

3.2 SENSING RESISTOR

Outline and mounting details for ER-600VC, ER-5KV, ER-15KV, ER-25KV, and ER-35KV sensing resistors are shown in Figs. 6, 7, 8, 9, and 10. Locate the NGR and the sensing resistor near the transformer or generator. When located outdoors, a sensing resistor must be installed in a suitable enclosure. Ground sensing-resistor terminal G. Pass the sensing-resistor-to-neutral conductor and the NGR-to-neutral conductor through the ground-fault-CT window as shown in Fig. 3. Separately connect sensing-resistor terminal N and the NGR to the neutral to include neutral connections in the monitored loop. If a ground fault in the sensing-resistor conductor is unlikely, a minimal loss of protection will result if it does not pass through the ground-fault-CT window. See Note 3 in Fig. 3.

CAUTION: Voltage at terminal N rises to line-to-neutral voltage when a ground fault occurs. The same clearances are required for sensing resistors as for NGR's.

NOTE: A parallel ground path created by moisture can result in a false resistor-fault trip. Sensing-resistor terminal R and its connection to SE-330 terminal R, including interposing terminal blocks, must remain dry.

NOTE: The neutral-to-sensing-resistor-terminal-N connection is not a neutral conductor as defined in Canadian Electrical Code Section 10-1108 and National Electrical Code Section 250.36(B). It is not required to be 8 AWG or larger. Since current through this conductor is always less than 250 mA, a 14 AWG conductor insulated to the system voltage is more than sufficient.

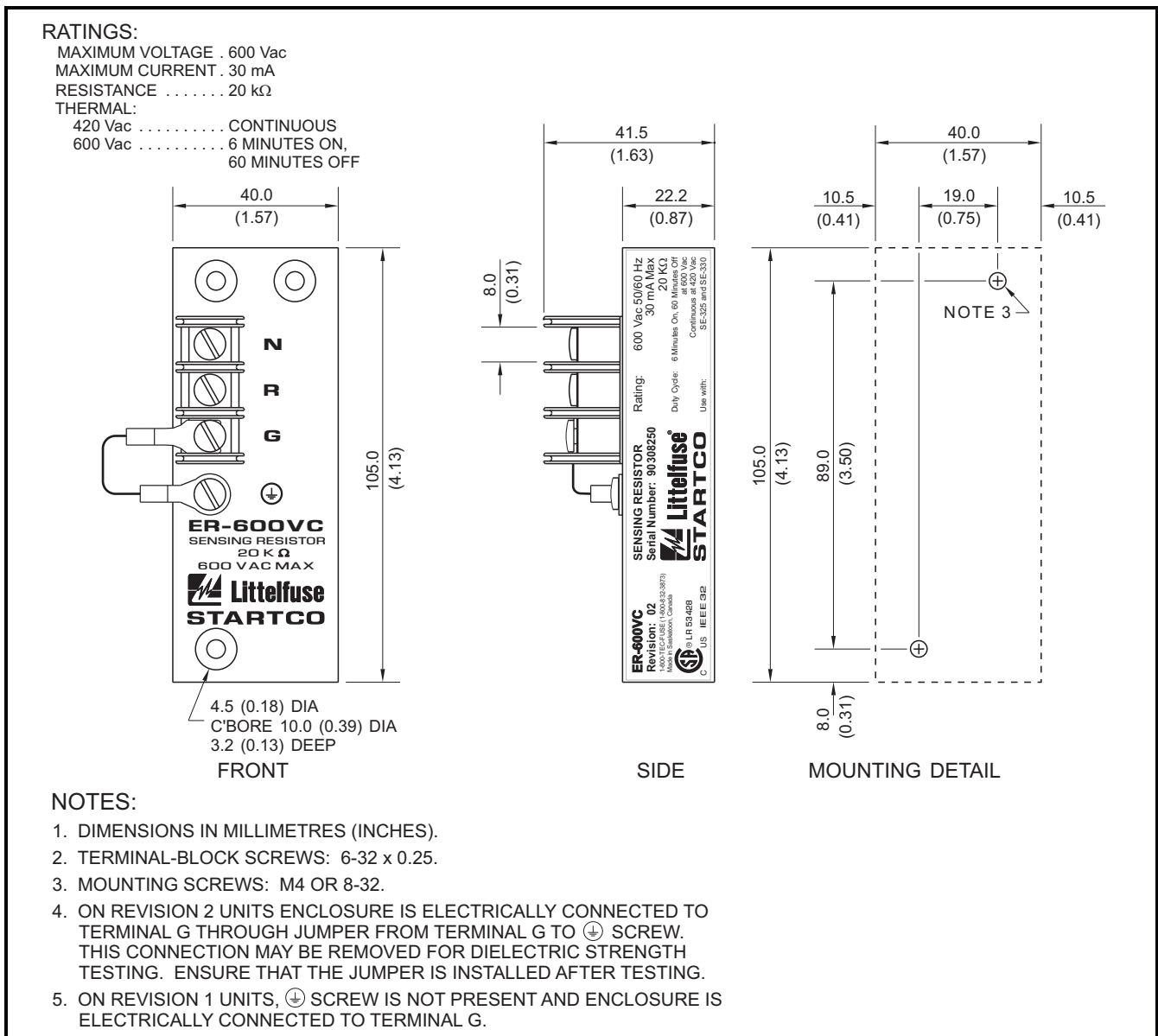


FIGURE 6. ER-600VC Sensing Resistor.