

# USER MANUAL

The user manual of the ELC-AS/AL Series Switch Power Supply



Ver:4.0

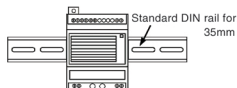


## I. Introduction and Installation Dimensions

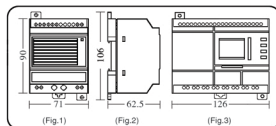
The ELC-AS/AL Series Switch Power have many features: being min-sized, light weight, high efficiency, good reliability and so on. In special, it has the remote control and UPS function.

ELC-AS Series: ELC-05AS (5V/8A)  
ELC-12AS (12V/3A)  
ELC-24AS (24V/1.5A)  
71mm×106mm×65mm

ELC-AL Series: ELC-05AL (5V/10A)  
ELC-12AL (12V/6A)  
ELC-24AL (24V/3A)  
126mm×106mm×65mm



(can be used DIN rail installed)

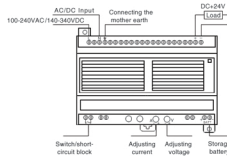


## II. Features

- EMI filter chondenser
- Input frequency: 47-63Hz
- Output voltage stability:  $\pm 0.5\%$
- Can be used for DIN rail mounting (EN50022-3S)
- Wide range voltage input (100-240VAC/140-340VDC)
- Ripple voltage tolerance range (85-264VAC/120-370VDC)
- Output voltage fine adjustment range ( $-5\%$  ~  $+10\%$ , adjusting potentiometer V)
- Have the function of soft-start (to limit the peak current of start and the pressure of the voltage to the components)
- The current of the load can be roughly adjusted (Means the maximum protective current of the load , adjusting potentiometer A)
- Effective:  $>75\%$
- Insulation voltage endurance:  $>1.5KV$
- Power supply output with the LED indicator
- Ripple:  $\leq 150mVp-p$
- Have the short circuit and over-load protection(short circuit protection means mis-connect the output voltage in short after disconnect, the output will be renew. Over-load protection: 105%-135% )
- With the UPS function. ( External-connected battery, with the power supply and the battery)
- With the remote control function ( By the switch control the having and non-having of the output voltage)
- With the over heat protection function ( the main control CMOS chip stops output when the temperature is beyond 135°C and the output will renew automatically when the temperature reduces)

## III. Using Methods ( Taking ELC-24AL as example)

### 1. General operation



(Fig.3.1) General application)

### Operation Steps:

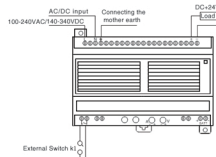
- Twist firmly the short-circuit block of the switch terminal (If the switch / short-circuit is off, the switch power have no output)
- Adjusting potentiometer (A) and rotate it to the end clockwise
- Connect the power (100-240VAC/140-340VDC)
- Adjusting potentiometer(V) to make the voltage of the output terminal be +24VDC
- Connect the load in the output terminal (pay attention to the straight polarity and the negative polarity and that the maximum working current must be  $\leq 3A$ )

## 2.Remote Control

Attr: Externally-Connect the switch terminal,remote the switch to control output voltage having or non-having

### Operation steps:

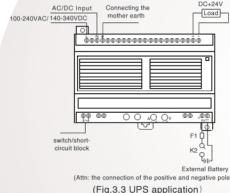
- Remove the short circuit block from the switch terminal and replace it with a switch k1
- Adjusting potentiometer (A) and rotate it to the end clockwise
- Connect the power (100-240VAC/140-340VDC)
- Adjust potentiometer(V) to make the voltage of the output terminal be +24VDC(Close the switch k1)
- Load (the working current  $\leq 3A$ )
- Close the switch k1,no voltage output



(Fig.3.2 Remote Control application)

## 3.Using UPS Function

Attr: If the load can provide with UPS voltage methods, then you can use this function



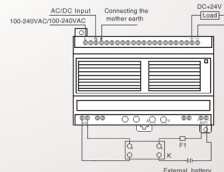
(Attr: the connection of the positive and negative pole)  
(Fig.3.3 UPS application)

### Operation Steps:

- Twist firmly the short circuit block of the switch terminal (If the switch / short-circuit block is off, the switch power have no output)
- Adjusting potentiometer (A) and rotate it to the end clockwise
- Connect the power (100-240VAC/140-340VDC)
- Adjusting potentiometer(V) to make the voltage of the output terminal be +24VDC(Due to ELC-12AS/AL to make the output voltage be 12V)
- Disconnect the AC/DC power wire
- Connect the switch and fuse wire and the battery according to the positive pole and negative pole marked on the unit

## 4.Using Remote Control and UPS simultaneously

Attr: Using remote control and UPS simultaneously, the using method is combined by the method 2 and method 3 as belows:



(Attr: the connection of the positive and negative pole)  
(Fig.3.4: Using Remote and UPS simultaneously application)

## 5.Specification

Type	ELC-05AS	ELC-12AS	ELC-24AS	ELC-05AL	ELC-12AL	ELC-24AL
Voltage	5V	12V	24V	5V	12V	24V
Current	8A	3A	1.5A	10A	6A	3A
Dimension (W*H*C)	71mm*106mm*65mm		126mm*106mm*65mm			
Normal voltage	100-240VAC/140-340VDC					
Ripple voltage tolerance range	85-264VAC/120-370VDC					
Input frequency	47-63Hz					
Output voltage stability	$\leq \pm 0.5\%$					
Ripple	$\leq 150mVp-p$					
Operation Temperature	-25°C ~ +75°C					
Efficiency	$>75\%$					

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