



IP65 IP68 (optional)      

■ Features

- Universal AC input / Full range(up to 305VAC)
- Built-in active PFC function
- High efficiency up to 95%
- Fanless design, cooling by free air convection
- -55~+70°C wide operating range
- Aluminum case and filling with heat-conducted silicone
- IP65 design, optional IP68 rated model available
- Meet 6KV surge immunity level
- Withstand 10G vibration test
- Operating altitude up to 5000 meters (Note.8)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- 6 years warranty

■ Applications

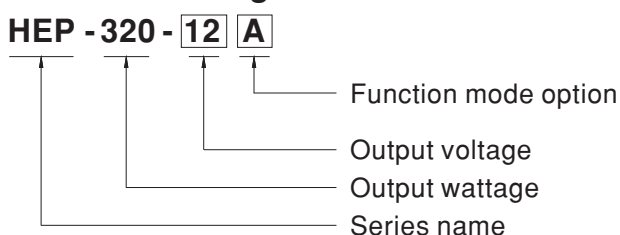
- Outdoor telecommunication equipment
- Outdoor electronic signage and billboard
- Petroleum plant or mine shaft facility

■ Description

HEP-320 is a 320W industrial AC/DC power supply featuring the outstanding capability to operate under a harsh environment with high dust density, humidity, vibration and altitude. The entire series is housed with a robust aluminum case and fully potted with heat-conducted silicone. Thanks to state-of-the-art design, the working efficiency is up to 95%, enabling HEP-320, with a fanless design, perfectly work between -55°C and +70°C under free air convection.

■ Model Encoding

HEP - 320 - 12 A



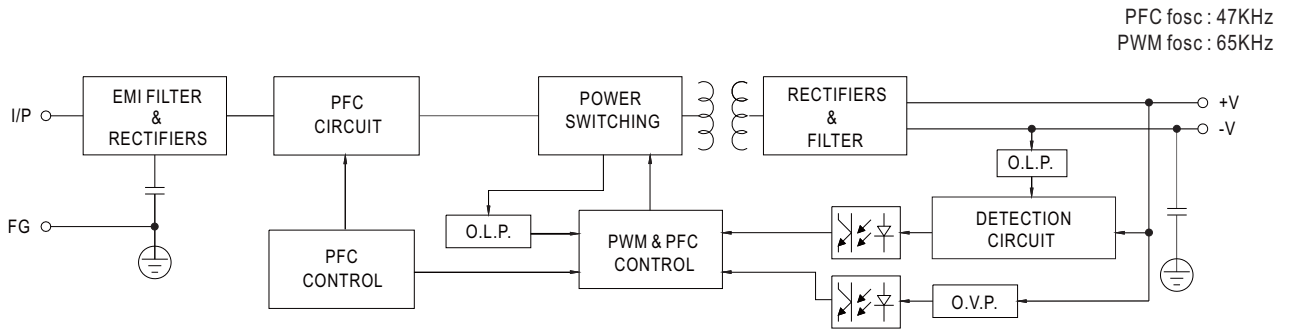
- A : Standard model, IP65, Vo and Io level can be adjusted through internal potentiometer.
- Blank : Optional model, IP68, with fixed Vo and Io level.



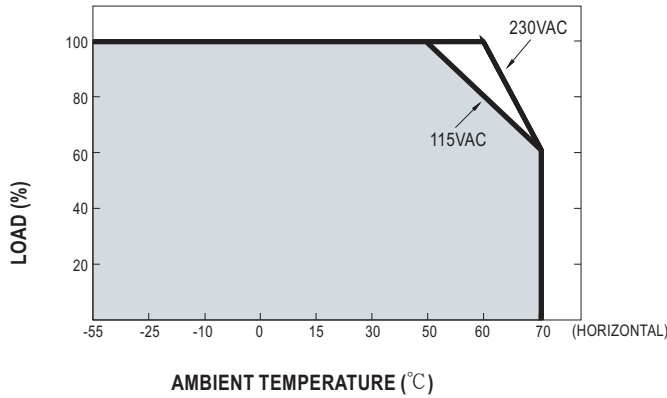
SPECIFICATION

| MODEL | HEP-320-12□ | HEP-320-15□ | HEP-320-24□ | HEP-320-36□ | HEP-320-48□ | HEP-320-54□ | |
|--------------|---|--|----------------|----------------|-------------|-------------|--------------|
| OUTPUT | DC VOLTAGE | 12V | 15V | 24V | 36V | 48V | 54V |
| | RATED CURRENT | 22A | 19A | 13.34A | 8.9A | 6.7A | 5.95A |
| | RATED POWER | 264W | 285W | 320.16W | 320.4W | 321.6W | 321.3W |
| | RIPPLE & NOISE (max.) Note.2 | 150mVp-p | 150mVp-p | 150mVp-p | 250mVp-p | 250mVp-p | 350mVp-p |
| | VOLTAGE ADJ. RANGE Note.5 | 10.8 ~ 13.5V | 13.5 ~ 17V | 21 ~ 26V | 32 ~ 39V | 43 ~ 52V | 49 ~ 58V |
| | CURRENT ADJ. RANGE Note.5 | 11 ~ 22A | 9.5 ~ 19A | 6.67 ~ 13.34A | 4.45 ~ 8.9A | 3.35 ~ 6.7A | 2.97 ~ 5.95A |
| | VOLTAGE TOLERANCE Note.3 | ±3.0% | ±2.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | LINE REGULATION | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | LOAD REGULATION | ±2.0% | ±1.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | SETUP, RISE TIME Note.6 | 2500ms,80ms/115VAC 500ms,80ms/230VAC at full load | | | | | |
| | HOLD UP TIME (Typ.) | 15ms at full load 230VAC /115VAC | | | | | |
| INPUT | VOLTAGE RANGE Note.4 | 90 ~ 305VAC 127 ~ 431VDC | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | |
| | POWER FACTOR (Typ.) | PF>0.98/115VAC, PF>0.95/230VAC, PF>0.94/277VAC at full load | | | | | |
| | EFFICIENCY (Typ.) | 91% | 92.5% | 94% | 94% | 94.5% | 95% |
| | AC CURRENT (Typ.) | 3.5A / 115VAC | 1.65A / 230VAC | 1.45A / 277VAC | | | |
| | INRUSH CURRENT(Typ.) | COLD START 70A at 230VAC | | | | | |
| | LEAKAGE CURRENT | <0.75mA / 277VAC | | | | | |
| PROTECTION | OVER CURRENT | 105 ~ 125% Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | |
| | SHORT CIRCUIT | Hiccup mode, recovers automatically after fault condition is removed | | | | | |
| | OVER VOLTAGE | 14 ~ 17V | 17.5 ~ 21V | 27 ~ 33V | 40 ~ 46V | 53.5 ~ 60V | 59 ~ 65V |
| | | Protection type : Shut down and latch off o/p voltage, re-power on to recover | | | | | |
| | OVER TEMPERATURE | Shut down and latch off o/p voltage, re-power on to recover | | | | | |
| ENVIRONMENT | WORKING TEMP. | -55 ~ +70°C (Refer to "Derating Curve") | | | | | |
| | WORKING HUMIDITY | 20 ~ 95% RH non-condensing | | | | | |
| | STORAGE TEMP., HUMIDITY | -60 ~ +80°C, 10 ~ 95% RH | | | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0 ~ 60°C) | | | | | |
| | VIBRATION | 20 ~ 500Hz, 10G 12min./1cycle, period for 72min. each along X, Y, Z axes | | | | | |
| SAFETY & EMC | SAFETY STANDARDS Note.6 | UL60950-1, IP65 (or IP68 for HEP-320 Blank-Type) approved ; design refer to TUV EN60950-1 | | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC | | | | | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH | | | | | |
| | EMC EMISSION | Compliance to EN55022 (CISPR22) Class B, EN61000-3-2,-3 | | | | | |
| | EMC IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level (surge 6KV), criteria A | | | | | |
| OTHERS | MTBF | 154.2K hrs min. MIL-HDBK-217F (25°C) | | | | | |
| | DIMENSION | 252*90*43.8mm (L*W*H) | | | | | |
| | PACKING | 1.88Kg; 8pcs/16Kg/0.92CUFT | | | | | |
| NOTE | <ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Tolerance : includes set up tolerance, line regulation and load regulation. Derating may be needed under low input voltages. Please check the static characteristics for more details. A-type only. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again. The ambient temperature derating of 3.5°C/1000m is needed for operating altitude greater than 2000m(6500ft). The water protection level test for the IP68 rating is performed 1000mm below the surface of the water for 1 month. | | | | | | |

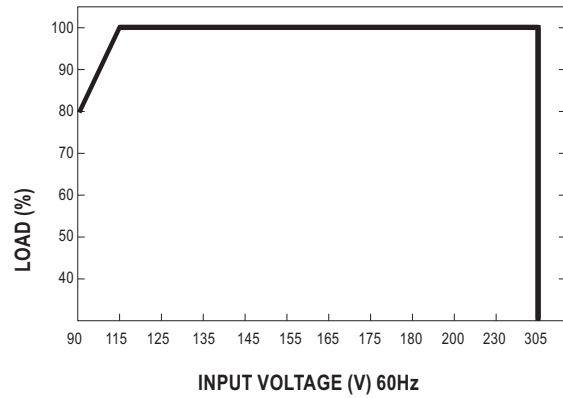
■ Block Diagram



■ Derating Curve



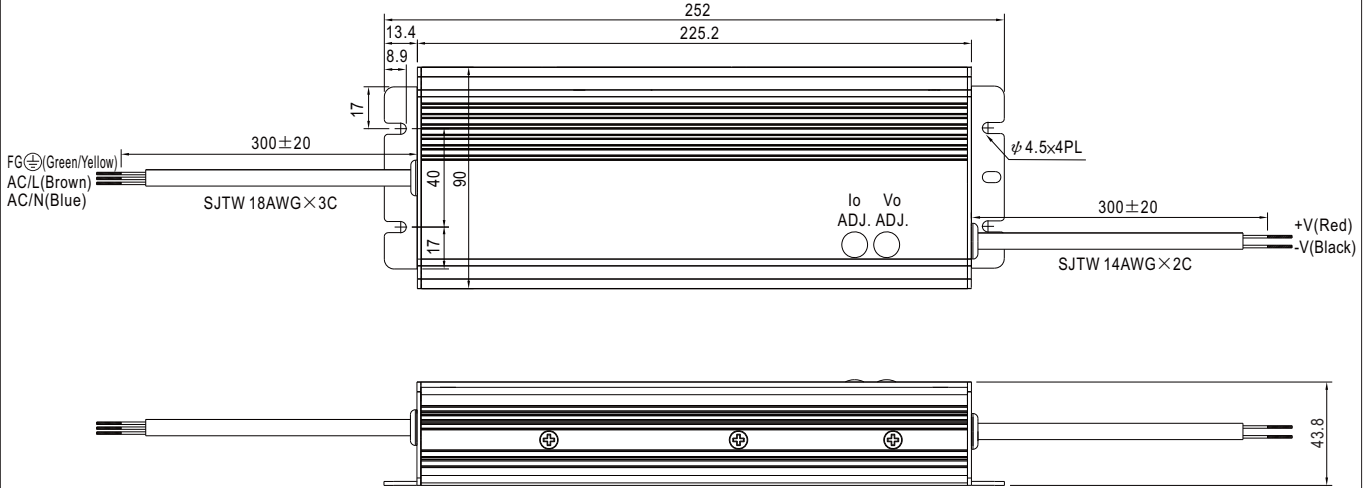
■ Static Characteristics



Mechanical Specification

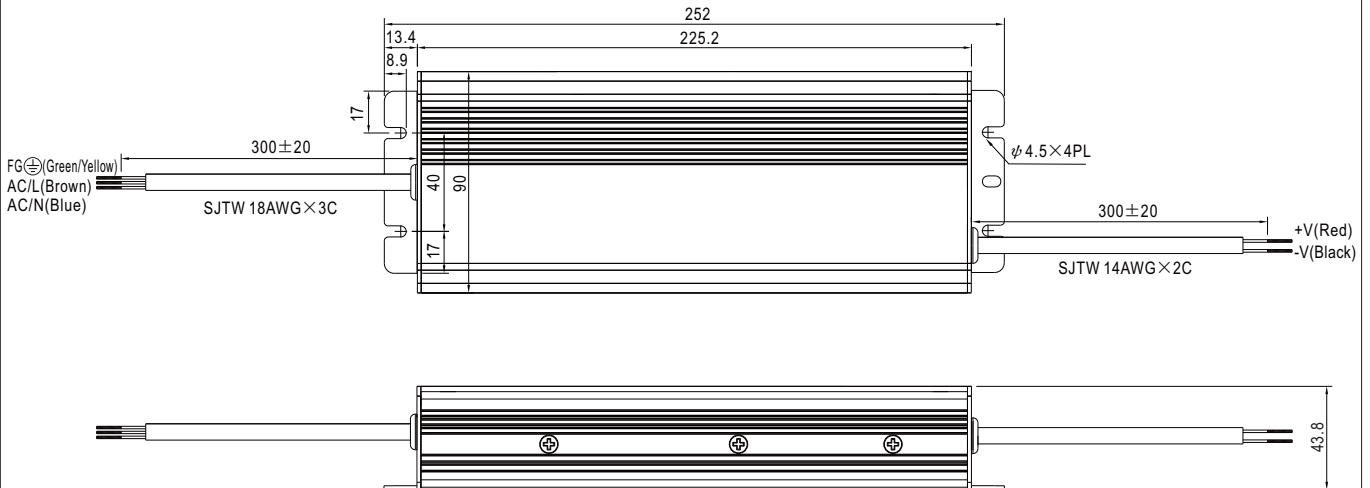
Case No.202A Unit:mm

A-Type: HEP-320- _A(standard model)



※ IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer.
(Can access by removing the rubber stopper on the case.)

Blank-Type: HEP-320(optional model)



※IP68 rated. Cable for I/O connection.

Installation Manual

Please refer to : <http://www.meanwell.com/webnet/search/InstallationSearch.html>