# **LRS-150 Series**

150W Single Output Switching Power Supply



#### **Specification**

	Voltage	85V ~ 132VAC/170 ~ 264VAC by switch 240~370VDC (switch on 230VAC)							
INPUT	Frequency	47 ~ 63 Hz							
	Efficiency	87.5%	88.5%	89%	89%	90%			
	AC Current	2.8A /115VAC	1.6A/230VAC						
	Inrush Current (Typ.)	Cold Start 60A/230VAC							
	Leakage	<0.75mA/240VAC							
	MODEL No.	LRS-150-12	LRS-150-15	LRS-150-24	LRS-150-36	LRS-150-48			
OUTPUT	Voltage	12V	15V	24V	36V	48V			
	Rated Current	12.5A	10A	6.5A	4.3A	3.3A			
	Current Range	0~12.5A	0~10A	0~6.5A	0~4.3A	0~3.3A			
	Rated Power	150W	150W	156W	154.8W	158.4W			
	Ripple Noise MAX.	150mVp-p	150mVp-p	200mVp-p	200mVp-p	200mVp-p			
	Voltage Adj. Range	10.2~13.8V	13.5~18V	21.6~28.8V	32.4~39.6V	43.2~52.8V			
	Voltage Tolerance	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%			
	Line Regulation	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%			
	Load Regulation	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%			
	Setup Rise Time	500ms, 30ms/230VAC 500ms, 30ms/115VAC at full load							
	Hold Up Time	40ms/230VAC 35ms/115 at full load							
PROTECTION	Overload	110~140% rated output power							
		Protection Type: Hiccup mode, recovers automatically after fault condition is removed							
	Over Voltage	13.8~16.2V	18.75~21.75V	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	Shutdown o/p voltage, re-power on to recover							
ENVIRONMENT	Working Temp.	-30 ~ +70°C (Refer to "Derating Curve")							
	Working Humidity	20 ~ 90% RH non-condensing							
	Storage Temp., Humidity	-40 ~ +85°C, 10~95%RH							
	Temp. Co-efficient	±0.03%/°C (0~50°C)							
	Vibration	10~500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes							
SAFETY & EMC	Safety Standards	UL60950-1, TUV EN60950-1, EN60335-1, EN61558-1/-2-16, CCC GB4943 approved							
	Withstand Voltage	I/P-0/P:3.75KVAC I/P-FG:2KVAC 0/P-FG:1.25KVAC							
	Isolation Resistance	I/P-0P, I/P-FG, 0/P-FG:100M 0hms / 500VDC / 25°C / 70%RH							
	EMC Emission	Compliance to EN55022 (CISPR22), GB9254 Class B, EN55014, EN61000-3-2,-3							
	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), heavy industry level, criteria A							
	M.T.B.F.	601K hrs min. MIL-HDBK-217F (25°C)							
VITEKS	Packaging	0.48Kg; 30pcs/15.4Kg/0.75CUFT							

All parameters not specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
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.

The ambient temperature derating of 5°C/1000m is needed for operating altitude greater than 2000m (6500ft).
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. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies."

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**Mechanical Specification** 



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Terminal Pin No. 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 🛓		

Case No.241A

Unit:mm

### **Block Diagram**



#### **Derating Curve**



### **Static Characteristics**

