Eaton 9155 UPS input/output voltage configurations

This application note was created to help you identify what to expect with regard to Eaton 9155 UPS output voltages based on the applied utility input voltage.

The figure below shows all the available 9155 nominal output settings as well as the default (120/208V) setting. Please be aware that ALL these voltages aren’t available in certain 9155 designs.

<table>
<thead>
<tr>
<th>Description</th>
<th>Available Settings</th>
<th>Default Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set Nominal Output Voltage</td>
<td>120V/240V</td>
<td>120V/208V</td>
</tr>
<tr>
<td></td>
<td>120V/208V</td>
<td></td>
</tr>
<tr>
<td></td>
<td>110V/220V</td>
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<tr>
<td></td>
<td>100V/220V</td>
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<tr>
<td></td>
<td>127V/220V</td>
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</tr>
</tbody>
</table>

**Figure 1. User settings**

There are two basic design styles of the 9155 UPS:

- 9155 (with input isolation transformer)
- 9155 (without input isolation transformer)

The 9155 voltage input/output realization, based on the allowable input voltages, is as follows:

9155 without isolation transformer

- If you input 100/200V, the 9155 will output 100/200V
- If you input 110/220V, the 9155 will output 110/220V
- If you input 120/208V, the 9155 will output 120/208V
- If you input 120/240V, the 9155 will output 120/240V

9155 with input step-up isolation transformer with center tap

- Input 208V (L-L), and the TX will step-up the L-L voltage to 240V; derive a neutral; and output 120/240V.
- Input 240V (L-L), and the TX will pass-through the L-L voltage and derive a neutral, which will output 120/240V.

Notes: It’s not recommended to use 100/200V or 110/220V configurations when using a 9155 with input isolation TX. The phase-neutral transformer secondary voltage would be lower than 120V, which may be too low to run cabinet fans.

The 9155 (with input isolation transformer) does not provide output voltages other than 120/240V because the bypass voltage would be 240V, and UPS output would be 208V (which would result in a crash if bypass was attempted).
Figure 2. 9155 without isolation transformer

Figure 3. 9155 with input step-up isolation transformer with center tap