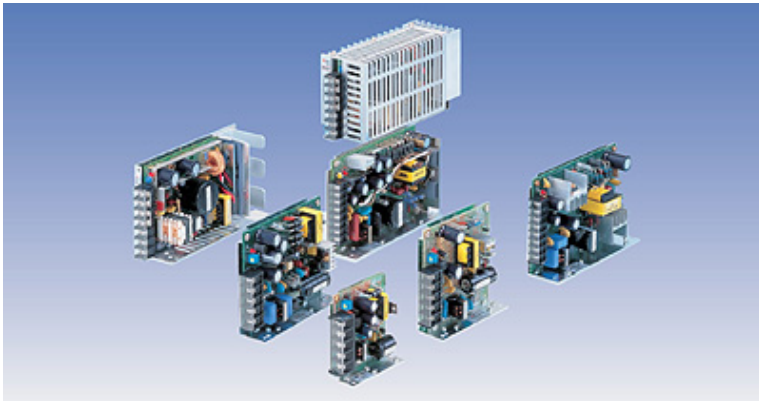


30 WATT AC-DC CONVERTER

ERT-00A SERIES



General Description

ER-series is an open frame, low cost switcher with high efficiency. 65 different models are available from low to medium power. Low power modules use a simple RCC circuit while higher power supplies employ a forward converter.

Features

1. Cost effective
2. High efficiency
3. No derating without cover and horizontal mounting
4. Over voltage protection

Options

Case cover (add suffix "-P")
"-P" model dimension is same as "without cover" model

| Specifications<AC/DC> | Model | | | | | | | | |
|--|--|---|-----|--------|--------|--------|-------|------|-----|
| | ERT**A 30WATTS/30OUTPUTS | | | ERT01A | ERT03A | ERT04A | | | |
| Input Voltage | AC100V(DC130V) | | | | | | | | |
| Input Range | AC85-132V(DC110-175V) | | | | | | | | |
| Input Frequency | 50/60Hz | | | | | | | | |
| Input Frequency Range | 47-440Hz | | | | | | | | |
| Phase | Single | | | | | | | | |
| Inrush Current *1 | 30A(maximum)at AC100V | | | | | | | | |
| Efficiency [%] (typical) *2 | 67 | | | 67 | | | 69 | | |
| Output Characteristic | | | | | | | | | |
| Output Voltage [V] | 5 | +12 | -12 | 5 | +12 | -5 | 5 | +15 | -15 |
| Output Current [A] | 0.5-3 | 1.2 | 0.3 | 0.5-3 | 1.2 | 0.3 | 0.5-3 | 0.5 | 0.5 |
| Voltage Adjust Range | V1:+3%/-0% of Rated Output Voltage(at no load within the input range) V2:fixed with tolerance of +/-3.5%(at no load within the input range) | | | | | | | | |
| Ripple and Noise [mVp-p](maximum) *3 | 100 | 170 | 170 | 100 | 170 | 100 | 100 | 200 | 200 |
| Regulation | | | | | | | | | |
| a.Statistic Line Regulation [mV](maximum) | 25 | 60 | 60 | 25 | 60 | 25 | 25 | 75 | 75 |
| b.Statistic Load Regulation [mV](maximum) | 50 | 120 | 120 | 50 | 120 | 50 | 50 | 150 | 150 |
| c.Temperature Coefficient *4 | 0.03%/°C | | | | | | | | |
| d.Drift[mV](maximum) *5 | 40 | 75 | 75 | 40 | 75 | 40 | 40 | 90 | 90 |
| e.Dynamic Load Regulation [mV](typical) *6 | not specified | | | | | | | | |
| f.Recovery Time *6 | not specified | | | | | | | | |
| Rise up time | 200mS(maximum) at 25°C and rated input/output | | | | | | | | |
| Hold up time | 20mS(minimum) at 25°C and rated input/output | | | | | | | | |
| Functions | | | | | | | | | |
| Overcurrent Protection | ≥ 115% of | Current Limiting with automatic recovery V2,V3:by the regulator I.C's character | | | | | | | |
| Rated Output Current[A] | | 3.45 | - | - | 3.45 | - | - | 3.45 | - |
| Overvoltage Protection | ≥ 115% of | V1:Zener diode clamping V2,V3:not available | | | | | | | |
| Rated Output Voltage[V] | | 5.75 | - | - | 5.75 | - | - | 5.75 | - |
| Remote Sense | not available | | | | | | | | |
| Remote On/Off | not available | | | | | | | | |
| Environmental | | | | | | | | | |
| Operating Temperature | 0°C [enclosed type:-5 to 50°C at vertical mount/-5 to 40°C at horizontal | | | | | | | | |
| Operating Humidity | 85% RH(non-condensing) | | | | | | | | |
| Storage Temperature | -20 to +85°C | | | | | | | | |
| Storage Humidity | 85% RH(non-condensing) | | | | | | | | |
| Withstanding Voltage | Primary-Secondary AC1,500V for 1minute Primary-Frame Ground AC1,500V for 1minute Secondary-Frame Ground AC500V for 1minute | | | | | | | | |
| Isolation Resistance | Primary-Secondary-Frame Ground 50MΩ(minimum) by DC500V insulation tester | | | | | | | | |
| Vibration | 5-10Hz:10mm double amplitude,10-55Hz:19.6m/s ² ,20minutes' period for 60minutes each along X,Y,Z axes(non-operating) | | | | | | | | |
| Shock | 294m/s ² | | | | | | | | |
| Cooling | Convection | | | | | | | | |
| ? Leakage Current | 1mA(maximum) at 25°C ,rated input/output and rated input frequency | | | | | | | | |
| ? Line conducted noise | Built to meet FCC Part15-B Class B | | | | | | | | |
| ? Safety | | | | | | | | | |
| ? Weight (typical) | 400g/enclosed type:490g | | | | | | | | |
| ? MTBF [H] | 570,000 | | | | | | | | |
| ? Switching Frequency[kHz](typical) *7 | 25 | | | | | | | | |

Conditions:

*1 at cold start

*2 at DC130V input and rated output

*3 measured by a bayonet probe at output connector at 0 to 100MHz bandwidth

*4 at -5 to +50°C /enclosed type: at -5 to +40°C

*5 for 7hour period after 1hour warm-up at 25°C and rated input/output

*6 when output current changed from 25% to 75% of rated output current rapidly at AC100V input

*7 variable on input voltage and load conditions

