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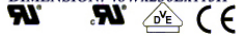
HIGH QUALITY SWITCHING POWER SUPPLIES

AC/DC SWITCHING POWER SUPPLY
AC INPUT 85~132V
SINGLE CHANNEL OUTPUT
150 WATTS

ERE-SA-U SERIES



DIMENSION: 48Wx230Lx115H



General Description

"ER"-Series AC/DC Switching power supplies are open frame, low cost with high efficiency. 65 different models are available from low to medium power. A low power modules use a simple RCC circuit while high power supplies employ a forward converter.

Application

Input

| | |
|-------------------------------|---|
| Input Voltage: | AC100 (DC130V) |
| Input Voltage Range: | AC85-132V (DC110-175V) |
| Frequency: | 50/60Hz |
| Input Frequency Range: | 47-440Hz |
| Phase: | Single |
| Inrush Current: *1 | 20A(max.) at AC100V |
| Leakage Current: | 1mA(maximum) at 25°C (rated input/output and rated input frequency) |

Features

1. Open Frame
2. Cost Effective
3. High Efficiency
4. No derating without cover and horizontal mounting
5. Input 170-264Vac
6. EMI : complies with FCC/A, FCC/B for ERD & ERE
7. Over voltage protection

Option

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

| Output Characteristic | Unit | Models | | | | |
|--------------------------------------|------|--|-----------|-----------|-----------|-----------|
| | | ERE05SA | ERE12SA | ERE15SA | ERE24SA | ERE48SA |
| Output Voltage | Vdc | 5 | 12 | 15 | 24 | 48 |
| Output Current | A | 30 | 14 | 11 | 7 | 3.5 |
| Voltage Adjust Range | V | +/- 10% of Rated Output Voltage(at no load within the input range) | | | | |
| Ripple Noise(max)*3 | mVpp | 150 | 220 | 250 | 340 | 580 |
| Rise up time | mS | 500mS(maximum) at 25°C and rated input/output | | | | |
| Hold up time | mS | 20mS(minimum) at 25°C and rated input/output | | | | |
| Regulation | | | | | | |
| a. Line Regulation | mV | 40 | 96 | 120 | 192 | 384 |
| b. Load Regulation | mV | 45 | 108 | 135 | 216 | 432 |
| c. Temperature Coefficient *4 | °C | 0.03%/°C | | | | |
| d. Drift(maximum) *5 | mV | 40 | 75 | 90 | 135 | 255 |
| e. Dynamic Load Regulation (typ.) *6 | mV | 150 | 360 | 450 | 720 | 1440 |
| f. Recovery Time *6 | mS | 0.3mS(typical) | | | | |
| Efficiency *2 | % | 81 | 85 | 86 | 88 | 89 |

Conditions:

*1 at cold start

*2 at DC260V input/rated output

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

*4 at -10 to +50°C/enclosed type: at -10 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 AC200V input

*7 variable on input voltage and load conditions



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| Environmental Specification | | | | | |
|---|--|------|-------|------|------|
| Operating Temperature | 0 to +50°C [enclosed type: 0 to 50°C at vertical mount / 0 to 40°C at horizontal mount] | | | | |
| Operating Humidity | 85%RH (non-condensing) | | | | |
| Storage Temperature | -20 to +85°C | | | | |
| Storage Humidity | 85%RH (non-condensing) | | | | |
| Withstanding Voltage | Primary-Secondary AC1500V for 1minute Primary-Frame Ground AC1500V 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 | | | | |
| Environmental Agencies | | | | | |
| Line Conducted Noise | not specified | | | | |
| Safety | | | | | |
| MTBF [H] | 670000 | | | | |
| Switching Frequency [kHz] | 145 | | | | |
| Function/Protection | | | | | |
| Over current Protection (≥105% of Rated Output Current [A]) | Current Limiting with automatic recovery | | | | |
| | 31.5 | 14.7 | 11.55 | 7.35 | 3.68 |
| Over voltage Protection (≥115% of Rated Output Voltage [V]) | output shutdown (to reset, leave 30seconds after shut-off) | | | | |
| | 5.75 | 13.8 | 17.25 | 27.6 | 55.2 |
| Remote Sense | available | | | | |
| Remote On/Off | not available | | | | |
| Mechanical | | | | | |
| Dimension [mm] | 65Wx177Lx92H | | | | |
| Weight | 890g/enclosed type: 930g | | | | |



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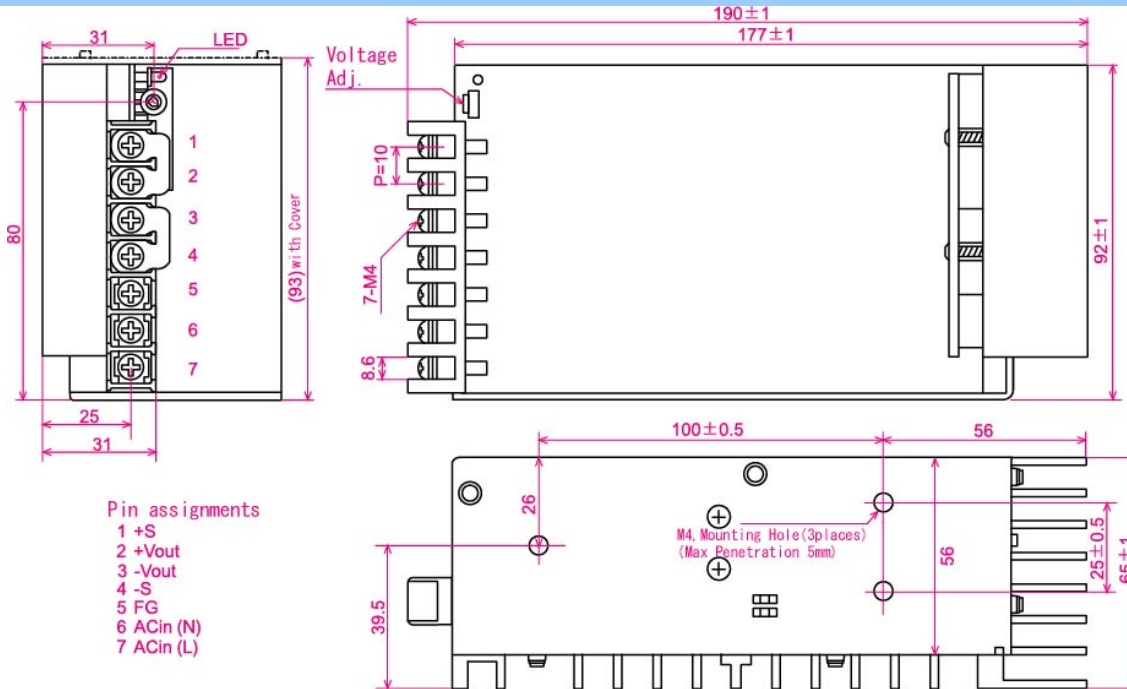
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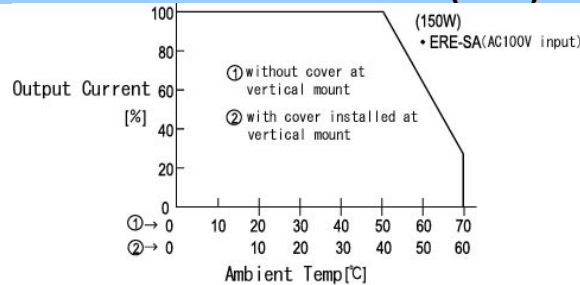
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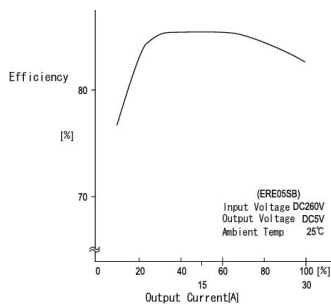
DIMENSION DIAGRAM



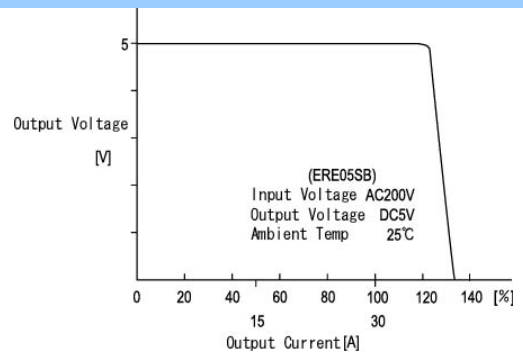
DERATING CURVE (mm)



EFFICIENCY CURVE



OCP CURVE



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