

SDS150 Series



- Small Footprint
- Fits 1U Applications
- Convection-Cooled
- Open Frame & U Channel Versions
- Overvoltage & Overcurrent Protection
- Optional PFD Signal
- International Safety Standards

Specification

Input

Input Voltage	• 90-264 VAC
Input Frequency	• 47-63 Hz
Input Current	• 2.0 A at 115 VAC • 0.8 A at 230 VAC
Inrush Current	• 20 A at 115 VAC • 63 A at 230 VAC
Power Factor	• >0.95
Earth Leakage Current	• <0.40 mA at 115 VAC • <0.75 mA at 230 VAC
Input Protection	• 3.15 A on board fuse

Output

Output Voltage	• See table
Output Voltage Trim	• $\pm 5\%$
Initial Set Accuracy	• $\pm 1\%$
Minimum Load	• No minimum load required
Start Up Delay	• 2 s max
Start Up Rise Time	• 2 ms
Hold Up Time	• >16 ms
Line Regulation	• 1% maximum, 0.5% typical
Load Regulation	• 5% maximum, 3.0% typical
Transient Response	• 4% max. deviation, 500 μ s recovery time for a 50% load change
Ripple & Noise	• 1% pk-pk max
Overvoltage Protection	• 112-132%, recycle input to reset
Overload Protection	• All outputs: 110-150% with auto recovery
Short Circuit Protection	• Trip and restart (Hiccup mode)
Temperature Coefficient	• 0.04% / $^{\circ}$ C

General

Efficiency	• 88% typical, 90% max
Isolation	• 3000 VAC Input to Output • 1500 VAC Input to Ground • 500 VDC Output to Ground
Switching Frequency	• 60 kHz typical
Power Density	• 6.1 W/In ³
Signals	• PFD - Fail = TTL low (option)
MTBF	• >100 kHrs per MIL-HDBK-217F

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
Operating Humidity	• 5-95% RH, non-condensing
Storage Temperature	• -40 $^{\circ}$ C to +85 $^{\circ}$ C
Vibration	• 2 G on 3 axis

EMC & Safety

Emissions	• EN55022, FCC, level B conducted
Harmonic Currents	• EN61000-3-2 Class D
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2, level 2 Perf Criteria B
Radiated Immunity	• EN61000-4-3, 3 V/m Perf Criteria B
EFT/Burst	• EN61000-4-4, level 2 Perf Criteria B
Surge	• EN61000-4-5, level 3 Perf Criteria B
Conducted Immunity	• EN61000-4-6, level 2 Perf Criteria B
Dips & Interruptions	• EN61000-4-11, 70% U_T for 10 ms, 40% U_T for 100 ms, <5% U_T for 5000 ms Perf Criteria A, B, B
Safety Approvals	• EN60950-1, UL60950-1, CSA60950-1 per cUL, CE Mark LVD

Models and Ratings

SDS150 **XP**

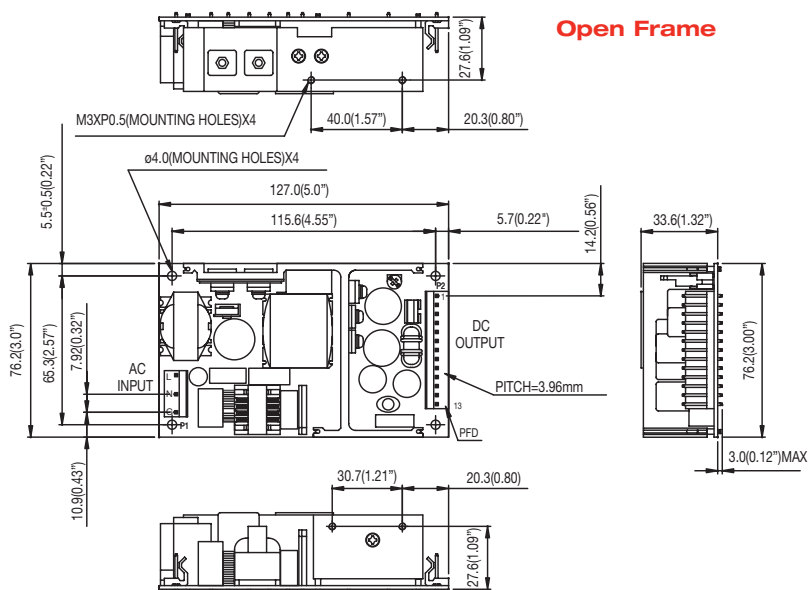
Max. Power	Output 1				Model Number ^(2,4)	
	Vnom	Imin	Imax	Tol. ⁽¹⁾	U Bracket Version	Open Frame Version
144.0 W	9.0 V	0.00 A	16.00 A	5%	SDS150PS09B	SDS150PS09
150.0 W	12.0 V	0.00 A	12.50 A	5%	SDS150PS12B	SDS150PS12
150.0 W	15.0 V	0.00 A	10.00 A	5%	SDS150PS15B	SDS150PS15
150.0 W	18.0 V	0.00 A	8.33 A	4%	SDS150PS18B	SDS150PS18
150.0 W	24.0 V	0.00 A	6.25 A	3%	SDS150PS24B	SDS150PS24
150.0 W	30.0 V	0.00 A	5.00 A	2%	SDS150PS30B	SDS150PS30
150.0 W	36.0 V	0.00 A	4.17 A	2%	SDS150PS36B	SDS150PS36
150.0 W	48.0 V	0.00 A	3.13 A	2%	SDS150PS48B	SDS150PS48

Notes

1. Total regulation includes initial set accuracy, line regulation and load regulation.
 2. For optional 2 pin Molex input, add suffix '-D' to model number. Example SDS150PS12-D.

3. For non-standard voltages contact sales office.
 4. For optional PFD circuit, add suffix 'P' to model number. Example: SDS150PS48B P

Mechanical Details



Open Frame

All dimensions are in mm (inches)

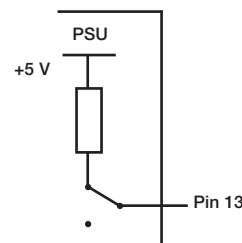
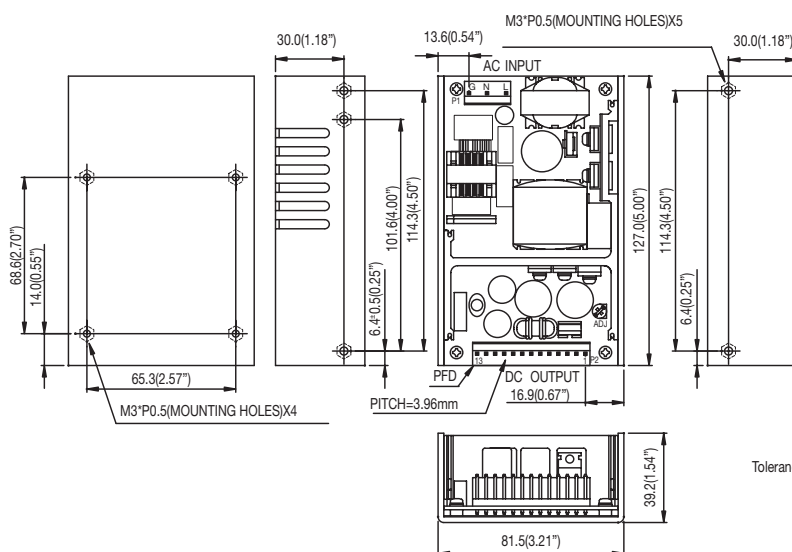
Weight: 1.23 lbs (560 g) approx.

P2 - PIN CONNECTIONS			
Pin	Function	Pin	Function
1	V1	7	Return
2	V1	8	Return
3	V1	9	Return
4	V1	10	Return
5	V1	11	Return
6	V1	12	Return
		13	PFD ⁽¹⁾

Notes:

1. Optional PFD signal on 'P' versions only. Standard models have no connection for pin 13.
 2. Input connector P1 mates with Molex housing 09-50-3051 and Molex 2478 series crimp terminal.
 3. Output connector P2 mates with Molex housing 09-50-3131 and Molex 2478 series crimp terminal.
 5. For mating connector kit order part number SDS120 CON KIT.
 6. For cable harness order part number SDS120S LOOM.
 7. DIN clips are available for alternate mounting order 2 x 'DIN CLIP'.

U Channel



PFD is +5 V for normal operation.
 Source current is 5 mA max.

PFD is <0.4 V for either
 AC Fail (<90 VAC) or
 DC Fail (<95% Vnom).
 Sink current is 10 mA max.

Tolerance = ±0.5mm (±0.02")