

# HDR-30 Series

30W Ultra Slim Step DIN Rail Power Supply



Case No: 8912CW  
35 x 90 x 54.5 mm

## Features

- Ultra slim design with 35mm (2SU) 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	<b>Voltage</b>	85 ~ 264VAC (277VAC available)		120 ~ 370VDC (390VDC available)		
	<b>Frequency</b>	47 ~ 63 Hz				
	<b>Efficiency</b>	82%	88%	89%	89%	90%
	<b>AC Current (Typ.)</b>	0.88A/115VAC		0.48A/230VAC		
	<b>Inrush Current (Typ.)</b>	Cold Start 25A/115VAC		45A/230VAC		
OUTPUT	<b>MODEL No.</b>	<b>HDR-30-5</b>	<b>HDR-30-12</b>	<b>HDR-30-15</b>	<b>HDR-30-24</b>	<b>HDR-30-48</b>
	<b>Voltage</b>	5V	12V	15V	24V	48V
	<b>Rated Current</b>	3A	2A	2A	1.5A	0.75A
	<b>Current Range</b>	0~3A	0~2A	0~2A	0~1.5A	0~0.75A
	<b>Rated Power</b>	15W	24W	30W	36W	36W
	<b>Ripple Noise MAX.</b>	80mVp-p	120mVp-p	120mVp-p	150mVp-p	240mVp-p
	<b>Voltage Adjustment Range</b>	4.5~5.5V	10.8~13.8V	13.5~18V	21.6~29V	43.2~55.2V
	<b>Voltage Tolerance</b>	± 2.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%
	<b>Line Regulation</b>	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%
	<b>Load Regulation</b>	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%
	<b>Setup Rise Time</b>	500ms, 50ms / 230VAC		500ms, 50ms / 115VAC at full load		
	<b>Holdup Time (Typ.)</b>	30ms / 230VAC		12ms / 115VAC at full load		
PROTECTION	<b>Over Load</b>	105~160% rated output power				
		Protection Type: Constant current limiting, recovers automatically after fault condition is removed				
PROTECTION	<b>Over Voltage</b>	5.75 ~ 7.5V	15 ~ 18V	18.8 ~ 22.5V	30 ~ 36V	57.6 ~ 67.2V
		Protection Type: Shut down o/p voltage, re-power on to recover				
ENVIRONMENT	<b>Working Temp</b>	-30~+70°C (Refer to "Derating Curve")				
	<b>Working Humidity</b>	20~90% RH non-condensing				
	<b>Storage Temp., Humidity</b>	-40~ +85°C, 10~95% RH non-condensing				
	<b>Temp. Co-efficient</b>	±0.03% / °C (0~50°C) RH non-condensing				
	<b>Vibration</b>	10~500Hz, 2G 10min./1cycle, 60 min. each along X, Y, Z axes; mounting: compliance to IEC60068-2-6				
	<b>Operating Altitude</b>	2000 meters				
SAFETY & EMC	<b>Safety Standards</b>	UL60950-1, UL508, TUV EN61558-2-16, IEC60950-1 approved; Design refer to EN50178, TUV EN60950-1				
	<b>Withstand Voltage</b>	I/P-O/P:3KVAC				
	<b>Isolation Resistance</b>	I/P-OP:100M Ohms/500Vdc/25°C/70% RH				
	<b>EMC Emission</b>	Compliance to EN55032 (CISPR32) (CISPR22) Class B, EN61000-3-2, -3 Class A				
OTHERS	<b>EMC Immunity</b>	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN55035, EN61204-3, criteria A				
	<b>M.T.B.F.</b>	968.1K hrs min. MIL-HDBK-217F (25°C)				
OTHERS	<b>Packaging</b>	0.12Kg; 96pcs/12.5Kg/1.04CUFT				

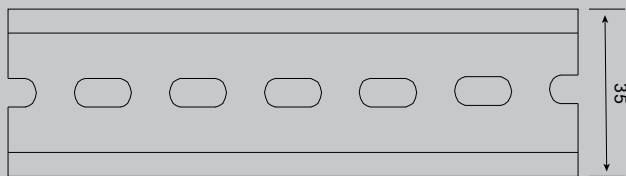
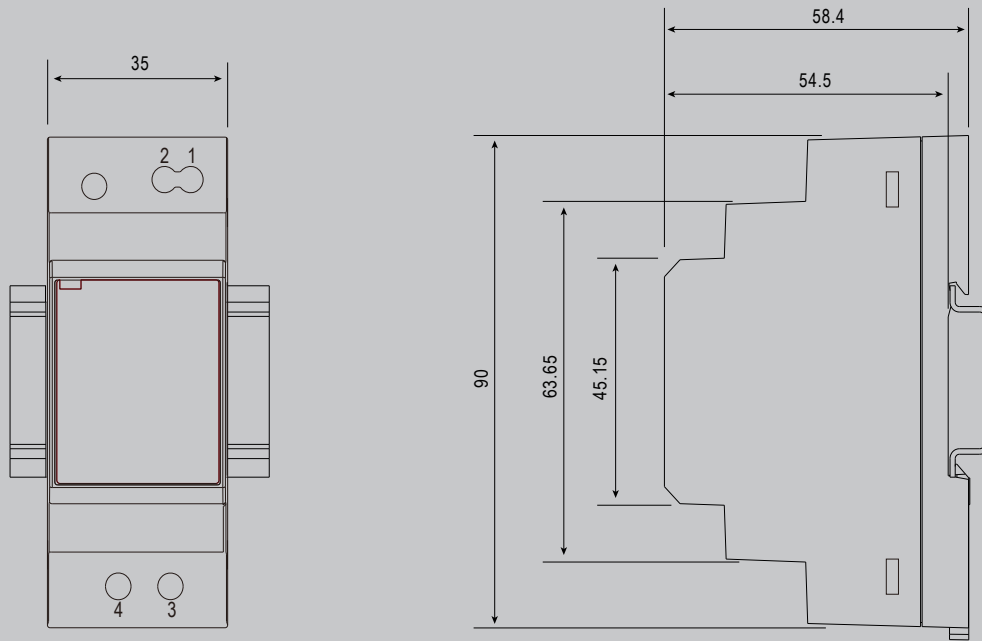
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple and noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line 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

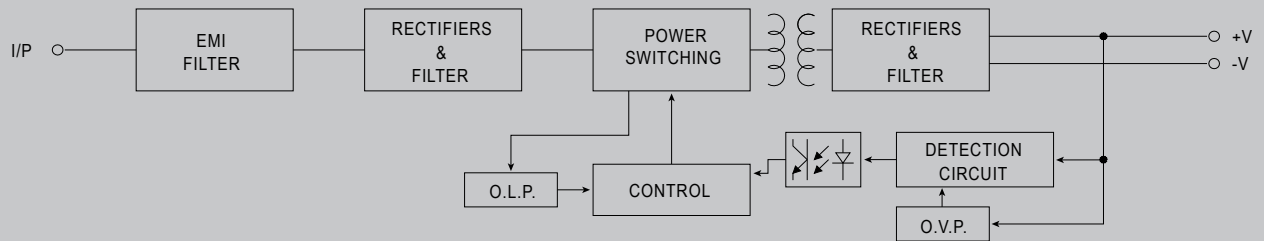
### Terminal Pin No. Assignment

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

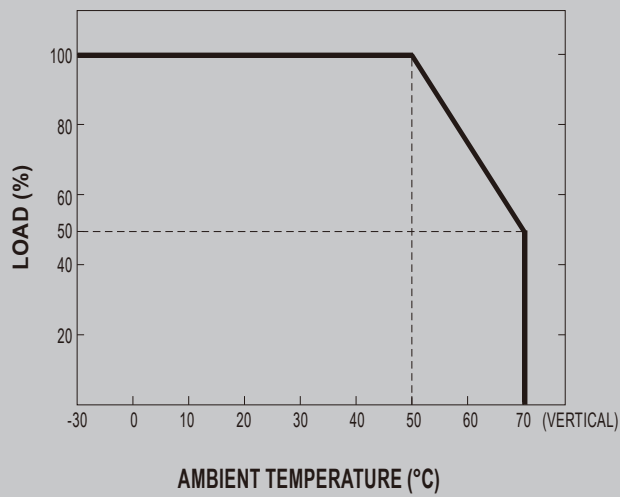
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## Block Diagram



## Derating Curve



## Static Characteristics

