

Single Output General Purpose Power Supplies



- ◆ Lower Cost
- ◆ Active Power Factor Correction
- ◆ Universal Input (85 - 265VAC)
- ◆ Input Transient Protected IEC61000-4
- ◆ Enclosed

RoHS

Key Market Segments & Applications

LED Signage Test & Measurement
Automated Service

Features and Benefits

Feature

- ◆ Meets IEC61000-4
- ◆ Global safety Approvals
- ◆ Power Factor Corrected
- ◆ Level B EMI

Benefit

- ◆ Greater reliability
- ◆ Supports Global Use
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- ◆ Assists System Compliance

Specifications

MODELS		SWS300A	SWS600
Input Voltage range (1)		85 - 265VAC (47 - 63Hz) or 120 - 370VDC	
Inrush Current (115 / 230VAC)	A	20 / 40	
Power Factor		Meets EN61000-3-2	
Input Current (100/200VAC)	A	3.6 / 1.8A	7.2 / 3.6A
Temperature Coefficient	-	<0.02%/°C	
Overcurrent Protection	-	>105%, Constant current style	
Overvoltage Protection	V	Yes, cycle AC to reset	
Overttemperature Protection	-	Yes, cycle AC to reset	
Hold Up Time (Typ)	ms	20ms at 115/230VAC	
Leakage Current (max)	mA	SWS300: 0.75mA , SWS600: 1.5mA	
Remote Sense	-	None	Yes
Parallel Connection	-	None	Yes
Remote On/Off	-	None	Yes
AC Fail Signal	-	None	Yes, open collector output
LED Indicator	-	Green LED = On	
Operating Temperature	°C	-10 to +65°C (See table for derating - model specific)	
Storage Temperature	°C	-30 to +85°C	
Humidity (non condensing)	-	30 - 90% RH operating, 10 - 95%RH non operating	
Storage Humidity (non condensing)	-	10 - 95% RH	
Cooling	-	Internal fan	
Withstand Voltage	-	I/P to Grnd 2kVAC, I/P to O/P 3kVAC, O/P to Grnd 500VAC, O/P to CNT 100VAC for 1 min	
Isolation Resistance	-	>100M at 25°C & 70%RH, Output to Ground 500VDC	
Vibration (non operating)	-	10 - 55Hz (sweep for 1 min)19.6m/s ² constant X, Y, Z 1 hour each plane)	
Immunity	-	EN61000-4-2, -3, -4, -5, -6, -8, -11	
Safety Agency Approvals	-	UL60950, CSA60950, EN60950, EN50178, CE Mark	
Conducted & Radiated EMI	-	EN55011 / EN55022-B, FCC Class B	
Recommended EMI Filter	-	RSAL2006	RSAN2010
Weight (Typ)	g	950	2000
Size (WxHxD)	In	2.05 x 4.01 x 7.8"	3.62 x 4.72 x 7.48"
Warranty	yrs	Two Years	

(1) Derate linearly to 85% load from 115VAC to 85VAC input (derate to 90% load for SWS600-3 & -5)

Model	Voltage	Adjust Range	Max Curr. (A)	Load Reg (mV)	Line Reg (mV)	Ripple Noise (mV)	Eff. (typ)% (1)
SWS300A-3	3.3V	2.97 - 3.96V	55A	40	20	120	69 / 72
SWS300A-4	4V	3.6 - 4.8V	55A	40	20	120	72 / 75
SWS300A-5	5V	4.5 - 6V	55A	40	20	120	75 / 78
SWS300A-7R5	7.5V	6 - 9V	40A	60	30	120	77 / 80
SWS300A-12	12V	9.6 - 13.2V	26A	96	48	120	79 / 83
SWS300A-15	15	13.2 - 18.6V	21A	120	48	120	80 / 84
SWS300A-24	24V	20 - 28.8V	13A	120	48	150	82 / 85
SWS300A-28	28V	22.4 - 33.6V	11A	140	56	150	83 / 86
SWS300A-36	36V	28.8 - 40V	8.8A	180	72	200	83 / 87
SWS300A-48	48V	40 - 57.6	6.7A	240	96	240	83 / 86
SWS600-3	3.3V	2.97-3.96V	100 (2)	40	20	100	69/71
SWS600-5	5V	4.5-6V	100 (2)	40	20	100	74/77
SWS600-12	12V	9.6-13.2	50	96	48	120	78/81
SWS600-15	15V	13.2-18V	40	120	48	120	80/83
SWS600-24	24V	20-28.8	25	120	48	150	81/84
SWS600-36	36V	28.8-40V	16.7	180	72	200	81/85
SWS600-48	48V	40-57.6	12.5	240	96	240	82/85

(3) 115/230VAC

The technical drawing illustrates the TDK-Lambda SPS-600 power supply unit from three perspectives: front, top, and side.

- Front View:** Shows the input/output terminals labeled +V, -V, FG(⊕), AC(L), and AC(N). It also features a VR FOR Vadj., LED indicator, and various certification marks like CE and TÜV. Dimensions include a total width of 102±1 mm, terminal pitch of 9.5 mm, and mounting hole diameter of 9-M3.5.
- Top View:** Displays the cooling fan area with multiple ventilation holes. Key dimensions include a length of 150±0.5 mm, a distance of 21.5 mm from the right edge to the first hole, and a maximum width of 7MAX mm. A note points to specific mounting locations.
- Side View:** Shows the profile of the unit with a height of 60±0.5 mm and a base thickness of 24 mm. Mounting holes are spaced at 16.5 mm intervals.

NOTES

- MODEL NAME, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE, MAXIMUM OUTPUT CURRENT AND COUNTRY OF MANUFACTURE ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.
- M4 EMBOSSED, TAPPED AND COUNTERSUNK HOLES (8) FOR CUSTOMER CHASSIS MOUNTING; SCREWS MUST NOT PROTRUDE INTO POWER SUPPLY BY MORE THAN 6mm/m.

Suffix	Descriptor
/CO2	Double sided conformal coating

HWS	15W to 1500W Single output, high reliability
SWS	50 - 1000W Single Output
ZWS	5 - 240W pcb style single, output

	50°C	55°C	60°C	65°C
SWS300A	100%	91.6%	83.3%	50%
SWS600	100%	85%	70%	55%

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