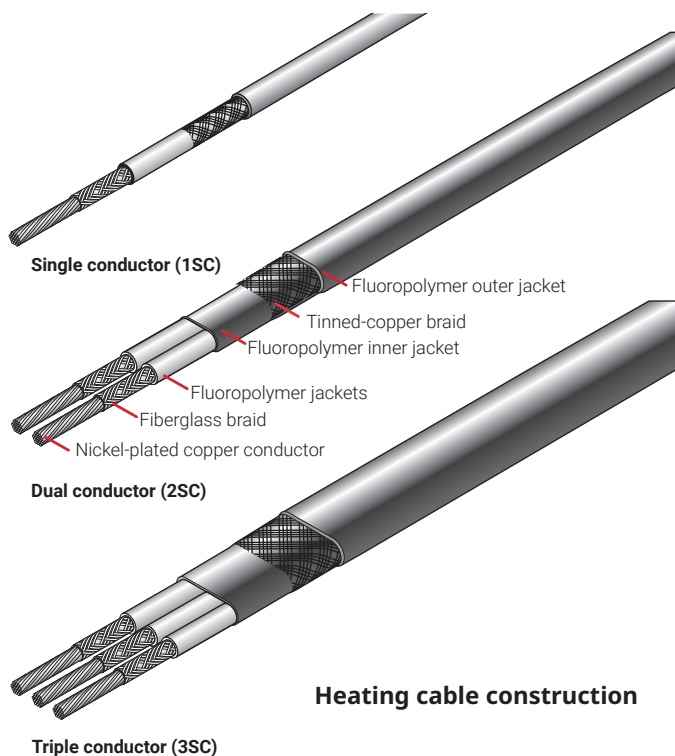


Series-resistance heating cables Electrical freeze protection in longline systems for nonhazardous and hazardous areas

PRODUCT OVERVIEW



Raychem SC and SC/H series-resistance technology provides freeze protection and high-temperature maintenance for longline applications.

This series-resistance type heating cable can withstand continuous exposure temperatures up to 482°F (250°C), and is suitable for use in hazardous locations and in areas exposed to corrosives. SC heating cables can be used for continuous circuit lengths to 12,000 feet (3659 m), powered from a single source.

Raychem SC heating cables meet the requirements of the U.S. National Electrical Code and the Canadian Electrical Code.

For additional information, contact your Chemelex representative or call (800) 545-6258.



APPLICATION

Area classification	Nonhazardous and hazardous locations; 1SC cables for use in low mechanical abuse areas only.
Chemical resistance	Organic and aqueous inorganic chemicals and corrosives

SUPPLY VOLTAGE

Maximum 600 Vac

TEMPERATURE RATING

	SC	SC/H
Maximum continuous exposure (Power off)	400°F (204°C)	482°F (250°C)
Minimum installation temperature	-40°F (-40°C)	-40°F (-40°C)

TEMPERATURE ID NUMBER (T-RATING)

Established by calculating the maximum sheath temperature for the application. Contact Chemelex for assistance.

APPROVALS

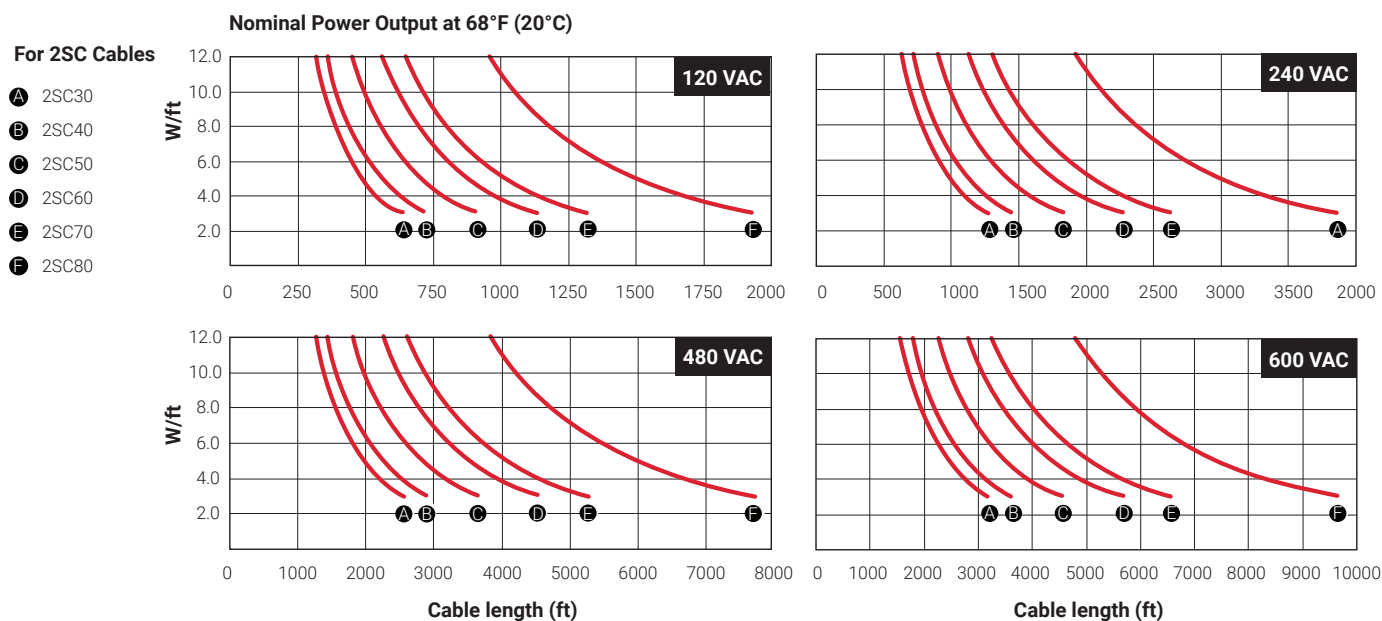
1SC	2SC	3SC
Hazardous Locations	Hazardous Locations	Hazardous Locations
 ⁽¹⁾ Class I, Div. 2, Groups A, B, C, D Class II, Div. 2, Groups F, G Class III For T-Rating, see design documentation -W for Canada	  Class I, Div. 2, Groups B, C, D Class II, Div. 2, Groups F, G Class III	  Class I, Div. 2, Groups B, C, D Class II, Div. 2, Groups F, G Class III
(1) for 1SC60-CT, 1SC70-CT, and 1SC80-CT only	For T-Rating, see design documentation -W for Canada IECEX IECEX BAS 06.0049X Ex e II T* (see schedule) Ex tD A21 IP66	For T-Rating, see design documentation -W for Canada IECEX IECEX BAS 06.0049X Ex e II T* (see schedule) Ex tD A21 IP66

DESIGN AND INSTALLATION

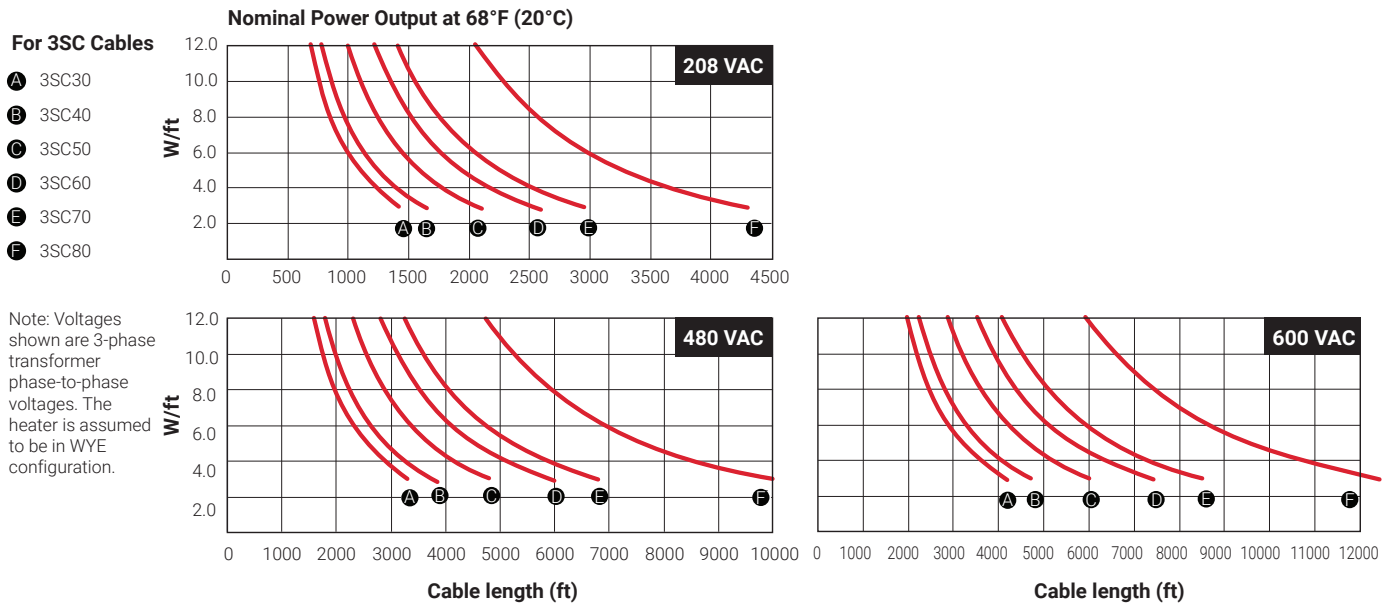
SC and SC/H applications must be designed and approved by Chemelex. Series heating cable technology requires that SC cables must not be overlapped. The use of appropriate control and monitoring equipment specified by Chemelex is required.

NOMINAL POWER OUTPUT RATING

These graphs are general guides to selection. Actual designs require consideration of other important variables and must be confirmed by nVent. Also, many other voltages and electrical configurations are possible.



NOMINAL POWER OUTPUT RATING



PRODUCT CHARACTERISTICS

SC or SC/H	Conductor size	Cable resistance (nominal) @ 68°F (20°C)		Weight (nominal) lb/10 ft	Maximum circuit breaker size	Cable dimensions (nominal) (in)	Minimum bend radius (in)
		ohms/ft	ohms/m				
(Single conductor cable)							
1SC30-CT	18	0.00590	0.01935	0.4	30	0.22 diameter	1
1SC40-CT	16	0.00458	0.01502	0.5	30	0.23 diameter	1
1SC50-CT	14	0.00290	0.00951	0.6	30	0.24 diameter	1
1SC60-CT	12	0.00187	0.00613	0.7	60	0.26 diameter	1
1SC70-CT	10	0.00120	0.00394	0.9	80	0.29 diameter	1
1SC80-CT	8	0.00065	0.00213	1.2	100	0.32 diameter	1
(Dual conductor cable)							
2SC30-CT	18	0.01180	0.03869	0.8	40	0.41 x 0.27	1
2SC40-CT	16	0.00916	0.03004	1.0	40	0.42 x 0.28	1
2SC50-CT	14	0.00580	0.01902	1.2	40	0.45 x 0.29	1
2SC60-CT	12	0.00374	0.01226	1.4	60	0.5 x 0.31	1
2SC70-CT	10	0.00240	0.00787	1.8	80	0.55 x 0.34	1
2SC80-CT	8	0.00130	0.00426	2.4	100	0.61 x 0.37	1
(Triple conductor cable, resistance per conductor)							
3SC30-CT	18	0.00590	0.01935	1.2	40	0.56 x 0.27	1
3SC40-CT	16	0.00458	0.01502	1.5	40	0.58 x 0.28	1
3SC50-CT	14	0.00290	0.00951	1.8	40	0.62 x 0.29	1
3SC60-CT	12	0.00187	0.00613	2.1	60	0.68 x 0.31	1
3SC70-CT	10	0.00120	0.00394	2.7	80	0.75 x 0.34	1
3SC80-CT	8	0.00065	0.00213	3.6	100	0.85 x 0.37	1

CONNECTION KITS

Chemelex offers a full range of connection kits for power connections, splices, and end termination. These connection kits must be used to ensure proper functioning of the product and compliance with warranty, code, and approvals requirements.

GROUND-FAULT PROTECTION

To minimize the danger of fire from sustained electrical arcing if the heating cable is damaged or improperly installed, and to comply with the requirements of Chemelex, agency certifications, and national electrical codes, ground-fault equipment protection must be used on each heating cable branch circuit. Arcing may not be stopped by conventional circuit protection. Many Raychem control and monitoring systems meet the ground-fault protection requirement.

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Raychem Tracer Pyrotenax Nuheat