

# SPS Series Switch-mode Power Supplies

Motion Control Products' SPS series industrial switch mode power supplies provide a compact enclosed power supply to suit our range of stepper and servo drive power needs. They are CE certified and come with a host of DC output options and a range of output currents available.

## FEATURES

- Enclosed configuration, terminal block protect cover
- 90-130VAC /170-260VAC (selected by switch) inputs with output voltage of 24VDC, 36VDC, 48VDC and 65VDC
- High quality and reliability
- Over-current & over-voltage protection
- 100% full load burn-in test
- High Efficiency and with EMI Filter
- With load stability +/-0.5%
- Low Ripple noise
- High voltage insulation
- Operation temperature up to 70°C
- Meets EN61000 / EN60950 industrial levels, CE certification
- 3-year warranty
- Suitable for most Industrial applications
- Other output voltage and current options available upon request



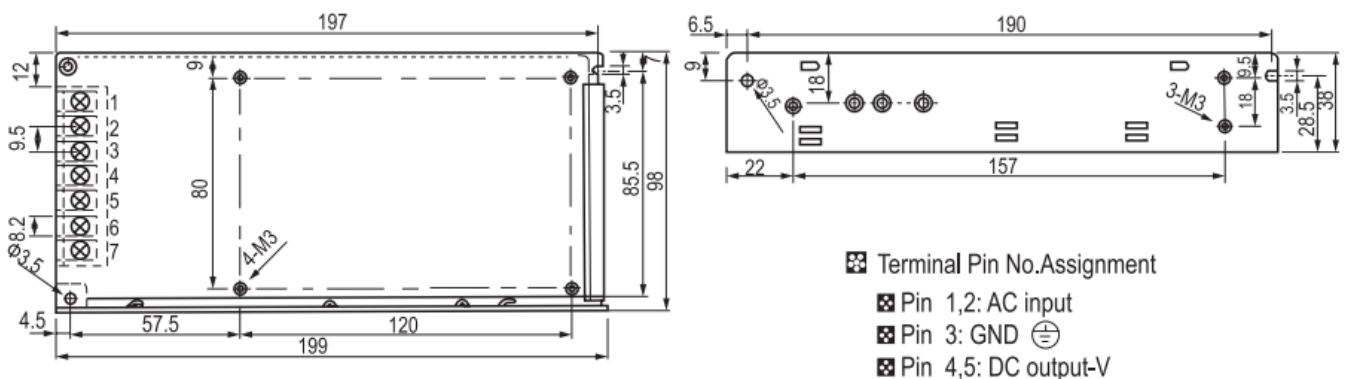
## TECHNICAL SPECIFICATIONS

Model		SPS150-24	SPS250-36	SPS400-65	SPS600-48
Input	Voltage & Frequency	90-130VAC/170-260VAC selected by switch 47-63Hz; 240-370VDC	90-130VAC/170-260VAC selected by switch 47-63Hz; 240-370VDC	90-130VAC/ 170-260VAC selected by switch 50/60Hz	90-130VAC/ 170-260VAC selected by switch 50/60Hz
	Current	2A/115VAC 1A/230VAC	3.4A/115VAC 1.7A/230VAC	6A/110VAC 3.2A/230VAC	4A/230VAC
	Efficiency (220VAC)	84%	85%	85%	86%
	Inrush Current	30A@115VAC 60A/230VAC at cold start	30A/115VAC 60A/230VAC at cold start	40A/115VAC 80A/230VAC	46A/230VAC at cold start
Output	Voltage (VDC)	24V	36V	65V	48V
	Current	6.25A	7A	6A	12.5A
	Regulation Line	±0.2%	±0.5%	±0.8%	±1%
	Regulation Load	±0.2%	±0.5%	±0.8%	±0.5%
	Ripple Noise	≤100mVp-p	≤120mVp-p	≤200mVp-p	≤480mVp-p
	Temperature Drift	±0.02% / °C(0-50°C)	±0.02% / °C (0°C-50°C)	±0.05% / °C (0°C - 50°C)	±0.02% / °C (0°C-50°C)
	Rated Power	150W	252W	400W	600W
	Rise & Holding Time	200ms,100ms, 30ms	200ms,100ms, 20ms	200ms,100ms, 30ms	1s, 100ms, 50ms

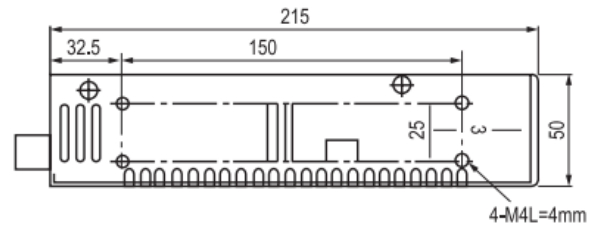
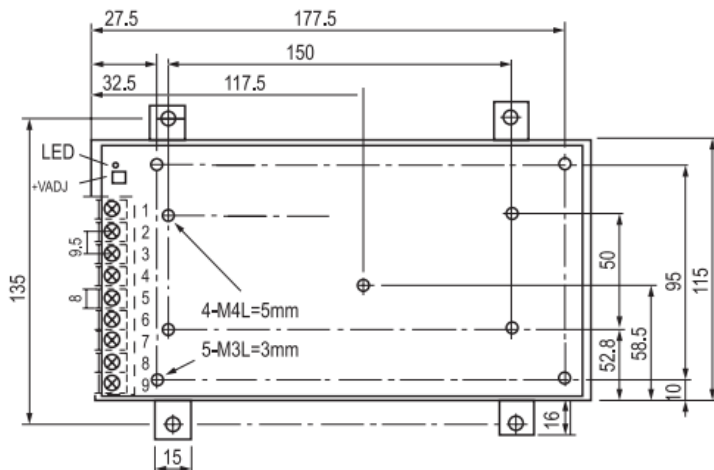
	Model	SPS150-24	SPS250-36	SPS400-65	SPS600-48
Circuit Protection	Over Current Protection	Works at over 105%-120% of rating and recovers automatically	Works at over 105%-120% of rating and recovers automatically	Works at over 105%-120% of rating and recovers automatically	Works at over 105%-120% of rating and recovers automatically
	Over Voltage Protection	/	39-42V	78-84V	57-67V
	Over-Heat Protection	/	≥90°C Output close	≥90°C Output close	≥55°C Fan start; ≥65°C Fan speed up; ≥80°C Output close
Withstand voltage Insulation	Input-Output	1500VAC; 500VDC/100MΩ	1500VAC; 500VDC/100MΩ	1500VAC; 500VDC/100MΩ	1500VAC; 500VDC/100MΩ
	Input-Case, FG	1500VAC; 500VDC/100MΩ	1500VAC; 500VDC/100MΩ	1500VAC; 500VDC/100MΩ	1500VAC; 500VDC/100MΩ
	Output-Case, FG	500VAC; 500VDC/100MΩ	500VAC; 500VDC/100MΩ	500VAC; 500VDC/100MΩ	500VAC; 500VDC/100MΩ
Environment	Operating Temp and Humid	(-10)°C- (+60)°C 20%-90%RH	(-10)°C- (+60)°C 20%-90%RH	(-10)°C- (+60)°C 20%-90%RH	(-10)°C- (+60)°C 20%-90%RH
	Storage Temp and Humid	(-20)°C- (+85)°C 10%-95%RH	(-20)°C- (+85)°C 10%-95%RH	(-20)°C- (+85)°C 10%-95%RH	(-20)°C- (+85)°C 10%-95%RH
	Vibration	10-500Hz at 2G, 10minutes period, 60minutes along X, Y and Z axis	10-500Hz at 2G, 10minutes period, 60minutes along X, Y and Z axis	10-500Hz at 2G, 10minutes period, 60minutes along X, Y and Z axis	10-500Hz at 2G, 10minutes period, 60minutes along X, Y and Z axis
Safety	Safety Regulation	IEC / CE / ROHS / SAA / KC	IEC / CE / ROHS / SAA / KC	IEC / CE / ROHS / SAA / KC	IEC / CE / ROHS / SAA / KC
	EMC	IEC / EN60950-1 EN61347-1:2008	IEC / EN60950-1 EN61347-1:2008	IEC / EN60950-1 EN61347-1:2008	IEC / EN60950-1 EN61347-1:2008
IP		IP22	IP22	IP22	IP22
Dimensions		199*97*37mm	215*115*49mm	215*115*49	239*125*66
Weight		0.6kg	0.8kg	0.9kg	1.3kg

## MECHANICAL DIMENSIONS

### SPS150-24



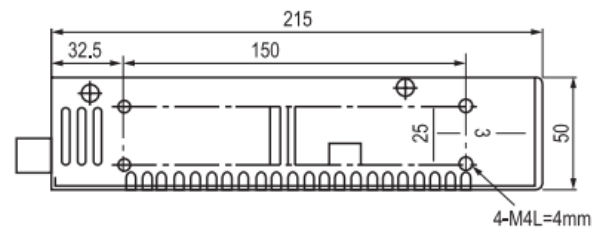
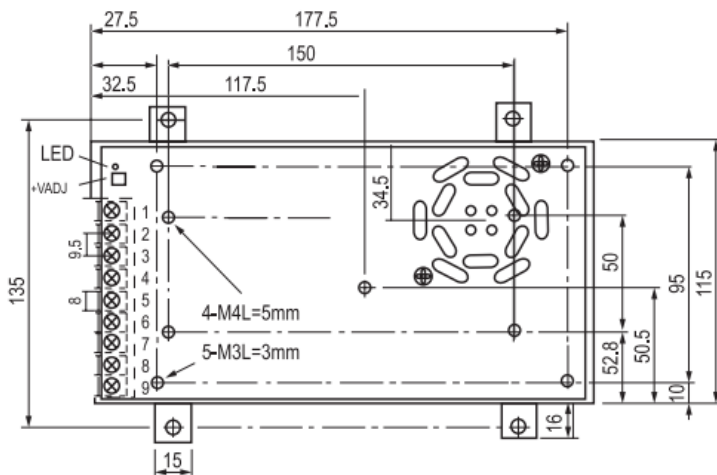
### SPS250-36



#### Terminal Pin No.Assignment

- ☒ Pin 8,9: AC input
- ☒ Pin 7: GND ⊕
- ☒ Pin 4,5,6: DC output-V
- ☒ Pin 1,2,3: DC output+V

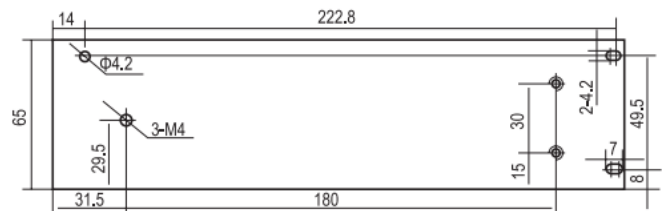
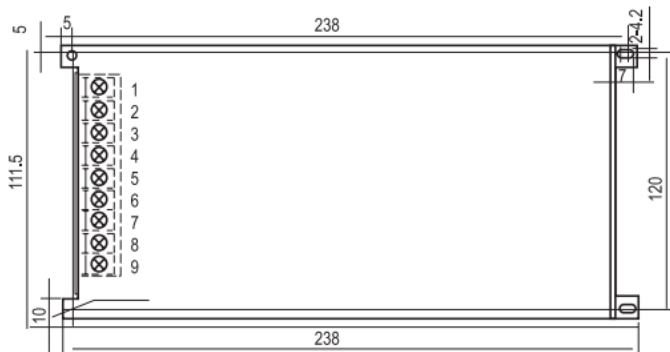
### SPS400-65



#### Terminal Pin No.Assignment

- ☒ Pin 8,9: AC input
- ☒ Pin 7: GND ⊕
- ☒ Pin 4,5,6: DC output-V
- ☒ Pin 1,2,3: DC output+V

### SPS600-48



#### Terminal Pin No.Assignment

- ☒ Pin 1,2: AC input
- ☒ Pin 3: GND ⊕
- ☒ Pin 4,5,6: DC output-V
- ☒ Pin 7,8,9: DC output+V