

**FEATURES :**

- Universal Input 90~264VAC
- High Efficiency Up To 88%
- Protection: Short Circuit /Overload/Over Voltage
- Fully Encapsulated Plastic Case
- Internal Input Filter
- 3 Years Warranty
- ROHS Compliant

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 %)
GA030-S03	26.4	3.3	8000	150	72
GA030-S05	40.0	5	8000	150	75
GA030-S06	40.0	6	6650	150	75
GA030-S07	40.0	7	5700	150	80
GA030-S08	40.0	8	5000	150	80
GA030-S09	40.0	9	4400	150	82
GA030-S10	40.0	10	4000	150	82
GA030-S12	42.0	12	3500	150	84
GA030-S13	42.0	13	3200	150	84
GA030-S14	42.0	14	3000	150	84
GA030-S15	42.0	15	2800	150	84
GA030-S16	42.0	16	2625	150	85
GA030-S18	42.0	18	2300	150	85
GA030-S24	42.0	24	1750	240	86
GA030-S27	42.0	27	1550	240	86
GA030-S36	43.2	36	1200	240	86
GA030-S48	48.0	48	1000	240	88
GA030-D05	40.0	±5	±4000	150	75
GA030-D12	42.0	±12	±1750	150	80
GA030-D15	42.0	±15	±1400	150	80
GA030-D24	42.0	±24	±875	240	80
GA030-D0305	26.5	Vo1=+3.3, Vo2=+5	Io1=5000, Io2=2000	150(Vo1) 240(Vo2)	72
GA030-D0512	40.0	Vo1=+5, Vo2=+12	Io1=5000, Io2=1250		75
GA030-D0515	40.0	Vo1=+5, Vo2=+15	Io1=5000, Io2=1000		75
GA030-D0524	40.0	Vo1=+5, Vo2=+24	Io1=5000, Io2=625		78

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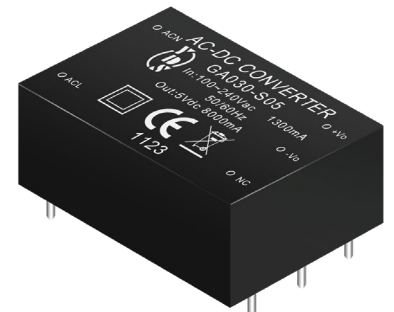
AC-DC Converter

GA030 SERIES

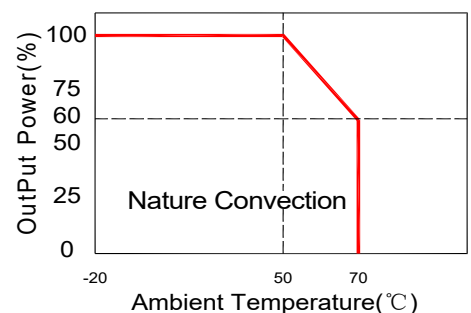
26~48Watt

3KV Isolated

Single & Dual Output Module



Temperature Derating Graph



**Input Specifications**

Parameters	Conditions	Min	Typ	Max	Units
<b>Rated Input Voltage</b>	Vo, Io nom		100~240		Vac
<b>Voltage Range</b>	Vo, Io nom	AC in	90	264	Vac
		DC in	120	370	Vdc
<b>Line Frequency</b>	Vi nom, Io nom	47	50/60	63	Hz
<b>Inrush Current</b>	Io nom	Vi:115VAC		12	A
		Vi:230VAC		20	A
<b>Input Fuse</b>	VDE/UL/CCC FUSE 2.5A/250V (Slow blow)				

**Output Specifications**

Parameters	Conditions	Min	Typ	Max	Units
<b>Output Voltage Accuracy</b>	Vi nom, Io nom (Single output)	3.3V...9V Models		±3	%
		10...48V Models		±2	%
	Dual Output				±5
<b>Minimum Load</b>	Vi nom	Single Output Models	0		%
		Dual Output Models (each output)	20		%
<b>Line Regulation</b>	Io nom, Vi min...Vi max		±1		%
<b>Load Regulation</b>	Io min~ Io nom	Single Output Models		±2	%
		Dual Output Models		±5	%
<b>Transient Recovery time</b>	Vi nom, Io nom = ↔ 0.5 Io nom		1000		us
<b>Protection</b>	Over load	Above 110% rated output power <b>Protection type:</b> Recovers automatically after fault condition is removed			
		Short circuit Recovers automatically after fault condition is removed			
	Over Voltage (Main Output)	120%-150% rated output Voltage <b>Protection type:</b> Zener diode clamp			

**Note :**  
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.

**General Specifications**

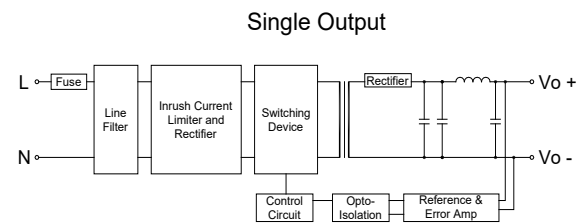
Parameters	Conditions	Min	Typ	Max	Units
<b>Switching Frequency</b>	Vi nom, Io nom		65		KHz
<b>Isolation Voltage</b>	Input / Output		3kVac/ 5mA/5Secs		
<b>Isolation Resistance</b>	Input / Output, @500 Vdc	100			MΩ
<b>Operating Temperature</b>	Operating at Vi nom, Io nom	-20		+70	°C
<b>Derating</b>	Vi nom, Io nom+51 to 71°C			2	%/°C
<b>Storage Temperature</b>	Non Operational	-40		+85	°C
<b>Relative Humidity</b>	Vi nom, Io nom			95	% RH
<b>Safety Standards</b>	EN62368-1 approved				
<b>EMI Conduction &amp; Radiation</b>	Compliance to EN55032				
<b>EMS Immunity</b>	Compliance to EN55024				
<b>Dimension</b>	L88.90x W63.50 x H31.75mm L3.5x W2.5 x H1.25 inches				
<b>Cooling</b>	Free air convection				

**Part Number**

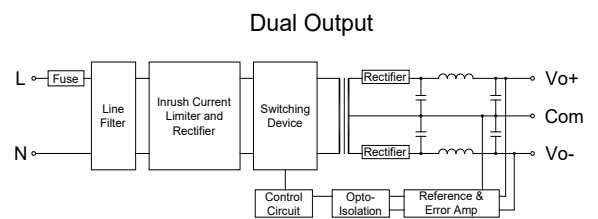
GA030 S 03  
A B C

A: Series  
B: Single(S) Dual (D)  
C: Output Voltage

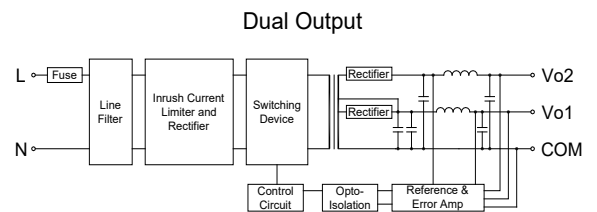
**Circuit Schematic(1)**



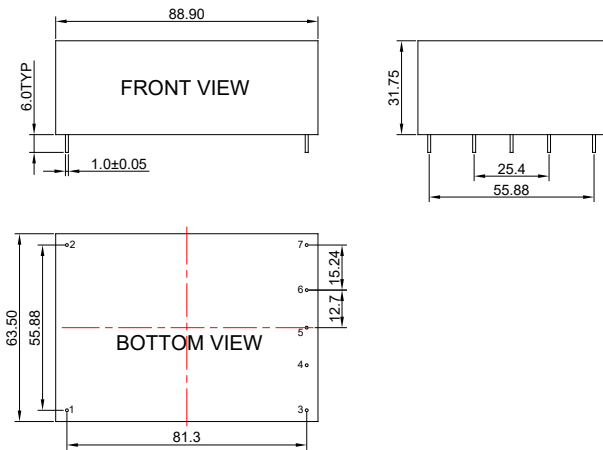
**Circuit Schematic(2)**



**Circuit Schematic(3)**



Markings and Dimensions



PIN	Model		
	Single	Dual	Dual
1	ACN	ACN	ACN
2	ACL	ACL	ACL
3	+Vo	+Vo	+Vo2
4	NO PIN	NO PIN	+Vo1
5	-Vo	Com	Com
6	NO PIN	NO PIN	Com
7	NC	-Vo	NO PIN

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