



7Watt, Single & Dual Output ,AC/DC Power Module Converter

FEATURES:

Universal Input 90~264VAC

High Efficiency Up To 82%

Protection: Short Circuit /Overload/Over Voltage

Fully Encapsulated Plastic Case

Internal Input Filter

AS7220-I S 07
A B C D

A:Series

B:Package

C:Single(S) Dual(D)

D:Output Voltage

| Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise | | | | | |
|--|----------------|----------------|-----------------|-------------------|------------|
| Part Number | Output Wattage | Output Voltage | Output Current | Ripple & Noise | Efficiency |
| | (W) | (VDC) | (mA) | (mV) max(Note) | (TYP %) |
| AS7220-IS03 | 6.6 | 3.3 | 2000 | 100 | 70 |
| AS7220-IS05 | 7.5 | 5 | 1500 | 100 | 75 |
| AS7220-IS06 | 7.2 | 6 | 1200 | 100 | 75 |
| AS7220-IS07 | 7.0 | 7 | 1000 | 100 | 75 |
| AS7220-IS08 | 7.2 | 8 | 900 | 100 | 75 |
| AS7220-IS09 | 7.2 | 9 | 800 | 100 | 75 |
| AS7220-IS10 | 7.5 | 10 | 750 | 100 | 75 |
| AS7220-IS12 | 7.5 | 12 | 625 | 150 | 80 |
| AS7220-IS13 | 7.8 | 13 | 600 | 150 | 80 |
| AS7220-IS14 | 7.0 | 14 | 500 | 150 | 80 |
| AS7220-IS15 | 7.5 | 15 | 500 | 150 | 80 |
| AS7220-IS16 | 7.2 | 16 | 450 | 150 | 80 |
| AS7220-IS18 | 7.2 | 18 | 400 | 150 | 80 |
| AS7220-IS24 | 7.5 | 24 | 320 | 240 | 80 |
| AS7220-IS27 | 7.5 | 27 | 280 | 270 | 82 |
| AS7220-IS36 | 7.2 | 36 | 200 | 360 | 85 |
| AS7220-IS48 | 7.5 | 48 | 160 | 480 | 85 |
| AS7220-ID05 | 7.0 | ±5 | ±700 | 100 | 72 |
| AS7220-ID12 | 7.2 | ±12 | ±300 | 150 | 78 |
| AS7220-ID15 | 7.5 | ±15 | ±250 | 150 | 80 |
| AS7220-ID24 | 7.2 | ±24 | ±150 | 240 | 80 |
| AS7220-ID0512 | 7.0 | Vo1=+5,Vo2=+12 | Io1=800,Io2=250 | 100(Vo1) 150(Vo2) | 75 |
| AS7220-ID0515 | 7.0 | Vo1=+5,Vo2=+15 | Io1=800,Io2=200 | 100(Vo1) 150(Vo2) | 75 |
| AS7220-ID0524 | 7.0 | Vo1=+5,Vo2=+24 | Io1=800,Io2=125 | 100(Vo1) 240(Vo2) | 75 |

| 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 | 90 | 370 | Vdc |
| Line frequency | Vi nom,Io 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) | | | | |

| 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 | % |
| 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 | | 1,000 | | uS |
| Protection | Overload | Above 110% rated output power Protection type: 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 Protection type: 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.

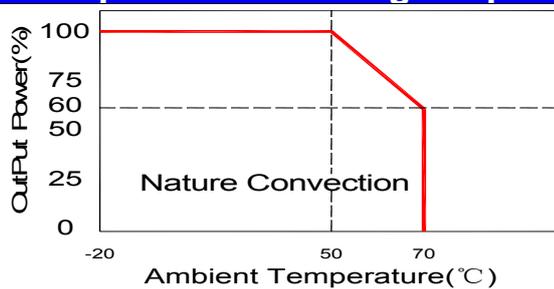


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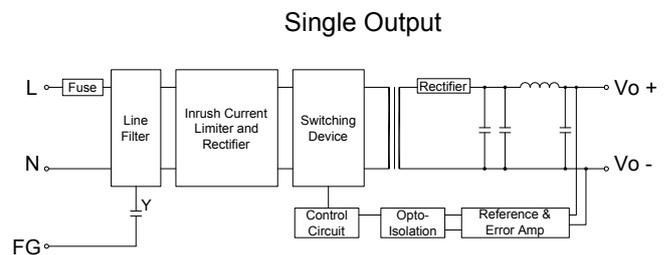
GENERAL SPECIFICATIONS

| Parameters | Conditions | Min | Typ | Max | Units |
|-----------------------|---|------------------|-----|-----|-------|
| Switching Frequency | Vi nom, lo nom | | 65 | | KHz |
| Isolation Voltage | Input / Output | 3KVac/ 5mA/5Secs | | | |
| Isolation Resistance | Input / Output, @500 Vdc | 100 | | | MΩ |
| Operating Temperature | Operating at Vi nom, lo nom | -20 | | +70 | °C |
| Derating | Vi nom, lo nom+51 to 71°C | | | 2 | %/°C |
| Storage Temperature | Non Operational | -40 | | +85 | °C |
| Relative Humidity | Vi nom, lo nom | | | 95 | % RH |
| Dimension | L53.34x W41.28 x H20.32mm L2.1x W1.63 x H0.8 inches | | | | |
| Cooling | Free air convection | | | | |

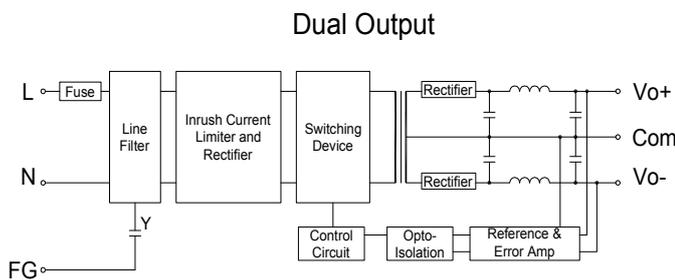
Temperature Derating Graph



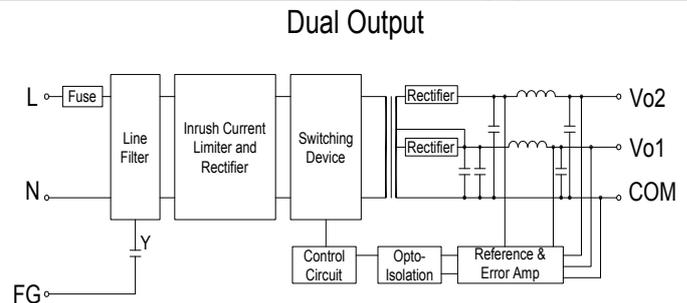
Circuit Schematic(1)



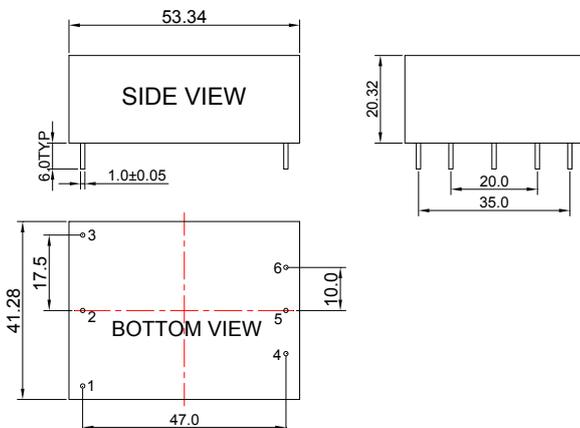
Circuit Schematic(2)



Circuit Schematic(3)



Markings and dimensions



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

Unit:mm Unless otherwise specified, all tolerances are ±0.50