

Valves, Transformer Pressure Relief



1. Scope

This standard covers the requirements for transformer pressure relief valves.

This standard applies to Seattle City Light (SCL) Stock No. 294001.

2. Application

Transformer pressure relief valves are used in distribution-class transformers including overhead and pad-mounted units to release excess pressure within the tank. Excess pressure may build up slowly due to overloads, high ambient temperatures, external secondary faults, or internal incipient faults in the low-voltage or high-voltage windings.

3. Industry Standards

Transformer pressure relief valves shall meet the requirements of the following industry standard:

IEEE C57.12.20; "IEEE Standard for Overhead-Type Distribution Transformers 500 kVA and Smaller: High Voltage, 34 500 V and Below; Low Voltage, 7970/13 800Y V and Below"

4. Requirements

The valve body and poppet shall be made of solid brass.

All other components such as pins, retainer rings, and springs shall be made of non-ferrous alloys or corrosion-resistant steel. The sealing gasket shall be made of Viton or Buna-N.

The valve shall have a captive plastic weather cap that will automatically disengage itself upon any operation of the relief valve, revealing a red target. The cap shall be white or another light color, and it shall hang down on a chain or tether and be easily seen from the ground at night with no lights.

The red target shall be either a band or disc normally hidden by the cap.

A pull ring is required and shall be capable of withstanding a static pull force of 25 pounds for one minute without permanent deformation.

Cracking Pressure	10 PSIG +/- 2 PSIG
Reseal Pressure	8 PSIG +/- 2 PSIG
Flow Rate	60 SCFM @ 15 PSIG @ 70 degrees F

5. Issuance

Stock Unit: EA

6. Approved Manufacturers

Manufacturer	Catalog No.
VIAT	302-080-01 I
Heartland	HPV-1342

7. Sources

Hanson, Brett; SCL Standards Engineer, originator and subject matter expert for 4480.10 (brett.hanson@seattle.gov)

SCL Material Standard 4503.10 (renumbered to 4480.10); "Valves, Transformer Pressure Relief"

SCL Material Standard 2940.1; "Transformer Pressure Relief Valve" (canceled)