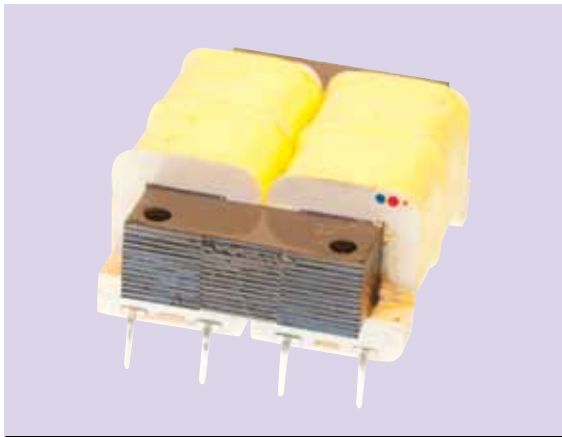




# RL-2230

## 50/60 HZ TRANSFORMERS FLAT/TRAN™

### DESCRIPTION

- Flat Transformer

### ENVIRONMENTAL DATA

- Storage temperature range:  
-55°C to +130°C
- Operating temperature range:  
-40°C to +130°C

### PACKAGING INFORMATION

- Packaging information: pg. 493

### FEATURES & APPLICATIONS

- Specifically designed for convenient PCB mounting
- The low overall height permits close spacing of adjacent PCB to obtain maximum system density
- Using nonconcentric side-by-side winding reduces the interwinding capacitance and eliminates the need for electrostatic shielding
- Dual primary winding permit designs for 115/230 VAC, 50/60 Hz applications

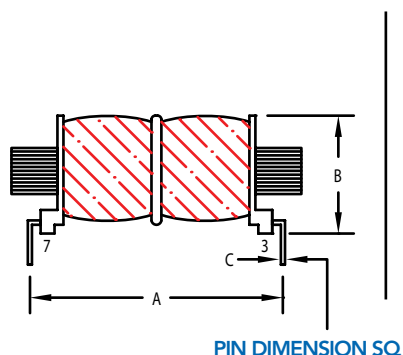
Verify operation with sample in actual circuit. Order samples at [www.rencousa.com](http://www.rencousa.com).

### MECHANICAL DIMENSIONS

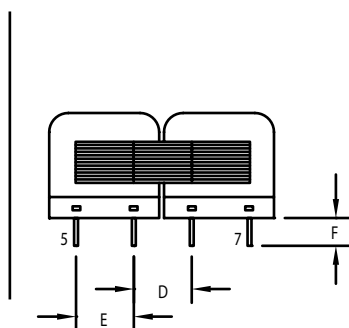
U.S. Standard (mm)

| PART NUMBER | A               | B (MAX.)         | C                              | D (TYP.)         | E (TYP.)        | F (MIN.)        | G (MAX.)        | H (TYP.)        | I (MAX.)        |
|-------------|-----------------|------------------|--------------------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| RL-2230-2   | 1.60<br>(40.64) | 0.650<br>(16.51) | 0.041 (1.04) x<br>0.020 (0.51) | 0.375<br>(9.53)  | 0.38<br>(9.53)  | 0.250<br>(6.35) | 1.87<br>(47.50) | N/A             | 1.56<br>(39.62) |
| RL-2230-6   | 1.60<br>(40.64) | 0.850<br>(21.59) | 0.041 (1.04) x<br>0.020 (0.51) | 0.375<br>(9.53)  | 0.38<br>(9.53)  | 0.250<br>(6.35) | 1.87<br>(47.50) | N/A             | 1.56<br>(39.62) |
| RL-2230-12  | 2.00<br>(50.80) | 1.065<br>(27.05) | 0.041 (1.04) x<br>0.020 (0.51) | 0.500<br>(12.70) | 0.50<br>(12.70) | 0.250<br>(6.35) | 2.50<br>(63.50) | N/A             | 2.00<br>(50.80) |
| RL-2230-24  | 1.90<br>(48.26) | 1.250<br>(31.75) | 0.041<br>(1.04)                | 0.530<br>(13.46) | 0.60<br>(15.24) | 0.250<br>(6.35) | 2.87<br>(72.90) | N/A             | 2.25<br>(57.15) |
| RL-2230-48  | 2.18<br>(55.37) | 1.375<br>(34.93) | 0.041<br>(1.04)                | 0.660<br>(16.76) | 0.60<br>(15.24) | 0.250<br>(6.35) | 3.12<br>(79.25) | 2.50<br>(63.50) | 2.50<br>(63.50) |

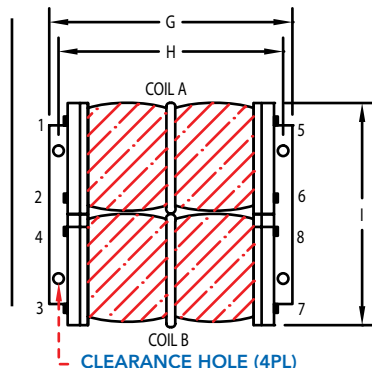
FRONT VIEW



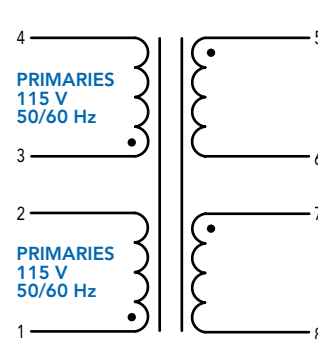
SIDE VIEW



BOTTOM VIEW



SCHEMATIC



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# RL-2230

| Renco Part No.  | VA (Size) | Series              | Parallel      |
|-----------------|-----------|---------------------|---------------|
| RL-2230-10-250  | 2         | 10V C.T. @ 250 mA   | 5V @ 500 mA   |
| RL-2230-10-600  | 6         | 10V C.T. @ 600 mA   | 5V @ 1.20 A   |
| RL-2230-10-1200 | 12        | 10V C.T. @ 1.20 A   | 5V @ 2.40 A   |
| RL-2230-10-2400 | 24        | 10V C.T. @ 2.40 A   | 5V @ 4.80 A   |
| RL-2230-10-4800 | 48        | 10V C.T. @ 4.80 A   | 5V @ 9.60 A   |
| RL-2230-12-200  | 2         | 12.6V C.T. @ 200 mA | 6.3V @ 400 mA |
| RL-2230-12-450  | 6         | 12.6V C.T. @ 450 mA | 6.3V @ 900 mA |
| RL-2230-12-900  | 12        | 12.6V C.T. @ 900 mA | 6.3V @ 1.80 A |
| RL-2230-12-1900 | 24        | 12.6V C.T. @ 1.90 A | 6.3V @ 2.80 A |
| RL-2230-12-3800 | 48        | 12.6V C.T. @ 3.80 A | 6.3V @ 7.60 A |
| RL-2230-16-150  | 2         | 16V C.T. @ 150 mA   | 8V @ 300 mA   |
| RL-2230-16-350  | 6         | 16V C.T. @ 350 mA   | 8V @ 700 mA   |
| RL-2230-16-700  | 12        | 16V C.T. @ 700 mA   | 8V @ 1.40 A   |
| RL-2230-16-1500 | 24        | 16V C.T. @ 1.50 A   | 8V @ 3.00 A   |
| RL-2230-16-3000 | 48        | 16V C.T. @ 3.00 A   | 8V @ 6.00 A   |
| RL-2230-20-125  | 2         | 20V C.T. @ 125 mA   | 10V @ 250 mA  |
| RL-2230-20-300  | 6         | 20V C.T. @ 300 mA   | 10V @ 600 mA  |
| RL-2230-20-600  | 12        | 20V C.T. @ 600 mA   | 10V @ 1.20 A  |
| RL-2230-20-1200 | 24        | 20V C.T. @ 1.20 A   | 10V @ 2.40 A  |
| RL-2230-20-2400 | 48        | 20V C.T. @ 2.40 A   | 10V @ 4.80 A  |
| RL-2230-24-100  | 2         | 24V C.T. @ 100 mA   | 12V @ 200 mA  |
| RL-2230-24-250  | 6         | 24V C.T. @ 250 mA   | 12V @ 500 mA  |
| RL-2230-24-500  | 12        | 24V C.T. @ 500 mA   | 12V @ 1.00 A  |
| RL-2230-24-1000 | 24        | 24V C.T. @ 1.00 A   | 12V @ 2.00 A  |
| RL-2230-24-2000 | 48        | 24V C.T. @ 2.00 mA  | 12V @ 4.00 A  |
| RL-2230-30-85   | 2         | 30V C.T. @ 85 mA    | 15V @ 170 mA  |
| RL-2230-30-200  | 6         | 30V C.T. @ 200 mA   | 15V @ 400 mA  |
| RL-2230-30-400  | 12        | 30V C.T. @ 400 mA   | 15V @ 800 mA  |
| RL-2230-30-800  | 24        | 30V C.T. @ 800 mA   | 15V @ 1.60 A  |
| RL-2230-30-1600 | 48        | 30V C.T. @ 1.60 A   | 15V @ 3.20 A  |
| RL-2230-34-75   | 2         | 34V C.T. @ 75 mA    | 17V @ 150 mA  |
| RL-2230-34-170  | 6         | 34V C.T. @ 170 mA   | 17V @ 340 mA  |
| RL-2230-34-340  | 12        | 34V C.T. @ 340 mA   | 17V @ 680 mA  |
| RL-2230-34-700  | 24        | 34V C.T. @ 700 mA   | 17V @ 1.40 A  |
| RL-2230-34-1400 | 48        | 34V C.T. @ 1.40 A   | 17V @ 2.80 A  |
| RL-2230-40-60   | 2         | 40V C.T. @ 60 mA    | 20V @ 120 mA  |
| RL-2230-40-150  | 6         | 40V C.T. @ 150 mA   | 20V @ 300 mA  |
| RL-2230-40-300  | 12        | 40V C.T. @ 300 mA   | 20V @ 600 mA  |
| RL-2230-40-600  | 24        | 40V C.T. @ 600 mA   | 20V @ 1.20 A  |
| RL-2230-40-1200 | 48        | 40V C.T. @ 1.20 A   | 20V @ 2.40 A  |

RL-2230 TABLE CONTINUES ON FOLLOWING PAGE

## NOTES:

1. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C



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# RL-2230

| Renco Part #    | VA (Size) | Series             | Parallel      |
|-----------------|-----------|--------------------|---------------|
| RL-2230-56-45   | 2         | 56V C.T. @ 45 mA   | 28V @ 90 mA   |
| RL-2230-56-100  | 6         | 56V C.T. @ 100 mA  | 28V @ 200 mA  |
| RL-2230-56-200  | 12        | 56V C.T. @ 200 mA  | 28V @ 400 mA  |
| RL-2230-56-425  | 24        | 56V C.T. @ 425 mA  | 28V @ 850 mA  |
| RL-2230-56-850  | 48        | 56V C.T. @ 850 mA  | 28V @ 1.70 A  |
| RL-2230-88-28   | 2         | 88V C.T. @ 28 mA   | 44V @ 56 mA   |
| RL-2230-88-65   | 6         | 88V C.T. @ 65 mA   | 44V @ 130 mA  |
| RL-2230-88-130  | 12        | 88V C.T. @ 130 mA  | 44V @ 260 mA  |
| RL-2230-120-20  | 2         | 120V C.T. @ 20 mA  | 60V @ 40 mA   |
| RL-2230-120-50  | 6         | 120V C.T. @ 50 mA  | 60V @ 100 mA  |
| RL-2230-120-100 | 12        | 120V C.T. @ 100 mA | 60V @ 200 mA  |
| RL-2230-230-10  | 2         | 230V C.T. @ 10 mA  | 115V @ 20 mA  |
| RL-2230-230-25  | 6         | 230V C.T. @ 25 mA  | 115V @ 50 mA  |
| RL-2230-230-50  | 12        | 230V C.T. @ 50 mA  | 115V @ 100 mA |

## NOTES:

1. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C

| PART NUMBER | PART WEIGHT     |
|-------------|-----------------|
| RL-2230-2   | 141.7g (5.0oz)  |
| RL-2230-6   | 198.4g (7.0oz)  |
| RL-2230-12  | 311.8g (11.0oz) |
| RL-2230-24  | 425.2g (15.0oz) |
| RL-2230-48  | 595.3g (21.0oz) |



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