

AC/DC Converter

TGCM30-K/277



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

TGC30-K/277

Features

- Full load power: -40 to +60°C
- Reduced load rating to 90°C
- OVC III up to 5000m and LPS

Regulated Converter

- Industry standard pinning [P12]
- Meets EN55032 “B” in PELV configuration
- Medical; household & industrial standards

Description

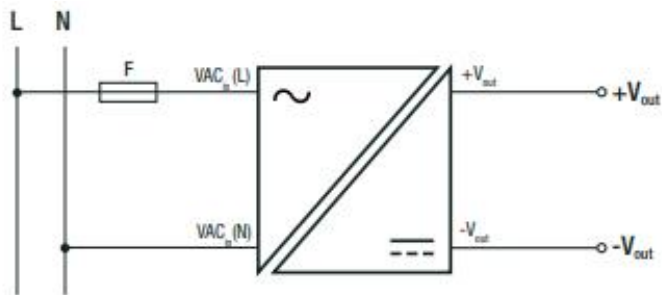
TGCM30-K/277 AC/DC modules provide a leading thermally effective Power yield of 9.2 Watts per inch³ at 60°C still air for continuous loads of 30 Watts plus additional peak capability. These Modules operate in a temperature range of -40° to 90°C in compliance with safety standards of medical MOPP, household-, industrial, and measurement markets. Safety reports rate the series as LPS limited power source and OVCIII for an operating altitude of up to 5000m. A comfortable margin to EMI Class B limits, even with outputs connected to the ground, ease system implementation for quick time-to-market without additional external circuitry such as fuses or filters. For designers, maximum flexibility for these encapsulated, solder-mountable modules is pin-to-pin compatible with the well-established series RAC20-K. Further mechanical derivatives are potted modules with wires or a panel mount option with spring-clamp connectors which is convertible to DIN-Rail mounting via available RECOM Clip accessory.

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

BASIC CHARACTERISTICS				
Parameter	Condition	Min.	Typ.	Max.
Nominal Input Voltage	60/50Hz	100VAC		277VAC
Operating Range ⁽¹⁾	47-63Hz	85VAC	230VAC	305VAC
	DC	120VDC		431VDC
Input Current	115VAC			650mA
	230VAC			350mA
	277VAC			300mA
Inrush Current	cold start	115VAC		20A
		230VAC		30A
		277VAC		36A
No load Power Consumption	230VAC			100mW
Ecodesign Standby Mode Use (Available output power for stated input power)	V _{in} = 230VAC	P _{in} = 0.3W		0.22W
		P _{in} = 0.5W		0.39W
		P _{in} = 1W		0.79W
Input Frequency Range		47Hz		63Hz
Minimum Load		0%		
Power Factor	115VAC		0.60	
	230VAC		0.50	
	277VAC		0.45	
Start-up Time				150ms
Rise Time				30ms
Hold-up Time	230VAC	50ms		
Internal Operating Frequency	100% load at nominal Vin			100kHz
Output Ripple and Noise ⁽²⁾	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	refer to "Derating Graph"	-40°C to +90°C
Maximum Case Temperature			+110°C max.
Temperature Coefficient			0.02%/K
Operating Altitude ⁽¹⁾			5000m
Operating Humidity	non-condensing		90% RH max.
Polution Degree	potted version		PD3
Vibration	according to MIL-STD-202G		10-500Hz, 2G 10min./1cycle, period 60min. each along x,y,z axes

Parameter	Condition		Value	
MTBF	according to MIL-HDBK-217F, G.B.		+25°C	>1357 x 10 ³ hours
			+40°C	>1096 x 10 ³ hours
Design Lifetime	230VAC/50Hz and full load	single output	5Vout	>30 x 10 ³ hours
			others	
		dual output	+40°C	>30 x 10 ³ hours
			+50°C	>17x 10 ³ hours

Dimension Drawing (mm)

