

Single Output General Purpose Power Supplies



- ◆ Low Cost
- ◆ Active Power Factor Correction
- ◆ Universal Input (85 - 265VAC)
- ◆ Input Transient Protected IEC61000-4
- ◆ SEMI F47 Certified (208VAC Input)

RoHS

Key Market Segments & Applications

Factory Automation	Process Control, NC-Machining, Automotive, Packaging Equipment, Materials Handling, Chemical Processing, Robots
Test & Measurement	Burn-in & Test, Automated, Detection Test, Instrumentation, Measurement
Automated Service	Vending Machines, Elevators, Video Gaming, Point of Sale Equipment

SWS Features and Benefits

Feature	Benefit
◆ Meets IEC61000-4	◆ Greater reliability
◆ Global safety Approvals	◆ Supports Global Use
◆ Power Factor Corrected	◆ Supports Global Use
◆ Level B EMI	◆ Assists System Compliance

Specifications

MODEL		SWS300	SWS600
ITEMS			
Input Voltage range (1)	-	85 - 265VAC (47 - 63Hz) or 120 - 370VDC	
Inrush Current (115 / 230VAC)	A	20 / 40 at 25°C, cold start	
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	3.3V: 4.1-5.3V, 5V: 6.25-7.5V, 12V: 13.8-16.8V	
		15V: 19.3-24.2V, 24V: 30-34.8V, 36V: 41.4-50.4V, 48V: 60-69.6V	
Overtemperature 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, >4.5V to shutdown
Power Fail Signal	-	None	Yes, open collector output
LED Indicator	-	Green LED = On	
Operating Temperature	-	-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	
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 25C & 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	-	UL60950-1, CSA60950-1, EN60950-1, EN50178, CE Mark, SEMI F47 (208VAC)	
Conducted & Radiated EMI	-	EN55011 / EN55022-B, FCC Class B	
Recommended EMI Filter	-	MC1206	MC1210
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	

Notes: (1) Derate linearly to 80% load from 115VAC to 85VAC input (derate to 90% load for SWS600-5, no derating SWS300, 600-3)

Model Selector

Model	Voltage	Adjust Range	Max Curr. (A)	Load Reg (mV)	Line Reg (mV)	Ripple Noise (mV)	Eff.(3) (typ)%
SWS300-3	3.3V	2.97-3.96V	55	40	20	120	67/70
SWS300-5	5V	4.5-6V	55	40	20	120	75/78
SWS300-12	12V	9.6-13.2V	26	96	48	120	77/80
SWS300-15	15V	13.2-18.6V	21	120	48	120	79/83
SWS300-24	24V	20-28.8V	13	120	48	150	80/84
SWS300-36	36V	28.8-40V	8.7	180	72	200	82/85
SWS300-48	48V	40-57.6V	6.7	240	96	240	82/85
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	9.6-13.2V	50	96	48	120	78/81
SWS600-15	15V	13.2-18.6V	40	120	48	120	80/83
SWS600-24	24V	20-28.8V	25	120	48	150	81/84
SWS600-36	36V	28.8-40V	16.7	180	72	200	81/85
SWS600-48	48V	40-57.6V	12.5	240	96	240	82/85

Notes:

(2) Peak rating of 120A for 10s

(3) 115/230VAC

Derating

Model	50°C	55°C	60°C	65°C
SWS300	100%	91.6%	83.3%	50%
SWS600	100%	85%	70%	55%

Additional derating required when operating SWS600 with side ventilation holes blocked - see installation manual.

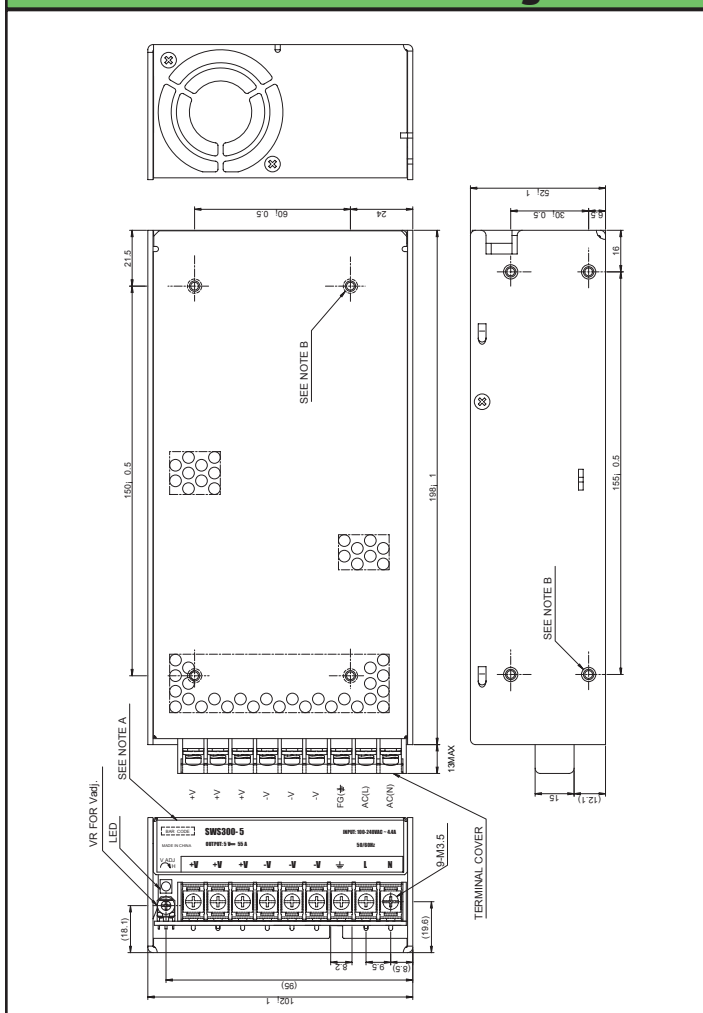
Options

Suffix	Descriptor
/CO2	Double sided conformal coating

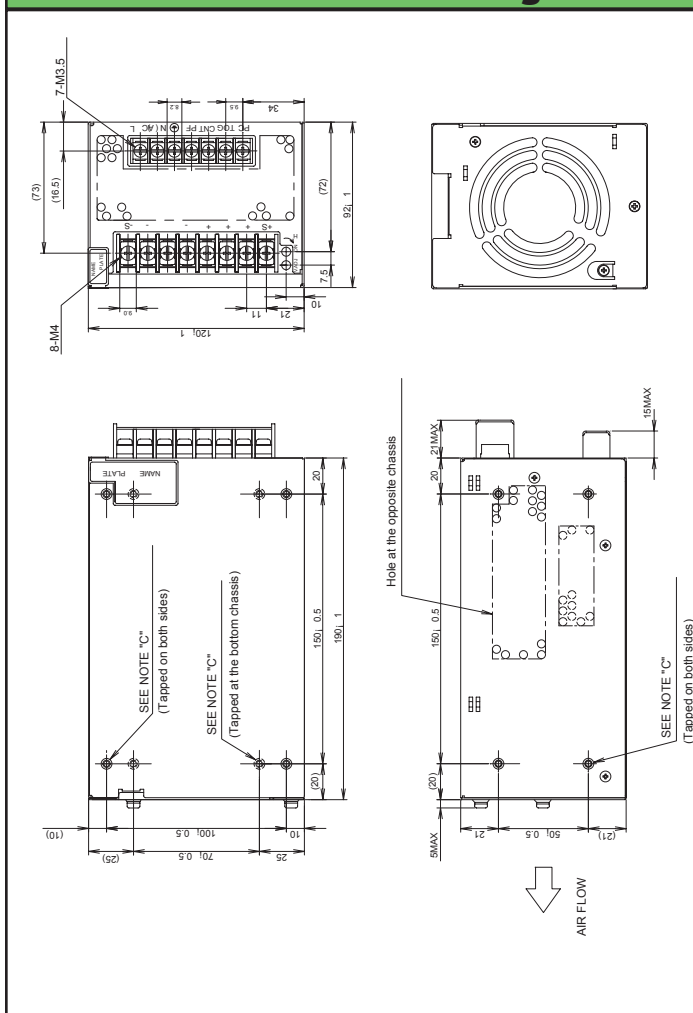
Other Lambda Industrial Products

HWS 15-1500W Single Output, High Reliability
 SWS 50-150W Single Output
 ZWS 5-240W PCB style Single Output

SWS300 Outline Drawing



SWS600 Outline Drawing



For Additional Information, please visit
us.tdk-lambda.com/lp/products/sws-series.htm