



AC/DC Converter

TGC25-K/480



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

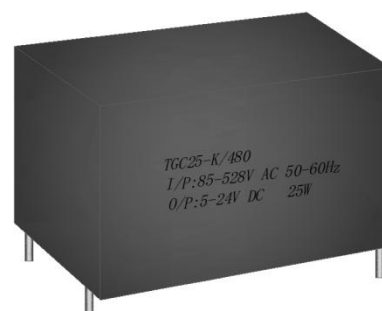
Fax: 0551-65547975
sale@tiger-transformer.com

TGC25-K/480

Features

Regulated Converter

- **OVC III and PD3 up to 5000m altitude**
- **85-528VAC input range**
- **-40°C to +90°C operating temperature:**
- **LPS limited power source**
- **EN55032 class "B"; floating outputs**
- **No load power consumption <0.3W**



Description

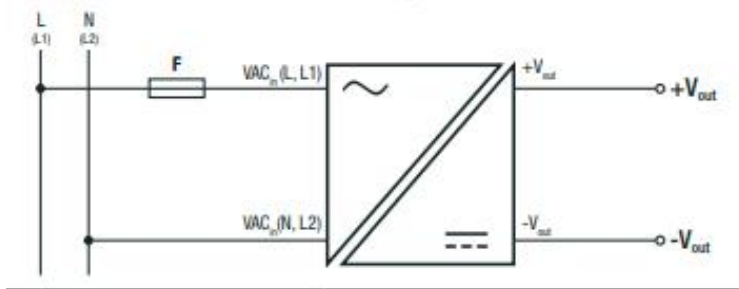
The TGC25-K/480 series AC/DC modules with ultra-wide input range of 100-480 VAC are specially designed for harsh industrial conditions of overvoltage category OVC III and pollution degree PD3 in both single-phase and phase-to-phase power connections of class II. These power supplies are capable of operating over a wide temperature range of -40° to 90°C (up to 70°C without derating) to be completed by the addition of an external fuse, offer LPS limited outputs with continuous overcurrent protection, surge immunity to level 3 and emission class B EMC compliance in potential free configurations. The silicone-free encapsulated modules are built extremely compact to fit on printed circuit boards without compromising board area. Global safety certifications ensure fast time-to-market when integrated into applications for markets such as Smart Grid, Smart Metering, Renewable Energy; Sensors and actuators or IoT applications.

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	85-528VAC				300mW
Input Frequency Range	AC Input	47Hz			63Hz
Minimum Load		0%			
Power Factor	115VAC	0.45			
	230VAC	0.4			
	480VAC	0.3			
Start-up Time			130ms		
Rise Time			30ms		
Hold-up Time		30ms			
Internal Operating Frequency			50kHz		
Output Ripple and Noise ⁽¹⁾	20MHz BW	V _{OUT} = 5VDC			100mVp-p
		others			1% of V _{OUT}

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	refer to "Derating Graph"		-40°C to +90°C	
Maximum Case Temperature			+105°C	
Temperature Coefficient			0.02%/K	
Operating Altitude			5000m	
Operating Humidity	non-condensing		95% RH max.	
Polution Degree			PD3	
Vibration	according to MIL-STD-202G		10-500Hz, 2G 10min./1cycle, 60min. each along x,y,z axes	
Design Lifetime	230VAC/50Hz	+50°C	30 x 10 ³ hours	
MTBF	according to MIL-HDBK-217F, G.B.	V _{out} = 5, 12VDC	+25°C	950 x 10 ³ hours
		V _{out} = 15, 24VDC	+25°C	1040 x 10 ³ hours
		V _{out} = 5, 12VDC	+40°C	800 x 10 ³ hours
		V _{out} = 15, 24VDC	+40°C	920 x 10 ³ hours

Dimension Drawing (mm)

