



SFL181P & SFU181P Series

175 - 180 Watt AC - DC Power Supply, U-Channel or L-Bracket
UL, EN, IEC 60950-1 2nd Edition, RoHS 2 Compliant

Date: 10/16/18

Rev: 080118

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The SFL181P & SFU181P Series open frame medical switch mode power supply offers 175 Watts to 180 Watts output power (convection cooled), with an output voltage range of 12 Vdc – 48 Vdc. PCB size is 3" x 5", available with an L-Bracket or U-Bracket, and output configuration options. Safety approvals include UL/CUL, IEC, and EN 60950-1, 2nd Edition.

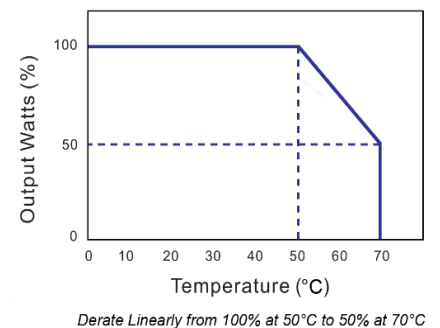


Input Voltage	90 to 264 Vac
Input Frequency	47 to 63 Hz
Input Current (Low Line)	2.30 A Max. at 100 Vac
Input Current (High Line)	0.95 A Max. at 240 Vac
Power Factor Correction	0.95 – 1.0
Safety Ground Leakage Current	0.75 mA Max. at 240 Vac, Full Load
Output Voltage & Current	See Table on Page 2
Over-Voltage Protection	112 - 132%, Crowbar Protected
Over-Current Protection	110 - 150%
Temperature Coefficient	± 0.04% / °C Max.
Transient Response	50% Load Change at 100 Vac Input: 4 ms Max.
Efficiency	87%
No Load Power Consumption	≤ 2 Watts
Line Regulation	± 1% Max. at Full Load
Load Regulation	± 5% Max.
Start-Up Time	2 s
Hold-Up Time	20 ms Min.
Withstanding Voltage	Primary to Secondary: 4,242 Vdc Primary to Ground: 2,121 Vdc
Inrush Current	60 A Max. @ 100 Vac, 25 °C Cold Start 144 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)
Weight	SFU180: 521 g Typ. SFL180: 486 g Typ.
EMI Requirements	Meets Conduction Limits of: FCC Part 15 Class B, CISPR-32 Class B, EN 55032 Class B
Safety Compliance	UR/cUR (UL 60950-1:2 nd Ed.), TUV (EN 60950-1:2006/A2:2013), CE, CB (IEC 60950-1:2005/A2:2013)

Features:

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

Derating Curve





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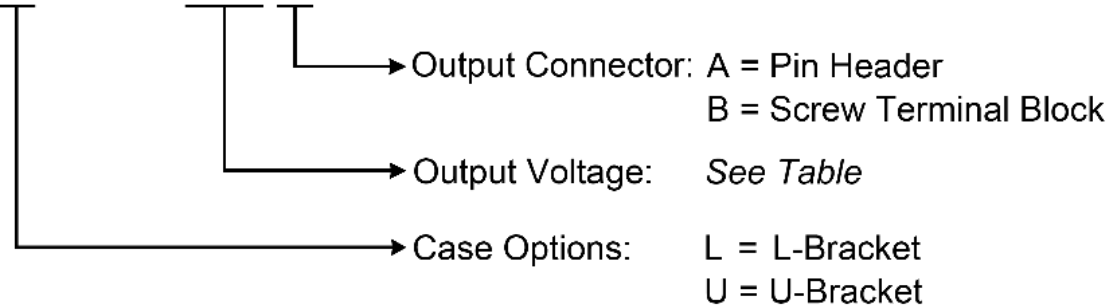
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Output Voltage and Current Table

Model Number	Output Voltage	Output Current <i>Limited to Output Power</i>	Ripple & Noise (mV P-P) ³	Output Power
SF_181P112BR ¹	12 Vdc	14.58 A	100	175 W
SFU181P124_R	24 Vdc	7.50 A	100	180 W
SFU181P136_R ²	36 Vdc	5.00 A	360	180 W
SFU181P148_R ²	48 Vdc	3.75 A	480	180 W

SF□181P1□□□R



Notes:

1. For 12 Vdc @ 14.58 A: 4 position Screw Terminal Only (SFL181P112BR, SFU181P112BR)
2. Only available in U-bracket configuration
3. Measured w/ 0.1 μF ceramic capacitor & 47 μF electrolytic capacitor in parallel and a 20 MHz Bandwidth-limited scope.



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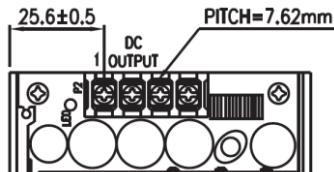
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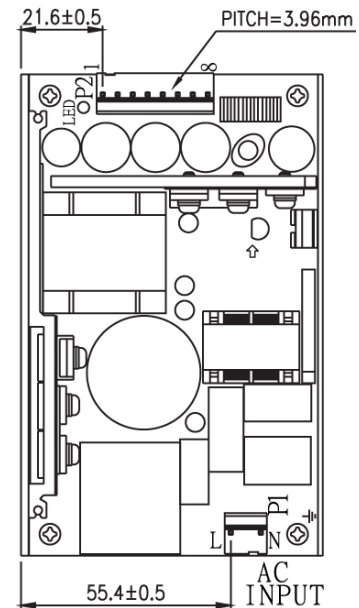
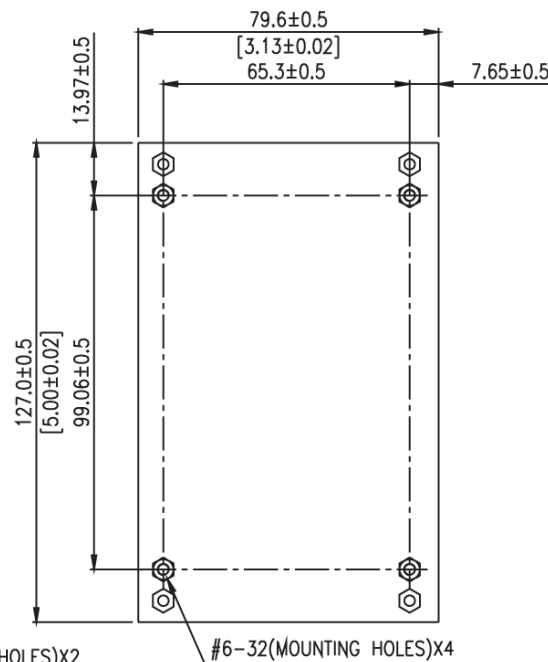
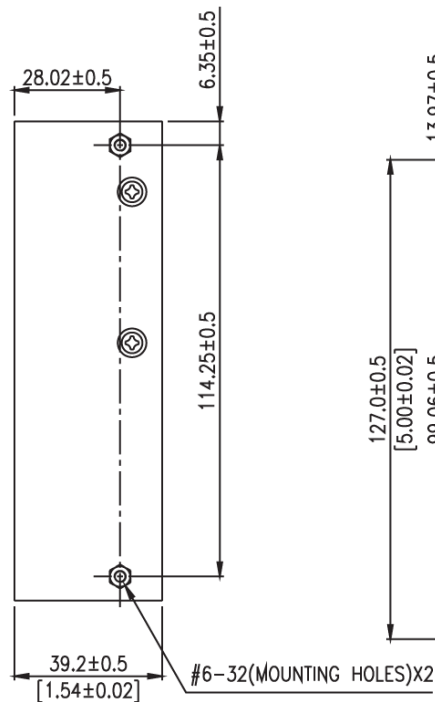
Mechanical Specification (mm, [in])

SFL181P: L-Bracket



Pin Connection	4-Position Screw Terminal	
SFL181P1_ _BR	1 - 2	3 - 4
Output	Return	+V

Pin Connection	8-Pin Header	
SFL181P1_ _AR	1 - 4	5 - 8
Output	Return	+V



- Input Connector Mating:
 - Crimp Terminal: Molex Housing 09-52-4034 and Molex 2478 Series Crimp Terminal

- Output Connector Mating:
 - Pin Header: Molex Housing 09-52-4084 and Molex 2478 Series Crimp Terminal
 - DINKLE #DT-2N-B01W-04 Screw Terminal: 22 - 16 AWG Wire



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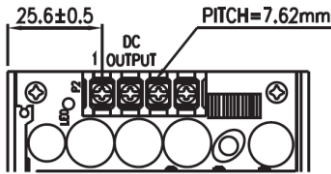
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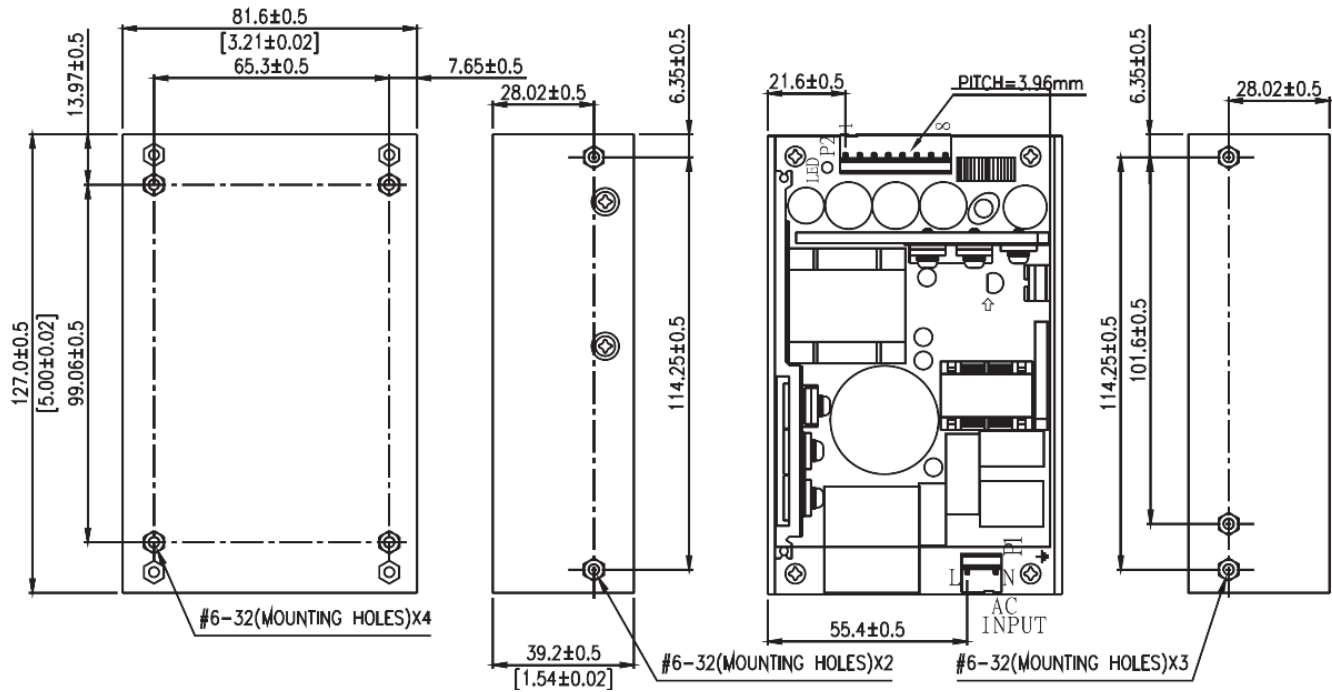
Mechanical Specification (mm, [in])

SFU181P: U-Channel



Pin Connection SFU181P1__BR	4-Position Screw Terminal	
Pin	1 - 2	3 - 4
Output	Return	+V

Pin Connection SFU181P1__AR	8-Pin Header	
Pin	1 - 4	5 - 8
Output	Return	+V



- Input Connector Mating:
 - Crimp Terminal: Molex Housing 09-52-4034 and Molex 2478 Series Crimp Terminal

- Output Connector Mating:
 - Pin Header: Molex Housing 09-52-4084 and Molex 2478 Series Crimp Terminal
 - DINKLE #DT-2N-B01W-04 Screw Terminal: 22 - 16 AWG Wire