

When powering equipment using a generator it is important to load the generator evenly. Most single phase generators have two separate winding groups to create its full output. We'll call these halves  $G_1$  and  $G_3$ . While using a 240V tool, both  $G_1$  and  $G_3$  are being utilized equally. While using a 120V tool, either  $G_1$  or  $G_3$  is being utilized. It is critical to know which side of the generator you are loading.

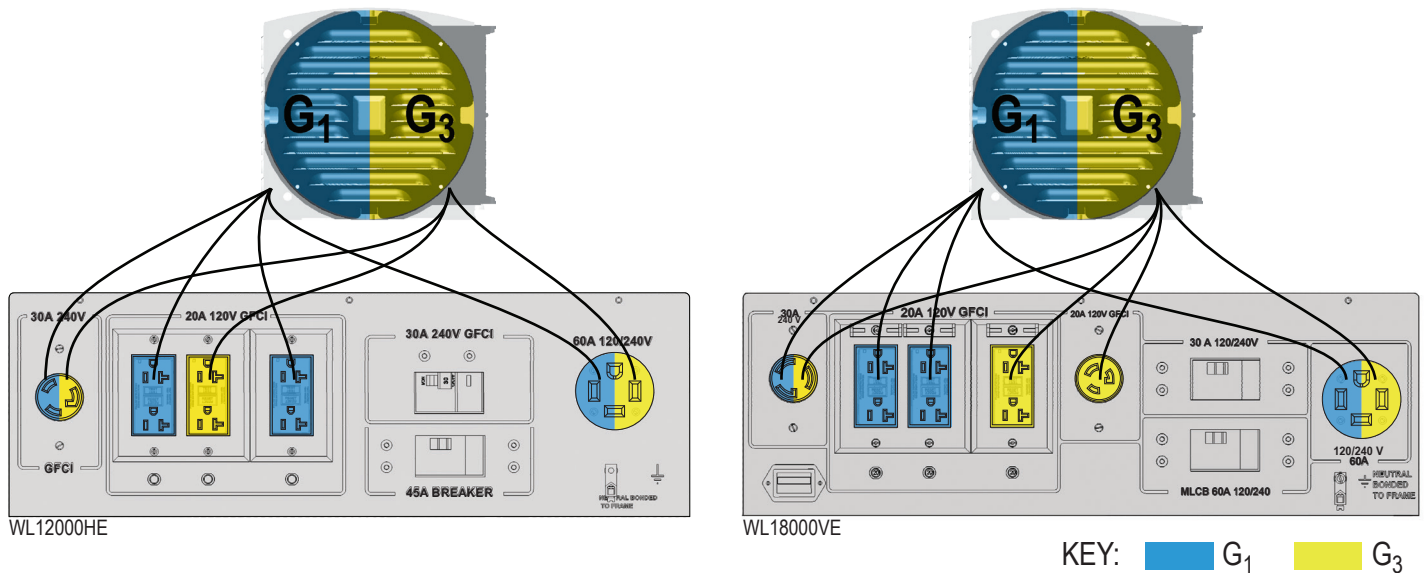
A helpful tip to know is that 1 Amp of 240V is equal to 1 Amp 120V  $G_1$  plus 1 Amp 120V  $G_3$ . Although the amount of voltage is doubled, the amperage is going to remain the same. For example, if 20 Amps is being drawn from the 240V receptacle, it is the same as if 20 Amps 120V is drawn from  $G_1$  and 20 Amps 120V is being drawn from  $G_3$ , equaling 40 Amps at 120V.

Here are some amperage ratings for WINCO units:

WL12000VE: 45 Amps 240V (or 45 Amps 120V from  $G_1$  plus 45 Amps 120V  $G_3$ , equaling 90 Amps at 120V)

WL18000VE: 62.5 Amps 240V (or 62.5 Amps 120V from  $G_1$  plus 62.5 Amps 120V  $G_3$ , equaling 125 Amps at 120V)

Here's one example on how to connect loads. The WL12000VE and WL18000VE are able to power 2 welders that are normally around 18 Amps of 240V and 2 hand-held welders which are normally around 16 Amps of 120V. To make sure the loads are balanced, the 120V welders would have one plugged into a  $G_1$  receptacle and the other into a  $G_3$  receptacle. If all four welders are plugged in properly, the load will be balanced with 34 Amps 120V from  $G_1$  and  $G_3$ . If the handheld welders were plugged in incorrectly, that could mean 50 Amps 120V would be supplied from  $G_1$  and only 18 Amps 120V from  $G_3$ . The diagram shows which receptacles are powered by  $G_1$  and  $G_3$ .



Please note: This information was provided only as a guide. For other WINCO generator loading questions, please consult the operator's manual or a WINCO dealer.