

**Bulletin 10-20-6**  
**Grounding of portable, mobile and vehicle mounted generators**  
**Rules 10-212 and 10-214**

**Issued May 2022**  
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**Scope**

- 1) Grounding of portable generators
- 2) Grounding of mobile or vehicle mounted generators

**1) Grounding of portable generators**

**Background**

CSA C22.2 No. 100 specifies the construction requirements for generators, including portable generators.

Portable Generator Assembly means a prime mover, a generator, overcurrent devices, and output receptacles that are assembled and connected together on a common machine frame and that is capable of being carried or moved about by personnel. The generator shall be rated at not more than 12 kW and 240 V and the assembly is intended to be used as an isolated system for the supply of cord connected electrical equipment.

The portable generator assembly supplies only cord and plug connected equipment through Diagram 1 and 2 receptacles mounted on the generator.

A portable generator assembly ac system is not required to be connected to a grounding electrode, as per Rule 10-214 1).

**2) Grounding of mobile or vehicle mounted generators**

Where a mobile or vehicle mounted generator is used as a standalone power system, separately derived system, a standby source via a transfer means or in parallel with one or more other power systems the applicable grounding requirements of Section 10 apply in each case. See Bulletin 10-10-\*

A mobile or vehicle mounted generator can exceed the limits of a portable generator. Where it supplies only electrical equipment on the vehicle and/or through cord connections to external equipment it is not required to be connected to a grounding electrode as per Rule 10-214 2) if it:

- a) operates at less than 750 volts (low voltage rated output);
- b) has the neutral bonded to the frame;
- c) is bonded to the frame of the vehicle; and
- d) all conductive parts of equipment supplied are bonded.

**Note**

Cord connection means via attachment plugs to Diagram 1 or 2 receptacles only.