



## ■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.93
- 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
- Built-in cooling fan ON-OFF control
- Built-in DC OK signal
- Built-in remote sense function
- All using 105°C long life electrolytic capacitors
- 5 years warranty



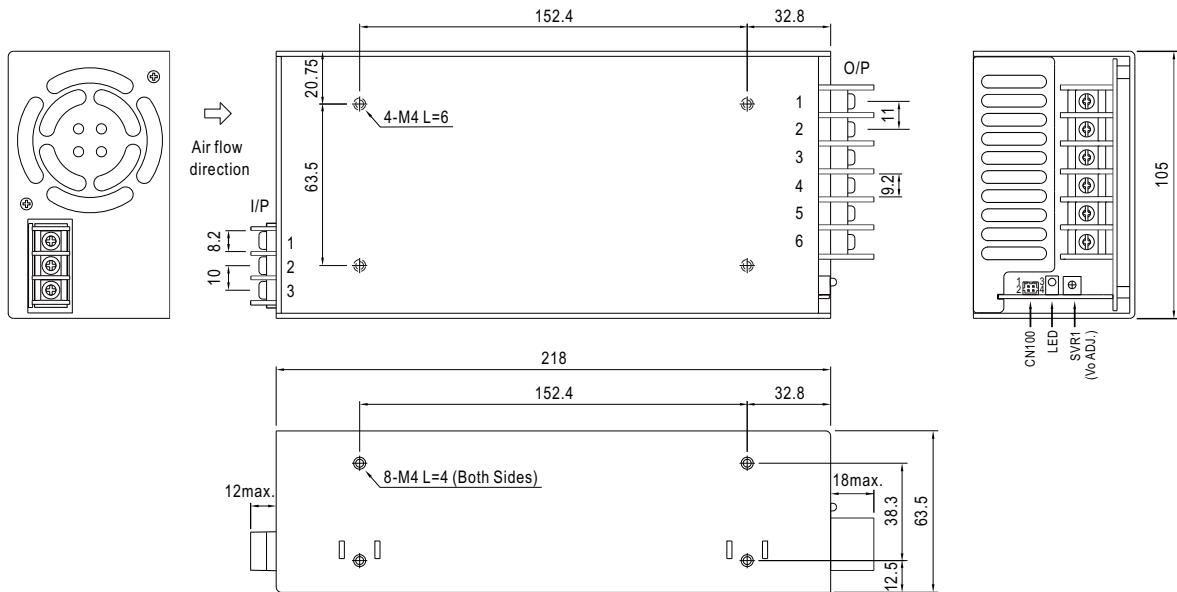
UL62368-1 EN62368-1 TPTC004 IEC62368-1

## SPECIFICATION

| MODEL                 |                              | HRP-600-3.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | HRP-600-5  | HRP-600-7.5 | HRP-600-12   | HRP-600-15   | HRP-600-24   | HRP-600-36   | HRP-600-48   |
|-----------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|--------------|--------------|--------------|--------------|--------------|
| OUTPUT                | DC VOLTAGE                   | 3.3V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5V         | 7.5V        | 12V          | 15V          | 24V          | 36V          | 48V          |
|                       | RATED CURRENT                | 120A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 120A       | 80A         | 53A          | 43A          | 27A          | 17.5A        | 13A          |
|                       | CURRENT RANGE                | 0 ~ 120A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0 ~ 120A   | 0 ~ 80A     | 0 ~ 53A      | 0 ~ 43A      | 0 ~ 27A      | 0 ~ 17.5A    | 0 ~ 13A      |
|                       | RATED POWER                  | 396W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 600W       | 600W        | 636W         | 645W         | 648W         | 630W         | 624W         |
|                       | RIPPLE & NOISE (max.) Note.2 | 100mVp-p                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 100mVp-p   | 100mVp-p    | 120mVp-p     | 150mVp-p     | 150mVp-p     | 200mVp-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 | 40.8 ~ 55.2V |
|                       | 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             | 1800ms, 50ms/230VAC 3600ms, 50ms/115VAC at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |             |              |              |              |              |              |
|                       | HOLD UP TIME (Typ.)          | 16ms/230VAC 16ms/115VAC at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |             |              |              |              |              |              |
| INPUT                 | VOLTAGE RANGE Note.5         | 85 ~ 264VAC 120 ~ 370VDC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |             |              |              |              |              |              |
|                       | FREQUENCY RANGE              | 47 ~ 63Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |             |              |              |              |              |              |
|                       | POWER FACTOR (Typ.)          | PF>0.93/230VAC PF>0.99/115VAC at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |             |              |              |              |              |              |
|                       | EFFICIENCY (Typ.)            | 78.5%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 82%        | 87%         | 88%          | 88%          | 88%          | 89%          | 89%          |
|                       | AC CURRENT (Typ.)            | 7.6A/115VAC 3.6A/230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |             |              |              |              |              |              |
|                       | INRUSH CURRENT (Typ.)        | 35A/115VAC 70A/230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |             |              |              |              |              |              |
| PROTECTION            | OVERLOAD                     | 105 ~ 135% rated output power<br>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 |
|                       | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |             |              |              |              |              |              |
| FUNCTION              | FAN CONTROL (Typ.)           | Load 35 ± 15% or RTH2 ≥ 50°C Fan on                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |             |              |              |              |              |              |
|                       | WORKING TEMP.                | -40 ~ +70°C (Refer to "Derating Curve")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |             |              |              |              |              |              |
| ENVIRONMENT           | 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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |             |              |              |              |              |              |
|                       | VIBRATION                    | 10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |             |              |              |              |              |              |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS             | UL62368-1, TUV EN62368-1, 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |             |              |              |              |              |              |
|                       | EMC EMISSION                 | Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |             |              |              |              |              |              |
| OTHERS                | EMC IMMUNITY                 | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61000-6-2, heavy industry level, criteria A, EAC TP TC 020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |             |              |              |              |              |              |
|                       | MTBF                         | 140.6K hrs min. MIL-HDBK-217F (25°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |             |              |              |              |              |              |
|                       | DIMENSION                    | 218*105*63.5mm (L*W*H)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |             |              |              |              |              |              |
| NOTE                  | PACKING                      | 1.5Kg;8pcs/13Kg/1.34CUFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |             |              |              |              |              |              |
|                       |                              | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>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 <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</p> <p>5. Derating may be needed under low input voltages. Please check the derating curve for more details.</p> <p>6. 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).</p> |            |             |              |              |              |              |              |

## Mechanical Specification

Case No. 977A Unit:mm



### AC Input Terminal Pin No. Assignment

| Pin No. | Assignment |
|---------|------------|
| 1       | AC/L       |
| 2       | AC/N       |
| 3       | FG $\perp$ |

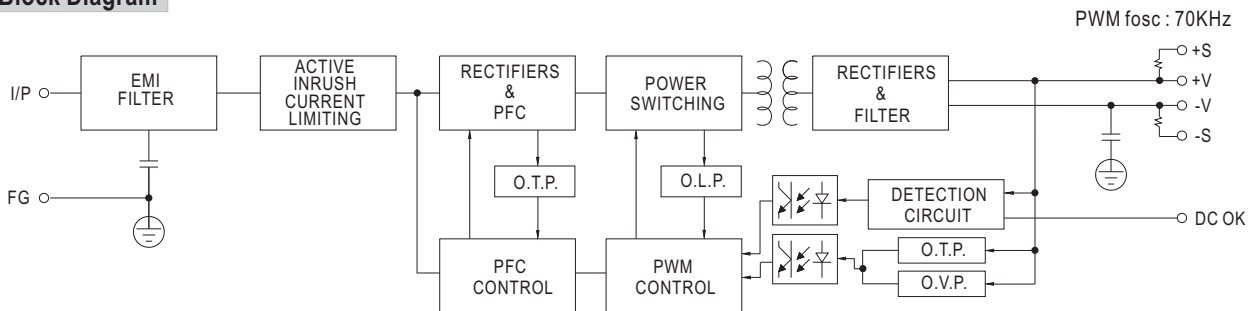
### DC Output Terminal Pin No. Assignment

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

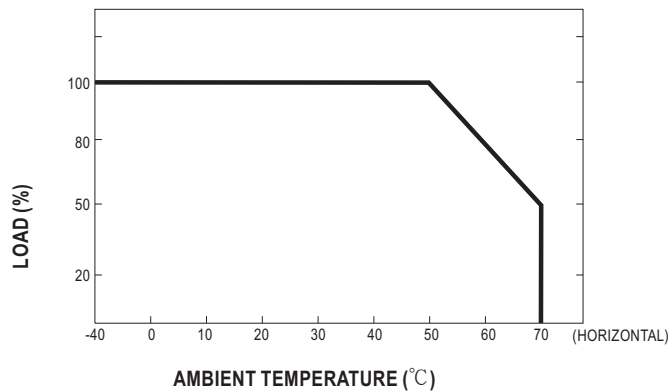
### Connector Pin No. Assignment(CN100) : HRS DF11-4DP-2DS or equivalent

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

## Block Diagram



## Derating Curve



## Output Derating VS Input Voltage

