

AC/DC U-Channel

120 Watts SDS120 Series

XPIQ inc.

Intelligent Design Quality Product



Active PFC - Meets EN61000-3-2, -3

Small Size 3.2" x 5.0" x 1.54"

Single & Triple Outputs

Overvoltage & Overcurrent Protection

Power Fail Detect

International Safety Approvals

Specification

Input

AC Input Voltage	• 90-264 VAC
Input Frequency	• 47-63 Hz
Power Factor	• 0.97 typical
Inrush Current	• 15 A max at 115 VAC, 30 A max at 230 VAC
Input Current	• 1.7 A max at 115 VAC, 1.0 A max at 230 VAC

Output

Output Voltage	• See Table
Output Power	• 120 Watts
Output Voltage Adjustment	• Fixed, not user adjustable
Minimum Load	• 0 minimum load required for single output models. See table for multi output models.
Line Regulation	• $\pm 1\%$ maximum
Load Regulation	• $\pm 5\%$ maximum
Ripple & Noise	• 2% peak-peak maximum
Transient Response	• 4% max deviation, 500 μ s recovery time for a 50% load change
Temperature Coefficient	• $\pm 0.04\%$ per $^{\circ}$ C
Hold Up Time	• >16 ms minimum
Overvoltage Protection	• On all outputs 112% to 132% with recycle input to reset
Overcurrent Protection	• On all outputs 110% to 150% with auto recovery

General

Efficiency	• 80% typical
Power Density	• 4.87 W/in ³
Isolation Voltage	• 3000 VAC Input to Output 1500 VAC Input to Ground 500 VAC Output to Ground
Signals	• Power Fail Detect - Fail = TTL low
Size	• 5.00" x 3.20" x 1.54" for U-Channel
Weight	• 450-550 grams approx.

Environmental

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

EMC & Safety

Safety Approvals	• UL60950, CSA C60950 per cUL EN60950, CE Mark LVD
EMI/EMC	• Meets EN61000-3-2, -3, EN55022, CISPR22 Class B and FCC Level B conducted
Immunity & Surge	• Meets EN61000-4-2, -3, -4, -5

* Preliminary datasheet - see website for current specs

OUTPUT VOLTAGE & CURRENT RATINGS

SDS120

Maximum Power	Output #1				Output #2				Output #3				Model Number ⁽³⁾
	Vnom	Imin	I _{max}	Tol. ⁽¹⁾	Vnom	Imin	I _{max}	Tol. ⁽¹⁾	Vnom	Imin	I _{max}	Tol. ⁽¹⁾	
100 W	3.3 V	0.0 A	22.0 A	5%									SDS120PS03B
110 W	5.0 V	0.0 A	22.0 A	5%									SDS120PS05B
115 W	7.0 V	0.0 A	16.42 A	5%									SDS120PS07B
120 W	9.0 V	0.0 A	13.33 A	4%									SDS120PS09B
120 W	12.0 V	0.0 A	10.00 A	3%									SDS120PS12B
120 W	15.0 V	0.0 A	8.00 A	3%									SDS120PS15B
120 W	18.0 V	0.0 A	6.66 A	3%									SDS120PS18B
120 W	24.0 V	0.0 A	5.00 A	2%									SDS120PS24B
120 W	28.0 V	0.0 A	4.28 A	2%									SDS120PS28B
120 W	36.0 V	0.0 A	3.33 A	2%									SDS120PS36B
120 W	48.0 V	0.0 A	2.50 A	2%									SDS120PS48B
91.5 W	3.3 V	1.5 A	15.0 A	5%	5.0 V	0.6 A	6.0 A	5%	12.0 V	0.0 A	1.0 A	5%	SDS120PT00B
91.5 W	3.3 V	1.5 A	15.0 A	5%	5.0 V	0.6 A	6.0 A	5%	-12.0 V	0.0 A	1.0 A	5%	SDS120PT01B
120 W	3.3 V	1.5 A	15.0 A	5%	12.0 V	0.6 A	6.0 A	5%	5.0 V	0.0 A	0.8 A	5%	SDS120PT02B
120 W	3.3 V	1.5 A	15.0 A	5%	12.0 V	0.6 A	6.0 A	5%	-5.0 V	0.0 A	0.8 A	5%	SDS120PT03B
120 W	3.3 V	1.5 A	15.0 A	5%	12.0 V	0.6 A	6.0 A	5%	-12.0 V	0.0 A	0.8 A	5%	SDS120PT04B
120 W	3.3 V	1.5 A	15.0 A	5%	12.0 V	0.6 A	6.0 A	5%	12.0 V	0.0 A	0.8 A	5%	SDS120PT05B
120 W	5.0 V	1.5 A	15.0 A	5%	12.0 V	0.6 A	6.0 A	5%	5.0 V	0.0 A	0.8 A	5%	SDS120PT06B
120 W	5.0 V	1.5 A	15.0 A	5%	12.0 V	0.6 A	6.0 A	5%	-5.0 V	0.0 A	0.8 A	5%	SDS120PT07B
120 W	5.0 V	1.5 A	15.0 A	5%	12.0 V	0.6 A	6.0 A	5%	-12.0 V	0.0 A	0.8 A	5%	SDS120PT08B
120 W	5.0 V	1.5 A	15.0 A	5%	12.0 V	0.6 A	6.0 A	5%	12.0 V	0.0 A	0.8 A	5%	SDS120PT09B
120 W	5.0 V	1.5 A	15.0 A	5%	15.0 V	0.6 A	6.0 A	5%	-15.0 V	0.0 A	0.8 A	5%	SDS120PT10B
120 W	5.0 V	1.5 A	15.0 A	5%	15.0 V	0.6 A	6.0 A	5%	15.0 V	0.0 A	0.8 A	5%	SDS120PT11B
120 W	5.0 V	1.5 A	15.0 A	5%	24.0 V	0.35 A	3.5 A	5%	-24.0 V	0.0 A	0.8 A	5%	SDS120PT12B
120 W	5.0 V	1.5 A	15.0 A	5%	24.0 V	0.35 A	3.5 A	5%	24.0 V	0.0 A	0.8 A	5%	SDS120PT13B
120 W	5.0 V	1.5 A	15.0 A	5%	24.0 V	0.35 A	3.5 A	5%	-12.0 V	0.0 A	0.8 A	5%	SDS120PT14B
120 W	5.0 V	1.5 A	15.0 A	5%	24.0 V	0.35 A	3.5 A	5%	12.0 V	0.0 A	0.8 A	5%	SDS120PT15B
120 W	5.0 V	1.5 A	15.0 A	5%	10.0 V	0.6 A	6.0 A	5%	-10.0 V	0.0 A	1.0 A	5%	SDS120PT16B
120 W	5.0 V	1.5 A	15.0 A	5%	10.0 V	0.6 A	6.0 A	5%	10.0 V	0.0 A	1.0 A	5%	SDS120PT17B

Notes

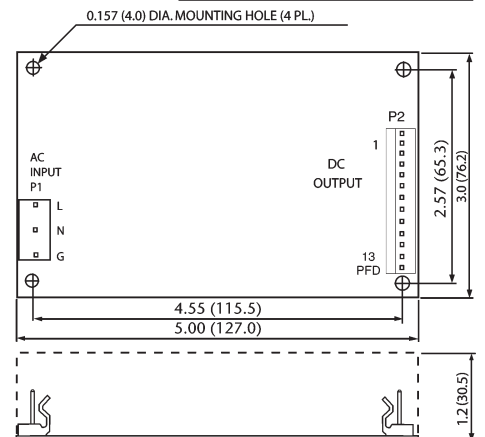
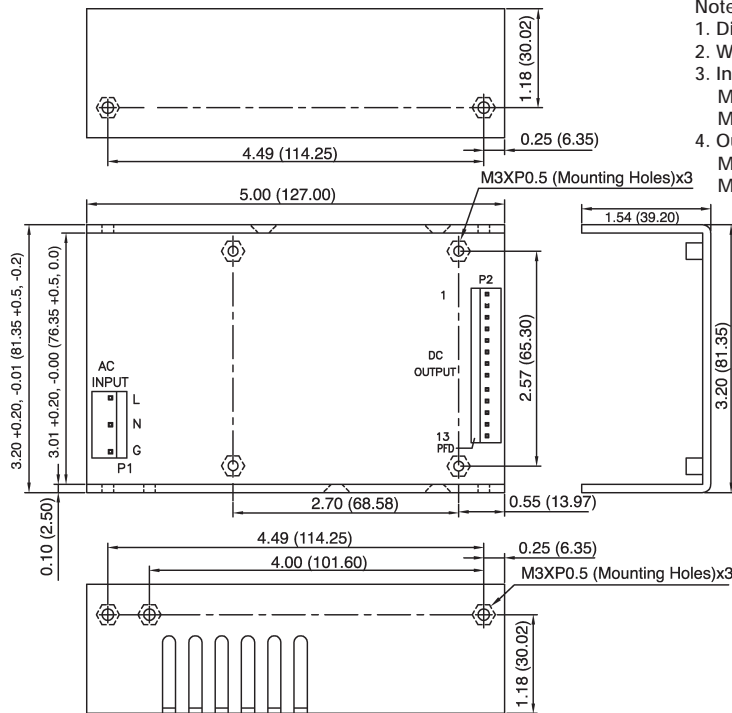
1. Total regulation includes tolerance, line regulation and load regulation.
2. For optional open frame, delete suffix "B" from part number. Example SDS120PS03.
3. Part numbers in bold type are standard stock models, all others are build to order.

Mechanical Details

Notes:

1. Dimensions are shown in inches (mm).
2. Weight 450-550g approx.
3. Input connector P1 mates with Molex housing 09-50-3051 and Molex 2878 series crimp terminal.
4. Output connector P2 mates with Molex housing 09-50-3131 and Molex 2878 series crimp terminal.

Pin	Single	Triple
1	Output #1	Output #2
2	Output #1	Output #2
3	Output #1	Output #1
4	Output #1	Output #1
5	Output #1	Output #1
6	Output #1	Output #1
7	Return	Common
8	Return	Common
9	Return	Common
10	Return	Output #3
11	Return	Common
12	Return	Common
13	PFD	PFD



* Preliminary datasheet - see website for current specs

Optional Open Frame