

## FEATURES:

- Universal Input: 90~264VAC
- High Efficiency Up To 82%
- Protection: Short Circuit/Overload/Overvoltage
- Fully Encapsulated Plastic Case
- Internal Input Filter
- RoHS Compliant



## AC-DC Converter AC010 SERIES

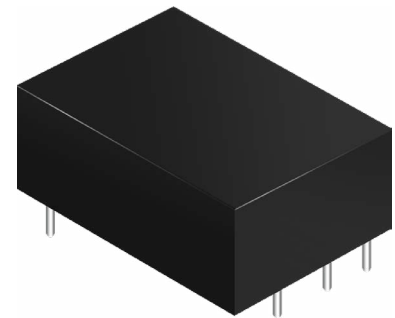
10Watt  
3KV Isolated  
Single & Dual Output  
Module

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)	(V)	(mA)	(mV) Max (Note)	(% TYP)
AC010-D05	10	±5	±1000	100	75
AC010-D12	12	±12	±500	150	75
AC010-D15	12	±15	±400	150	75
AC010-D24	12	±24	±250	240	77
AC010-S03	10	3.3	3000	100	74
AC010-S05	10	5	2000	100	76
AC010-S12	12	12	1000	150	80
AC010-S15	12	15	800	150	80
AC010-S24	12	24	500	240	80

### Note:

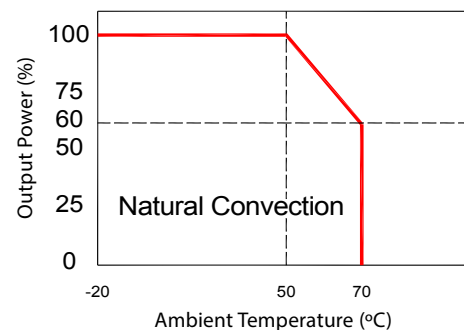
Ripple & noise is measured by using 20 MHz bandwidth, measured with 47uf paralleled with a high-frequency 0.47uf capacitor across each output by full load.



### Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Rated Input Voltage	Vo, lo nom	100~240			Vac
Voltage Range	Vo, lo nom	AC in	90	264	Vac
		DC in	120	370	Vdc
Line Frequency	Vi nom, lo nom	47	50/60	63	Hz
Inrush Current	Io nom	Vi:115VAC	10		A
		Vi:230VAC	20		A
Input Fuse	VDE/UL/CCC FUSE 2.5A/250V (Slow blow)				

### Temperature Derating Graph



## Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Output Voltage Accuracy	Vi nom, Io nom (Single Output)	3.3V, 5V Models		±3	%
		12...48V Models		±2	%
		Dual Output		±5	%
Minimum Load	Vi nom	Single Output Models	0		%
		Dual Output Models (each output)	20		%
Line Regulation	Io nom, Vi min...Vi max		±1		%
Load Regulation	Io min~Io nom	Single Output Models		±2	%
		Dual Output Models		±5	%
Transient Recovery Time	Vi nom, Io nom = ← → 0.5 Io nom		1000		µS
Protection	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				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 47µf paralleled with a high-frequency 0.47µf capacitor across each output by full load.

## General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Switching Frequency	Vi nom, Io nom		65		KHz
Isolation Voltage	Input / Output		3KVac/ 5mA/5Secs		
Isolation Resistance	Input / Output, @500 Vdc	100			MΩ
Operating Temperature	Refer to Temperature Derating Graph	-20		+70	°C
Derating	Vi nom, Io nom +51 to 71°C			2	%/°C
Storage Temperature	Non Operational	-40		+85	°C
Relative Humidity	Vi nom, Io nom			95	% RH
Safety Standards		EN60950-1 approved			
EMI Conduction & Radiation		Compliance to EN55022			
EMS Immunity		Compliance to EN55024			
Dimensions		L63.50x W44.45 x H19.05mm, L2.5x W1.75 x H0.75 inches			
Cooling		Free air convection			

## Part Number

AC010 -  $\frac{S}{A} \frac{03}{B \ C}$

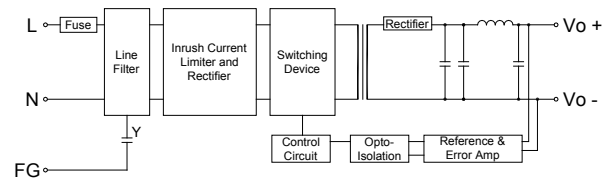
A: Series

B: Single (S) / Dual Output (D)

C: Output Voltage

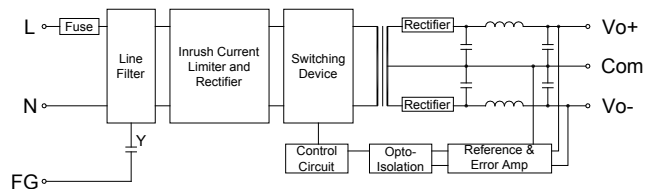
## Circuit Schematic (1)

### Single Output



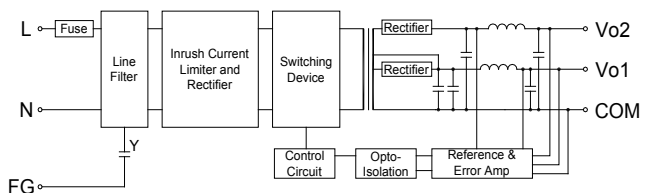
## Circuit Schematic (2)

### Dual Output

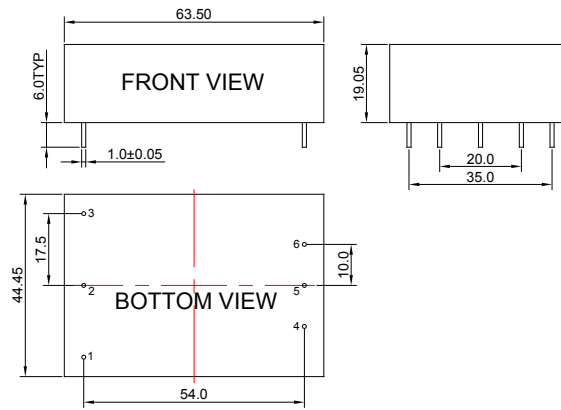


## Circuit Schematic (3)

### Dual Output



**Markings and Dimensions**



UNIT: mm  
Unless otherwise specified, all tolerances are ±0.50.

**PIN Connection**

PIN	1	2	3	4	5	6
<b>Single</b>	FG	ACN	ACL	-Vo	NO PIN	+Vo
<b>Dual</b>	FG	ACN	ACL	-Vo	COM	+Vo
<b>Dual</b>	FG	ACN	ACL	-Vo2	COM	+Vo1