SWS150 SPECIFICATIONS

CA732-01-01D

	ITEMS / MODEL			SWS150-3	SWS150-5	SWS150-12	SWS150-15	SWS150-24	SWS150-18
1	Nominal Output Voltage		V	3.3	5	12	15	24	18
2	Maximum Output Current		A	30	30	12.5	10	6.3	8.4
3	Maximum Output Power		W	99	150	150	150	151.2	151.2
4	Efficiency (Typ) (115/230VAC)	(* 1)	%	70 / 72	76 / 78	79 / 82	81 / 83	82 / 85	82 / 84
5	Input Voltage Range	(* 2)	–	85 ~ 265VAC (47-63Hz) or 120 ~ 370VDC					
6	Input Current (Typ) (115/230VAC)	(* 1)	A	1.3 / 0.7	1.8 / 0.9				
7	Inrush Current (Typ)	(* 3)	–	16A at 115VAC, 32A at 230VAC, Ta=25°C, Cold Start					
8	PFHC		–	Built to meet EN61000-3-2					
9	Power Factor (Typ) (115/230VAC)	(* 1)	–	0.99 / 0.95					
10	Output Voltage Range		V	2.97~3.63	4.5~5.5	10.8~13.2	13.5~16.5	21.6~26.4	16.2~19.8
11	Ripple and Noise (115/230VAC)	(* 1, 4)	mV	100	100	100	100	150	120
12	Line Regulation	(* 4, 5)	mV	20	20	48	60	96	72
13	Load Regulation	(* 4, 6)	mV	40	40	96	120	144	144
14	Temperature Coefficient		–	Less than 0.02%/°C					
15	Over Current Protection	(* 7)	A	31.5~	31.5~	13.1~	10.5	6.6~	8.9~
16	Over Voltage Protection	(* 8)	V	3.79~4.95	5.75~6.95	13.8~16.2	17.2~20.3	27.6~32.4	20.7~24.3
17	Hold-Up Time (Typ) (115/230VAC)	(* 1)	–	20ms					
18	Leakage current	(* 9)	–	0.75mA Max, 0.25mA(Typ) at 115VAC / 0.5mA(Typ) at 230VAC					
19	Series Operation		–	Possible					
20	Operating Temperature	(* 10)	–	- 10 ~ + 60 °C (Refer to Output Derating Curve)					
21	Operating Humidity		–	30 ~ 90 %RH (No dewdrop)					
22	Storage Temperature		–	- 30 ~ +85°C					
23	Storage Humidity		–	10 ~ 95%RH (No dewdrop)					
24	Cooling		–	Convection cooling					
25	Withstand Voltage		–	Input - Output : 3.0kVAC (20mA), Input - FG : 2.0kVAC (20mA) Output - FG : 500VAC (100mA) for 1min.					
26	Isolation Resistance		–	More than 100MΩ at Ta=25°C and 70%RH, Output - FG : 500VDC					
27	Vibration		–	At no operating, 10 - 55Hz (sweep for 1min) 19.6m/s^2 Constant, X, Y, Z 1hour each					
28	Safety		–	Approved by UL60950-1, CSA60950-1, EN60950-1, EN50178					
29	EMI	(* 1)	–	Built to meet FCC-Class B, EN55011/EN55022-B					
30	Immunity	(* 1)	–	Built to meet EN61000-4-2,-3,-4,-5,-6,-8,-11					
31	Weight (Typ)		g	750					
32	Dimension		mm	51 x 99 x 198 (Refer to Outline Drawing)					

*** Read instruction manual carefully , before using the power supply unit.**

= NOTES=

* 1 : At maximum output power, nominal input voltage, Ta = 25°C.

* 2 : For cases where conformance to various safety specs (UL, CSA, EN) are required, to be described as 100 - 240VAC, 50 / 60Hz on name plate

* 3 : Not applicable for the in-rush current to Noise Filter for less than 0.2ms.

* 4 : Please refer to Fig A for measurement of line & load regulation, ripple and noise voltage.
Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uF and 47uF capacitor.

* 5 : 85 - 265VAC, constant load.

* 6 : No load - Full load(Maximum power), constant input voltage.

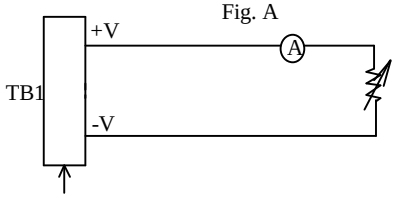
* 7 : Constant current limit with automatic recovery.
Avoid to operate at overload or dead short for more than 30seconds.

* 8 : OVP circuit will shutdown output, manual reset (Re power on).

* 9 : Measured by each measuring method of UL, CSA, EN.

*10: Refer to Output Derating Curve (next page) for details of output derating versus ambient temperature and mounting method .

Fig. A

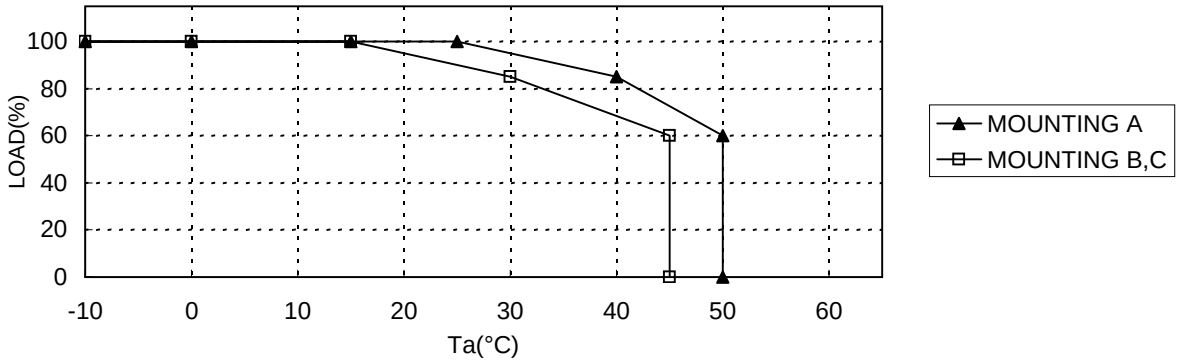


Measurement point for Vo
Line/Load Regulation, and ripple

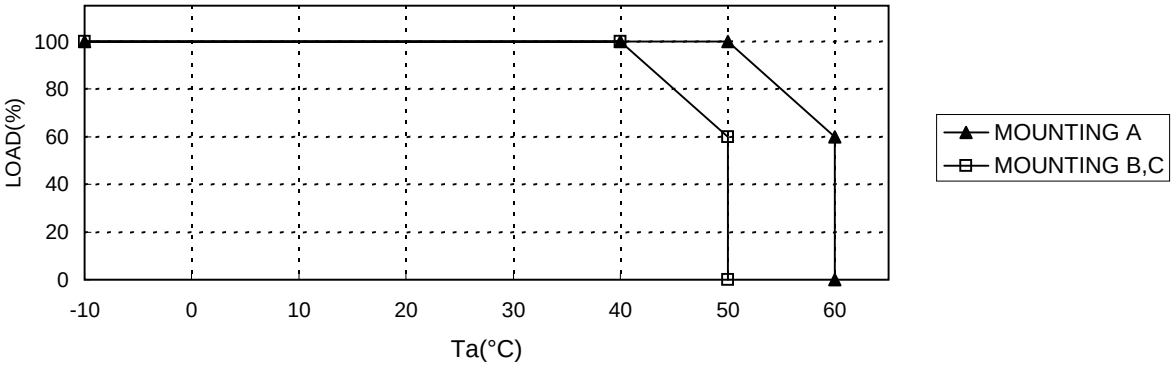
SWS150 OUTPUT DERATING

CA732-01-02C

SWS150-3,5 OUTPUT DERATING VS Ta CURVE (CONVECTION COOLING)

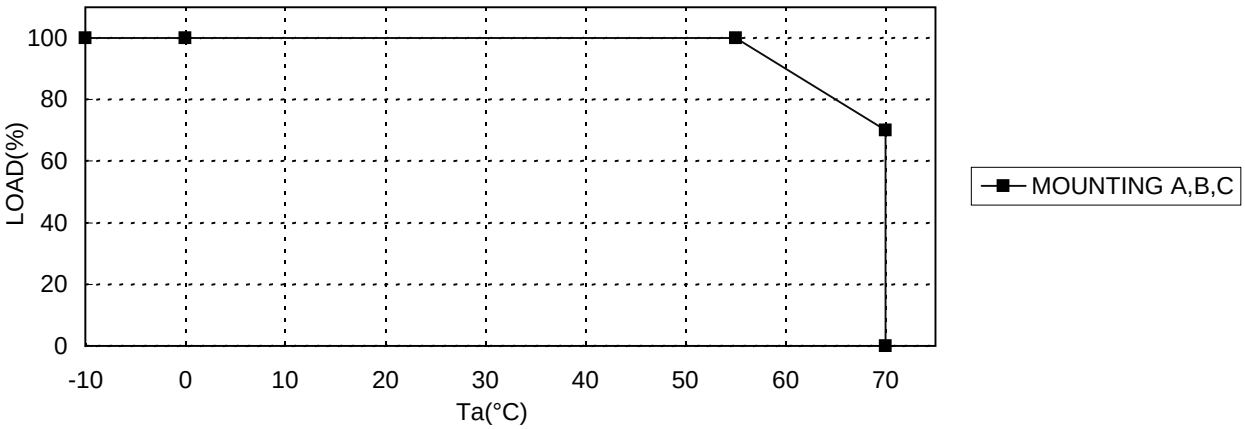


SWS150-12,15,18,24,28 OUTPUT DERATING VS Ta CURVE (CONVECTION COOLING)

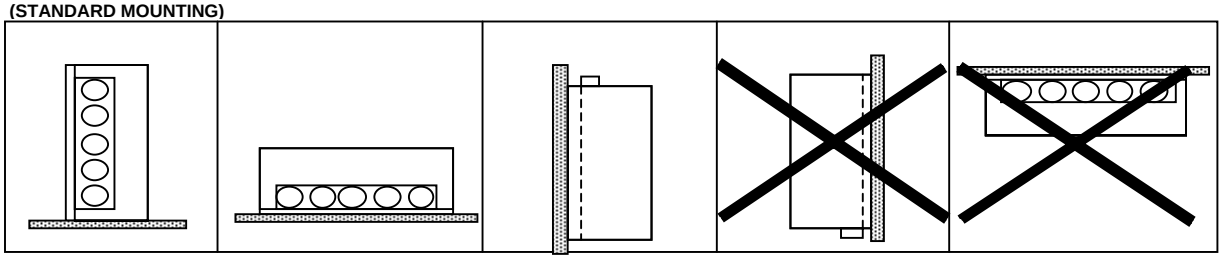


Force Air Cooling :
Recommended minimum air velocity is 1.2m/s, flow through the component side of power supply

SWS150-3,5,12,15,18,24,28 OUTPUT DERATING VS Ta CURVE (FORCE AIR COOLING)



MOUNTING A
(STANDARD MOUNTING)



MOUNTING B

MOUNTING C

DON'T USE

DON'T USE

SWS150 SPECIFICATIONS

CA732-01-03A

	ITEMS / MODEL			SWS150-28
1	Nominal Output Voltage		V	28
2	Maximum Output Current		A	5.4
3	Peak Output Current	(* 11)	A	6
4	Maximum Output Power		W	151.2
5	Peak Output Power	(* 11)	W	168
6	Efficiency (Typ) (115/230VAC)	(* 1)	%	82 / 85
7	Input Voltage Range	(* 2)	–	85 ~ 265VAC (47-63Hz) or 120 ~ 370VDC
8	Input Current (Typ) (115/230VAC)	(* 1)	A	1.8 / 0.9
9	Inrush Current (Typ)	(* 3)	–	16A at 115VAC, 32A at 230VAC, Ta=25°C, Cold Start
10	PFHC		–	Built to meet EN61000-3-2
11	Power Factor (Typ) (115/230VAC)	(* 1)	–	0.99 / 0.95
12	Output Voltage Range		V	25.2~30.8
13	Ripple and Noise (115/230VAC)	(* 1, 4)	mV	180
14	Line Regulation	(* 4, 5)	mV	112
15	Load Regulation	(* 4, 6)	mV	168
16	Temperature Coefficient		–	Less than 0.02%/°C
17	Over Current Protection	(* 7)	A	6.1~
18	Over Voltage Protection	(* 8)	V	32.2~37.8
19	Hold-Up Time (Typ) (115/230VAC)	(* 1)	–	20ms
20	Leakage current	(* 9)	–	0.75mA Max, 0.25mA(Typ) at 115VAC / 0.5mA(Typ) at 230VAC
21	Series Operation		–	Possible
22	Operating Temperature	(* 10)	–	- 10 ~ + 60 °C (Refer to Output Derating Curve)
23	Operating Humidity		–	30 ~ 90 %RH (No dewdrop)
24	Storage Temperature		–	- 30 ~ +85°C
25	Storage Humidity		–	10 ~ 95%RH (No dewdrop)
26	Cooling		–	Convection cooling
27	Withstand Voltage		–	Input - Output : 3.0kVAC (20mA), Input - FG : 2.0kVAC (20mA) Output - FG : 500VAC (100mA) for 1min.
28	Isolation Resistance		–	More than 100MΩ at Ta=25°C and 70%RH, Output - FG : 500VDC
29	Vibration		–	At no operating, 10 - 55Hz (sweep for 1min) 19.6m/s^2 Constant, X, Y, Z 1hour each
30	Safety		–	Approved by UL60950-1, CSA60950-1, EN60950-1, EN50178
31	EMI	(* 1)	–	Built to meet FCC-Class B, EN55011/EN55022-B
32	Immunity	(* 1)	–	Built to meet EN61000-4-2,-3,-4,-5,-6,-8,-11
33	Weight (Typ)		g	750
34	Dimension		mm	51 x 99 x 198 (Refer to Outline Drawing)

*** Read instruction manual carefully , before using the power supply unit.**

= NOTES=

* 1 : At maximum output power, nominal input voltage, Ta = 25°C.

* 2 : For cases where conformance to various safety specs (UL, CSA, EN) are required, to be described as 100 - 240VAC, 50 / 60Hz on name plate.

* 3 : Not applicable for the in-rush current to Noise Filter for less than 0.2ms.

* 4 : Please refer to Fig A for measurement of line & load regulation, ripple and noise voltage.
Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uF and 47uF capacitor.

* 5 : 85 - 265VAC, constant load.

* 6 : No load - Full load(Maximum power), constant input voltage.

* 7 : Constant current limit with automatic recovery.
Avoid to operate at overload or dead short for more than 30seconds.

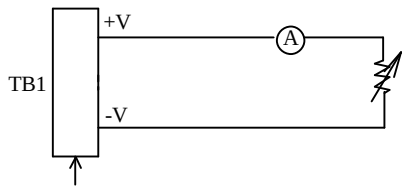
* 8 : OVP circuit will shutdown output, manual reset (Re power on).

* 9 : Measured by each measuring method of UL, CSA, EN.

*10: Refer to Output Derating Curve (CA732-01-02_) for details of output derating versus ambient temperature and mounting method .

*11: Operating period at peak output current is less than 5sec.(Duty<=0.35).
(Average output power and current is less than Maximum output power and current)

Fig. A



Measurement point for Vo Line/Load Regulation, and ripple and noise.

TDK-Lambda

SWS150-7R5 SPECIFICATIONS

CA732-01-04

	ITEMS / MODEL				SWS150-7R5
1	Nominal Output Voltage			V	7.5
2	Maximum Output Current			A	20
3	Maximum Output Power			W	150
4	Efficiency (Typ)	(115/230VAC)	(* 1)	%	77/79
5	Input Voltage Range		(* 2)	–	85 ~ 265VAC (47-63Hz) or 120 ~ 370VDC
6	Input Current (Typ)	(115/230VAC)	(* 1)	A	1.8 / 0.9
7	Inrush Current (Typ)		(* 3)	–	16A at 115VAC, 32A at 230VAC, Ta=25°C, Cold Start
8	PFHC			–	Built to meet EN61000-3-2
9	Power Factor (Typ)	(115/230VAC)	(* 1)	–	0.99 / 0.95
10	Output Voltage Range			V	6.75~8.25
11	Ripple and Noise	(115/230VAC)	(* 1, 4)	mV	100
12	Line Regulation		(* 4, 5)	mV	30
13	Load Regulation		(* 4, 6)	mV	60
14	Temperature Coefficient			–	Less than 0.02%/°C
15	Over Current Protection		(* 7)	A	21~
16	Over Voltage Protection		(* 8)	V	8.65~10.5
17	Hold-Up Time (Typ)	(115/230VAC)	(* 1)	–	20ms
18	Leakage current		(* 9)	–	0.75mA Max, 0.25mA(Typ) at 115VAC / 0.5mA(Typ) at 230VAC
19	Series Operation			–	Possible
20	Operating Temperature		(* 10)	–	- 10 ~ + 55 °C (Refer to Output Derating Curve)
21	Operating Humidity			–	30 ~ 90 %RH (No dewdrop)
22	Storage Temperature			–	- 30 ~ +85°C
23	Storage Humidity			–	10 ~ 95%RH (No dewdrop)
24	Cooling			–	Convection cooling
25	Withstand Voltage			–	Input - Output : 3.0kVAC (20mA), Input - FG : 2.0kVAC (20mA) Output - FG : 500VAC (100mA) for 1min.
26	Isolation Resistance			–	More than 100MΩ at Ta=25°C and 70%RH, Output - FG : 500VDC
27	Vibration			–	At no operating, 10 - 55Hz (sweep for 1min) 19.6m/s^2 Constant, X, Y, Z 1hour each
28	Safety			–	Built to meet UL60950-1, CSA60950-1, EN60950-1, EN50178
29	EMI		(* 1)	–	Built to meet FCC-Class B, EN55011/EN55022-B
30	Immunity		(* 1)	–	Built to meet EN61000-4-2,-3,-4,-5,-6,-8,-11
31	Weight (Typ)			g	750
32	Dimension			mm	51 x 99 x 198 (Refer to Outline Drawing)

*** Read instruction manual carefully , before using the power supply unit.**

= NOTES=

* 1 : At maximum output power, nominal input voltage, Ta = 25°C.

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* 3 : Not applicable for the in-rush current to Noise Filter for less than 0.2ms.

* 4 : Please refer to Fig A for measurement of line & load regulation, ripple and noise voltage.
Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uF and 47uF capacitor.

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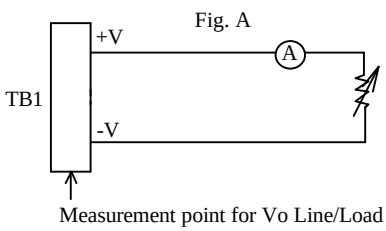
* 7 : Constant current limit with automatic recovery.
Avoid to operate at overload or dead short for more than 30seconds.

* 8 : OVP circuit will shutdown output, manual reset (Re power on).

* 9 : Measured by each measuring method of UL, CSA, EN.

*10: Refer to Output Derating Curve (next page) for details of output derating versus ambient temperature and mounting method .

Fig. A

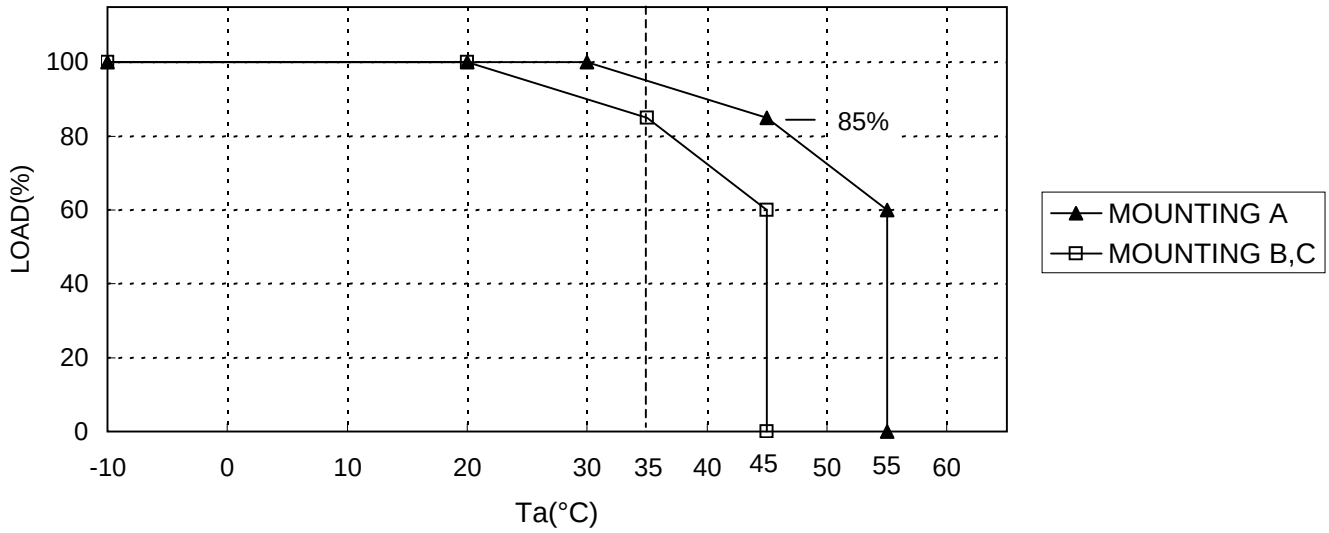


Measurement point for Vo Line/Load Regulation, and ripple and noise.

SWS150-7R5 OUTPUT DERATING

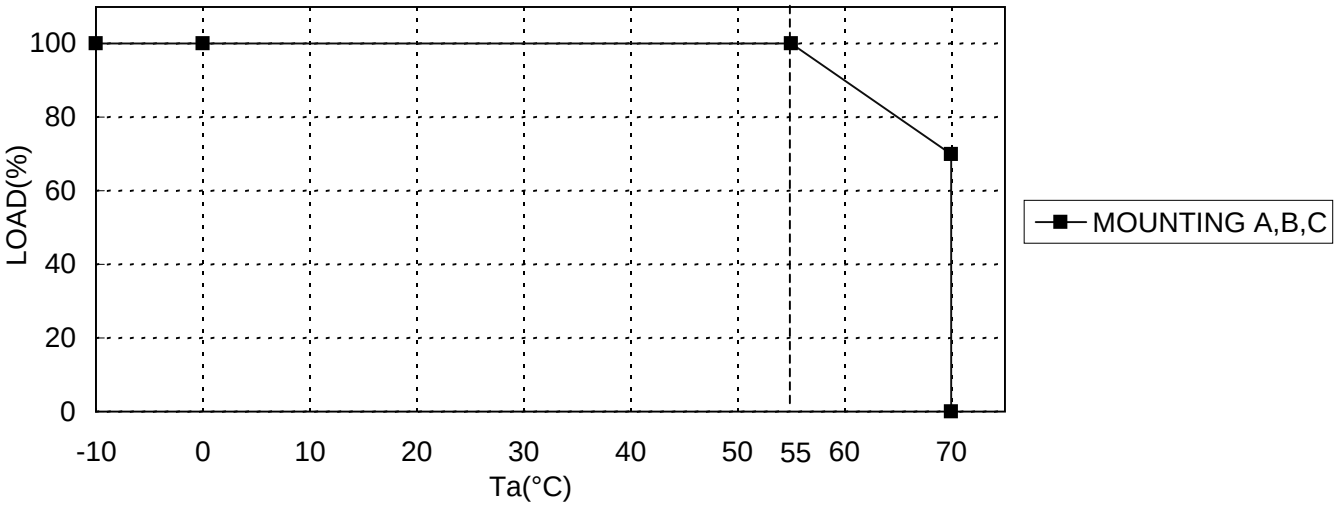
CA732-01-05

SWS150-7R5 OUTPUT DERATING VS Ta CURVE (CONVECTION COOLING)



Force Air Cooling :
Recommended minimum air velocity is 1.2m/s, flow through the component side of power supply

SWS150-7R5 OUTPUT DERATING VS Ta CURVE (FORCE AIR COOLING)



MOUNTING A (STANDARD MOUNTING)	MOUNTING	MOUNTING C	DON'T USE	DON'T USE