200W Single Output Switching Power Supply **DRS-200** series

■ Features

AC input range selectable by switch
Withstand 300VAC surge input for 5 second
No load power consumption<0.75W
Miniature size and 1U low profile High operating temperature up to 70 ℃
Protections: Short circuit / Overload / Over voltage/Over temperature protection etc
Cooling by free air convection
Compliance to IEC/EN 60335-1(PD3) and IEC/EN61558-1, 2-16 for household appliances
Operating altitude up to 5000 meters
Withstand 5G vibration test
High efficiency, long life and high reliability
LED indicator for power on
100% full load burn-in test
2 years warranty

■ Applications

Industrial automation machinery Industrial control system
Mechanical and electrical equipment Electronic instruments, equipments or Apparatus
Household appliances

■ Description

DRS-200 series is a 200W single-output enclosed type power supply with 30mm of low profile design.
Adopting the input of 115VAC or 230VAC(selectable by switch), the entire series provides an output voltage line of 12V, 15V, 24V, 36V and 48V.
In addition to the high efficiency up to 90%, the design of metallic mesh case enhances the heat dissipation of DRS-200 that the whole series operates from - 30℃ through 70℃ under air convection without a fan.
Delivering an extremely low no load power consumption (less than 0.75W), it allows the end system to easily meet the worldwide energy requirement. DRS-200 has the complete protection functions and 5G anti-vibration capability;
It is complied with the international safety regulations such as TUV EN60950-1,EN60335-1,EN61558-1/-2-16, UL60950-1 and GB4943. DRS-200 series serves as a high price-to-performance power supply solution for various industrial applications.

■ Model Encoding

DRS - 200 - 12

- 12 — Output voltage
- 200 — Output wattage
- DRS — Series name

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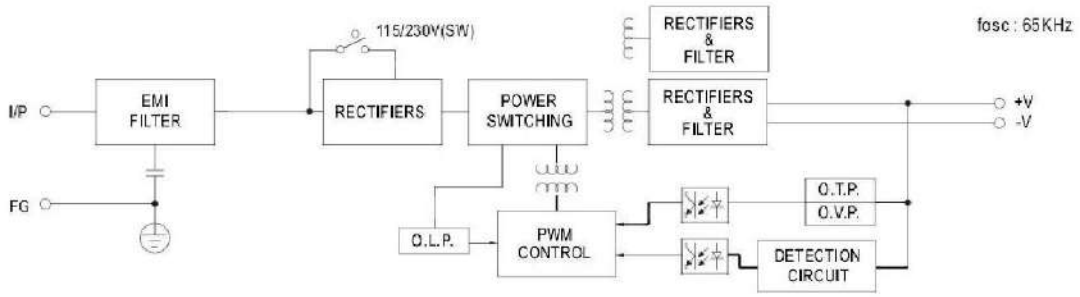
SPECIFICATION

MODEL		DRS-200-5	DRS-200-12	DRS-200-24	DRS-200-36	DRS-200-48
OUTPUT	DC VOLTAGE	5V	12V	24V	36V	48V
	RATED CURRENT	40A	16.7A	8.8A	5.9A	4.4A
	CURRENT RANGE	0 ~ 4.0A	0 ~ 16.7A	0 ~ 8.8A	0 ~ 5.9A	0 ~ 4.4A
	RATED POWER	200W	200W	200W	200W	200W
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p
	VOLTAGE ADJ. RANGE	4.5 ~ 5.6V	10.2 ~ 13.8V	21.6 ~ 28.8V	32.4 ~ 39.6V	43.2 ~ 52.8V
	VOLTAGE TOLERANCE Note.3	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION Note.4	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION Note.5	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	500ms, 30ms/230VAC 500ms,30ms/115VAC at full load				
	HOLD UP TIME (Typ.)	16ms/230VAC 12ms/115VAC at full load				
INPUT	VOLTAGE RANGE	85 ~ 132VAC / 170 ~ 264VAC by switch 240 ~ 370VDC(switch on 230VAC)				
	FREQUENCY RANGE	47 ~ 63Hz				
	EFFICIENCY (Typ.)	79%	85.0%	87%	89%	89%
	AC CURRENT (Typ.)	4.0A/115VAC 2.2A/230VAC				
	INRUSH CURRENT (Typ.)	COLD STAR 60A/230VAC				
	LEAKAGE CURRENT	<2.0mA / 240VAC				
PROTECTION	OVER LOAD	110 ~ 140% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed				
	OVER VOLTAGE	5.7 ~ 7.0V	13.8 ~ 16.2V	28.8 ~ 33.6V	41.4 ~ 48.6V	55.2 ~ 64.8V
		Protection type : Shut down o/p voltage, re-power on to recover				
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover				
ENVIRONMENT	WORKING TEMP.	-30 ~ +70℃ (Refer to "Derating Curve")				
	WORKING HUMIDITY	20 ~ 90% 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				
SAFETY & EMC (Note 7)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1, EN60335-1, EN61558-1 /-2-16,CCC GB4943 approved				
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/ P-FG:2 KVAC O/P-FG:1.25 KVAC				
	ISOLATION RESISTANCE	I/ P-O/P, I/ P-FG, O/P-FG:100M Ohms / 500VDC / 25 ℃/ 70% RH				
	EMC EMISSION	Compliance to EN55022 (CISPR22), GB9254 Class B, EN55014, EN61000-3-2Class A(≤75% Load),EN61000-3-3				
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), heavy industry level				
OTHERS	MTBF	601K h r s min. MIL-HDBK-217F (25 ℃)				
	DIMENSION	215*115*30mm (L*W*H)				
	PACKING	0.6Kg ; 30pcs/19.0Kg/38*25*38.5CM				

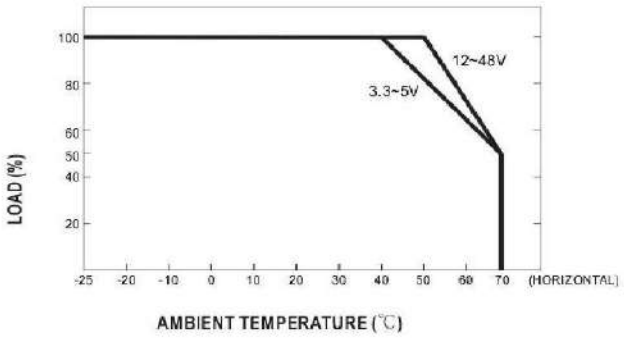
NOTE

1. All parameters NOT specially mentioned are measured at 230VAC 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. Line regulation is measured from low line to high line at rated load.
5. Load regulation is measured from 0% to 100% rated load.
6. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quickly may lead to increase of the set up time.
7. 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 tes ng of component power supplies.
8. The ambient temperature derating of 5℃/1000m is needed for operating altitude greater than 2000m (6500ft).

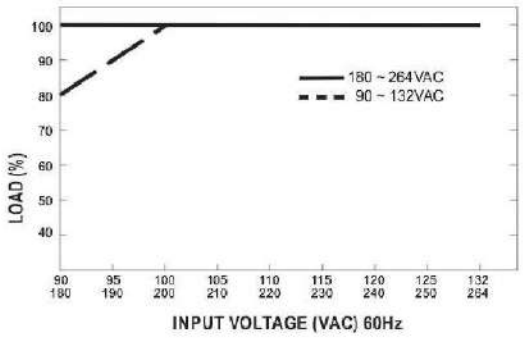
■ Block Diagram



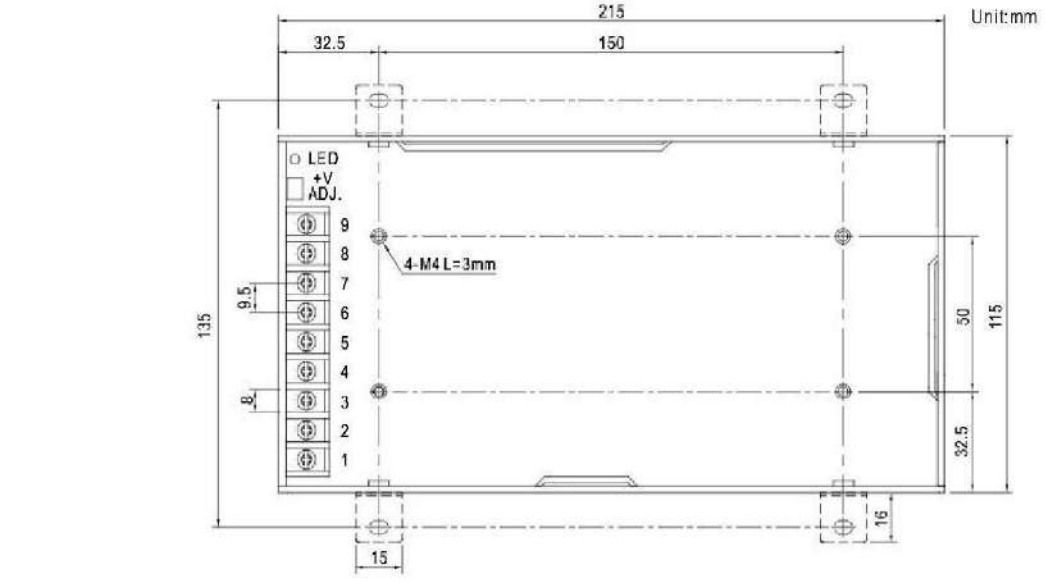
■ Derating Curve

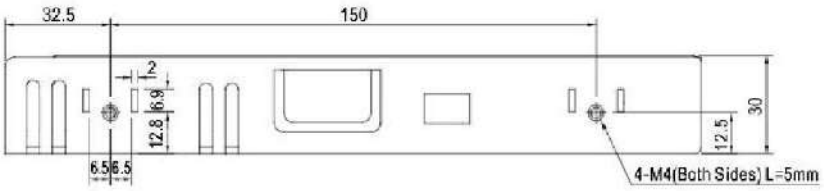


■ Static Characteristics



■ Mechanical Specification





Terminal Pin No. Assignment :

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4~6	DC OUTPUT -V
2	AC/N	7~9	DC OUTPUT +V
3	FG ⏚		