

10Watt, Single Output , Medical AC/DC Converter



**GA10M - S 05**  
A      B      C

A:Series  
B:Single Output  
C:Output Voltage

**Features:**

- Universal Input 80~264VAC
- Medical safety design refer to (2 X MOPP) according to ANSI/AAMI ES60601-1 and IEC/EN60601-1
- Suitable for BF application with appropriate system consideration
- No load power consumption<0.1W
- Extremely low leakage current
- EMI class B for class II configuration
- Protection: Short Circuit /Overload/Over Voltage/Over Temperature
- No minimum load required
- 2 Years Warranty    ● ROHS Compliant

**Applications:**

- Portable medical device
- Mobile clinical workstation
- Medical computer monitor
- Medical examination instrument

Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

Part Number	Output Wattage	Output Voltage	Output Current	Ripple & Noise	Efficiency
	(W)	(VDC)	(mA)	(mV) max(Note)	(TYP %)
GA10M-S05	10	5	2000	100	79
GA10M-S12	10.2	12	850	180	82
GA10M-S15	10	15	670	180	82
GA10M-S24	11	24	460	200	83

Notes: Ripple & noise is measured by using 20 MHz bandwidth, measured with a 47uf paralleled with a high-frequency 0.47uf capacitor across each output by full load.

**Input Specifications**

Parameters	Conditions		Min	Typ	Max	Units	
Rated Input Voltage	Vo,Io nom			100~240		Vac	
Voltage Range	Vo,Io nom	AC in	80		264	Vac	
		DC in	105		370	Vdc	
Line frequency	Vi nom,Ionom		47	50/60	63	Hz	
Inrush Current	Io nom	Vi:115VAC			25	A	
		Vi:230VAC			45	A	
Input Current(Full load)		0.3A (115Vac) 0.2A (230Vac)					
Input Fuse		VDE/UL/CCC FUSE 2.5A/250V (Slow blow).					

**Output Specifications**

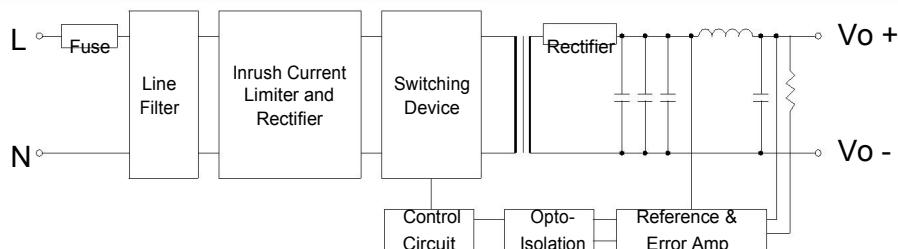
Parameters	Conditions		Min	Typ	Max	Units
Output Voltage Accuracy	Vi nom,Io nom	5V Models			±3	%
		12/15/24V Models			±2	%
Minimum Load	Vi nom		0			%
Line Regulation	Io nom,Vi min...Vi max			±0.3		%
Load Regulation	Vi nom, Io min...Io nom			±0.5		%
Protection	Overload		Above 110% rated output power			
	Short circuit		Recovering automatically after fault condition is removed			
	Over Voltage		110%-150% rated output Voltage			
	Over Temperature		Protection type: Zener diode clamp			
			Protection type: Shut down o/p voltage, recovers automatically after temperature goes down			

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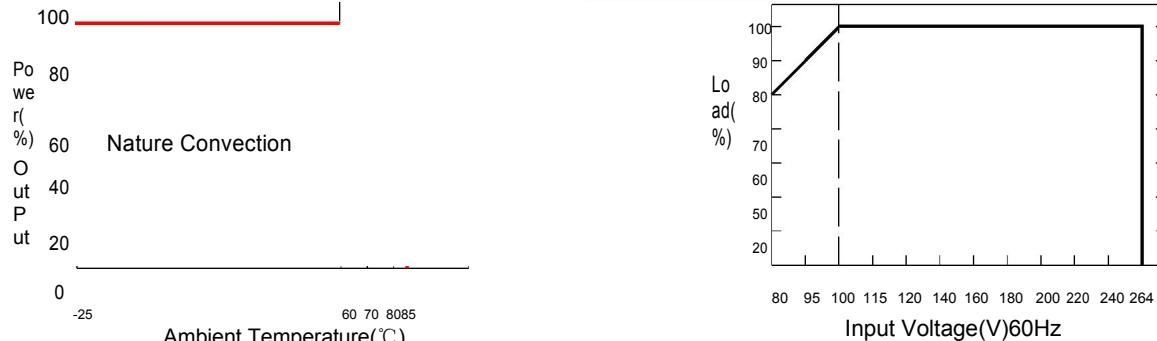
**General Specifications**

Parameters	Conditions	Min	Typ	Max	Units
<b>Isolation Voltage</b>	Input / Output	4KVac/	5mA/60Secs		
<b>Isolation Resistance</b>	Input / Output,@500 Vdc	100			MΩ
<b>Operating Temperature</b>	Operating at Vi nom,lo nom	-25		+85	°C
<b>Storage Temperature</b>	Non Operational	-40		+100	°C
<b>Relative Humidity</b>	Vi nom,lo nom			95	% RH
<b>Dimension</b>		L50.80x W25.40 x H17.02mm			
<b>Cooling</b>	Free air convection				

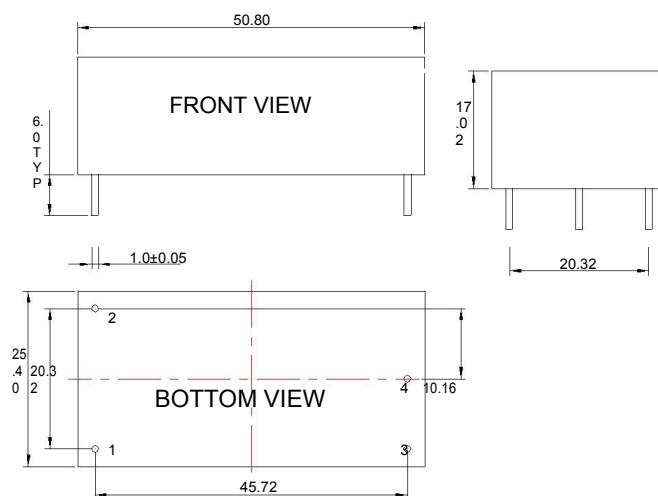
**Circuit Schematic**



**Output Derating VS Input Voltage**



**Markings and dimensions**



Unit: mm Unless otherwise specified, all tolerances are  $\pm 0.50$

**PIN Connection**

PIN	1	2	3	4
GA10M	ACN	ACL	-Vo	+Vo