



# 200W Railway Single Output DC-DC Converter

# RSD-200 series



### ■ Features :

- Compliance to BS EN/EN50155 and BS EN/EN45545-2 railway standard
- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage / Over temperature / Input reverse polarity
- 4000VDC I/O isolation
- Cooling by free air convection
- Half encapsulated
- Built-in constant current limiting circuit
- 1U low profile 40mm
- All using 105°C long life electrolytic capacitors
- LED indicator for power on
- 100% full load burn-in test
- 3 years warranty



### ■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>



### SPECIFICATION

MODEL		RSD-200B-12	RSD-200B-24	RSD-200B-48	RSD-200C-12	RSD-200C-24	RSD-200C-48	RSD-200D-12	RSD-200D-24	RSD-200D-48
OUTPUT	DC VOLTAGE	12V	24V	48V	12V	24V	48V	12V	24V	48V
	RATED CURRENT	16.7A	8.4A	4.2A	16.7A	8.4A	4.2A	16.7A	8.4A	4.2A
	CURRENT RANGE	0 ~ 16.7A	0 ~ 8.4A	0 ~ 4.2A	0 ~ 16.7A	0 ~ 8.4A	0 ~ 4.2A	0 ~ 16.7A	0 ~ 8.4A	0 ~ 4.2A
	RATED POWER	200.4W	201.6W	201.6W	200.4W	201.6W	201.6W	200.4W	201.6W	201.6W
	RIPPLE & NOISE (max.) Note.2	120mVp-p	150mVp-p	180mVp-p	120mVp-p	150mVp-p	180mVp-p	120mVp-p	150mVp-p	180mVp-p
	VOLTAGE TOLERANCE Note.3	± 2.0%	± 2.0%	± 2.0%	± 2.0%	± 2.0%	± 2.0%	± 2.0%	± 2.0%	± 2.0%
	LINE REGULATION	± 0.2%	± 0.2%	± 0.5%	± 0.2%	± 0.2%	± 0.5%	± 0.2%	± 0.2%	± 0.5%
	LOAD REGULATION	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%
	SETUP, RISE TIME	800ms, 50ms at full load								
HOLD UP TIME (Typ.)	Please refer to page 3 Hold up Time( Load de-rating curve )									
INPUT	VOLTAGE RANGE	CONTINUOUS 16.8 ~ 31.2VDC			33.6 ~ 62.4VDC			67.2 ~ 143VDC		
		1 SEC. 14.4 ~ 33.6VDC			28.8 ~ 67.2VDC			57.6 ~ 154VDC		
	EFFICIENCY (Typ.)	89%	89%	89%	91%	91%	91%	91%	91%	91%
	DC CURRENT (Typ.)	9.6A/24V	9.6A/24V	9.6A/24V	4.8A/48V	4.8A/48V	4.8A/48V	2.1A/110V	2.1A/110V	2.1A/110V
	INRUSH CURRENT (Typ.)	45A/24VDC			45A/48VDC			45A/110VDC		
INTERRUPTION OF VOLTAGE SUPPLY	EN50155:2007-B/C- type comply with S1 level @ full load, comply with S2 level @ 70% load ; D-type comply with S2 level @ full load EN50155:2017-Comply with S1 level									
PROTECTION	OVERLOAD	105 ~ 135% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed								
	OVER VOLTAGE	13.8 ~ 16.2V	27.6 ~ 32.4V	55.2 ~ 64.8V	13.8 ~ 16.2V	27.6 ~ 32.4V	55.2 ~ 64.8V	13.8 ~ 16.2V	27.6 ~ 32.4V	55.2 ~ 64.8V
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down								
ENVIRONMENT	WORKING TEMP.	-40 ~ +55°C (no derating) ; +70°C @ 60% load by free air convection ; +70°C no derating with external base plate, TX class compliance								
	WORKING HUMIDITY	5 ~ 95% RH non-condensing								
	STORAGE TEMP.	-40 ~ +85°C								
	TEMP. COEFFICIENT	± 0.03%/°C (0 ~ 50°C)								
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes ; Mounting : compliance to IEC61373								
OPERATING ALTITUDE	5000 meters									
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL 62368-1, IEC 62368-1, AS/NZS 62368-1, EAC TP TC 004 approved, Design refer to BS EN/EN62368-1								
	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°C / 70% RH								
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Conduction Emission: Class A, Radiation Emission: Class B, EAC TP TC 020								
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8, light industry level, EAC TP TC 020								
	RAILWAY STANDARD	BS EN/EN50155 / IEC60571 including IEC61373 for shock & vibration, BS EN/EN50121-3-2 for EMC ; BS EN/EN45545-2 for fire protection								
OTHERS	MTBF	2125.5K hrs min. Telcordia SR-332 (Bellcore) ; 218.2K hrs min. MIL-HDBK-217F (25°C)								
	DIMENSION	191*86*40mm (L*W*H)								
	PACKING	0.94Kg; 12pcs/12.3Kg/0.73CUFT								
NOTE	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 24,48,110VDC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</li> <li>5. Strongly recommended that external output capacitance should not exceed 5000uF. (Only for: RSD-200-12)</li> <li>6. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</li> </ol> ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>									