Doc No: UM-PS120-0415-R2_EN

CODESEC PS120
POWER SUPPLY UNIT
USERS AND INSTALLATION MANUAL

Doc: UM-PS120-0415-R1_EN

INDEX

TECHNICAL SPECIFICATIONS

Operating Voltage	180-240 Vac
Power	100 Wmax
Battery Type	Lead-Acid Sealed Battery
Battery Capacity	2 x 12V/7Ah
Battery Rimax	100 miliOhm
Battery	Univercell
Battery Short Circuit Protection	Yes
Battery Low Level Voltage	20V (+,- %10)
Battery Charge Current	700mA
Battery Fuse	5A
Indicator Output Type	Open Collector
Indicator Output Current	50mA
Error Relay	Normally Open/Close
Error Relay Contact	2A@24Vdc 1A@120Vac
Operating Temperature	-10°c +55°c
Maximum Temperature for Components	+120°c
Humidity	% 95
Output Voltage	23V (+,- %25)
Output Voltage Ripple	1Vp-p max
PSU Switching Frequency	<300kHz (Resonant Frequency)
Nominal Current(Iamax)	1.5A
Maximum Continious Current (Ibmax)	1.8A
Minimum Current	27mA
Case Material	Plastic ABS + Metal Base
Dimensions	26,5 x 31 x10 cm
Weight	1.5 kg
IP Class	IP30 (See Page 5)
Recomended Power Connection Cable	3x2,5 NYM or NYA type

1. GENERAL DEFINITIONS

PS120 Power Supply; Complies with the standards of EN 54-4 Fire detection and fire alarm systems - Part 4: Power supply equipment. PS120 supplies energy from AC mains power, or backup batteries, for control and display units of fire detection systems. When AC input from the mains is avaible, Power supply both charges the backup power sources, and supplies energy to the system. PS120 reports AC loss, Backup power loss and earthing fault, via LEDs visually, and with open collector outputs electronically. In Ac Los sor Battery Fault the Error Relay activates.

2. DEFINITIONS

PSU: Power Supply Unit
CDU: Control and Display Unit

3. INSTALLATION, CONNECTION and OPERATION

Placing and positioning of PS120 PSU should be done according to criteria listed below:

1. The place must be dry, and distant from humidity, and clean (eg. dust free).
2. PSU place must stable, without shock and vibration.
3. The PSU must be placed near the AC and earth lines, which are not switchable with keys.
4. While mounting PSU, the unit must be placed with 10 cm distance between the edges for dissipating heat. Other devices or heat sources must be kept away, and the PSU must not be in a container, preventing air flow.
5. PSU chassis must be connected to earth line. The resistance between PSU chassis and earth line must be less than 10 Ohm.

The PSU is designed to work with a power supply of 220V 50/60Hz AC. AC supply wires must be 3x2,5mm NYM or NYA type. The power must not be swithed on before all connections and cabling is done. AC Supply Terminals are shown in Figure-1 (General Connection Schematics Diagram).

When powering on the PSU, connect first the AC line, then the Auxilary power sources (batteries). while connecting the batteries, be sure that they are connected with correct polarity.

Battery connection is shown in Picture-1 (General Connecting Schematics Diagram).

PS120 PSU has 3 OC (open collector) outputs to report faulty / insufficient conditions. They are AC fault, Battery fault and earth fault outputs. If any faults of thoses 3 is detected, CDU also reports the faults on the LCD display at the same time. A "ready indicator" LED reports that PSU is supplying the CDU.

Error Relay has Normally Closed and Normally Open contacts. This output can be used to indicate there is a fault in the system to external devices.

CAUTION:

When installing panel and doing wire connections if the wire holes on the top and on the side of the panel has been drilled, the IP of the panel will be disappeared. So, the operation of the panel will not be guaranteed if the isolation is not supplied when the wire holes opened.

3.1. Grounding

Connect the central ground terminals from the control panel to the metallic enclosure and cold water pipe or grounding rod. The grounding of central and cable screens is for prevention from high voltage noise and interferences.

3.2. Battery Connection

In order to provide power during a power loss, connect 24V 7Ah battery pack rechargeable acid/lead or gel type backup battery as shown in Figure 1. CODESEC PS120 PSU needs two 12V 7Ah batteries connected serially. Connect the backup battery after applying AC power. When installing verify proper polarity.

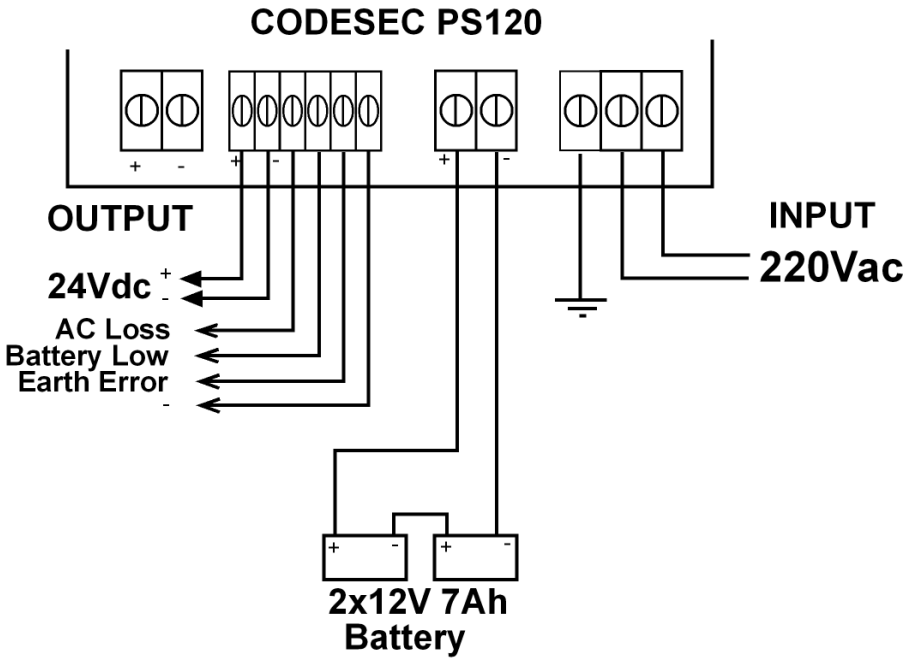

Figure-1 (General Connection Schematics Diagram)

4. ACCESSIBILITY

PS120 and CDU must be serviced by a authorised technician, in access level 3 or 4. Any unauthorised access is forbidden.

5. OPERATION

PS120 PSU and CDU Devices should be operated under the terms of EN54-4 operation environment standards.

There must be a battery block 2 x 12V/7Ah in order to power the system when AC loss. These batteries are Rechargable Sealed Lead Acid or Gel Type batteries.

When the system is powered the Ready Led will illuminate in order to indicate system is working and there is proper power.

When the device is installing the installer must ensure the safety and be aware of “Attention High Voltage” prints.

6. MAINTENANCE

PS120 must be serviced maximum of two years period by an authorised service engineer. While servicing, the dust must be cleansed. The auxilary power sources must be replaced. The first maintenance must be done according to the manufacturing date of the unit. Following maintenances must be in 2 years periods. Maintenance date should be noted to an accessible place for next service.