

PROUPS; UNINTERRUPTED POWER SUPPLY DESIGNED FOR ELEVATORS

DEFINITION

PROUPS is a completely domestic product designed by PROSIS engineers in the Prosis Elevator R&D unit for elevator rescue and power supply purposes.

It has a 24-volt DC battery input and an idle 240V AC output. The modified sine wave UPS operates with a voltage feedback system at 50-60 Hz frequency, delivering 1500VA power with 77% efficiency.

PROUPS OPERATION

The AC 220-230V supplied to the device input is immediately transferred to the AC OUT output. When the mains power is cut off, the driver circuits generate AC voltage at the output using two batteries (24VDC).

The battery connection is controlled by an automatic fuse, which engages or disengages as needed. If the current exceeds the fuse limit, the automatic fuse operates to protect the device and batteries.

The front panel of the device features two indicators that display error messages and battery voltage levels.

DISPLAY MESSAGES AND MEANINGS:

24: Displays the battery voltage level in volts.

r: Displayed when the power is first supplied.

r5...r1: When there is no power at the device input, and the battery fuse is activated, it counts down from 5 before starting to generate voltage at the output.

bE: Indicates a battery error (BATTERY ERROR). This means that the battery's automatic fuse is deactivated, or the battery is faulty.

C -: Displayed during charging; the "C_" symbol appears for 3 seconds, followed by the battery voltage for 1 second.

1P 5P: Displays the instantaneous battery voltage along with five power levels based on load conditions while producing AC output voltage from the battery.

Lo: This error message (LOW OUTPUT) indicates low output voltage. A buzzer also sounds an audible error signal. This error occurs when excessive loading causes the output voltage to drop, and the output voltage is cut off. The UPS resumes operation when power is restored. This error may also appear if the board fuse is blown or if the board is faulty. Additionally, it may be detected before a battery error when the battery is discharging or the battery voltage is low.

Lb: This error message (LOW BATTERY) indicates low battery voltage.

tO: This error message (TIME OVER) indicates that the set runtime in battery mode has been exceeded. The total runtime, which is pre-configured during production with three different settings, can be adjusted higher or lower using the front panel button and display in consultation with the manufacturer.

The button on the front panel is used to turn the device on and off, reset error conditions, and make adjustments with manufacturer assistance if needed.

To turn off the device while it is operating, press and hold the button. The display will count down, and after the "E1" message, the device will shut down, and no voltage will be supplied at the output. However, the UPS remains powered and is ready to be restarted by pressing the button. Even if the battery automatic fuse is engaged, the device does not produce output or perform charging.

The PROUPS device is designed so that AC voltage continues to be supplied at the output even if the batteries fail or the battery automatic fuse disconnects the battery connection, as long as the mains voltage is present. This prevents interruptions in elevator operation. However, in such cases, the battery voltage level will not be displayed on the front panel, and the "bE" message will appear, indicating that the batteries need replacement.

IMPORTANT CONSIDERATIONS

The PROUPS device is a line-interactive unit designed specifically to operate elevator control panels and ensure floor completion in case of power failure. It should not be used for other purposes. The output voltage level may fluctuate during operation, which could damage devices other than elevators. It should never be used outside of elevator applications.

The input and output terminals are marked on the back panel of the device. Incorrect connections may damage the device. Glass fuse holders are located near the input and output sockets, and both input and output voltages are protected by these fuses.

During transport and handling, ensure that the front panel button and the battery automatic fuse do not accidentally engage.

PROUPS	OUTPUT POWER	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT VOLTAGE	INPUT CURRENT	INPUT FUSE	OUTPUT FUSE
9A Battery	1500VA (900W)	186-270V	4,0A(W) 6,8A(VA)	180-240V	7.0A	8 A	8 A
12A Battery	1700VA (1000W)	198-260V	4,5A(W) 7,7A(VA)	180-240V	8.0A	9 A	9 A
18A Battery	2000VA (1200W)	204-256V	5,4A(W) 9A(VA)	180-240V	9.0A	10A	12 A

The PROUPS device should not be placed in an upright position, and no weight should be placed on it while in operation. It should not be stepped on.

TECHNICAL SPECIFICATIONS:

Output Power:

1500VA (900W) / 1700VA (1000W) 2000 (1200W)

Output Voltage:

186-270V / 198-260V / 204-256V

Output Current:

4A / 4,5A / 5,4A

Input Voltage:

180-240V

Input Current:

7.0A / 8.0A / 9.0A

Battery Capacity:

9A, 12A, 18A

Operating Temperature:

-5°C to 45°C

Protection Class:

IP20

Compliance Standards:

EN 62040-1-1 (Safety), EN 62040-2 (EMC)

Indicator:

Two 7-segment digital displays.