



AC/DC Converter

TGC05-K/480



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

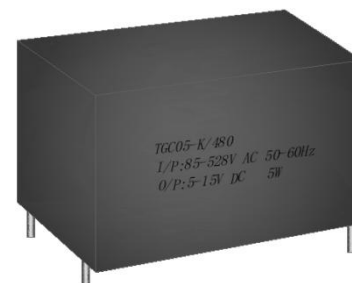
Fax: 0551-65547975
sale@tiger-transformer.com

TGC05-K/480

Features

Regulated Converter

- **OVC III and PD3 rating**
- **Continuous max withstanding voltage 528VAC**
- **UL certified input 90-318VAC**
- **Operating temperature range: -40°C to +85°C**
- **Class II installations (without FG)**
- **EN55032 class "B" with floating outputs**
- **No load power consumption <0.5W**



Description

The TGC05-K/480 series of 5 watt AC/DC units are specially designed for harsh industrial and outdoor mains conditions. These PCB-mount power supplies are rated to OVC III and/or PD3 conditions from 100-480VAC nominal input lines with phase-to-phase or single phase operation in class II installations by just adding a single fuse externally. The modules support an operating temperature range from -40°C to +80°C and come with fully protected outputs as well as EMC Class B compliance in floating output connections. All these features make them an ideal fit for integration into smart grid, renewable energy, smart metering and IoT applications.

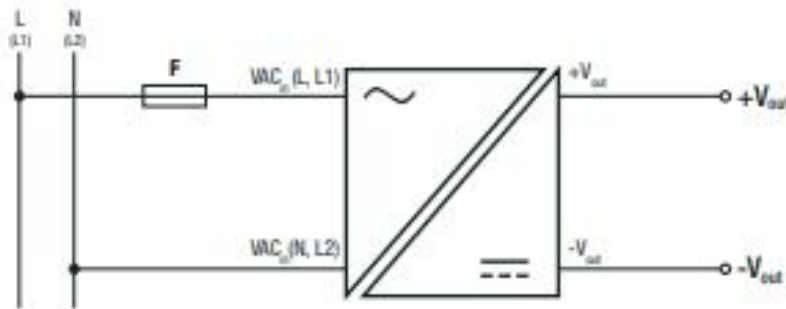
Specifications (measured @ Ta= 25°C, nom. Vin, full load and after warm-up unless otherwise stated)

BASIC CHARACTERISTICS					
Parameter	Condition		Min.	Typ.	Max.
Internal Input Filter					Pi type
Input Voltage Range ^(3,4)	nom. Vin= 480VAC		85VAC 120VDC		528VAC 745VDC
Input Current	100VAC 400VAC 480VAC				110mA 40mA 35mA
Inrush Current	cold start at +25°C	400VAC 480VAC		18A 20A	
No load Power Consumption					500mW
Input Frequency Range	AC Input		47Hz		63Hz
Minimum Load			0%		

Parameter	Condition		Min.	Typ.	Max.
Power Factor	400VAC/480VAC		0.45		
Start-up Time				25ms	
Rise Time					20ms
Hold-up Time	100VAC 400VAC 480VAC			14ms 150ms 200ms	
Internal Operating Frequency				130kHz	
Output Ripple and Noise ⁽⁵⁾	20MHz BW	400VAC 480VAC		50mVp-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 ^(R)	@ natural convection 0.1m/s	full load	-40°C to +60°C
		refer to „Derating Graph ^(R) “	-40°C to +80°C
Maximum Case Temperature			+100°C
Temperature Coefficient			0.05%/K
Thermal Impedance	0.1m/s airflow		16K/W
Operating Altitude	according to 61010-1		5000m
Pollution Degree	according to 61010-1		PD3
Operating Humidity	non-condensing		5% - 95% RH max.
Vibration	according to MIL-STD-202G		10-500Hz, 2G 10min./1cycle, 60min. each along x,y,z axes
Design Lifetime	+25°C		105 x 10 ³ hours
	+60°C		40 x 10 ³ hours
MTBF	according to MIL-HDBK-217F, G.B.	+25°C	>1726 x 10 ³ hours
		+40°C	>1585 x 10 ³ hours

Dimension Drawing (mm)

