

Cutout and Fuse Selection



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.

2. Application

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

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



Current Rating	100 A	
Voltage Rating	27 kV	
Interrupting Rating	7500 A symmetrical 12,000 A asymmetrical	
Material Standard	6820.95	
Application	<ul style="list-style-type: none">26 kV pole-mount transformers26 kV underground termination poles, 3000 kVA max26 kV pole mount capacitorsLateral tap from a 26 kV overhead feederUsed with a limiter; see SCL 1065.17 for sizingUses fuse links	
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



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



Current Rating	100 A	
Voltage Rating	4 kV	
Interrupting Rating	14,000 A asymmetrical	
Material Standard	6820.10	
Application	<ul style="list-style-type: none">▪ 4 kV pole-mount transformers▪ Never used with a limiter▪ Uses fuse links	
Compatible fuses	Fuse Rating (A)	Stock No.
	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”