



■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- High efficiency up to 89.5%
- Withstand 300VAC surge input for 5 seconds
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in constant current limiting circuit
- Built-in cooling Fan ON-OFF control
- Built-in DC OK signal
- Built-in remote sense function
- 5 years warranty

User's Manual



■ GTIN CODE

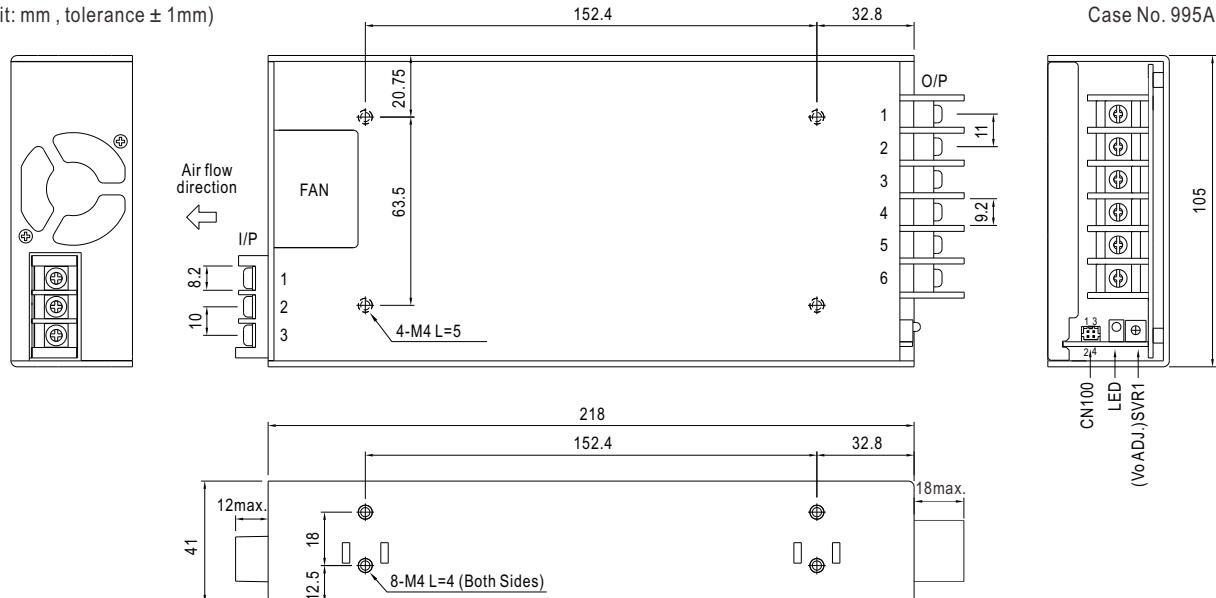
 MW Search: <https://www.meanwell.com/serviceGTIN.aspx>


UL62368-1 BS EN/IEC62368-1 TPTC004 IEC62368-1

SPECIFICATION

MODEL	HRP-450-3.3	HRP-450-5	HRP-450-7.5	HRP-450-12	HRP-450-15	HRP-450-24	HRP-450-36	HRP-450-48
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	36V
	RATED CURRENT	90A	90A	60A	37.5A	30A	18.8A	12.5A
	CURRENT RANGE	0 ~ 90A	0 ~ 90A	0 ~ 60A	0 ~ 37.5A	0 ~ 30A	0 ~ 18.8A	0 ~ 12.5A
	RATED POWER	297W	450W	450W	450W	450W	450W	456W
	RIPLINE & NOISE (max.) Note.2	80mVp-p	80mVp-p	100mVp-p	120mVp-p	150mVp-p	150mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE	2.8 ~ 3.8V	4.3 ~ 5.8V	6.8 ~ 9V	10.2 ~ 13.8V	13.5 ~ 18V	21.6 ~ 28.8V	28.8 ~ 39.6V
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.3%	±0.3%	±0.2%	±0.2%
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	1800ms, 100ms/230VAC	3600ms, 100ms/115VAC at full load					
INPUT	HOLD UP TIME (Typ.)	16ms/230VAC	16ms/115VAC at full load					
	VOLTAGE RANGE Note.5	85 ~ 264VAC	120 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz						
	POWER FACTOR (Typ.)	PF>0.95/230VAC	PF>0.99/115VAC at full load					
	EFFICIENCY (Typ.)	80%	83%	86.5%	88%	89%	88%	89%
	AC CURRENT (Typ.)	5A/115VAC	2.4A/230VAC					
	INRUSH CURRENT (Typ.)	35A/115VAC	70A/230VAC					
PROTECTION	LEAKAGE CURRENT	<1.5mA / 240VAC						
	OVERLOAD	105 ~ 135% rated output power						
		Protection type : Constant current limiting, recovers automatically after fault condition is removed						
OVER VOLTAGE	3.96 ~ 4.62V	6 ~ 7V	9.4 ~ 10.9V	14.4 ~ 16.8V	18.8 ~ 21.8V	30 ~ 34.8V	41.4 ~ 48.6V	57.6 ~ 67.2V
		Protection type : Shut down o/p voltage, re-power on to recover						
FUNCTION	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down						
	DC OK SIGNAL	PSU turn on : 3.3 ~ 5.6V ; PSU turn off : 0 ~ 1V						
ENVIRONMENT	FAN CONTROL (Typ.)	Load 20±10% or RTH2≥50°C Fan on						
	WORKING TEMP.	-40 ~ +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)						
SAFETY & EMC (Note 4)	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes						
	SAFETY STANDARDS	UL62368-1, TUV BS EN/IEC62368-1, AS/NZS62368.1, EAC TP TC 004 approved						
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC						
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH						
OTHERS	EMC EMISSION	Compliance to BS EN/IEC65032 (CISPR32) Class B, BS EN/IEC61000-3-2, -3, EAC TP TC 020						
	EMC IMMUNITY	Compliance to BS EN/IEC61000-4-2,3,4,5,6,8,11, BS EN/IEC65024, BS EN/IEC61000-6-2, heavy industry level, EAC TP TC 020						
	MTBF	1323.6K hrs min. Telcordia SR-332 (Bellcore) ; 139.9K hrs min. MIL-HDBK-217F (25°C)						
NOTE	DIMENSION	218*105*41mm (L*W*H)						
	PACKING	1.19Kg; 12pcs/15.3Kg/0.81CUFT						
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 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 https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf) 5. Derating may be needed under low input voltages. Please check the derating curve for more details. 6. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time. 7. 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). ✎ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx								

■ Mechanical Specification

 (Unit: mm, tolerance $\pm 1\text{mm}$)


AC Input Terminal Pin No. Assignment

Pin No.	Assignment
1	AC/L
2	AC/N
3	FG \pm

DC Output Terminal Pin No. Assignment

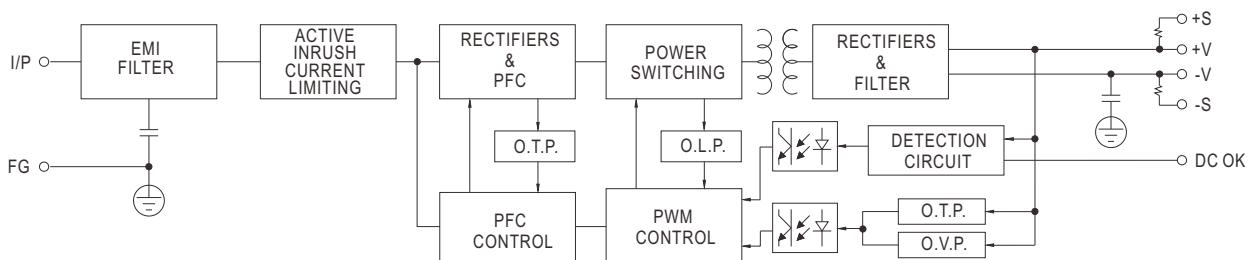
Pin No.	Assignment
1~3	-V
4~6	+V

Connector Pin No. Assignment(CN100) : HRS DF11-4DP-2DS or equivalent

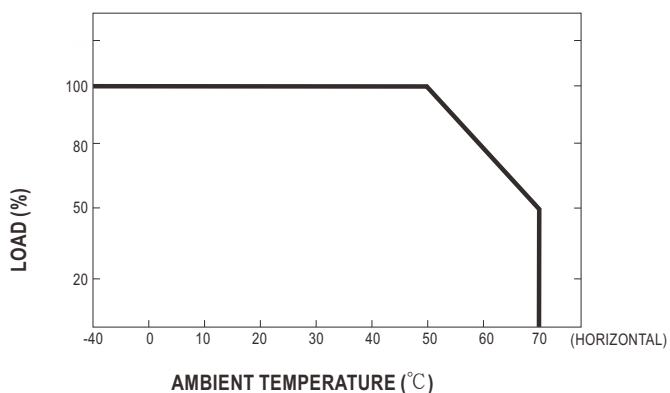
Pin No.	Assignment	Mating Housing	Terminal
1	DC-OK		
2	GND	HRS DF11-4DS or equivalent	HRS DF11-**SC or equivalent
3	+S		
4	-S		

■ Block Diagram

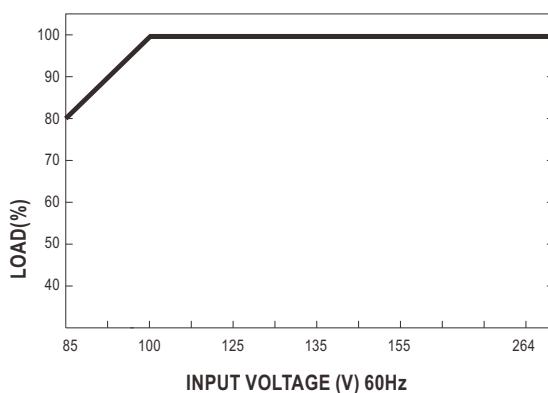
PWM fosc : 70KHz



■ Derating Curve



■ Output Derating VS Input Voltage



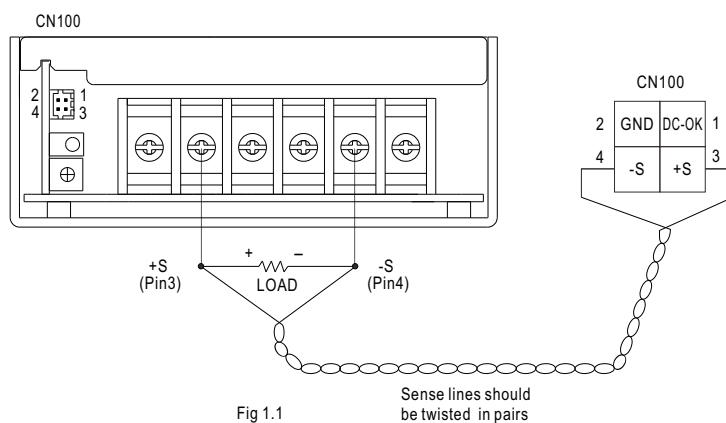
■ Function Description of CN100

Pin No.	Function	Description
1	DC-OK	DC-OK Signal is a TTL level signal, referenced to pin2(DC-OK GND). High when PSU turns on.
2	GND	This pin connects to the negative terminal(-V). Return for DC-OK signal output.
3	+S	Positive sensing. The +S signal should be connected to the positive terminal of the load. The +S and -S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.5V.
4	-S	Negative sensing. The -S signal should be connected to the negative terminal of the load. The -S and +S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.5V.

■ Function Manual

1. Remote Sense

The remote sensing compensates voltage drop on the load wiring up to 0.5V.



2. DC-OK Signal

DC-OK signal is a TTL level signal. High when PSU turns on.

Between DC-OK(pin5) and GND(pin6)	Output Status
3.3 ~ 5.6V	ON
0 ~ 1V	OFF

