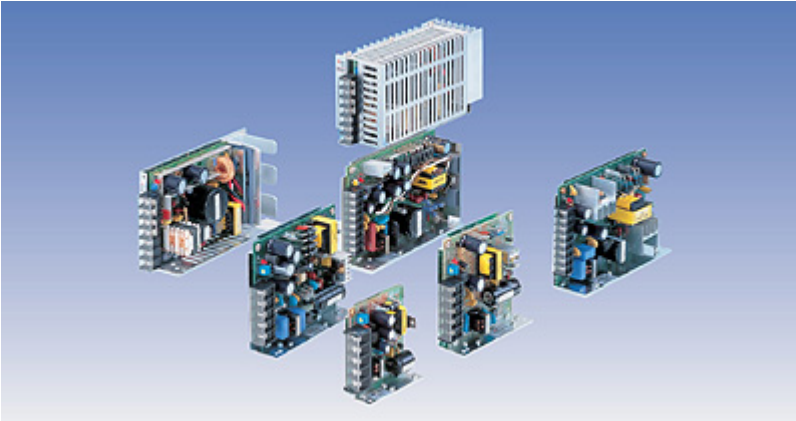


25 WATT AC-DC CONVERTER ERA-SA SERIES



Features

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

General Description

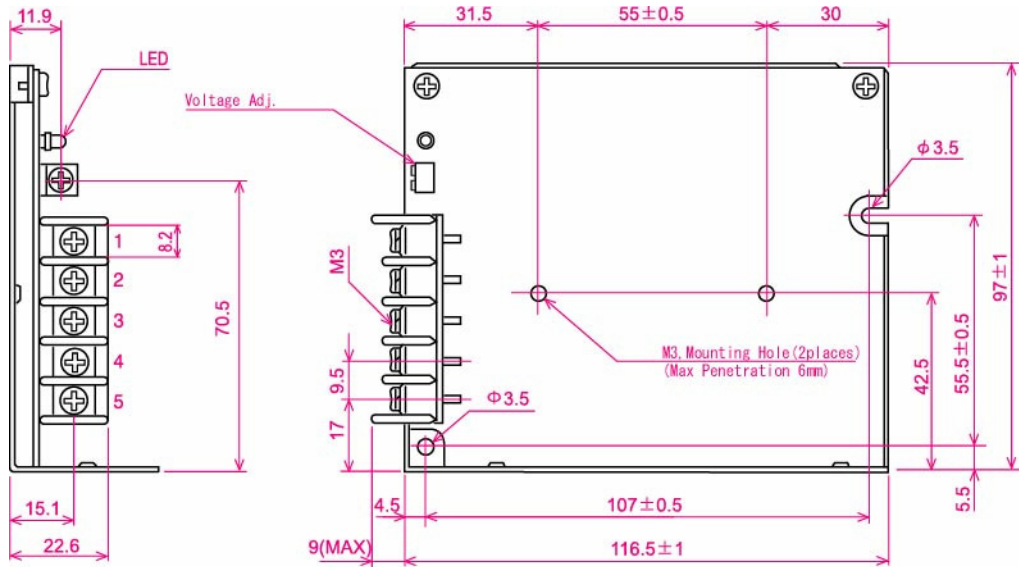
ER-series is an open frame, low cost switcher with high efficiency. 65 different models are available from low to medium power. Low power modules use a simple RCC circuit while higher power supplies employ a forward converter.

Options

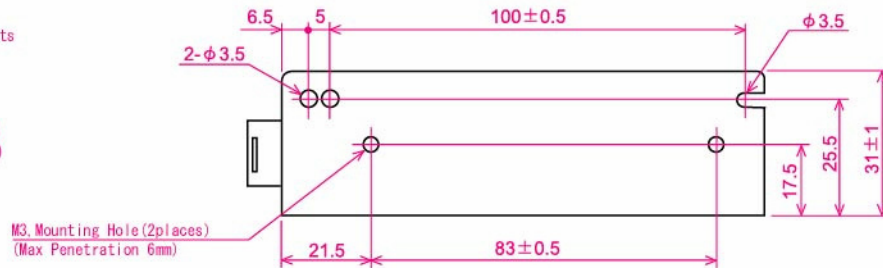
Case cover (add suffix "-P")

"-P" model dimension is same as "without cover" model

Dimension (mm)



- Pin assignments
- 1 +V out
 - 2 -V out
 - 3 FG
 - 4 AC in (L)
 - 5 AC in (N)



ERA**SA Specification

| Specifications<AC/DC> | Model | | | | |
|---|---|---------|---------|---------|---------|
| ERA**SA 25WATTS/SINGLE | ERA05SA | ERA12SA | ERA15SA | ERA24SA | ERA48SA |
| Output Characteristic | | | | | |
| Output Voltage [V] | 5 | 12 | 15 | 24 | 48 |
| Output Current [A] | 5.0 | 2.1 | 1.7 | 1.1 | 0.55 |
| Voltage Adjust Range | +/- 10% of Rated Output Voltage(at no load within the input range) | | | | |
| Ripple and Noise [mVp-p](maximum) *3 | 100 | 170 | 200 | 290 | 530 |
| Regulation | | | | | |
| Statistic Line Regulation [mV](maximum) | 25 | 60 | 75 | 120 | 240 |
| Statistic Load Regulation [mV](maximum) | 50 | 120 | 150 | 240 | 480 |
| Temperature Coefficient *4 | 0.03%/°C | | | | |
| Drift[mV](maximum) *5 | 40 | 75 | 90 | 135 | 255 |
| Dynamic Load Regulation [mV](typical) *6 | not specified | | | | |
| Recovery Time *6 | not specified | | | | |
| Rise up time | 200mS(maximum) at 25°Cand rated input/output | | | | |
| Hold up time | 20mS(minimum) at 25°Cand rated input/output | | | | |
| Functions | | | | | |
| Overcurrent Protection $\geq 05\%$ of Rated Output Current[A] | Current Limiting with automatic recovery | | | | |
| | 5.25 | 2.21 | 1.79 | 1.16 | 0.58 |
| Overvoltage Protection $\geq 12\%$ of Rated Output Voltage[V] | output shutdown(to reset,leave 30seconds after shut-off) | | | | |
| | 5.60 | 13.4 | 16.8 | 26.9 | 53.8 |
| Remote Sense | not available | | | | |
| Remote On/Off | not available | | | | |
| Environmental | | | | | |
| Operating Temperature | -5 to +50°C(enclosed type:-5 to 50°Cat vertical mount/-5 to 45°Cat horizontal mount] | | | | |
| 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 50M Ω (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°Crated input/output and rated input frequency | | | | |
| ? Line Conducted Noise | Built to meet FCC Part15-B Class B | | | | |
| ? Safety | | | | | |
| Weight (typical) | 280g/enclosed type:340g | | | | |
| ? MTBF [H] | 610,000 | | | | |
| ? Switching Frequency[kHz](typical) *7 | 25 | 40 | 40 | 40 | 40 |

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

*5 for 7hour period after 1hour warm-up at 25°Cand 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

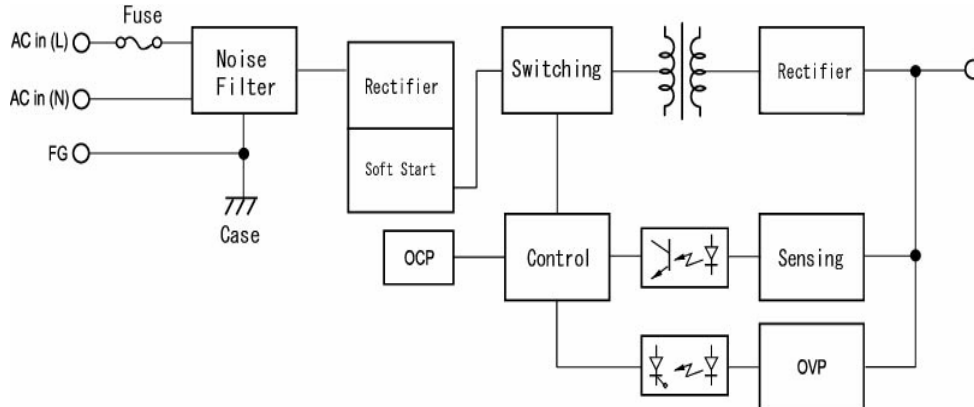


ETA-USA

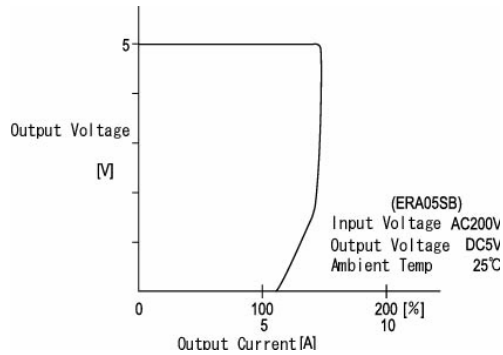
HIGH QUALITY SWITCHING POWER SUPPLIES

ETA-USA Tel: 408-778-2793 Fax: 408-779-2753 e-mail: sales@eta-usa.com

Block Diagram



OCP Curve



Derating Curve

