

## Technical Catalogue

### Description

E24-7/18/26 maintenance-free battery and charger sets are compact power supply units consisting of rechargeable batteries and a charger unit, in order to meet the uninterrupted DC auxiliary supply needs.

### Features

24V Regulated DC output  
7A, 18A, 26A options  
Lightweight, compact design.  
AC output unit (for the use of lighting etc.)

### Applications

E24-7/18/26 maintenance-free battery and charger sets are used in small substations, transformer cubicles, emergency lighting, etc. in order to meet the 24V DC auxiliary power supply needs where high-powered battery charger and the battery pack is not economical and practical.

Supplying 220V output for AC auxiliary circuits (sockets, lighting, and control) by means of 16A, and 10A circuit breakers, E24-7 eliminates the needs of equipments like fuse box, terminals and so on.



## Architecture and Operating Principles

E24-7 / E24-18 consist of three functional units: a charger unit, maintenance-free battery pack, and AC output unit.

### Maintenance-Free Battery Pack

Battery pack consists of two serial connected 12VDC 7Ah (E24-7), 12VDC 18Ah (E24-18) or 12VDC 26Ah (E24-26) maintenance-free batteries. The properties of the maintenance-free batteries can be highlighted as:

Acid sealed

They do not produce gas at excessive charge, no risk of explosion.

Resistant to vibration. Shipping and handling is smooth.

Self-discharge rate is very low. (3% of the nominal capacity at a month)

Discharge curves are smooth; they can be recharged in the deep-discharge case.

Long shelf life. 5 years life in standard use. Do not require acid and water control in operational life.

### Battery Charger Unit

Battery charger unit is composed of a switching power supply unit and protection circuits to charge the batteries in an appropriate way. Batteries are charged by constant voltage method. Charge current is limited to a value suitable for battery specifications.

220VAC supply unit is galvanically isolated from DC charger unit by means of a transformer. The unit is protected by 2A fuse. Output voltage of the unit is 27.2 VDC.

### AC Output Unit

The input AC terminals of the module are distributed in order to supply AC output for auxiliary circuits through 16A and 10A circuit breakers. In this way, costs for fuse box, terminals and other necessary equipment for AC auxiliary circuits (sockets, lighting, and control), and cost of labor are eliminated.

Tech. Specifications	E24-7	E24-18	E24-26
Supply Voltage	220 VAC $\pm$ 20%, 50Hz.		
Output Voltage	27.2 VDC (fully charged state)		
Max. Power Consumption	55VA / 52W	62VA / 57W	62VA / 57W
Output Current (Continuous)	4A		
Output Current	7A / 30 min, 14A / 15 min.	18A / 30 min, 36A / 15 min.	26A / 30 min, 52A / 15 min.
Cont. Output Power (fully charged state)	4A x 27.2V=108.8W		
Short Term Out. Power (fully charged state)	190W	490W	707W
Display	AC Input (Led), Battery Test (Led)		
Operating Temperature	-5°C +60°C		
Dimensions (mm) wxhxd	330x240x90	390x320x90	390x320x140
Weight (kg)	8.1	16.7	24.1
Degree of Protection	IP20		

## Safety Instructions and Precautions

The installation and commissioning must be done by qualified electrical staff.

Do not use the module in external, humid and wet environment.

The supply of the module is suitable for 220VAC 50Hz networks, do not use in networks with other specifications.

The battery packs have a rated capacity of 7Ah (E24-7) 18A (E24-18) or 26Ah (E24-26). Please note this value in the calculations of the system setup.

The batteries in your product are delivered in a fully charged state. Check whether the batteries are charged or not by TEST button on the front panel.

Do not supply the DC loads before connecting the AC supply to your device. Otherwise batteries will be discharged.

The continuous current that the charger units can supply is limited to 4A. Be sure that continuous DC load is less than this value, otherwise the charger current will supply the load and the batteries will be discharged.

## Installation and Operation

The device must be fixed before the electrical connections are done and the device is powered. The mounting parts are supplied with the unit. Turn outwards the four mounting ears located on the rear plate and fix your device to mounting place through these ears.

Input power cable cross-section must be at least 1,5mm<sup>2</sup>. Connect the AC power to the (P) and (N) terminals located at the top of the device. (See Figure 3)

AC outputs of 10A and 16A are shown in Figure 3. Connect the AC loads as your needs to these terminals.

Review your connections one more time and supply power

to AC terminals of your device.

Connect the DC supply output terminals to your system. DC output cable cross-section must be at least 2,5mm<sup>2</sup>. Be sure that the (+) and (-) terminals are connected properly.

Insert the 10A (E24-7), 20A (E24-18) or 30A (E24-26) glass fuse given with the device in the fuse holder supplied with the device and supply the DC loads.

Close the circuit breakers on the front panel and supply the AC loads.

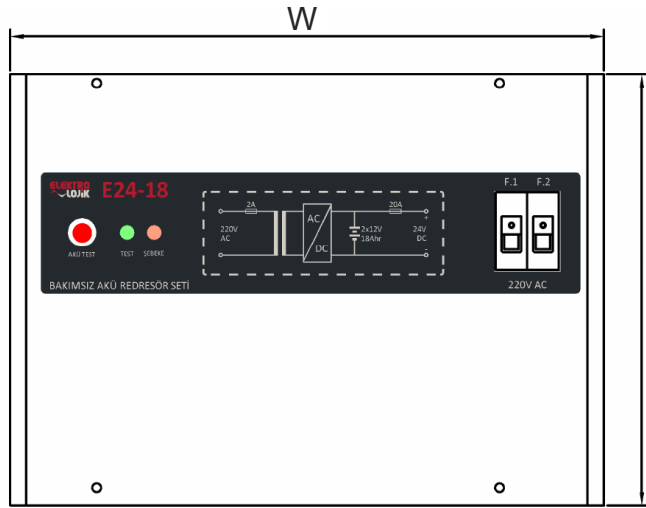


Figure-1  
Front View

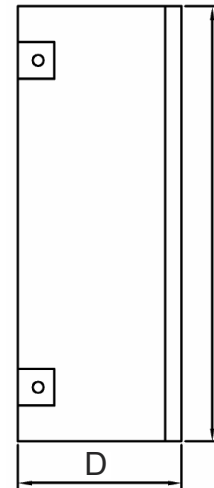


Figure-2  
Side View

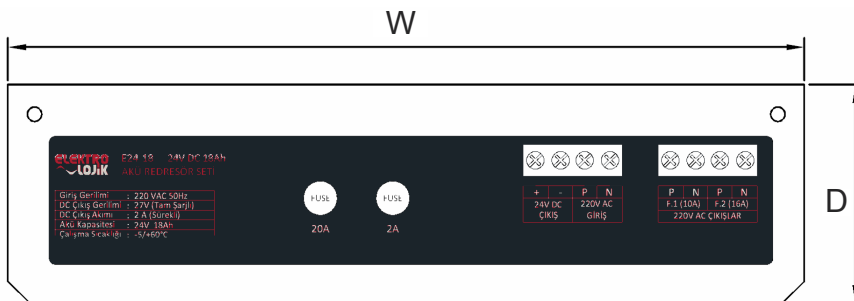
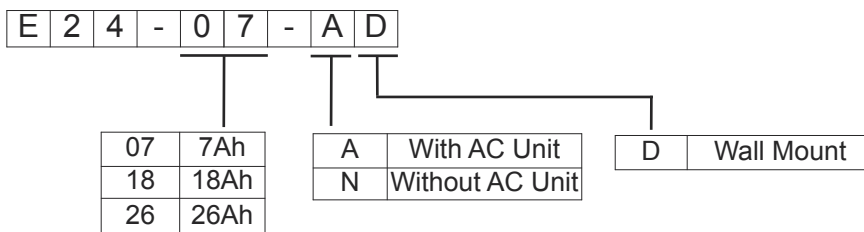


Figure-3  
Top View

	E24-7	E24-18	E24-26
W	330	390	390
H	240	320	320
D	90	90	140

## Ordering Information



## Warranty Terms and Conditions

Elektrolojik Energy Tech. Ltd. Co. warrants a trouble free operation of the E24-7/18/26 device within 24 months from the date of sale, on condition that following terms are provided:

• the proper connection and operation

• the safety of the quality control seal

• the integrity of case, no trace of opening, cracks, spalls etc.

The warranty shall not apply to malfunctions or damages resulting from accidents or user supplied faults.

**Elektrolojik Energy Technologies Engineering, Industry and Trading Ltd. Co.**

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