

■ Features :

- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage / Input reverse polarity
- 4000VDC I/O isolation
- Cooling by free air convection
- Built-in constant current limiting circuit
- 1U low profile 36mm
- Compliance to EN50155 railway certificate
- All using 105°C long life electrolytic capacitors
- LED indicator for power on
- 100% full load burn-in test
- 3 years warranty


SPECIFICATION

MODEL			RSD-50A-5	RSD-50A-12	RSD-50A-24	RSD-50B-5	RSD-50B-12	RSD-50B-24
OUTPUT	DC VOLTAGE		5V	12V	24V	5V	12V	24V
	RATED CURRENT		10A	4.2A	2.1A	10A	4.2A	2.1A
	CURRENT RANGE		0 ~ 10A	0 ~ 4.2A	0 ~ 2.1A	0 ~ 10A	0 ~ 4.2A	0 ~ 2.1A
	RATED POWER		50W	50.4W	50.4W	50W	50.4W	50.4W
	RIPPLE & NOISE (max.) Note.2		100mVp-p	120mVp-p	150mVp-p	100mVp-p	120mVp-p	150mVp-p
	VOLTAGE TOLERANCE Note.3		±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%
	LINE REGULATION		±0.5%	±0.3%	±0.2%	±0.5%	±0.3%	±0.2%
	LOAD REGULATION		±0.5%	±0.3%	±0.2%	±0.5%	±0.3%	±0.2%
	SETUP, RISE TIME		800ms, 50ms at full load					
HOLD UP TIME (Typ.)		3 ~ 30ms @ full load ; comply with S1 level						
INPUT	VOLTAGE RANGE	CONTINUOUS	8.4 ~ 15.6VDC				16.8 ~ 31.2VDC	
		1 SEC.	7.2 ~ 16.8VDC				14.4 ~ 33.6VDC	
	EFFICIENCY (Typ.)		86%	87%	87%	87%	88%	88%
	DC CURRENT (Typ.)		4.9A/12V	4.9A/12V	4.9A/12V	2.4A/24V	2.4A/24V	2.4A/24V
	INRUSH CURRENT (Typ.)		20A/12VDC				20A/24VDC	
PROTECTION	OVERLOAD		105 ~ 135% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed					
	OVER VOLTAGE		5.75 ~ 7V	13.8 ~ 16.2V	27.6 ~ 32.4V	5.75 ~ 7V	13.8 ~ 16.2V	27.6 ~ 32.4V
			Protection type : Shut down o/p voltage, re-power on to recover					
ENVIRONMENT	WORKING TEMP.		-40 ~ +55℃ (no derating) ; +70℃ @ 60% load by free air convection ; +70℃ (no derating with external base plate)					
	WORKING HUMIDITY		20 ~ 95% RH non-condensing					
	STORAGE TEMP., HUMIDITY		-40 ~ +85℃, 10 ~ 95% RH					
	TEMP. COEFFICIENT		±0.03%/℃ (0 ~ 50℃)					
	VIBRATION		10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes ; Mounting : compliance to IEC61373					
SAFETY & EMC (Note 4)	SAFETY STANDARDS		Design refer to IEC60950-1, EN50155 (IEC60571)					
	WITHSTAND VOLTAGE		I/P-O/P:4KVDC I/P-FG:2.5KVDC O/P-FG:2.5KVDC					
	ISOLATION RESISTANCE		I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH					
	EMC EMISSION		Compliance to EN55022 (CISPR22) Conduction Emission: Class B, Radiation Emission: Class B ; EN50155(EN50121-3-2)					
OTHERS	EMC IMMUNITY		Compliance to EN61000-4-2,3,4,6,8; ENV50204, EN50155(EN50121-3-2), light industry level, criteria A					
	MTBF		K hrs min. MIL-HDBK-217F (25℃)					
	DIMENSION		129*68*33mm (L*W*H)					
	PACKING		Kg					
NOTE	1. All parameters NOT specially mentioned are measured at 12,24,48,110VDC input, rated load and 25℃ 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.							

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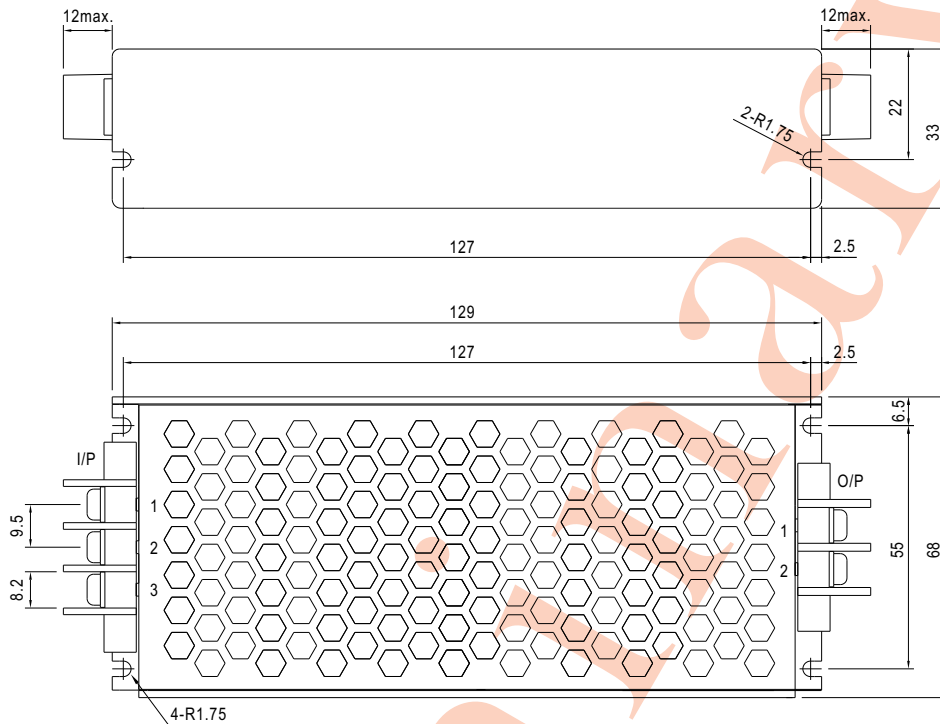


SPECIFICATION

MODEL			RSD-50C-5	RSD-50C-12	RSD-50C-24	RSD-50D-5	RSD-50D-12	RSD-50D-24
OUTPUT	DC VOLTAGE		5V	12V	24V	5V	12V	24V
	RATED CURRENT		10A	4.2A	2.1A	10A	4.2A	2.1A
	CURRENT RANGE		0 ~ 10A	0 ~ 4.2A	0 ~ 2.1A	0 ~ 10A	0 ~ 4.2A	0 ~ 2.1A
	RATED POWER		50W	50.4W	50.4W	50W	50.4W	50.4W
	RIPPLE & NOISE (max.) Note.2		100mVp-p	120mVp-p	150mVp-p	100mVp-p	120mVp-p	150mVp-p
	VOLTAGE TOLERANCE Note.3		±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%
	LINE REGULATION		±0.5%	±0.3%	±0.2%	±0.5%	±0.3%	±0.2%
	LOAD REGULATION		±0.5%	±0.3%	±0.2%	±0.5%	±0.3%	±0.2%
	SETUP, RISE TIME		800ms, 50ms at full load					
HOLD UP TIME (Typ.)		3 ~ 30ms @ full load ; comply with S1 level						
INPUT	VOLTAGE RANGE	CONTINUOUS	33.6 ~ 62.4VDC				67.2 ~ 143VDC	
		1 SEC.	28.8 ~ 67.2VDC				57.6 ~ 154VDC	
	EFFICIENCY (Typ.)		88%	90%	90%	89%	90%	89%
	DC CURRENT (Typ.)		1.2A/48V	1.2A/48V	1.2A/48V	0.6A/110V	0.6A/110V	0.6A/110V
	INRUSH CURRENT (Typ.)		20A/48VDC				20A/110VDC	
PROTECTION	OVERLOAD		105 ~ 135% rated output power					
			Protection type : Constant current limiting, recovers automatically after fault condition is removed					
	OVER VOLTAGE		5.75 ~ 7V	13.8 ~ 16.2V	27.6 ~ 32.4V	5.75 ~ 7V	13.8 ~ 16.2V	27.6 ~ 32.4V
Protection type : Shut down o/p voltage, re-power on to recover								
ENVIRONMENT	WORKING TEMP.		-40 ~ +55℃ (no derating) ; +70℃ @ 60% load by free air convection ; +70℃ (no derating with external base plate)					
	WORKING HUMIDITY		20 ~ 95% RH non-condensing					
	STORAGE TEMP., HUMIDITY		-40 ~ +85℃, 10 ~ 95% RH					
	TEMP. COEFFICIENT		±0.03%/℃ (0 ~ 50℃)					
	VIBRATION		10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes ; Mounting : compliance to IEC61373					
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	ISOLATION RESISTANCE		I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH					
	EMC EMISSION		Compliance to EN55022 (CISPR22) Conduction Emission: Class B, Radiation Emission: Class B ; EN50155(EN50121-3-2)					
OTHERS	EMC IMMUNITY		Compliance to EN61000-4-2,3,4,6,8; ENV50204, EN50155(EN50121-3-2), light industry level, criteria A					
	MTBF		K hrs min. MIL-HDBK-217F (25℃)					
	DIMENSION		109*68*33mm (L*W*H)					
	PACKING		Kg					
NOTE	1. All parameters NOT specially mentioned are measured at 12,24,48,110VDC input, rated load and 25℃ 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.							

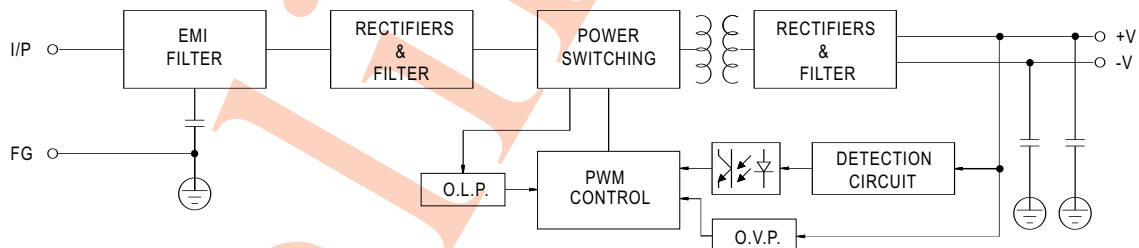
Mechanical Specification

Case No. Unit:mm

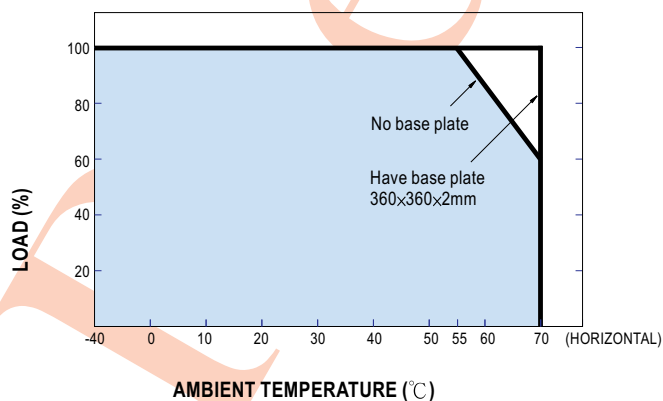


Block Diagram

fosc: 130KHz



Derating Curve



Static Characteristics(RSD-50D-24)

