



SUNPOWER TECHNOLOGY CORP.  
 16F-1, No.150, Jian 1st Rd., Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.).  
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 http://www.sunpower.com.tw  
 E-mail: sunpower@sunpower.com.tw

# SPX-5200-GP1/SPX-5250-GP1

200W/250W, Five Output

For 1U System

ATX12V Power supply



180 x 100 x 40.5 mm  
 7.09 x 3.94 x 1.60 inch



## Features:

- \* Universal full range AC input with active PFC, P.F.> 0.95
- \* High efficiency and reliability
- \* Built-in long life ball bearing fan
- \* 3.3V & 5V VRM design
- \* Over voltage, over load & short circuit, over current, over temperature protection
- \* With power good signal & PS-ON signal output
- \* Meet Intel ATX 2.01 / ATX2.31 / ATX 12V / EPS
- \* 3 years warranty

## Specification:

INPUT	Voltage	90V ~ 264VAC universal full range or 127V ~ 375VDC					
	Frequency	47 ----- 63 Hz.					
	Current	SPX-5200-GP1	<2.8A @ 100VAC input, full load condition				
		SPX-5250-GP1	<3.5A @ 100VAC input, full load condition				
	Inrush Current	<40A@115V , <60A@230V AC input, Cold start, at 25°C ambient					
	Leakage Current	<1.5mA@264V AC input					
	Power Factor	PF > 0.95					
OUTPUT	Voltage	5V	3.3V	12V	-12V	5Vsb	
	Min Load	0.3A	0A	0.2A	0A	0A	
	Max Load	SPX-5200-GP1	20A	25A	12A	0.5A	3A
		SPX-5250-GP1			16A		
	Output Tolerance ②	±3%	±5%	±3%	±10%	±5%	
	Ripple Noise MAX. ③	70mV	70mV	120mV	120mV	70 mV	
	Efficiency (TYP.)	82%					
Output MAX.	SPX-5200-GP1 : 3.3V & 5V max 110W, total output max 200W SPX-5250-GP1 : 3.3V & 5V max 110W, total output max 250W						
PROTECTION	Over Voltage	5.7V~6.5V	3.7V~4.1V	13.1V~14.5V	----	----	
	Shutdown and latch off, recover after re-start up.						
	Over current (MAX)	30A	30A	20A	----	----	
	Over Load & Short Circuit	When power supply over 105%~ 150% max load or short circuit acted, power supply will be shutdown and latch off, recover after re-start up.					
Over Temperature	Over 95°C ± 5°C Shutdown, recovers automatically after fault condition has been removed.						
ELEC. CHAR.	Rise time	<20mS					
	Hold up time	>16mS@230V					
	Power Good signal	Power on within 100~500ms, high level TTL signal release.					
ENVIRONMENT	PS-ON signal	P/S ON: PS-ON=Low or <0.8V, P/S OFF: PS-ON=Hi or >2V					
	Temperature ④	Operating: -10~70°C; De-rating: 50~70°C : 2.5%/°C.; Storage: -20~+85°C					
	Humidity	Operating: 20% ~ 90% RH (non condensing); Storage: 10% ~ 95% RH (non condensing)					
SAFETY	Withstand voltage	I/P-O/P:3.0KVAC, I/P-PE:1.5KVAC, 1minute					
	Isolation resistance	I/P-O/P, I/P-PE > 100MΩ/500VDC at 25°C / 70% RH					
EMC	Safety standard	UL 60950-1 2 <sup>nd</sup> , CSA C22.2 No. 60950-1- 07 2 <sup>nd</sup> , TUV EN 60950-1:2006, IEC 60950-1:2005, approved					
	EMI	EN 55022 CLASS B, FCC CFR 47 PART 15 CLASS B, CNS 13438 CLASS B.					
	EMS	Compliance to EN61000-3-2 CLASS D, EN61000-3-3 EN 55024 : EN 61000-4-2,3,4,5,6,8,11					
OTHERS	Cooling	Forced airflow cooling with a DC fan.					
	M.T.B.F.	108.7 K hours					
	Dimension	180 x 100 x 40.5 mm (L*W*H)					
	PACKING	N.W.: 1.17 KG / 1PC; 12 PCS / 2.02 CUFT / 1 CTN					

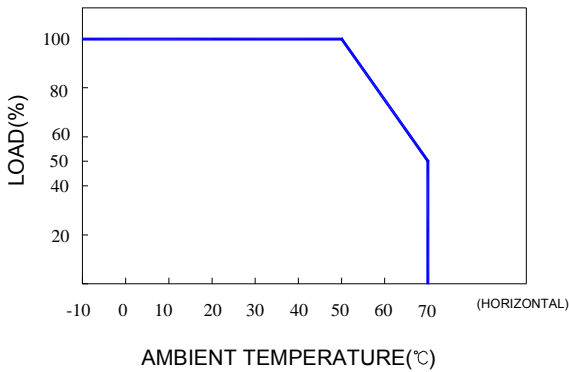
- NOTE
- ① All measurements which not mentioned are based on 230VAC input, **output max** at ambient 25°C / 70%RH
  - ② Output tolerance included set up voltage, line regulation and load regulation.  
 The regulation is measured between 20%-100% **max load** of each output, Total output must under **output Max**.
  - ③ Ripple & noise are measured at 10~50°C condition and 20MHz of bandwidth by using a 10" ~15" twisted pair-wire terminated with a 0.1uF & a 10uF parallel capacitor.
  - ④ The operating temperature shall follow the de-rating curve in spec  
 The output load may be requested for decreasing as de-rating curve in spec when low input voltage is under 100VAC
  - ⑤ The power supply is considered a component of end-equipment. The end-equipment must be re-confirmed whether comply with EMC directives.
  - ⑥ 33% duty cycle maximum within every 10 seconds, average output power should not exceed the **Max.** load



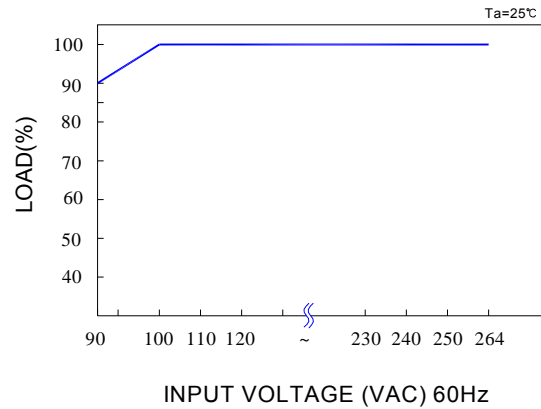
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# SPX-5200-GP1/SPX-5250-GP1

## De-rating Curve :



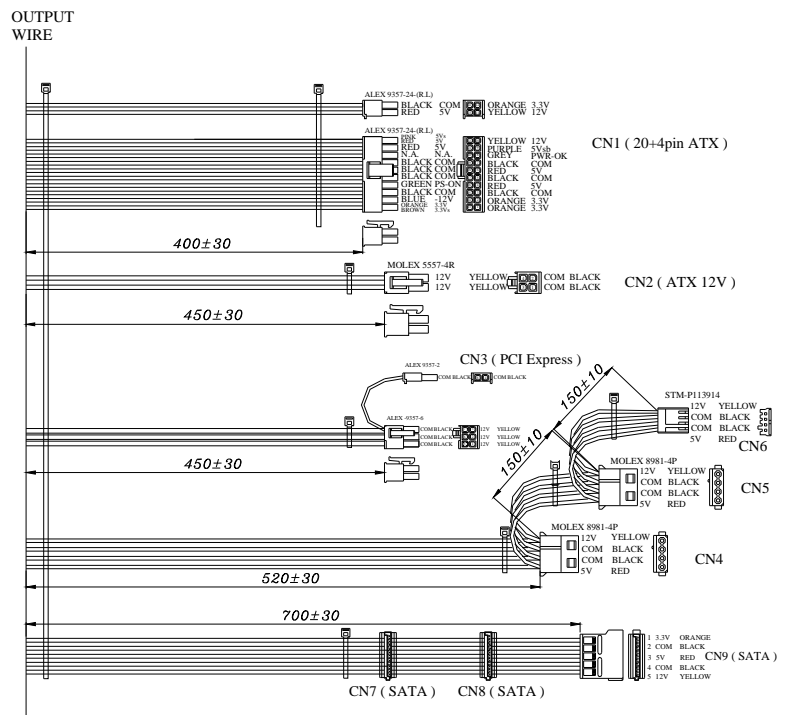
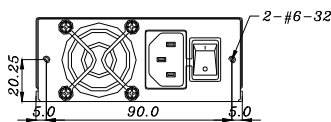
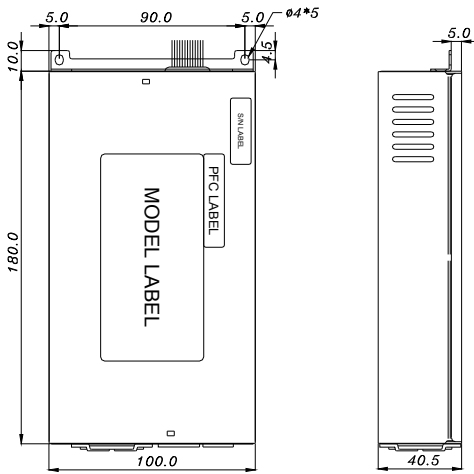
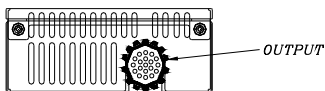
## Output De-rating Vs Input Voltage :



## Dimension:

(Unit: mm)

# SPX-5200-GP1/SPX-5250-GP1



UNIT : mm.



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# SPX-5300-GP1/SPX-5350-GP1

300W/350W, Five Output  
 For 1U System  
 ATX12V Power supply



205 x 100 x 40.5 mm  
 8.07 x 3.94 x 1.60 inch



## Features:

- \* Universal full range AC input with active PFC, P.F.> 0.95
- \* High efficiency and reliability
- \* Built-in long life ball bearing fan
- \* 3.3V & 5V VRM design
- \* Over voltage, over load & short circuit, over current, over temperature protection
- \* With power good signal & PS-ON signal output
- \* Meet Intel ATX 2.01 / ATX2.31 / ATX 12V / EPS
- \* 3 year warranty

## Specification:

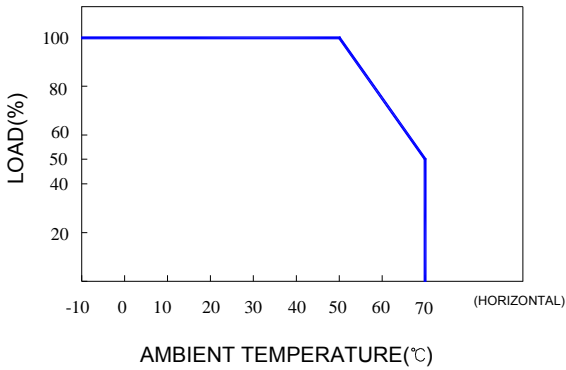
INPUT	Voltage	90V ~ 264VAC universal full range or 127V ~ 375VDC					
	Frequency	47 ~ 63 Hz.					
	Current	SPX-5300-GP1	<4.2A @ 100VAC input, full load condition				
		SPX-5350-GP1	<5.0A @ 100VAC input, full load condition				
	Inrush Current	<40A@115V , <60A@230V AC input, Cold start, at 25°C ambient					
	Leakage Current	<1.5mA@264V AC input					
	Power Factor	PF > 0.95					
OUTPUT	Voltage	5V	3.3V	12V1	12V2	-12V	5Vsb
	Min Load	0.3A	0A	0.2A	0A	0A	0A
	Max Load	25A	25A	16A	16A	0.5A	3A
						Peak Load 1.5A ⑥	
	Output Tolerance ②	±3%	±5%	±3%	±3%	±5%	±5%
	Ripple Noise MAX. ③	70mV	70mV	120mV	120mV	120mV	70 mV
	Efficiency (TYP.)	82%					
PROTECTION	Output MAX.	SPX-5300-GP1 : 3.3V & 5V max 125W, total output max 300W SPX-5350-GP1 : 3.3V & 5V max 125W, total output max 350W					
	Over Voltage	5.7V~6.5V	3.7V~4.1V	13.1V~14.5V	----	----	
		Shutdown and latch off, recover after re-start up.					
	Over current (MAX)	30A	30A	20A	20A	----	----
ELEC. CHAR.	Over Load & Short Circuit	When power supply over 105%~ 150% max load or short circuit acted, power supply will be shutdown and latch off, recover after re-start up.					
	Over Temperature	Over 95°C ± 5°C Shutdown, recovers automatically after fault condition has been removed.					
	Rise time	<20mS					
ENVIRONMENT	Hold up time	>16mS@230V					
	Power Good signal	Power on within 100~500ms, high level TTL signal release.					
	PS-ON signal	P/S ON: PS-ON=Low or <0.8V, P/S OFF: PS-ON=Hi or >2V					
SAFETY	Temperature ④	Operating: -10~70°C; De-rating: 50~70°C : 2.5%/°C.; Storage: -20~+85°C					
	Humidity	Operating: 20% ~ 90% RH (non condensing); Storage: 10% ~ 95% RH (non condensing)					
EMC	Withstand voltage	I/P-O/P:3.0KVAC, I/P-PE:1.5KVAC, 1minute					
	Isolation resistance	I/P-O/P, I/P-PE > 100MΩ/500VDC at 25°C/ 70% RH					
	Safety standard	UL 60950-1 2 <sup>nd</sup> , CSA C22.2 No. 60950-1- 07 2 <sup>nd</sup> , TUV EN 60950-1:2006, IEC 60950-1:2005, approved					
OTHERS	EMI	EN 55022 CLASS B, FCC CFR 47 PART 15 CLASS B, CNS 13438 CLASS B. Compliance to EN61000-3-2 CLASS D, EN61000-3-3					
	EMS	EN 55024 : EN 61000-4-2,3,4,5,6,8,11					
	Cooling	Forced airflow cooling with a DC fan.					
NOTE	M.T.B.F.	108.7 K hours					
	Dimension	205 x 100 x 40.5 mm (L*W*H)					
	PACKING	N.W.: 1.25 KG / 1PC; 12 PCS / 2.02 CUFT / 1 CTN					
NOTE	① All measurements which not mentioned are based on 230VAC input, <b>output max</b> at ambient 25°C / 70%RH						
	② Output tolerance included set up voltage, line regulation and load regulation. The regulation is measured between 20%-100% <b>max load</b> of each output, Total output must under <b>output Max</b> .						
	③ Ripple & noise are measured at 10~50°C condition and 20MHz of bandwidth by using a 10" ~ 15" twisted pair-wire terminated with a 0.1uF & a 10uF parallel capacitor.						
	④ The operating temperature shall follow the de-rating curve in spec The output load may be requested for decreasing as de-rating curve in spec when low input voltage is under 100VAC						
	⑤ The power supply is considered a component of end-equipment. The end-equipment must be re-confirmed whether comply with EMC directives.						
	⑥ 33% duty cycle maximum within every 10 seconds, average output power should not exceed the <b>Max.</b> load						



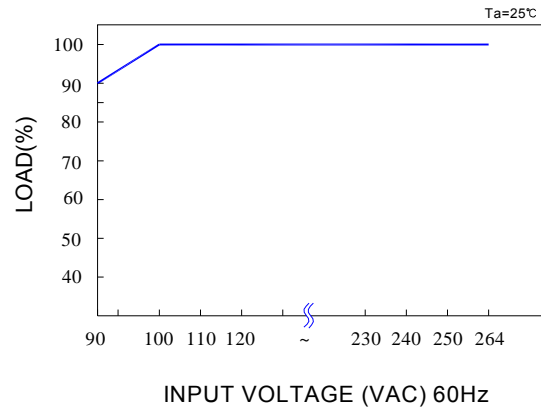
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# SPX-5300-GP1/SPX-5350-GP1

## De-rating Curve :



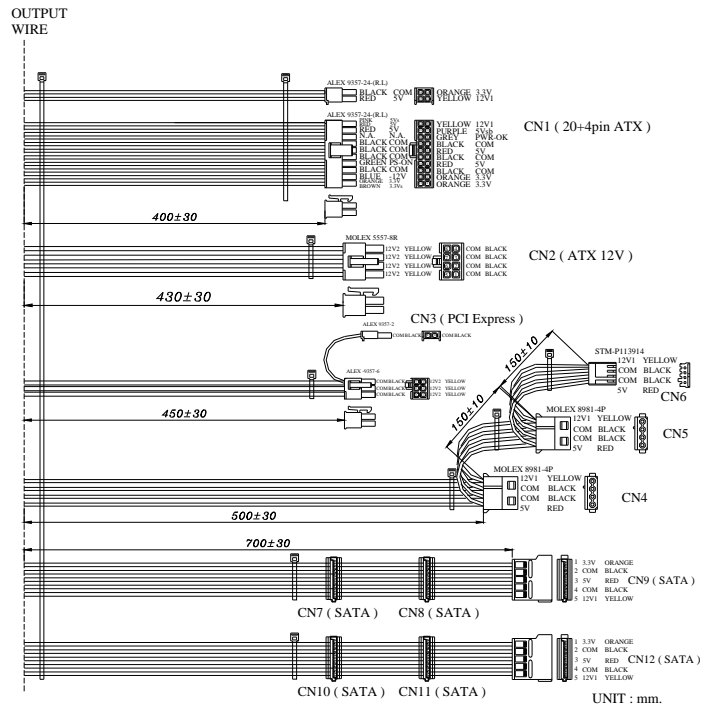
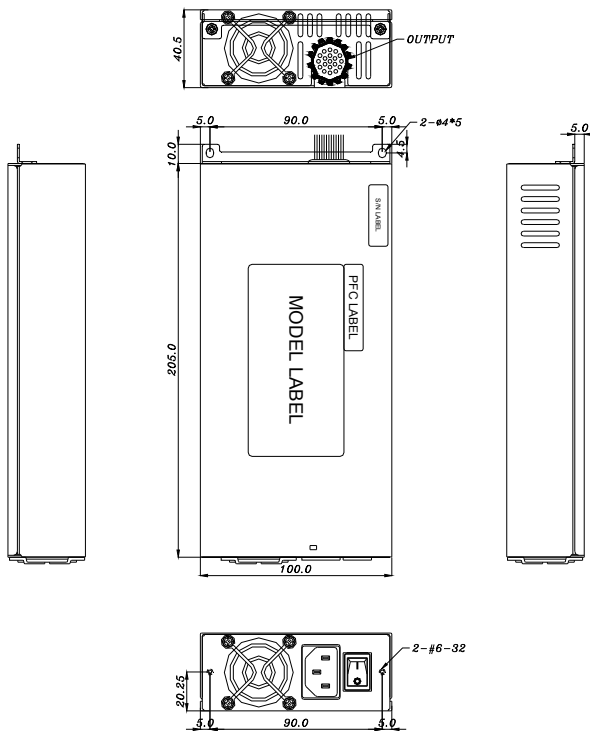
## Output De-rating Vs Input Voltage :



## Dimension:

(Unit: mm)

# SPX-5300-GP1/SPX-5350-GP1





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# SPX-6200-GP1/SPX-6250-GP1

200W/250W, Six Output

For 1U System

ATX12V Power supply



180 x 100 x 40.5 mm  
 7.09 x 3.94 x 1.60 inch



## Features:

- \* Universal full range AC input with active PFC, P.F.> 0.95
- \* High efficiency and reliability
- \* Built-in long life ball bearing fan
- \* 3.3V & 5V VRM design
- \* Over voltage, over load & short circuit, over current, over temperature protection
- \* With power good signal & PS-ON signal output
- \* Meet Intel ATX 2.01 / ATX2.31 / ATX 12V / EPS
- \* 3 years warranty

## Specification:

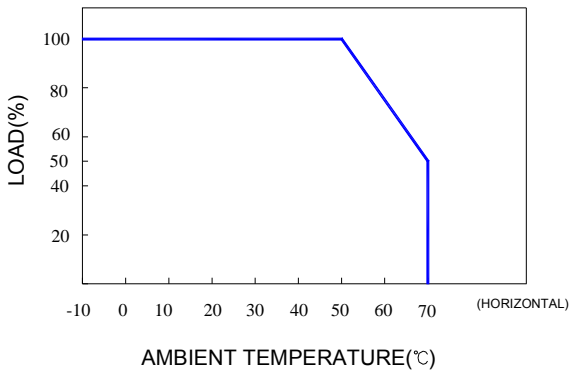
INPUT	Voltage	90V ~ 264VAC universal full range or 127V ~ 375VDC						
	Frequency	47 ----- 63 Hz.						
	Current	SPX-6200-GP1	<2.8A @ 100VAC input, full load condition					
		SPX-6250-GP1	<3.5A @ 100VAC input, full load condition					
	Inrush Current	<40A@115V , <60A@230V AC input, Cold start, at 25°C ambient						
	Leakage Current	<1.5mA@264V AC input						
Power Factor	PF > 0.95							
OUTPUT	Voltage	5V	3.3V	12V	-12V	-5V	5Vsb	
	Min Load	0.3A	0A	0.2A	0A	0A	0A	
	Max Load	SPX-6200-GP1	20A	25A	12A	Peak Load 1.5A ⑥	0.5A	3A
		SPX-6250-GP1			16A		0.5A	
	Output Tolerance ②		±3%	±5%	±3%	±10%	±5%	±5%
	Ripple Noise MAX. ③		70mV	70mV	120mV	120mV	100 mV	70 mV
Efficiency (TYP.)	82%							
Output MAX.	SPX-6200-GP1 : 3.3V & 5V max 110W, total output max 200W SPX-6250-GP1 : 3.3V & 5V max 110W, total output max 250W							
PROTECTION	Over Voltage	5.7V~6.5V	3.7V~4.1V	13.1V~14.5V	----	----	----	
		Shutdown and latch off, recover after re-start up.						
	Over current (MAX)	30A	30A	20A	----	----	----	
	Over Load & Short Circuit	When power supply over 105%~ 150% max load or short circuit acted, power supply will be shutdown and latch off, recover after re-start up.						
Over Temperature	Over 95°C ± 5°C Shutdown, recovers automatically after fault condition has been removed.							
ELEC. CHAR.	Rise time	<20mS						
	Hold up time	>16mS@230V						
	Power Good signal	Power on within 100~500ms, high level TTL signal release.						
	PS-ON signal	P/S ON: PS-ON=Low or <0.8V, P/S OFF: PS-ON=Hi or >2V						
ENVIRONMENT	Temperature ④	Operating: -10~70°C; De-rating: 50~70°C : 2.5%/°C. ; Storage: -20~+85°C						
	Humidity	Operating: 20% ~ 90% RH (non condensing) ; Storage: 10% ~ 95% RH (non condensing)						
SAFETY	Withstand voltage	I/P-O/P:3.0KVAC, I/P-PE:1.5KVAC, 1minute						
	Isolation resistance	I/P-O/P, I/P-PE >100MΩ/500VDC at 25°C/ 70% RH						
	Safety standard	UL 60950-1 2 <sup>nd</sup> , CSA C22.2 No. 60950-1-07 2 <sup>nd</sup> , TUV EN 60950-1:2006, IEC 60950-1:2005, approved						
EMC	EMI	EN 55022 CLASS B, FCC CFR 47 PART 15 CLASS B, CNS 13438 CLASS B.						
	EMS	Compliance to EN61000-3-2 CLASS D, EN61000-3-3 EN 55024 : EN 61000-4-2,3,4,5,6,8,11						
OTHERS	Cooling	Forced airflow cooling with a DC fan.						
	M.T.B.F.	108.7 K hours						
	Dimension	180 x 100 x 40.5 mm (L*W*H)						
	PACKING	N.W.: 1.17 KG / 1PC; 12 PCS / 2.02 CUFT / 1 CTN						
NOTE	① All measurements which not mentioned are based on 230VAC input, <b>output max</b> at ambient 25°C / 70%RH							
	② Output tolerance included set up voltage, line regulation and load regulation. The regulation is measured between 20%-100% <b>max load</b> of each output, Total output must under <b>output Max</b> .							
	③ Ripple & noise are measured at 10~50°C condition and 20MHz of bandwidth by using a 10" ~15" twisted pair-wire terminated with a 0.1uF & a 10uF parallel capacitor.							
	④ The operating temperature shall follow the de-rating curve in spec The output load may be requested for decreasing as de-rating curve in spec when low input voltage is under 100VAC							
	⑤ The power supply is considered a component of end-equipment. The end-equipment must be re-confirmed whether comply with EMC directives.							
	⑥ 33% duty cycle maximum within every 10 seconds, average output power should not exceed the <b>Max.</b> load							



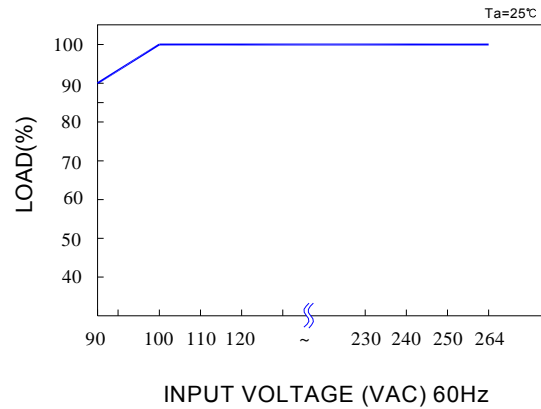
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# SPX-6200-GP1/SPX-6250-GP1

## De-rating Curve :



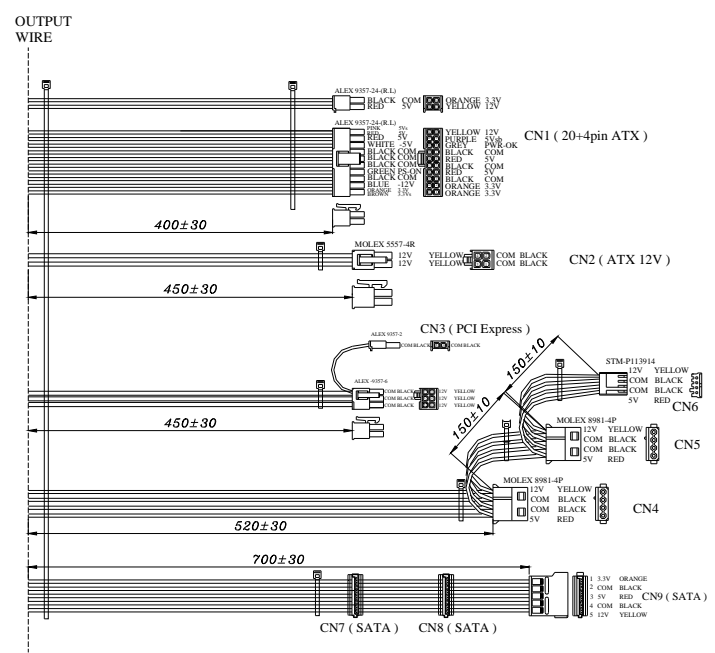
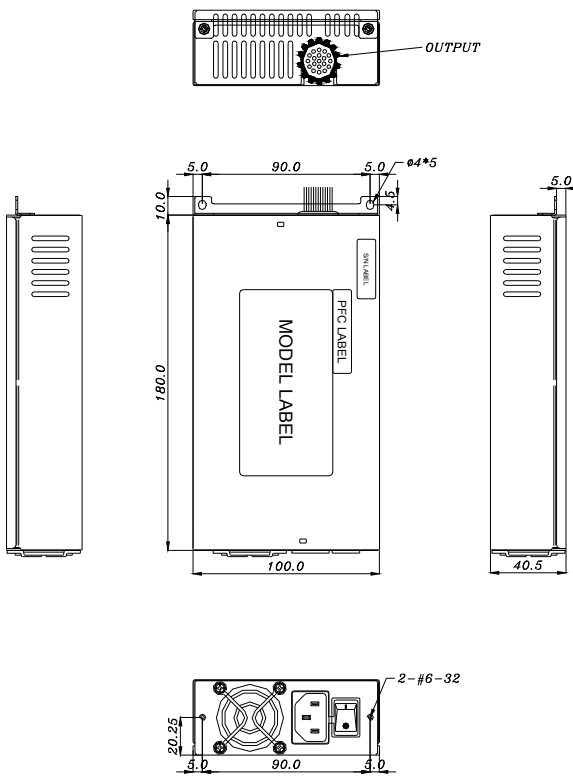
## Output De-rating Vs Input Voltage :



## Dimension:

(Unit: mm)

# SPX-6200-GP1/SPX-6250-GP1





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300W/350W, Six Output  
 For 1U System  
 ATX12V Power supply



205 x 100 x 40.5 mm  
 8.07 x 3.94 x 1.60 inch



## Features:

- \* Universal full range AC input with active PFC, P.F.> 0.95
- \* High efficiency and reliability
- \* Built-in long life ball bearing fan
- \* 3.3V & 5V VRM design
- \* Over voltage, over load & short circuit, over current, over temperature protection
- \* With power good signal & PS-ON signal output
- \* Meet Intel ATX 2.01 / ATX2.31 / ATX 12V / EPS
- \* 3 year warranty

## Specification:

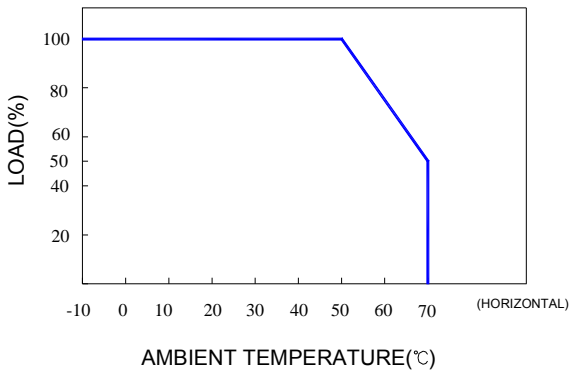
INPUT	Voltage	90V ~ 264VAC universal full range or 127V ~ 375VDC							
	Frequency	47 ----- 63 Hz.							
	Current	SPX-6300-GP1	<4.2A @ 100VAC input, full load condition						
		SPX-6350-GP1	<5.0A @ 100VAC input, full load condition						
	Inrush Current	<40A@115V , <60A@230V AC input, Cold start, at 25°C ambient							
	Leakage Current	<1.5mA@264V AC input							
	Power Factor	PF > 0.95							
OUTPUT	Voltage	5V	3.3V	12V1	12V2	-12V	-5V	5Vsb	
	Min Load	0.3A	0A	0.2A	0A	0A	0A	0A	
	Max Load	25A	25A	16A	16A	0.5A	0.5A	3A	
	Output Tolerance ②	±3%	±5%	±3%	±3%	±10%	±5%	±5%	
	Ripple Noise MAX. ③	70mV	70mV	120mV	120mV	120mV	100 mV	70 mV	
	Efficiency (TYP.)	82%							
	Output MAX.	SPX-6300-GP1 : 3.3V & 5V max 125W, total output max 300W SPX-6350-GP1 : 3.3V & 5V max 125W, total output max 350W							
PROTECTION	Over Voltage	5.7V~6.5V	3.7V~4.1V	13.1V~14.5V	----	----	----		
	Shutdown and latch off, recover after re-start up.								
	Over current (MAX)	30A	30A	20A	20A	----	----	----	
	Over Load & Short Circuit	When power supply over 105%~ 150% max load or short circuit acted, power supply will be shutdown and latch off, recover after re-start up.							
Over Temperature	Over 95°C ± 5°C Shutdown, recovers automatically after fault condition has been removed.								
ELEC. CHAR.	Rise time	<20mS							
	Hold up time	>16mS@230V							
	Power Good signal	Power on within 100~500ms, high level TTL signal release.							
ENVIRONMENT	PS-ON signal	P/S ON: PS-ON=Low or <0.8V, P/S OFF: PS-ON=Hi or >2V							
	Temperature ④	Operating: -10~70°C; De-rating: 50~70°C : 2.5%/°C. ; Storage: -20~+85°C							
	Humidity	Operating: 20% ~ 90% RH (non condensing) ; Storage: 10% ~ 95% RH (non condensing)							
SAFETY	Withstand voltage	I/P-O/P:3.0KVAC, I/P-PE:1.5KVAC, 1minute							
	Isolation resistance	I/P-O/P, I/P-PE > 100MΩ/500VDC at 25°C / 70% RH							
	Safety standard	UL 60950-1 2 <sup>nd</sup> , CSA C22.2 No. 60950-1- 07 2 <sup>nd</sup> , TUV EN 60950-1:2006, IEC 60950-1:2005, approved							
EMC	EMI	EN 55022 CLASS B, FCC CFR 47 PART 15 CLASS B, CNS 13438 CLASS B. Compliance to EN61000-3-2 CLASS D, EN61000-3-3							
	EMS	EN 55024 : EN 61000-4-2,3,4,5,6,8,11							
	Cooling	Forced airflow cooling with a DC fan.							
OTHERS	M.T.B.F.	108.7 K hours							
	Dimension	205 x 100 x 40.5 mm (L*W*H)							
	PACKING	N.W.: 1.25 KG / 1PC; 12 PCS / 2.02 CUFT / 1 CTN							
NOTE	① All measurements which not mentioned are based on 230VAC input, <b>output max</b> at ambient 25°C / 70%RH ② Output tolerance included set up voltage, line regulation and load regulation. The regulation is measured between 20%-100% <b>max load</b> of each output, Total output t must under <b>output Max</b> . ③ Ripple & noise are measured at 10~50°C condition and 20MHz of bandwidth by using a 10" ~ 15" twisted pair-wire terminated with a 0.1uF & a 10uF parallel capacitor. ④ The operating temperature shall follow the de-rating curve in spec The output load may be requested for decreasing as de-rating curve in spec when low input voltage is under 100VAC ⑤ The power supply is considered a component of end-equipment. The end-equipment must be re-confirmed whether comply with EMC directives. ⑥ 33% duty cycle maximum within every 10 seconds, average output power should not exceed the <b>Max</b> . load								



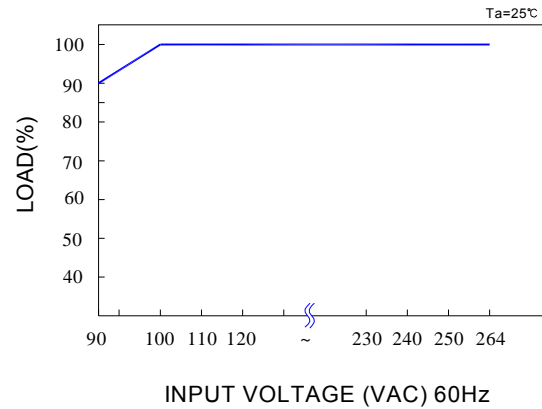
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# SPX-6300-GP1/SPX-6350-GP1

## De-rating Curve :



## Output De-rating Vs Input Voltage :



## Dimension:

(Unit: mm)

# SPX-6300-GP1/SPX-6350-GP1

