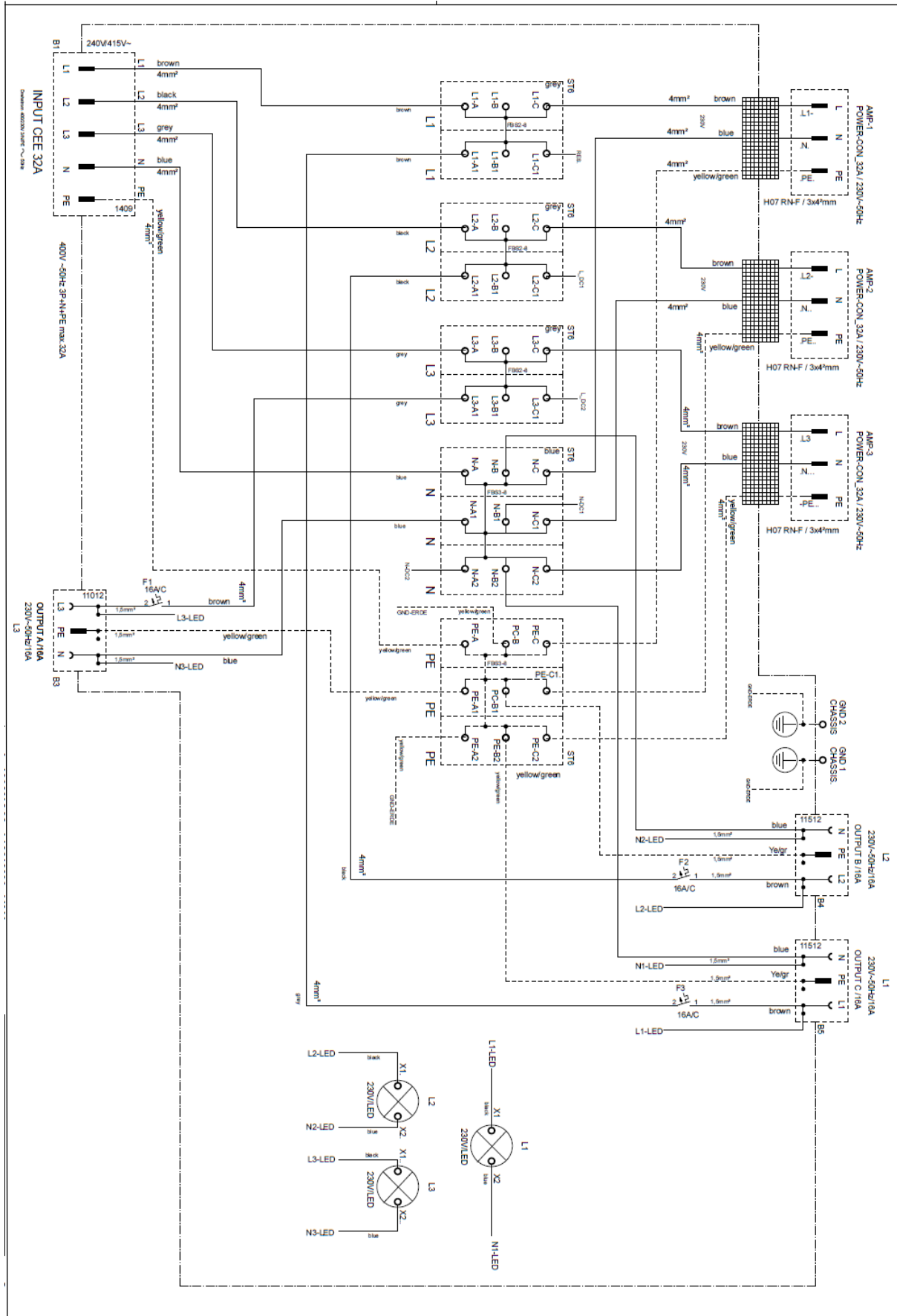


FIG7: Schematics PD32-EU

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