



*Quality Products. Service Excellence.*

## Low Voltage PC Board Mount *160-161 Series*

Low Voltage, P.C. Board Mount Vertical - 115 & 115/230 V Primary

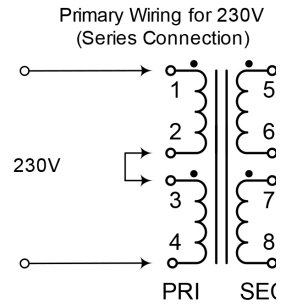
### Features



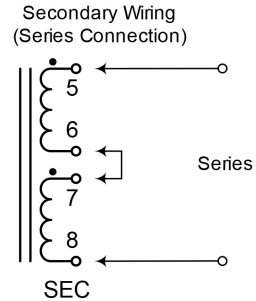
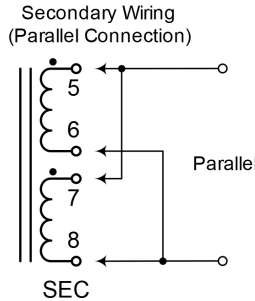
- 20 output voltages to choose from (5 - 120VAC R.M.S.)
- Six VA size models available from - .5 to 24 VA
- Vertical mount, split bobbin design.
- 1.2, 4.4, 10, 24 VA models are non-concentric wound.
- 0.5 and 1 VA are both concentric wound.
- Low primary to secondary coupling - no electrostatic shield required.
- Choice of economical single primary 115V - 60 Hz only (161 series) or the universal dual primary 115/230V - 50/60 Hz (160 series).
- High insulation - Hipot of 2,000V RMS.
- Class B insulation - 130 degrees C.
- CSA certified (File # LR3902) and UL recognized (File #E207860).



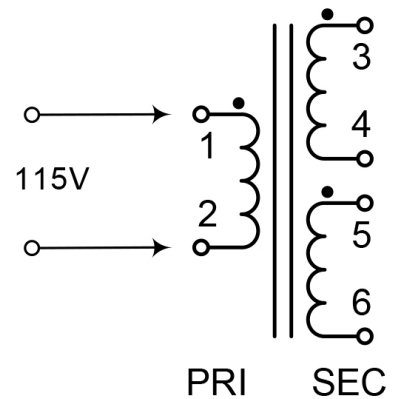
**Primary Connections - 160 Series Transformers**



**Secondary Connections - 160 Series Transformers**



**Primary Connections - 161 Series Transformers**

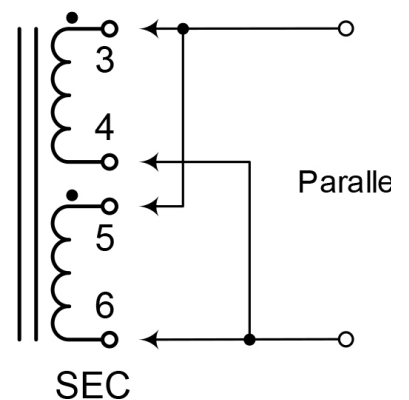


**Secondary Connections - 161 Series Transformers**

Secondary Wiring (Series Connection)



Secondary Wiring (Parallel Connection)



| Part No        | Part No      | Size | Secondary (RMS) |
|----------------|--------------|------|-----------------|
| Single Primary | Dual Primary | VA   | Series          |
| 115V           | 115/230V     |      | Parallel        |

| Part No        | Part No      | Size | Secondary (RMS)    |              |
|----------------|--------------|------|--------------------|--------------|
| Single Primary | Dual Primary |      | Series             | Parallel     |
| 115V           | 115/230V     | VA   |                    |              |
| 161C10         | -            | 0.5  | 10V C.T. @ 50ma    | 5V @ 100ma   |
| 161D10         | 160D10       | 1    | 10V C.T. @ 90ma    | 5V @ 180ma   |
| 161FA10        | 160F10       | 1.2  | 10V C.T. @ 120ma   | 5V @ 240ma   |
| 161GA10        | 160G10       | 4.4  | 10V C.T. @ 440ma   | 5V @ 880ma   |
| 161J10         | 160J10       | 10   | 10V C.T. @ 1A      | 5V @ 2A      |
| 161H10         | 160H10       | 24   | 10V C.T. @ 2.4A    | 5V @ 4.8A    |
| 161C12         | -            | 0.5  | 12.6V C.T. @ 40ma  | 6.3V @ 80ma  |
| 161D12         | 160D12       | 1    | 12.6V C.T. @ 70ma  | 6.3V @ 140ma |
| 161FA12        | 160F12       | 1.2  | 12.6V C.T. @ 100ma | 6.3V @ 200ma |
| 161GA12        | 160G12       | 4.4  | 12.6V C.T. @ 350ma | 6.3V @ 700ma |
| 161K12         | 160K12       | 10   | 12.6V C.T. @ 800ma | 6.3V @ 1.6A  |
| 161H12         | 160H12       | 24   | 12.6V C.T. @ 2A    | 6.3V @ 4A    |
| 161C16         | -            | 0.5  | 16V C.T. @ 31.3ma  | 8V @ 62.5ma  |
| 161D16         | 160D16       | 1    | 16V C.T. @ 55ma    | 8V @ 110ma   |
| 161EA16        | 160E16       | 1.2  | 16V C.T. @ 75ma    | 8V @ 150ma   |
| 161FA16        | 160F16       | 4.4  | 16V C.T. @ 260ma   | 8V @ 520ma   |
| 161G16         | 160G16       | 10   | 16V C.T. @ 640ma   | 8V @ 1.28A   |
| 161H16         | 160H16       | 24   | 16V C.T. @ 1.5A    | 8V @ 3A      |
| 161D20         | 160D20       | 1    | 20V C.T. @ 45ma    | 10V @ 90ma   |
| 161EA20        | 160E20       | 1.2  | 20V C.T. @ 60ma    | 10V @ 120ma  |
| 161FA20        | 160F20       | 4.4  | 20V C.T. @ 220ma   | 10V @ 440ma  |
| 161G20         | 160G20       | 10   | 20V C.T. @ 500ma   | 10V @ 1A     |
| 161H20         | 160H20       | 24   | 20V C.T. @ 1.2A    | 10V @ 2.4A   |
| 161D24         | 160D24       | 1    | 24V C.T. @ 35ma    | 12V @ 70ma   |
| 161E24         | 160E24       | 1.2  | 24V C.T. @ 50ma    | 12V @ 100ma  |
| 161F24         | 160F24       | 4.4  | 24V C.T. @ 180ma   | 12V @ 360ma  |
| 161G24         | 160G24       | 10   | 24V C.T. @ 450ma   | 12V @ 900ma  |
| 161H24         | 160H24       | 24   | 24V C.T. @ 1A      | 12V @ 2A     |
| 161D28         | 160D28       | 1    | 28V C.T. @ 30ma    | 14V @ 60ma   |
| 161E28         | 160E28       | 1.2  | 28V C.T. @ 40ma    | 14V @ 80ma   |
| 161F28         | 160F28       | 4.4  | 28V C.T. @ 160ma   | 14V @ 320ma  |
| 161G28         | 160G28       | 10   | 28V C.T. @ 360ma   | 14V @ 720ma  |
| 161H28         | 160H28       | 24   | 28V C.T. @ 800ma   | 14V @ 1.6A   |
| 161D34         | 160D34       | 1    | 34V C.T. @ 25ma    | 17V @ 50ma   |
| 161E34         | 160E34       | 1.2  | 34V C.T. @ 35ma    | 17V @ 70ma   |
| 161F34         | 160F34       | 4.4  | 34V C.T. @ 125ma   | 17V @ 250ma  |
| 161G34         | 160G34       | 10   | 34V C.T. @ 300ma   | 17V @ 600ma  |
| 161H34         | 160H34       | 24   | 34V C.T. @ 700ma   | 17V @ 1.4A   |
| 161D40         | 160D40       | 1    | 40V C.T. @ 20ma    | 20V @ 40ma   |
| 161E40         | 160E40       | 1.2  | 40V C.T. @ 30ma    | 20V @ 60ma   |
| 161F40         | 160F40       | 4.4  | 40V C.T. @ 110ma   | 20V @ 220ma  |
| 161G40         | 160G40       | 10   | 40V C.T. @ 250ma   | 20V @ 500ma  |
| 161H40         | 160H40       | 24   | 40V C.T. @ 600ma   | 20V @ 1.2A   |
| 161D56         | 160D56       | 1    | 56V C.T. @ 15ma    | 28V @ 30ma   |
| 161E56         | 160E56       | 1.2  | 56V C.T. @ 20ma    | 28V @ 40ma   |
| 161F56         | 160F56       | 4.4  | 56V C.T. @ 80ma    | 28V @ 160ma  |
| 161G56         | 160G56       | 10   | 56V C.T. @ 180ma   | 28V @ 360ma  |
| 161H56         | 160H56       | 24   | 56V C.T. @ 420ma   | 28V @ 840ma  |
| 161D120        | 160D120      | 1    | 120V C.T. @ 8ma    | 60V @ 16ma   |
| 161E120        | 160E120      | 1.2  | 120V C.T. @ 10ma   | 60V @ 20ma   |
| 161F120        | 160F120      | 4.4  | 120V C.T. @ 35ma   | 60V @ 70ma   |
| 161G120        | 160G120      | 10   | 120V C.T. @ 85ma   | 60V @ 170ma  |
| 161H120        | 160H120      | 24   | 120V C.T. @ 200ma  | 60V @ 400ma  |

**Mechanical & Schematic Data (160 Series):**

| Size<br>(VA) | Overall Dimensions |      |      |             |         |      |             |         |      |      |      |
|--------------|--------------------|------|------|-------------|---------|------|-------------|---------|------|------|------|
|              | A                  | B    | C    | D Thickness | D Width | E    | F Thickness | F Width | G    | H    | J    |
| 1            | 1.00               | 1.38 | 0.83 | 0.02        | 0.04    | 1.20 | -           | -       | 0.20 | N/A  | N/A  |
| 1.2          | 1.38               | 1.19 | 1.22 | 0.02        | 0.04    | 1.00 | -           | -       | 0.20 | N/A  | N/A  |
| 4.4          | 1.69               | 1.25 | 1.45 | 0.02        | 0.04    | 1.10 | 0.03        | 0.12    | 0.25 | 1.67 | 0.46 |
| 10           | 1.94               | 1.44 | 1.69 | 0.02        | 0.04    | 1.30 | 0.03        | 0.19    | 0.25 | 1.89 | 0.57 |
| 24           | 1.63               | 2.25 | 1.38 | 0.02        | 0.04    | 2.10 | -           | -       | 0.25 | N/A  | N/A  |

**Mechanical & Schematic Data (161 Series):**

| Size<br>(VA) | Overall Dimensions |      |      |             |         |      |             |         |      |      |      |
|--------------|--------------------|------|------|-------------|---------|------|-------------|---------|------|------|------|
|              | A                  | B    | C    | D Thickness | D Width | E    | F Thickness | F Width | G    | H    | J    |
| 0.5          | 1.00               | 0.94 | 0.84 | 0.025       | 0.03    | 0.78 | -           | -       | 0.20 | -    | -    |
| 1            | 1.00               | 1.38 | 0.83 | 0.02        | 0.04    | 1.20 | -           | -       | 0.20 | -    | -    |
| 1.2          | 1.38               | 1.19 | 1.22 | 0.02        | 0.04    | 1.00 | -           | -       | 0.31 | -    | -    |
| 4.4          | 1.69               | 1.25 | 1.45 | 0.02        | 0.04    | 1.10 | 0.03        | 0.12    | 0.40 | 1.67 | 0.44 |
| 10           | 1.94               | 1.44 | 1.69 | 0.02        | 0.04    | 1.30 | 0.03        | 0.19    | 0.40 | 1.89 | 0.55 |
| 24           | 1.63               | 2.25 | 1.38 | 0.02        | 0.04    | 2.10 | -           | -       | 0.40 | -    | -    |

*Data subject to change without notice*

© 2020. Hammond Manufacturing Ltd. All rights reserved.