

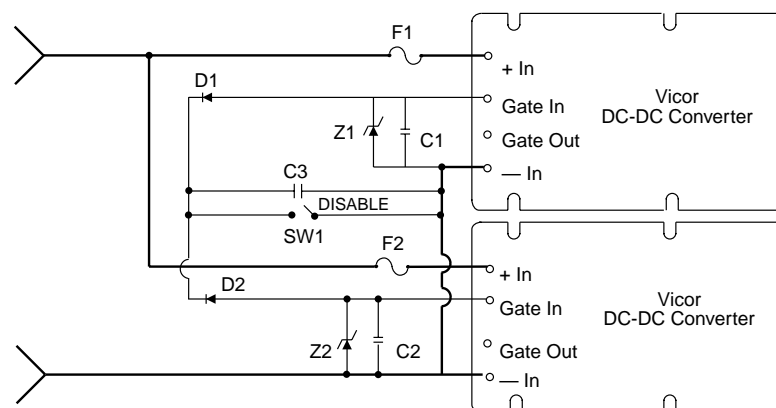
Multiple Gate-In Connections

Overview

A number of Gate In terminals may be connected for remote shutdown and logic disable (Figure 1). Diodes D1 and D2 provide isolation and prevent multiple failures if the Gate In of a module becomes shorted to the +input. The zener diodes Z1 and Z2 and capacitors C1 and C2 attenuate transient voltage spikes caused by differential inductance in the –input leg. Capacitors C1 and C2 will also lengthen turn-on time. SW1 is a mechanical or solid state switch that is used to disable both driver modules. C3 is used to minimize the effects of “switch bounce” associated with mechanical devices.

NOTE: Gate In voltage needs to be $<0.65V$ referenced to $-V_{in}$ to ensure modules are disabled.

Figure 1.
Protection for Multiple
Gate In Connections



C1, C2, C3 = 1 μ F

Z1, Z2 = 15V (1N965A)

D1, D2 = Small signal diode (1N4148)*

*For bus voltages greater than 75V, a 1N4006 diode should be used.

NOTE: –Input leg should be kept as short as possible to minimize differential inductance. Heavy lines indicate power connections. Use suitably sized conductors.