



SWS50-150W Series

50 to 150W, Single Output
General Purpose Power Supplies

- Low Cost
- Active Power Factor Correction - SWS 100 & 150
- Universal Input (85 - 265VAC)
- Input Transient Protected IEC61000-4
- DIN Rail Mounting Bracket Available

Key Market Segments & Applications

Factory Automation	Process Control, NCMachining, 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

SWS50-150W Features and Benefits

Features

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

Benefits

- Greater Reliability
- Supports Global Use
- Supports Global Use
- Assists System Compliance

Specifications

MODEL		SWS50	SWS75	SWS100	SWS150
ITEMS					
Input Voltage range	(1) -	85 - 265VAC (47 - 63Hz) or 120 - 370VDC			
Inrush Current 115/230VAC	A	20/40 Ta=25°C Cold Start		16/32 Ta=25°C Cold Start	
Power Factor	-	Meets EN61000-3-2			
Input Current 115/230VAC	A	1.2/0.6 (3.3V: 0.7/0.5)	1.6/0.8 (3.3V: 1.1/0.7)	1.2/0.6 (3.3V: 0.9/0.5)	1.8/0.9 (3.3V: 1.3/0.7)
Temperature Coefficient	-	<0.02%/°C			
Overcurrent Protection	-	>105%, Constant Current Limit			
Overvoltage Protection	V	115 -135%, Cycle AC line to reset			
Hold Up Time (Typ)	mS	20 @ 115VAC			
Leakage Current (max) typ115/230VAC	mA	0.3/0.6		0.25/0.5	
Remote Sense	-	Not Available			
LED Indicator	-	Green LED = On			
Operating Temperature	°C	-10 to 60 (See table for derating - model specific)			
Storage Temperature	°C	-30 to +85			
Operating Humidity	(2) % RH	30 - 90			
Storage Humidity	(2) % RH	10 - 95			
Cooling		Convection			
Withstand Voltage	-	Input to Ground 2kVAC, Input to Output 3kVAC, Output to Ground 500VAC for 1 min.			
Isolation Resistance	-	>100MΩ at 25C & 70%RH, Output to Ground 500VDC			
Vibration (non operating)	-	19.6m/s ² (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)			
Shock	-	< 196.1 m/s ² (20G)			
Safety Agency Approvals	-	UL60950-1, EN60950-1, IEC60950-1, CE Mark, EN50178			
Conducted & Radiated EMI	-	EN55011 / EN55022-B, FCC Class B, VCCI-B			
Immunity	-	EN61000-4-2,-3,-4,-5,-6,-8,-11			
Weight	g	400	480	600	750
Size (WxHxD)	mm	92 x 37 x 159	94 x 43 x 170	96 x 45 x 188	99 x 51 x 198
Warranty	-	2 Years			

Notes: (1) Derate to 85% load below 100VAC input (2) non condensing



Model Selector

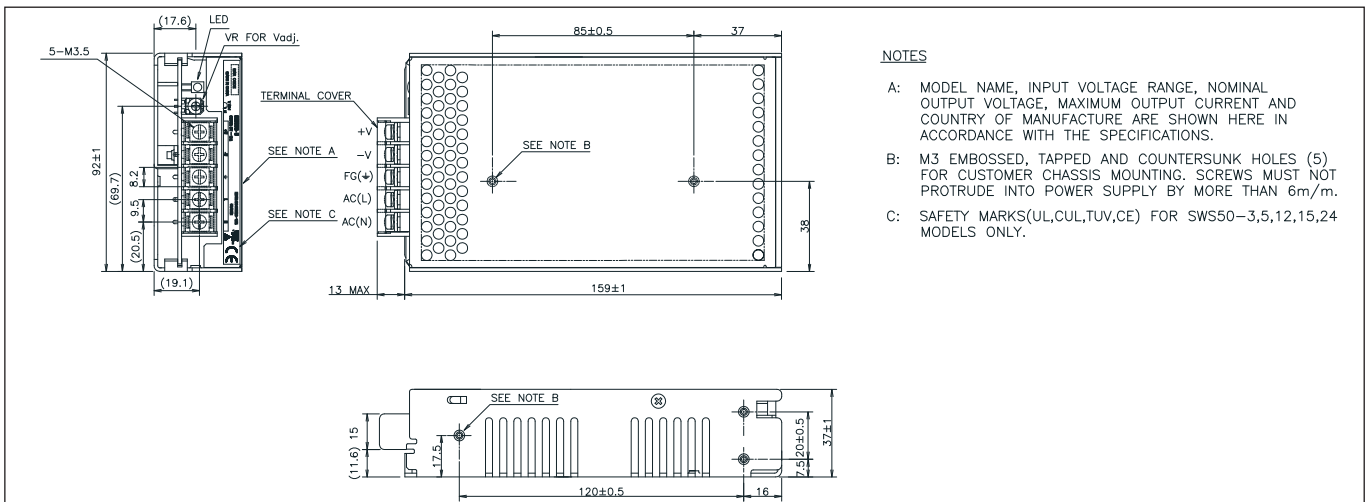
Model	Voltage	Adjust Range (V)	Max Current (A)	Load Reg mV	Line Reg mV	Ripple Noise mV	Eff. (typ)%
SWS50-3	3.3V	3-3.6V	10	40	20	80	73/70
SWS75-3	3.3V	3-3.6V	15	40	20	80	72/68
SWS100-3	3.3V	3-3.6V	20	40	20	100	69/70
SWS150-3	3.3V	3-3.6V	30	40	20	100	70/72
SWS50-5	5V	4.5-5.5V	10	50	20	80	77/75
SWS75-5	5V	4.5-5.5V	15	50	20	80	77/74
SWS100-5	5V	4.5-5.5V	20	40	20	100	75/77
SWS150-5	5V	4.5-5.5V	30	40	20	100	76/78
SWS50-12	12V	10.8-13.2V	4.3	96	48	80	82/79
SWS75-12	12V	10.8-13.2V	6.3	96	48	80	83/81
SWS100-12	12V	10.8-13.2V	8.5	96	48	100	79/81
SWS150-12	12V	10.8-13.2V	12.5	96	48	100	79/82
SWS50-15	15V	13.5-16.5V	3.5	120	60	100	84/80
SWS75-15	15V	13.5-16.5V	5	120	60	100	85/82
SWS100-15	15V	13.5-16.5V	6.7	120	60	100	81/83
SWS150-15	15V	13.5-16.5V	10	120	60	100	81/83
SWS150-18	18V	16.2-19.8V	8.4	144	72	120	82/84
SWS50-24	24V	21.6-26.4V	2.1	144	96	100	84/80
SWS75-24	24V	21.6-26.4V	3.2	144	96	100	85/82
SWS100-24	24V	21.6-26.4V	4.3	144	96	150	82/84
SWS150-24	24V	21.6-26.4V	6.3	144	96	150	82/85

Vertical Mount Convection	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
SWS50	100%	100%	100%	100%	100%	100%	93%	85%
SWS75 (3.3 - 5V)	100%	100%	100%	100%	93%	85%	73%	60%
SWS75 (12V - 24V)	100%	100%	100%	100%	100%	93%	85%	60%
SWS100	100%	100%	100%	100%	100%	87%	73%	60%
SWS150 (3.3 - 5V)	100%	95%	90%	85%	73%	60%	-	-
SWS150 (12V - 24V)	100%	100%	100%	100%	100%	100%	80%	60%

1.2m/s Forced Air	50°C	55°C	60°C	65°C	70°C
SWS75	100%	100%	90%	80%	70%
SWS100	100%	100%	90%	80%	70%
SWS150	100%	100%	90%	80%	70%

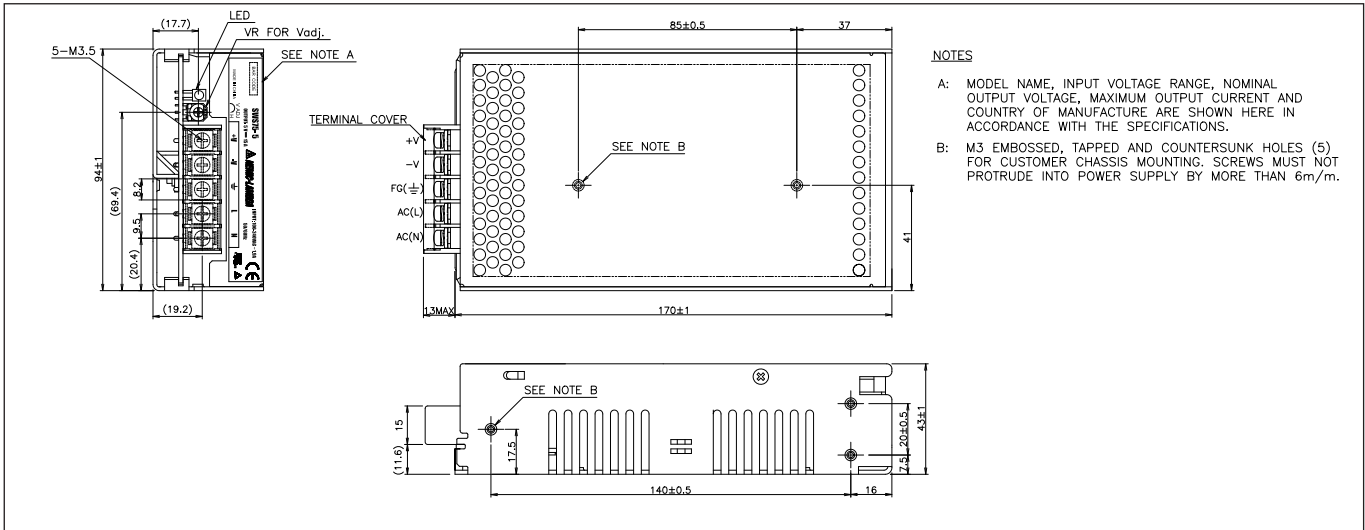
Notes: Derate to 80% load from 0 to -10°C

Outline Drawing SWS50 Series

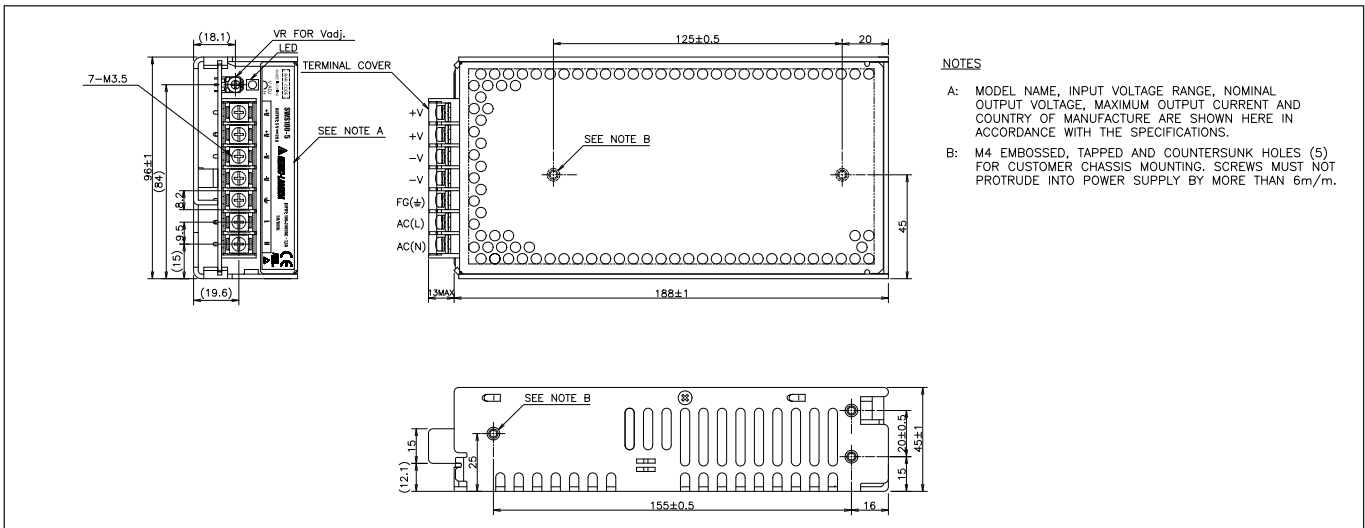




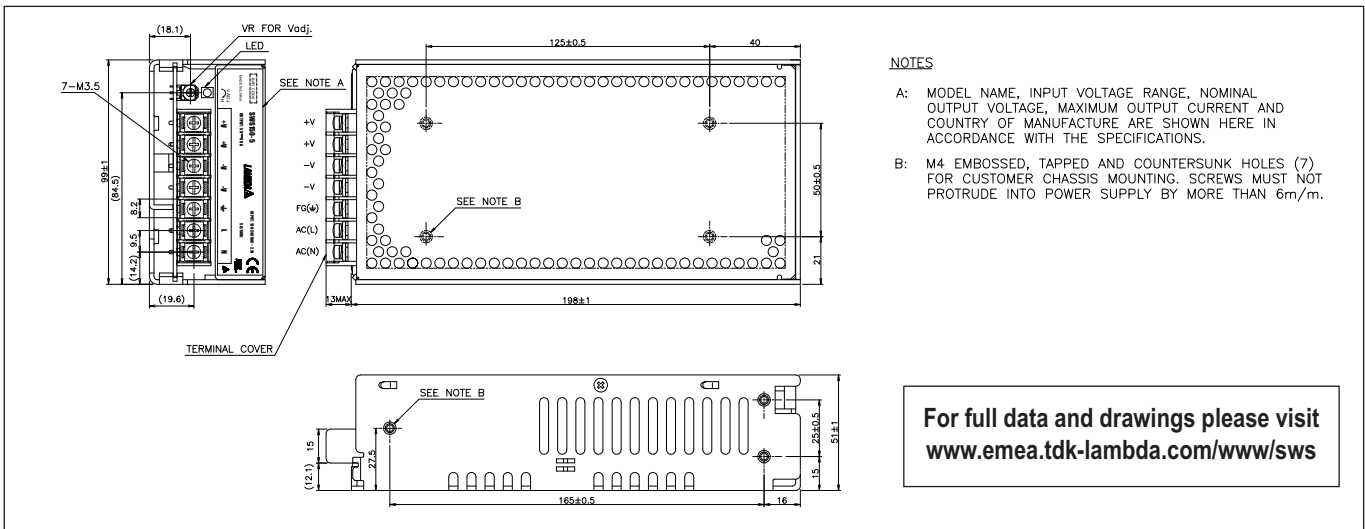
Outline Drawing SWS75 Series



Outline Drawing SWS100 Series



Outline Drawing SWS150 Series



For full data and drawings please visit www.emea.tdk-lambda.com/www/sws



- Low Cost
- Active Power Factor Correction
- Input Transient Protected IEC61000-4
- Enclosed

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

SWS300&600 Series

Single Output
General Purpose Power Supplies

SWS300&600 Features and Benefits

Features

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

Benefits

- Greater Reliability
- Supports Global Use
- 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	
Power Factor	-	Meets EN61000-3-2	
Input Current (100/200VAC)	A	3.6 / 1.8 (3.3V: 2.5/1.3, 5V: 3.2/1.6)	7.2 / 3.6 (3.3V: 4.3/2.2, 5V: 6.6/3.3)
Temperature Coefficient	-	<0.02%/°C	
Overcurrent Protection	-	>105%, Constant current style	
Overvoltage Protection	V	3.3V: 4.1-5.3V, 5V: 6.25-7.25V, 12V: 13.8-16.8V, 15V: 18.7-22.5V, 24V: 30-34.8V, 36V: 41.4-50.4V, 48V: 60-69.9V	
Overtemperature Protection	-	Yes, cycle AC to reset	
Hold Up Time (Typ)	ms	20 at 115/230VAC	
Leakage Current (max)	mA	0.75	1.5
Remote Sense	-	None	Yes
Parallel Connection	-	None	Yes
Remote On/Off	-	None	Yes
DC Good Signal	-	None	Yes, open collector output
LED Indicator	-	Green LED = On	
Operating Temperature	°C	-10 to +65 (See table for derating - model specific)	
Storage Temperature	°C	-30 to +85	
Operating Humidity	%RH	30 - 90 (non condensing)	
Storage Humidity	%RH	10 - 95 (non condensing)	
Cooling	-	Internal fan	
Withstand Voltage	-	I/P to Gnd 2kVAC, I/P to O/P 3kVAC, O/P to Gnd 500VAC, (O/P to CNT 100VAC for 1 min SWS600)	
Isolation Resistance	-	>100mΩ 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	
Conducted & Radiated EMI	-	EN55011 / EN55022-B, FCC Class B	
Weight (Typ)	g	950	2000
Size (WxHxD)	mm	52 x 102 x 198	92 x 120 x 190
Warranty	-	2 Years	

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



Model Selector							
Model	Voltage	Adjust Range (V)	Max Current (A)	Load Reg mV	Line Reg mV	Ripple Noise mV	Eff. (3) (typ)%
SWS300-3	3.3	2.97-3.96	55	40	20	120	67/70
SWS300-5	5	4.5-6	55	40	20	120	75/78
SWS300-12	12	9.6-13.2	26	96	48	120	77/80
SWS300-15	15	13.2-18.6	21	120	48	120	79/83
SWS300-24	24	20-28.8	13	120	48	150	82/85
SWS300-36	36	28.8-40	8.7	180	72	200	82/85
SWS300-48	48	40-57.6	6.7	240	96	240	82/85
SWS600-3	3.3	2.97-3.96	100 (2)	40	20	100	69/71
SWS600-5	5	4.5-6	100 (2)	40	20	100	74/77
SWS600-12	12	9.6-13.2	50	96	48	120	78/81
SWS600-15	15	13.2-18.6	40	120	48	120	80/83
SWS600-24	24	20-28.8	25	120	48	150	81/84
SWS600-36	36	28.8-40	16.7	180	72	200	81/85
SWS600-48	48	40-57.6	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.

For full data and drawings please visit www.emea.tdk-lambda.com/www/sws

