

300W Single Output with PFC Function

HRPG-300 series



Features :

- Universal AC input / Full range
 Duith in action DE0 function DE 0.05
- 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
- 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

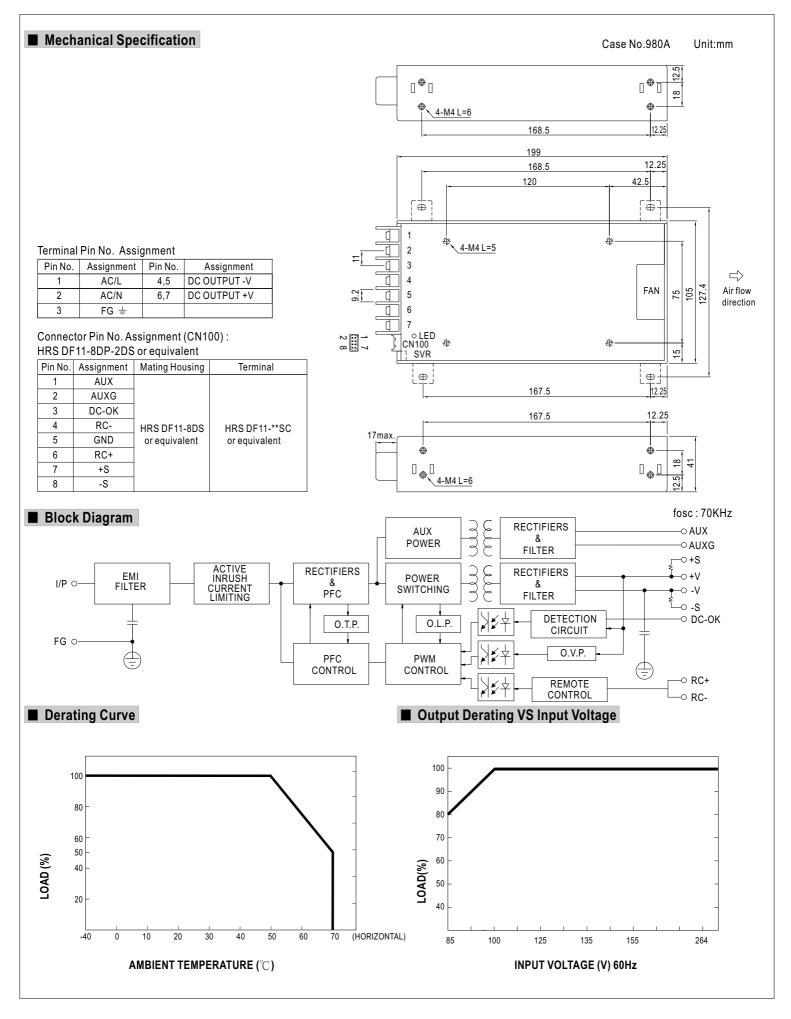


SPECIFICATION

| MODEL | | HRPG-300-3.3 | HRPG-300-5 | HRPG-300-7.5 | HRPG-300-12 | HRPG-300-15 | HRPG-300-24 | HRPG-300-36 | HRPG-300-48 | |
|---|--|---|------------|--------------|--------------|--------------|--------------|--------------|--------------|--|
| | DC VOLTAGE | 3.3V | 5V | 7.5V | 12V | 15V | 24V | 36V | 48V | |
| OUTPUT | RATED CURRENT | 60A | 60A | 40A | 27A | 22A | 14A | 9A | 7A | |
| | CURRENT RANGE | 0~60A | 0~60A | 0~40A | 0~27A | 0~22A | 0~14A | 0~9A | 0~7A | |
| | RATED POWER | 198W | 300W | 300W | 324W | 330W | 336W | 324W | 336W | |
| | RIPPLE & NOISE (max.) Note.2 | 80mVp-p | 90mVp-p | 100mVp-p | 120mVp-p | 150mVp-p | 150mVp-p | 250mVp-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 | 40.8 ~ 55.2V | |
| | VOLTAGE TOLERANCE Note.3 | ±2.5% | ±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, 50ms/230VAC 2500ms, 50ms/115VAC at full load | | | | | | | | |
| | 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 | | | | | | | | |
| INPUT | EFFICIENCY (Typ.) | 80% | 82% | 86% | 88% | 88% | 87% | 88% | 89% | |
| | AC CURRENT (Typ.) | 4.5A/115VAC | 2.5A/230VA | | | | | | | |
| | INRUSH CURRENT (Typ.) | 35A/115VAC 70A/230VAC 70A/230VAC | | | | | | | | |
| | LEAKAGE CURRENT | <1.2mA/240VAC | | | | | | | | |
| | | | | | | | | | | |
| | OVERLOAD | 105 ~ 135% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed | | | | | | | | |
| | | 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 | OVER VOLTAGE | | | | | | | | 0.10 0.121 | |
| | | Protection type : Shut down o/p voltage, re-power on to recover $90^{\circ}C \pm 5^{\circ}C$ (TSW1: detect on heatsink of power transistor) | | | | | | | | |
| | OVER TEMPERATURE | $100^{\circ}C \pm 5^{\circ}C$ for $3.3V,5V,7.5V$; $95^{\circ}C \pm 5^{\circ}C$ for others (TSW2: detect on heatsink of power diode) | | | | | | | | |
| | | Protection type : Shut down o/p voltage, recovers automatically after temperature goes down | | | | | | | | |
| | 5V STANDBY | 5VSB : 5V@0.3A ; tolerance ± 5%, ripple : 50mVp-p(max.) | | | | | | | | |
| | DC OK SIGNAL | | | | , | | | | | |
| FUNCTION | REMOTE CONTROL | PSU turns on : 3.3 ~ 5.6V ; PSU turns off : 0 ~ 1V RC+ / RC-: 4 ~ 10V or open = power on ; 0 ~ 0.8V or short = power off | | | | | | | | |
| | FAN CONTROL (Typ.) | Load $35\pm15\%$ or RTH2 $\ge50^{\circ}$ C Fan on | | | | | | | | |
| | WORKING TEMP. | -40 ~ +70°C (Refer to "Derating Curve") | | | | | | | | |
| | | 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 | | | | | | | | | |
| SAFETY & | WITHSTAND VOLTAGE | UL60950-1, TUV EN60950-1 approved I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC | | | | | | | | |
| | ISOLATION RESISTANCE | | | | | | | | | |
| EMC (Note 4) | EMC EMISSION | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/70% RH Compliance to EN55022 (CISPR22) Class B, EN61000-3-2,-3 Compliance to EN61000 4.2.2.4.5.6.8.11 EN55024 EN61000.6.2. heavy industry level, criteria A | | | | | | | | |
| , , | EMC IMMUNITY | | | | | | | | | |
| | MTBF | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61000-6-2, heavy industry level, criteria A 176K hrs min. MIL-HDBK-217F (25°C) | | | | | | | | |
| OTHERS | DIMENSION | 199*105*41mm (L*W*H) | | | | | | | | |
| UTIEND | PACKING | | · / | т | | | | | | |
| NOTE | All parameters NOT special Ripple & noise are measure Tolerance : includes set up The power supply is consid EMC directives. For guidan (as available on http://www. Derating may be needed ur | 0.95Kg;15pcs/15.3Kg/0.69CUFT ally mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. ed at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. tolerance, line regulation and load regulation. lered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets ince on how to perform these EMC tests, please refer to "EMI testing of component power supplies." meanwell.com) nder low input voltages. Please check the derating curve for more details. n<0.5W when RC- & RC+ (CN100 pin4,6) 0 ~ 8V or short. | | | | | | | | |



HRPG-300 series





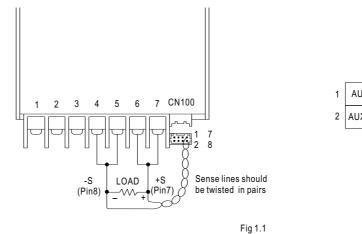
Function Description of CN100

| 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 | | 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 t minimize noise pick-up effect. The maximum line drop compensation is 0.5V. |

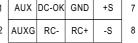
Function Manual

1.Remote Sense

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



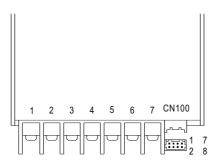
| CN1 | 00 |
|-----|----|
| | |

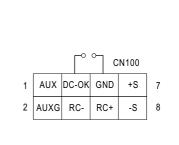


2.DC-OK Signal

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 | |







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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 | | |

