



PORTABLE GENERATOR LOAD BALANCING GUIDE

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.

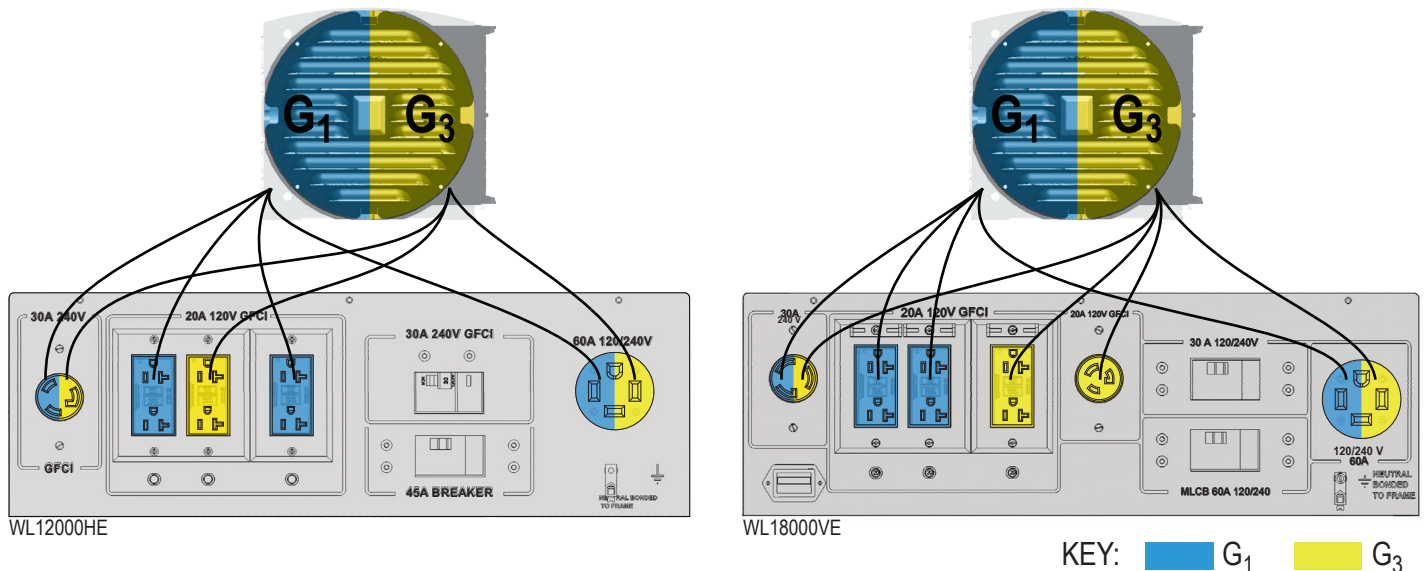
A helpful tip to know is that 1 Amp of 240V is equal to 1 Amp 120V G_1 plus 1 Amp 120V G_3 . Although the amount of voltage is doubled, the amperage is going to remain the same. For example, if 20 Amps is being drawn from the 240V receptacle, it is the same as if 20 Amps 120V is drawn from G_1 and 20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

