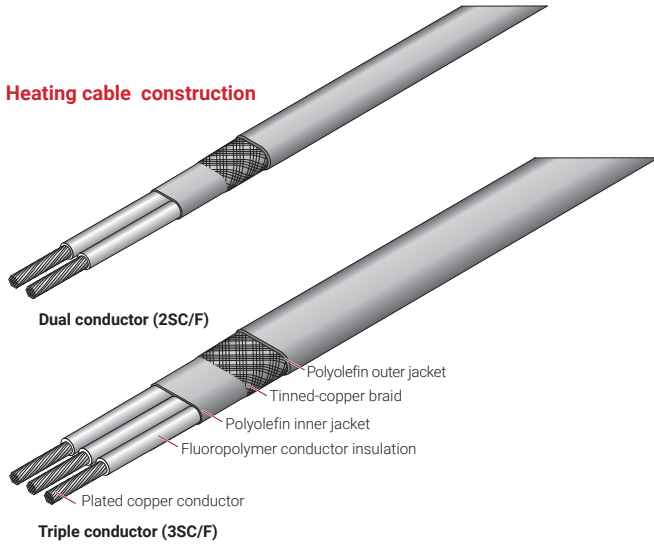


SERIES-RESISTANCE HEATING CABLES FOR LONGLINE SYSTEMS



Electrical freeze protection for long pipelines in both nonhazardous and hazardous locations

PRODUCT OVERVIEW

nVent RAYCHEM SC/F series-resistance technology provides freeze protection for longline applications with minimal heat loss.

This series-resistance type heating cable can withstand continuous exposure temperatures up to 195°F (90°C), and is suitable for use in hazardous locations. SC/F heating cables can be used for continuous circuit lengths to 12,000 feet (3659 m), powered from a single source.

RAYCHEM branded SC/F heating cables meet the requirements of the U.S. National Electrical Code and the Canadian Electrical Code.

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



APPLICATION

Area classification	Nonhazardous and hazardous locations
Chemical resistance	Aqueous inorganic chemicals

SUPPLY VOLTAGE

Maximum 600 Vac

TEMPERATURE RATING

Maximum continuous exposure (Power off)	195°F (90°C)
Minimum installation temperature	-40°F (-40°C)

TEMPERATURE ID NUMBER (T-RATING)

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

APPROVALS

2SC/F

Hazardous Locations



Class I, Div. 2, Groups A, B, C, D
Class II, Div. 2, Groups F, G
Class III

For T-Rating, see design documentation



II 2 GD Ex e II T* (see schedule) Ex tD A21 IP66
Baseefa06ATEX0189X

IECEX

Ex e II T* (see schedule) Ex tD A21 IP66
IECEX BAS 06.0049X



Ex e II T⁽¹⁾



Ex e II CT* Gb

⁽¹⁾ For T-Rating, see design documentation

3SC/F

Hazardous Locations



Class I, Div. 2, Groups A, B, C, D
Class II, Div. 2, Groups F, G
Class III

For T-Rating, see design documentation



II 2 GD Ex e II T* (see schedule) Ex tD A21 IP66
Baseefa06ATEX0189X

IECEX

Ex e II T* (see schedule) Ex tD A21 IP66
IECEX BAS 06.0049X



Ex e II T⁽¹⁾



Ex e II CT* Gb

⁽¹⁾ For T-Rating, see design documentation

DESIGN AND INSTALLATION

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

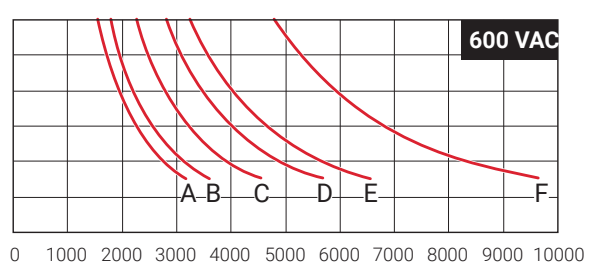
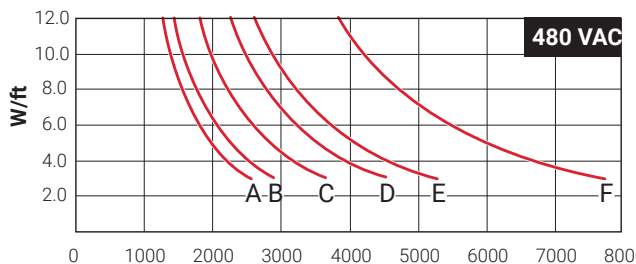
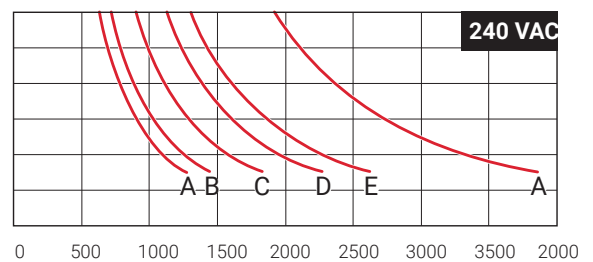
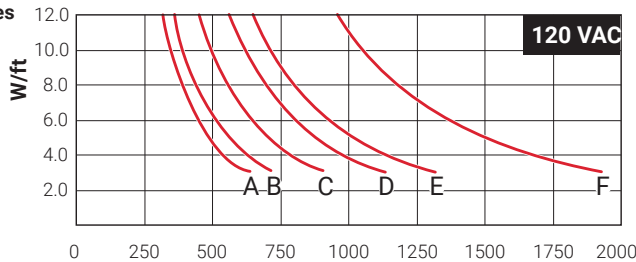
NOMINAL POWER OUTPUT RATINGT

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 at 68°F (20°C)

For 2SC/F Cables

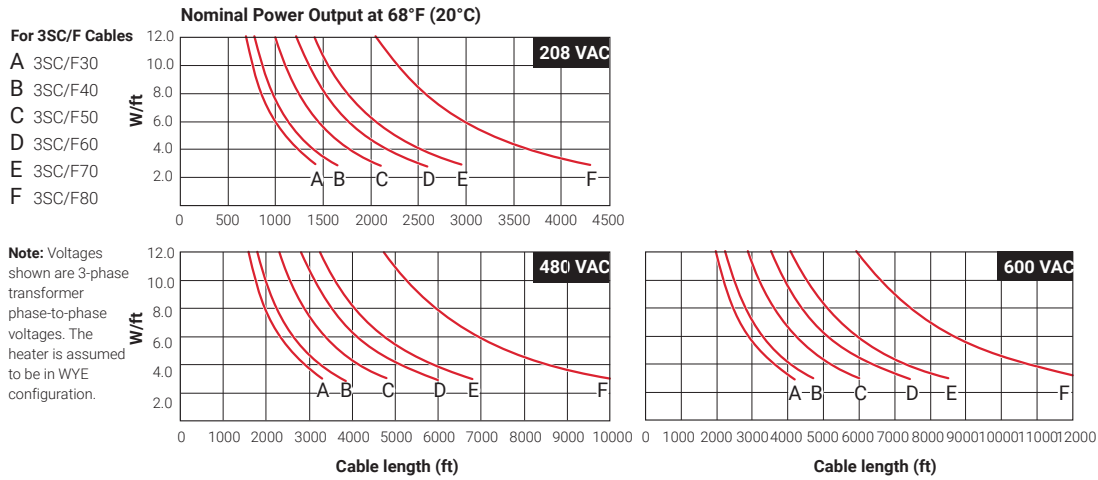
- A 2SC/F30
- B 2SC/F40
- C 2SC/F50
- D 2SC/F60
- E 2SC/F70
- F 2SC/F80



Cable length (ft)

Cable length (ft)

NOMINAL POWER OUTPUT RATING



PRODUCT CHARACTERISTICS

SC/F	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				
(Dual conductor cable)							
2SC/F30-CR	18	0.01180	0.03869	0.8	40	0.31 x 0.21	1
2SC/F40-CR	16	0.00916	0.03004	1.0	40	0.32 x 0.22	1
2SC/F50-CR	14	0.00580	0.01902	1.2	40	0.35 x 0.23	1
2SC/F60-CR	12	0.00374	0.01226	1.4	60	0.39 x 0.25	1
2SC/F70-CR	10	0.00240	0.00787	1.8	80	0.44 x 0.28	1
2SC/F80-CR	8	0.00130	0.00426	2.4	100	0.54 x 0.33	1
(Triple conductor cable, resistance per conductor)							
3SC/F30-CR	18	0.00590	0.01935	1.2	40	0.41 x 0.21	1
3SC/F40-CR	16	0.00458	0.01502	1.5	40	0.43 x 0.22	1
3SC/F50-CR	14	0.00290	0.00951	1.8	40	0.47 x 0.23	1
3SC/F60-CR	12	0.00187	0.00613	2.1	60	0.53 x 0.25	1
3SC/F70-CR	10	0.00120	0.00394	2.7	80	0.60 x 0.28	1
3SC/F80-CR	8	0.00065	0.00213	3.6	100	0.75 x 0.33	1

CONNECTION KITS

nVent offers a full range of connection kits for power connections, splices, and end seals. 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 nVent, 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 nVent RAYCHEM control and monitoring systems meet the ground-fault protection requirement.

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