

**MZC20 SERIES**
**20 Watts**
**KEY FEATURES**

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC
- Regulated Output
- Low Ripple and Low Noise
- Isolation Class II
- Low Standby <0.1W
- Small Size
- CE, CB, UL, cUL Approvals
- 3-Year Product Warranty


**ELECTRICAL SPECIFICATIONS**

All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Model No.	MZC20-12S	MZC20-24S	
Max Output Wattage (W)	20W		
Input	Voltage	90-264 VAC or 120-370 VDC, " N " to DC " + " ; " L " to DC " - "	
	Frequency (Hz)	47-440 Hz	
	Current (Full load)	440 mA max. (115 VAC) / 287 mA max. (230 VAC)	
	Leakage Current	< 0.1mA / 264 VAC (Touch Current)	
	Inrush Current (<2ms, Cold Start)	20 A max. (115 VAC) / 40 A max. (230 VAC)	
Output	Voltage (V.DC.)	12V	24V
	Voltage Accuracy	±2%	
	Current (mA) max	1667	833
	Maximum Capacitive Load (at 230 VAC)	1500uF	470uF
	Line Regulation (LL-HL) (typ.)	±0.5%	
	Load Regulation (5-100%) (typ.)	±1%.	
	Ripple & Noise (Full load)	150 mVp-p	240 mVp-p
	Efficiency (at 230 VAC)	83%	82%
Hold-up Time(typ)	6 ms (115VAC) / 46ms (230VAC)		
Protection	Over Power Protection	Hiccup technique, auto-recovery	
	Over Voltage Protection	Zener diode clamp	
	Short Circuit Protection	Hiccup mode, indefinite (automatic recovery)	
Isolation	Input-Output (V.AC)	4000V	
Environment	Operating Temperature	-40°C...+80°C (Case Temperature max. +95°C)	
	Storage Temperature	-40°C...+90°C	
	Temperature Coefficient	±0.05%/°C	
	Altitude During Operation	5000m	
	Humidity	up to 95% RH	
	MTBF	>350,000 h @ 25°C (MIL-HDBK-217F)	
Physical	Atmospheric Pressure	540 hPa to 1060 hPa	
	Dimensions (L x W x H)	2.07 x 1.08 x 0.93 Inches ( 52.5 x 27.5 x 23.5 mm ) Tolerance ±0.5 mm	
	Case Material	Plastic resin (flammability to UL 94V-0)	
	Weight	52 g	
Cooling Method	Free air convection		

## ELECTRICAL SPECIFICATIONS

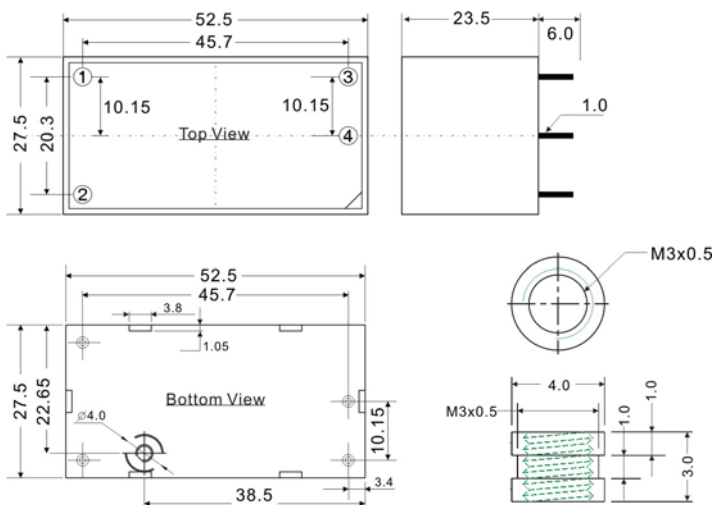
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Model No.	MZC20-12S		MZC20-24S
Safety	Approval	cUL / UL Standard: UL 60950-1, CAN/CSA C22.2 No. 60950-1-07 ANSI/AAMI ES60601-1 (2005 + C1:09 + A2:10), CAN/CSA-C22.2 No. 60601-1 (2008), 2 x MOPP CB Standard: IEC 60950-1:2005 (2nd Edition) + Am 1:2009 + Am 2:2013 IEC 60601-1:2005 (3rd Edition) + CORR. 1 (2006) + CORR. 2 (2007) + AM1 (2012) or IEC 60601-1 (2012 reprint), 2 x MOPP	
EMC	Conducted and radiated EMI	EN55011 class B (Radiation Class A for MZC20 A2 Series)	
	EMS	EN60601-1-2 4th edition	

## NOTE

1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. Safety approvals cover frequency 47-63 Hz.
3. That "natural convection" is about 20LFM but is not equal to still air (0 LFM).
4. It's recommended to add Varistor 14S471K at L / N input side in parallel.
5. Please refer to our PDF file "AC-DC Application" on our website: [www.archcorp.com.tw](http://www.archcorp.com.tw)

## MECHANICAL DIMENSIONS

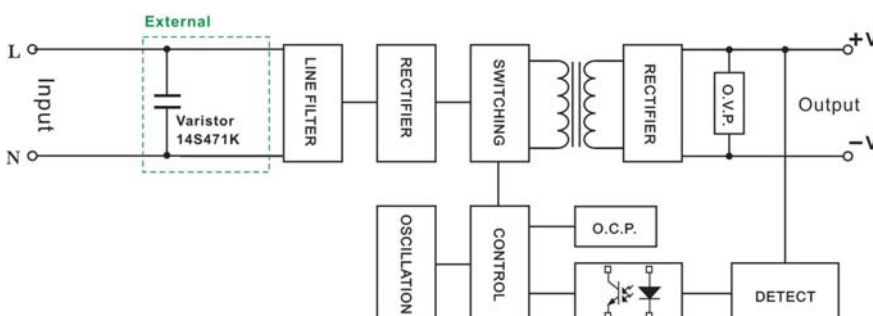


PIN#	Single
1	AC IN (L)
2	AC IN (N)
3	+DC OUT
4	-DC OUT

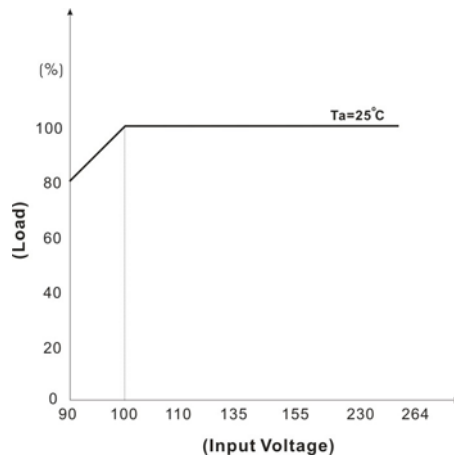
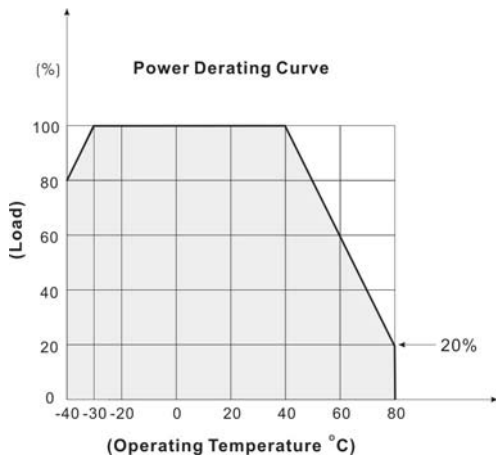
Maximum Torque 1 2 { 1.2 1 } ( k g f . c m { N.m } )

## BLOCK DIAGRAM

Single Output



**DERATING**

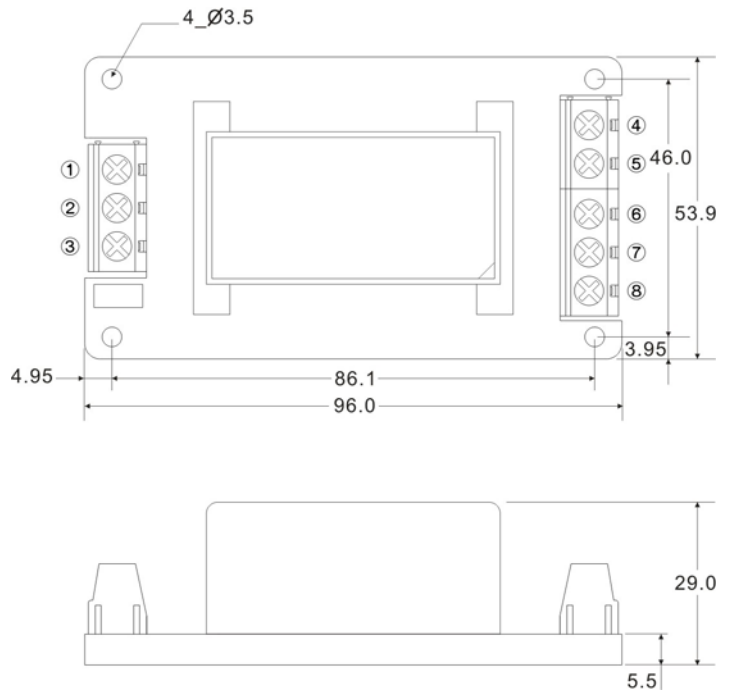


**SCREW TERMINAL**

**MZC20-A2**



PIN#	Single
1	NO CONNECT
2	AC IN (L)
3	AC IN (N)
4	NO CONNECT
5	+DC OUT
6	-DC OUT
7	NO CONNECT
8	NO CONNECT



We reserve the right to make alterations in the product materials and specifications without prior notification and consent to improve reliability, function or design or otherwise.

<http://www.archcorp.com.tw>

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