



AC/DC Converter

TGC01W-GA POWER



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TGC01W-GA

Features

- Universal input 85-264VAC
- <150mW No load power consumption
- Class II installations (without FG)
- -25°C to +80°C Operating temperature
- Continuous SCP, OCP
- EN/IEC/UL60950, EN/IEC/UL62368 & EN60335-1 certified

Regulated Converter



Description

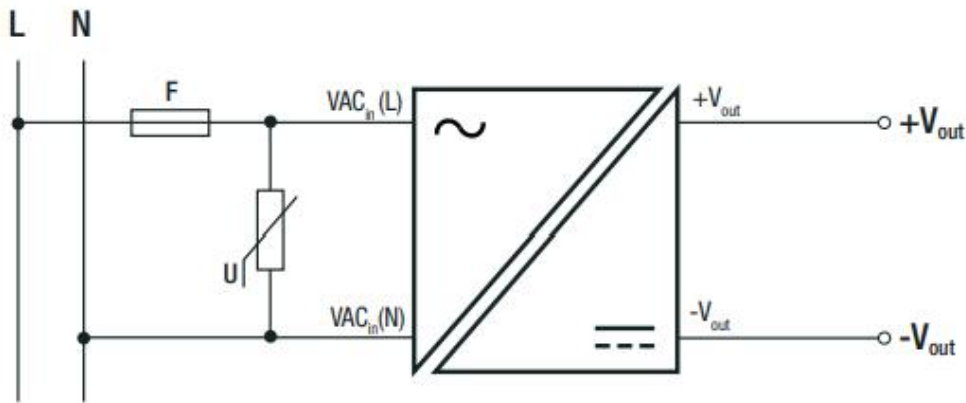
The TGC01W-GA series are low cost AC/DC power supplies, ideal for PCB mounted, compact, board level industrial applications. They feature universal AC input voltage range, regulated and short-circuit-proof isolated DC outputs, low standby power consumption and -25°C to +80°C operating temperature range. The TGC01W-GA have a built-in Class A / FCC Part 15 EMC filter, are certified to EN60335, EN60950 and EN62368 safety standards and come with a three year warranty.

Specifications (measured @ Ta= 25°C, nom. Vin, full load and after warm-up unless otherwise stated

BASIC CHARACTERISTICS					
Parameter	Condition		Min.	Typ.	Max.
Internal Input Filter			Pi-type		
Input Voltage Range ^(4,5,6)	nom. Vin= 230VAC		85VAC	230VAC	264VAC
Input Current	115VAC 230VAC			25mA 18mA	30mA 20mA
Inrush Current	cold start at 25°C	115VAC 230VAC			30A 40A
No load Power Consumption					150mW
Input Frequency Range			47Hz		63Hz
Minimum Load			0%		
Power Factor	115VAC, 230VAC		0.4		0.6
Start-up Time	115VAC 230VAC				1s 2s
Hold-up time	115VAC 230VAC				18ms 80ms
Internal Operating Frequency	100% load at nominal Vin			65kHz	
Output Ripple and Noise	20MHz BW	0°C to 80 °C	5Vout 12Vout		100mVp-p 200mVp-p
		-25 °C to 0 °C	5Vout 12Vout		200mVp-p 300mVp-p

Notes: Note4: No proper operation with DC input voltage Note5: The products were submitted for safety files at AC-Input operation Note6: Refer to “Line Deratin

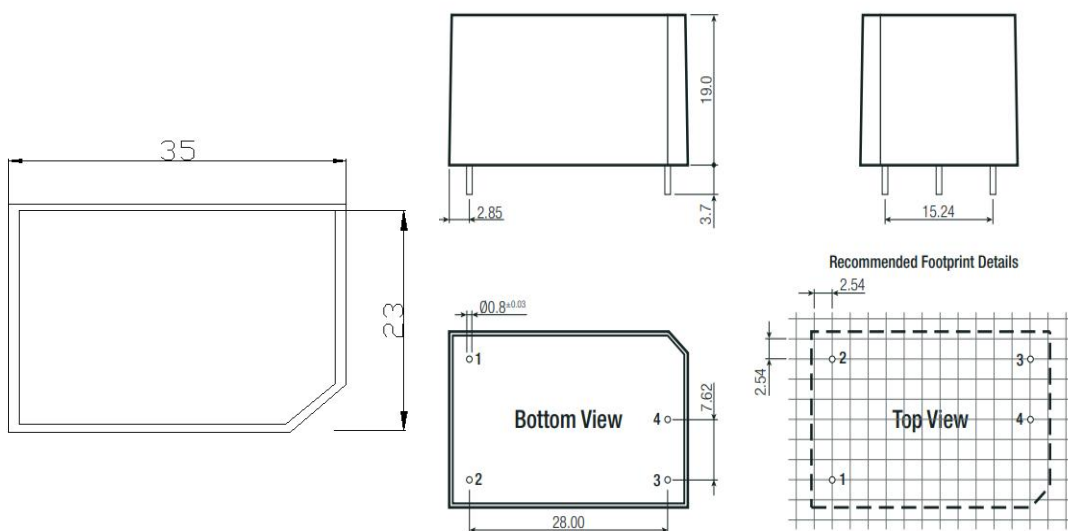
Protection Circuitm



Specifications (measured @ $T_a = 25^\circ\text{C}$, nom. V_{in} , full load and after warm-up unless otherwise stated)

ENVIRONMENTAL			
Parameter	Condition		Value
Operating Temperature Range	@ natural convection 0.1m/s	full load	-25°C to $+70^\circ\text{C}$
		refer to "Derating Graph"	-25°C to $+80^\circ\text{C}$
Maximum Case Temperature			$+120^\circ\text{C}$
Temperature Coefficient			0.03%/K
Operating Altitude ⁽¹⁰⁾			4000m
Operating Humidity	non-condensing		5% - 90% RH max.
Pollution Degree			PD2
Shock			10-150Hz, 2G 10min./1cycle, period 60min. each along x,y,z axes
Vibration	according to MIL-STD-202G		20G/11ms pulse, 3 times at each x, y, z axes
MTBF ⁽¹¹⁾	according to MIL-HDBK-217F, method 2	$+25^\circ\text{C}$	1691×10^3 hours
		$+70^\circ\text{C}$	424×10^3 hours

Dimension Drawing (mm)



Pin Connections

Pin #	Single
1	VAC in (L)
2	VAC in (N)
3	-Vout
4	+Vout

Tolerance:
Pin length: $-0.5/+0.9$
xx.x = $\pm 0.5\text{mm}$
x.xx = $\pm 0.25\text{mm}$