

LM03-SERIES

----AC-DC MODULE POWER SUPPLY 3W



Product Features

- Wide voltage input range: 85~305VAC (100~430VDC)
- Operating temperature: -40°C ~ +70°C
- Comprehensive protection functions (including short-circuit protection with auto-recovery)
- High efficiency and reliability
- Compact size with flame-retardant plastic package
- Industrial-grade Product Design

APPLIED RANGE

Suitable for designs requiring wide input voltage fluctuation range, power isolation, and limited board space. It enables product function modularization and improves product reliability.

PRODUCT MODEL

Model	Output Voltage(Vo)	Output Current(Io)	Productiveness (TYP)
LM03-S03A2	3.3V	900mA	71%
LM03-S05A2	5V	600mA	75%
LM03-S12A2	12V	250mA	77%
LM03-S15A2	15V	200mA	78%
LM03-S24A2	24V	125mA	78%

* For other specifications or models, please contact us directly.

INPUT CHARACTERISTICS

Input voltage range	85 ~ 305VAC (100 ~ 430VDC)	
Incoming frequency	47 ~ 63Hz	
Input currenton	125mA (TYP) @115VAc	80mA (TYP)@ 230VAc
External fuse (recommended)	1A/250V Slow Break	

OUTPUT CHARACTERISTICS

Output voltage regulation accuracy	±3%(TYP)
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Source effect	±1% (typ)
Load adjustment rate (10%~100%)	±2% (typ)
Minimum load	10%
Output Ripple + noise (peak-to-peak)	100mV(typ) (20MHz Bandwidth)
Short-circuit Protection	Sustained Short-Circuit, Auto-Recovery
Overvoltage Protection	≥1.1 times

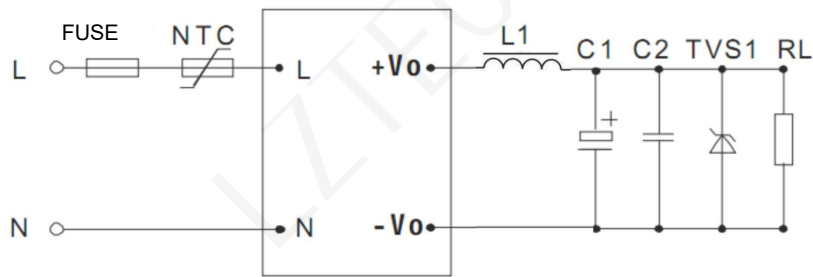
GENERAL CHARACTERISTICS

Temperature Characteristic	Working Temperature	-40°C ~ +70°C
	Power Derating	3.75% / °C ,
	Storage Temperature	-40°C ~ +90°C
	Case Temperature	+90°C max
Power outage duration		40ms(typ)/ at Vin:320Vdc
Humidity		85%RH(max)
Thermoluminescence		0.02%/°C
Switching frequency		65kHz(typ)
Isolation voltage	Input--Output	3000Vac/1Min
Leakage current		<5mA RMS typ. 230VAC/50Hz
*EMC-ESD	IEC/EN 61000-4-2 level 3 6kV/8kV	
*RFI	IEC/EN 61000-4-3	
*EFT/B	IEC/EN 61000-4-4 level 3 2 kV	
*Surge	IEC/EN 61000-4-5 level 3 1kV/2kV	
*Conduction/Radiation		EN55022, level A
Security classification		CLASS I
Shell grade		UL94V-0 flame retardant plastic
Install		PCB
MTBF		>200,000h @25°C

Note:

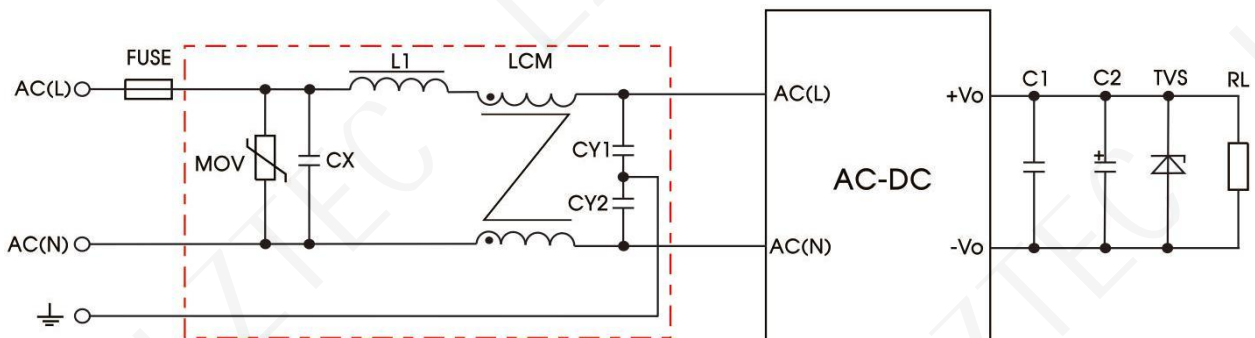
1. For test items marked with *, an external EMC-recommended circuit must be added.
2. Unless otherwise specified, all the data listed above were measured under conditions of TA=25°C and humidity<75%.

TYPICAL APPLICATIONS



Device	Recommended value
FUSE	1A/250V, Slow Break
NTC	5D-7
L1	4.7uH/2A
C1	220uF
C2	0.1uF
TVS1	LD03-S03 SMBJ7.0A LD03-S05 SMBJ7.0A LD03-S12 SMBJ20A LD03-S15 SMBJ20A LD03-S24 SMBJ30A

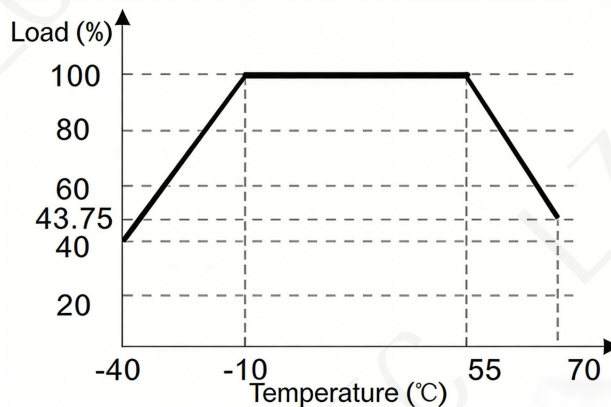
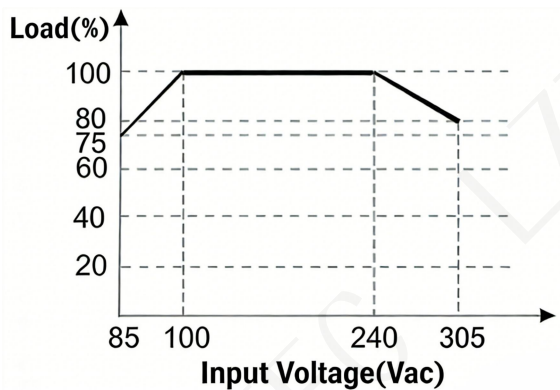
EMC recommended circuit



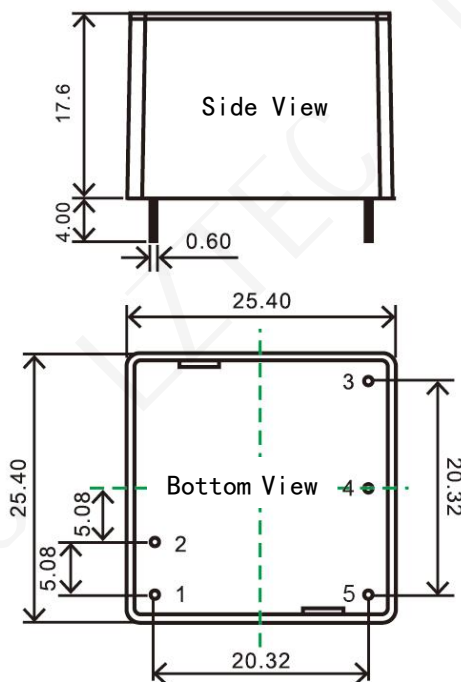
Device	Recommended value
MOV	10D561
CY1、CY2	1000pF/400VAC
CX	0.22uF/305VAC
LCM	>20mH
L1	1mH/0.5A
FUSE	1A/250V, Slow-Break

DIAGRAM OF INPUT VOLTAGE AND LOAD

TEMPERATURE AND LOAD RELATIONSHIP DIAGRAM



APPEARANCE AND SIZE



Unit: mm Tolerance: ±0.25mm

Pin	1	2	3	4	5
Definition	AC(L)	AC(N)	NP	-Vo	+Vo

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