



AC/DC Converter

TGC15-K



Address: Building.E9 & E13,
Xingmeng Park Enterprises
Mansion, No.198, Mingzhu
Avenue, High-tech Zone, Hefei,
230088, China

Fax: 0551-65547975
sale@tiger-transformer.com

TGC5-K

Features

Regulated Converter

- **Wide input range 85-264VAC**
- **Standby mode optimized PSU (ENER Lot 6)**
- **Ultra-high efficiency over entire load range**
- **Operating temperature range: -40°C to +85°C**
- **Class II installations (without FG)**
- **EMC compliant without external components**
- **No load power consumption 40mW typ.**

Description

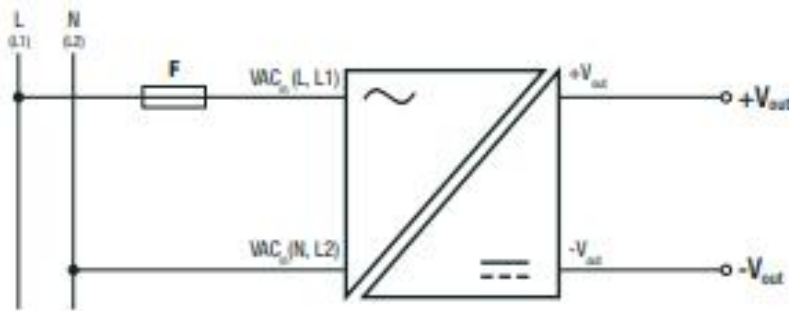
The TGC15-K series are highly efficient PCB-mount power conversion modules with ultra-low energy losses especially in light load conditions, making them a benchmark for always-on and standby mode operations, which are typically coming along with IoT and smart applications. The power supply units cover worldwide mains input range of 85VAC up to 264VAC and come with international safety certifications for industrial, AV and ITE as well as household standards. These AC/DC modules operate in a temperature range of -40°C to +85°C and offer fully protected single or dual outputs as well as EMC class B compliance without the need of any external components.

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

BASIC CHARACTERISTICS				
Parameter	Condition	Min.	Typ.	Max.
No Load Power Consumption	230VAC		40mW	
ErP Lot 6 Standby Mode Conformity (Output Load Capability)	0.5W Input Power = 1.0W 2.0W			0.3W 0.7W 1.6W
Input Frequency Range	AC Input	47Hz		63Hz
Minimum Load		0%		
Power Factor	115VAC 230VAC	0.6 0.5		
Start-up Time			150ms	
Rise Time			40ms	
Hold-up Time	115VAC 230VAC		15ms 90ms	
Internal Operating Frequency				100kHz
Output Ripple and Noise ⁽⁵⁾	20MHz BW		100mVp-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

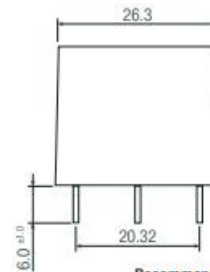
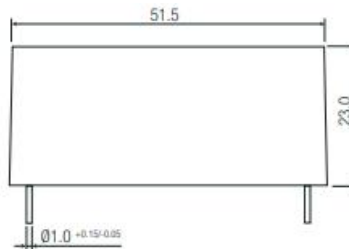
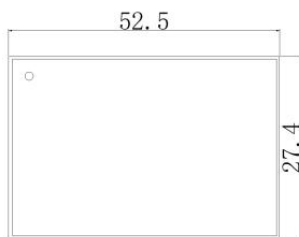
Protection Circuitm



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

ENVIRONMENTAL			
Parameter	Condition		Value
Operating Temperature Range	natural convection 0.1m/s	full load	-40°C to +55°C
		refer to derating graph	-40°C to +85°C
Maximum Case Temperature			+95°C
Temperature Coefficient			0.05%/K
Operating Altitude			3000m
Operating Humidity	non-condensing		20% - 90% RH max.
IP Rating			IP20
Pollution Degree			PD2
Vibration	according to MIL-STD-202G		10-500Hz, 2G 10min./1cycle, period 60min. along x,y,z axes
Design Lifetime	+25°C		300 x 10 ³ hours
	+55°C		40 x 10 ³ hours
MTBF	according to MIL-HDBK-217F, G.B.	+25°C	>1196 x 10 ³ hours
		+40°C	>955 x 10 ³ hours

Dimension Drawing (mm)



Pin Connections

Pin #	Single
1	VAC in (N) (L2)
2	VAC in (L) (L1)
3	-Vout
4	+Vout

Tolerance: xx.x= ±0.5mm
xx.xx= ±0.25mm

