



MEAN WELL LRS-75-5 Single Output Switching Power Supply Owner's Manual

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75W Single Output Switching Power Supply
LRS – 75 series



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LRS-75-5 Single Output Switching Power Supply



https://www.meanwell.com/Upload/PDF/Enclosed_Type_EN.pdf



■ Features

- Universal AC input / Full range
- Withstand 300VAC surge input for 5 second
- No load power consumption<0.3W
- Miniature size and 1U low profile
- High operating temperature up to 70°C
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Compliance to IEC/BS EN/EN 60335-1(PD3) and IEC/BS EN/EN61558-1, -2-16 for household appliances
- Operating altitude up to 5000 meters (Note.7)
- Withstand 5G vibration test
- High efficiency, long life and high reliability
- LED indicator for power on
- Over voltage category III
- 100% full load burn-in test
- 3 years warranty

■ Applications

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

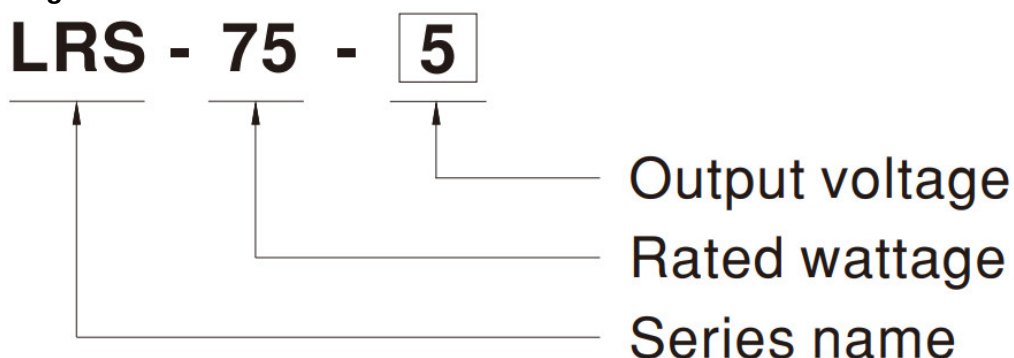
■ GTIN CODE

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

■ Description

LRS-75 series is a 75W single-output enclosed type power supply with 30mm of low profile design. Adopting the full range 85-264VAC input, the entire series provides an output voltage line of 5V, 12V, 15V, 24V, 36V and 48V. In addition to the high efficiency up to 91.5%, the design of metallic mesh case enhances the heat dissipation of LRS-75 that the whole series operates from -30°C through 70°C under air convection without a fan. Delivering an extremely low no load power consumption (less than 0.3W), it allows the end system to easily meet the worldwide energy requirement. LRS-75 has the complete protection functions and 5G anti-vibration capability; it is complied with the international safety regulations such as TUV BS EN/EN62368-1, BS EN/EN60335-1, BS EN/EN61558-1/-2-16, UL62368-1 and GB4943. LRS-75 series serves as a high price-to-performance power supply solution for various industrial applications.

■ Model Encoding



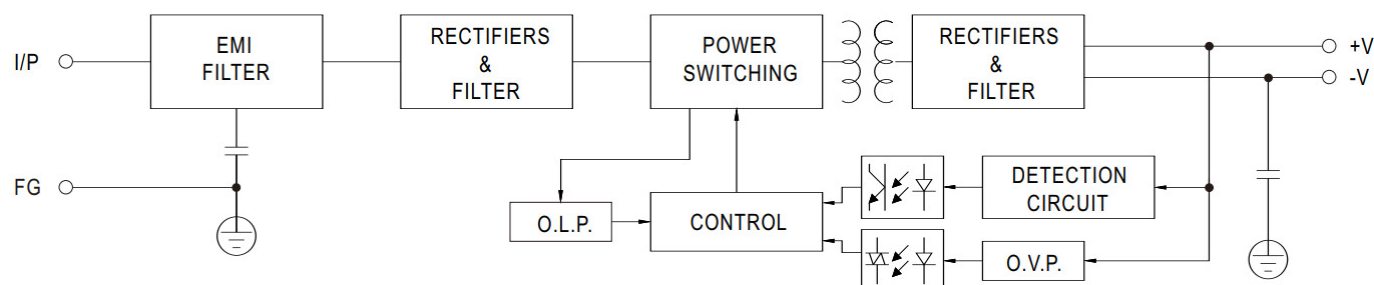
SPECIFICATION

MODEL		LRS-75-5	LRS-75-12	LRS-75-15	LRS-75-24	LRS-75-36	LRS-75-48
OUTP	DC VOLTAGE	5V	12V	15V	24V	36V	48V
	RATED CURRENT	14A	6A	5A	3.2A	2.1A	1.6A
	CURRENT RANGE	0 ~ 14A	0 ~ 6A	0 ~ 5A	0 ~ 3.2A	0 ~ 2.1A	0 ~ 1.6A
	RATED POWER	70W	72W	75W	76.8W	75.6W	76.8W
	RIPPLE & NOISE (max.) Note.2	100mVp-p	120mVp-p	120mVp-p	150mVp-p	200mVp-p	200mVp-p
	VOLTAGE ADJ. RANGE	4.5 ~ 5.5V	10.2 ~ 13.8V	13.5 ~ 18V	21.6 ~ 28.8V	32.4 ~ 39.6V	43.2 ~ 52.8V

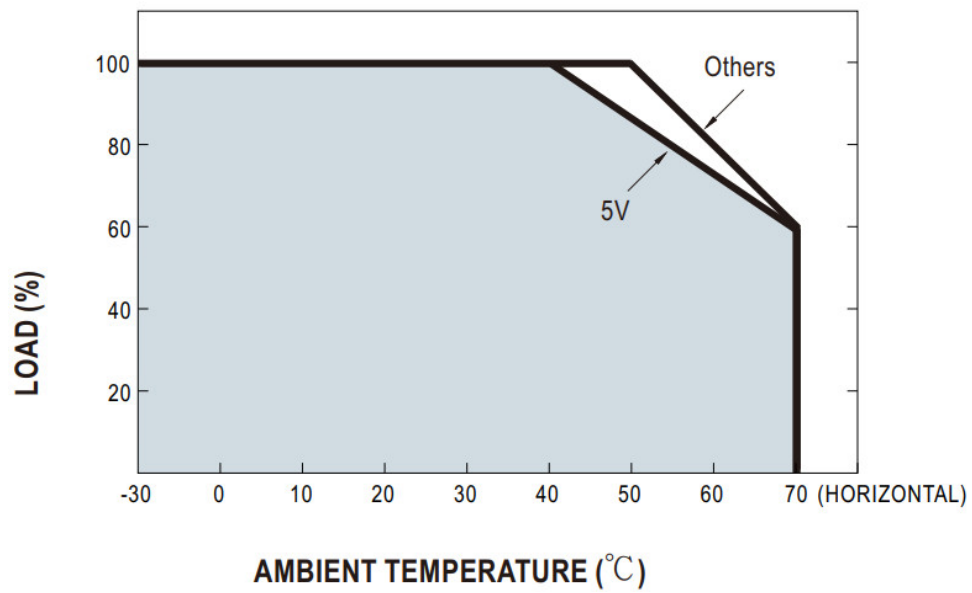
UT	VOLTAGE TOLERANCE Note.3	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION Note.4	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION Note.5	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	500ms, 30ms/230VAC 500ms,30ms/115VAC at full load					
	HOLD UP TIME (Typ.)	60ms/230VAC 12ms/115VAC at full load					
INPUT	VOLTAGE RANGE	85 ~ 264VAC 120 ~ 373VDC					
	FREQUENCY RANGE	47 ~ 63Hz					
	EFFICIENCY (Typ.)	86.5%	89%	89%	90%	91.5%	91.5%
	AC CURRENT (Typ.)	1.4A/115VAC 0.85A/230VAC					
	INRUSH CURRENT (Typ.)	COLD START 65A/230VAC					
	LEAKAGE CURRENT	<0.75mA / 240VAC					
PROTECTION	OVER LOAD	110 ~ 150% rated output power					
		Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE	5.75 ~ 6.75 V	13.8 ~ 16.2 V	18.75 ~ 21.75V	28.8 ~ 33.6 V	41.4 ~ 48.6 V	55.2 ~ 64.8 V
		Protection type : Shut down 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 non-condensing					
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)					
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes					

	OVER VOLTAGE CATEGORY	III; Compliance to BS EN/EN61558, BS EN/EN50178, BS EN/EN60664-1, BS EN/EN62477-1; altitude up to 2000 meters
SAFETY & EMC (Note 8)	SAFETY STANDARDS	UL62368-1, TUV BS EN/EN62368-1, BS EN/EN60335-1, BS EN/EN61558-1/-2-1 6, CCC GB4943.1, BSMI CNS15598-1, EAC TP TC 004, AS/NZS 62368.1 (by CB), KC62368-1, BIS IS13252 (Part1): 2010/IEC 60950-1: 2005 approved
	WITHSTAND VOLTAGE	I/P-O/P: 4KVAC I/P-FG: 2KVAC O/P-FG: 1.25KVAC
	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) Class B, BS EN/EN55014, BS EN/EN61000-3-2,-3, GB/T 9254, BSMI CNS15936, EAC TP TC 020, KC KSC 9832, KSC 9835
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2, 3, 4, 5, 6, 8, 11, BS EN/EN61000-6-2 (BS EN/EN50082-2), BS EN/EN55035, heavy industry level, EAC TP TC 020, KC KSC 9832, KSC 9835
OTHERS	MTBF	3334.3K hrs min. Telcordia SR-332 (Bellcore) ; 667.2K hrs min. MIL-HDBK-217F (25°C)
	DIMENSION	99*97*30mm (L*W*H)
	PACKING	0.25Kg ; 45pcs/ 12.25Kg/ 0.77CUFT
NOTE	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. Line regulation is measured from low line to high line at rated load.</p> <p>5. Load regulation is measured from 0% to 100% rated load.</p> <p>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.</p> <p>7. The ambient temperature derating of 5°C/1000m is needed for operating altitude greater than 2000m (6500ft).</p> <p>8. 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 http://www.meanwell.com)</p> <p>※ Product Liability Disclaimer: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p>	

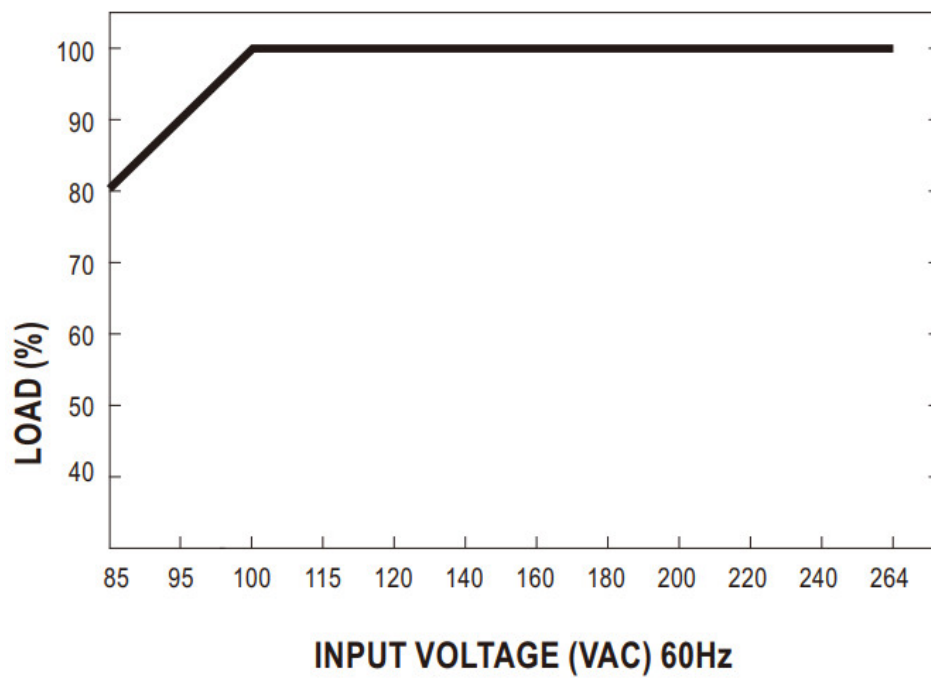
Block Diagram



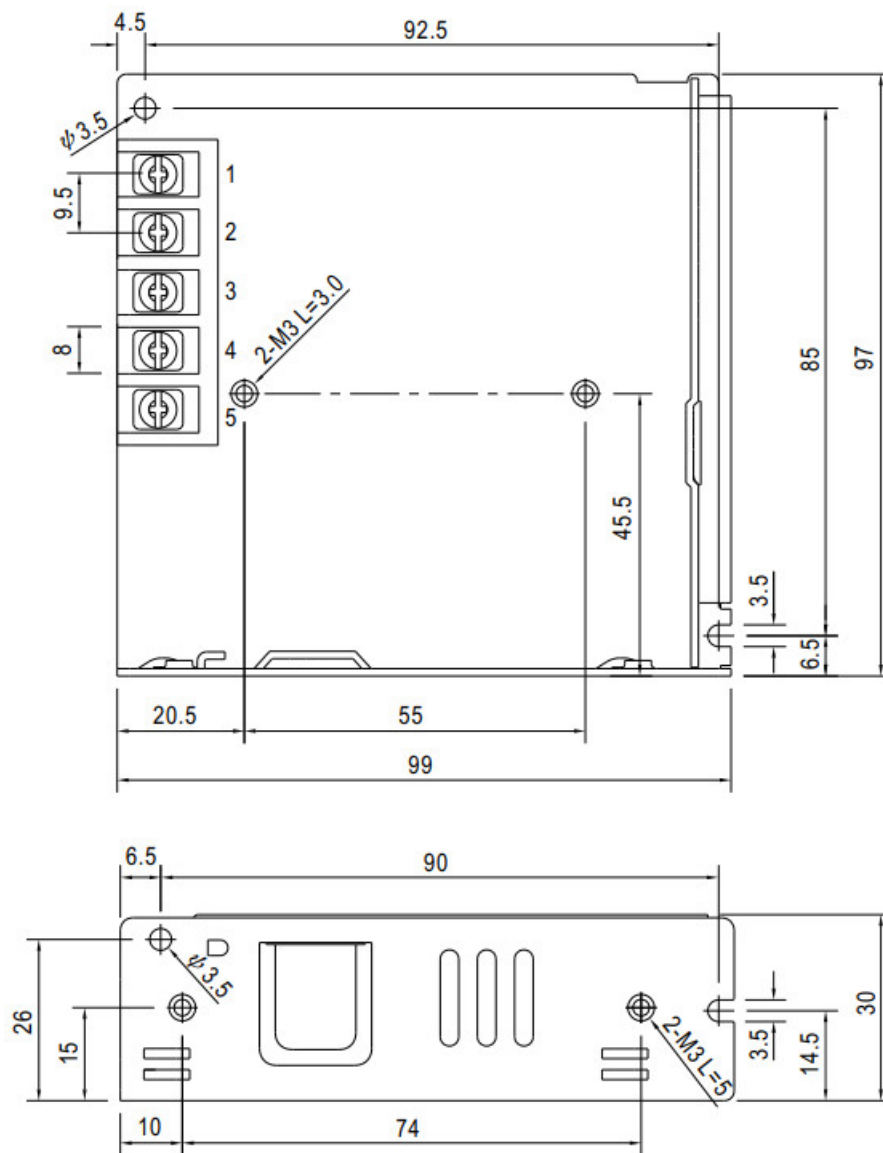
Derating Curve



Static Characteristics



Mechanical Specification



Terminal Pin No. Assignment


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

Installation Manual

Please refer to: <http://www.meanwell.com/manual.html>



Documents / Resources

	<p>MEAN WELL LRS-75-5 Single Output Switching Power Supply [pdf] Owner's Manual LRS-75-5, LRS-75-12, LRS-75-15, LRS-75-5 Single Output Switching Power Supply, Single Output Switching Power Supply, Switching Power Supply, Power Supply, LRS-75-24, LRS-75-36</p>
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References

- [TÜV Rheinland - Home | US | TÜV Rheinland](#)
- [MEAN WELL Installation Manual-MEAN WELL Switching Power Supply Manufacturer](#)
- [MEAN WELL Product Liability Disclaimer-MEAN WELL Switching Power Supply Manufacturer](#)
- [MEAN WELL Global Trade Item Number \(GTIN\)-MEAN WELL Switching Power Supply Manufacturer](#)