

# PLASTIC COVER OF ENCLOSED SWITCHING POWER SUPPLY

15W,30W,50W,100W,240W Single Output Switching Power Supply



## FEATURES

- Wide range voltage input (AC100/200V)
- EMC Standards .....EN61000-4-2,3,4,5,
- CE approval
- LED lights to warn output voltage drop
- EMI Standards.....IEC-1000-3-2,3,FCC class B
- Go with terminals' cover
- Besides DIN track mounting, flat mounting is also available.

1. Directed mounting is available with aluminium din track.
2. Terminals of input and output are divided into two groups and placed at opposite position.
3. Easy mounting and wiring when serial or parallel operation is necessary.

## ■ Kinds

### Standard mode

capacity	Output Voltage	Output Current	Mode
15w	5V	2.5A	SP-P015S005P-FN
	12V	1.2A	SP-P015S012P-FN
	24V	0.6A	SP-P015S024P-FN
30w	12V	2.5A	SP-P030S012P-FN
	24V	1.3A	SP-P030S024P-FN
50w	24V	2.1A	SP-P050S024P-FN
100w	24V	4.2A	SP-P100S024P-FN
240w	24V	10A	SP-P240S024P-FN

### With indicator of output voltage drop/output detected mode.

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### Rated / Specifications / Functions

High frequency current suppress function		NO(SP-□□-FN)/(SP-□□-FT)						
Item	Capacity	15W	30W	50W	100W	240W	240W	
Efficiency		66%~84%(depend on different mode)						
Input conditions	Voltage * 1	AC	100~240V(85~264)	100V(85~132V)/200V(170~264)switch			100V(85~132V)/200V(170~264)	100~230V(85~253)
		DC	110~350V	NO				
	Frequency		47~450HZ					47~63HZ
	Current * 2	100V input	<0.45A	<0.9A	<1.3A	<2.5A	<5.5A	<4A
		200V input	<0.25A	<0.6A	<0.8A	<1.5A	<3.5A	<2A
								>0.95A
	Leakage current * 2	100V input	<0.5mA					
		200V input	<1mA					
	Rush current * 2	100V input	<15A					<25A
		200V input	<30A					<50A
Noise filter		Have						
Voltage adjustable range		±10%(V.ADJ)						
Ripple		<2%(p-p)						
Input variable		<0.5%(inputAC85~132V/AC170~264V,100%)				<0.5%(inputAC85~132V/AC170~253V,100%)		
Load variable		<1.5%(The rated voltage input 10~100% load))						
Temperature		<0.05%/°C(0~50°C the rated input & output.)						
Output functions	Starting time	<100ms	( the rated input & output, voltage arrival 90% load.)		<200ms	<300ms	<1000ms	
	Holding time	>20ms						
	Over current protection*6	105~160%A(auto rest)						
Additional functions	Over voltage protection*5	(SP-□□-FT) Input shut down mode				NO		
	Voltage shortage indication	Color = RED				NO		
	Voltage shortage output	NO			SP-P100S024P-FT	SP-P240S024P-FT	NO	
	Parallel operation	NO			2			
	Ambient temperature	Refer to derating curve (NO icing or dew)						
Storage temperature	-25~65°C							
Operation humidity	25~85%RH							
Others	Voltage resistance	AC 3.0kV 50/60Hz 1min(input)and(output) AC 2.0kV 50/60Hz 1min(input)and(GR) AC 1.0kV 50/60Hz 1min(output)and(GR)						
	Insulation resistance	>100M Ω (output)and(input.GR)						
	Shock	10~55Hz 0.375 Amplitude at x.y.z axial for about 2h				10~55Hz 0.15mm amplitude at x,y,z axial for 2h		
	Vibration	294m/S <sup>2</sup> {30G} at 6 surfaces for three times						
	Output indicator	Green light						
	EMI	IEC-1000-3-2,3,FCC class B						
	EMC	EN61000-4-2,3,4,5,						
	Desire life	>8 years.						
	Weight	<260g	<380g	<400g	<600g	<1800g	<2200g	

- 1.DC input mode isn't certified.(Certified only for 15 W mode)
- 2.Under the conditions: rated voltage input and 100% load output.
- 3.More details, please refer to idiographic mode
- 4.Meet EN50081-2(At the status:wire inset ferrite core-HF mode of TDK).
- 5.Reset status :Turned off the power one minute or more before operate it again.

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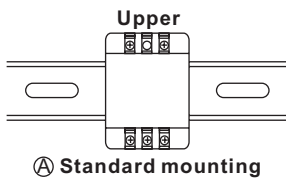
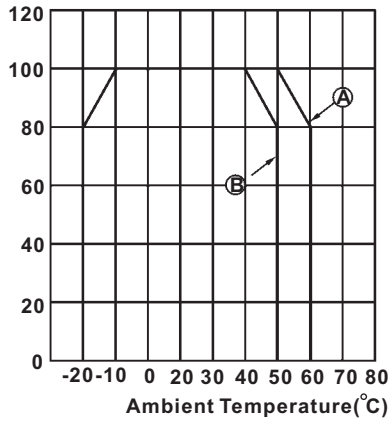
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## ■ Specification/function

### ● Derating curve

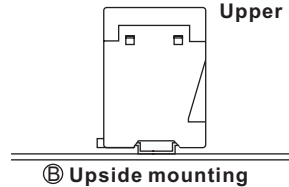
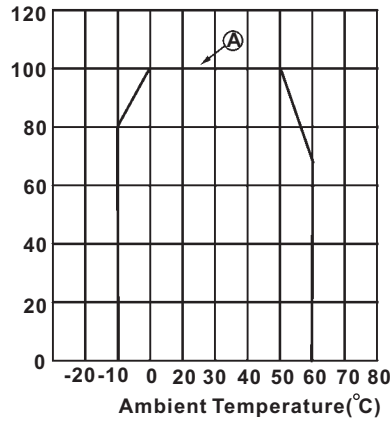
(15/30/50/100W)

(Load %)



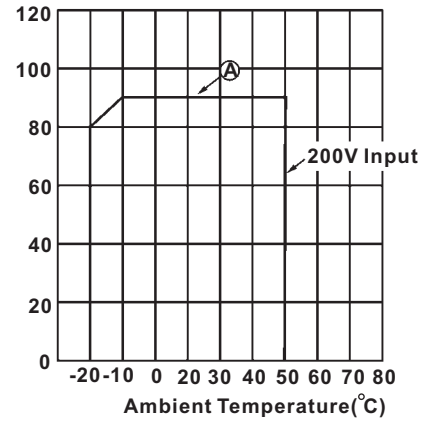
(240W)

(Load %) Single Operation



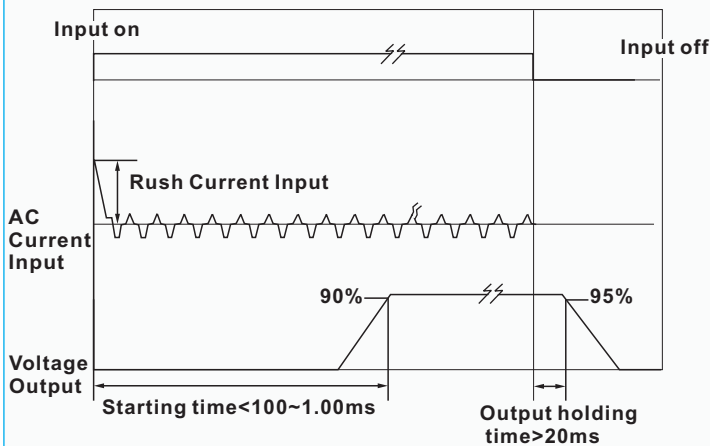
(240W)

(Load %) Parallel Operation



- Note: 1. The derating curve depends on the status of the mounting  
 2. When 240w model is in parallel operation, the min distance  $d > 10\text{mm}$ , and can't be mounted in other direction  
 3: A .standard mounting  
 B .upside mounting

## Rush Current. Starting Time. Holding Time



With indicator of voltage output drop/voltage output drop detected.  
 (Only for SP-□-FT)

Detection voltage is set to 75~90% of the rated output voltage. The LED lights when the voltage drops. For type, voltage shortage detecting output is also provided.

SP-□-FT mode Indicator status	Voltage Output	Relay Status*2
GreenLight <input checked="" type="checkbox"/> DC ON DER Dark <input checked="" type="checkbox"/> DC LOW	$V_{\text{out}} \geq 0.9V_e$	
GreenLight <input checked="" type="checkbox"/> DC ON DER Dark <input checked="" type="checkbox"/> DC LOW	$V_{\text{out}} \geq 0.75 \sim 0.9V_e$	
GreenLight <input checked="" type="checkbox"/> DC ON DER Dark <input checked="" type="checkbox"/> DC LOW	$V_{\text{out}} = 0V$	

Note: this function monitors the voltage at the power supply output terminals.

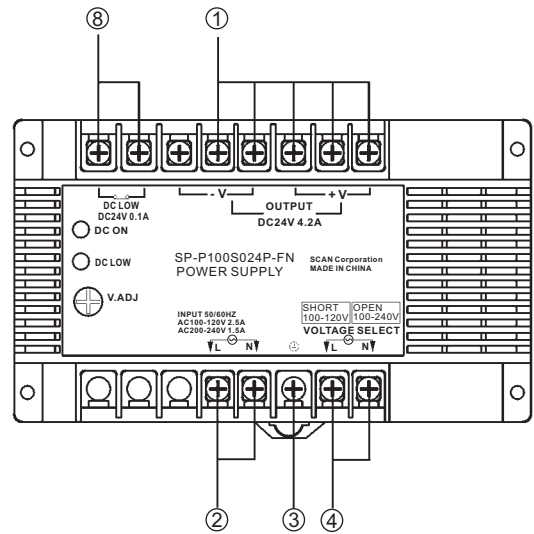
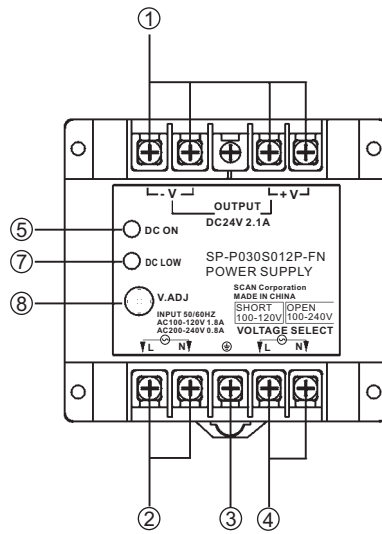
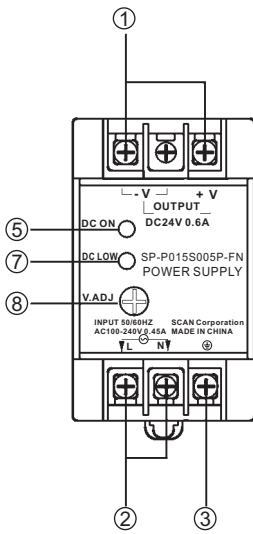
- \* 1. LED will turn dark when the voltage output arrive at "V"
- \* 2. contact capacity: 24VDC 0.1A
- \* 3.  $V_{\text{out}}$  = voltage output  
 $V_e$  = the rated voltage output.

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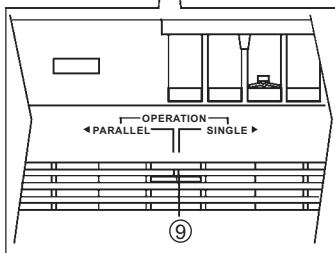
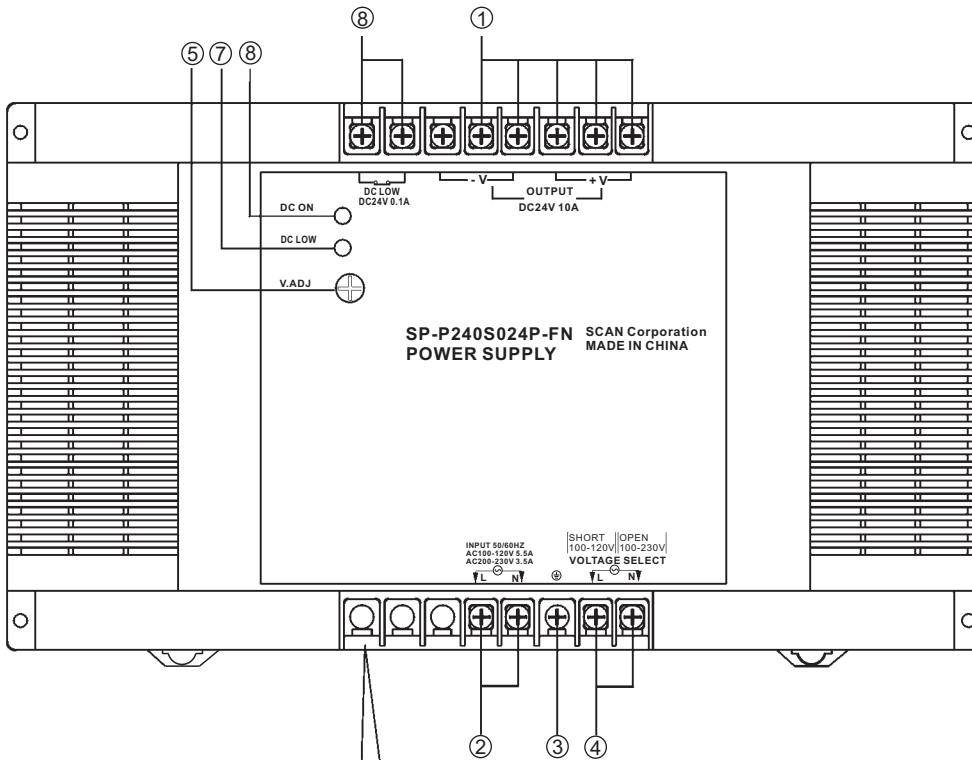
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SP-P015  -  MODE SP-P030(50)  -  MODE

SP-P100  -  MODE



SP-P240  -  MODE

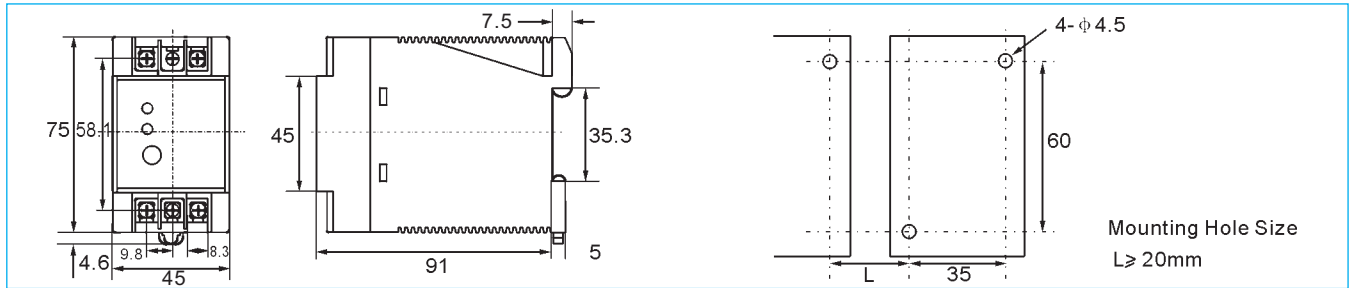


1. DC output terminals(+V,-V)/load wire.
2. AC input terminals (L,N)/Input wire.
3. GR terminal (earth wire).
4. AC voltage select input terminals (100 or 200V).
5. Indicator of output (lights when DC output is ON).
6. Voltage output adjustor.
7. Indicator of voltage output drop (DC LOW)/only for SP-P-FT Mode.
8. Voltage shortage detection terminals (DC LOW)/only for SP-P-FT Mode(100/240W).
9. Parallel operation switch (turn to "PARALLEL" while parallel operation).

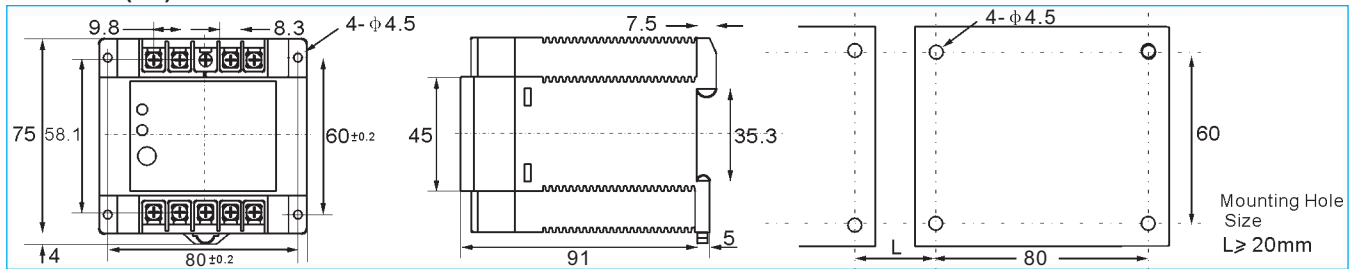
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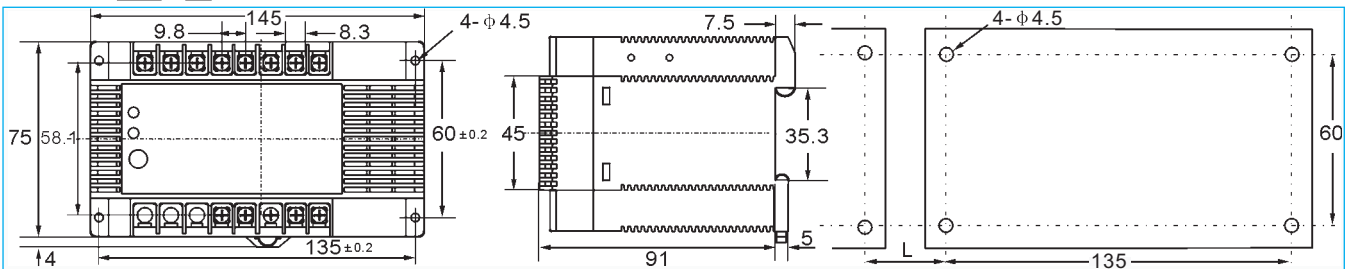
## SP-P015 □ - □ TYPE



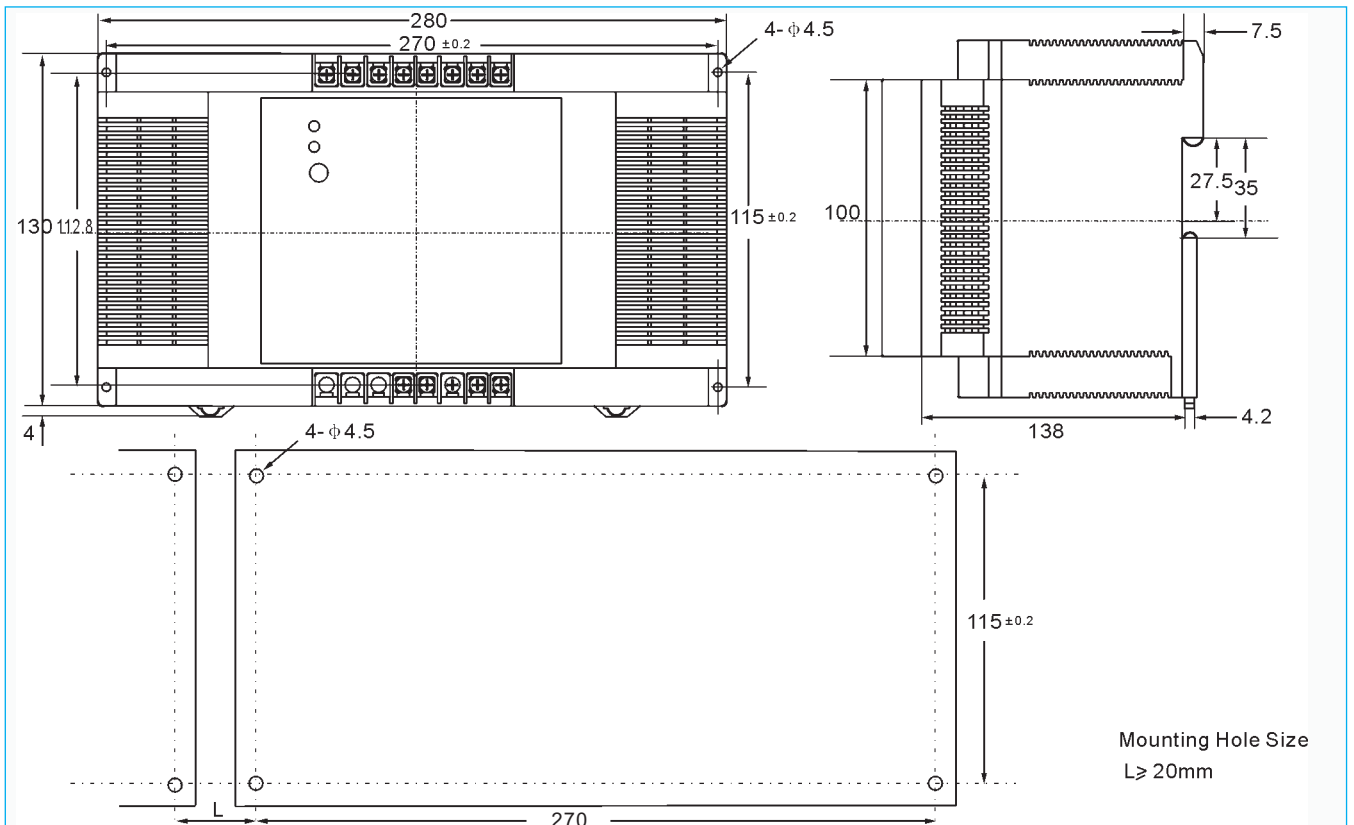
## SP-P030(50) □ - □ TYPE



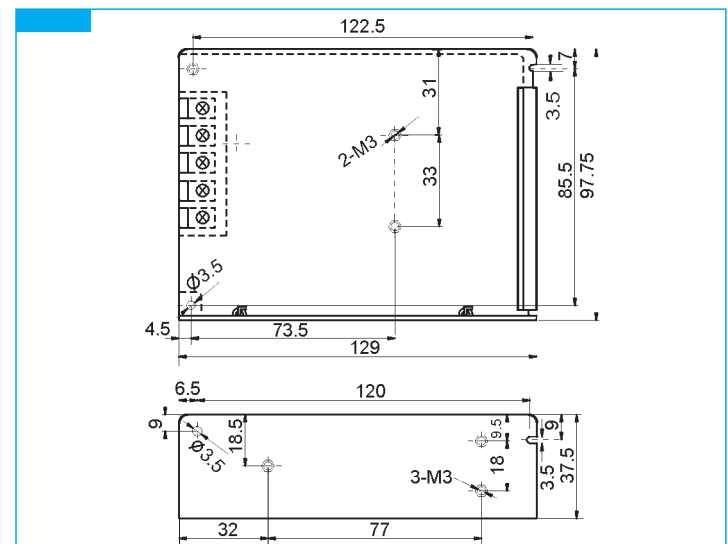
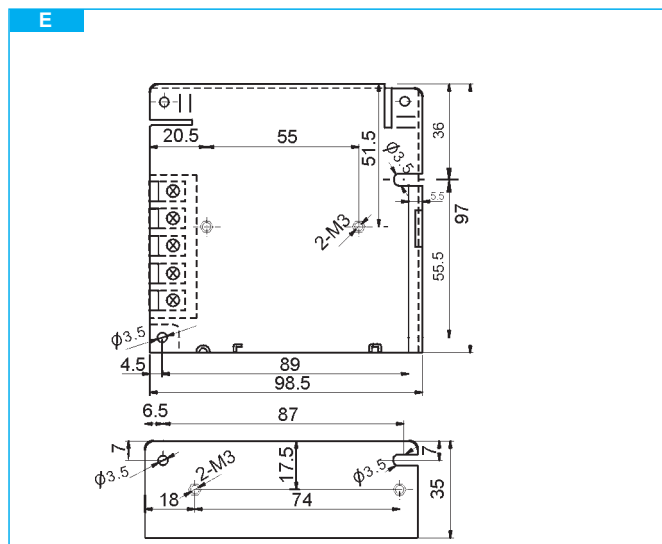
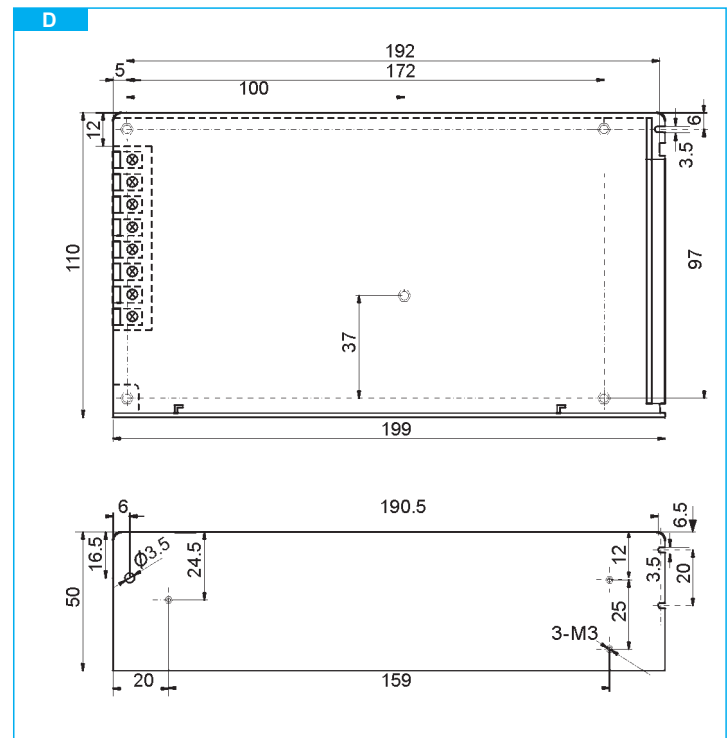
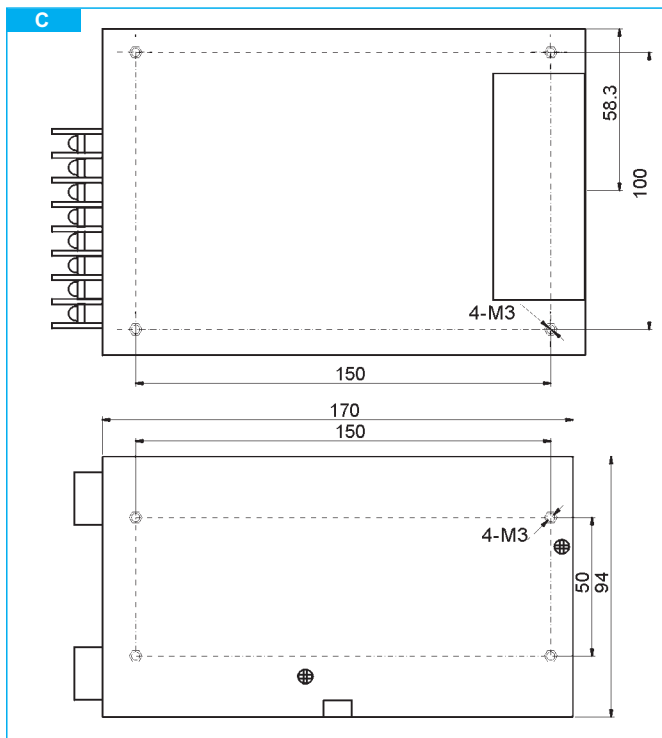
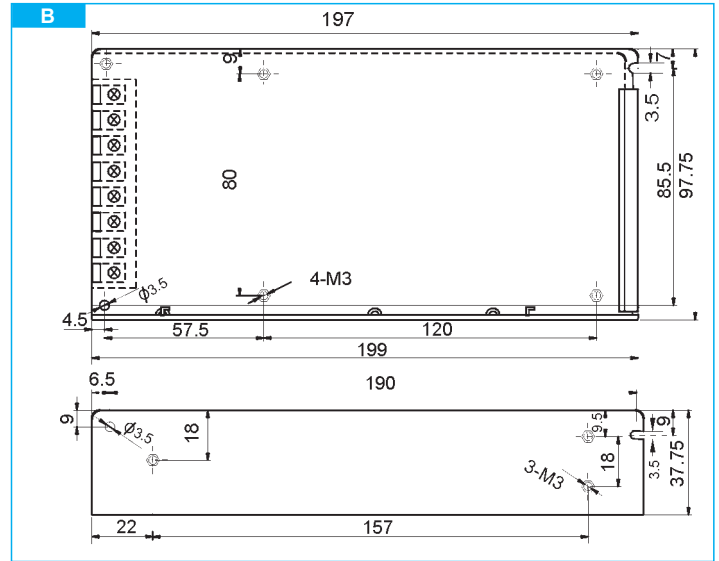
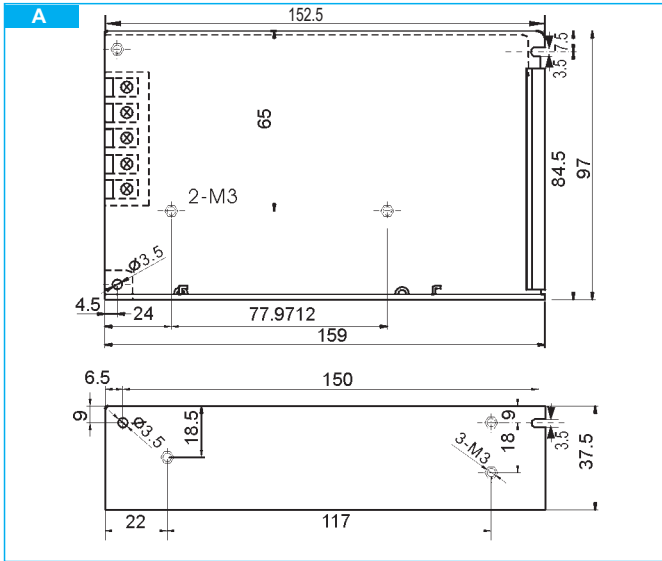
## SP-P100 □ - □ TYPE



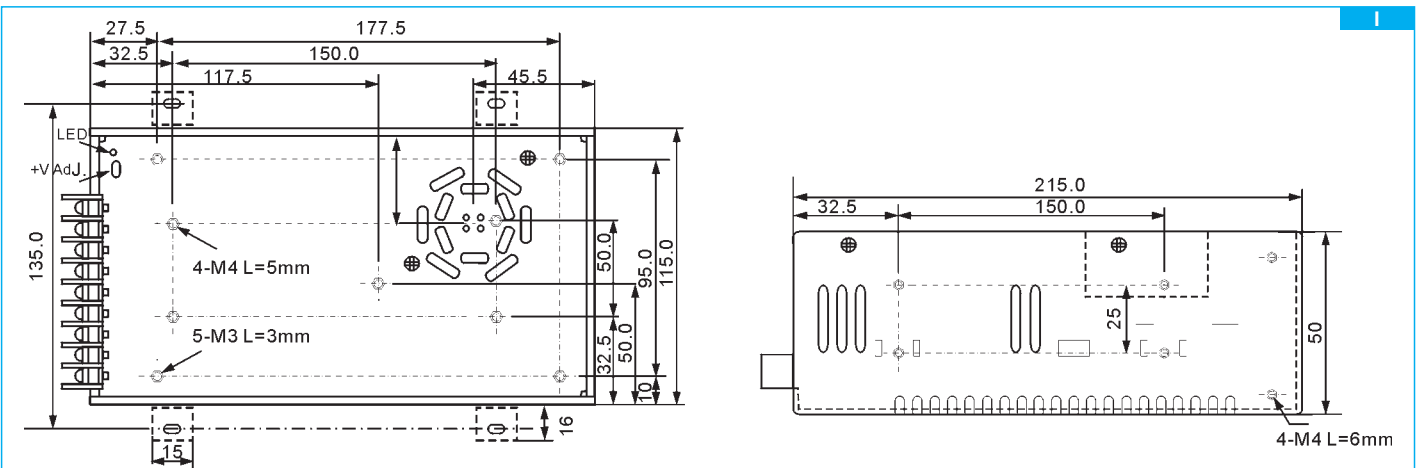
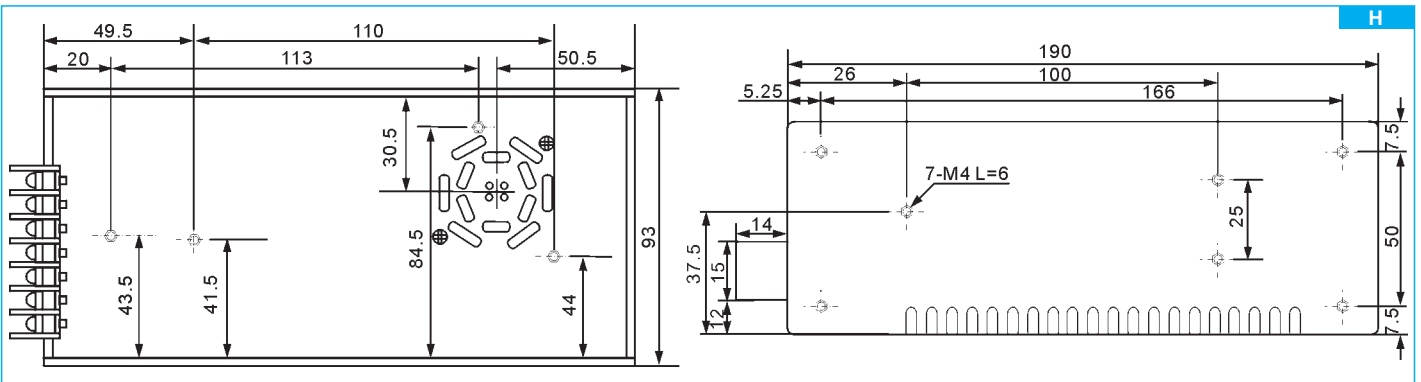
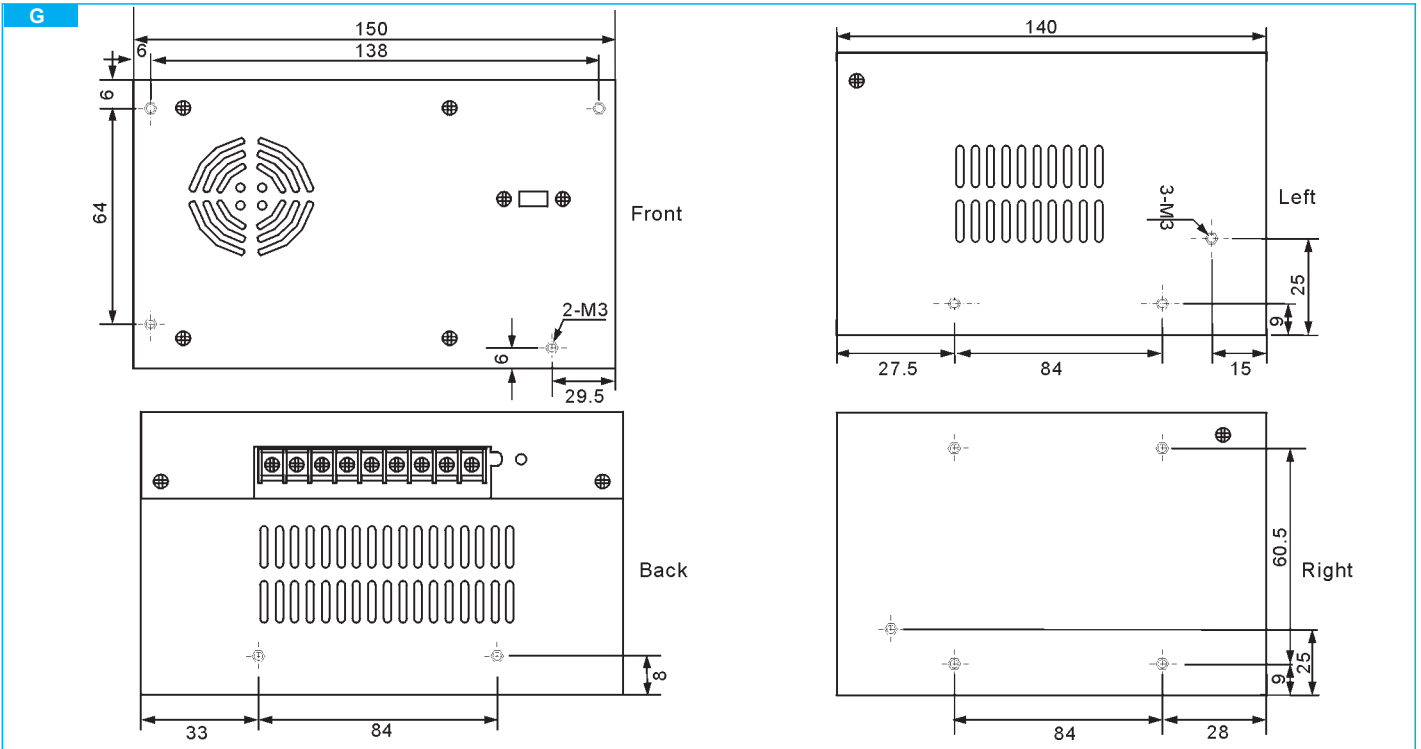
## SP-P240 □ - □ TYPE



# Case Drawings



# Case Drawings



# DIN Rail Accessories

