RSF108
v1.0
10-ports switch RSF108 with buffer power supply for 8 IP cameras, RACK

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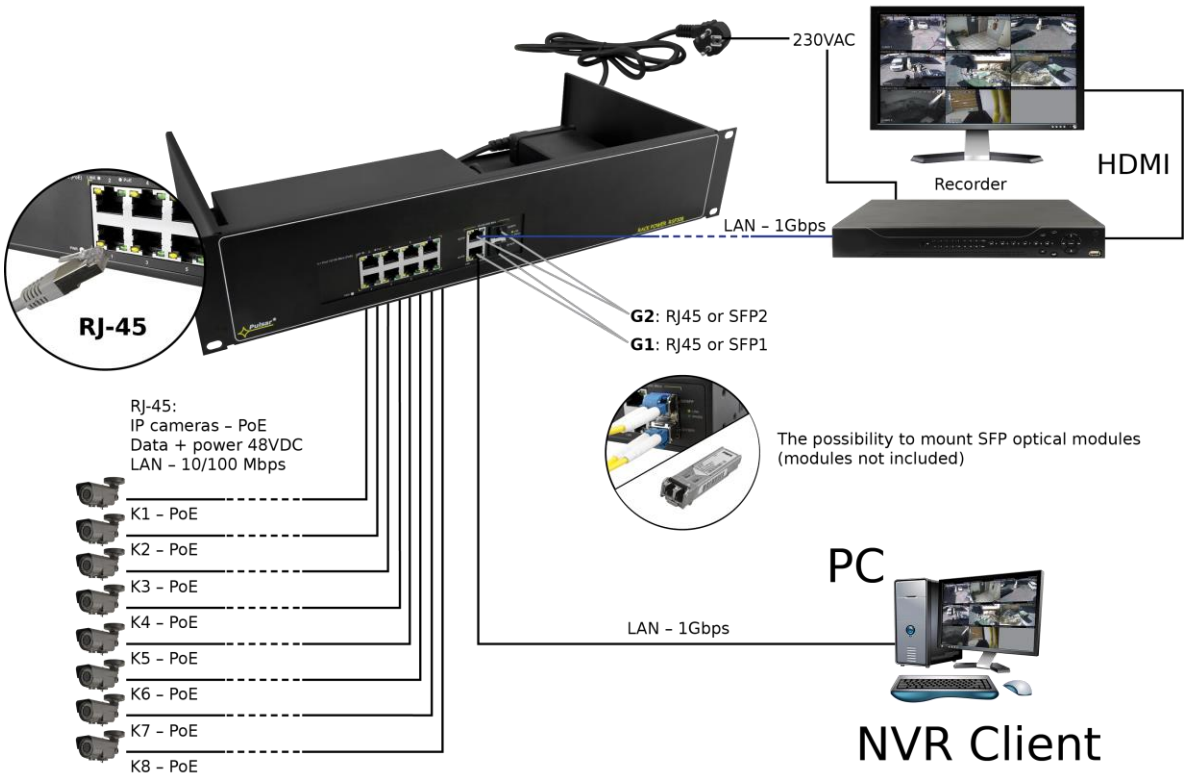
Supercedes the edition: ----------

EN

Features:

- Switch 10 ports
  8 PoE 10/100Mb/s ports, (1÷8 ports) (data and power supply)
  2 ports 10/100/1000Mb/s (G1/TP, G2/TP ports) (UpLink)
  2 ports 10/100/1000 Mb/s SFP (G1/SFP, G2/SFP ports)
- 15,4W for each PoE port, supports devices complaint with the IEEE802.3af standard
- Supports auto-learning and auto-aging of MAC addresses (1K size)
- LED indication
- Metal enclosure RACK 19” 2U
  - color: black RAL 9005
- warranty – 2 year from the production date

Example of use.



1. Technical description.

1.1. General description.

The RSF108 switch 10-ports and power supply unit are housed in a metal enclosure RACK 19”. Automatic detection of any devices powered in the PoE standard is enabled at the 1 – 8 ports of the switch. The G1/TP, G2/TP ports is used for connection of another network device via RJ45 connector. The switch is fitted with SFP slots (marked as G1/SFP and G2/SFP); the use of fiber optic module (GBIC) allows fiber optic transmission. The LEDs at the front panel indicate the operation status (description in the table. 4).

The PoE technology ensures a network connection and reduces installation costs by eliminating the need to supply a separate power cable for each device. This method allows supplying other network devices, such as IP phone, wireless access point or router.

1.2. Block diagram.

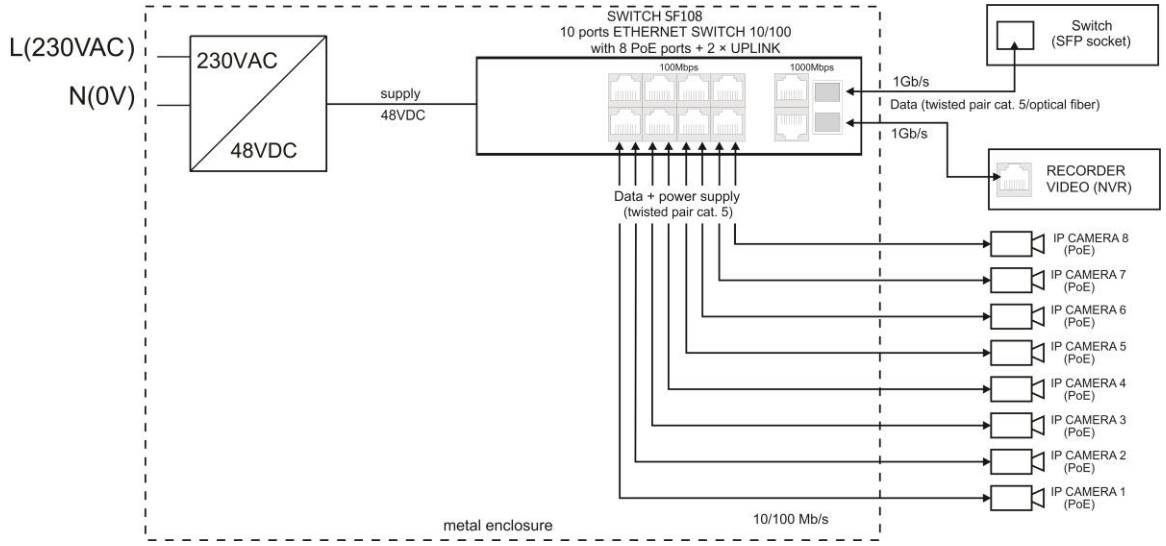


Fig. 1. Block diagram.

1.3. Description of components and connectors.

Table 1. (see Fig. 2)

Element no. (Fig. 2)	Description
[1]	8 x PoE port (1÷8)
[2]	2 x UPLINK port (G1/TP, G2/TP)
[3]	2 x UPLINK port (G1/SFP, G2/SFP)
[4]	Switch mode power supply for the switch 48VDC/2,5A/120W
[5]	Power cable AC 230V

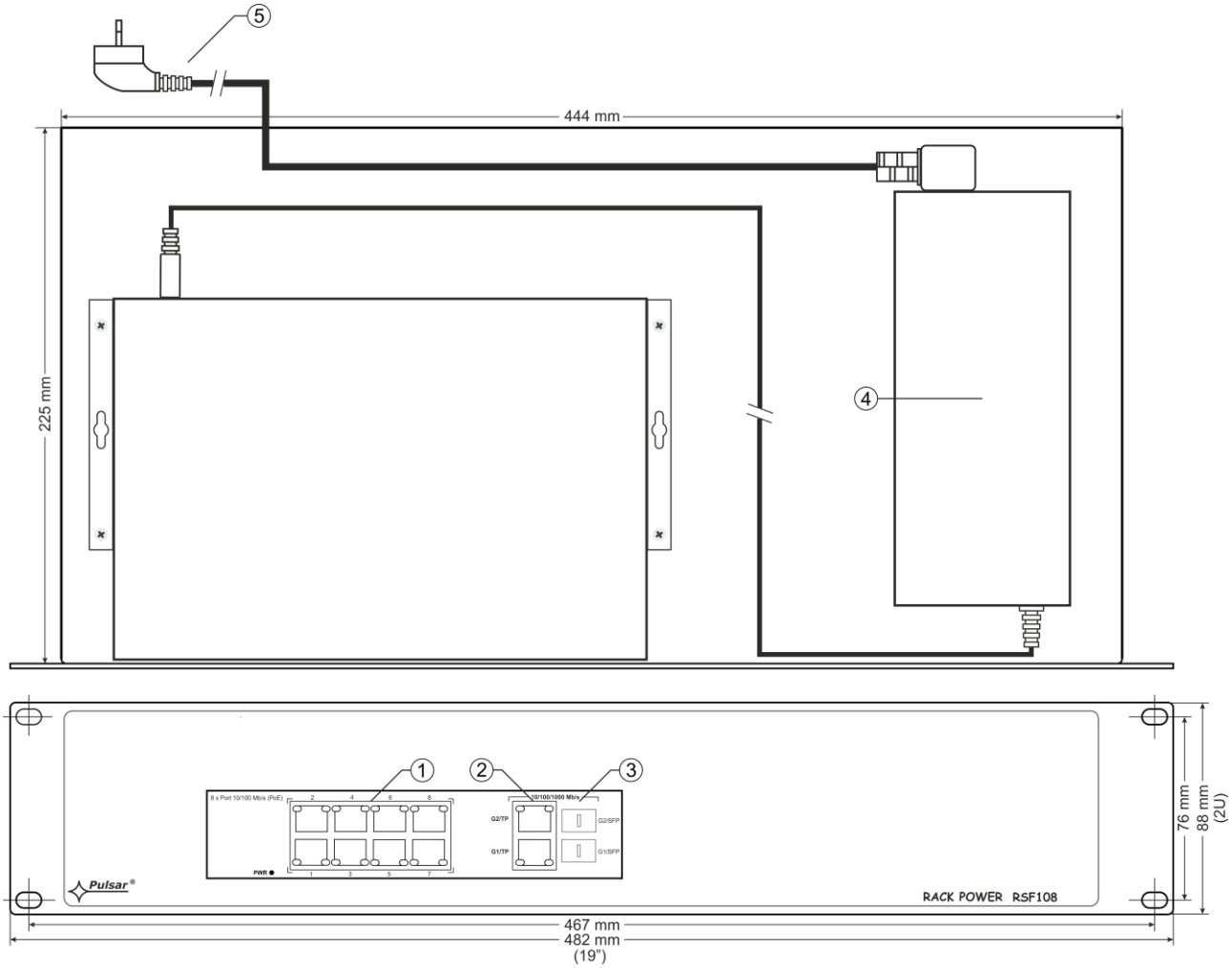


Fig. 2. The enclosure view.

1.4 Technical parameters (Table 2.)

Table 2.

Ports	8 x PoE (10/100Mb/s) (RJ-45) 2 x UPLINK (10/100/1000Mb/s) (RJ-45) 2 x UPLINK (10/100/1000Mb/s) (SFP) with connection speed auto-negotiation and MDI/MDIX Auto Cross)
PoE power supply	IEEE 802.3af (1÷8 ports), 48VDC / 15,4W at each port * Used pairs 4/5 (+), 7/8 (-)
Protocols, Standards	IEEE802.3, 802.3u, 802.3x CSMA/CD, TCP/IP
Forwarding rate	10BASE-T: 14880pps/port
	100BASE-TX: 148800pps/port
Bandwidth	1,6Gbps
Transmission method	Store-and-Forward
Optical indication of operation	Switch power supply Link PoE Status
Power supply	90 ÷ 264VAC 50÷60Hz / 2,5A 230VAC
Operating conditions	temperature -10°C ÷ 40°C, relative humidity 5% - 90%, no condensation
Internal dimensions	W=19", H=2U; 482 x 88 x 225 [mm] (±2) (WxHxD)
Enclosure	RACK 19″ 2U, Steel plate, DC01 1,0mm color: black RAL 9005
Closing	Cheese head screw x 1 (at the front)
Net/gross weight	3,4/3,7kg
Protection class PN-EN 609501:2007	II (second)
Storage temperature	-20°C ÷ 60°C
Declarations	CE

***** The given value of 15,4W per port is the maximum value. The total power consumption should not exceed 96W when all PoE ports are being used.

2. Installation.

2.1. Requirements.

The PSU shall be mounted by a qualified installer with appropriate permissions and qualifications for 230V/AC installations and low-voltage installations (required and necessary for a given country). The unit should be mounted in confined spaces, in accordance with the 2nd environmental class, with normal relative humidity (RH=90% maximum, without condensation) and temperature from -10°C to +40°C. The switch shall work in a vertical position that guarantees sufficient convectional air-flow through ventilating holes of the enclosure in a RACK cabinet.

The switch load balance should be done before installation.

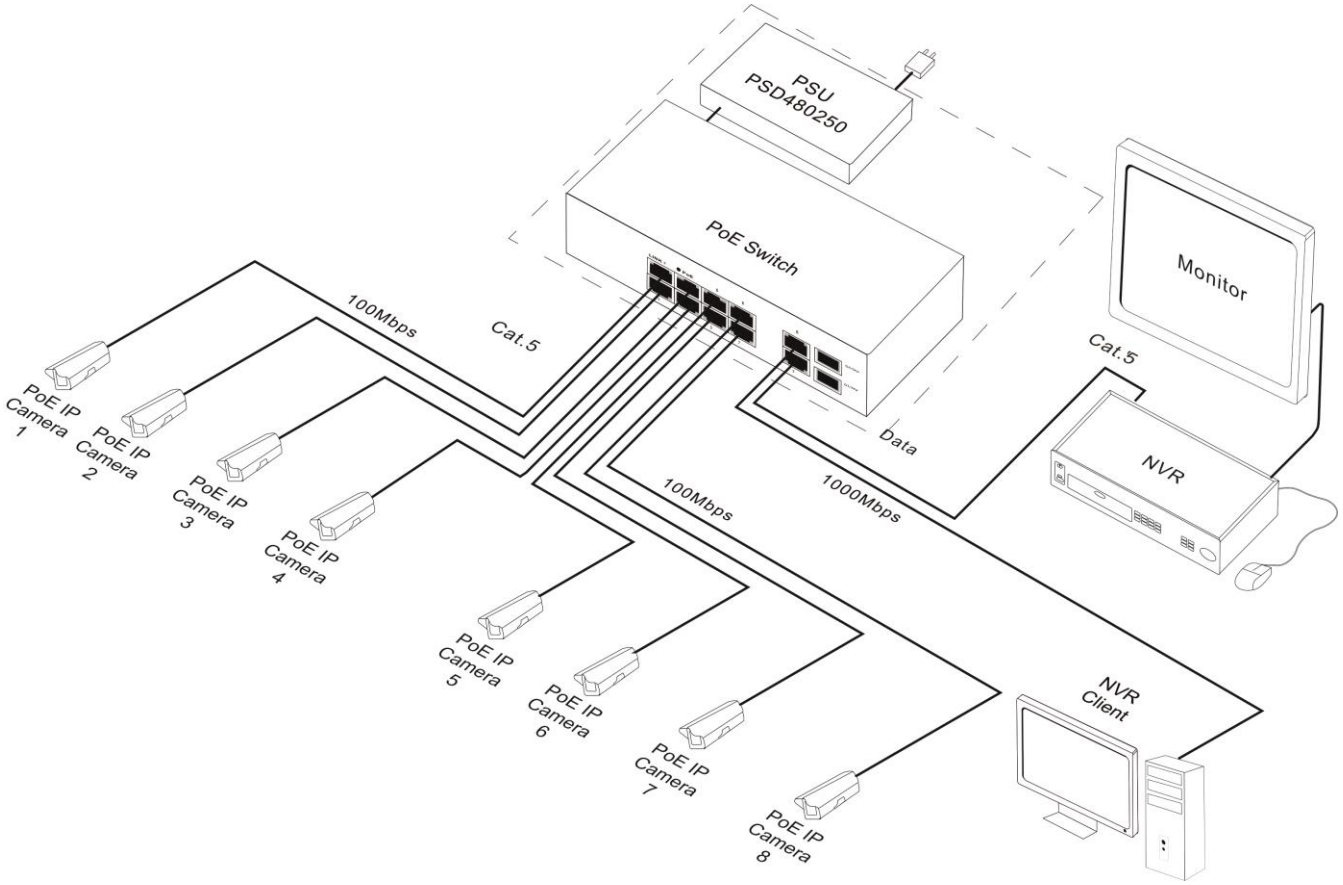
The given value of 15,4W per port is the maximum value referring to a single output. The total power consumption should not exceed 96W when all PoE ports are being used. The increased demand for power is particularly evident in the case of cameras with heaters or infrared illuminators - when launching these features, the power consumption increases rapidly, which may adversely affect the operation of the switch.

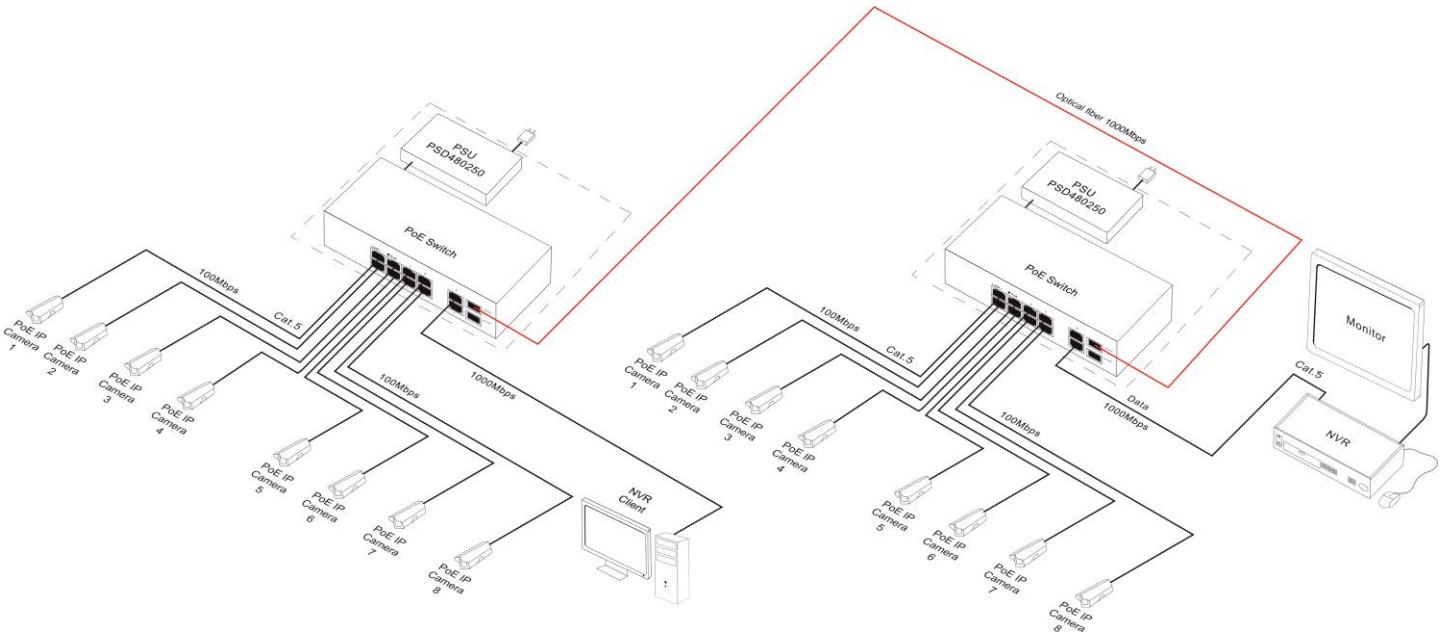
As the device is designed for a continuous operation and is not equipped with a power-switch, therefore an appropriate overload protection in the power supply circuit should be provided. The electrical system shall be made in accordance with applicable standards and regulations.

2.2. Installation procedure.

1. Mount the switch in the RACK 19" cabinet.
2. Plug in the power supply of the switch to the AC 230V outlet.
   The place and method of installation should ensure free air flow around the unit.
3. Connect the power (~230V).
4. Connect the camera wires to the RJ45 connectors (PoE connectors).
5. Check the optical indication of the switch operation.

Connection schemes





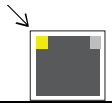
3. Operation indication

Table 4. Operation indication

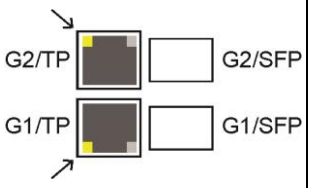
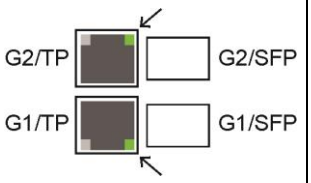
OPTICAL INDICATION OF THE SWITCH's POWER SUPPLY

GREEN LED LIGHT (Power) **Indication of the switch's power supply** 	**OFF** – no power supply of the switch **ON** – power supply on, normal operation

OPTICAL INDICATION AT THE PoE PORTS (1÷8)

GREEN LED LIGHT (PoE) **Indication of the PoE power supply at the RJ45 ports** 	**OFF**- no power supply at the RJ45 port (the device is not connected or not compliant with the IEEE802.3af standard) **ON** – supply at the RJ45 port **Blinking** – short-circuit or output overload
YELLOW LED LIGHT (LINK) **The connection status of LAN devices, 10MB/s or 100Mb/s and data transmission** 	**OFF**- no connection **ON** - the device is connected; 10Mb/s or 100Mb/s **Blinking** – data transmission

OPTICAL INDICATION AT THE UPLINK PORTS

YELLOW LED LIGHT (LINK) 	**OFF**- no connection **ON** - the device is connected **Blinking** – data transmission **CAUTION!** The operating status of the G1/TP, G1/SFP, G2/TP and G2/SFP slots is shown on the LEDs located near the RJ45 connector (see below). **CAUTION!** G1/TP and G1/SFP or G2/TP and G2/SFP sockets can not operate simultaneously. These are COMBO type sockets.
GREEN LED LIGHT (SPEED) 	**OFF** – connection 10Mb/s or 100Mb/s **ON** - connection 1000Mb/s **CAUTION!** The operating status of the G1/TP, G1/SFP, G2/TP and G2/SFP slots is shown on the LEDs located near the RJ45 connector (see below). **CAUTION!** G1/TP and G1/SFP or G2/TP and G2/SFP sockets can not operate simultaneously. These are COMBO type sockets.

WEEE LABEL

Waste electrical and electronic equipment must not be disposed of with normal household waste. According to the European Union WEEE Directive, waste electrical and electronic equipment should be disposed of separately from normal household waste.

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