

## FEATURES:

- Universal Input: 90~264VAC
- High Efficiency Up To 88%
- Protection: Short Circuit/Overload/Overvoltage
- Fully Encapsulated Plastic Case
- Internal Input Filter
- RoHS Compliant
- UL Recognized

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

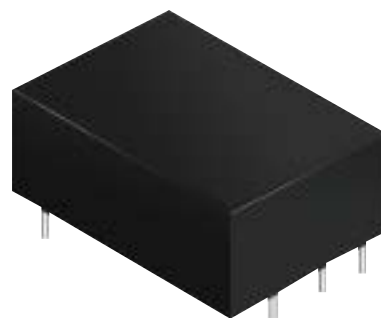
| Part Number | Output Wattage | Output Voltage | Output Current | Ripple & Noise  | Efficiency |
|-------------|----------------|----------------|----------------|-----------------|------------|
|             | (W)            | (V)            | (mA)           | (mV) Max (Note) | (% TYP)    |
| AC030-D12   | 42             | ±12            | ±1750          | 150             | 80         |
| AC030-S05   | 40             | 5              | 8000           | 150             | 75         |
| AC030-S12   | 42             | 12             | 3500           | 150             | 84         |
| AC030-S24   | 42             | 24             | 1750           | 240             | 86         |
| AC030-S48   | 48             | 48             | 1000           | 240             | 88         |

### 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.

# ADAM TECH

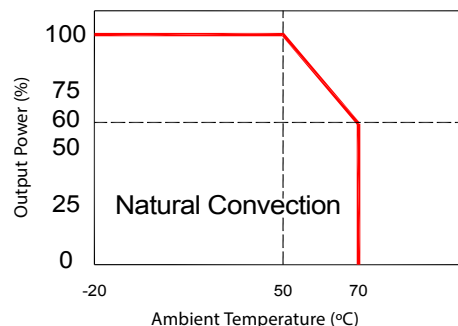
AC-DC Converter  
**AC030 SERIES**  
26~48Watt  
3KV Isolated  
Single & Dual Output  
Module



## Input Specifications

| Parameters          | Conditions                            | Min       | Typ   | Max | Units |
|---------------------|---------------------------------------|-----------|-------|-----|-------|
| Rated Input Voltage | Vo, Io nom                            | 100~240   |       |     | Vac   |
| Voltage Range       | Vo, Io nom                            | AC in     |       | 264 | Vac   |
|                     |                                       | DC in     |       | 370 | Vdc   |
| Line Frequency      | Vi nom, Io nom                        | 47        | 50/60 | 63  | Hz    |
| Inrush Current      | Io nom                                | Vi:115VAC |       | 12  | 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...9V Models                                                                |      | ±3  | %     |
|                         |                                    | 10...48V Models                                                                 |      | ±2  | %     |
| Minimum Load            | Dual Output                        |                                                                                 |      | ±5  | %     |
|                         | Vi nom                             | Single Output Models                                                            | 0    |     | %     |
|                         |                                    | Dual Output Models                                                              | 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<br>= ← → 0.5 Io nom |                                                                                 | 1000 |     | us    |
| 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 (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 |
|----------------------------|-----------------------------------------------------|-----|------------------|-----|-------|
| Switching Frequency        | Vi nom, Io nom                                      |     | 65               |     | KHz   |
| Isolation Voltage          | Input / Output                                      |     | 3KVac/ 5mA/5Secs |     |       |
| Isolation Resistance       | Input / Output, @500 Vdc                            | 100 |                  |     | MΩ    |
| Operation Temperature      | Operating at Vi nom, Io nom                         | -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           | EN 62368-1 approved                                 |     |                  |     |       |
| EMI Conduction & Radiation | Compliance to EN55032                               |     |                  |     |       |
| EMS Immunity               | Compliance to EN55024                               |     |                  |     |       |
| Dimensions                 | L88.90x W63.50 x H31.75mm L3.5x W2.5 x H1.25 inches |     |                  |     |       |
| Cooling                    | Free air convection                                 |     |                  |     |       |

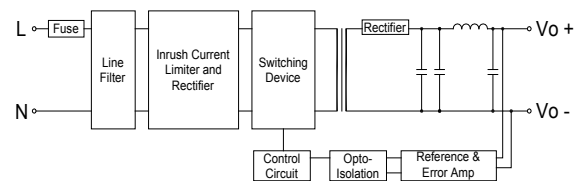
## Part Number

AC030 - S 05  
A B C

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

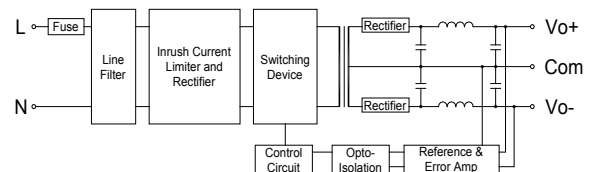
## Circuit Schematic (1)

### Single Output



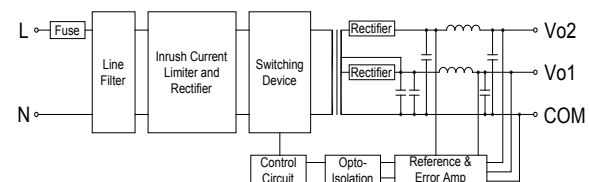
## Circuit Schematic (2)

### Dual Output

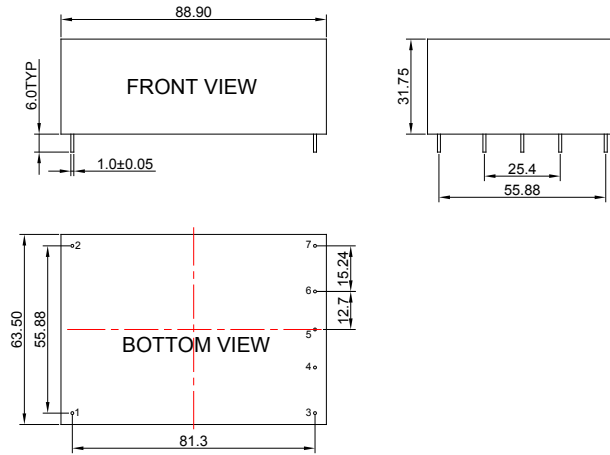


## Circuit Schematic (3)

### Dual Output



## Markings and Dimensions



| 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  $\pm 0.50$