SF100/101P & SFU100/101P Series

100 Watt AC - DC Power Supply, Open Frame or U-Channel
UL, EN, IEC 60950-1 2nd Edition, RoHS 2 Compliant

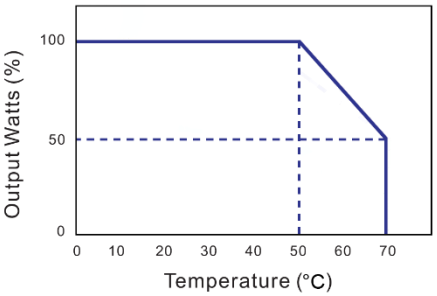
The SF100/101P & SFU100/101P Series open frame switch mode power supply offers 100 Watts output power (convection cooled), with an output voltage range of 11 Vdc – 40 Vdc. PCB size is 3" x 5", with case and input configuration options. Safety approvals include UL/CUL, IEC, and EN 60950-1, 2nd Edition.

Input Voltage	*90 to 264 Vac*
Input Frequency	*47 to 63 Hz*
Input Current (Low Line)	*2.0 A Typ. at 100 Vac*
Input Current (High Line)	*0.83 A Typ. at 100 Vac*
Power Factor Correction	*0.95 – 1*
Safety Ground Leakage Current	*0.75 mA Max. at 240 Vac, Full Load*
Output Voltage & Current	*See Table on Page 2*
Over-Voltage Protection	*112 - 132%*
Over-Current Protection	*110 - 150%*
Temperature Coefficient	*±0.04% / °C Max.*
Transient Response	*50% Load Change at 110 Vac Input: 4 ms Max.*
Efficiency	*80%*
No Load Power Consumption	*5 Watts Typ.*
Line Regulation	*±1% Max. at Full Load*
Load Regulation	*±5% Max. at 230 Vac*
Start-Up Time	*3 s Max.*
Hold-Up Time	*16 ms Min.*
Withstanding Voltage	*Primary to Secondary: 4,242 Vdc* *Primary to Ground: 2,121 Vdc*
Inrush Current	*50 A Max. @ 100 Vac, 25°C Cold Start* *120 A Max.@ 240 Vac, 25°C Cold Start*
Mean Time Between Failure	*100,000 Hrs. Min. (MIL-HDBK-217F, Full Load @ 25°C)*
Operating Temperature	*See Derating Curve*
Storage Temperature	*-40 to 85°C*
Industry Compliance	*Directive 2011/65/EU (RoHS 2)*
EMI Requirements	*Meets Conduction and Radiation Limits of:* *FCC Part 15 Class B, CISPR-32 Class B, EN 55032 Class B*
Safety Compliance	*UR/cUR (UL 60950-1:2nd Ed.), TUV (EN 60950-1:2006/A2:2013),* *CB (IEC 60950-1:2005/A2:2013), CE*

Features:

- Universal Input 100 - 240 Vac
- Internal EMI Filter
- Convection Cooled
- Over-Voltage, Over-Current, and Short Protection
- Active Power Factor Correction
- 100% Burn-In
- RoHS 2 Compliant

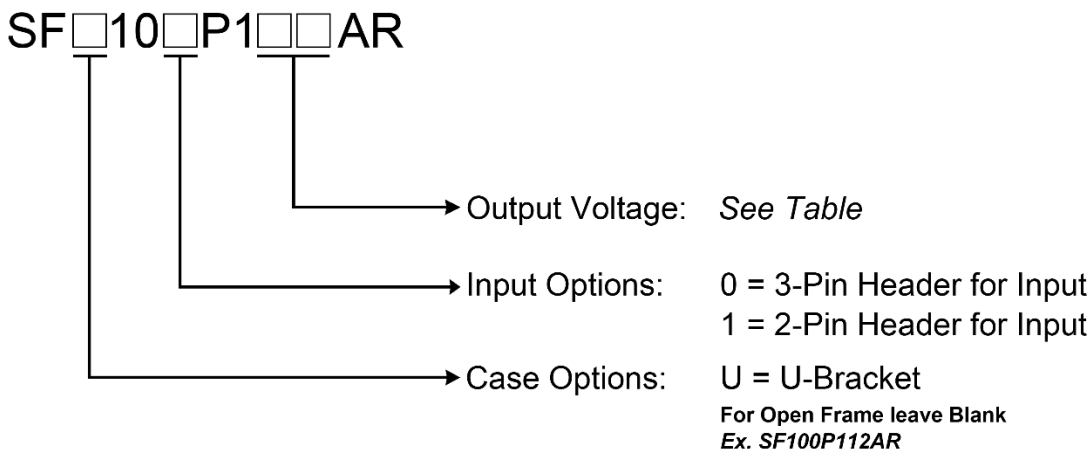
Derating Curve



Derate Linearly from 100% at 50°C to 50% at 70°C

Output Voltage and Current Table

Model Number [1]	Output Voltage	Output Current *Limited to Output Power* [2]	Ripple & Noise (mV P-P) [3]	Output Power
SF_10_P1_ _AR	11 – 13 Vdc	7.69 – 9.09 A	130	100 W
SF_10_P1_ _AR	16 – 21 Vdc	4.76 – 6.25 A	180	100 W
SF_10_P1_ _AR	22 – 27 Vdc	3.70 – 4.55 A	240	100 W
SF_10_P1_ _AR	28 – 33 Vdc	3.03 – 3.57 A	300	100 W
SF_10_P1_ _AR	34 – 40 Vdc	2.50 – 2.94 A	300	100 W



Notes:

1. Available Configurations:

Output Voltage	SF100P1_ _AR (PCB w. 3-Pin Input)	SF101P1_ _AR (PCB w. 2-Pin Input)	SFU100P1_ _AR (U-Bracket w. 3-Pin Input)	SFU101P1_ _AR (U-Bracket w. 2-Pin Input)
11 – 13 Vdc	✓	✓		✓
16 – 21 Vdc	✓			
22 – 27 Vdc	✓		✓	✓
28 – 33 Vdc	✓		✓	
34 – 40 Vdc			✓	

2. To find Output Current:
Output Current = Max. Power ÷ Output Voltage

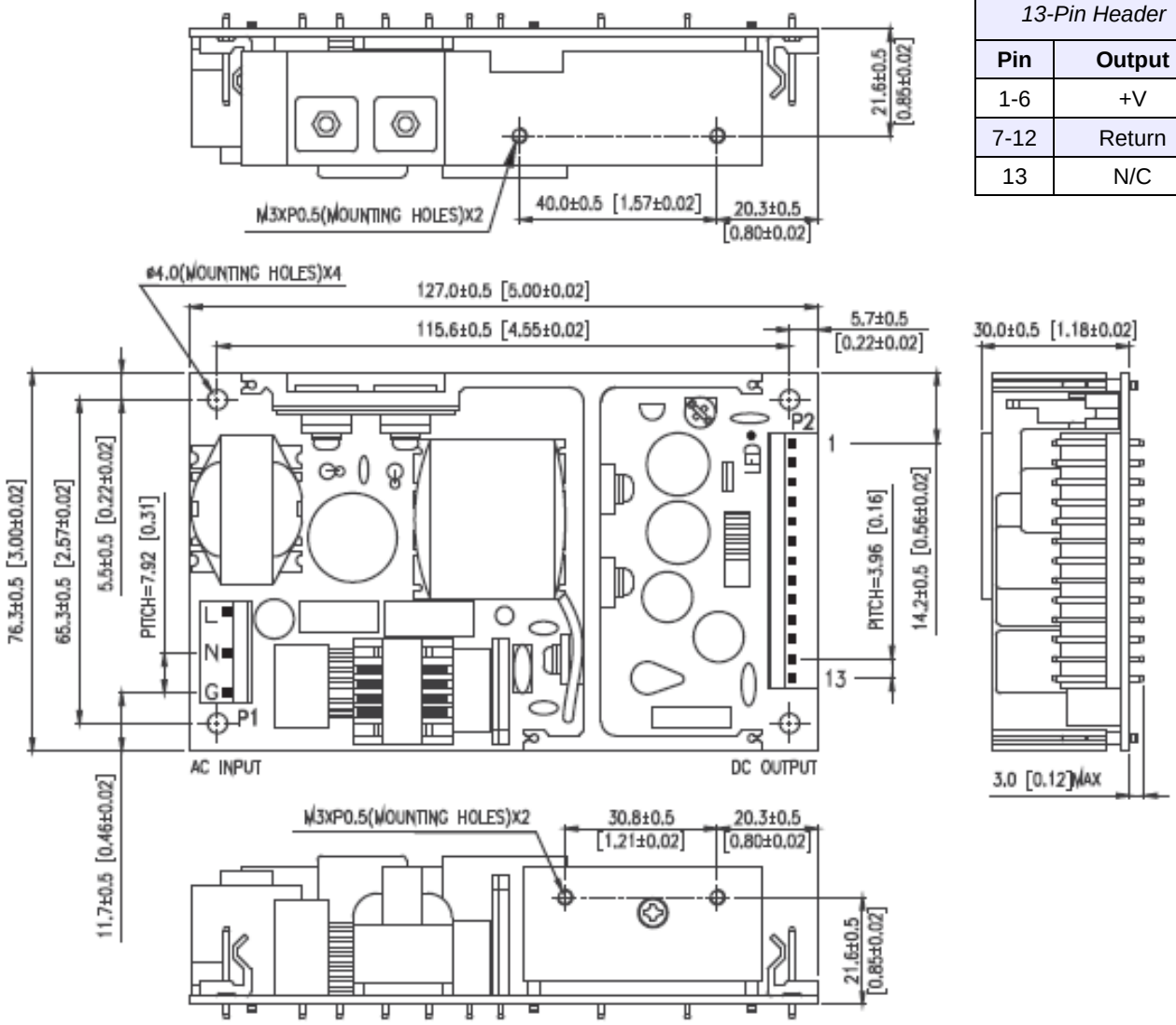
*Example: Output Current for SF100P1**24**AR (24 Vdc Output, 3-Pin input Header, PCB)*

Output Current = 100 W ÷ 24 V
Output Current = 4.17 A

3. *Measured w/ 0.1 µF ceramic capacitor & 47 µF electrolytic capacitor in parallel and a 20 MHz Bandwidth-limited scope.*

Mechanical Specification *(mm [in])*

SF100P: *3-Pin Header, Open Frame*



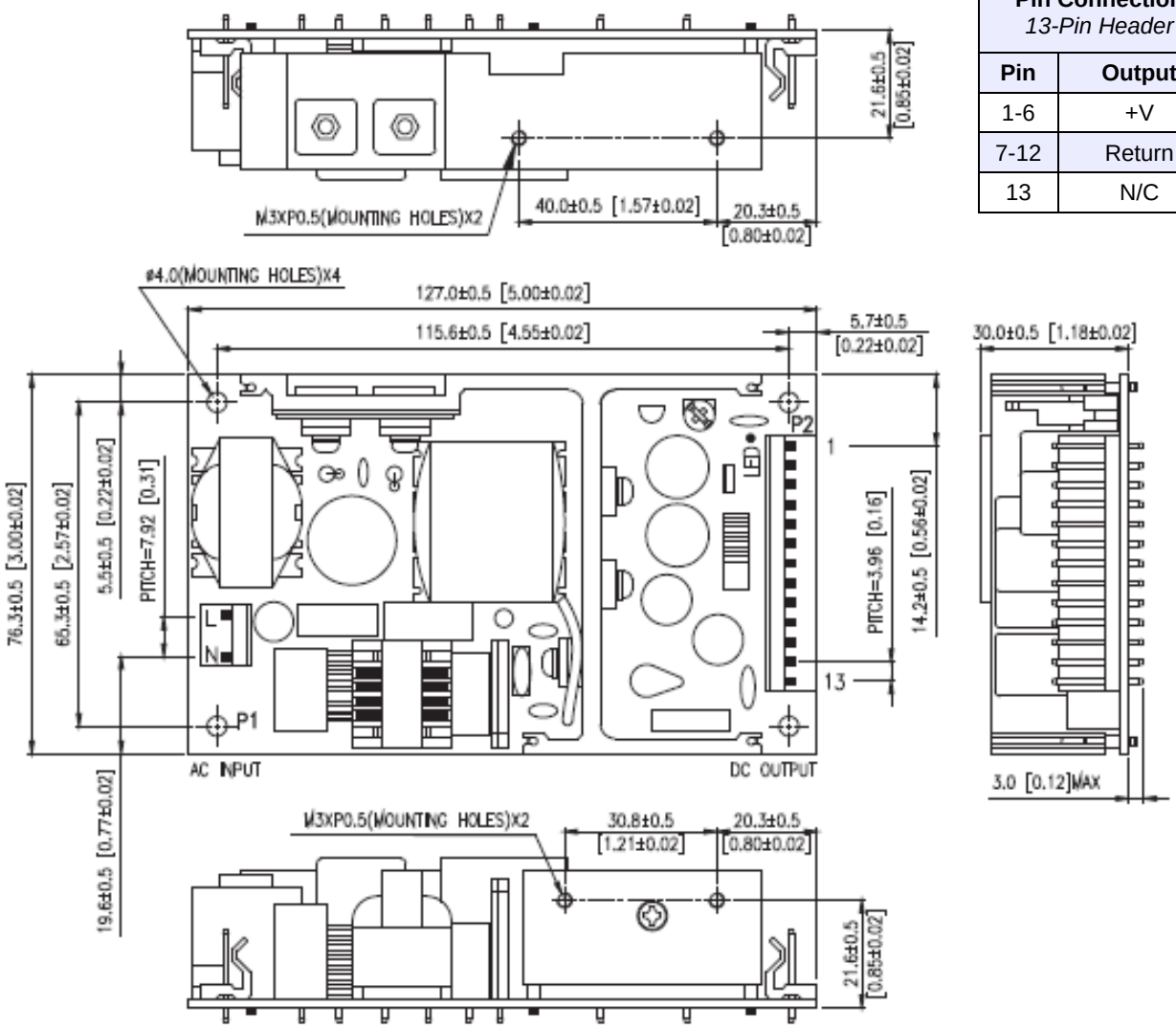
Pin Connection *13-Pin Header*	
Pin	**Output**
1-6	+V
7-12	Return
13	N/C

- **Input Connector Mating:**
  - 3-Pin Header: Molex Housing 09-52-4054 and Molex 2478 Series Crimp Terminals

- **Output Connector Mating:**
  - 13-Pin Header: Molex Housing 09-52-4134 and Molex 2478 Series Crimp Terminals

Mechanical Specification *(mm [in]) Continued*

SF101P: *2-Pin Header, Open Frame*



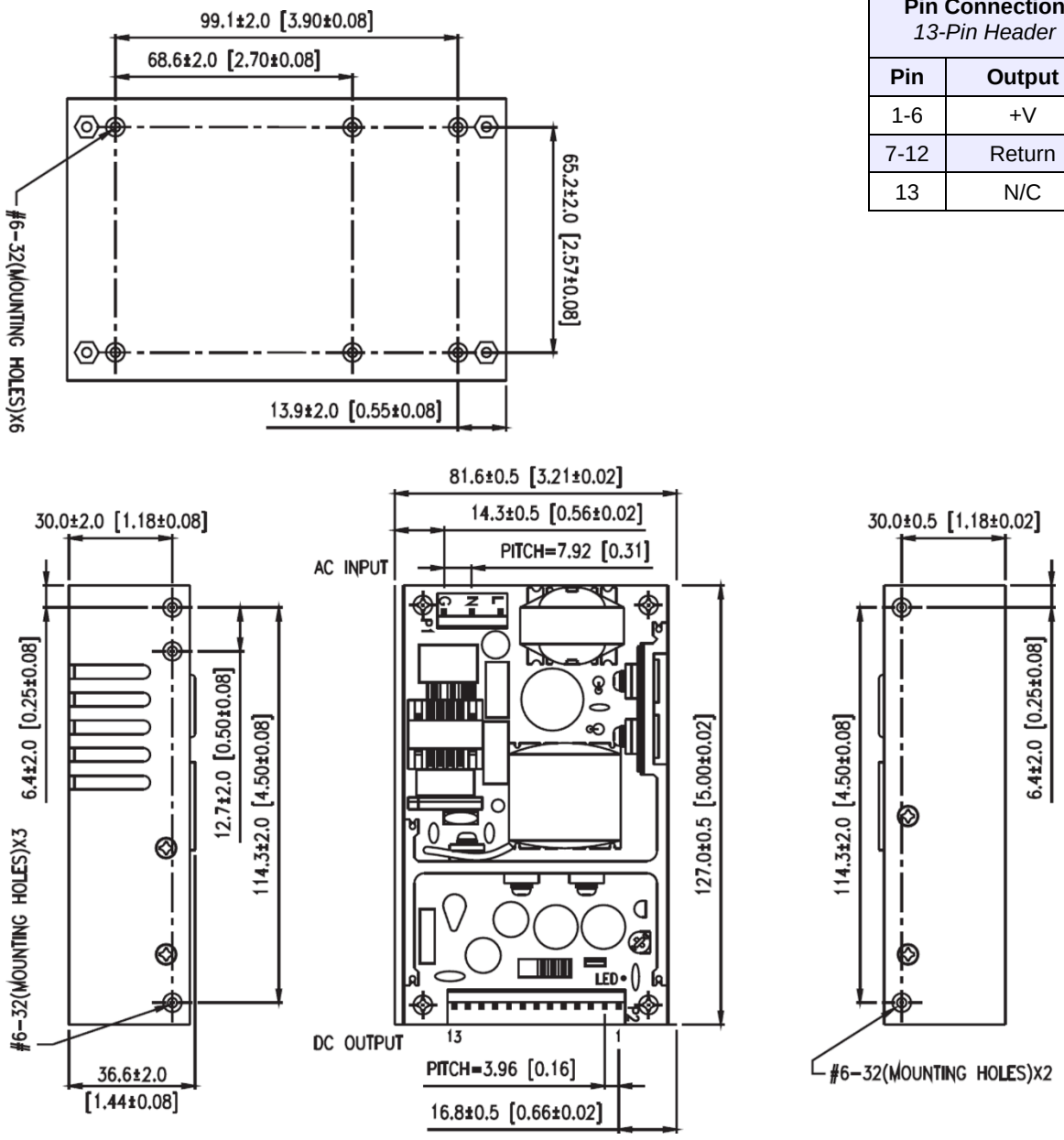
Pin Connection *13-Pin Header*	
Pin	**Output**
1-6	+V
7-12	Return
13	N/C

- **Input Connector Mating:**
  - 2-Pin Header: Molex Housing 09-52-4034 and Molex 2478 Series Crimp Terminals

- **Output Connector Mating:**
  - 13-Pin Header: Molex Housing 09-52-4134 and Molex 2478 Series Crimp Terminals

Mechanical Specification *(mm [in]) Continued*

SFU100P: *3-Pin Header, U-Channel*



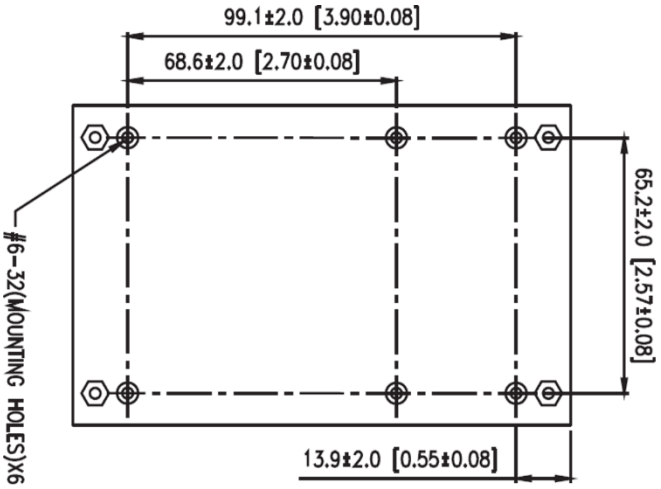
Pin Connection *13-Pin Header*	
Pin	**Output**
1-6	+V
7-12	Return
13	N/C

- **Input Connector Mating:**
  - 3-Pin Header: Molex Housing 09-52-4054 and Molex 2478 Series Crimp Terminals

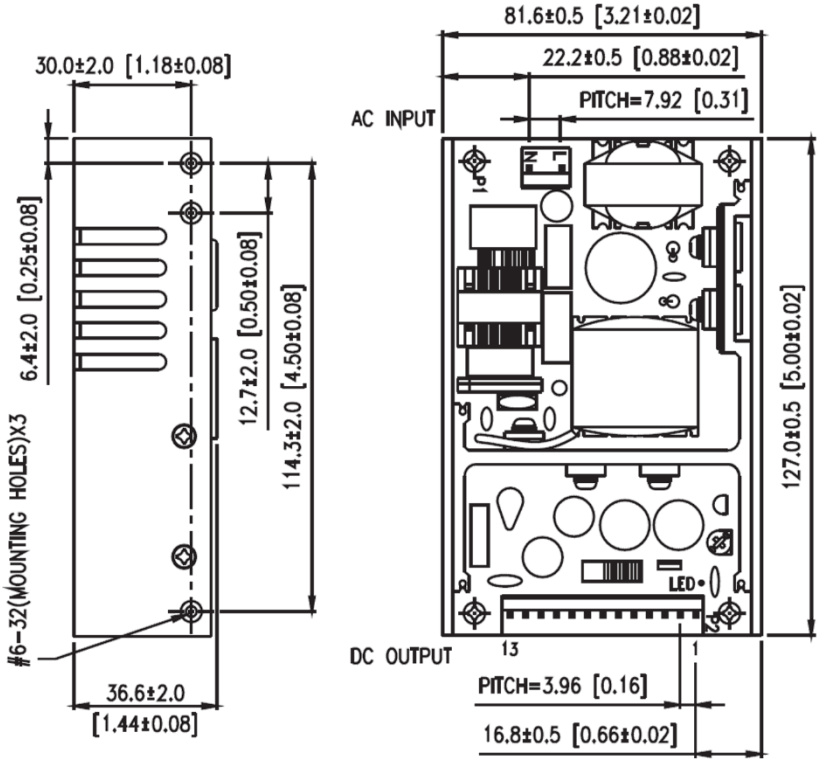
- **Output Connector Mating:**
  - 13-Pin Header: Molex Housing 09-52-4134 and Molex 2478 Series Crimp Terminals

Mechanical Specification *(mm [in]) Continued*

SFU101P: *2-Pin Header, U-Channel*



Pin Connection *13-Pin Header*	
Pin	**Output**
1-6	+V
7-12	Return
13	N/C



- **Input Connector Mating:**
  - 2-Pin Header: Molex Housing 09-52-4034 and Molex 2478 Series Crimp Terminals
- **Output Connector Mating:**
  - 13-Pin Header: Molex Housing 09-52-4134 and Molex 2478 Series Crimp Terminals