

## Cutout and Fuse Selection



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### 1. Scope

This work practice outlines cutouts and compatible fuses for overhead applications and padmount switches, as well as general applications for each device.

See SCL 1065.17 for fusing schedules.

See SCL D11-2 for limiter installation.

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### 2. Application

This work practice provides direction to SCL engineers and lineworkers about how to select proper cutouts and fuses.

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### 3. Discussion

Fuses are selected based on the melting time-current characteristics required to meet the protection needs of the system. Individual fuses are only compatible with specific cutouts.

Cutout and fuse selection is based on the following system parameters:

- Current rating, A
- Voltage rating, A
- Interrupting rating, A

### 3.1 Stock No. 013739, Cutout, 27 kV, 100 A



<b>Current Rating</b>	100 A
<b>Voltage Rating</b>	27 kV
<b>Interrupting Rating</b>	7500 A symmetrical 12,000 A asymmetrical
<b>Material Standard</b>	6820.95
<b>Application</b>	<ul style="list-style-type: none"> <li>▪ 26 kV pole-mount transformers</li> <li>▪ 26 kV underground termination poles, 3000 kVA max</li> <li>▪ 26 kV pole mount capacitors</li> <li>▪ Lateral tap from a 26 kV overhead feeder</li> <li>▪ Used with a limiter; see SCL 1065.17 for sizing</li> <li>▪ Uses fuse links</li> </ul>

Compatible fuses	Fuse Rating, A	Stock No.
	3T	683706
	6K	683708
	10K	683710
	15K	683711
	25K	683713
	40K	683715
	65K	683718
	100K	683724

### 3.2 Stock No. 682580, Cutout, 27 kV, 200 A



<b>Current Rating</b>	200 A
<b>Voltage Rating</b>	27 kV
<b>Interrupting Rating</b>	12,500 A, symmetrical 20,000 A asymmetrical
<b>Fuse Compatibility</b>	SMD-20
<b>Material Standard</b>	None, see Stock Catalog
<b>Application</b>	<ul style="list-style-type: none"> <li>▪ Used with older transformers</li> <li>▪ Industrial substations or large loads</li> <li>▪ Used with a limiter; see SCL 1065.17 for sizing</li> </ul>

Compatible fuses	Fuse Rating (A)	Stock No.
	15E	684727
	30E	684729
	50E	684731
	25K	684751
	50K	684756
	65K	684757
	100K	684758

### 3.3 Stock No. 682047, Cutout, 4 kV, 100 A

<b>Current Rating</b>	100 A
<b>Voltage Rating</b>	4 kV
<b>Interrupting Rating</b>	14,000 A asymmetrical
<b>Material Standard</b>	6820.10
<b>Application</b>	<ul style="list-style-type: none"><li>▪ 4 kV pole-mount transformers</li><li>▪ Never used with a limiter</li><li>▪ Uses fuse links</li></ul>

<b>Compatible fuses</b>	<b>Fuse Rating (A)</b>	<b>Stock No.</b>
	6K	683708
	10K	683710
	15K	683711
	25K	683713
	40K	683715
	65K	683718
	100K	683724



## 4. References

**SCL Work Practice 1065.17**; “Fusing Schedule”

**SCL Construction Standard D11-2**; “27 kV Fault Limiter Installation”

## 5. Sources

**Chao, Yaochiem**; SCL Standards Engineer and subject matter expert for 1065.11 (yaochiem.chao@seattle.gov)

**Panomvana, Tanya**; SCL North Distribution Engineer and subject matter expert for 1065.11 (tanya.panomvana@seattle.gov)

**Russo, Dave**; SCL North Distribution Systems Supervisor and subject matter expert for 1065.11 (dave.russo@seattle.gov)

**Shetab, Muneer**; SCL Standards Engineer and subject matter expert for 1065.11 (muneer.shetab@seattle.gov)

**SCL Construction Standard DU11-1.1** (canceled); “Fuse Holding Devices and Fuses”

**SCL Design Standard 9065.11**; “Primary Fuse Selection and Applications”