



**Features**

- AC input 180~264Vac input
- Withstand 300Vac surge input for 5s
- Compact size with low profile(17W/inch<sup>3</sup>)
- 150% peak power @5s
- Built-in constant current limiting circuit
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling,cooling Fan speed control
- Built-in DC OK/Remote control/Remote Sense
- Withstand 5G vibration test
- -30~+70°C wide range operation temperature
- Over voltage category(OVC III)
- Operating altitude up to 5000 meters
- 3 years warranty

**Applications**

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

**GTIN CODE**

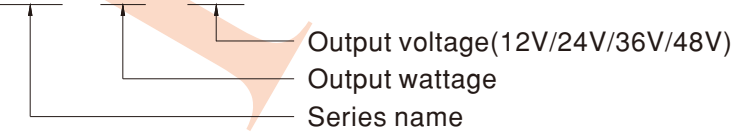
MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

**Description**

LRS-1200 series is a 1200W single-output enclosed type economical power supply with 41mm of low profile design. Adopting the input of 180~ 264Vac , the entire series provides an output voltage line of 12V, 24V,36V and 48V. In addition to the high efficiency up to 92%, with the built-in long life fan LRS-1200 can work under -30~+70°Cwith full load. LRS-1200 has the complete protection functions and 5G anti-vibration capability; It is complied with complete international safety regulations. LRS-1200 series serves as a high price-to-performance power supply solution for various industrial applications.

**Model Encoding**

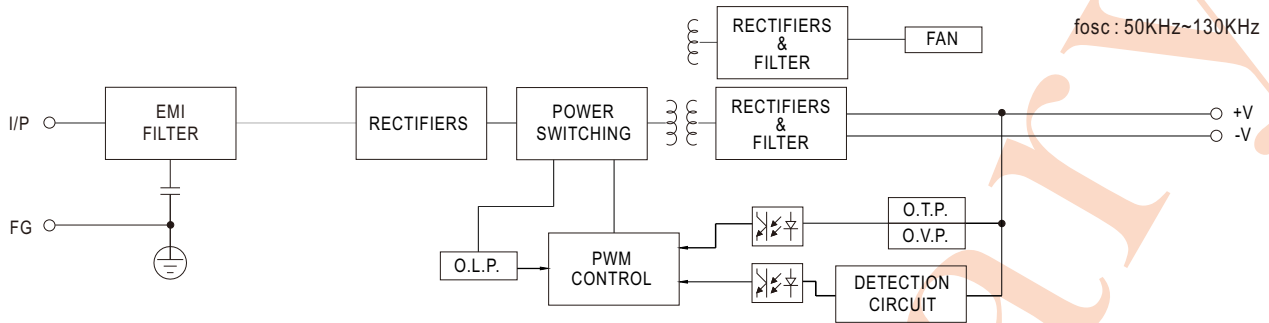
LRS -1200 - 24



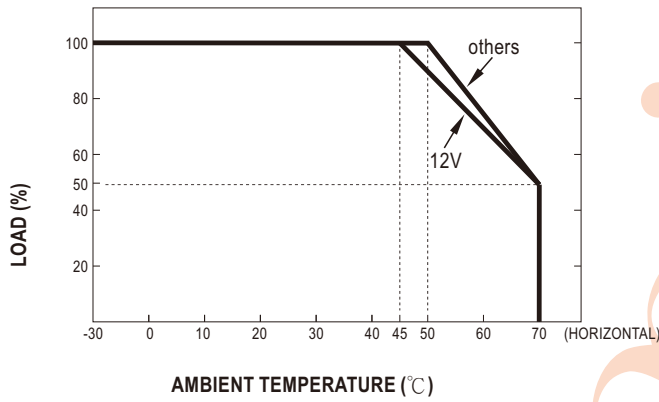
**SPECIFICATION**

MODEL		LRS-1200-12	LRS-1200-24	LRS-1200-36	LRS-1200-48
OUTPUT	DC VOLTAGE	12V	24V	36V	48V
	RATED CURRENT	92A	50A	33.3A	25A
	CURRENT RANGE	0 ~ 92A	0 ~ 50A	0 ~ 33.3A	0 ~ 25A
	RATED POWER	1104W	1200W	1198.8W	1200W
	RIPPLE & NOISE (max.) Note.2	200mVp-p	240mVp-p	360mVp-p	360mVp-p
	VOLTAGE ADJ. RANGE Note.3	12~ 15V	24 ~ 28V	34 ~ 40V	48 ~ 56V
	VOLTAGE TOLERANCE Note.4	± 1.0%	± 1.0%	± 1.0%	± 1.0%
	LINE REGULATION	± 0.5%	± 0.5%	± 0.5%	± 0.5%
	LOAD REGULATION	± 0.5%	± 0.5%	± 0.5%	± 0.5%
	SETUP, RISE TIME	1500ms, 50ms/230VAC at full load			
HOLD UP TIME (Typ.)	20ms/230VAC at full load				
INPUT	VOLTAGE RANGE Note.5	180 ~ 264VAC 255 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	90%	90%	91%	92%
	AC CURRENT (Typ.)	16A/230VAC			
	INRUSH CURRENT (Typ.)	60A/230VAC			
	LEAKAGE CURRENT	<2mA / 240VAC			
PROTECTION (Note.9)	OVER LOAD	Output power >105% rated for more than 5 seconds then shut down o/p voltage, re-power on to recover Constant current limiting for output power >150% rated for more than 5 seconds and then shut down o/p voltage, re-power on to recover			
	OVER VOLTAGE	16 ~ 20V	30 ~ 35V	42 ~ 50V	57.5 ~ 63V
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover 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			
	TEMP. COEFFICIENT	± 0.03%/°C (0 ~ 50°C)			
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes			
	OPERATING ALTITUDE Note.6	5000 meters/OVC II			
SAFETY & EMC (Note.7)	OVER VOLTAGE CATEGORY	III: According to EN61558, EN50178, EN60664-1, EN62477-1; altitude up to 2000 meters			
	SAFETY STANDARDS	UL 62368-1, DEKRA BS EN/EN62368-1, BS EN/EN61558-1/-2-16, CB IEC62368-1, IEC61558-1/-2-16, RCM AS/NZS 61558-1/-2-16, AS/NZS 62368-1, CQC GB 4943.1, BIS IS13252, KC62368-1, BSMI CNS15598-1, EAC TP TC 004 approved			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH			
	EMC EMISSION	Parameter	Standard		Test Level / Note
		Conducted	BS EN/EN55032 (CISPR32), CNS15936		Class A
		Radiated	BS EN/EN55032 (CISPR32), CNS15936		Class A
		Harmonic Current	BS EN/EN61000-3-2		-----
		Voltage Flicker	BS EN/EN61000-3-3		-----
	EMC IMMUNITY	BS EN/EN55035, BS EN/EN61000-6-2			
Parameter		Standard		Test Level / Note	
ESD		BS EN/EN61000-4-2		Level 3, 8KV air ; Level 2, 4KV contact	
Radiated		BS EN/EN61000-4-3		Level 3	
EFT / Burst		BS EN/EN61000-4-4		Level 3	
Surge		BS EN/EN61000-6-2		2KV/Line-Line 4KV/Line-Earth	
Conducted		BS EN/EN61000-4-6		Level 3	
Magnetic Field		BS EN/EN61000-4-8		Level 4	
Voltage Dips and Interruptions	BS EN/EN61000-4-11		>95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods		
OTHERS	MTBF	1533.4K hrs min. Telcordia SR-332(Bellcore) ; 301.7K hrs min. MIL-HDBK-217F (25°C)			
	DIMENSION	225*124*41mm (L*W*H)			
	PACKING	0.95Kg/12pcs/12.4Kg/0.77CUFT			
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C 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. Voltage adjustment can only be operated within the input range of 220-240VAC. If the voltage adjustment is performed outside this range, it may cause abnormal output. 4. Tolerance : includes set up tolerance, line regulation and load regulation. 5. Derating may be needed under low input voltages. Please refer to "Static Characteristics" sections for details. 6. The ambient temperature derating of 5°C/1000m is needed for operating altitude greater than 2000m(6500ft). 7. This power supply does not meet the harmonic current requirements outlined by EN61000-3-2. Please do not use this power supply under the following conditions: a) the end-devices is used within the European Union, and b) the end-devices is connected to public mains supply with 220Vac or greater rated nominal voltage, and c) the power supply is: - installed in end-devices with average or continuous input power greater than 75W, or - belong to part of a lighting system Exception: Power supplies used within the following end-devices do not need to fulfill EN61000-3-2 a) professional equipment with a total rated input power greater than 1000W; b) symmetrically controlled heating elements with a rated power less than or equal to 200W ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>				

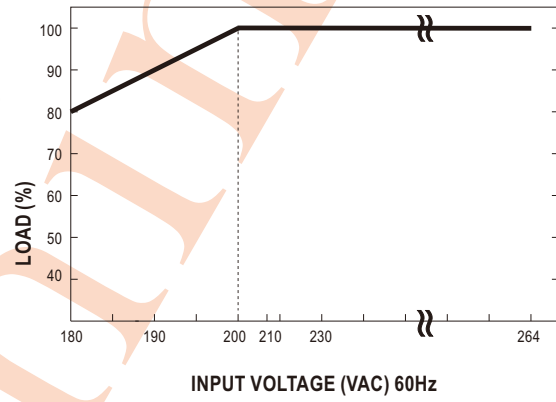
■ Block Diagram



■ Derating Curve



■ Static Characteristics

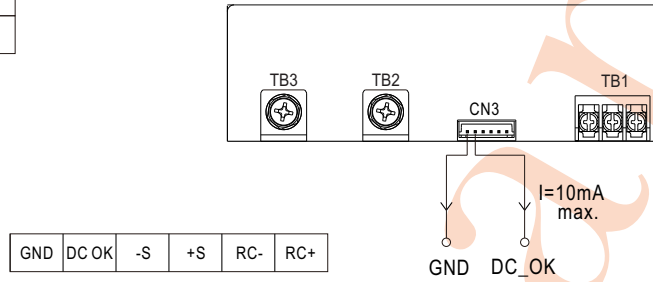


■ **Function Manual**

**1. DC\_OK Signal**

DC\_OK Signal is a TTL level signal. "High" when PSU turns on.

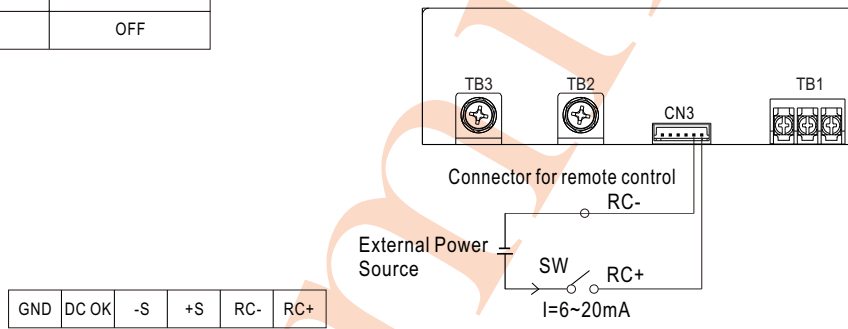
Between DC_OK(pin1) and GND(pin2)	Output Status
3.3 ~ 5.6V	ON
0 ~ 1V	OFF



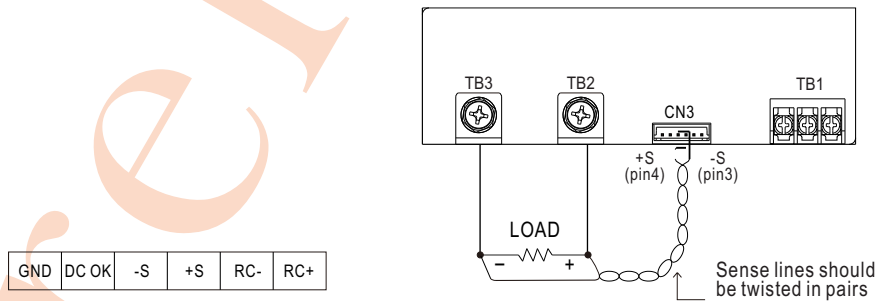
**2. Remote Control**

The PSU can be turned ON/OFF by using the "Remote Control" function.

Between RC+(pin6) and RC-(pin5)	Output Status
SW OFF (0 ~ 0.8V)	ON
SW ON (4 ~ 10V)	OFF



**3. Remote Sense**

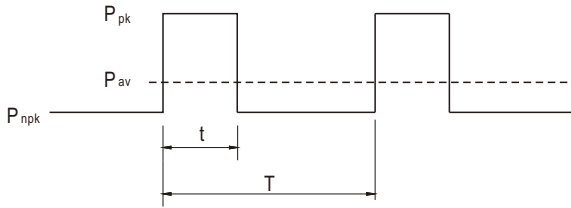


**4. Peak Power**

$$P_{av} = \frac{P_{pk} \times t + P_{npk} \times (T-t)}{T} \leq P_{rated}$$

$$Duty = \frac{t}{T} \times 100\% \leq 35\%$$

$$t \leq 5 \text{ sec}$$



$P_{av}$  : Average output power (W)

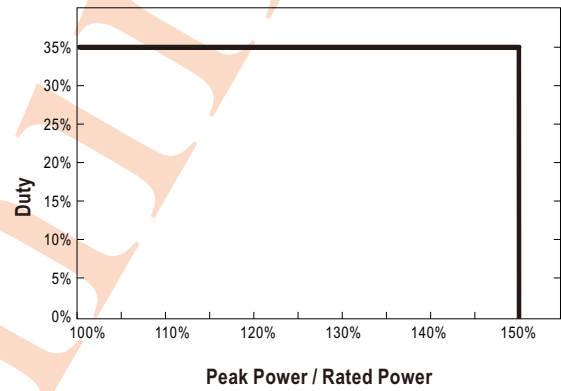
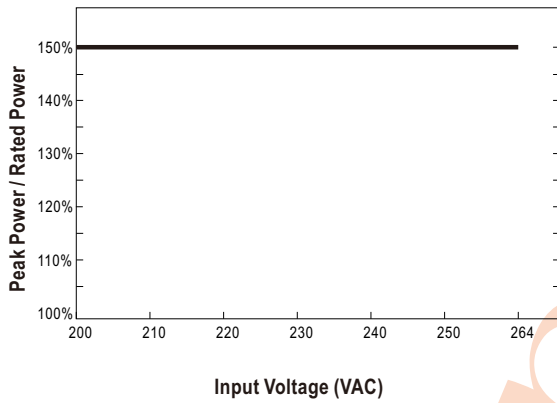
$P_{pk}$  : Peak output power (W)

$P_{npk}$  : Non-peak output power (W)

$P_{rated}$  : Rated output power (W)

$t$  : Peak power width (sec)

$T$  : Period (sec)



**For example (24V model)**

$V_{in}=220VAC$ ,  $Duty\_max=10\%$

$P_{av}=P_{rated}=1200W$

$P_{pk}=1800W$

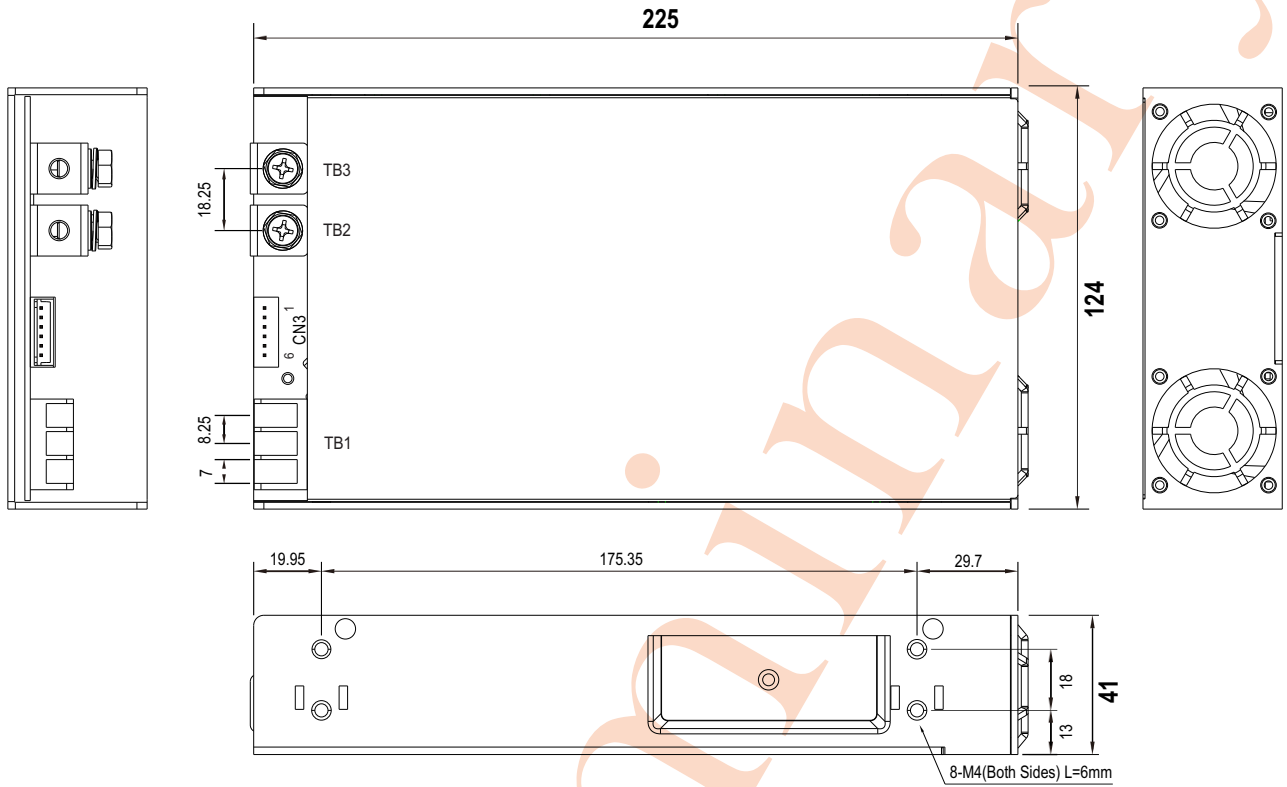
$t \leq 5sec$

$$T \geq \frac{5sec}{10\%} = 50sec$$

$$P_{npk} \leq \frac{TP_{av}-tP_{pk}}{T-t} = 1133.3W$$

■ Mechanical Specification

Case No. 292 Unit:mm



AC Input Terminal(TB1) Pin NO. Assignment

Pin No.	Assignment	Terminal	Max mounting torque
1	AC/L	DECA T42-ES11-03	13.8Kgf-cm
2	AC/N		
3	⊥		

DC Output Terminal (TB2,TB3) Pin NO. Assignment

Pin No.	Assignment	Terminal	Max mounting torque
TB2	+V	(MW)	8Kgf-cm
TB3	-V	HS455	

Control Pin (CN3) : JST B6B-XH or equivalent

Pin No.	Assignment	Pin No.	Assignment	Mating Housing	Terminal
1	GND	4	+S	JST XHP or equivalent	JST SXH-001T or equivalent
2	DC_OK	5	RC-		
3	-S	6	RC+		

■ Installation Manual

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