



480W Switching Power Supply for Harsh Environment

HEP-480 series



IP65 IP68 (optional)



UL62368-1

TPTC004

IEC62368-1



## ■ 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~+65°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.7)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- 6 years warranty

## ■ Applications

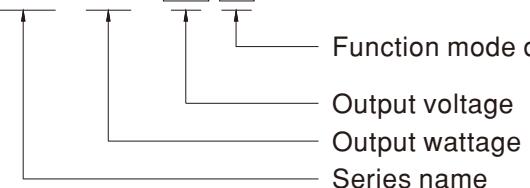
- Outdoor telecommunication equipment
- Outdoor electronic signage and billboard
- Petroleum plant or mine shaft facility

## ■ Description

HEP-480 is a 480W industrial AC/DC power supply featuring the outstanding capability to operate under highly humid, dusty, oily, and high-vibration harsh environment. The entire series is housed with the 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-480 perfectly work between -55°C and +65°C under free air convection.

## ■ Model Encoding

HEP - 480 - 24 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

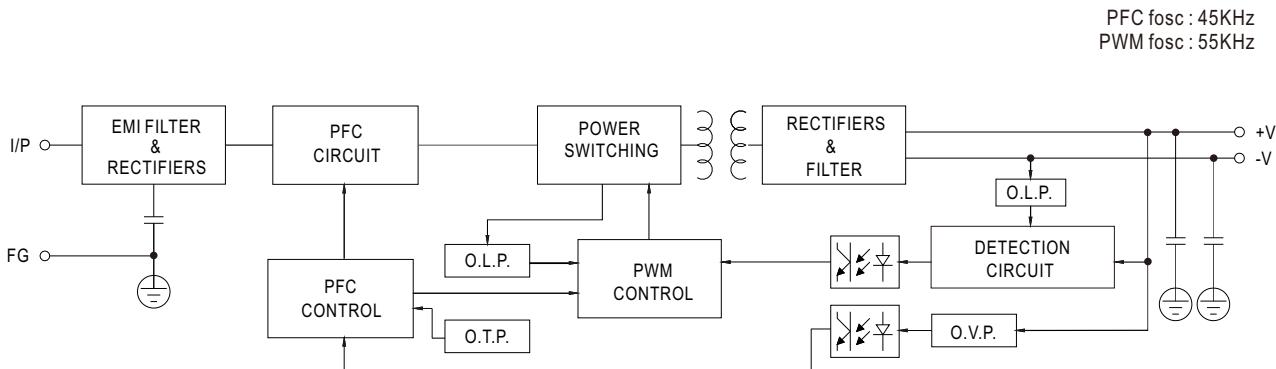
MODEL	HEP-480-24	HEP-480-36	HEP-480-48	HEP-480-54
OUTPUT	DC VOLTAGE	24V	36V	48V
	RATED CURRENT	20A	13.3A	10A
	RATED POWER	480W	478.8W	480W
	RIPPLE & NOISE (max.) Note.2	200mVp-p	250mVp-p	250mVp-p
	VOLTAGE ADJ. RANGE Note.5	Adjusted for A-type only (via built-in potentiometer)		
		20.4 ~ 25.2V	30.6 ~ 37.8V	40.8 ~ 50.4V
	CURRENT ADJ. RANGE	Adjusted for A-type only (via built-in potentiometer)		
		10 ~ 20A	6.6 ~ 13.3A	5 ~ 10A
	VOLTAGE TOLERANCE Note.3	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%
INPUT	LOAD REGULATION	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME Note.4	500ms, 80ms 115VAC/230VAC		
	HOLD UP TIME (Typ.)	16ms 115VAC/230VAC		
	VOLTAGE RANGE Note.5	85~264VAC (277VAC operational) 120~370VDC(390VDC operational)		
	FREQUENCY RANGE	47 ~ 63Hz		
PROTECTION	POWER FACTOR (Typ.)	PF≥0.98/115VAC, PF≥0.97/230VAC, PF≥0.95/277VAC at full load		
	EFFICIENCY (Typ.)	94%	95%	94.5%
	AC CURRENT (Typ.)	5A / 115VAC	2.45A / 230VAC	2A/277VAC
	INRUSH CURRENT(Typ.)	COLD START 35A at 230VAC		
	LEAKAGE CURRENT	<0.75mA / 277VAC		
ENVIRONMENT	OVER CURRENT	105 ~ 125%		
		Constant current limiting, recovers automatically after fault condition is removed		
	SHORT CIRCUIT	Constant current limiting, recovers automatically after fault condition is removed		
	OVER VOLTAGE	27 ~ 33V	40 ~ 50V	53 ~ 63V
		Shut down output voltage, re-power on to recover		
SAFETY & EMC	OVER TEMPERATURE	Shut down output voltage, re-power on to recover		
	WORKING TEMP.	-55 ~ +65°C (Refer to "Derating Curve")		
	WORKING HUMIDITY	20 ~ 95% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-60 ~ +80°C, 10 ~ 95% RH non-condensing		
	TEMP. COEFFICIENT	±0.02%/°C (0 ~ 60°C)		
OTHERS	VIBRATION	20 ~ 500Hz, 10G 12min./1cycle, period for 72min. each along X, Y, Z axes		
	SAFETY STANDARDS Note.7	UL62368-1,IEC62368-1, IP65 (or IP68 for HEP-480 Blank-Type), EAC TP TC 004 approved ;Design refer to BS EN/EN62368-1		
	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 BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020		
NOTE	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55024, light industry level (surge 6KV), criteria A, EAC TP TC 020		
	MTBF	89.8K hrs min. MIL-HDBK-217F (25°C)		
	DIMENSION	262*125*43.8mm (L*W*H)		
NOTE	PACKING	2.8Kg;4pcs/11.5Kg/0.55CUFT		
	1.	All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.		
	2.	Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.		
	3.	Tolerance : includes set up tolerance, line regulation and load regulation.		
	4.	Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the setup time.		
	5.	Derating may be needed under low input voltages. Please refer to the "STATIC CHARACTERISTICS" for more details.		
	6.	The power supply shall be regarded as one component of the final system. The EMC performance will be affected by the complete system installation and/or configuration, the final system manufacturers must re-verify overall EMC directive with the complete installation and/or configuration.		
	7.	The water protection level test for the IP68 rating is performed 1000mm below the surface of the water for 1 month.		
	8.	Please refer to the warranty statement on MEAN WELL's website at <a href="http://www.meanwell.com">http://www.meanwell.com</a>		
	9.	The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).		
※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>				



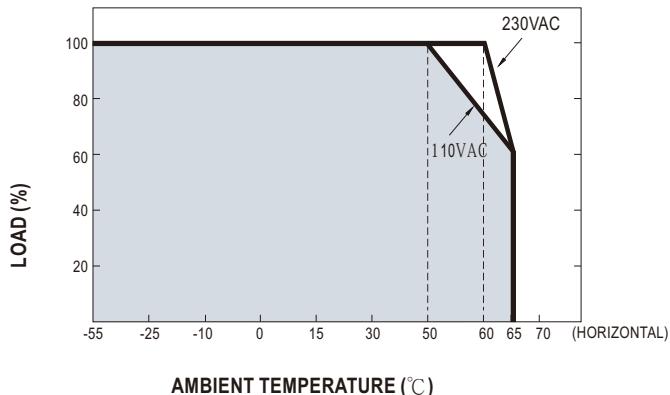
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**HEP-480** series

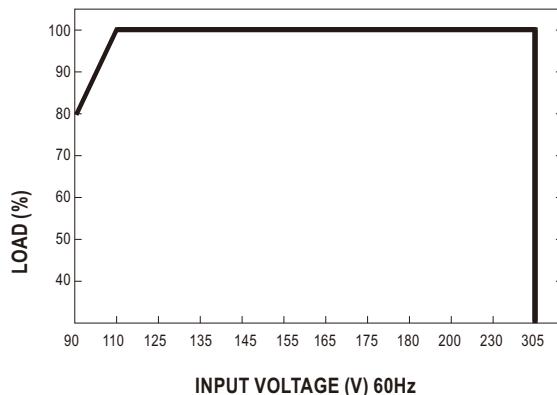
■ Block Diagram



■ Derating Curve



■ Static Characteristics

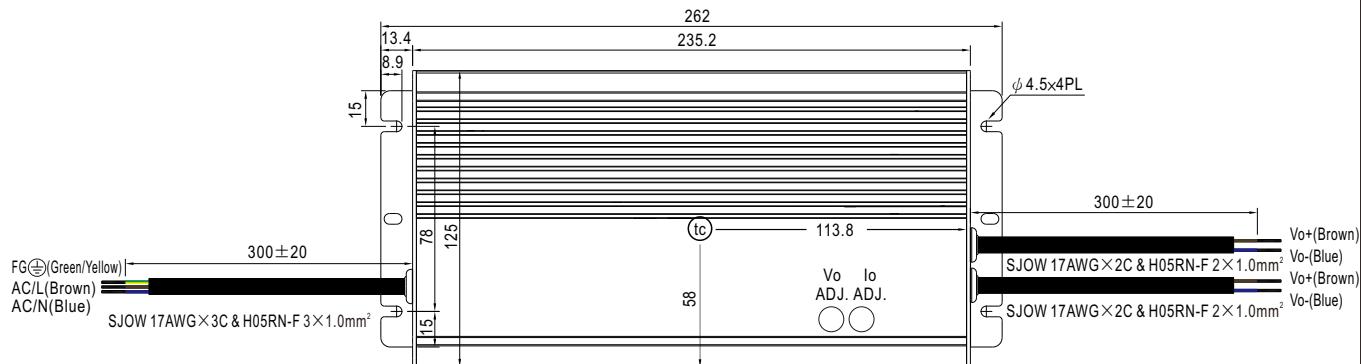


## ■ Mechanical Specification

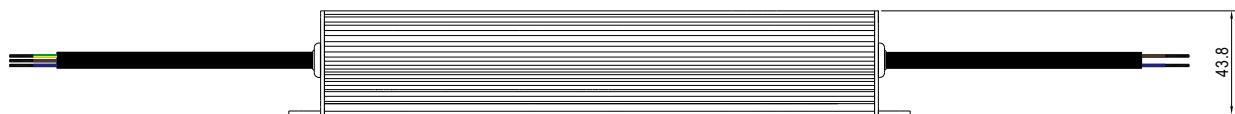
Case No. 251 Unit:mm

## ※ A-Type (standard model)

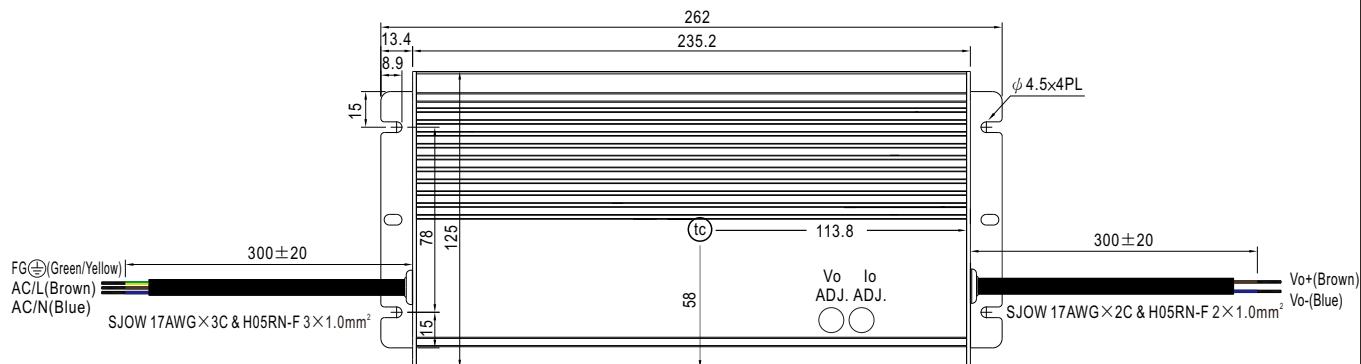
For 24V,36V



• (tc) : Max. Case Temperature



For Others



• (tc) : Max. Case Temperature



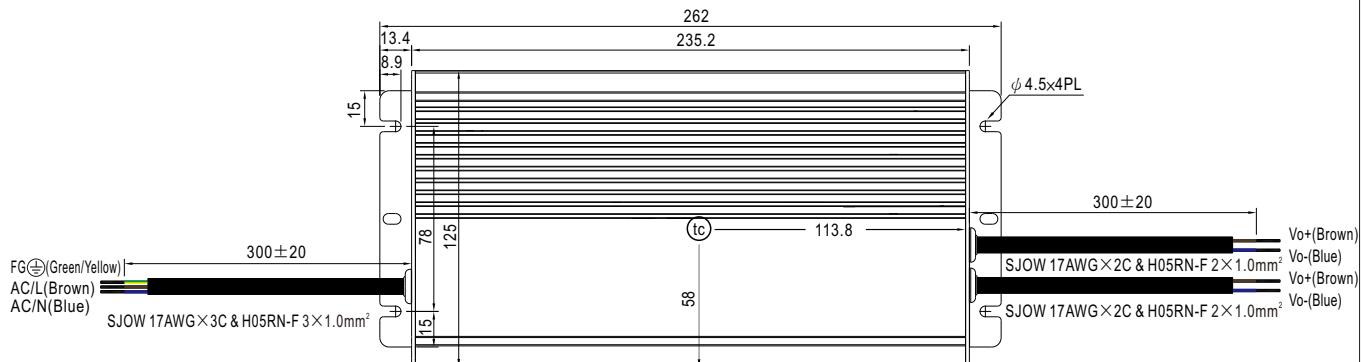


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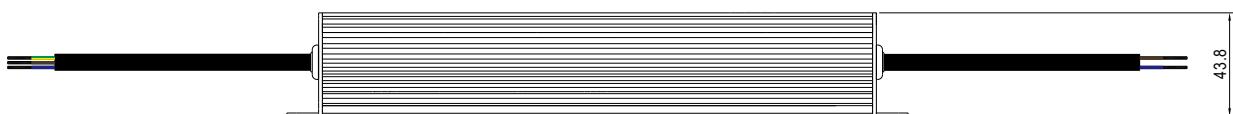
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## ※ Blank-Type (optional model)

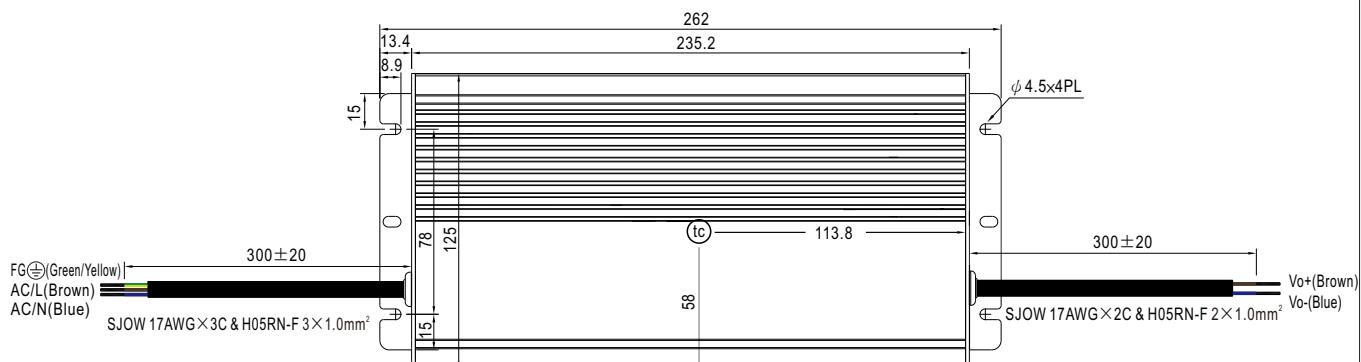
For 24V,36V



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For Others



• (tc) : Max. Case Temperature



## ■ INSTALLATION MANUAL

Please refer to : <http://www.meanwell.com/manual.html>