

**V.M**  
**PJM DESIGN & APPLICATION OF**  
**CARRIER CURRENT LINE TRAPS**

1.0 GENERAL REQUIREMENTS

- 1.1 The nominal voltage ratings of the effectively grounded transmission systems are 230 kV and 500 kV. The Rated maximum voltages are: 550 kV for the 500 kV system; and 242 kV for the 230 kV system. Line Traps and all parts shall be capable of operating at these voltages within established limits of RIV and corona discharge.

2.0 SPECIFICATION

- 2.1 All Carrier Current Line Traps shall meet or exceed the latest applicable ANSI, IEEE, NEMA, ASME and ASTM Standards and Loading Guides. In case of conflict, these standards shall govern in the order stated.
- 2.2 Carrier Current Line Traps shall be designed with adequate electrical and mechanical characteristics for the specific circuit on which it is installed and for the application for which it is intended. These include but shall not be limited to: continuous current rating, short-circuit capability (short time current rating), Emergency Overload Current, operating voltage, and environmental conditions.
- 2.3 Because of the limited emergency overload capability of line traps, either the manufacturer should be informed of the desired emergency overload requirements, or the continuous current rating should be selected to be above the four-hour emergency requirement for the circuit in which it is installed. This may necessitate a higher continuous current rating for the line trap than for other components (circuit breakers, or disconnect switches) in the same circuit.
- 2.4 The ambient temperature range shall be  $-40^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$

3.0 MAINTAINANCE

See section V.L.2.M for maintenance requirements.