



■ GTIN CODE

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

■ 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
- Medical safety approved (MOOP level)
- Built-in cooling Fan ON-OFF control
- Built-in DC OK signal
- Built-in remote ON-OFF control
- Stand by 5V@0.3A
- Built-in remote sense function
- No load power consumption<0.6W (Note.6)
- 5 years warranty



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MODEL		MSP-450-3.3	MSP-450-5	MSP-450-7.5	MSP-450-12	MSP-450-15	MSP-450-24	MSP-450-36	MSP-450-48		
	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	36V	48V		
	RATED CURRENT	90A	90A	60A	37.5A	30A	18.8A	12.5A	9.5A		
	CURRENT RANGE	0 ~ 90A	0 ~ 90A	0 ~ 60A	0 ~ 37.5A	0 ~ 30A	0 ~ 18.8A	0 ~ 12.5A	0 ~ 9.5A		
	RATED POWER	297W	450W	450W	450W	450W	451.2W	450W	456W		
	RIPPLE & NOISE (max.) Note.2	80mVp-p	80mVp-p	100mVp-p	120mVp-p	150mVp-p	150mVp-p	240mVp-p	240mVp-p		
DUTPUT	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	40.8 ~ 55.2		
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%		
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.3%	±0.3%	±0.2%	±0.2%	±0.2%		
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	SETUP, RISE TIME	1000ms, 100ms/230VAC 2500ms, 100ms/115VAC at full load									
	HOLD UP TIME (Typ.)	16ms/230VAC 16ms/115VAC at full load									
	VOLTAGE RANGE Note.4	85 ~ 264VAC	120 ~ 370\	/DC							
	FREQUENCY RANGE	47 ~ 63Hz									
	POWER FACTOR (Typ.)	PF>0.95/230V	AC PF>0.	99/115VAC at ful	lload						
NPUT	EFFICIENCY (Typ.)	80%	83%	86.5%	88%	89%	88%	89%	89.5%		
	AC CURRENT (Typ.)	5A/115VAC	2.4A/230VAC	;							
	INRUSH CURRENT (Typ.)	35A/115VAC 70A/230VAC									
	LEAKAGE CURRENT	Earth leakage current < 300μA/264VAC , Touch leakage current < 100μA/264VAC									
	OVERLOAD.	105 ~ 135% ra	ted output pow	er							
	OVERLOAD	Protection type: Constant current limiting, recovers automatically after fault condition is removed									
PROTECTION		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 ~ 67.2		
	OVER VOLTAGE	Protection type	: Shut down o	/p voltage, re-po	wer on to recove	r			<u>'</u>		
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down									
	5V STANDBY	5VSB:5V@0.3A; tolerance±5%, ripple:50mVp-p(max.)									
FUNCTION	DC OK SIGNAL	PSU turn on : 3	.3 ~ 5.6V ; PSI	J turn off : 0 ~ 1V							
FUNCTION	REMOTE CONTROL	RC+/RC-: 4 ~ 10V or open = power on; 0 ~ 0.8V or short = power off									
	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									
ENVIRONMENT	STORAGE TEMP., HUMIDITY										
	TEMP. COEFFICIENT	±0.03%°C (0~50°C)									
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes									
	SAFETY STANDARDS			SI/AAMI ES6060				+A2			
	ISOLATION LEVEL	EAC TP TC 004 approved; Design refer to BS EN/EN60335-1, BS EN/EN 62368-1 (by request)									
SAFETY &	WITHSTAND VOLTAGE	Primary-Secondary: 2×MOOP, Primary-Earth: 1×MOOP, Secondary-Earth: 1×MOOP									
EMC	ISOLATION RESISTANCE	I/P-O/P:4KVAC									
Note 8)	EMC EMISSION	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH									
		Compliance to BS EN/EN55011 (CISPR11) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020 Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN60601-1-2, EAC TP TC 020									
	EMC IMMUNITY	·			II, BS EN/EN6	J001-1-2, EAC	IF IC 020				
	MTBF	159.3K hrs mir		(-217F (25°C)							
OTHERS	DIMENSION	218*105*41mm (L*W*H)									
	PACKING	1.19Kg; 12pcs/	15.3Kg/0.8CUF	T							

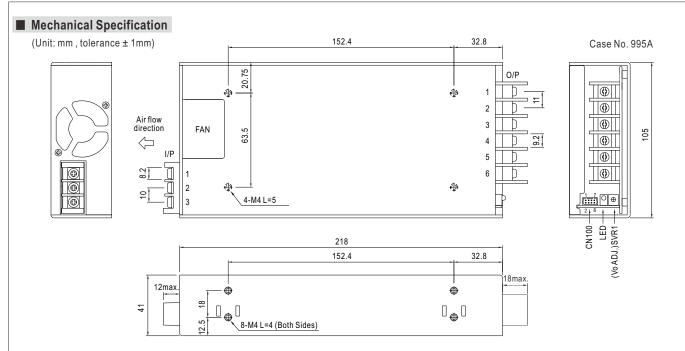
- 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF & 47µF parallel capacitor.
- Tolerance : includes set up tolerance, line regulation and load regulation.
 Derating may be needed under low input voltages. Please check the derating curve for more details.
- 5. 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.

 6. No load power consumption<0.5W when RC- & RC+ (CN100 pin1,2) 0 ~ 0.8V or short.
- 7. When the input voltage is less than 40VAC, the SPS may exhibit degradation of performance. The final product manufacturers must re-confirm this deviation that does not affect basic safety or essential performance.
- 8. 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)

 9. 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





AC Input Terminal Pin No. Assignment

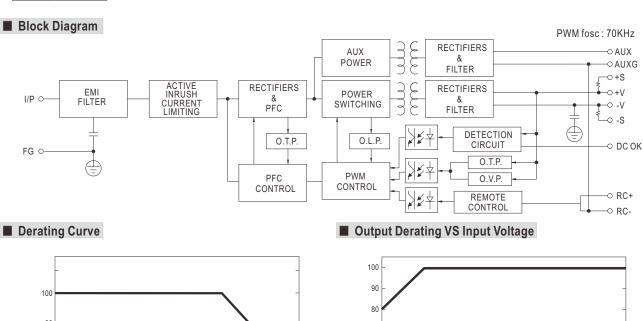
Pin No.	Assignment
1	AC/L
2	AC/N
3	FG ±

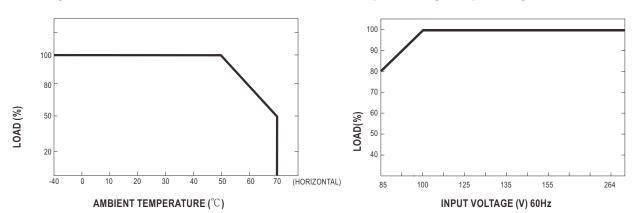
DC Output Terminal Pin No. Assignment

, 1001g					
Pin No.	Assignment				
1~3	-V				
4~6	+V				

Connector Pin No. Assignment(CN100): HRS DF11-8DP-2DS or equivalent

			,		
Pin No.	Assignment	Pin No.	Assignment	Mating Housing	Terminal
1	RC+	5	DC-OK		
2	RC-	6	GND	HRS DF11-8DS	HRS DF11-**SC
3	AUX	7	+S	or equivalent	or equivalent
4	AUXG	8	-S		







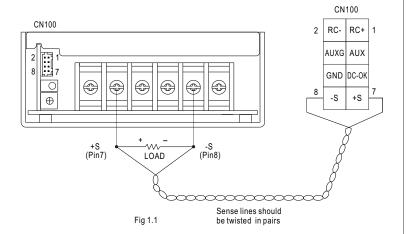
■ Function Description of CN100

Pin No.	Function	Description
1	RC+	Turns the output on and off by electrical or dry contact between pin 2 (RC-), Short: Power OFF, Open: Power ON.
2	RC-	Remote control ground.
3	AUX	Auxiliary voltage output, 4.75~5.25V, referenced to pin 4(AUXG). The maximum load current is 0.3A. This output is not controlled by the "remote ON/OFF control".
4	AUXG	Auxiliary voltage output ground. The signal return is isolated from the output terminals (+V & -V).
5	DC-OK	DC-OK Signal is a TTL level signal, referenced to pin6(DC-OK GND). High when PSU turns on.
6	GND	This pin connects to the negative terminal(-V). Return for DC-OK signal output.
7		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.
8	-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

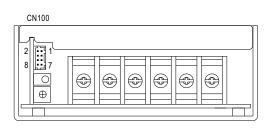
The remote sensing compensates voltage drop on the load wiring up to 0.5 V.



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



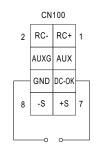


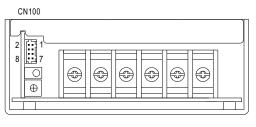
Fig 2.1

3.Remote Control

The PSU can be turned ON/OFF by using the $\,$

"Remote Control" function.

Between RC+(pin1) and RC-(pin2)	Output Status
SW ON (Short)	OFF
SW OFF (Open)	ON



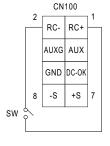


Fig 3.1