



Наличие и актуальные цены на

**UHP-500-24**

<https://www.mean-well.ru/store/UHP-500-24/>



## ■ Features

- Slim and Low profile (31mm)
- Fanless design, 500W convection
- Withstand 300VAC surge input for 5 seconds
- Built-in active PFC function
- -30~+70°C working temperature
- Protections: Short circuit / Overload / Over voltage / Over temperature
- DC OK active signal and redundant function(option)
- Operating altitude up to 5000 meter (Note.5)
- LED indicator for power on
- 3 years warranty

## ■ Applications

- Industrial automation machinery
- Industrial control system
- Mechanical and electrical equipment
- Electronic instruments, equipments or apparatus
- LED display application
- Power Source Equipment for PoE(55V model)

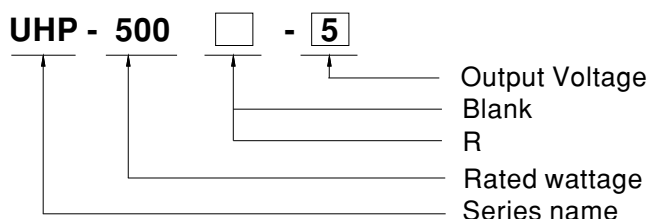
■ **GTIN CODE**

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

## ■ Description

UHP-500 series is a 500W single-output slim type power supply with 31mm of low profile design. Adopting the full range 90~264VAC input, the entire series provides an output voltage line of 4.2V, 5V, 12V, 15V, 24V, 36V, 48V and 55V. In addition to the high efficiency up to 95%, that the whole series operates from -30℃ ~ 70℃ under air convection without fan. UHP-500 has the complete protection functions and 5G anti-vibration capability; It is complied with the international safety regulations such as TUV BS EN/EN62368-1, BS EN/EN60335-1, UL 62368-1 and GB 4943.1. UHP-500 series serves as a high performance power supply solution for various industrial applications.

## ■ Model Encoding



| Type  | Description                                          | Note       |
|-------|------------------------------------------------------|------------|
| Blank | Enclosed                                             | In Stock   |
| R     | Built-in DC OK active signal and redundant function. | By request |



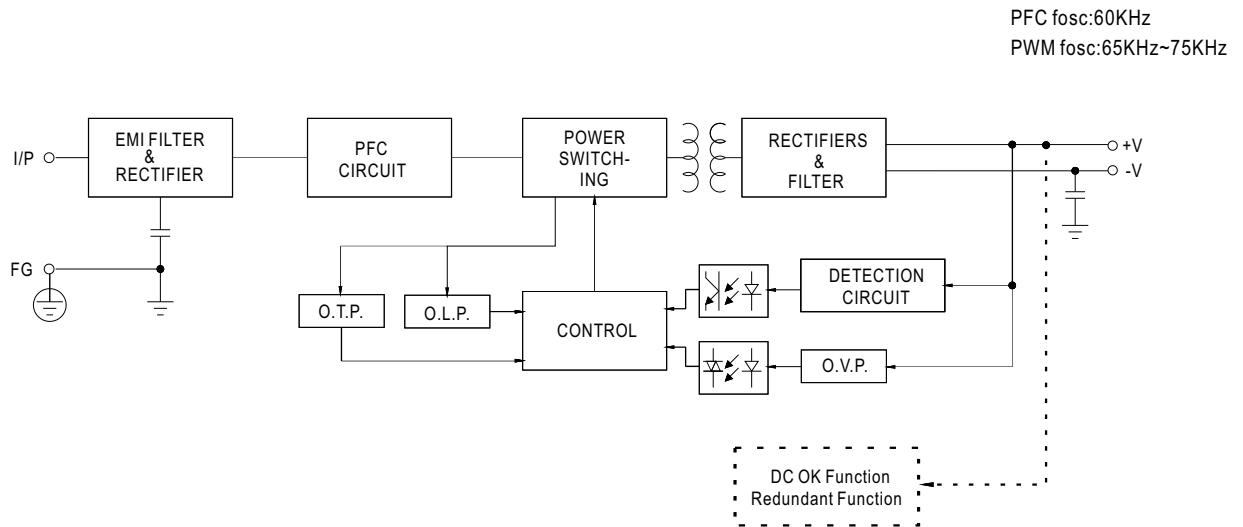
500W Slim Type with PFC Switching Supply

UHP-500 series

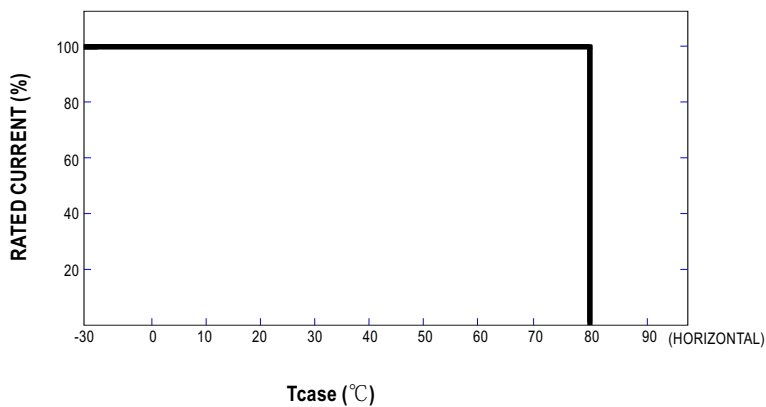
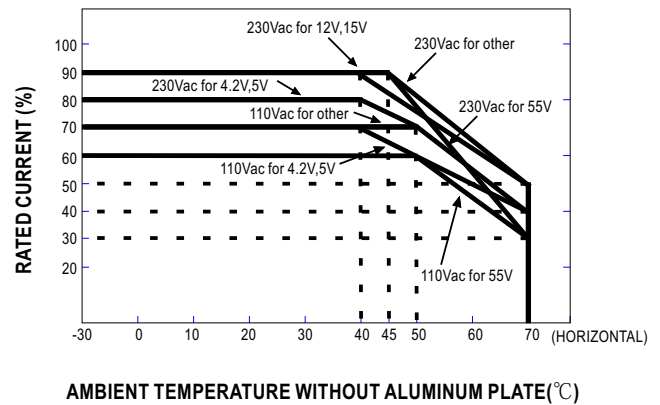
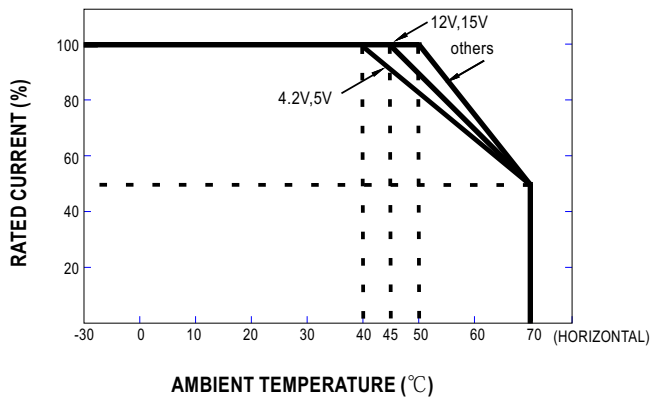
## SPECIFICATION

| MODEL                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | UHP-500□-4.2                                                                                                                                                                                                      | UHP-500□-5   | UHP-500□-12  | UHP-500□-15  | UHP-500□-24  | UHP-500□-36 | UHP-500□-48  | UHP-500□-55 |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|--------------|-------------|--------------|-------------|
| OUTPUT                | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.2V                                                                                                                                                                                                              | 5V           | 12V          | 15V          | 24V          | 36V         | 48V          | 55V         |
|                       | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 80A                                                                                                                                                                                                               | 80A          | 41.7A        | 33.4A        | 20.9A        | 13.9A       | 10.45A       | 8.9A        |
|                       | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 336W                                                                                                                                                                                                              | 400W         | 500.4W       | 501W         | 501.6W       | 500.4W      | 501.6W       | 500W        |
|                       | RIPPLE & NOISE (max.) Note.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 200mVp-p                                                                                                                                                                                                          | 200mVp-p     | 200mVp-p     | 200mVp-p     | 240mVp-p     | 360mVp-p    | 360mVp-p     | 500mVp-p    |
|                       | VOLTAGE ADJ. RANGE Note.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3.6~4.4V                                                                                                                                                                                                          | 4.5~5.5V     | 11.4~12.6V   | 14.3~15.8V   | 22.8~25.2V   | 34.2~37.8V  | 45.6~50.4V   | 45~58V      |
|                       | VOLTAGE TOLERANCE Note.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ±2.0%                                                                                                                                                                                                             | ±2.0%        | ±1.0%        | ±1.0%        | ±1.0%        | ±1.0%       | ±1.0%        | ±1.0%       |
|                       | LINE REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ±0.5%                                                                                                                                                                                                             | ±0.5%        | ±0.3%        | ±0.3%        | ±0.3%        | ±0.3%       | ±0.3%        | ±0.3%       |
|                       | LOAD REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ±1.0%                                                                                                                                                                                                             | ±1.0%        | ±0.5%        | ±0.5%        | ±0.5%        | ±0.5%       | ±0.5%        | ±0.5%       |
|                       | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1000ms, 50ms/230VAC; 1000ms,50ms/115VAC at full load;550ms/230VAC for 55V setup time                                                                                                                              |              |              |              |              |             |              |             |
|                       | HOLD UP TIME (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 12ms/230VAC 12ms/115VAC                                                                                                                                                                                           |              |              |              |              |             |              |             |
| INPUT                 | VOLTAGE RANGE Note.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 90 ~ 264VAC                                                                                                                                                                                                       |              | 127 ~ 370VDC |              |              |             |              |             |
|                       | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 47 ~ 63Hz                                                                                                                                                                                                         |              |              |              |              |             |              |             |
|                       | POWER FACTOR (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | PF≥0.95/230VAC PF≥0.98/115VAC at full load                                                                                                                                                                        |              |              |              |              |             |              |             |
|                       | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 89%                                                                                                                                                                                                               | 90%          | 94%          | 94%          | 94.5%        | 95%         | 95%          | 95%         |
|                       | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 4.85A/115VAC                                                                                                                                                                                                      |              | 2.6A/230VAC  |              |              |             |              |             |
|                       | INRUSH CURRENT (Typ.)Note9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Cold start 30A/115VAC                                                                                                                                                                                             |              | 60A/230VAC   |              |              |             |              |             |
|                       | LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <0.75mA / 240VAC                                                                                                                                                                                                  |              |              |              |              |             |              |             |
| PROTECTION            | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 110~140% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed                                                                                             |              |              |              |              |             |              |             |
|                       | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 4.62 ~ 5.46V                                                                                                                                                                                                      | 5.75 ~ 6.75V | 13.2 ~ 15.6V | 16.5 ~ 19.5V | 26.4 ~ 31.2V | 39.6 ~46.8V | 52.8 ~ 62.4V | 60 ~ 69V    |
|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Protection type :Shut down O/P voltage,re-power on to recover                                                                                                                                                     |              |              |              |              |             |              |             |
|                       | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Protection type :Shut down O/P voltage, recovers automatically after temperature goes down                                                                                                                        |              |              |              |              |             |              |             |
| FUNCTION              | DC OK SIGNAL(Optional)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Contact rating(max.):30Vdc/1A resistive load                                                                                                                                                                      |              |              |              |              |             |              |             |
|                       | REDUNDANT(Optional)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | For parallel connection protection:For parallel applications, when one PSU can not work , the another one will be automatically enabled. This can prevent the system crash, and provide the reliability of system |              |              |              |              |             |              |             |
| ENVIRONMENT           | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -30 ~ +70℃ (Refer to "Derating Curve")                                                                                                                                                                            |              |              |              |              |             |              |             |
|                       | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 20 ~ 95% RH non-condensing                                                                                                                                                                                        |              |              |              |              |             |              |             |
|                       | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -40 ~ +85℃, 10 ~ 95% RH non-condensing                                                                                                                                                                            |              |              |              |              |             |              |             |
|                       | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ±0.03%/℃ (0 ~ 50℃ )                                                                                                                                                                                               |              |              |              |              |             |              |             |
|                       | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes                                                                                                                                                      |              |              |              |              |             |              |             |
| SAFETY & EMC (Note.6) | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | UL 62368-1,TUV BS EN/EN62368-1,BS EN/EN60335-1(Except for 55V), BS EN/EN61558-1,BS EN/EN61558-2-16, GB 4943.1, BSMI CNS14336-1, EAC TP TC 004 approved;Design refer to AS/NZS 61558.1/2.16, AS/NZS 62368.1        |              |              |              |              |             |              |             |
|                       | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:1.25KVAC                                                                                                                                                                     |              |              |              |              |             |              |             |
|                       | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | I/P-O/P, I/P-FG,O/P-FG:100M Ohms/500VDC/25℃ / 70%RH                                                                                                                                                               |              |              |              |              |             |              |             |
|                       | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Compliance to BS EN/EN55032,GB17625.1,GB/T 9254.1,Class B, BS EN/EN61000-3-2,-3, BSMI CNS13438, EAC TP TC 020                                                                                                     |              |              |              |              |             |              |             |
|                       | EMC IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11;BS EN/EN61000-6-2 (BS EN/EN50082-2),BS EN/EN55035, heavy industry level ,EAC TP TC 020                                                                               |              |              |              |              |             |              |             |
| OTHERS                | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1264.1 K hrs min. Telcordia SR-332 (Bellcore) ; 167.6K hrs min. MIL-HDBK-217F (25℃)                                                                                                                               |              |              |              |              |             |              |             |
|                       | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 232*81*31mm (L*W*H)                                                                                                                                                                                               |              |              |              |              |             |              |             |
|                       | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.905kg; 16pcs/15.48kg/0.82CUFT                                                                                                                                                                                   |              |              |              |              |             |              |             |
| 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 0.1uf & 47uf parallel capacitor.<br>3. Tolerance :includes set up tolerance, line regulation and load regulation.<br>4. Derating may be needed under low input voltages. Please check the derating curve for more details.<br>5. The ambient temperature derating of 3.5℃/1000m is needed for operating altitude greater than 2000m(6500ft)<br>6. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <a href="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a> )<br>7. Please refer to derating curve.<br>8. R type efficiency slightly less than the Blank type, according to the actual measurement.<br>9. Inrush current parameter has 10% tolerance.<br>10. RCM is on voluntary basis and meets relevant IEC or AS/NZS standards complying with AS/NZS 4417.1.<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> |                                                                                                                                                                                                                   |              |              |              |              |             |              |             |

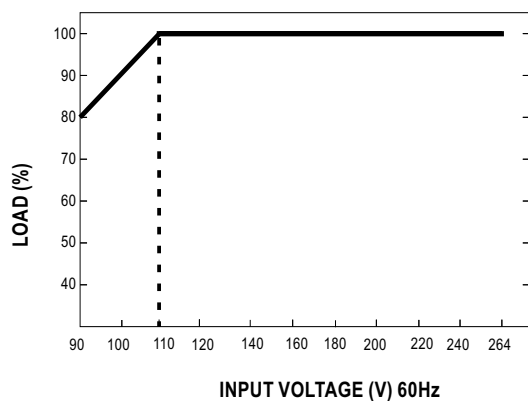
## Block Diagram



## Derating Curve



## ■ STATIC CHARACTERISTIC

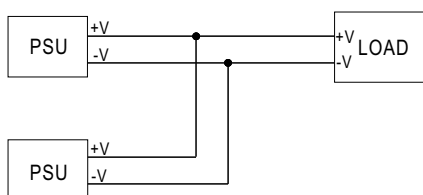


## ■ DC OK Relay Contact

|                      |                         |
|----------------------|-------------------------|
| Contact Close        | PSU turns on/DC ok      |
| Contact Open         | PSU turns off/DC fail   |
| Contact Rating(max.) | 30Vdc/1A resistive load |

## ■ Redundant function

- (1) UHP-500R is built-in redundant function and can be connected 2 units in parallel .
- (2) When in parallel operation the maximum load should not be greater than the rated power of any PSU.

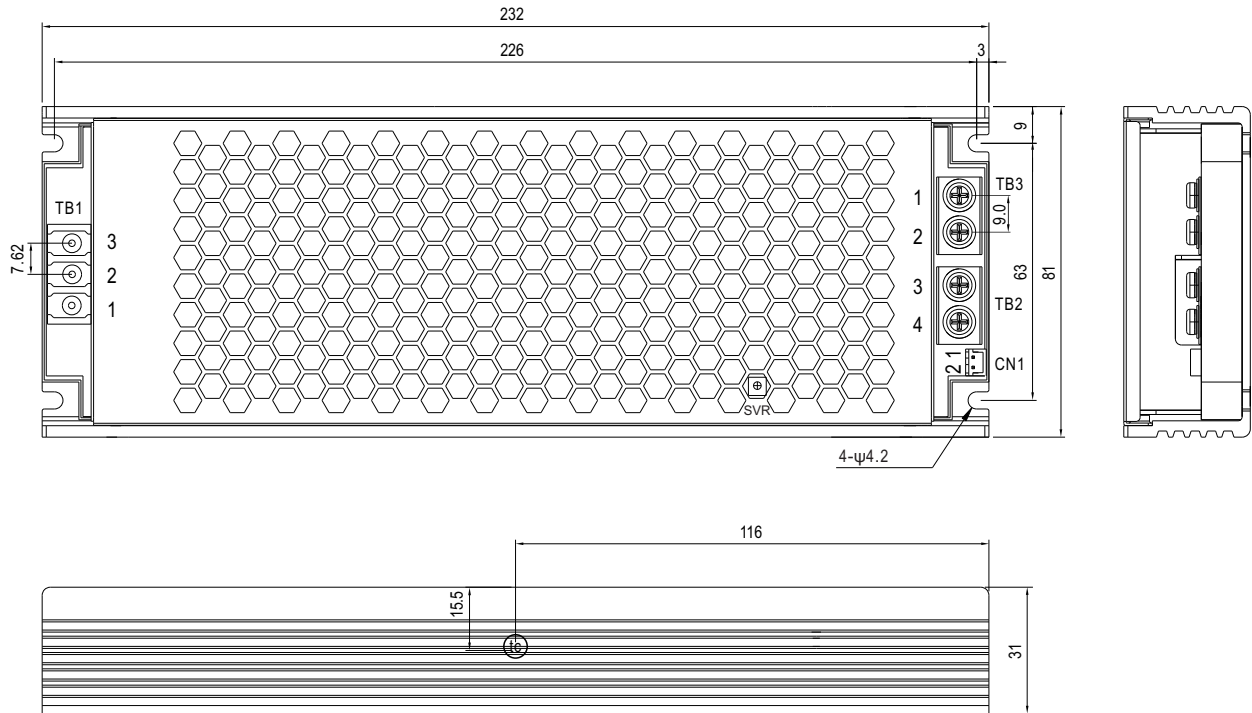


## Mechanical Specification

CASE NO.:233D

Unit:mm

Tolerance:±1



•  $\odot_{tc}$  : Max. Case Temperature

AC Input Terminal(TB1) pin NO. Assignment

| Pin No. | Assignment | Terminal                | Max mounting torque |
|---------|------------|-------------------------|---------------------|
| 1       | AC/L       | (DEGSON)<br>DG28C-B-03P | 5Kgf-cm             |
| 2       | AC/N       |                         |                     |
| 3       | $\perp$    |                         |                     |

DC Output Terminal(TB2,TB3) pin NO. Assignment

| Pin No. | Assignment | Terminal            | Max mounting torque |
|---------|------------|---------------------|---------------------|
| 1,2     | -V         | (MW)<br>MEL-400-02P | 8Kgf-cm             |
| 3,4     | +V         |                     |                     |

DC OK Connector(CN1):JST B2B-PH-K-S or equivalent

| Pin No. | Assignment | Mating Housing             | Terminal                            |
|---------|------------|----------------------------|-------------------------------------|
| 1       | DC COM1    | JST PHR-2<br>or equivalent | JST SPH-002T-P0.5S<br>or equivalent |
| 2       | DC COM2    |                            |                                     |

**■ Installation****1. Operate with additional aluminum plate**

In order to meet the "Derating Curve" and the "Static Characteristics", UHP-500 series must be installed onto an aluminum plate (or the cabinet of the same size) on the bottom. The size of the suggested aluminum plate is shown as below. And for optimizing thermal performance, the aluminum plate must have an even and smooth surface (or coated with thermal grease), and UHP-500 series must be firmly mounted at the center of the aluminum plate.

unit:mm

