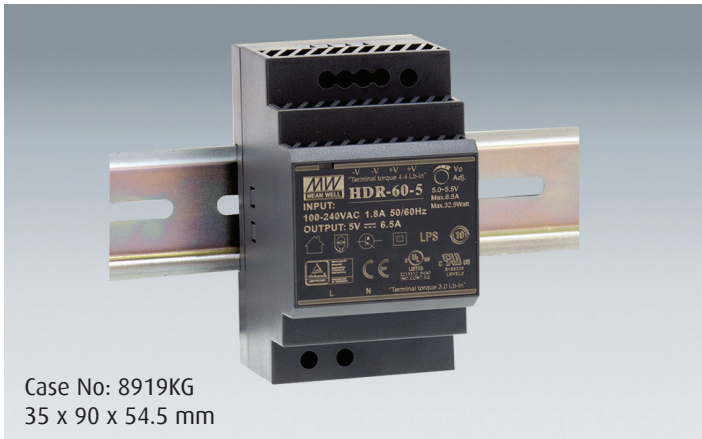


HDR-60 Series

60W Ultra Slim Step DIN Rail Power Supply



Case No: 8919KG
35 x 90 x 54.5 mm

Features

- Ultra slim design with 52.5mm (3SU) width
- Universal input 85~264VAC (277VAC available)
- No load power consumption <0.3W
- Isolation class II
- Pass LPS (Limited power source)
- DC output voltage adjustable
- Protections: Short Circuit / Overload / Over voltage
- DIN rail TS-35/7.5 or 15 mountable
- Cooling by free air convection
(working temperature: -30 ~ +70°C)
- Led indicator for power on
- 3 years warranty



Specification

INPUT	Voltage	85 ~ 264VAC (277VAC available)		120 ~ 370VDC (390VDC available)		
	Frequency	47 ~ 63 Hz				
	Efficiency	85%	88%	89%	90%	91%
	AC Current (Typ.)	1.2A/115VAC 0.8A/230VAC				
	Inrush Current (Typ.)	Cold Start 30A/115VAC 60A/230VAC				
OUTPUT	MODEL No.	HDR-60-5	HDR-60-12	HDR-60-15	HDR-60-24	HDR-60-48
	Voltage	5V	12V	15V	24V	48V
	Rated Current	6.5A	4.5A	4A	2.5A	1.25A
	Current Range	0~6.5A	0~4.5A	0~4A	0~2.5A	0~1.25A
	Rated Power	32.5W	54W	60W	60W	60W
	Ripple Noise MAX.	80mVp-p	120mVp-p	120mVp-p	150mVp-p	240mVp-p
	Voltage Adjustment Range	5.0~5.5V	10.8~13.8V	13.5~18V	21.6~29V	43.2~55.2V
	Voltage Tolerance	± 2.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%
	Line Regulation	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%
	Load Regulation	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%
	Setup Rise Time	500ms, 50ms / 230VAC 500ms, 50ms / 115VAC at full load				
	Holdup Time (Typ.)	30ms / 230VAC 12ms / 115VAC at full load				
PROTECTION	Over Load	105~160% rated output power Protection Type: Constant current limiting, recovers automatically after fault condition is removed				
	Over Voltage	5.75 ~ 6.75V	14.2 ~ 16.2V	18.8 ~ 22.5V	30 ~ 36V	56.5 ~ 64.8V
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. Co-efficient	±0.03% / °C (0~50°C) RH non-condensing				
	Vibration	10~500Hz, 2G 10min./1cycle, 60 min. each along X, Y, Z axes; mounting: compliance to IEC60068-2-6				
	Operating Altitude	2000 meters				
SAFETY & EMC	Safety Standards	UL60950-1, UL508, TUV EN61558-2-16, IEC60950-1 approved; Design refer to EN50178, TUV EN60950-1				
	Withstand Voltage	I/P-O/P:3KVAC				
	Isolation Resistance	I/P-OP:100M Ohms/500Vdc/25°C/70% RH				
	EMC Emission	Compliance to EN55032 (CISPR32) Class B, EN61000-3-2, -3 Class A				
OTHERS	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN55035, EN61204-3, criteria A				
	M.T.B.F.	927.6K hrs min. MIL-HDBK-217F (25°C)				
	Packaging	190g; 60pcs/12.4Kg/0.97CUFT				

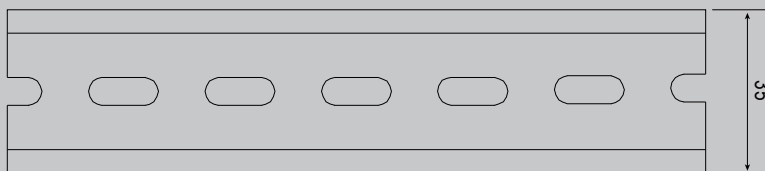
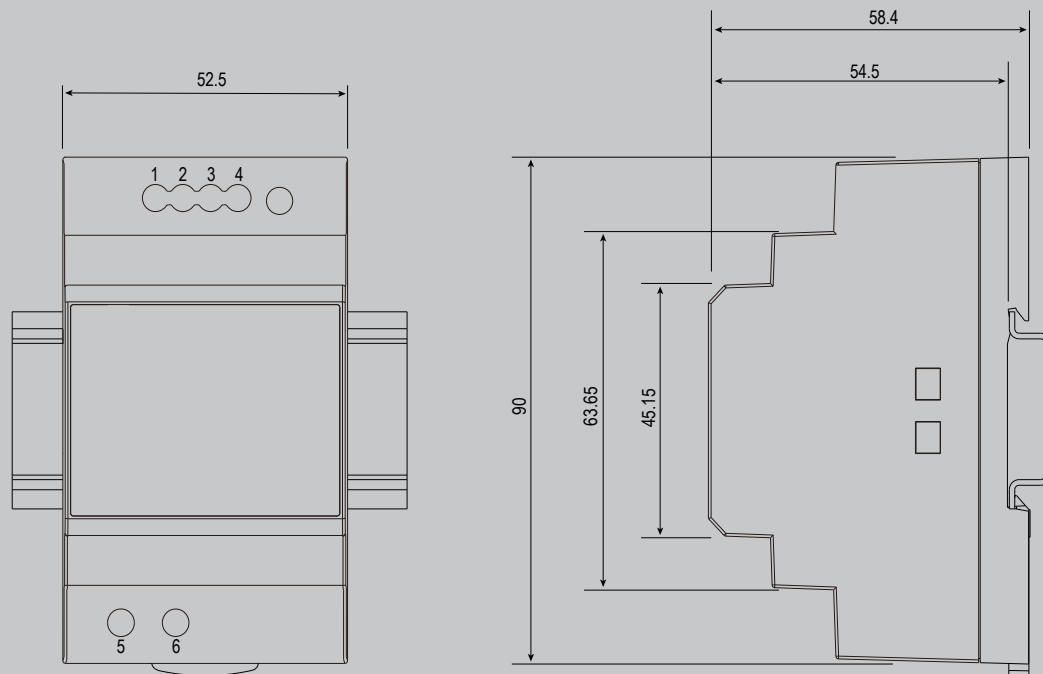
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple and noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.
4. Constant current limiting operation within 50% ~ 100% rated output voltage; protection type for short circuit is hiccup mode, it will recover automatically after fault condition is removed.
5. The power supply is considered as a component which will be installed with final equipment. The final equipment must 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 Diagram

(Unit: mm , tolerance $\pm 0.5\text{mm}$)



ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15

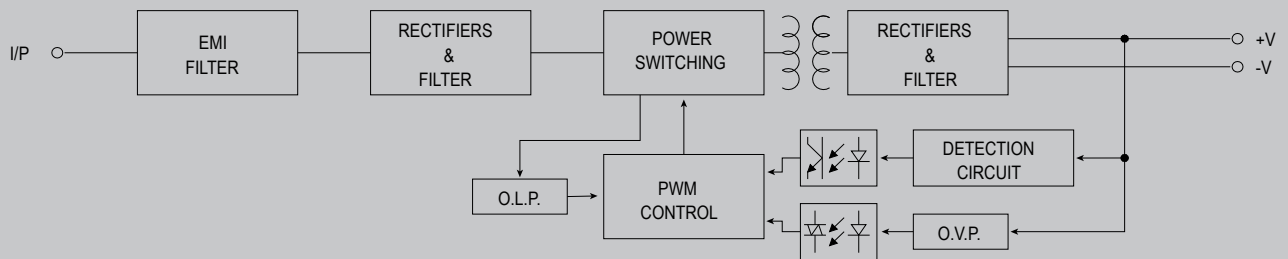
Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1,2	-V	5	AC/L
3,4	+V	6	AC/N

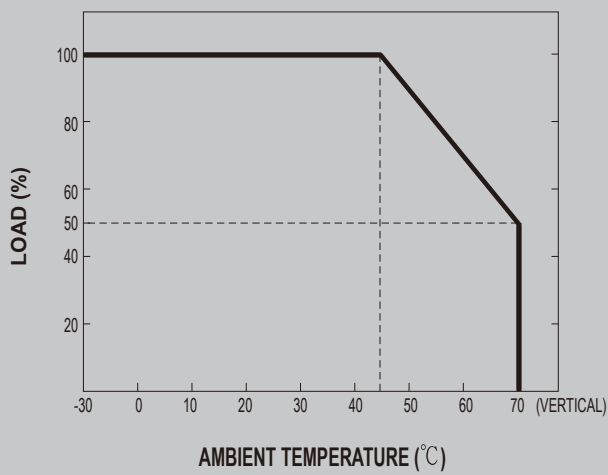
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Block Diagram



Derating Curve



Static Characteristics

