ANHUI-TIGER
Passive Components

AC/DC Converter

TGCM130E-K

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ANHUI-TIGER
Passive Components

Features

Regulated Converter

- Wide range input: 85-264VAC
- 130W peak power
- OVC III rating
- 2MOPP medical certified, B and BF ready
- 4000m operating altitude
- Class B EMC filter built-in

TGCM130E-K

Description

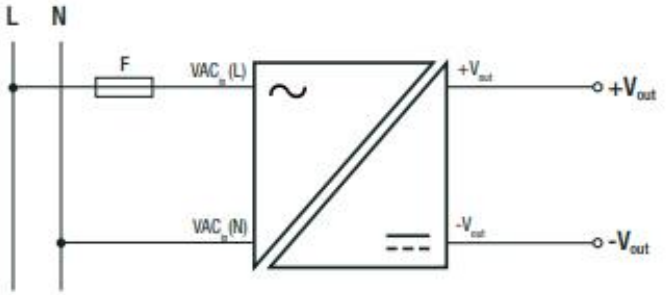
The TGCM130E-K AC/DC power supply series provides up to 130W output to drive dynamic loads and is certified to safety standards for the medical, ITE, industrial and household markets. With an industry-standard 2"x4" footprint, variants are available as an open card or with an enclosure. Input is wide-range for nominals from 100 to 240Vac, the output is tightly regulated and easy system integration is enabled by a wide compliance margin to EMC standard EN55032 class B. On-board dual fuses are included and the product includes immunity to surges for installation Class 3 and Over-Voltage Category OVCIII. Certifications are maintained to 4000m altitude and with a wide operating temperature range, the series is one of the most versatile on the market.

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

BASIC CHARACTERISTICS					
Parameter	**Condition**		**Min.**	**Typ.**	**Max.**
Nom. Input Voltage	50/60Hz		100VAC		240VAC
Operating Range [4,5]	47-63Hz		85VAC		264VAC
	DC		120VDC		370VDC
Input Current	115VAC				2.5A
	230VAC				1.5A
Inrush Current	cold start	115VAC			30A
		230VAC			60A
No load Power Consumption	@230VAC			200mW	
ErP Standby Mode Conformity (Output Load Capability)	115/230VAC	P_{IN}= 0.5W		0.2W	
		P_{IN}= 1W		0.6W	
Input Frequency Range	AC Input		47Hz		63Hz
Minimum Load			0%		
Power Factor	115VAC			0.5	
	230VAC			0.4	
Start-up Time				200ms	
Rise Time				20ms	
Hold-up Time	115VAC			16ms	
	230VAC			70ms	
Internal Operating Frequency	100% load at nominal Vin			65kHz	
Output Ripple and Noise [6]	20MHz BW				1% of Vout

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

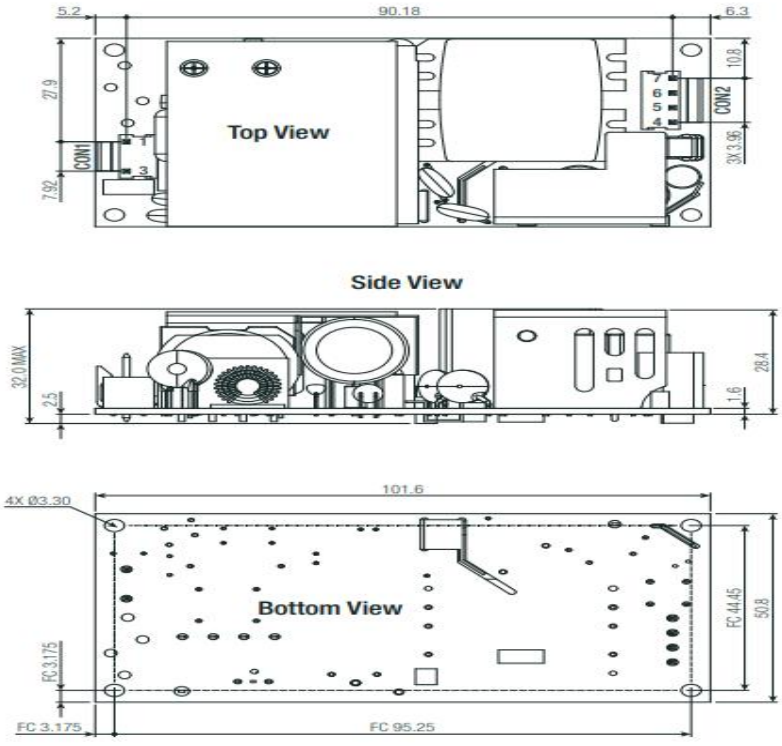
Protection Circuitm

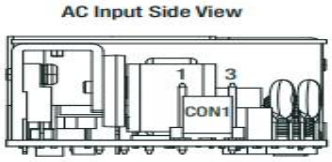


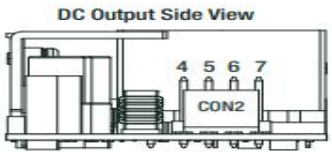
Specifications (measured @ Ta= 25°C, nom. Vin, full load and after warm-up unless otherwise stated

ENVIRONMENTAL			
Parameter	**Condition**		**Value**
Operating Temperature Range	with derating @ natural convection 0.1m/s		-40°C to +90°C
Temperature Coefficient			±0.05%/K
Operating Altitude	according to 60601-1		4000m (OVCII)
	according to 61558-2-16		2000m (OVCIII)
Operating Humidity	non-condensing		5% - 95% RH max.
Pollution Degree			PD2
Vibration	according to MIL-STD-202G		10-500Hz, 5G 10min./1cycle, period 60min. along x,y,z axes
MTBF	according to MIL-HDBK-217F, G.B.	T_{AMB}= +25°C	>600 x 10^3 hours
		T_{AMB}= +40°C	>450 x 10^3 hours
Design Lifetime	230VAC/50Hz and full load at +25°C		>30 x 10^3 hours

Dimension Drawing (mm)







Connector Information

#	Function	Terminal
	AC Input (CON1)	
1	VAC in (N)	3 Pins (Pin2 removed)
3	VAC in (L)	with 3.96mm pitch
	DC Output (CON2)	
4,5	+VDC out	4 Pins
6,7	-VDC out	with 3.96mm pitch

FC= fixing centers

Compatible Connector

Housing
Molex 41695 Series or equivalent
Crimp Terminal
Molex 2478 Series or equivalent

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

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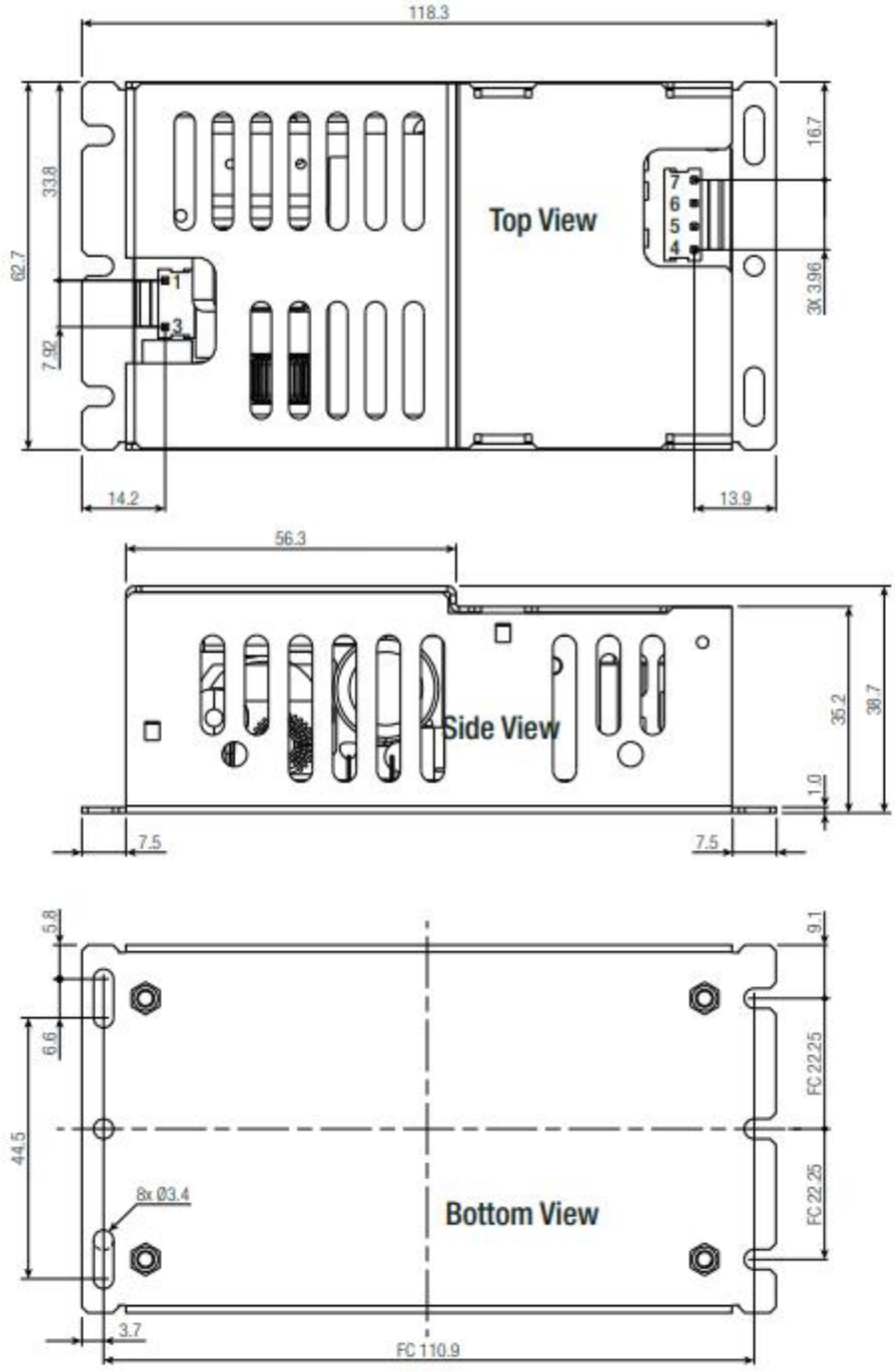
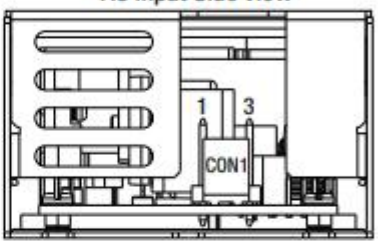
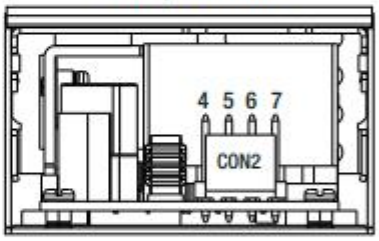


AC Input Side View



DC Output Side View



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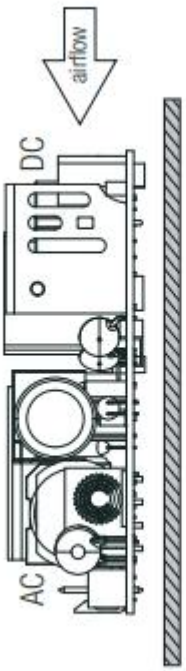
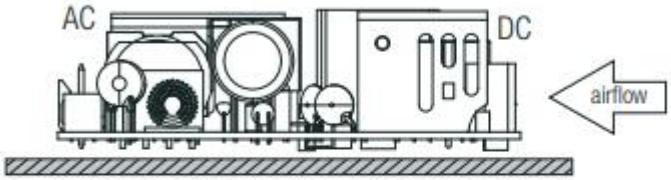
Mounting



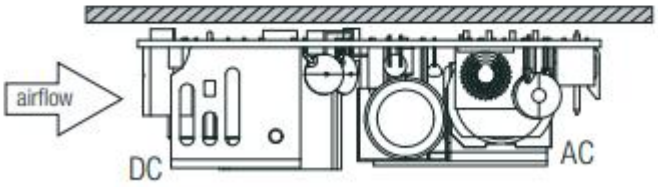
vertical

horizontal (standard)

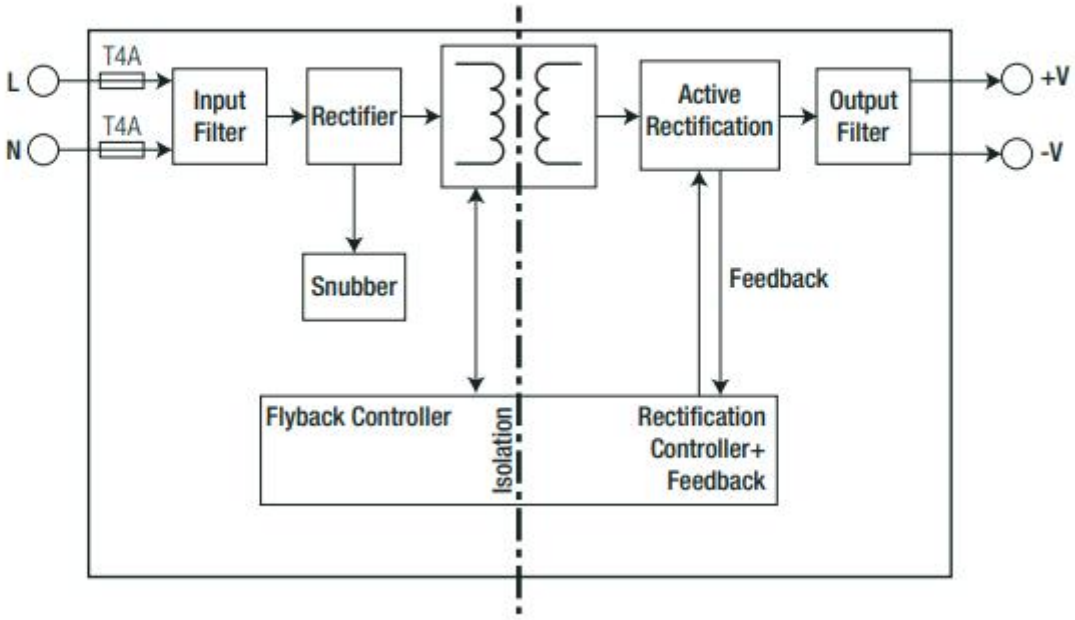


If module is mounted vertical or upside-down with natural convection cc
the power must be derated ≥ 10%.

upside-down



Blockdiagram ("/OF")



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APPLICATION AND INSTALLATION

Blockdiagram ("/ENC")