



■ Features

- Ultra slim design with 35mm(2SU) width
- Universal input 85~264VAC(277VAC operational)
- No load power consumption<0.3W
- Isolation class II
- Pass LPS (Limited power source)
- DC output voltage adjustable
- Protections : Short circuit / Overload / Over voltage
- Cooling by free air convection (working temperature:-30~+70°C)
- DIN rail TS-35/7.5 or 15 mountable
- Over voltage category III
- LED indicator for power on
- 3 years warranty

■ Applications

- Household control system
- Building automation
- Industrial control system
- Factory automation
- Electro-mechanical apparatus

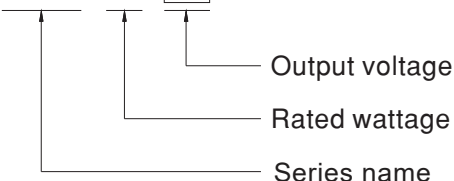
■ Description

HDR-30 is one economical ultra slim 30W DIN rail power supply series, adapt to be installed on TS-35/7.5 or TS-35/15 mounting rails. The body is designed 35mm(2SU) in width, which allows space saving inside the cabinets. The entire series adopts the full range AC input from 85VAC to 264VAC(277VAC operational) and conforms to EN61000-3-2, the norm the European Union regulates for harmonic current.

HDR-30 is designed with plastic housing that it can effectively prevent user from electric hazards. With working efficiency up to 90%, the entire series can operate at the ambient temperature between -30°C and 70°C under air convection. The complete protection functions and relevant certificates for home automations and industrial control apparatus (IEC60950-1, UL508,UL60950-1, EN61558-2-16) make HDR-30 a very competitive power supply solution for household and industrial applications.

■ Model Encoding

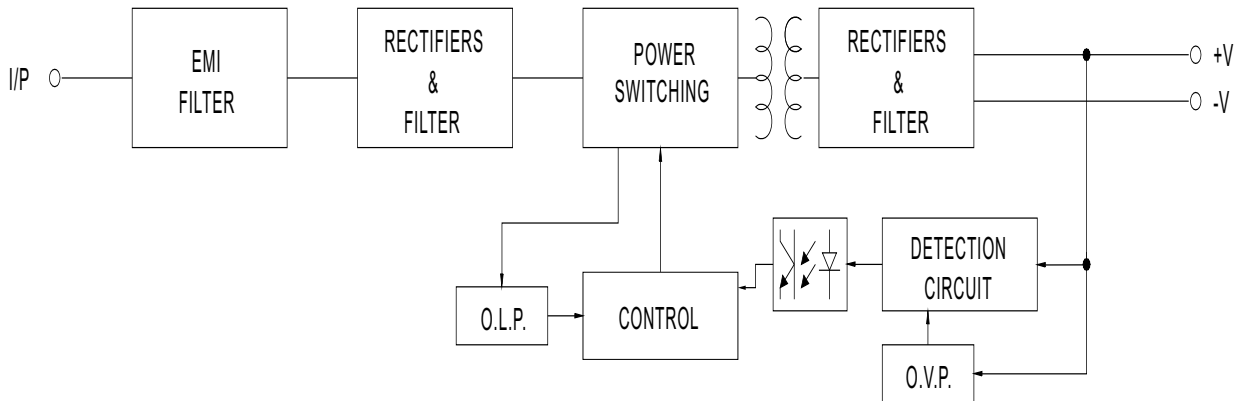
HDR - 30 - [24]



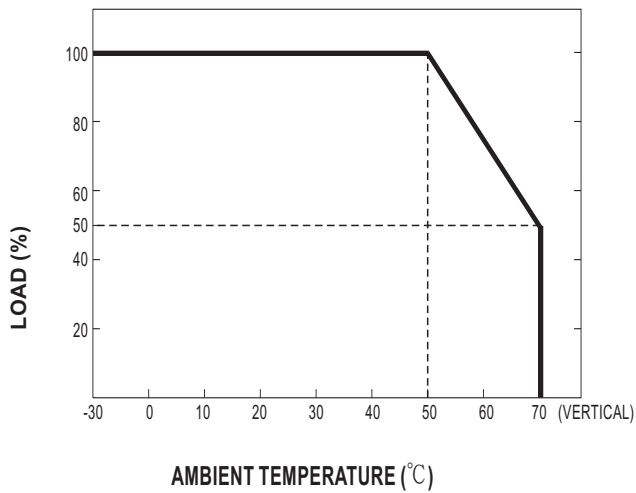
SPECIFICATION

MODEL		HDR-30-24	
OUTPUT	DC VOLTAGE	24V	
	RATED CURRENT	1.5A	
	CURRENT RANGE	0 ~ 1.5A	
	RATED POWER	36W	
	RIPPLE & NOISE (max.) Note.2	150mVp-p	
	VOLTAGE ADJ. RANGE	21.6 ~ 29V	
	VOLTAGE TOLERANCE Note.3	±1.0%	
	LINE REGULATION	±1.0%	
	LOAD REGULATION	±1.0%	
	SETUP, RISE TIME	500ms, 50ms/230VAC 500ms, 50ms/115VAC at full load	
	HOLD UP TIME (Typ.)	30ms/230VAC 12ms/115VAC at full load	
INPUT	VOLTAGE RANGE	85 ~ 264VAC (277VAC operational) 120 ~ 370VDC (390VDC operational)	
	FREQUENCY RANGE	47 ~ 63Hz	
	EFFICIENCY (Typ.)	89%	
	AC CURRENT (Typ.)	0.88A/115VAC 0.48A/230VAC	
	INRUSH CURRENT (Typ.)	COLD START 25A/115VAC 45A/230VAC	
PROTECTION	OVERLOAD	105 ~ 160% rated output power Hiccup mode when output voltage <50%, recovers automatically after fault condition is removed Constant current limiting within 50% ~ 100% rated output voltage, recovers automatically after fault condition is removed	
	OVER VOLTAGE	5.75 ~ 7.5V 15 ~ 18V 18.8 ~ 22.5V 30 ~ 36V	
		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) RH non-condensing	
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6	
	OPERATING ALTITUDE	2000 meters	
	OVER VOLTAGE CATEGORY	III ; According to EN61558, EN50178, EN60664-1, EN62477-1 ; altitude up to 2000 meters	
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL60950-1, UL508, TUV EN61558-2-16, IEC60950-1, EAC TP TC 004, BSMI CNS14336-1 approved; Design refer to TUV EN60950-1	
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC	
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH	
	EMC EMISSION	Parameter	Standard
		Conducted	EN55032(CISPR32), CNS13438
		Radiated	EN55032(CISPR32), CNS13438
		Harmonic Current	EN61000-3-2
		Voltage Flicker	EN61000-3-3
	EMC IMMUNITY	EN55024, EN55035, EN61000-6-2, EN61204-3	
		Parameter	Standard
		ESD	EN61000-4-2
		Radiated Susceptibility	EN61000-4-3
		EFT/Burest	EN61000-4-4
		Surge	EN61000-4-5
		Conducted	EN61000-4-6
		Magnetic Field	EN61000-4-8
		Voltage Dips and interruptions	EN61000-4-11
		>95% dip 0. 5 periods, 30% dip 25 periods, >95% interruptions 250 periods	
OTHERS	MTBF	968.1K hrs min. MIL-HDBK-217F (25°C)	
	DIMENSION	35*90*54.5mm (W*H*D)	
	PACKING	0.12Kg;96pcs/12.5Kg/1.04CUFT	
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 0.1μf & 47μf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the 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) 5. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).	

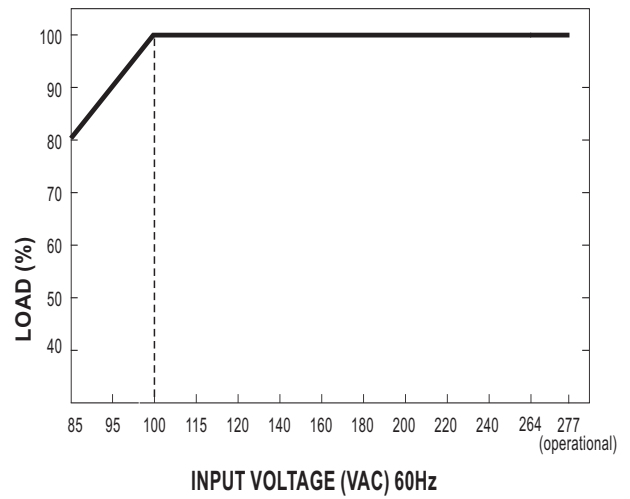
Block Diagram



Derating Curve

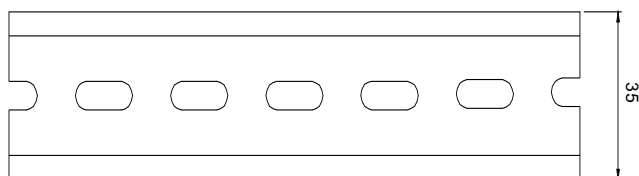
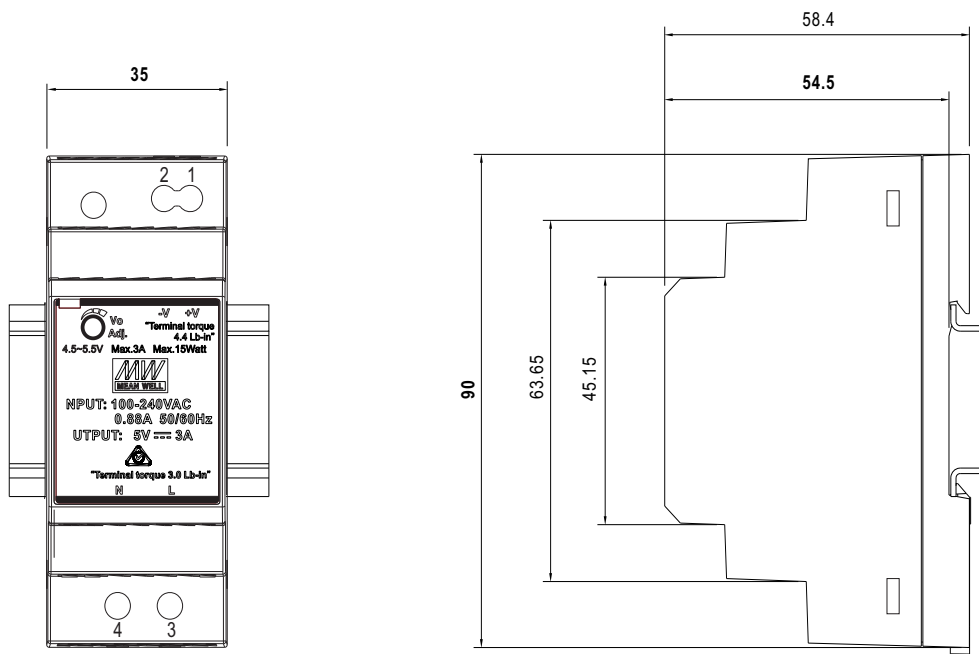


Output Derating VS Input Voltage



Mechanical Specification

(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

Installation Manual

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