

50W Single Output Switching Power

RS-50



Features: Universal AC input / Full range Protections: Short circuit/Over load/Over voltage Cooling by free air convection LEDindicatorforpoweron 100% full load burn-in test All using 105°C long life electrolytic capacitors Withstand 300VAC surge input for 5 second High operating temperature up to 70°C Withstand 5G vibration test

3 years warranty cTlAus

SPECIFICATION

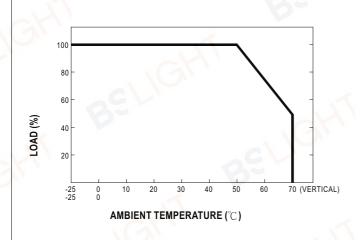
CC VOLTAGE RATED CURRENT CURRENT RANGE RATED POWER RIPPLE & NOISE (max.) VOLTAGE ADJ. RANGE VOLTAGE TOLERANCE Note.3 LINE REGULATION SETUP, RISE TIME HOLD TIME (Typ.) VOLTAGE RANGE	3.3V 10A 0-10A 33W 80mVp-p 3V-3.6V ±3.0% ±0.5% ±2.0% 500ms, 20ms/230	5V 10A 0-10A 50W 80mVp-p 4.75-5.5V ±2.0% ±0.5%	12V 4.2A 0-4.2A 50.4W 120mVp-p 10.8 ~ 13.2V ±1.0%	15V 3.4A 0 ~ 3.4A 51W 120mVp-p 13.5 ~ 16.5V	24V 2.2A 0-2.2A 52.8W 120mVp-p 22-27.2V	48V 1.1A 0-1.1A 52.8W 200mVp-p					
CURRENT RANGE RATED POWER RIPPLE & NOISE (max.) /OLTAGE ADJ. RANGE VOLTAGE TOLERANCE Note.3 LINE REGULATION SETUP, RISE TIME HOLD TIME (Typ.)	0-10A 33W 80mVp-p 3V-3.6V ±3.0% ±0.5% ±2.0%	0-10A 50W 80mVp-p 4.75-5.5V ±2.0% ±0.5%	0-4.2A 50.4W 120mVp-p 10.8 ~ 13.2V	0 ~ 3.4A 51W 120mVp-p 13.5 ~ 16.5V	0-2.2A 52.8W 120mVp-p	0-1.1A 52.8W 200mVp-p					
RATED POWER RIPPLE & NOISE (max.) /OLTAGE ADJ. RANGE VOLTAGE TOLERANCE Note.3 LINE REGULATION Note.4 LOAD REGULATION SETUP, RISE TIME HOLD TIME (Typ.)	33W 80mVp-p 3V-3.6V ±3.0% ±0.5% ±2.0%	50W 80mVp-p 4.75-5.5V ±2.0% ±0.5%	50.4W 120mVp-p 10.8 ~ 13.2V	51W 120mVp-p 13.5 ~ 16.5V	52.8W 120mVp-p	52.8W 200mVp-p					
RIPPLE & NOISE (max.) /OLTAGE ADJ. RANGE VOLTAGE TOLERANCE Note.3 LINE REGULATION Note.4 LOAD REGULATION SETUP, RISE TIME HOLD TIME (Typ.)	80mVp-p 3V-3.6V ±3.0% ±0.5% ±2.0%	80mVp-p 4.75-5.5V ±2.0% ±0.5%	120mVp-p 10.8 ~ 13.2V	120mVp-p 13.5 ~ 16.5V	120mVp-p	200mVp-p					
VOLTAGE ADJ. RANGE VOLTAGE TOLERANCE Note.3 LINE REGULATION Note.4 LOAD REGULATION SETUP, RISE TIME HOLD TIME (Typ.)	3V-3.6V ±3.0% ±0.5% ±2.0%	4.75-5.5V ±2.0% ±0.5%	10.8 ~ 13.2V	13.5 ~ 16.5V	- ' '						
VOLTAGE TOLERANCE Note.3 LINE REGULATION Note.4 LOAD REGULATION SETUP, RISE TIME HOLD TIME (Typ.)	±3.0% ±0.5% ±2.0%	±2.0% ±0.5%			22-27.2V	40					
LINE REGULATION Note.4 LOAD REGULATION SETUP, RISE TIME HOLD TIME (Typ.)	±0.5% ±2.0%	±0.5%	±1.0%	±1.00/		42 - 54V					
LOAD REGULATION SETUP, RISE TIME HOLD TIME (Typ.)	±2.0%			±1.0%	±1.0%	±1.0%					
SETUP, RISE TIME HOLD TIME (Typ.)			±0.5%	±0.5%	±0.5%	±0.5%					
HOLD TIME (Typ.)	500ms, 20ms/230	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%					
		VAC 1200	0ms, 30ms/115VAC at	t full load	. 17						
OLTAGE RANGE	60ms/230VAC	14ms/115V	AC at full load		CH						
	88 - 264VAC	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1									
REQUENCYRANGE	47 ~ 63Hz										
FFICIENCY(Typ.)	72% 78% 81% 83% 86%										
AC CURRENT (Typ.)	1.3A/115VAC 0.8A/230VAC										
INRUSH CURRENT (Typ.)	COLD START 33A	/230VAC				. 11					
EA KAGE CURRENT	<2mA/ 240VAC					GL					
OVER LOAD	110-150% rated o	output power				125					
	Protection type: I	Hiccup mode, reco	overs automatically af	ter fault condition is	removed						
OVER VOLTAGE	3.8-4.45V	5.75-6.75V	<u>13.8 ~</u>	16.2V	17.25 ~ 20.25V	<u>55.2</u> ~ 64.8V					
	Protection type: I	Hiccup mode, reco	overs automatically af		removed						
WORKING TEMP.	-25 ~ +70°C (Refer to output load derating curve)										
WORKING HUMIDITY	20 ~ 90% RHnon-condensing										
STORAGE TEMP, HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH										
TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)										
/IBRATION /	10 ~ 500Hz, 5G 10min./1cycle, perlod for 60mln. each along X, Y, Z axes										
SAFETYSTANDARDS	UL60950-1, TUV EN60950-1 Approved										
WITHSTAND VOLTAGE	I/P-0/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC										
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC										
EMI CONDUCTION &	Compliance to EN55022 (CISPR22) Class B										
HARMONIC CURRENT	Compliance to ENG	51000-3-2,-3			1						
EMS IMMUNITY	Compliance to EN6	1000-4-2,3,4,5,6,8,	11; ENV50204, EN6100	0-6-2 (EN50082-2) hea	avy industry level, crite	eria A					
MTBF	228Khrs mln.	MIL-HDBK-217F	(25°C)			1.3					
DIMENSIÓN	99*97*36mm (L*	W*H)				(31)					
PACKING	0.41Kg; 45pcs/19.5Kg/0.9CUFT										
2. Ripple & nolse are measur	red at 20MHz of ban	dwldth by using a	12" twisted pair-wire t			pacitor.					
IS H/ EN DI P/	ITHSTAND VOLTAGE OLATION RESISTANCE EMICONDUCTION & ARMONIC CURRENT MS IMMUNITY TBF IMENSIÓN ACKING All parameters NOT specia Ripple & noise are measur	ITHSTAND VOLTAGE I/P-0/P:3KVAC OLATION RESISTANCE I/P-O/P, I/P-FG, O EMICONDUCTION & Compliance to EN ARMONIC CURRENT Compliance to EN6 4S IMMUNITY Compliance to EN6 228Khrs mln. IMENSIÓN 99*97*36mm (L* ACKING 0.41Kg; 45pcs/19 All parameters NOT specially mentioned are n Rlpple & nolse are measured at 20MHz of ban	ITHSTAND VOLTAGE I/P-O/P:3KVAC I/P-FG:1.5KVAC OLATION RESISTANCE I/P-O/P, I/P-FG, O/P-FG:100M Ohm EMICONDUCTION & Compliance to EN55022 (CISPR22) ARMONIC CURRENT Compliance to EN61000-3-2,-3 MS IMMUNITY Compliance to EN61000-4-2,3,4,5,6,8, TBF 228Khrs mln. MIL-HDBK-217F IMENSIÓN 99*97*36mm (L*W*H) ACKING 0.41Kg; 45pcs/19.5Kg/0.9CUFT All parameters NOT specially mentioned are measured at 230VA Rlpple & nolse are measured at 20MHz of bandwidth by using a	I/P-0/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC OLATION RESISTANCE I/P-0/P, I/P-FG, O/P-FG:100M Ohms/500VDC EMICONDUCTION & Compliance to EN55022 (CISPR22) Class B ARMONIC CURRENT Compliance to EN61000-3-2,-3 MS IMMUNITY Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN6100 TBF 228Khrs mln. MIL-HDBK-217F (25°C) MENSIÓN 99*97*36mm (L*W*H) ACKING 0.41Kg; 45pcs/19.5Kg/0.9CUFT All parameters NOT specially mentioned are measured at 230VAC input, rated load and	ITHSTAND VOLTAGE I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC O/P-FG:0.5KVAC OLATION RESISTANCE I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC EMICONDUCTION & Compliance to EN55022 (CISPR22) Class B ARMONIC CURRENT Compliance to EN61000-3-2,-3 MS IMMUNITY Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61000-6-2 (EN50082-2) head TBF 228Khrs mln. MIL-HDBK-217F (25°C) IMENSIÓN 99*97*36mm (L*W*H) ACKING 0.41Kg; 45pcs/19.5Kg/0.9CUFT All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of amblent ter Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1	I/P-0/P:3KVAC //P-FG:1.5KVAC O/P-FG:0.5KVAC OLATION RESISTANCE /P-O/P, /P-FG, O/P-FG:100M Ohms/500VDC EMICONDUCTION & Compliance to EN55022 (CISPR22) Class B ARMONIC CURRENT Compliance to EN61000-3-2,-3 4S IMMUNITY Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61000-6-2 (EN50082-2) heavy industry level, crite TBF 228Khrs mln. MIL-HDBK-217F (25°C) IMENSIÓN 99*97*36mm (L*W*H) ACKING 0.41Kg; 45pcs/19.5Kg/0.9CUFT All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of amblent temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uf & 47uf parallel ca					

■ Mechanical Specification Case No. 905B

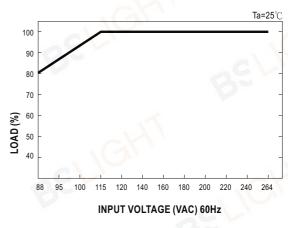
Terminal Pin. No Assignment

Terminai	I III. INO Maaig	Jilliont	
Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4	DC OUTPUT -V
2	AC/N	5	DC OUTPUT +V
3	FG ±		

■ Output Derating



■ Output Derating VS Input Voltage



File Name:RS-50-SPEC 2006-04-12

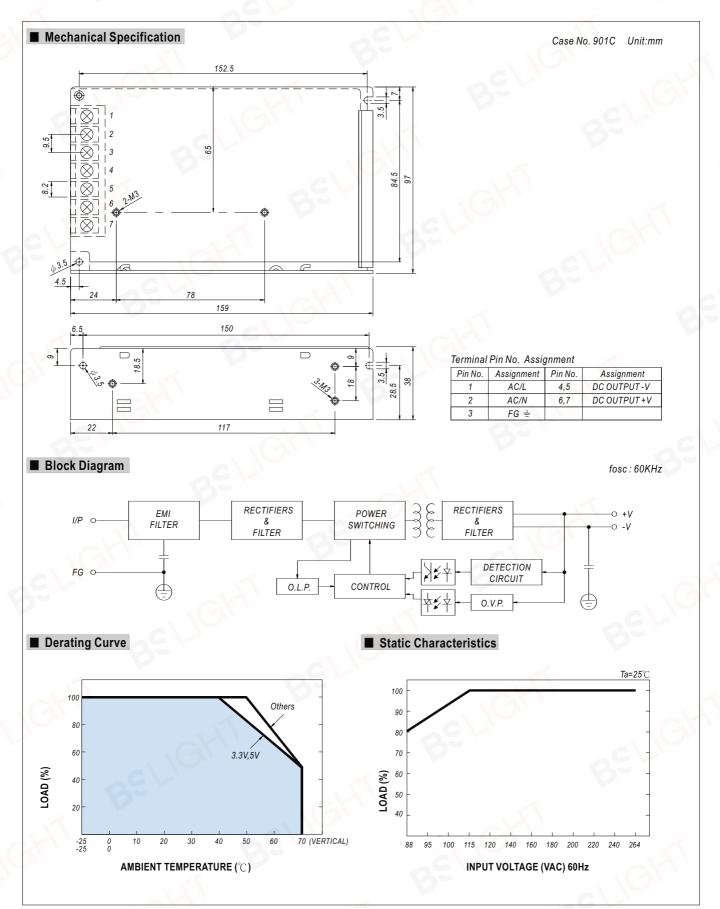
Unit:mm



- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- All using 105℃ long life electrolytic capacitors
- Withstand 300VAC surge input for 5 second
- High operating temperature up to 70°C
- Withstand 5G vibration test
- High efficiency, long life and high reliability
- 3 years warranty



MODEL		RS-100-3.3	RS-100-5	RS-100-12	RS-100-15	RS-100-24	RS-100-48					
	DC VOLTAGE	3.3V	5V	12V	15V	24V	48V					
	RATED CURRENT	20A	16A	8.5A	7A	4.5A	2.3A					
	CURRENT RANGE	0 ~ 20A	0 ~ 16A	0 ~ 8.5A	0 ~ 7A	0 ~ 4.5A	0 ~ 2.3A					
	RATED POWER	66W	80W	102W	105W	108W	110.4W					
	RIPPLE & NOISE (max.) Note.2	80mVp-p	80mVp-p	120mVp-p	120mVp-p	120mVp-p	200mVp-p					
DUTPUT	VOLTAGE ADJ. RANGE	3.2V ~ 3.5V	4.75 ~ 5.5V	11.4 ~ 13.2V	14.25 ~ 16.5V	22.8 ~ 26.4V	45.6 ~ 52.8V					
	VOLTAGE TOLERANCE Note.3	±3.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%					
	LINE REGULATION Note.4	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%					
	LOAD REGULATION Note.5	±2.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%					
	SETUP, RISE TIME	500ms, 20ms/23	OVAC 1200ms,	30ms/115VAC at full loa	ad	1(3)	•					
	HOLD UP TIME (Typ.)	100ms/230VAC	18ms/115VAC a	t full load								
10	VOLTAGE RANGE	88 ~ 264VAC	38 ~ 264VAC 125 ~ 373VDC (Withstand 300VAC surge for 5sec. Without damage)									
	FREQUENCY RANGE	47 ~ 63Hz										
NPUT	EFFICIENCY (Typ.)	74%	77%	81%	82%	84%	84%					
NFUI	AC CURRENT (Typ.)	2.5A/115VAC 1.5A/230VAC										
	INRUSH CURRENT (Typ.)	COLD START 40	A/230VAC		\							
	LEAKAGE CURRENT	<2mA/240VAC										
		110 ~ 150% rated	d output power									
DOTECTION	OVERLOAD	Protection type :	Hiccup mode, recove	ers automatically after t	ault condition is remove	ed						
PROTECTION		3.8 ~ 4.45V	5.75 ~ 6.75V	13.8 ~ 16.2V	17.25 ~ 20.25V	27.6 ~ 32.4V	55.2 ~ 64.8V					
	OVER VOLTAGE	Protection type: Hiccup mode, recovers automatically after fault condition is removed										
	WORKING TEMP.	-25 ~ +70°C (Refer to "Derating Curve")										
	WORKING HUMIDITY	20 ~ 90% RH non-condensing										
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH										
	TEMP. COEFFICIENT	±0.03%/C (0~50°C)										
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes										
	SAFETY STANDARDS	UL60950-1, TUV	EN60950-1 approve	ed								
SAFETY &	WITHSTAND VOLTAGE	I/P-O/P:3KVAC	I/P-FG:1.5KVAC	O/P-FG:0.5KVAC		1						
EMC	ISOLATION RESISTANCE	I/P-O/P. I/P-FG.	D/P-FG:100M Ohms	/500VDC/25°C/70%	RH	11						
(Note 6)	EMC EMISSION			Class B, EN61000-3-2,-								
	EMC IMMUNITY	•		3,11, EN61000-6-2 (EN		ry level, criteria A						
	MTBF	260.8Khrs min.	MIL-HDBK-217F (2	•	CV							
OTHERS	DIMENSION	159*97*38mm (L	· · · · · · · · · · · · · · · · · · ·	٥,	4-							
-	PACKING	,	,				6					
NOTE												





- Protections:Short circuit/Over load/Over voltage
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- All using 105^oC long life electrolytic capacitors
- Withstand 300VAC surge input for 5 second
- High operating temperature up to 70°C
- Withstand 5G vibration test
- High efficiency, long life and high reliability
- 3 years warranty

SPECIFICATION



MODEL		RS-150-3.3	RS-150-5	RS-150-12	RS-150-15	RS-150-24	RS-150-48					
	DC VOLTAGE	3.3V	5V	12V	15V	24V	48V					
	RATED CURRENT	30A	26A	12.5A	10A	6.5A	3.3A					
	CURRENT RANGE	0 ~ 30A	0 ~ 26A	0 ~ 12.5A	0~10A	0 ~ 6.5A	0 ~ 3.3A					
	RATED POWER	99W	130W	150W	150W	156W	158.4W					
	RIPPLE & NOISE (max.) Note.2	80mVp-p	80mVp-p	120mVp-p	120mVp-p	120mVp-p	200mVp-p					
OUTPUT	VOLTAGE ADJ. RANGE	3.2V ~ 3.5V	4.75 ~ 5.5V	11.4 ~ 13.2V	14.25 ~ 16.5V	22.8 ~ 26.4V	45.6 ~ 52.8V					
	VOLTAGE TOLERANCE Note.3	±3.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%					
	LINE REGULATION Note.4	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%					
	LOAD REGULATION Note.5	±2.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%					
	SETUP, RISE TIME	800ms, 20ms/230\	/AC 1200ms, 30	ms/115VAC at full lo	ad							
	HOLD TIME (Typ.)	28ms/230VAC	20ms/115VAC at fu	ll load								
	VOLTAGE RANGE	38 ~ 132VAC / 176 ~ 264VAC selected by switch 248 ~ 373VDC(Withstand 300VAC surge for 5sec. Without damage)										
	FREQUENCY RANGE	47 ~ 63Hz	47 ~ 63Hz									
	EFFICIENCY(Typ.)	74%	78%	83%	84%	86%	87%					
NPUT	AC CURRENT (Typ.)	3A/115VAC 2	2A/230VAC			121						
	INRUSH CURRENT (Typ.)	COLD START 40A	/230VAC			(4)						
	LEAKAGE CURRENT	<2mA / 240VAC	2mA / 240VAC									
_, \	OVER LOAD	110 ~ 150% rated	• •		261							
PROTECTION	OVERCOAD	• • • • • • • • • • • • • • • • • • • •			fault condition is remov							
	OVER VOLTAGE	3.8 ~ 4.45V	5.75 ~ 6.75V	13.8 ~ 16.2V	17.25 ~ 20.25V	27.6 ~ 32.4V	55.2 ~ 64.8V					
	\ (Protection type: Hiccup mode, recovers automatically after fault condition is removed										
	WORKING TEMP.	-25 ~ +70°C (Refer to output load derating curve) 20 ~ 90% RH non-condensing										
	WORKING HUMIDITY											
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-40~+85°C, 10~95% RH										
	TEMP. COEFFICIENT	,	±0.03%/°C (0~50°C)									
	VIBRATION		min./1cycle, period for	or 60min. each along	g X, Y, Z axes							
	SAFETY STANDARDS		EN60950-1 Approved		(3)	`						
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC	I/P-FG:1.5KVAC O	/P-FG:0.5KVAC								
SAFETY &	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O	P-FG:100M Ohms/50	00VDC	G		105					
EMC	EMI CONDUCTION & RADIATION	Compliance to EN	55022 (CISPR22) Cla	iss B								
(Note 6)	HARMONIC CURRENT	Compliance to EN	· · · · · · · · · · · · · · · · · · ·	<u>_</u>								
	EMS IMMUNITY	Compliance to EN	61000-4-2,3,4,5,6,8,	11; ENV50204, EN61	000-6-2 (EN50082-2) I	neavy industry level, cr	iteria A					
	MTBF	244KHrs min. N	IIL-HDBK-217F (25°C	2)								
OTHERS	DIMENSION	199*98*38mm (L*	N*H)			1						
	PACKING	0.7Kg; 20pcs/15Kg	g/0.8CUFT									
NOTE	All parameters NOT specia Ripple & noise are measure Tolerance: includes set up Line regulation is measure Load regulation is measure The power supply is consided EMC directives. Length of set up time is measure	ed at 20MHz of bar tolerance, line regid from low line to hid from 0% to 100% lered a component	ndwidth by using a 1 ulation and load regu gh line at rated load. s rated load. which will be installe	2" twisted pair-wire t lation. d into a final equipn	terminated with a 0.1u	f & 47uf parallel capad	ned that it still mee					

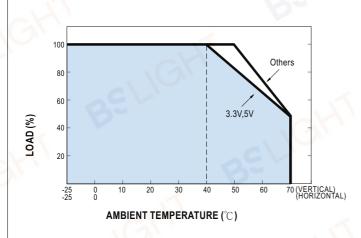
Mechanical Specification Case No. 902A Unit:mm

Terminal Pin. No Assignment

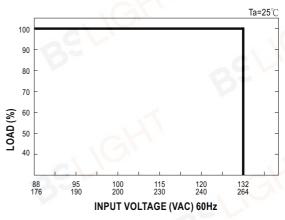
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Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,5	DC OUTPUT -V
2	AC/N	6,7	DC OUTPUT +V
3	FG ±	CV	

■ Output Derating



■ Static Characteristics





- Universal AC input / full range
- Built-in active PFC function, PF>0.93
- Protections:Short circuit/Over load/Over voltage/Over temperature
- Built-in cooling fan speed control
- Built-in constant current limiting circuit
- Built-in fan speed control
- Remote ON-OFF control(Optional)
- LED indicator for power on
- 100% full load burn-in test
- Fixed switching frequency at PFC:67KHz PWM:134KHz
- 3 years warranty

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MODEL		SP-200-3.3	SP-200-5	SP-200-7.5	SP-200-12	SP-200-13.5	SP-200-15	SP-200-24	SP-200-27	SP-200-48			
	DC VOLTAGE	3.3V	5V	7.5V	12V	13.5V	15V	24V	27V	48V			
	RATED CURRENT	40A	40A	26.7A	16.7A	14.9A	13.4A	8.4A	7.5A	4.2A			
	CURRENT RANGE	0 ~ 40A	0 ~ 40A	0 ~ 26.7A	0 ~ 16.7A	0 ~ 14.9A	0 ~ 13.4A	0 ~ 8.4A	0 ~ 7.5A	0~4.2A			
	RATED POWER	132W	200W	200.2W	200.4W	201.1W	201W	201.6W	202.5W	201.6W			
	RIPPLE & NOISE (max.) Note.2	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	150mVp-p	150mVp-p	250mVp-p			
OUTPUT	VOLTAGE ADJ. RANGE	3.14 ~ 3.63V	4.75 ~ 5.5V	7.13 ~ 8.25V	11.4 ~ 13.2V	12.8 ~ 14.9V	14.3 ~ 16.5V	22.8 ~ 26.4V	25.7 ~ 29.7V	45.6 ~ 52.8			
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%			
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%			
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%			
	SETUP, RISE TIME	600ms, 30ms	at full load					1(2)					
	HOLD TIME (Typ.)	20ms at full lo	20ms at full load										
	VOLTAGE RANGE	85 ~ 264VAC											
	FREQUENCY RANGE	47 ~ 63Hz											
	POWER FACTOR (Typ.)	PF>0.93/230VAC PF>0.98/115VAC at full load											
INPUT	EFFICIENCY (Typ.)	65%	71%	76%	79%	80%	81%	83%	83%	84%			
• .	AC CURRENT (Typ.)	3.5A/115VAC 1.7A/230VAC											
	INRUSH CURRENT (Typ.)		40A/230VAC		CAL	\							
	LEAKAGE CURRENT	<2mA / 240VA			$\overline{}$				\				
			105 ~ 150% rated output power										
	OVER LOAD			current limiting,	recovers autor	natically after fa	ault condition is	s removed					
		71		0,					29 7 ~ 36 45V	52 8 ~ 64 8			
PROTECTION	OVER VOLTAGE	3.63 ~ 4.46V 5.5 ~ 6.75V 8.25 ~ 10.13V 13.2 ~ 16.2V 14.85 ~ 18.2V 16.5 ~ 20.25V 26.4 ~ 32.4V 29.7 ~ 36.45V 52.8 ~ 64.8V Protection type: Shut down o/p voltage, re-power on to recover											
		95°C ±5°C (TSW1: Detect on heatsink of power transistor)											
	OVER TEMPERATURE	Protection type: Shut down o/p voltage, recovers automatically after temperature goes down											
FUNCTION	REMOTE CONTROL(OPTION)												
	WORKING TEMP.	-10 ~ +60°C (Refer to output load derating curve)											
	WORKING HUMIDITY	20 ~ 90% RH non-condensing											
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-20 ~ +85°C,		Č \				1					
	TEMP. COEFFICIENT	±0.05%°C (0~50°C)											
	VIBRATION	,		cle, 60min. eac	h along X. Y. Z	axes	C						
	SAFETY STANDARDS		-	1 and S-MARK			10						
	WITHSTAND VOLTAGE			5KVAC O/P-	- ''	C				100			
SAFETY &	ISOLATION RESISTANCE			0M Ohms/500V						10			
EMC	EMI CONDUCTION & RADIATION		-,	ISPR22) Class					AG \				
(Note 4)	HARMONIC CURRENT	· ·	o EN61000-3-2	· ·									
	EMS IMMUNITY	· ·		2,3,4,5,6,8,11;	ENV50204. EN	155024. Light in	dustry level.	riteria A					
	MTBF	183.8K hrs m		BK-217F (25°C	· · · · · · · · · · · · · · · · · · ·	, .		(
OTHERS	DIMENSION	199*99*50mm		12			, 1						
	PACKING		s/17.9Kg/1.28	CUFT									
	All parameters NOT specia	0. 1	-		out rated load	l and 25°C of a	mbient tempe	rature		1			
NOTE	Ripple & noise are measure Tolerance : includes set up The power supply is considered. EMC directives.	ed at 20MHz o tolerance, line	of bandwidth be regulation ar	by using a 12" i nd load regulati	wisted pair-win	re terminated v	vith a 0.1uf &	47uf parallel c		still meets			

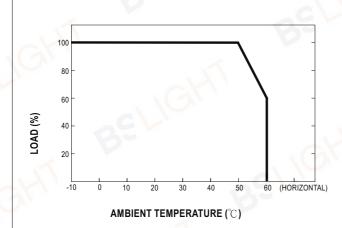
Terminal pin number assignment :

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,5	DC OUTPUT -V
2	AC/N	6,7	DC OUTPUT +V
3	FG ≟		1

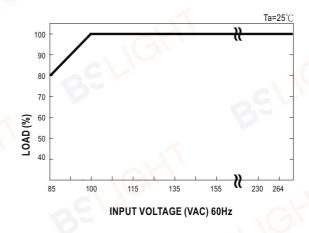
Remote ON/OFF(CN1):JST S2B-XH or equivalent(optional)

Pin No.	Assignment	Mating Housing	Terminal
1	RC+	JST XHP	JST SXH-001T-P0.6
2	RC-	or equivalent	or equivalent

■ Derating Curve



■ Output Derating VS Input Voltage



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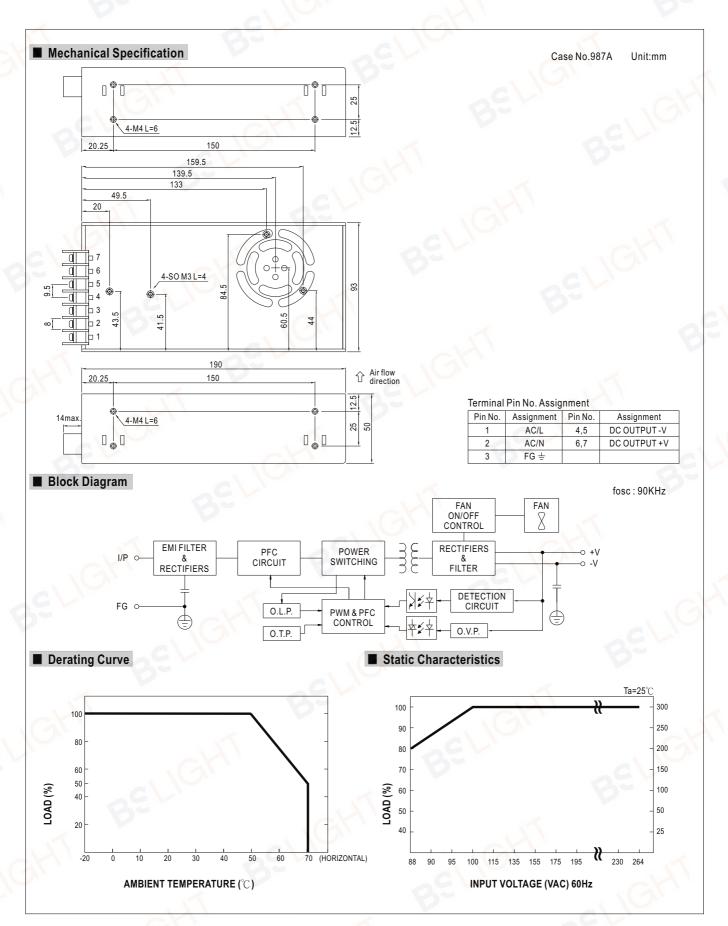


- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC Fan
- Built-in fan ON / OFF control
- LED indicator for power on
- Fixed switching frequency at 90KHz
- 3 years warranty



SPECIFICATION

MODEL		SP-240-5	SP-240-7.5	SP-240-12	SP-240-15	SP-240-24	SP-240-30	SP-240-48					
	DC VOLTAGE	5V	7.5V	12V	15V	24V	30V	48V					
	RATED CURRENT	45A	32A	20A	16A	10A	8A	5A					
	CURRENT RANGE	0 ~ 45A	0 ~ 32A	0 ~ 20A	0 ~ 16A	0 ~ 10A	0 ~ 8A	0 ~ 5A					
	RATED POWER	225W	240W	240W	240W	240W	240W	240W					
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p					
OUTPUT	VOLTAGE ADJ. RANGE	4 ~ 6V	6~9V	10 ~ 14V	12 ~ 18V	20 ~ 28V	27 ~ 33V	41 ~ 56V					
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%					
	LINE REGULATION	±0.5%	±0.5%	±0.3%	±0.3%	±0.2%	±0.2%	±0.2%					
	LOAD REGULATION	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%					
	SETUP, RISE TIME	800ms, 50ms/2	30VAC 1500	0ms, 50ms/115VA	C at full load		1(3)						
	HOLD UP TIME (Typ.)	20ms/230VAC	20ms/115VA	C at full load									
	VOLTAGE RANGE Note.5	88 ~ 264VAC	124 ~ 370VDC										
	FREQUENCY RANGE	47~63Hz											
	POWER FACTOR (Typ.)	PF>0.95/230VA	F>0.95/230VAC PF>0.98/115VAC at full load										
INPUT	EFFICIENCY (Typ.)	79%	83%	86%	86%	87%	88%	89%					
	AC CURRENT (Typ.)	3.6A/115VAC 1.8A/230VAC											
	INRUSH CURRENT (Typ.)	25A/115VAC 40A/230VAC											
	LEAKAGE CURRENT	<2mA/240VAC	2mA / 240VAC										
		105 ~ 135% rate	ed output power			× (311						
	OVERLOAD	Protection type	: Hiccup mode, re	ecovers automatic	ally after fault con	dition is removed	<i></i>						
		6.3 ~ 7.5V	9.4 ~ 10.9V	14.7 ~ 17.5V	19 ~ 22.5V	29.5 ~ 35V	34.7 ~ 41V	57.6 ~ 67.2V					
PROTECTION	OVER VOLTAGE	Protection type	: Shut down o/p v	oltage, re-power	on to recover		<u>'</u>						
		90°C ±5°C (5V,7	′.5V), 85°C ±5°C ((12V,15V,24V,30V	,48V) (TSW1 : det	ect on heatsink of p	oower transistor)	× (
	OVER TEMPERATURE	Protection type: Shut down o/p voltage, recovers automatically after temperature goes down											
FUNCTION	FAN CONTROL	RTH2 \ge 40°C FAN ON, \le 35°C FAN OFF(Typ.)											
	WORKING TEMP.	-20 ~ +70°C (Refer to output load derating curve)											
	WORKING HUMIDITY	20 ~ 90% RH non-condensing											
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH											
	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)											
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes											
	SAFETY STANDARDS	UL60950-1, TU	V EN60950-1 apr	oroved		100							
	WITHSTAND VOLTAGE			AC O/P-FG:0.5h	(VAC			10					
SAFETY &	ISOLATION RESISTANCE			0hms / 500VDC / 2									
EMC	EMI CONDUCTION & RADIATION	,	EN55022 (CISPR										
(Note 4)	HARMONIC CURRENT	•	EN61000-3-2,-3	, , , , , , , , , , , , , , , , , , , ,				_					
	EMS IMMUNITY	· '		.5.6.8.11: ENV50	204. EN55024. ligh	nt industry level, cr	iteria A						
	MTBF	284K hrs min.			,,,	,,,							
OTHERS	DIMENSION	190*93*50mm (. (200)		111							
CHILKO	PACKING	,	5.4Kg/1.04CUFT										
NOTE	All parameters NOT specia Ripple & noise are measure Tolerance: includes set up The power supply is consid EMC directives. Derating may be needed up	Illy mentioned are ed at 20MHz of b tolerance, line re lered a compone	e measured at 23 pandwidth by usin egulation and load nt which will be in	OVAC input, rateding a 12" twisted pad regulation.	air-wire terminated equipment. The f	with a 0.1uf & 47u inal equipment must	f parallel capacitor						





- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC Fan
- Built-in fan speed control
- Fixed switching frequency at 100KHz
- 3 years warranty

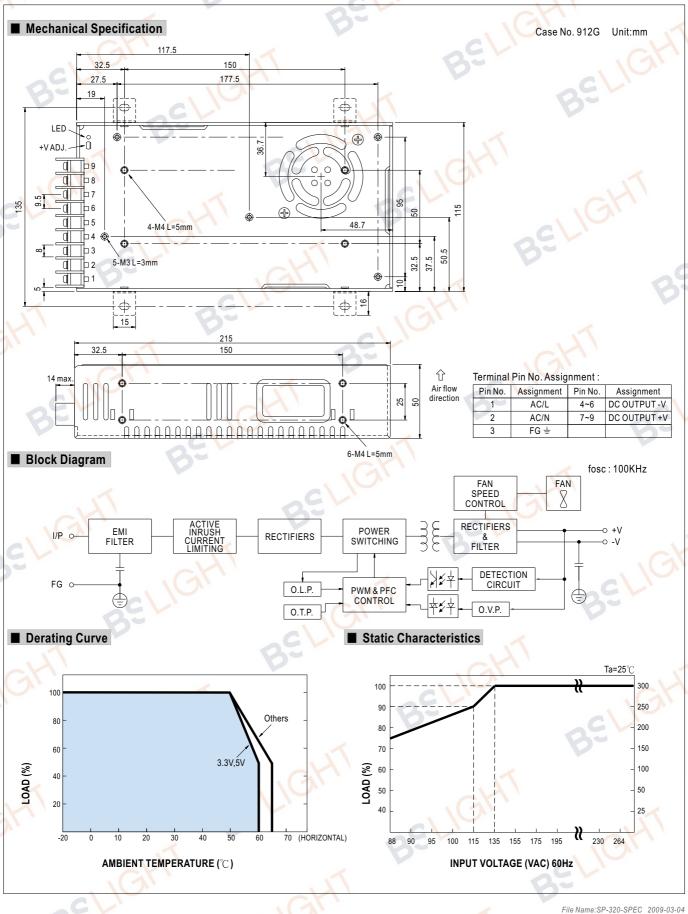
SPECIFICATION	25	R . N us	A GENERAL GENE	CE

	MODEL			SP-320-3.3	SP-320-5	SP-320-7.5	SP-320-12	SP-320-13.5	SP-320-15	SP-320-24	SP-320-27	SP-320-36	SP-320-48	
		DC VOLTAGE		3.3V	5V	7.5V	12V	13.5V	15V	24V	27V	36V	48V	
		RATED CURRENT		55A	55A	40A	25A	22A	20A	13A	11.7A	8.8A	6.7A	
		CURRENT RANGE		0 ~ 60A	0 ~ 55A	0 ~ 40A	0 ~ 25A	0 ~ 22A	0 ~ 20A	0 ~ 13A	0 ~ 11.7A	0 ~ 8.8A	0 ~ 6.7A	
		RATED POWER		181.5W	275W	300W	300W	297W	300W	312W	315.9W	316.8W	321.6W	
		RIPPLE & NOISE (1	nax.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	220mVp-p	240mVp-p	
	OUTPUT	VOLTAGE ADJ. RA	NGE	3.14 ~ 3.63V	4.5 ~ 5.5V	6 ~ 9V	10 ~ 13.2V	12 ~ 15V	13.5 ~ 18V	20 ~ 26.4V	26 ~ 31.5V	32.4 ~ 39.6V	41 ~ 56V	
		VOLTAGE TOLERA	NCE Note.3	±1.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
Ů	Y .	LINE REGULATION	V	±0.5%	±0.5%	±0.5%	±0.3%	±0.3%	±0.3%	±0.2%	±0.2%	±0.2%	±0.2%	
		LOAD REGULATIO	N	±1.5%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
		SETUP, RISE TIME		800ms, 50ms/230VAC 2500ms, 50ms/115VAC at full load										
		HOLD UP TIME (Ty	/p.)	16ms/230VAC 16ms/115VAC at full load										
	0	VOLTAGE RANGE	Note.5	88 ~ 264VAC124 ~ 370VDC										
		FREQUENCY RAN	GE	47 ~ 63Hz										
		POWER FACTOR (Тур.)	PF>0.95/23	F>0.95/230VAC PF>0.98/115VAC at full load									
	INPUT	EFFICIENCY (Typ.)	74%	79%	83%	86%	86%	86%	87%	88%	87%	89%	
	INFUI	AC CURRENT	115VAC	2.5A	5A		10				. 1			
		(Typ.)	230VAC	1.5A	2.5A									
		INRUSH CURRENT	Г (Тур.)	20A/115VAC 40A/230VAC										
		LEAKAGE CURRE	NT	<1mA/240VAC										
	. 1	OVERLOAD		105 ~ 135% rated output power Protection type: Hiccup mode, recovers automatically after fault condition is removed										
	C	OVERLOAD												
	PROTECTION	OVER VOLTAGE		3.8 ~ 4.5V	5.75 ~ 6.75V	9.4 ~ 10.9V	13.8 ~ 16.2V	15.5 ~ 18.2V	18 ~ 21V	27.6 ~ 32.4V	33.7 ~ 39.2V	45 ~ 52.5V	57.6 ~ 67.2V	
	PROTECTION	OVER VOLIAGE		Protection t	ype : Shut do	wn o/p volta	ge, re-power	on to recove	r					
		OVER TEMPERAT	IIRF	80°C ±5°C (70°C ±5°C 3.3V,5V only) (TSW1 : detect on heatsink of power transistor)										
		OVER TEIM ERAT		Protection type: Shut down o/p voltage, recovers automatically after temperature goes down										
		WORKING TEMP.		-20 ~ +65°C (Refer to output load derating curve)										
		WORKING HUMID		20 ~ 90% RH non-condensing										
	ENVIRONMENT	STORAGE TEMP.,		-40 ~ +85°C, 10 ~ 95% RH										
		TEMP. COEFFICIE	NT	±0.03%/℃ (0~50℃)										
	(N)	VIBRATION					n. each along		1 11	<u> </u>				
		SAFETY STANDAR					B4943 appro							
	SAFETY &	WITHSTAND VOLT					O/P-FG:0.5							
	EMC	ISOLATION RESIS		I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH										
	(Note 4)	EMI CONDUCTION &				(CISPR22)	Class B							
		HARMONIC CURR	ENT	· ·	to EN61000									
		EMS IMMUNITY		Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A										
	17	MTBF		207K hrs m		DBK-217F (2	rC)							
	OTHERS	DIMENSION		mm (L*W*H)				11-	11					
	11	PACKING		1.1Kg; 12pcs/14Kg/0.92CUFT										
	NOTE	1.1kg; 12pcs/14kg/0.92CUF1 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance: includes set up tolerance, line regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 5. Derating may be needed under low input voltages. Please check the derating curve for more details.												

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