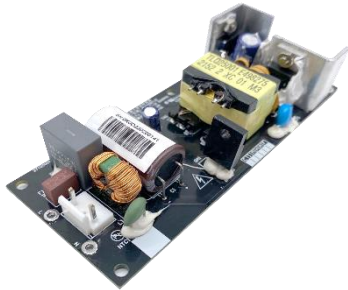


## MIC32

### Dual Output Power Supply



RoHS



5000M Altitude OP

#### Highlights:

- For Industrial Application
- Dual outputs
- High Power Density
- 32W Convection Cooling
- Class I & Class II
- Up to 80% Efficiency
- -10°C to +70°C Operation, up to +50°C without derating
- Light Weight
- >500 kHour MTBF
- 5000 meter operation altitude

#### Key Specification

Mode	MIC32BC1J2	
Output	Output1	Output2
Output voltage	12V	5V
Output current	2.5A	0.4A
Output power	30W	2W
Warranty	3 Years	
Size	46mm x 115mm x 30mm	
EMC	CISPR32:2012	
Safety	IEC62368-1:2014	

#### Model Name

**MIC**

Series Name

**32**

Rated Power

**B**

CLASS

B: CLASS II

**C1J2**

12V 5V dual output

## SPECIFICATIONS

All specifications are for rated input/output and 25°C unless otherwise specified

### INPUT CHARACTERISTICS

Function	Minimum	Typical	Maximum	Condition
Rated Input Voltage	100 VAC		240 VAC	
Input Voltage Range	90 VAC		264 VAC	No derating within the full Input Voltage range
Input Frequency	47 Hz	50/60 Hz	63 Hz	
Input Current			1 A @ 100VAC 0.5A @ 230VAC	
Efficiency		80%		Rated Input and Output
Inrush Current			40 A	240VAC Input, Cold Start

### OUTPUT CHARACTERISTICS

Function	Minimum	Typical	Maximum	Condition
12V Output Voltage Total Regulation			±3%	Including initial tolerance, line regulation and load regulation
5V Output Voltage Total Regulation			±5%	12V minimum load TBD
Output Ripple & Noise			1%or 100mV	Peak to peak value, 5V start after 30 seconds
Turn on delay Time			2s	
Rise Time			100ms	
Holdup Time	16ms			115VAC 60Hz Input, 12V/20W & 5V/2W Output

### PROTECTION CHARACTERISTICS

Function	Minimum	Typical	Maximum	Condition
12V Over Current Protection (OCP)	110% Rated Current		160% Rated Current	Auto-restart after fault condition is removed
5V Over Current Protection (OCP)				Auto-restart after fault condition is removed
Short Circuit Protection (SCP)				Auto-restart after fault condition is removed
Over Voltage Protection (OVP)			12V: 130% Rated Output Voltage 5V: Within Voltage regulation	Latch off
Over Temperature Protection (OTP)				Latch off

## ENVIROMENTAL

Function	Minimum	Typical	Maximum	Condition
No Load Power Consumption			TBD	115VAC/60Hz and 230VAC/50Hz Input
Operation Ambient Temperature	-10 °C		70 °C	Output Power Derating from 100% load at 50°C to 50% load at 70°C. See Fig.1
Cooling				Convection Cooled
Operation Humidity	5% RH		95% RH	Non-condensing
Storage Ambient Temperature	-40 °C		80 °C	
Storage Humidity	5% RH		95% RH	Non-condensing
Operating Altitude			5000 m	Or 16,400 feet
Shock (Non-Operation)			50 g	11ms, 3 shocks for each direction
Vibration (Operation)			2 g <sub>RMS</sub>	5-500Hz, 15 Minutes for each three axis
Weight			80 gram	

## EMC

Item	Description
Conducted Emissions	EN55011/EN55022, FCC TITLE 47: Class B
Radiated Emissions	EN55011/EN55022, FCC TITLE 47: Class B
Voltage Flicker	IEC61000-3-3
Electrostatic Discharge	IEC61000-4-2, Level 4, Criteria A. Air Discharge 15kV, Contact Discharge 8kV
Electrical Fast Transient	IEC61000-4-4, Criterion A. 2kV On Power Port, 100kHz
Surge	IEC61000-4-5, Level 3 Criteria A. Common mode 2kV, Differential Mode 1kV
Conducted Immunity	IEC61000-4-6, Level 2 Criteria A. 150kHz-80MHz, 3Vrms, 6Vrms at ISM Band sand Amateur radio bands
Voltage Dips	IEC61000-4-11 Criteria A: 30% 10ms, Criteria B: 60% 100ms, 100% 5000ms

## SAFETY & DIRECTIVES

Item	Description
Safety Standards	IEC62368-1:2014 GB4943.1-2011
Directives	RoHS Directive 2011/65/EU Compliant
Dielectric Voltage	Primary to 12V: 3kVAC Primary to PE: 1.5kVAC ( CLASS I) Input 1 to Input 2: 3kVAC
Touch Current @264VAC, 60Hz	<100uA @ Normal Condition

## RELIABILITY

Function	Minimum	Typical	Maximum	Condition
MTBF	500 kHours			According to MIL-HDBK-217F. 25°C

## DERATING CURVE

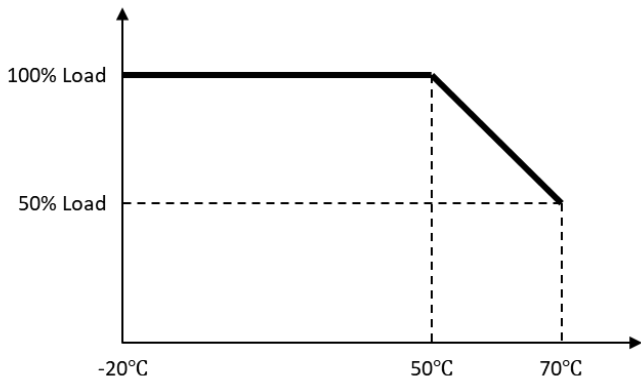


Figure 1

## SCHEMATIC DIAGRAM

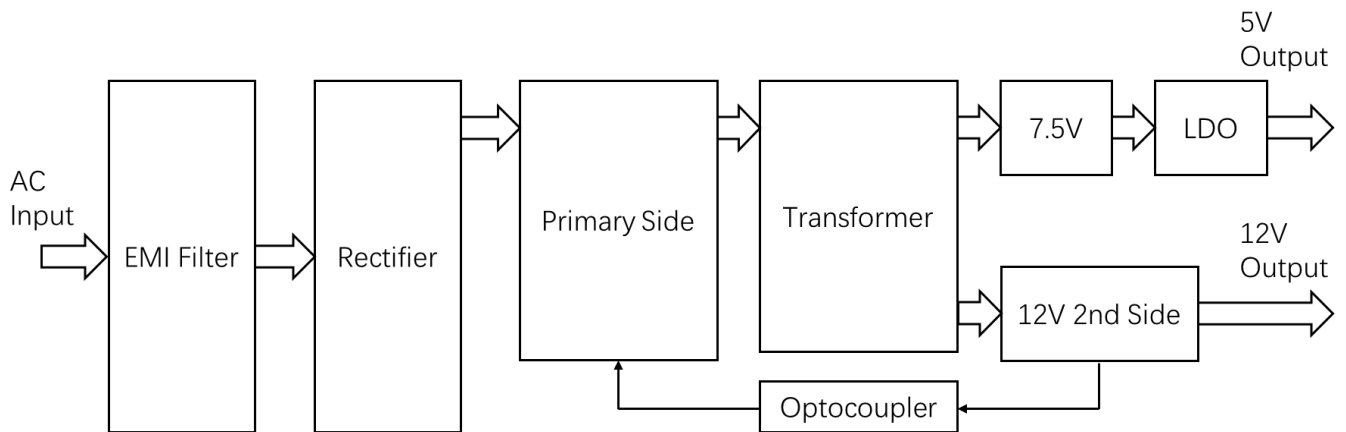
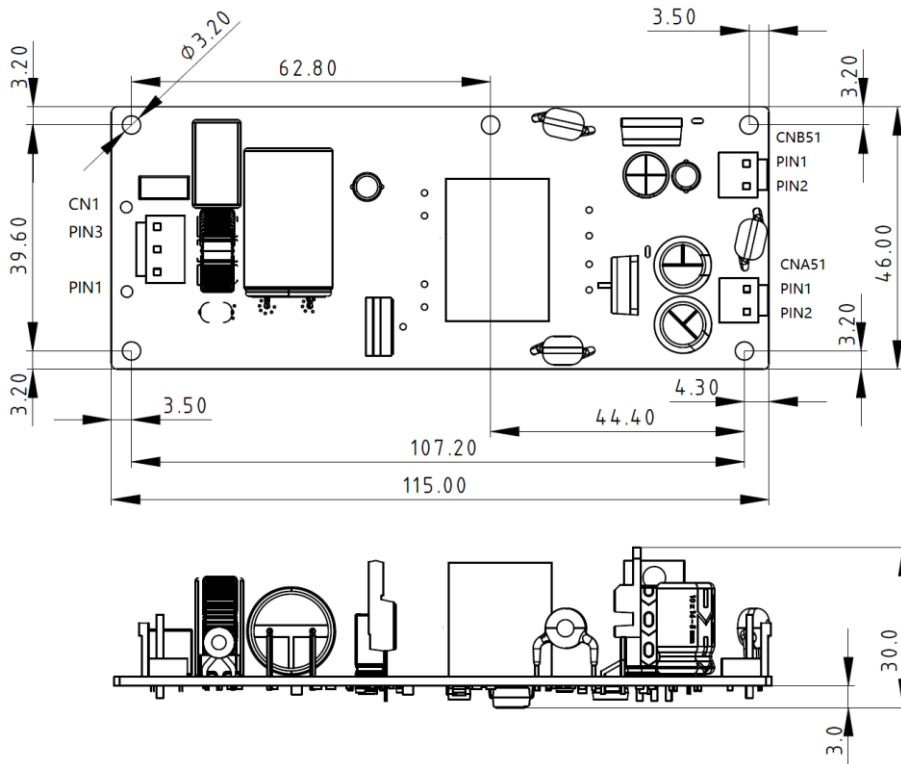


Figure 2

## MECHANICAL DETAIL

### Open Frame Chassis Mount



Dimensions in mm(inches)  
 Tolerances:  
 x.x = ±0.5 (x.x = ± 0.02)

**Note:** The mounting hole at the lower right corner shall be connected with PE

## MATING CONNECTOR

Input Connector: Welding hole, 2mm diameter or optional	
GN1 JST B2P3-VH	
Matching Connector: VHR-3N or equivalent connector, Crimp Terminals: SVH-21T-P1.1	
PIN 1	N
PIN 2	Removed
PIN 3	L
12V Output Connector: CNA51 JST B2P-VH	
5V Output Connector: CNA51 JST B2P-VH	
Matching Connector: JST VHR-2N or equivalent connector, Crimp Terminals: SVH-21T-P1.1	
CNA51	
PIN 1	12V+
PIN 2	12V-
CNB51	
PIN 1	5V+
PIN 2	5V-

## CONTACTS & OTHER INFORMATION

For more information, please visit [www.appliedpsu.com](http://www.appliedpsu.com)

For sales inquiries, please send an email to [sales@appliedpsu.com](mailto:sales@appliedpsu.com)

User manual and other document available at [www.appliedpsu.com/support](http://www.appliedpsu.com/support)