



# SF58P Series

55 - 60 Watt AC - DC Open Frame Power Supply  
UL/EN/IEC 60950-1 2<sup>nd</sup> Edition, RoHS 2 Compliant

Date: 10/11/18

Rev: 080118

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The SF58P Series open frame switch mode power supply offers 55 Watts to 60 Watts output power (convection cooled), with an output voltage range of 8 Vdc – 48 Vdc. PCB size is 2" x 4", with 2-pin input and 6-pin output headers, and 2 mounting-hole styles for increased versatility. Safety approvals include UL/CUL, EN, and IEC 60950-1, 2<sup>nd</sup> Edition.

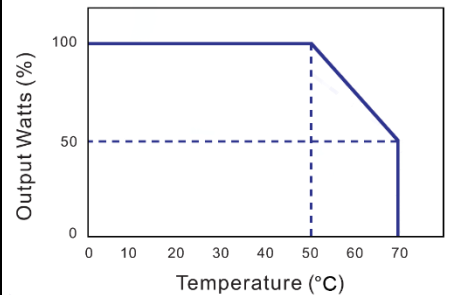


Input Voltage	90 to 264 Vac
Input Frequency	47 to 63 Hz
Input Current (Low Line)	1.6 A Typ. at 100 Vac
Input Current (High Line)	0.66 A Typ. at 240 Vac
Safety Ground Leakage Current	0.75 mA Max. at 240 Vac, Full Load
Output Voltage & Current	See Table on Page 2
Ripple & Noise (P-P)	See Table on Page 2
Over-Voltage Protection	112 - 132%
Over-Load Protection	110 - 150%
Temperature Coefficient	± 0.04% / °C Max.
Transient Response	50% Load Change at 110 Vac Input: 4 ms Max.
Efficiency	76.5 – 87.5% Typ.
No Load Power Consumption	0.5 Watts Typ.
Line Regulation	± 1% Max. at Full Load
Load Regulation	± 5% Max. at 230 Vac
Start-Up Time	2 s Max.
Hold-Up Time	12 ms Min.
Withstanding Voltage	Primary to Secondary: 4,242 Vdc Primary to Ground: 2,121 Vdc
Inrush Current	30 A Max. @ 100 Vac, 25°C Cold Start 72 A Max. @ 240 Vac, 25°C Cold Start
Mean Time Between Failure	100,000 Hrs. Min. (MIL-HDBK-217F, Full Load @ 25°C)
Weight	140 g, Typ.
Operating Temperature	See Derating Curve
Storage Temperature	-40 to 85°C
Industry Compliance	Directive 2011/65/EU (RoHS 2)
EMI Requirements	Meets Conduction Limits of: FCC Part 15 Class B, CISPR-32 Class B, and EN 55032 Class B
Safety Compliance	UR/cUR (UL 60950-1:2nd Ed., CSA C22.2 NO.60950-1-07), CE, TUV (EN 60950-1:2006/A2:2013), CB (IEC 60950-1:2005 /A2:2013) CCC

## Features:

- Universal Input 100 - 240 Vac
- 2" x 4" Size
- Convection Cooled
- Class I System
- Over-Voltage, Over-Load, and Short Circuit Protection
- 100% Burn-In
- RoHS 2 Compliant

## Derating Curve



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



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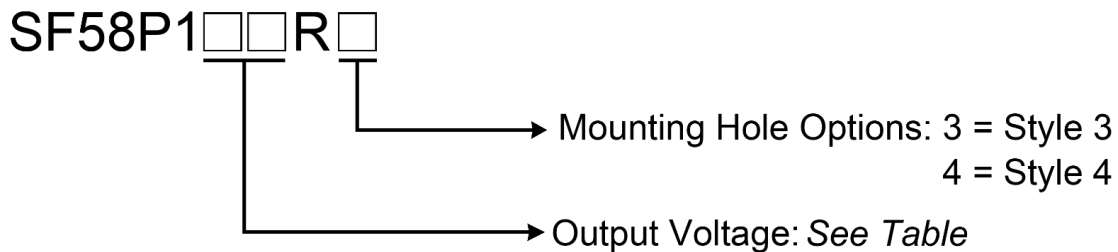
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## Output Voltage and Current Table

Model Number	Output Voltage	Output Current <sup>1</sup> <i>Limited to output Power</i>	Ripple & Noise <sup>2</sup> (Pk - Pk)	Output Power
SF58P1__R_	8 – 11 Vdc	5.00 – 6.87 A	110 mV	55 W
SF58P1__R_	12 – 13 Vdc	4.61 – 5.00 A	130 mV	60 W
SF58P1__R_	14 – 16 Vdc	3.75 – 4.29 A	160 mV	60 W
SF58P1__R_	17 – 21 Vdc	2.85 – 3.53 A	200 mV	60 W
SF58P1__R_	22 – 27 Vdc	2.22 – 2.73 A	180 mV	60 W
SF58P1__R_	28 – 33 Vdc	1.81 – 2.14 A	200 mV	60 W
SF58P1__R_	40 – 48 Vdc	1.25 – 1.50 A	300 mV	60 W

<sup>1</sup> To find Output Current:  
 Output Current = Max Power ÷ Output Voltage  
*Example: Output Current for SF58P124R\_ (24 Vdc Output)*  
 Output Current = 60 W ÷ 24 V  
 Output Current = 2.50 A

<sup>2</sup> Measured with a 0.1 µF ceramic capacitor & 47 µF electrolytic capacitor in parallel and a 20 MHz bandwidth-limited scope





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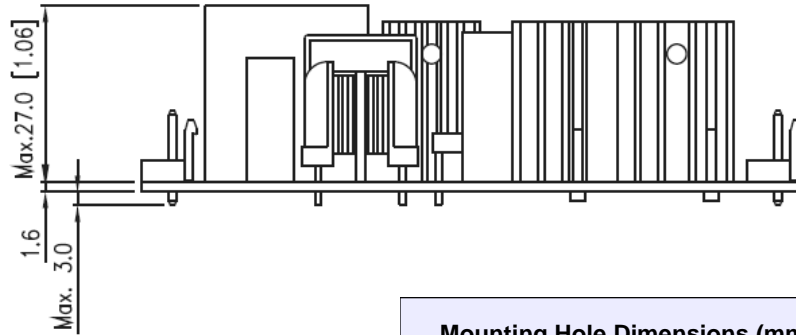
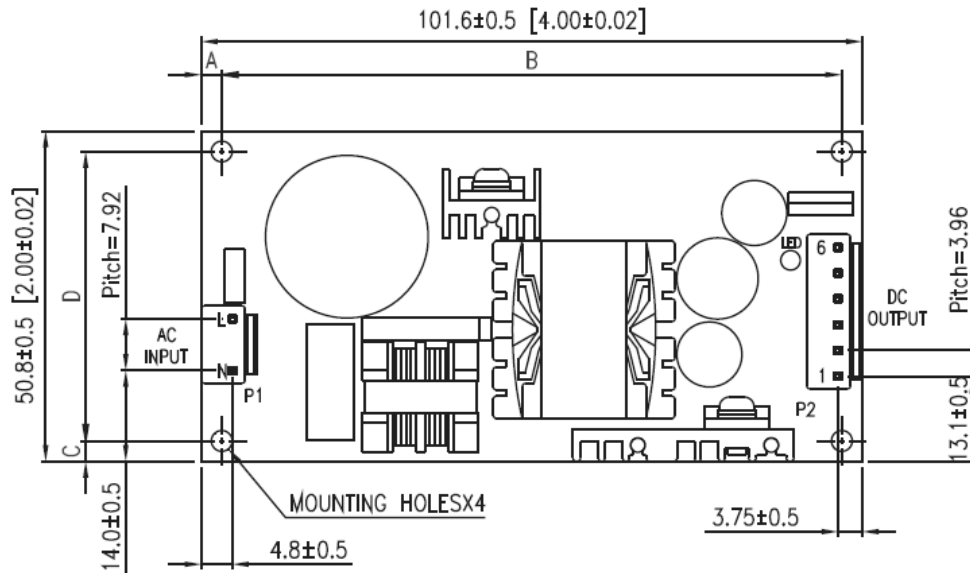
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## Mechanical Specification (mm [in])



Pin Connection 6-Pin Header	
Pin	Output
1 - 3	+V
4 - 6	Return

Mounting Hole Dimensions (mm)		
	Style 3	Style 4
Hole Size	3.20 ± 0.5	4.00 ± 0.5
A	3.15 ± 0.5	4.30 ± 0.5
B	95.3 ± 0.5	93.0 ± 0.5
C	3.15 ± 0.5	4.00 ± 0.5
D	44.5 ± 0.5	42.8 ± 0.5

**Input Connector Mating:**

- 2-Pin Header: Mates with JST Housing VHR-3N and JST SVH Series Crimp Terminal

**Output Connector Mating:**

- 6-Pin Header: Mates with JST Housing VHR-6N and JST SVH Series Crimp Terminal