



#### ■ Features :

- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- With DC OK Signal output
- Current sharing up to 2400W(3+1)
- Built-in remote ON-OFF control
- Built-in remote sense function
- Fixed switching frequency at PFC:88KHz PWM:100KHz
- Operating altitude up to 3000 meters (Note.6)
- 3 years warranty

User's Manual



#### ■ GTIN CODE

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


#### SPECIFICATION

| MODEL                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | PSP-600-5                                                                                                                             | PSP-600-12               | PSP-600-13.5 | PSP-600-15 | PSP-600-24   | PSP-600-27 | PSP-600-48   |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------|------------|--------------|------------|--------------|
| OUTPUT                   | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5V                                                                                                                                    | 12V                      | 13.5V        | 15V        | 24V          | 27V        | 48V          |
|                          | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 80A                                                                                                                                   | 50A                      | 44.5A        | 40A        | 25A          | 22.2A      | 12.5A        |
|                          | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0 ~ 80A                                                                                                                               | 0 ~ 50A                  | 0 ~ 44.5A    | 0 ~ 40A    | 0 ~ 25A      | 0 ~ 22.2A  | 0 ~ 12.5A    |
|                          | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 400W                                                                                                                                  | 600W                     | 600.75W      | 600W       | 600W         | 599.4W     | 600W         |
|                          | RIPPLE & NOISE (max.) <small>Note.2</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 180mVp-p                                                                                                                              | 240mVp-p                 | 240mVp-p     | 240mVp-p   | 240mVp-p     | 240mVp-p   | 300mVp-p     |
|                          | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4.75 ~ 5.5V                                                                                                                           | 10 ~ 13.2V               | 12 ~ 15V     | 13.5 ~ 18V | 20 ~ 26.4V   | 24 ~ 30V   | 41 ~ 56V     |
|                          | VOLTAGE TOLERANCE <small>Note.3</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ± 2.0%                                                                                                                                | ± 1.0%                   | ± 1.0%       | ± 1.0%     | ± 1.0%       | ± 1.0%     | ± 1.0%       |
|                          | LINE REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ± 0.5%                                                                                                                                | ± 0.5%                   | ± 0.5%       | ± 0.5%     | ± 0.5%       | ± 0.5%     | ± 0.5%       |
|                          | LOAD REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ± 1.0%                                                                                                                                | ± 0.5%                   | ± 0.5%       | ± 0.5%     | ± 0.5%       | ± 0.5%     | ± 0.5%       |
|                          | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1500ms, 50ms at full load                                                                                                             |                          |              |            |              |            |              |
|                          | HOLD UP TIME (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 20ms at full load                                                                                                                     |                          |              |            |              |            |              |
| INPUT                    | VOLTAGE RANGE <small>Note.5</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 88 ~ 264VAC                                                                                                                           | 124 ~ 370VDC             |              |            |              |            |              |
|                          | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 47 ~ 63Hz                                                                                                                             |                          |              |            |              |            |              |
|                          | POWER FACTOR (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.95/230VAC                                                                                                                           | 0.99/115VAC at full load |              |            |              |            |              |
|                          | EFFICIENCY(Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 79%                                                                                                                                   | 84%                      | 85%          | 85%        | 86%          | 86%        | 87%          |
|                          | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6.8A/115VAC                                                                                                                           | 3.4A/230VAC              |              |            |              |            |              |
|                          | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 20A/115VAC                                                                                                                            | 40A/230VAC               |              |            |              |            |              |
|                          | LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <1.3mA/240VAC                                                                                                                         |                          |              |            |              |            |              |
| PROTECTION               | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 105 ~ 135% rated output power<br>Protection type : Constant current limiting, recovers automatically after fault condition is removed |                          |              |            |              |            |              |
|                          | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5.75 ~ 6.75V                                                                                                                          | 13.8 ~ 16.2V             | 15.5 ~ 18.2V | 18 ~ 21V   | 27.6 ~ 32.4V | 31 ~ 36.5V | 57.6 ~ 67.2V |
|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Protection type : Shut down o/p voltage, re-power on to recover                                                                       |                          |              |            |              |            |              |
|                          | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Shut down o/p voltage, re-power on to recover                                                                                         |                          |              |            |              |            |              |
| FUNCTION                 | REMOTE CONTROL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RC+/RC-: Short = power on ; Open = power off                                                                                          |                          |              |            |              |            |              |
|                          | POK SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PSU turn on: 3.3V ~ 5.6V      PSU turn off: 0V ~ 1V                                                                                   |                          |              |            |              |            |              |
| ENVIRONMENT              | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -20 ~ +60℃ (Refer to "Derating Curve")                                                                                                |                          |              |            |              |            |              |
|                          | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 20 ~ 90% RH non-condensing                                                                                                            |                          |              |            |              |            |              |
|                          | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -40 ~ +85℃, 10 ~ 95% RH non-condensing                                                                                                |                          |              |            |              |            |              |
|                          | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ± 0.03%/℃ (0 ~ 50℃)                                                                                                                   |                          |              |            |              |            |              |
|                          | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                                                               |                          |              |            |              |            |              |
| SAFETY & EMC<br>(Note 4) | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | UL62368-1, TUV EN62368-1, CCC GB4943.1, BSMI CNS14336-1, AS/NZS 62368.1, 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℃ / 70% RH                                                                             |                          |              |            |              |            |              |
|                          | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3, GB9245, GB17625.1, BSMI CNS13438, EAC TP TC 020                              |                          |              |            |              |            |              |
|                          | EMC IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A, EAC TP TC 020                                               |                          |              |            |              |            |              |
| OTHERS                   | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 116.4K hrs min.      MIL-HDBK-217F (25℃)                                                                                              |                          |              |            |              |            |              |
|                          | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 170*120*93mm (L*W*H)                                                                                                                  |                          |              |            |              |            |              |
|                          | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1.9Kg; 8pcs/15.5Kg/1.06CUFT                                                                                                           |                          |              |            |              |            |              |
| NOTE                     | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μ F & 47 μ F parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>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."<br>(as available on <a href="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a> )<br>5. Derating may be needed under low input voltages. Please check the derating curve for more details.<br>6. The operating altitude is 2000 meters for CCC, 3000 meters for UL,TUV. The ambient temperature derating of 5℃/1000m is needed for operating altitude greater than 2000m (6500ft).<br>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a> |                                                                                                                                       |                          |              |            |              |            |              |

## Mechanical Specification

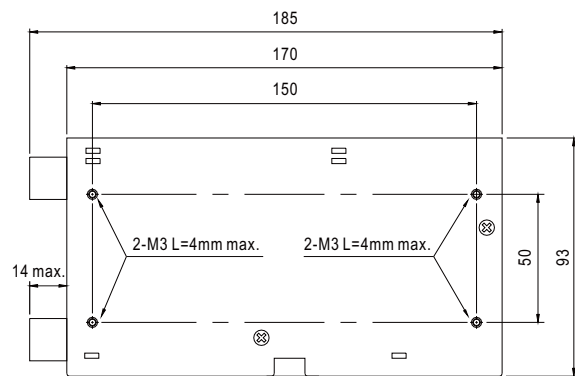
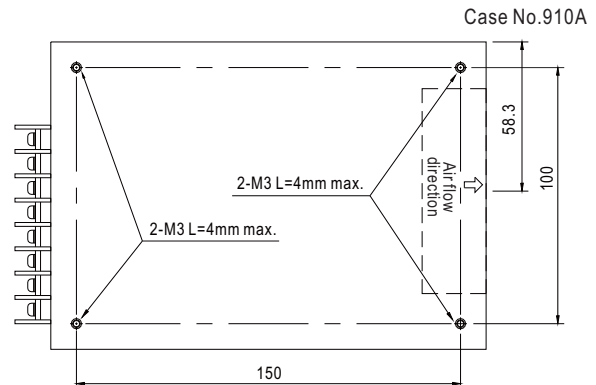
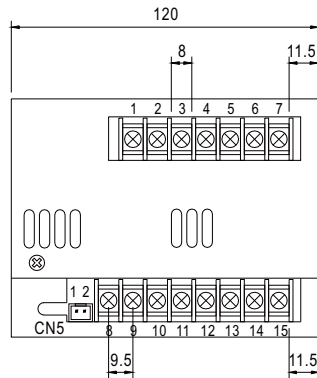
(Unit: mm , tolerance  $\pm 1$ mm)

RS Connector(CN5) : JST B-XH or equivalent

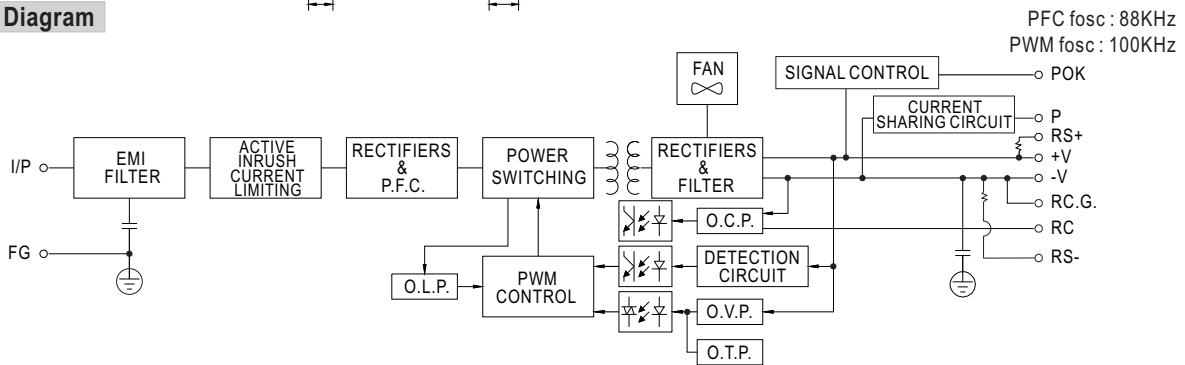
| Pin No. | Assignment | Mating Housing           | Terminal                      |
|---------|------------|--------------------------|-------------------------------|
| 1       | RS+        | JST XHP<br>or equivalent | JST SXH-001T<br>or equivalent |
| 2       | RS-        |                          |                               |

Terminal Pin No. Assignment

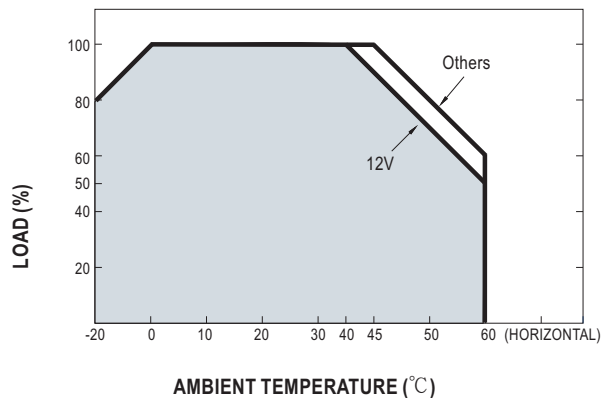
| Pin No. | Assignment       |
|---------|------------------|
| 1       | AC/L             |
| 2       | AC/N             |
| 3       | FG $\perp$       |
| 4       | P(Current Share) |
| 5       | POK              |
| 6       | R.C.G            |
| 7       | R.C.             |
| 8~11    | DC OUTPUT +V     |
| 12~15   | DC OUTPUT -V     |



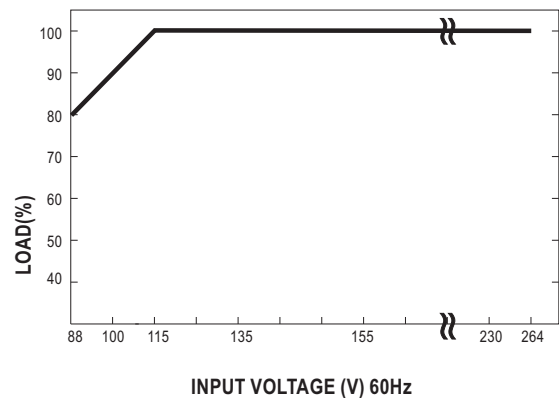
## Block Diagram



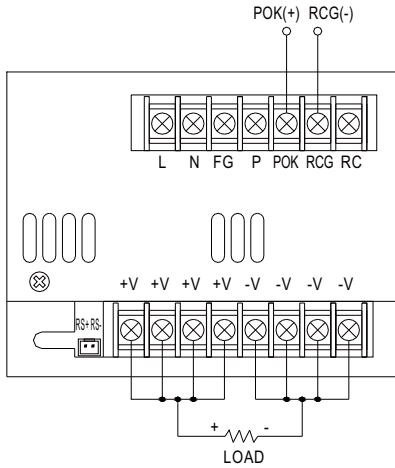
## Derating Curve



## Output Derating VS Input Voltage



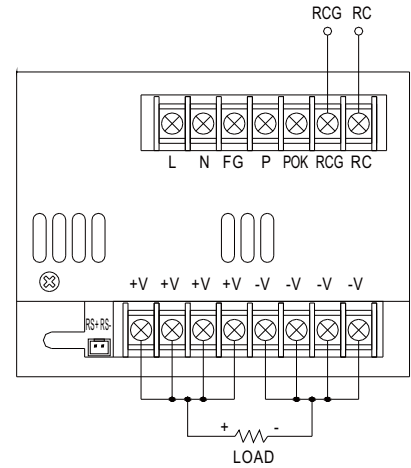
## Control Terminal Instruction Manual



### POK Signal

POK Signal is the voltage difference between "RCG" and "POK" pin output POK Signal for TTL level signal  
 PSU turn on: 3.3V ~ 5.6V  
 PSU turn off: 0V ~ 1V

### Remote Sensing



### Remote Control

Power ON: RCG and RC for short  
 Power OFF: RCG and RC for open

## Parallel Operation with Remote Sensing

- (1) Parallel operation is available by connecting the units shown as below (+S, -S and P are connected mutually in parallel) :
- (2) The voltage difference among each output should be minimized that less than 0.2V is required.
- (3) The total output current must not exceed the value determined by the following equation (Output current at parallel operation)  

$$= (\text{The rated current per unit}) \times (\text{Number of unit}) \times 0.9.$$
- (4) In parallel operation 4 units is the maximum, please consult the manufacture for other applications.
- (5) When remote sensing is used in parallel operation, the sensing wire must be connected only to the master unit.
- (6) When in parallel operation, the minimum output load should be greater than 3% of total output load.  
 (Min. load > 3% rated current per unit x number of unit)

