



■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- High efficiency up to 89%
- Withstand 300VAC surge input for 5 seconds
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in constant current limiting circuit
- 1U low profile 41mm
- Medical safety approved (MOOP level)
- Built-in cooling fan ON-OFF control
- Built-in DC OK signal
- Built-in remote ON-OFF control
- Standby 5V@0.3A
- Built-in remote sense function
- No load power consumption<0.5W (Note.6)
- 5 years warranty

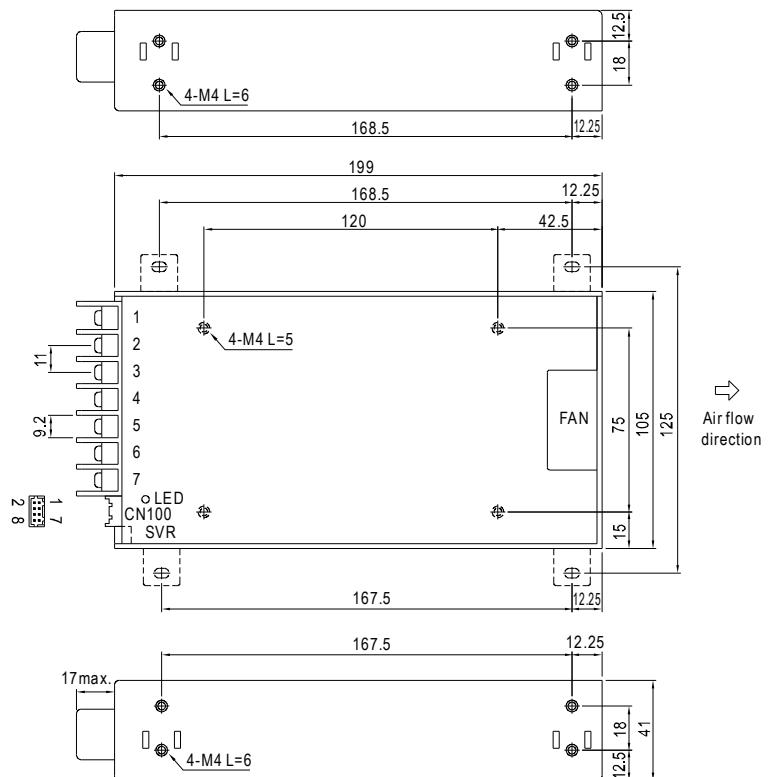


SPECIFICATION

MODEL	MSP-300-3.3	MSP-300-5	MSP-300-7.5	MSP-300-12	MSP-300-15	MSP-300-24	MSP-300-36	MSP-300-48
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	36V
	RATED CURRENT	60A	60A	40A	27A	22A	14A	9A
	CURRENT RANGE	0 ~ 60A	0 ~ 60A	0 ~ 40A	0 ~ 27A	0 ~ 22A	0 ~ 14A	0 ~ 9A
	RATED POWER	198W	300W	300W	324W	330W	336W	336W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	90mVp-p	100mVp-p	120mVp-p	150mVp-p	150mVp-p	250mVp-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	± 2.5%	± 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	1000ms, 50ms/230VAC	2500ms, 50ms/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%	82%	86%	88%	88%	87%	88%
	AC CURRENT (Typ.)	4.5A/115VAC	2.25A/230VAC					
PROTECTION	INRUSH CURRENT (Typ.)	35A/115VAC	70A/230VAC					
	LEAKAGE CURRENT	Earth leakage current < 450μA/264VAC , Touch leakage current < 100μA/264VAC						
	OVERLOAD	105 ~ 135% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed						
FUNCTION	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
	OVER TEMPERATURE	Protection type : Shut down o/p voltage, re-power on to recover						
	5V STANDBY	Shut down o/p voltage, recovers automatically after temperature goes down						
ENVIRONMENT	DC OK SIGNAL	5VSB : 5V@0.3A ; tolerance ± 5%, ripple : 50mVp-p(max.)						
	REMOTE CONTROL	PSU turns on : 3.3 ~ 5.6V ; PSU turns off : 0 ~ 1V						
	FAN CONTROL (Typ.)	RC+ / RC- : 4 ~ 10V or open = power on ; 0 ~ 0.8V or short = power off						
	WORKING TEMP.	Load 35±15% or RTH2≥50°C Fan on						
SAFETY & EMC (Note 4)	WORKING HUMIDITY	-40 ~ +70°C (Refer to "Derating Curve")						
	STORAGE TEMP., HUMIDITY	20 ~ 90% RH non-condensing						
	TEMP. COEFFICIENT	-40 ~ +85°C , 10 ~ 95% RH						
	VIBRATION	± 0.03%/°C (0 ~ 50 °C)						
	SAFETY STANDARDS	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes						
	ISOLATION LEVEL	ANSI/AAMI ES60601-1, IEC60601-1 approved						
OTHERS	WITHSTAND VOLTAGE	Primary-Secondary: 2xMOOP, Primary-Earth: 1xMOOP						
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH						
	EMC EMISSION	Compliance to EN55011 (CISPR11) Class B, EN61000-3-2,-3						
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN60601-1-2						
	MTBF	176Khrs min. MIL-HDBK-217F (25°C)						
	DIMENSION	199*105*41mm (L*W*H)						
NOTE	PACKING	0.95Kg;15pcs/15.3Kg/0.69CUFT						
	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 0.1uf & 47uf 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. 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 http://www.meanwell.com)							
	5. Derating may be needed under low input voltages. Please check the derating curve for more details.							
	6. No load power consumption<0.5W when RC- & RC+ (CN100 pin4,6) 0 ~ 8V or short.							

■ Mechanical Specification

Case No. 980A Unit:mm



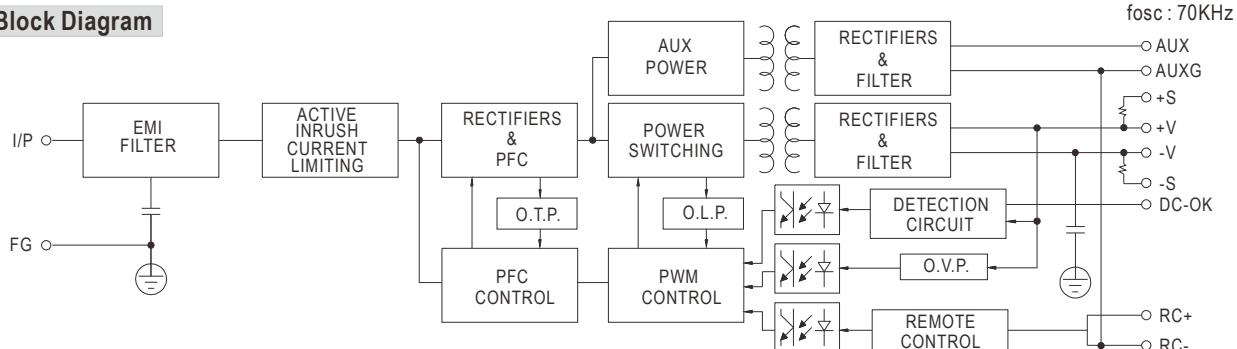
Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,5	DC OUTPUT -V
2	AC/N	6,7	DC OUTPUT +V
3	FG \pm		

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

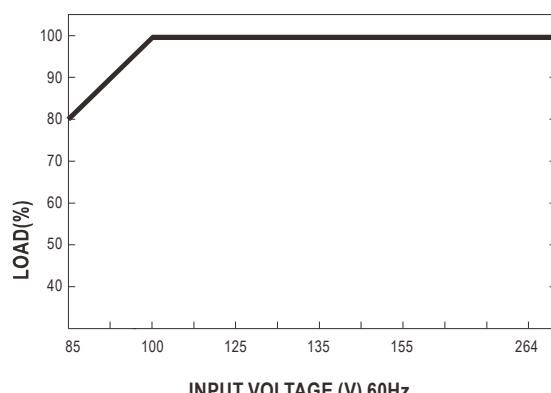
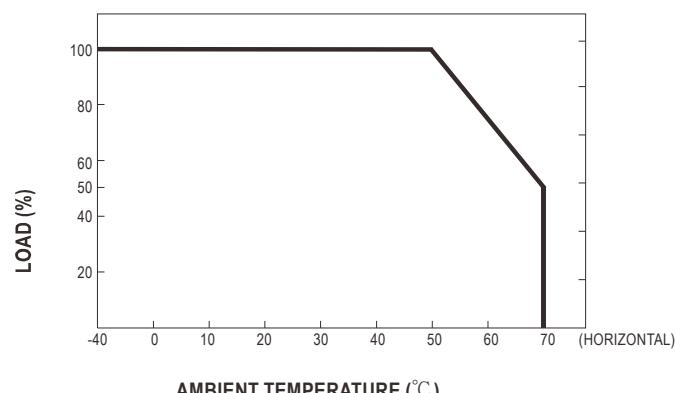
Pin No.	Assignment	Mating Housing	Terminal
1	AUX	HRS DF11-8DS or equivalent	
2	AUXG		
3	DC-OK		
4	RC-		HRS DF11-**SC or equivalent
5	GND		
6	RC+		
7	+S		
8	-S		

■ Block Diagram



■ Derating Curve

■ Output Derating VS Input Voltage



■ Function Description of CN100

Pin No.	Function	Description
1	AUX	Auxiliary voltage output, 4.75~5.25V, reference to pin 2(AUXG). The maximum load current is 0.3A. This output has the built-in oring diodes and is not controlled by the "remote ON/OFF control".
2	AUXG	Auxiliary voltage output ground. The signal return is isolated from the output terminals (+V & -V).
3	DC-OK	DC-OK signal is a TTL level signal, referenced to pin5(DC-OK GND). High when PSU turns on.
4	RC-	Remote control ground.
5	GND	This pin connects to the negative terminal(-V). Return for DC-OK signal output.
6	RC+	Turns the output on and off by electrical or dry contact between pin 4 (RC-), Short: Power OFF, Open: Power ON.
7	+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.
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 0.5V.

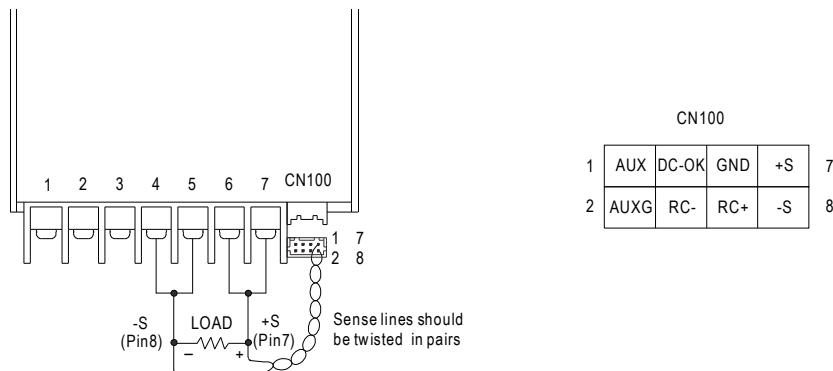


Fig 1.1

2. DC-OK Signal

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

Between DC-OK(pin6) and GND(pin4)	Output Status
3.3 ~ 5.6V	ON
0 ~ 1V	OFF

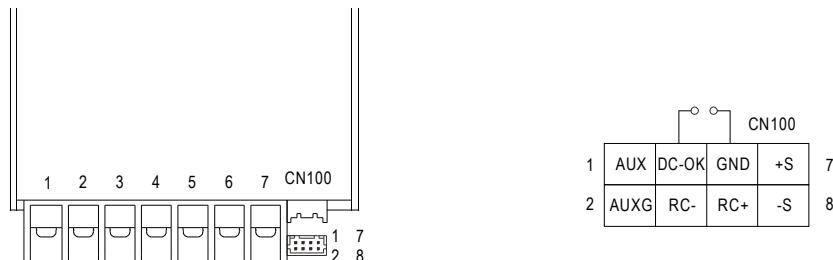


Fig 2.1

3. Remote Control

The PSU can be turned ON/OFF by using the "Remote ON/OFF" function

Between RC+(pin3) and RC-(pin5)	Output Status
SW ON (Short)	OFF
SW OFF (Open)	ON

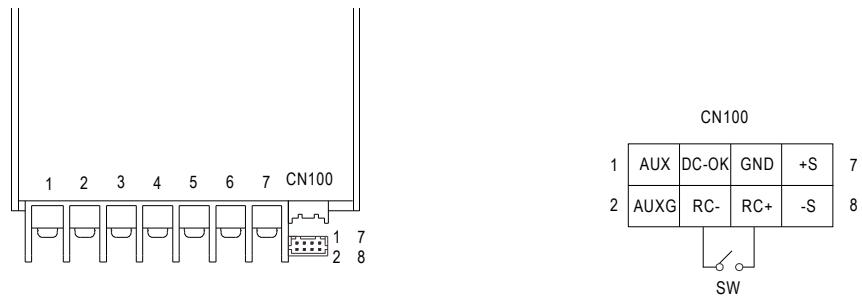


Fig 3.1