

Product Feature

1. Ultra Wide Input Voltage Range: 85-264VAC (100-370VDC)
2. Operation Temperature: -40°C~+70°C
3. Output short circuit, self-recovery
4. Small size and high efficiency
5. Low power consumption, environmental protection friendly
6. Industrial standard of product technical design


**3 years
Warranty**

Selection Guide

Part No.	Input Voltage (VDC)	Output		Full Load Efficiency% (Typ.)
		Voltage (VDC)	Current (mA)	
QM03-10B05	85-264VDC	5V	600	75%
QM03-10B09		9V	333	77%
QM03-10B12		12V	250	79%
QM03-10B15		15V	200	80%
QM03-10B24		24V	125	80%

Input Specifications

Item	Operating Conditions
Input Voltage Range	85-264Vac (100-370Vdc)
Input Current	110mA (TYP) @110VAc 70mA (TYP)@ 230VAc
External Fuse (Recommended Value)	1A/250V slow fusing

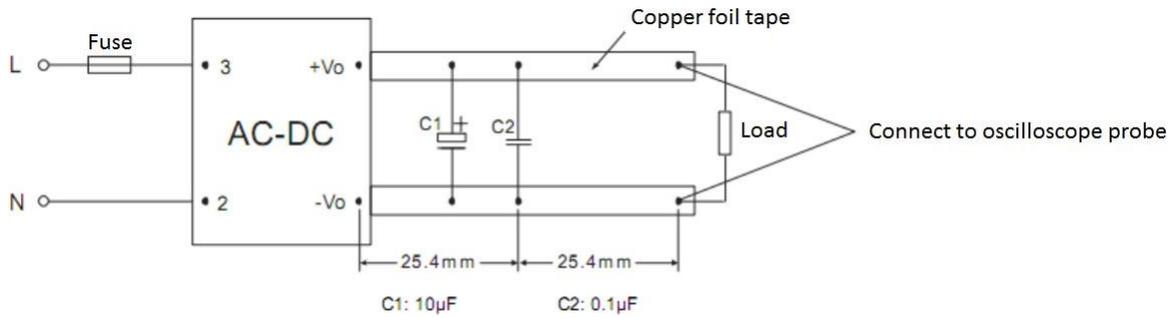
Output Specifications

Item	Operating Conditions
Output Voltage Regulation Accuracy	±2%
Source Effect	±0.5% (typ)
Load Regulation(10%~100%)	±1% (typ)
Min Load	10%
Output Ripple&Noise (Peak-Peak Value)	100mV(TYP) (20MHz Bandwidth)
Short-circuit Protection	Continuous, self-recovery
Output Overvoltage Protection	≥1.1 Times

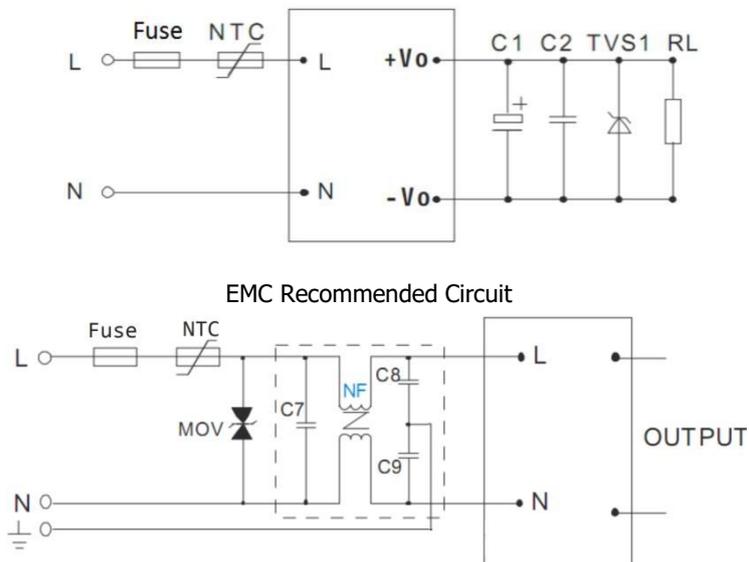
General Specifications

Item	Operating Conditions	
Temperature Characteristics	Operating Temperature	-40°C~+70°C
	Power Derating	3.75% / °C ,
	Storage Temperature	-40°C~+105°C
	Case Temperature	+90°C max
Power Down Time	40ms(typ)/ at Vin:320Vdc	
Humidity	85%RH(max)	
Temperature Drift	0.02%/°C	
Switching Frequency	60KHz(typ)	
Insulation	Input--Output	3000Vac/1Min
Leakage Current	0.3mA RMS typ. 230VAC/50Hz	
*EMC Electrostatic Discharge	IEC/EN 61000-4-2 level 3 6kV/8kV	
*RF Radiation Immunity	IEC/EN 61000-4-3	
*Electrical Fast Transient/Burst (EFT)	IEC/EN 61000-4-4 level 3 2 kV	
*Surge	IEC/EN 61000-4-5 level 3 1kV/2kV	
*Conduction/Radiation	EN55022, level A	
Safety Class	CLASS I	
Case Material	Plastic Case,UL94V-0	
Installation	PCB	
MTBF	>200,000h @25°C	

Testing Method



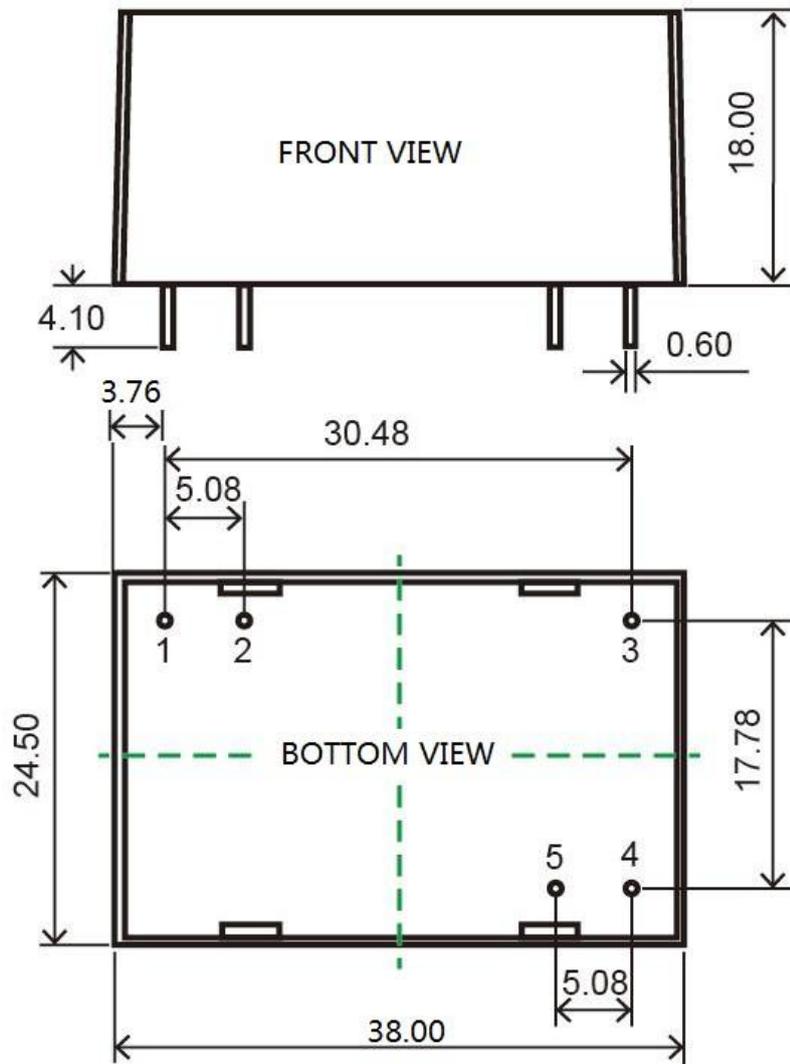
Typical Circuit Application



Note:

1. The output filter capacitor C1 is electrolytic capacitors, so it is recommended to use a high-frequency and low-resistance electrolytic capacitor. Please refer to the technical specifications provided by manufacturer to check the capacity and current flow. The capacitor withstand voltage derating over 80%. It is suggest to take 0.1 uF, if C2 remove high frequency noise.
2. TVS tube is recommended to use because it protects the back-end circuit(when the converter is abnormal).
3. NTC is thermistor which model: 5D-9.
4. EMC recommended circuit parameters:
 MOV is a varistor which recommended model is 471KD10 and its function is to protect the module from damage during lightning surges.
 C7 is X capacitor which recommended 0.1µF/275V;
 NF is common mode inductance which 10mH-30mH is recommended.

Dimensions and Recommended Layout



Unit: mm Tolerance: 0.25mm

Pin Definition:

Pin	1	2	3	4	5
Function	AC(L)	AC(N)	NC	-Vo	+Vo

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