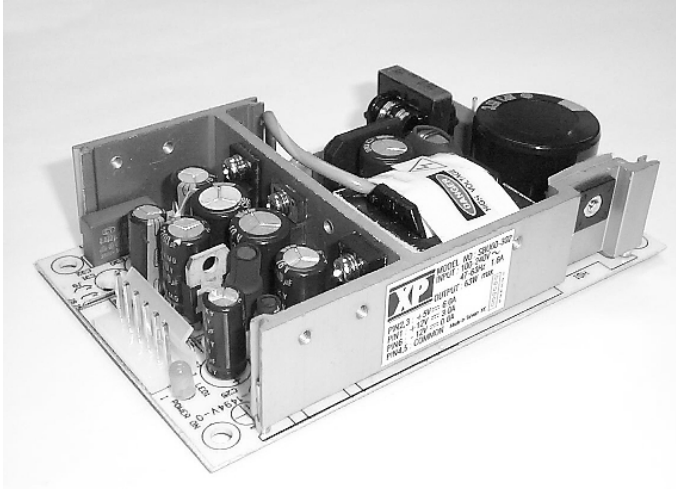


# AC/DC Open Frame

## 60 Watts SDS60 Series

**XPiQ inc.**

Intelligent Design Quality Product



High Efficiency, Greater than 75%

•  
Universal AC Input

•  
Low 1.20 Inch Profile

•  
Quad Output Versions

•  
Worldwide Safety Approvals

•  
CE Mark for LVD

## Specification

### Input

AC Input Voltage	• 90-264 VAC
Input Frequency	• 47-63 Hz
DC Input Voltage	• 115-280 VDC
Inrush Current	• <15 A at 115 VAC, <30 A at 230 VAC
Input Current	• 1.6 A max at 115 VAC, 1.0 A max at 230 VAC

### Output

Output Voltage	• See Table
Output Voltage Adjustment	• $\pm 10\%$ V1 only
Voltage Accuracy	• $\pm 2\%$
Switching Frequency	• 60khz
Output Power	• 63 Watts, see table
Minimum Load	• 0 minimum for single output models See table for multiple output models
Line Regulation	• $\pm 1\%$ from low line to high line
Load Regulation	• $\pm 3\%$ , typical, $\pm 5\%$ max on multiple output models
Ripple & Noise	• $\pm 1\%$ max at low line, full load
Transient Response	• 4% max deviation, 500 $\mu$ s recovery time for a 25% load change
Temperature Coefficient	• $\pm 0.04\%$ per $^{\circ}$ C
Hold Up Time	• 20ms typical
Start Up Time	• 1 second typical
Overvoltage Protection	• 112% to 132%
Overcurrent Protection	• 110% to 150%

### General

Efficiency	• >75% typical
Power Density	• 3.5 W/in <sup>3</sup>
Switching Frequency	• 60 kHz
MTBF	• 100,000 hrs minimum
Leakage Current	• 0.45 mA max at 240 VAC
Withstand Voltage	• 3000 VAC Input to Output 1500 VAC Input to Ground 500 VAC Output to Ground
LED Indicator	• Green DC OK LED
Size	• 3" x 5.0" x 1.2"
Weight	• 250 grams

### Environmental

Operating Temperature	• 0 $^{\circ}$ C to 70 $^{\circ}$ C Derate from 100% load at 50 $^{\circ}$ C to 50% at 70 $^{\circ}$ C
Cooling	• Convection cooled
Humidity	• 5% to 95% RH, non-condensing
Storage Temperature	• -40 $^{\circ}$ C to +85 $^{\circ}$ C

### Safety and EMC

Safety Approvals	• UL1950, CSA C22.2 No 234 EN60950, CE Mark LVD
EMI/EMC	• EN55022 (CISPR 22) Class B and FCC Part 15 Level B conducted

## OUTPUT VOLTAGE & CURRENT RATINGS (SINGLE OUTPUT)

**SDS60**

Model	Output Voltage	Output Current	Total Regulation	Max Output Power
<b>SDS60US03</b>	3.3 VDC	15.1 A	5%	50 W
<b>SDS60US05</b>	5.0 VDC	11.0 A	5%	55 W
<b>SDS60US07</b>	7.0 VDC	8.6 A	4%	60 W
<b>SDS60US09</b>	9.0 VDC	7.0 A	3%	63 W
<b>SDS60US12</b>	12.0 VDC	5.2 A	3%	63 W
<b>SDS60US15</b>	15.0 VDC	4.2 A	3%	63 W
<b>SDS60US19</b>	19.0 VDC	3.3 A	3%	63 W
<b>SDS60US24</b>	24.0 VDC	2.6 A	2%	63 W
<b>SDS60US30</b>	30.0 VDC	2.1 A	2%	63 W
<b>SDS60US36</b>	36.0 VDC	1.8 A	2%	63 W
<b>SDS60US48</b>	48.0 VDC	1.3 A	2%	63 W

## OUTPUT VOLTAGE & CURRENT RATINGS (MULTIPLE OUTPUT)

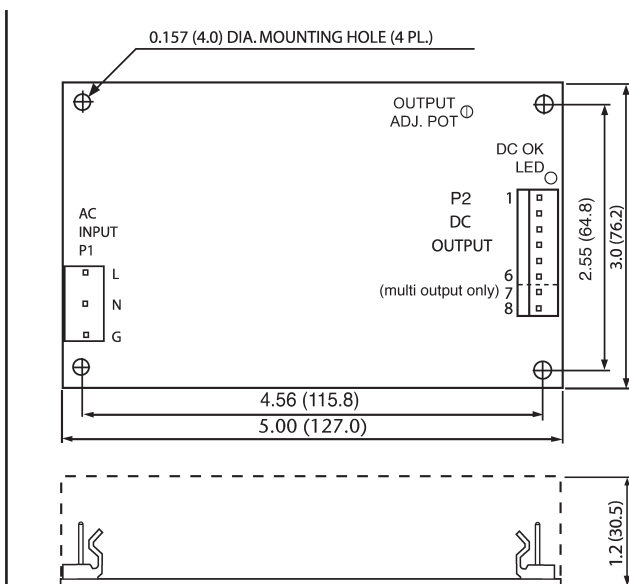
**SDS60**

Model Number	Max Output Power	Output 1		Output 2		Output 3		Output 4	
		Vout/Imax	Io Min <sup>3</sup>	Vout/Imax	Io Min	Vout/Imax	Io Min	Vout/Imax	Io Min
<b>SDS60UD01</b>	63.0 W	5.0V/7.0 A	0.7 A	12.0V/3.0 A	0.3 A				
<b>SDS60UD04</b>	48.0 W	3.3V/7.0 A	0.7 A	5.0V/5.0 A	0.5 A				
<b>SDS60UT00</b>	63.0 W	3.3V/6.0 A	0.6 A	12.0V/3.0 A	0.3 A	-12.0V/0.8 A	0.0 A		
<b>SDS60UT01</b>	63.0 W	3.3V/6.0 A	0.6 A	12.0V/3.0 A	0.3 A	-5.0V/0.8 A	0.0 A		
<b>SDS60UT02</b>	63.0 W	3.3V/6.0 A	0.6 A	12.0V/3.0 A	0.3 A	+5.0V/0.8 A	0.0 A		
<b>SDS60UT03</b>	53.5 W	3.3V/5.0 A	0.5 A	5.0V/5.0 A	0.5 A	+12.0V/1.0 A	0.0 A		
<b>SDS60UT04</b>	53.5 W	3.3V/5.0 A	0.5 A	5.0V/5.0 A	0.5 A	-12.0V/1.0 A	0.0 A		
<b>SDS60UT05</b>	63.0 W	5.0V/6.0 A	0.6 A	12.0V/3.0 A	0.3 A	-12.0V/0.8 A	0.0 A		
<b>SDS60UT06</b>	63.0 W	5.0V/6.0 A	0.6 A	12.0V/3.0 A	0.3 A	-5.0V/0.8 A	0.0 A		
<b>SDS60UT07</b>	63.0 W	5.0V/6.0 A	0.6 A	15.0V/3.0 A	0.3 A	-15.0V/0.8 A	0.0 A		
<b>SDS60UT08</b>	63.0 W	5.0V/6.0 A	0.6 A	24.0V/2.0 A	0.2 A	-24.0V/0.5 A	0.0 A		
<b>SDS60UT09</b>	63.0 W	5.0V/6.0 A	0.6 A	24.0V/2.0 A	0.2 A	-12.0V/0.8 A	0.0 A		
<b>SDS60UT10</b>	63.0 W	5.0V/6.0 A	0.6 A	24.0V/2.0 A	0.2 A	+12.0V/0.8 A	0.0 A		
<b>SDS60UQ00</b>	63.0 W	3.3V/6.0 A	0.6 A	12.0V/3.0 A	0.3 A	-12.0V/0.8 A	0.0 A	-5.0V/0.8A	0.0 A
<b>SDS60UQ01</b>	63.0 W	3.3V/6.0 A	0.6 A	12.0V/3.0 A	0.3 A	-12.0V/0.8 A	0.0 A	+5.0V/0.8A	0.0 A
<b>SDS60UQ02</b>	63.0 W	5.0V/6.0 A	0.6 A	12.0V/3.0 A	0.3 A	-12.0V/0.8 A	0.0 A	-5.0V/0.8A	0.0 A
<b>SDS60UQ03</b>	63.0 W	5.0V/6.0 A	0.6 A	12.0V/3.0 A	0.3 A	-12.0V/0.8 A	0.0 A	+24.0V/0.8A	0.0 A
<b>SDS60UQ04</b>	63.0 W	5.0V/6.0 A	0.6 A	12.0V/3.0 A	0.3 A	-12.0V/0.8 A	0.0 A	-24.0V/0.8A	0.0 A
<b>SDS60UQ05</b>	63.0 W	5.0V/6.0 A	0.6 A	15.0V/3.0 A	0.3 A	-15.0V/0.8 A	0.0 A	-5.0V/0.8A	0.0 A
<b>SDS60UQ06</b>	59.3 W	5.0V/1.0 A	0.1 A	24.0V/1.8 A	0.2 A	-15.0V/0.1 A	0.0 A	+12.0V/0.8A	0.0 A

**Notes**

1. Part numbers in **BOLD** type are standard stock models, all others are build to order.
2. Other output combinations available, consult factory.
3. 10% minimum load required on V1 & V2 of multi-output units to maintain regulation of ±5%. Regulation increases to ±10% with no load.
4. On multi output units V2 tracks V1, if V1 is adjusted by 5%, V2 changes by 5%.

## Mechanical Details - 60 Watts



Standard product is open frame with a 3 pin AC input connector as shown. The following build to order options are available. Please add the correct suffix to the part number. Consult factory for details and mechanical specifications.

1. Suffix C - Optional 2 pin AC input connector (Open Frame).
2. Suffix B - Optional U-Bracket assembly with 3 pin AC input connector.
3. Suffix D - Optional U-Bracket with Optional 2 pin AC input connector.

**Notes:**

1. Dimensions are shown in inches (mm).
2. Weight: 250gs approx.
3. Input connector mates with Molex 09-50-305 and 2878 series crimp terminal.
4. Output connector mates with Molex housing 09-50-3061 or 09-50-3081 and Molex 2878 series crimp terminal.

Pin	1	2	3	4	5	6	7	8
Single Output	Output 1	Output 1	Output 1	Return	Return	Return	N/A	N/A
Dual Outputs	Output 2	Output 1	Output 1	Comm	Comm	N/C	N/A	N/A
Triple Outputs	Output 2	Output 1	Output 1	Comm	Comm	Output 3	N/A	N/A
Quad Outputs	Output 2	Output 1	Output 1	Comm	Comm	Output 3	Output 4	Output 4