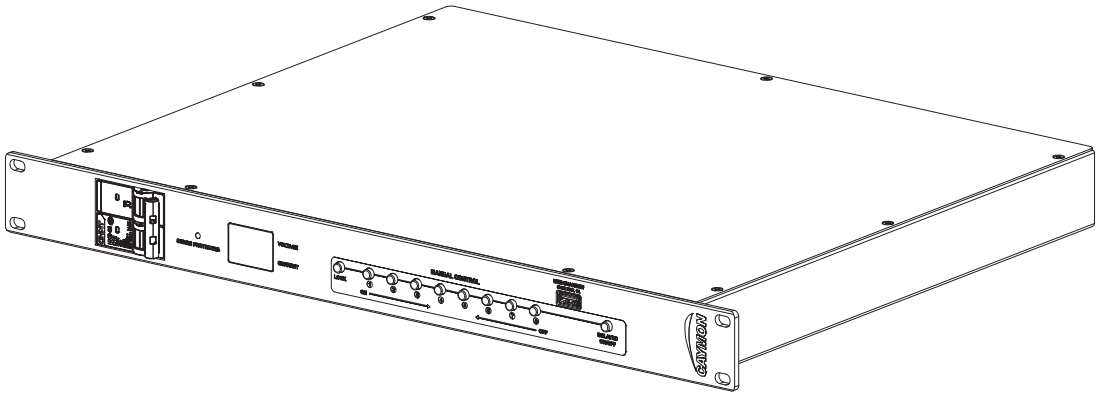
CAYMON
professional stands and racks

Hardware Feature Manual

PSQ108



ADDITIONAL INFORMATION

This manual is put together with much care, and is as complete as could be on the publication date. However, updates on the specifications, functionality or software may have occurred since publication. To obtain the latest version of both manual and software, please visit the CAYMON website @ caymon.eu.

REV-1.3

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Intelligent power sequencer

The PSQ108 is an intelligent power sequencer with 8 x IEC C13 outputs which can be remotely switched using AUDAC Touch™ via TCP/IP or RS-232 connection. It also features front controls for manual control. Several PSQ108 devices can be daisy chained together so that only one IP address is needed for controlling all units. The sequential power on/off function reduces the inrush current of the connected devices when power is turned on and by using the configurable delay times, the order in which the devices turn on can be set. Other features include short circuit and overcurrent protection by means of a 16A circuit breaker, voltage and current monitoring, surge protection with LED indicator and a front USB charging port (max 1000mA).

Precautions

READ FOLLOWING INSTRUCTIONS FOR YOUR OWN SAFETY

ALWAYS KEEP THESE INSTRUCTIONS. NEVER THROW THEM AWAY

ALWAYS HANDLE THIS UNIT WITH CARE

HEED ALL WARNINGS

FOLLOW ALL INSTRUCTIONS

NEVER EXPOSE THIS EQUIPMENT TO RAIN, MOISTURE, ANY DRIPPING OR SPLASHING LIQUID. AND NEVER PLACE AN OBJECT FILLED WITH LIQUID ON TOP OF THIS DEVICE

NO NAKED FLAME SOURCES, SUCH AS LIGHTED CANDLES, SHOULD BE PLACED ON THE APPARATUS

DO NOT PLACE THIS UNIT IN AN ENCLOSED ENVIRONMENT SUCH AS A BOOKSHELF OR CLOSET. ENSURE THERE IS ADEQUATE VENTILATION TO COOL THE UNIT. DO NOT BLOCK THE VENTILATION OPENINGS.

DO NOT STICK ANY OBJECTS THROUGH THE VENTILATION OPENINGS.

DO NOT INSTALL THIS UNIT NEAR ANY HEAT SOURCES SUCH AS RADIATORS OR OTHER APPARATUS THAT PRODUCE HEAT

DO NOT PLACE THIS UNIT IN ENVIRONMENTS WHICH CONTAIN HIGH LEVELS OF DUST, HEAT, MOISTURE OR VIBRATION

THIS UNIT IS DEVELOPED FOR INDOOR USE ONLY. DO NOT USE IT OUTDOORS

PLACE THE UNIT ON A STABLE BASE OR MOUNT IT IN A STABLE RACK

ONLY USE ATTACHMENTS & ACCESSORIES SPECIFIED BY THE MANUFACTURER

UNPLUG THIS APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME

ONLY CONNECT THIS UNIT TO A MAINS SOCKET OUTLET WITH PROTECTIVE EARTHING CONNECTION

THE MAINS PLUG OR APPLIANCE COUPLER IS USED AS THE DISCONNECT DEVICE, SO THE DISCONNECT DEVICE SHALL BE READILY OPERABLE

USE THE APPARATUS ONLY IN MODERATE CLIMATES

CAUTION - SERVICING

This product contains no user serviceable parts. Refer all servicing to qualified service personnel. Do not perform any servicing (unless you are qualified to)

EC DECLARATION OF CONFORMITY

This product conforms to all the essential requirements and further relevant specifications described in following directives: 2014/30/EU (EMC), 2014/35/EU (LVD).

WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)

The WEEE marking indicates that this product should not be disposed with regular household waste at the end of its life cycle. This regulation is created to prevent any possible harm to the environment or human health.

This product is developed and manufactured with high quality materials and components which can be recycled and/or reused. Please dispose this product at your local collection point or recycling centre for electrical and electronic waste. This will make sure that it will be recycled in an environmentally friendly manner, and will help to protect the environment in which we all live.

POWER SUPPLY AND POWER CORD REQUIREMENTS

Power supply class I grounding requirements:

For protection from fault currents, the equipment shall be connected to a grounding terminal. Plug the system power cord into an AC outlet that provides a ground connection. Substitute cords may not provide adequate fault protection. Only use the power cord supplied with this product or an authorized/equivalent replacement.

Safety notices:

Denmark:

Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.

Finland:

Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan.

Norway:

Apparatet må tilkoples jordet stikkontakt.

Sweden:

Apparaten skall anslutas till jordat uttag.

Chapter 1

Connections

CONNECTION STANDARDS

The in- and output connections for CAYMON equipment are performed according to international wiring standards for professional audio equipment.

RS232/485 port (RJ45)

Pin 1	White-Orange	RS232 RxD
Pin 2	Orange	RS232 TxD
Pin 3	White-Green	Not used
Pin 4	Blue	RS485 A
Pin 5	White-Blue	RS485 B
Pin 6	Green	GND
Pin 7	White-Brown	Not used
Pin 8	Brown	Not used

Network settings

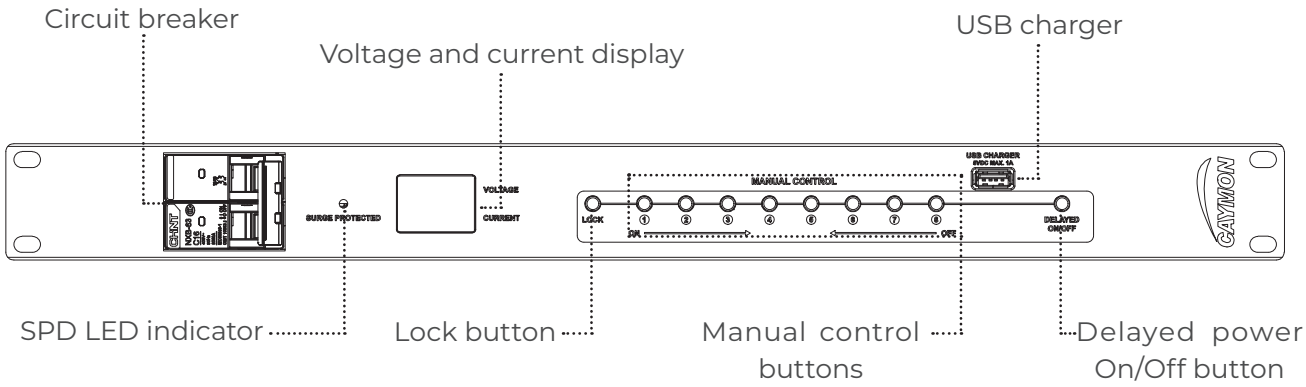
STANDARD NETWORK SETTINGS

DHCP: **ON**
IP Address: 192.168.0.181 (Depending on DHCP)
Subnet Mask: 255.255.255.0 (Depending on DHCP)
Gateway: 192.168.0.1 (Depending on DHCP)
DNS 1: 8.8.4.4 (Depending on DHCP)
DNS 2: 1.1.1.1 (Depending on DHCP)

Chapter 2

Overview of front panel

The PSQ108 front panel offers a basic control of the intelligent power sequencer and monitoring. An extensive custom configuration and remote control can be done on AUDAC Touch™.



1) Circuit breaker

This is a 16A circuit breaker that also acts as the main power on/off switch of the power sequencer. If a short circuit or overcurrent occurs, the circuit breaker will automatically switch over.

2) SPD LED indicator

The LED is driven by the monitor circuit and will illuminate when surge protection is operational and connected devices are protected from electrical surges.

If the LED does not illuminate, surge protection is not working anymore and the unit should be inspected by a technician.

3) Voltage and current display

The 7-segment display shows the drawn voltage and current through the power sequencer.

4) Lock button

Pressing this button 2 seconds will lock or unlock the manual control buttons.

5) Manual control buttons

The power sequencer has 8 power outputs. Those outputs can be switched on or off manually using manual control buttons.

6) Delayed power On/Off

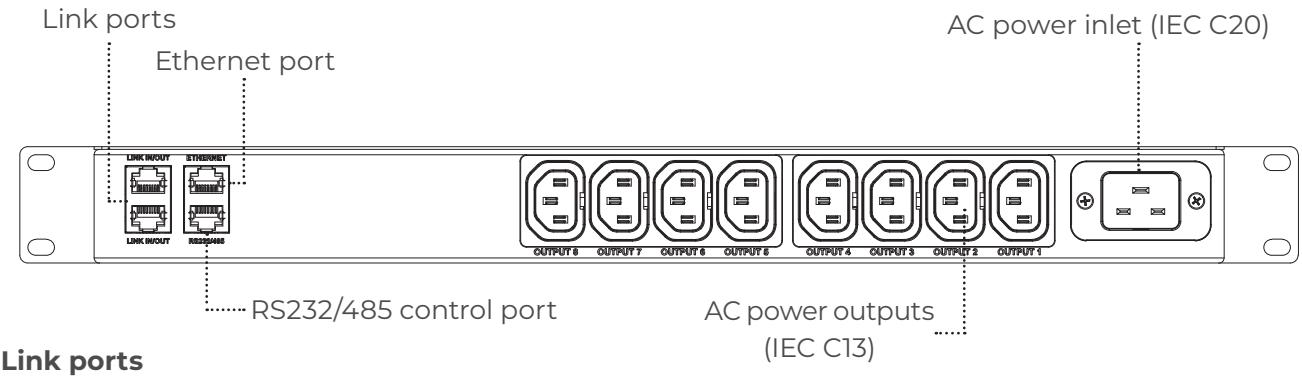
Pressing this button for 2 seconds will start the delayed on or the delayed off sequence. By default, the outputs turn on from output 1 to 8 and turn off from output 8 to 1 with 1 second intervals.

A custom sequence with custom order and delay can be configured using AUDAC Touch™.

7) USB charger

USB port 5V 1A max. (charging only)

Overview of rear panel



1) Link ports

Up to 20 PSQ108 intelligent power sequencer devices can be daisy chained using link ports. Each RJ45 socket can be either an input or an output.

2) Ethernet port

An ethernet port is available for TCP/IP control. PSQ108 has 5 WebSockets available for remote control.

3) RS232/485 control port

The PSQ108 can be controlled by a third party device using the RS232/485 control port.

4) IEC C13 outputs

The PSQ108 is equiped with eight IEC C13 outputs which can be remotely switched using AUDAC Touch™ via TCP/IP or RS-232 connection or buttons on the front panel.

5) AC inlet

AC power inlet is provided by an IEC C20 connector.

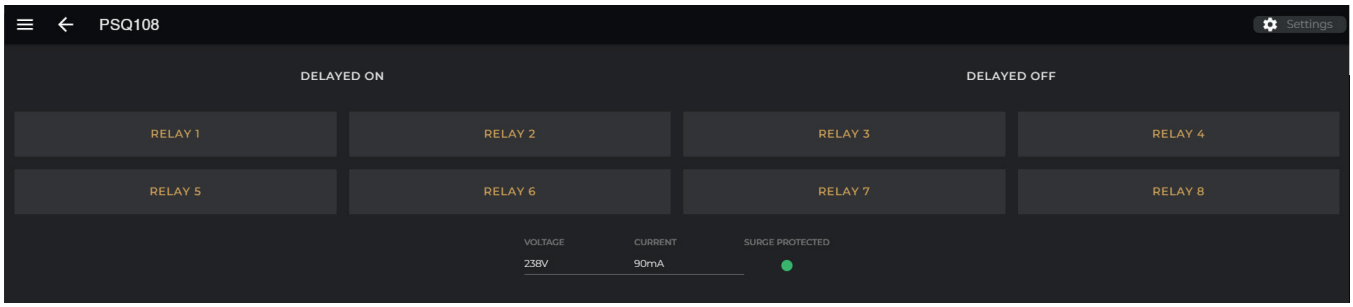
Chapter 3

The PSQ108 can be configured and controlled with AUDAC Touch™. With the power sequencer, you will have fundamental features like voltage and current draw reading and surge protection, but most importantly you will be able to control how you want to power on or off the system using any third-party devices or through the widgets on a dashboard created in AUDAC Touch™.

ASCII commands are available on the product page for third-party control.

Control screen

Control screen of the PSQ108 has buttons for delayed on, delayed off and individual relay toggle. It also shows the voltage and current draw reading and the surge protection status.



Delayed on/off

Delayed on and delayed off buttons trigger on and off operations with the delay times set in the power sequencer settings. The default delay times for delayed on are set as 1 second to 8 seconds, respectively, from relay 1 to 8, whereas delayed off delay times are set as 1 second to 8 seconds, respectively, from relay 8 to 1. The relay delay times can be adjusted as needed for specific applications on the power sequencer settings to ensure proper sequencing and protection of equipment.

Relay 1-8

In addition to delayed on and off operations, individual relays can be controlled seperately using these buttons.

Voltage

Voltage indicator gives the voltage reading on the PSQ108 AC power inlet.

Current

The current indicator gives the reading of the total current draw from the power outlets of the PSQ108. The current draw limit is 16A.

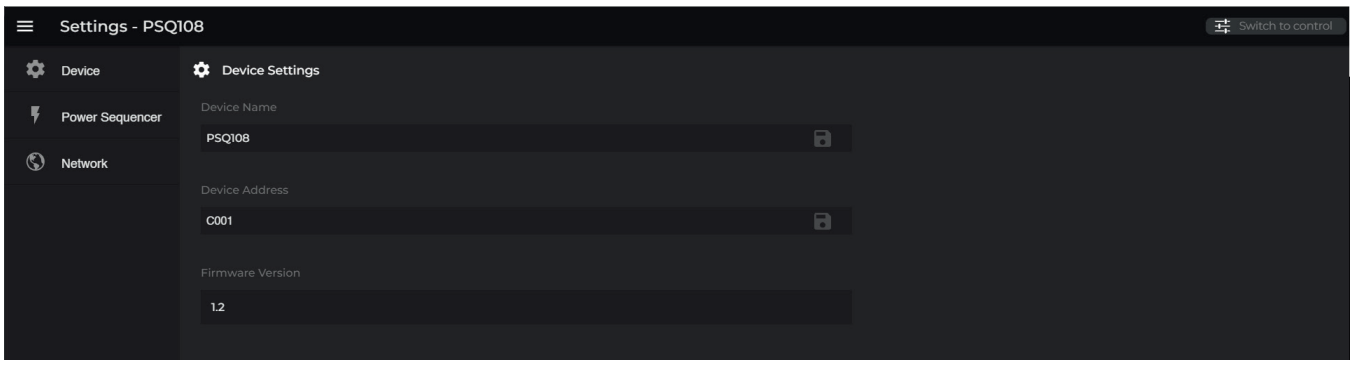
Surge protected

When the surge protection is operational and the connected devices are protected from electrical surges, the indicator will be green. If there is something wrong with the protection circuit, the indicator will be red.

Device settings

Device name

Changes the default name of the PSQ108 that appears on the device list of AUDAC Touch™.



Device address

The default device address of the PSQ108 is C001 and the addressing range is 001- 999. The device address is important for delivering the ASCII command to the right device (e.g. delayed power on ASCII command for the device with C001 device address *#|C001|TOUC|DELON|0|U|*)

Firmware version

The installed firmware version on the PSQ108.

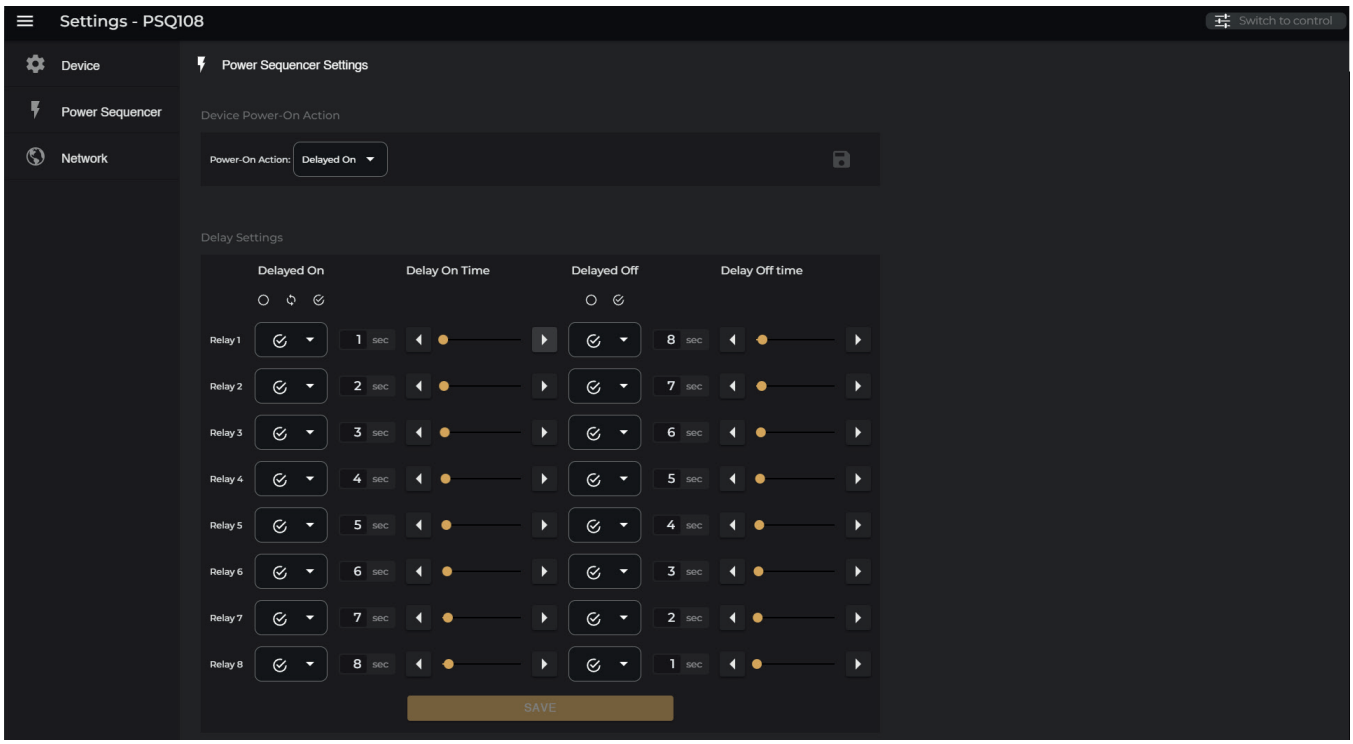
Power Sequencer settings

Device power-on action

Delayed-on feature of the PSQ108 can be enabled or disabled in this dropdown menu. The device will either perform the delayed on sequence according to the configuration in the delay settings or it will perform no action.Power-on action is delayed on by default.

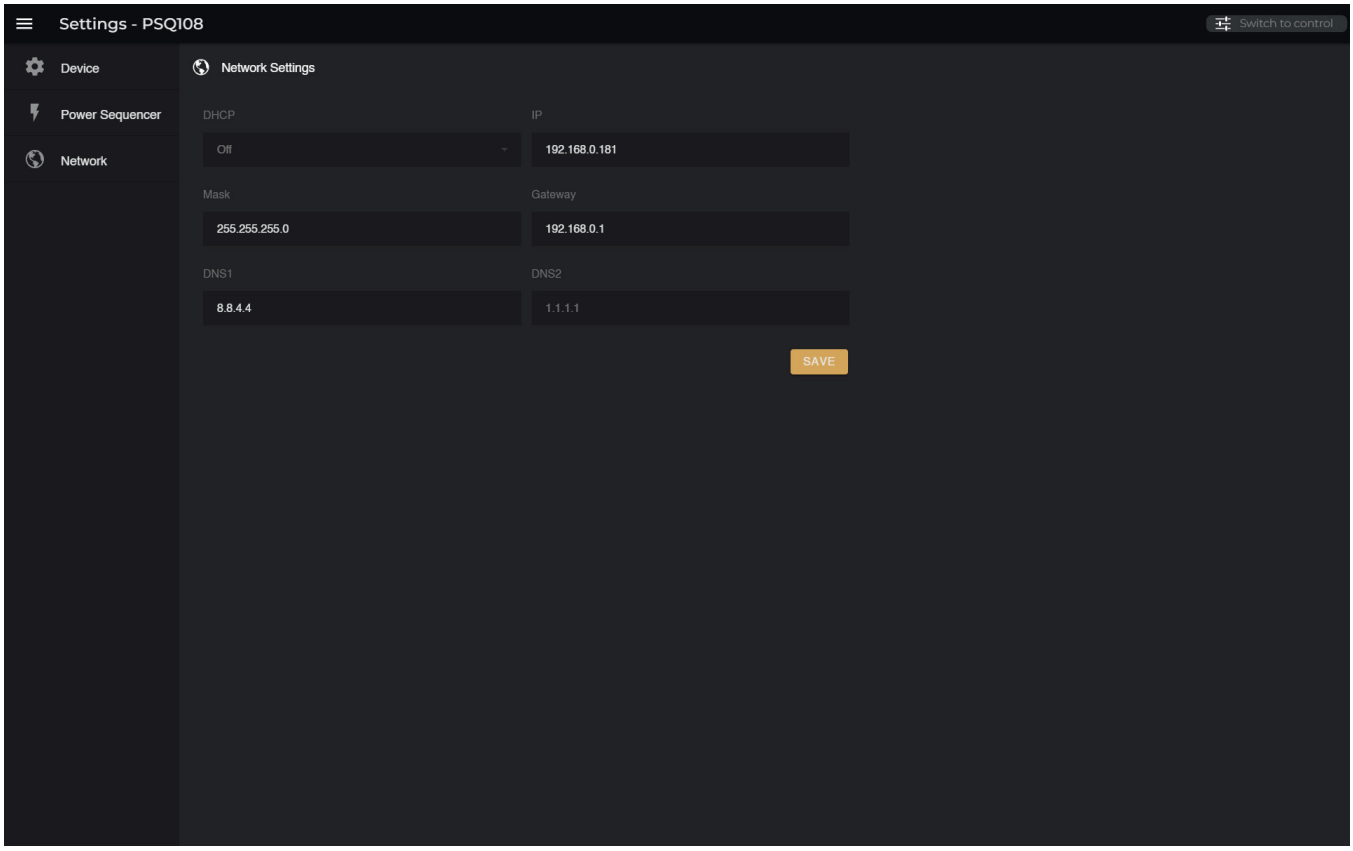
Delay settings

Delay time and relay status can be configured under delay settings. Each relay has up to 99 seconds of delay time for on and off sequences. Relays can be enabled or disabled individually or together. In other words, if desired, one or more relays can be excluded from the power-on and power-off sequence. It is also possible to keep a relay in its last state during a power-on sequence. After a change in any configuration, the save button will be highlighted. Press the save button to save the configuration to the device.



Network settings

The network settings of PSQ108 can be changed in the network tab of the side menu. DHCP is on by default. If there is no DHCP server, the device will use the default IP address 192.168.0.181 until gets an IP from the DHCP server.



Factory reset

Factory reset without IP address settings
Press LOCK + output 2 + DELAY ON/OFF simultaneously for 10 seconds

This operation resets the device address, relay status, delay on/off times, delay on/off enable and power on setting.

Factory reset including IP address settings

Press LOCK + output 3 + DELAY ON/OFF simultaneously for 10 seconds

This operation resets the device address, relay status, delay on/off times, delay on/off enable, power on setting and the IP-address.

Technical specifications

	PSQ108
Control	Front panel RS232/485 (RJ45) TCP/IP (RJ45) AUDAC Touch™
Dimensions	483 x 44 x 305 (W x H x D)
Unit height	1 HE
Weight	4.24 Kg
Power handling	100 - 250 V AC ~ 50/60 Hz 16 A / 4000 W (input) 100 - 250 V AC ~ 50/60 Hz 10 A / 2500 W (per output) Total power all outputs combined: 4000 W
USB	Power handling: 5V DC / 1A Max
Connection	Male Schuko (CEE 7/7) input connection
Cable length	2.5 m

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