

■ Features

- Single output: 80-100W(Convection cooling)
- Single output: 100-150W(Forced Air Cooling)
- Input voltage range: 90-264V
- Output current(2080mA-20000mA)
- 4"x2" form factor
- 12@0.5A fan voltage auxiliary output
- Efficiency 86%
- Protections: SCP, OCP, and OVP
- Class 1 & Class 2 options
- Cover kit accessory available



\*Product images are for illustrative purposes only and may vary from actual design.

■ Applications

- Network system, telecommunication system, storage system, industrial equipment, and consumer electronics

■ Model List\*(See part number scheme for model number details)

Model Number	Input Voltage	Output Power	Output Voltage	Output Current Max (Convection)	Output Current Max. (Forced Air Cooling)	Efficiency 120/230Vac	Certificates
SPJ150-050-XY	90–264Vac	80/100W*	5V	16A	16A/20A**	84%/86%	UL/cUL
SPJ150-120-XY	90–264Vac	100/150W*	12V	8.33A	12.5A	84%/86%	UL/cUL
SPJ150-150-XY	90–264Vac	100/150W*	15V	6.67A	10A	84%/86%	UL/cUL
SPJ150-240-XY	90–264Vac	100/150W*	24V	4.17A	6.25A	84%/86%	UL/cUL
SPJ150-280-XY	90–264Vac	100/150W*	28V	3.57A	5.35A	84%/86%	UL/cUL
SPJ150-480-XY	90–264Vac	100/150W*	48V	2.08A	3.13A	84%/86%	UL/cUL

\*100W for Convection cooling; 150W for Forced Air Cooling

\*\*16A for JST Connector; 20A for Screw terminal

■ Technical Data

AC Input	90-264Vac
Input Frequency	47-63Hz
Input Current	120Vac: 1.7A max 230Vac: 0.85A max
No load Power	1.2W
Inrush Current	120Vac: 35A, 230Vac: 65A
Leakage Current	120Vac: <150µA, 230Vac: <300µA
Hold-up Time	120Vac: 6ms; 230Vac: 10ms
Power Factor	120Vac: 0.99; 230Vaw c 0.95
Output Power	Forced cooling: 100W(5V Model) 150W(Other Models) Convection cooling: 80W(5V Model) 100W(Other Models)
Output Adjustability	±3%
Peak Power	170W for 0.2s
Line Regulation	±0.5%

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■ Technical Data(cont.)

Load Regulation	±2%
Transient Response	<10%, 50% to 100% load change, 50Hz, 50% duty cycle, 0.1A/μs Recovery time <5ms
Ripple	1%
Rise Time	<100ms typical
Set Point Tolerance	±1%
Over Current Protection	110%
Over Voltage Protection	110% to 150%
Short Circuit Protection	Short term, auto recovery
Switching Frequency	PFC converter: Variable, 35-250kHz; 90kHz typical Resonant converter: Variable, 35-250kHz; 90kHz typical
Operating Temperature	-20 to +70°C
Storage Temperature	-40 to +70°C
Relative Humidity	95% Rh, noncondensing
Altitude	Operating: 10,000ft.; Nonoperating: 40,000 ft.
MTBF	2.4m Hours, Telcordia-SR332-issue 3
Isolation Voltage	Min. 4242Vdc between Input to output
Cooling	Forced cooling 300LFM: 100W(5V Model) 150W(Other Models) Convection cooling: 80W(5V Model) 100W(Other Models)

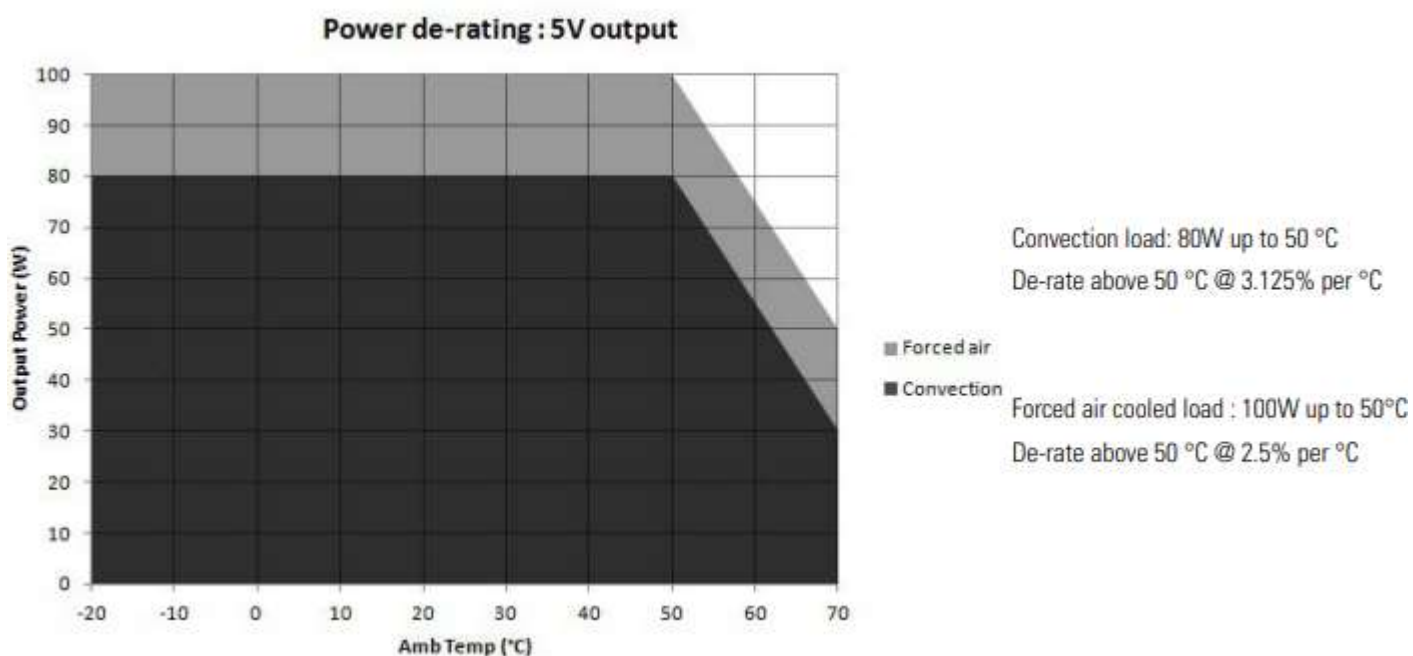
Notes

1. Combined output power from V1 and VFan should not exceed the total output power rating.
2. Ripple is 2% up to 20% load and <1% above 20% load. Ripple is peak to peak with 20MHz bandwidth and 10μF capacitor at rated line voltage and load ranges.
3. Fan output voltage tolerance is ±20%.
4. Peak current for fan output is 1A.
5. Class 1 products have an Earthing tab and Class 2 products (-2 suffix) have no Earthing tab.
6. Specifications are for nominal input voltage, 25°C and max. load unless otherwise stated.
7. Derate output linearly to 80% from 90Vac to 80vac Input.
8. When used in Cover Kit, de-rate output power to 70% under all operating conditions.

### ■ Safety and EMC Approval

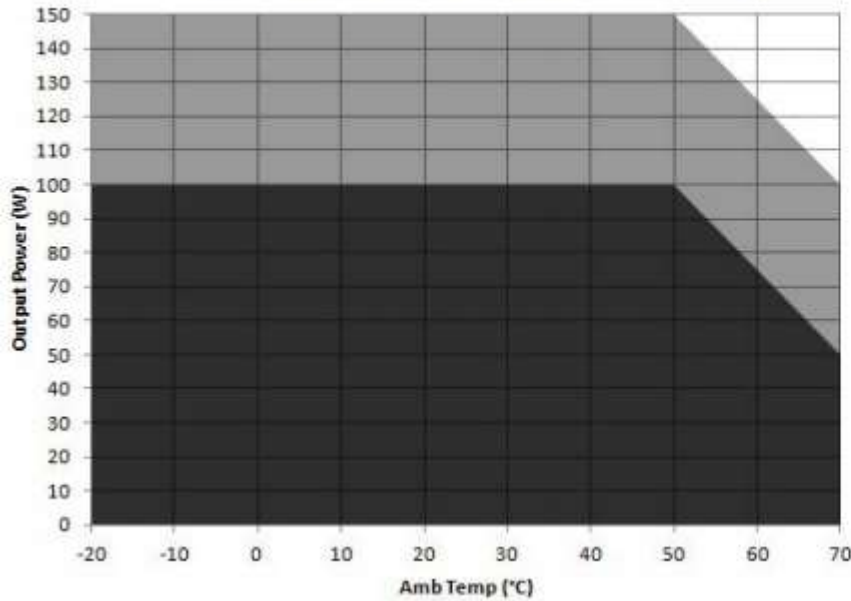
Conducted Emissions	EN55032-B, CISPR22-B, FCC Par15-B
Radiated Emissions	EN55032 B
Input Current Harmonics	EN61000-3-2 Class D
Voltage Fluctuation and Flicker	EN61000-3-3 Pass
ESD Immunity	EN61000-4-2, Level-3
Radiated Field Immunity	EN61000-4-3, Level-3
Electrical Fast Transient Immunity	EN61000-4-4, Level-3
Surge Immunity	EN61000-4-5, Level-3
Conducted Immunity	EN61000-4-6, Level-3
Magnetic Field Immunity	EN61000-4-8, Level-3
Voltage dips, interruptions	EN61000-4-11, Level-3
CE Mark	Complies with LVD Directive
Approval Agency	Nemko, UL, cUL, IEC
Safety Standards	UL/CSA C22.2 No./IEC/EN609505-1 (2 <sup>nd</sup> edition)
Safety File Numbers	Nemko: P15219380, CB: NO84942, UL: E150565

### ■ Derating Curve



■ Derating Curve(cont.)

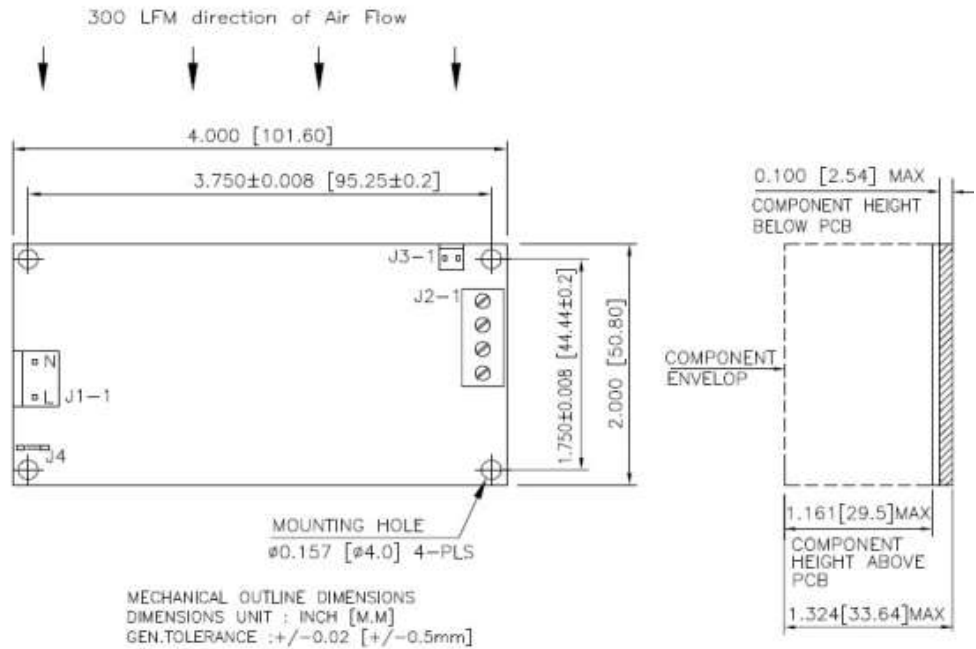
Power de-rating : 12V, 15V, 24V, 48V output



Convection load: 100W up to 50 °C  
De-rate above 50 °C @ 2.5% per °C

Forced air cooled load : 150W up to 50°C  
De-rate above 50 °C @ 1.67% per °C

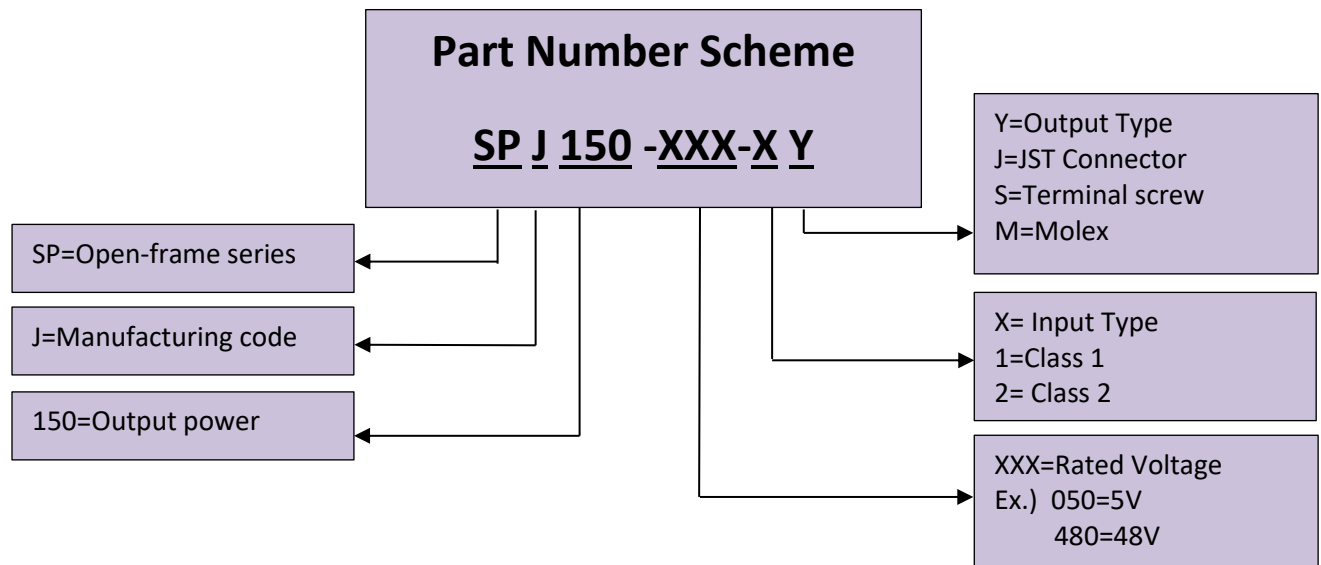
■ Mechanical Diagram



- Notes: In case the PCB is mounted in a metal enclosure, using metal hardware ensure the following
1. Stand off, used to mount PCB has OD of 5.4 mm max.
  2. Screws, used to fix PCB on stand off, have head dia of 6.0 mm max.
  3. Washer, if used, to have dia of 6.5 mm max.

Connectors		
J1	Pin 1	AC Line
	Pin 2	AC Neutral
Space Connector (Class 1 product only)	EARTH	
J2	Pin 1, 2	V1
	Pin 3, 4	RTN
J3	Pin 1	VFAN(12V/0.5A)
	Pin 2	RTN

Mechanical Specifications	
AC Input Connector (J1)	Molex: 26-60-4030 Mating:09-50-3031; Pins: 08-50-0106
EARTH	Molex: 19705-4301 or equivalent Mating: 190030001
DC Output Connector (J2)	Option 1: Tyco: 1776112-4 or equivalent Mating: 13AWG wire Option 2: JST:B4P-VHB (LF) (SN) or B4P-VH(LF) (SN) or equivalent Mating: VHR-4M; Pins: SVH-41T-P1.1
Fan Connector (J3)	Tyco: 640456-2 or equivalent Mating: 640440-2
Dimensions	4x2x1.324 inches (101.60x50.8x33.63mm)
Weight	150g



\*Product images are for illustrative purposes only and may vary from actual design.

\*Specifications are subject to change without notice. Autec is not responsible for issues arising from errors or omissions.