



TECHNICAL SPECIFICATION

MODEL NO.:APVM-100-48 DOCUMENT NO.:_____

CUSTOMER NO.:_____ DATA.:_____

CHANGZHOU AMCFLEX TECHNOLOGY CO LTD
ADD: NO8, HUASHAN ROAD, XINBEI AREA, CHANGZHOU, JIANGSU, CHINA
TEL: 0086 519 69682537 FAX: 0086 519 68693467
Email: info@amcflex.com www.amcflex.com

APVM-100-48

IP67 Waterproof LED Power Supply



- ★ Constant Voltage + Constant Current Mode
- ★ 200-240VAC Input voltage, High efficiency up to 93.5%
- ★ Protection: Over Current/Short Circuit/Over voltage Over Temperature
- ★ Class II Power Unit, NO FG
- ★ IP67 waterproof full sealed with Plastic Housing
- ★ Compliance to ERP SELV EMC LVD requirement
- ★ 50,000Hours long life span, low temperature rise

TECHNICAL PARAMETERS

1. Output

Items	Specs	Unit	Conditions
Rated Output voltage	48	VDC	Ta , rated input voltage, output with rated power
Rated Output Current	2.1	A	Ta ,rated input voltage
Rated Output Power	100.8	W	Ta , rated input voltage
Tcase Max	80	C°	Ta: 50C° ,230VAC,full load
Efficiency	≥93.5	%	25°C,rated input voltage, output with max. rated power
Line Regulation	±1.0	%	/
Load Regulation	±1.0	%	/
Voltage tolerance	±2	%	/
Ripple & Noise (max)	≤240	mVp-p	Measured at 20MHZ of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47 uf parallel capacitor
Rise time	≤60	mS	25C° , full load
Switch off Hold Up time	18	ms	230VAC, full load

2. Input

Items	Specs	Unit	Conditions
Rated Input voltage	200-240	VAC	25°C
Input voltage range	180-264	VAC	25°C
Input Frequency	47-63(Typical 50/60)	Hz	25°C
Input Current Max	<1.2	A	Vin=180Vac, Full Load
Inrush Current	≤60	A	220Vac, full load, 25C°
Leakage Current	<0.25	mA	240VAC

3. Protection

Current Limiting	1.1-1.4 times of rated output current	A	Constant current limit, Auto-recovery after fault condition is removed
Over Voltage	52 ~ 56	V	Shut down output voltage, re-power on to recover
Over Temperature	Yes	C°	Hiccup Mode, Auto-recovery after fault condition is removed
Short circuit	Yes		Hiccup Mode, Auto-recovery after fault condition is removed

4. Temperature and others

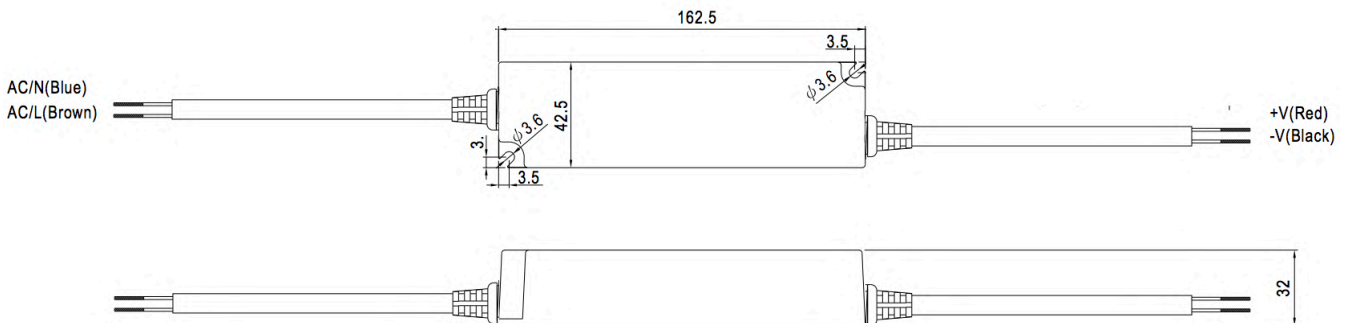
Operating Temperature range	-30 to +70 (Typical25)	C°	Refer to Derating Curve
Storage Temperature range	-40 to +80 (Typical25)	C°	
Humidity	10 ~ 95	%	NON-Condensing
Max Case Temperature	80	C°	50C° ambient temperature, full load
Waterproof Level	IP67 full sealed with silicon gel		
Cooling method	Air convection		
Temperature Coefficient	0.03%/C° (0-60C°)		
Vibration	10-500Hz, 5G 12min./1cycle, period for 72 min, each along X.Y. Z axes		
Lifespan	50,000hours, Max.Ta, rated input voltage, max rated output power		
Dimension/Packing	162*43*32mm (L*W*H) , 0.4Kg; 30pcs/13.0Kg/0.0.2CBM		

5. Safety & EMC Standards

Safety	U8750, EN60950-1, EN 62368-1
Withstand Voltage	I/P-O/P:3.0KVAC
Isolation Resistance	I/P-O/P:>100M Ohms / 500VDC /25C°/70% RH
EMI Conduction	Compliance to EN55015, EN55032 (CISPR22) Class B
EMS Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61547, light industry level , criteria A
Temperature Coefficient	0.03%/C° (0-60C°)
Vibration	10-500Hz, 5G 12min./1cycle, period for 72 min, each along X.Y. Z axes

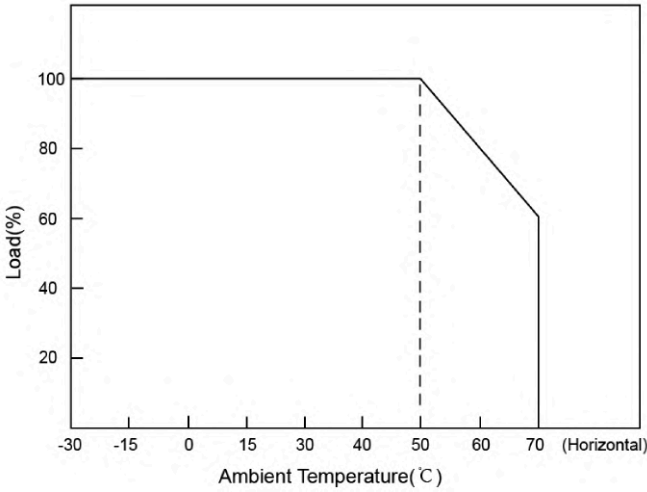
6. Mechanical Mounting

Case Material	Pure PC, Fire-proof level V0
Mounting ways	Striped
Insulation type	Class II, NO FG
IP grade	IP67
Input cables dimension	H05RN-F 2X1.0mm ² , 17AWG, 300±10mm, AC/N-Blue, AC/L-Brown
output cables dimension	H05RN-F 2X1.5mm ² , 16AWG, 300±10mm,V+: Red, V-:Black
Dimension	162*43*32mm (L*W*H)

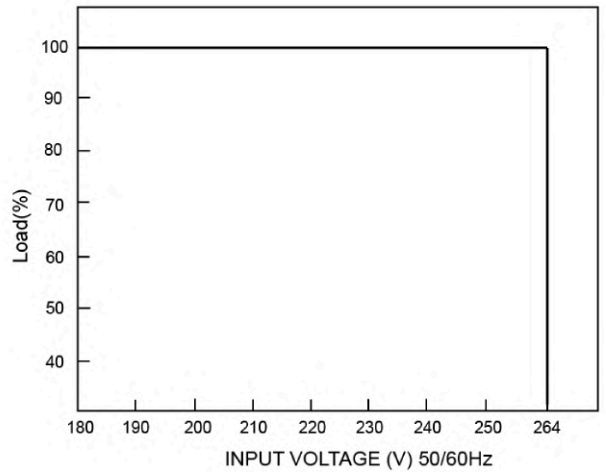


7. Characteristics & Derating

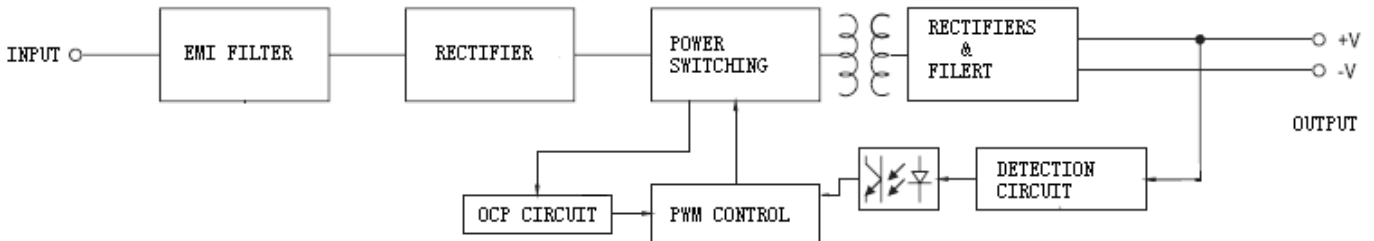
OUTPUT LOAD vs TEMPERATURE



STATIC CHARACTERISTIC



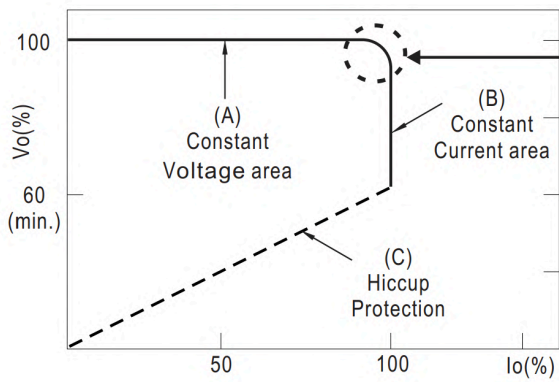
8. Block Diagram



9. Product Label

<ul style="list-style-type: none"> ● AC/N(BLUE) ● AC/L(BROWN) 	<p>PRI</p> <p>YOUR IDEA, WE MAKE IT</p> <p>CE ROHS IP67</p> <p>SELV</p>	<p>APVM-100-48 Class 2 Power Supply</p> <p>PRI: 200-240VAC, 1.2A Max, 50/60Hz, SEC: +48V = 2.1A</p> <p>Rated Output Power: 100.8W Max Constant Voltage + Constant Current Mode</p> <p>Protection: Over Voltage/Over Current/Over Temperature/Short Circuit S/N: _____ ta:50°C, tc:80°C Max</p>	<p>SEC</p> <p>Vo- (BLACK) ●</p> <p>Vo+ (RED) ●</p> <p>MADE IN CHINA</p>
---	--	---	--

10. Drive Mode



In the constant current region, the highest voltage at the output of the driver depends on the configuration of the end systems.

Typical output current normalized by rated current (%)

11. Installation Manual

- (1). Before commencing any installation or maintenance work, please disconnect the power supply from the utility. Ensure that it cannot be re-connected inadvertently.
- (2). Keep proper ventilation around the unit and do not put any object on it. 15-20cm clearance must be kept when the adjacent device is a heat source
- (3). Operating under high ambient temperature may cause the internal component temperature and will require a de-rating in output load
- (4). Install in wet condition need use waterproof connectors, make sure there is no space between the unit and lighting fixtures.
- (5). Output current and output wattage must not exceed the rated values on the specifications
- (6). Wiring
 - Connect the ACL wire (Brown) of the LED power supply to Live (black or brown).
 - Connect the ACN wire (Blue) of the LED power supply to Neutral (white or blue)
- (7). Risk of electrical shock and energy hazard. All failure should be examined by a qualified technician. Please do not remove the case of the power supply by yourself!
- (8). Can't be installed under water or buried in soil directly
- (9). Please do not install LED power supplies in places with high ambient temperature or close to fire source
- (10). If the external flexible cable or cord of this switching power supply is damaged, it shall be exclusively replaced by the manufacturer or similar qualified person in order to avoid a hazard.
- (11). DO NOT SOAK the power supply under water.