# SF108-CRB 10-ports switch with buffer power supply for 8 IP cameras and recorder in recorder space



CODE: SF108-CRB v.1.1/III

TYPE:

SF108-CRB 10-ports switch with buffer power supply for 8 IP cameras and recorder in recorder space.

Recorder space W<sub>2</sub> x H<sub>2</sub>

W
W,

#### Features:

- Uninterruptible power supply of 8 IP cameras (52V DC)
- Uninterruptible power supply of the recorder (12V DC)
- Switch 10 ports
  - 8 PoE ports 10/100 Mb/s, (1÷8 ports) (data and power supply)
  - 2 ports 10/100/1000 Mb/s (G1/TP, G2/TP ports) (UpLink)
  - 2 ports 10/100/1000 Mb/s SFP (G1/SFP, G2/SFP ports)
- 30W for each PoE port, supports devices complaint with the IEEE802.3af/at standard
- Approximate backup time: 3h 30min

- LED indication
- Additional mounting elements (straps for mounting the recorder)
- Metal enclosure color white RAL 9003 with space for two 17Ah/12V battery and offers the possibility of recorder installation
- Supports auto-learning and auto-aging of MAC addresses (1K size)
- Space for a recorder with the following dimensions 320x380x65 (WxHxD)
- warranty 2 year from the production date

### **DESCRIPTION**

The SF108-CRB is dedicated for uninterruptible power supply of 8 IP cameras (52V DC power supply) and uninterruptible power supply of the DVR (12V DC power supply). In addition, the large size of the enclosure allows installing the recorder inside.

The main elements of this system include:

- 10 ports PoE (SF108) switch
- buffer power supply unit 27,6V (PSB-30024100) which can accommodate two 2 x 17Ah / 12V batteries
- a converter (DC/DC52230) increasing the voltage to 52V DC (supply of the PoE switch)
- step down (DC/DC50SD) converter with adjustable output voltage to 12V DC (NVR power supply)

In case of power decay, a battery back-up is activated immediately.

The approximate backup time is given assuming that all output ports are used (using typical devices and 17Ah batteries). The electricity consumption for own needs and the energy efficiency of the power intake track were taken into account. The exact description of how to perform the calculations can be found at: "Approximate backup time assumptions for calculations".

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; the use of fiber optic module (GBIC) allows fiber optic transmission. The LEDs at the front panel indicate the operation status.

The switch is housed in a metal enclosure (color RAL 9003) which can accommodate a two 17Ah/12V batteries. The enclosure features a micro switch tamper indicating door opening (front panel). The SF108-CRB is fitted with two LEDs on the front panel (red LED – indicates 230V AC power supply of the PSU, green LED indicates the presence of DC voltage).

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.

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### PARAMETERS OF THE SWITCH

| Ports                 | 8 x PoE (10/100 Mb/s) (RJ-45)                                   |  |
|-----------------------|---|--|
|                       | 2 x UPLINK (10/100/1000 Mb/s) (RJ-45)                           |  |
|                       | 2 x UPLINK (10/100/1000 Mb/s) (SFP)                             |  |
|                       | with connection speed auto-negotiation and MDI/MDIX Auto Cross) |  |
| PoE power supply      | IEEE802.3af/at (1÷8 ports), 52V DC / 30W 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             | 1,6 Gbps  |  |
| Transmission method   | Store-and-Forward   |  |
| Optical indication of | Switch power supply;  |  |
| operation             | Link/Act;   |  |
|                       | PoE Status  |  |

<sup>\*</sup> The given value of 30W per port is the maximum value. The total power consumption should not exceed 96W when all PoE ports are being used.

## **ELECTRICAL PARAMETERS**

| ELECTRICAL PARAMETERS                  |   |  |  |
|--|---|--|--|
| Mains supply                           | 176÷264V AC   |  |  |
| Current up to                          | 1,1A@230VAC max.  |  |  |
| Supply power                           | 185W  |  |  |
| Output current at the PoE ports (RJ45) | 8 x 0,3A ΣI=2A (max.)                                       |  |  |
| Output voltage at the PoE ports (RJ45) | 52V DC  |  |  |
| Output current (power supply output)   | 5A  |  |  |
| Output voltage (power supply input)    | 12V DC  |  |  |
| Short-circuit protection SCP and       | 105% ÷ 150% PSU power, automatic recovery                   |  |  |
| overload protection OLP                | (the fault requires disconnection of the DC output circuit) |  |  |
| PSU current consumption                | 250mA/27,6V   |  |  |
| Battery charge current                 | 1,0A max. / 2x17Ah (+/-5%)                                  |  |  |
| Approximate backup time                | 3h 30min  |  |  |
| Battery circuit protection SCP and     | molting fund  |  |  |
| reverse polarity connection            | melting fuse  |  |  |
| Deep discharge battery protection UVP  | U<19V (± 5%) – disconnection of the batteries               |  |  |
| Sabotage protection:                   |   |  |  |
| - TAMPER output indicating enclosure   | - microswitch, styki NC (obudowa zamknięta),                |  |  |
| opening                                | 0,5A@50V DC (max.)  |  |  |

### **MECHANICAL PARAMETERS**

| Dimensions                     | W=421, H=535, D+D <sub>1</sub> =193+14 [+/- 2mm]                             |  |
|--------------------------------|--|--|
| Difficusions                   | W <sub>1</sub> =426, H <sub>1</sub> =540 [+/- 2mm]                           |  |
| The dimensions of the recorder | r W <sub>2</sub> =380, H <sub>2</sub> =320, D <sub>2</sub> =65 [+/- 2mm]     |  |
| compartment                    |  |  |
| The dimensions of the battery  | 370x180x80 (WxHxD)   |  |
| compartment                    |  |  |
| Gross/Net weight               | 11,2 / 12,0 kg   |  |
| Enclosure                      | Steel plate, DC01 1,0mm color white RAL 9003                                 |  |
| Closing                        | Cheese head screw x 2 (at the front), (lock assembly possible)               |  |
| Connectors                     | Power supply of the cameras: RJ45 socket                                     |  |
|                                | Power supply for recorder: DC2,1/5,5 plug                                    |  |
|                                | Input 230V AC: Φ 0,63-2,50 (AWG 22-10),                                      |  |
|                                | Battery output BAT: 6,3F-2,5   |  |
|                                | TAMPER output: wires   |  |
| Warranty                       | 2 year from the production date  |  |
| Notes                          | The enclosure does not touch the assembly surface so that cables can be led. |  |