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Generator Protective Relay Settings

TABLE 1 - INVERTER BASED GENERATION

The following relay settings shall be used for inverters built to the CSA standard:

Source: CSA C22.2 No. 107.1-01 Table 16

System Voltage Vn ‘ V nominal **V (Volts)**	Frequency **F (Hertz)**	Maximum number of cycles to disconnect	
		Seconds	Cycle
V < 0.5 Vn	60	0.1	6
0.5 Vn # **V** < 0.88 Vn	60	2	120
1.10 Vn # **V** <1.37 Vn	60	2	120
V > 1.37 Vn	60	0.033	2
Vn	**F** < 59.5*	0.1	6
Vn	**F** > 60.5	0.1	6

*The UL1741 & IEEE P1547 Standards use F < rated-0.7 i.e. 59.3 Hz.
To update if CSA C22.2 No. 107.1-01 is changed.

TABLE 2 - NON - INVERTER GENERATION

WNH’s minimum requirements, for other generation are as follows:

System Voltage Vn ‘V nominal **V (Volts)**	Frequency **F (Hertz)**	Maximum clearing time*	
		Seconds	Cycles
V < 0.5 Vn	60	0.16	9.6
0.5 Vn # **V** < 0.88 Vn	60	2	120
1.10 Vn # **V** <1.20 Vn	60	1	60
V $ 1.20 Vn	60	0.16	9.6
Vn	**F** < 59.3	0.16	9.6
Vn	**F** > 60.5	0.16	9.6

*Clearing time is the time between the start of the abnormal condition and the generation ceasing to energize WNH’s distribution system.

If you are uncertain about your generation equipment’s protective relay settings, please check with your generating equipment supplier.

Automatic reconnect setting time for your generator is after 5 minutes of normal voltage and frequency on WNH’s distribution system.