king

Smart Heating Solutions

Electric Heating Cable Systems

Thermal Storage

Snow Melt

Pipe Freeze Protection

Roof/Gutter De-Icing

Accessories & Controls

Freeze Protection Heaters

King: a technology leader.

Since 1958, King Electrical Manufacturing Company has been a trusted leader in the heating industry, boasting several innovative patents. Despite this era of corporate conglomerates and global economies, King remains proudly family-owned in Seattle, Washington.

In our over 65-year history, King has been at the forefront of exciting advancements in heating technology, leading to new possibilities for innovative heating systems. King continues to prioritize research & development, product quality, and customer satisfaction.

Whether residential, commercial, or industrial, King anticipates your heating needs and delivers industrial-leading smart heating solutions.

MADE IN USA
With U.S. & Global Materials

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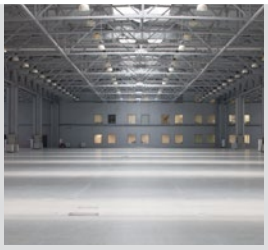


Thermal Storage

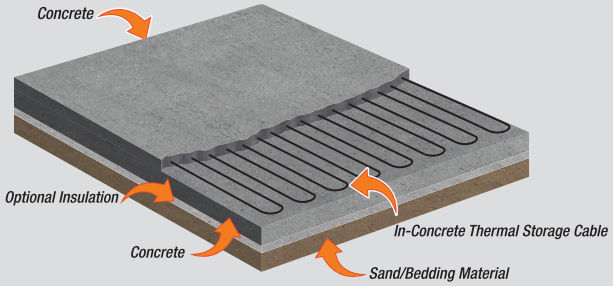
Thermal Storage Heating Systems

King's Thermal Storage Heating systems are designed to warm the concrete slab of a building, creating a thermal mass that radiates heat into the building. King's system runs during off-peak hours, heating the floor to a consistent temperature, then shuts off during peak hours using the stored thermal heat to keep costs down.

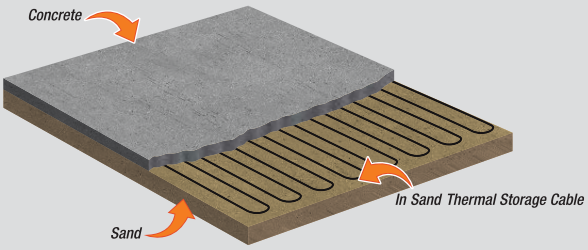
TC Seris Cable offers a custom layout solution to in-concrete thermal storage, that can be installed to fit any individual application. Cable can be spaced to allow between 12W/SqFt - 14W/SqFt (5" or 6" spacing) depending on the application.

TCM Series Mats offers the easiest solution to in-concrete thermal storage, providing pre-fabricated mats at 12W/SqFt (6" spacing) that can be rolled out prior to the concrete slab being poured. The Mat series was specifically designed for quick and easy installation.

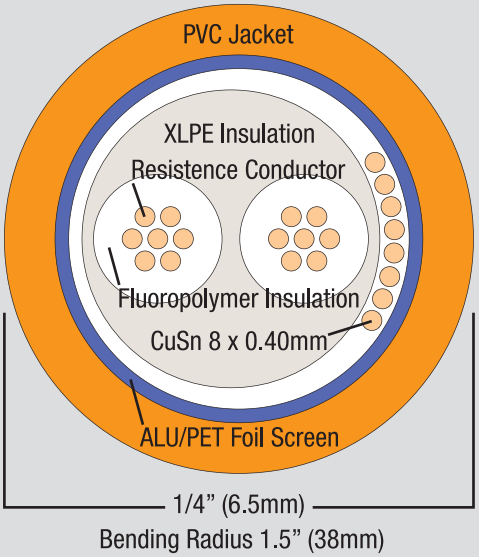
TC & TCM Concrete Installation



TC & TCM Sand Bed Installation



TC & TCM Cable Construction



Thermal Storage Cable

Model Code:

TC	24	6	-60
A	B	C	D

A: Thermal Storage Cable
B: 24-240V
C: Watts per Foot
D: Linear Length in Feet

Intertek

TC Series Thermal Storage Cable is designed for a variety of floor heating applications, heating floors efficiently during on and off peak hours.

TC Thermal Storage Cable Features

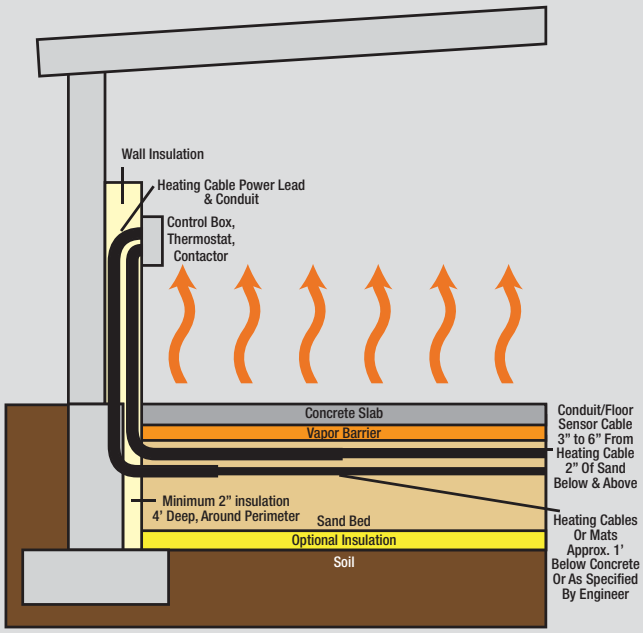
- For use in concrete
- 6 Watts/Ft.
- 20 Ft. cold lead
- Tefzel® Insulation, PVC Jacket
- Emits zero EMFs (electromagnetic fields)
- Low operating costs, durable construction
- Single point connection,10 year warranty
- Low memory design, cable stays flat

	MODEL	UPC	VOLTS	CABLE LENGTH		(5"SPACING-14W/SQ. FT.)	(6"SPACING-12W/SQ. FT.)	WATTS (6 W/FT.)	AMPS
	TC246-60	42224	240	60 FT.	18.3 M	25 SQ. FT.	30 SQ. FT.	344	1.4
	TC246-90	42225	240	90 FT.	27.4 M	35 SQ. FT.	45 SQ. FT.	515	2.1
	TC246-115	42226	240	115 FT.	35.1 M	50 SQ. FT.	60 SQ. FT.	683	2.8
	TC246-145	42227	240	145 FT.	44.2 M	60 SQ. FT.	75 SQ. FT.	852	3.6
	TC246-175	42228	240	175 FT.	53.3 M	75 SQ. FT.	90 SQ. FT.	1026	4.3
	TC246-210	42229	240	210 FT.	64.0 M	90 SQ. FT.	105 SQ. FT.	1226	5.1
240V	TC246-240	42230	240	240 FT.	73.2 M	100 SQ. FT.	120 SQ. FT.	1395	5.8
	TC246-300	42231	240	300 FT.	91.4 M	125 SQ. FT.	150 SQ. FT.	1735	7.2
	TC246-355	42232	240	355 FT.	108.2 M	150 SQ. FT.	180 SQ. FT.	2072	8.6
	TC246-415	42233	240	415 FT.	126.5 M	170 SQ. FT.	205 SQ. FT.	2410	10
	TC246-470	42234	240	470 FT.	143.3 M	195 SQ. FT.	235 SQ. FT.	2756	11.5
	TC246-530	42235	240	530 FT.	161.5 M	220 SQ. FT.	265 SQ. FT.	3097	12.9
	TC246-595	42236	240	595 FT.	181.4 M	250 SQ. FT.	295 SQ. FT.	3470	14.5
	TC246-680	42237	240	680 FT.	181.4 M	250 SQ. FT.	295 SQ. FT.	3470	14.5

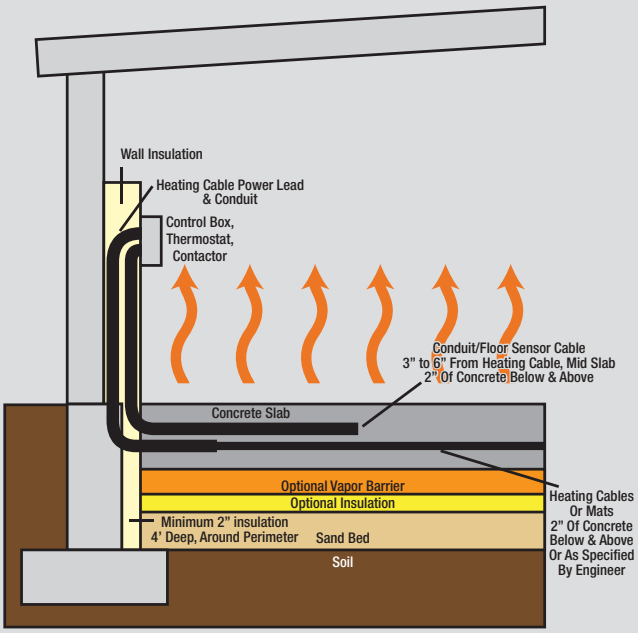
More voltages available. Call for additional information

****GFCI Thermostats must always be used with King heating cable systems. See Page 7**

TC Sand bed Installation



TC Concrete Installation



Thermal Storage Mats

Model Code:

TCM	24	14	24	-12
A	B	C	D	E

A: Thermal Storage Mat
B: 24-240V
C: Watts per Sq/Ft
D: Width of Mat
E: Mat Length

Intertek

TCM Series Thermal Storage Mat is designed for a variety of floor heating applications, heating floors efficiently during on and off peak hours.

TCM Thermal Storage 240V Mat Features

- For use in concrete/Single point connection
- 20 Ft. Cold Lead
- Low operating costs,10 year warranty
- Emits zero EMFs (electromagnetic fields)
- Durable construction: Tefzel® Insulation, PVC Jacket
- Low memory design, cable stays flat

24" 240V 6" SPACING

MODEL (24" WIDE)	UPC (093319)	MAT LENGTH	HEATED AREA (6" SPACING)	WATTS (12 W/FT²)	AMPS
TCM241224-22	42239	22.5 FT.	45.0 SQ. FT.	540	2.1
TCM241224-52	42243	52.5 FT.	105.0 SQ. FT.	1260	5.1
TCM241224-60	42244	60.0 FT.	120.0 SQ. FT.	1440	5.8
TCM241224-75	42245	75.0 FT.	150.0 SQ. FT.	1800	7.2
TCM241224-88	42246	88.8 FT.	177.5 SQ. FT.	2130	8.6
TCM241224-103	42247	103.8 FT.	207.5 SQ. FT.	2490	10.0
TCM241224-132	42249	132.5 FT.	265.0 SQ. FT.	3180	12.9
TCM241224-148	42250	148.8 FT.	297.5 SQ. FT.	3570	14.5

30" 240V 6" SPACING

MODEL (30" WIDE)	UPC (093319)	MAT LENGTH	HEATED AREA (6" SPACING)	WATTS (12 W/FT²)	AMPS
TCM241230-12	42266	12.0 FT.	30.0 SQ. FT.	360	1.4
TCM241230-18	42267	18.0 FT.	45.0 SQ. FT.	540	2.1
TCM241230-48	42272	48.0 FT.	120.0 SQ. FT.	1440	5.8
TCM241230-60	42273	60.0 FT.	150.0 SQ. FT.	1800	7.2
TCM241230-71	42274	71.0 FT.	177.5 SQ. FT.	2130	8.6
TCM241230-83	42275	83.0 FT.	207.5 SQ. FT.	2490	10.0
TCM241230-106	42277	106.0 FT.	265.0 SQ. FT.	3180	12.9
TCM241230-119	42278	119.0 FT.	297.5 SQ. FT.	3570	14.5

36" 240V 6" SPACING

MODEL (36" WIDE)	UPC (093319)	MAT LENGTH	HEATED AREA (6" SPACING)	WATTS (12 W/FT²)	AMPS
TCM241236-10	42294	10.0 FT.	30.0 SQ. FT.	360	1.4
TCM241236-15	42295	15.0 FT.	45.0 SQ. FT.	540	2.1
TCM241236-35	42299	35.0 FT.	105.0 SQ. FT.	1260	5.1
TCM241236-40	42300	40.0 FT.	120.0 SQ. FT.	1440	5.8
TCM241236-59	42302	59.2 FT.	177.5 SQ. FT.	2130	8.6
TCM241236-69	42303	69.2 FT.	207.5 SQ. FT.	2490	10.0
TCM241236-88	42305	88.3 FT.	265.0 SQ. FT.	3180	12.9
TCM241236-99	42306	99.2 FT.	297.5 SQ. FT.	3570	14.5

Thermal Storage Mats

Model Code:

TCM	24	14	24	-12
A	B	C	D	E

A: Thermal Storage Mat
B: 24-240V
C: Watts per Sq/Ft
D: Width of Mat
E: Mat Length

Intertek

TCM Series Thermal Storage Mat is designed for a variety of floor heating applications, heating floors efficiently during on and off peak hours.

TCM Thermal Storage 240V Mat Features

- For use in concrete/Single point connection
- 20 Ft. Cold Lead
- Low operating costs,10 year warranty
- Emits zero EMFs (electromagnetic fields)
- Durable construction: Tefzel® Insulation, PVC Jacket
- Low memory design, cable stays flat

24" 240V 5" SPACING

MODEL (24" WIDE)	UPC (093319)	MAT LENGTH	HEATED AREA (5" SPACING)	WATTS (14 W/FT²)	AMPS
TCM241424-12	42252	12.5 FT.	25.0 SQ. FT.	350	1.4
TCM241424-18	42253	18.8 FT.	37.5 SQ. FT.	525	2.1
TCM241424-43	42257	43.8 FT.	87.5 SQ. FT.	1225	5.1
TCM241424-110	42263	110.4 FT.	220.8 SQ. FT.	3092	12.9
TCM241424-124	42264	124.0 FT.	247.9 SQ. FT.	3471	14.5

30" 240V 5" SPACING

MODEL (30" WIDE)	UPC (093319)	MAT LENGTH	HEATED AREA (5" SPACING)	WATTS (14 W/FT²)	AMPS
TCM241430-10	42280	10.0 FT.	25.0 SQ. FT.	350	1.4
TCM241430-15	42281	15.0 FT.	37.5 SQ. FT.	525	2.1
TCM241430-40	42286	40.0 FT.	100.0 SQ. FT.	1400	5.8
TCM241430-59	42288	59.2 FT.	147.9 SQ. FT.	2071	8.6
TCM241430-69	42289	69.2 FT.	172.9 SQ. FT.	2421	10.0
TCM241430-88	42291	88.3 FT.	220.8 SQ. FT.	3092	12.9
TCM241430-99	42292	99.2 FT.	247.9 SQ. FT.	3471	14.5

36" 240V 5" SPACING

MODEL (36" WIDE)	UPC (093319)	MAT LENGTH	HEATED AREA (5" SPACING)	WATTS (14 W/FT²)	AMPS
TCM241436-8	42308	8.3 FT.	25.0 SQ. FT.	350	1.4
TCM241436-12	42309	12.5 FT.	37.5 SQ. FT.	525	2.1
TCM241436-29	42313	29.2 FT.	87.5 SQ. FT.	1225	5.1
TCM241436-33	42314	33.3 FT.	100.0 SQ. FT.	1400	5.8
TCM241436-49	42316	49.3 FT.	147.9 SQ. FT.	2071	8.6
TCM241436-57	42317	57.6 FT.	172.9 SQ. FT.	2421	10.0
TCM241436-73	42319	73.6 FT.	220.8 SQ. FT.	3092	12.9
TCM241436-82	42320	82.6 FT.	247.9 SQ. FT.	3471	14.5

TC & TCM CONTROLS

UDG-4999

USG-4000

MODEL	UPC	DESCRIPTION
UDG-4999	33165	Thermostat Programmable Floor Heat **GFCI 120/208/240V 15A
USG-4000	33166	Thermostat Programmable Relay **GFCI 120/208/240V 15A

****GFCI Thermostats must always be used with King heating cable systems.**

Snow Melt

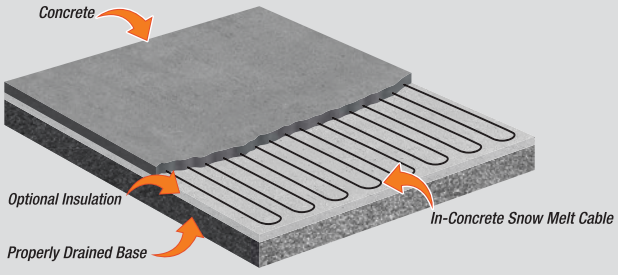
Snow Melt Systems

King's Snow Melt Systems are great solutions to stay ahead of the snow and ice when winter arrives. On-demand snow melt improves the safety of driveways, sidewalks, stairs and other foot-traffic areas, keeping them free from the dangers of ice. Keep your home or business safe and accessible all year long.

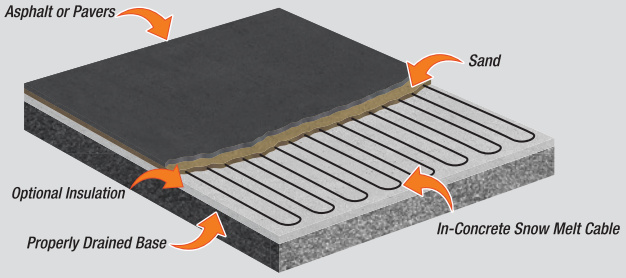
SC Series Cable offers a custom in-concrete layout solution to snow and ice build-up, and can be installed to fit any individual application. Cable can be spaced to allow between 37W/SqFt- 50W/SqFt (3" or 4" spacing) depending on the application. Heating concrete, asphalt or pavers with SC will keep your area free from sbnow build up and formation of ice.

SCM Series mats offer the easiest solution to snow and ice build up, providing pre-fabricated mats at 50W/SqFt (3" spacing) that can be rolled out prior to the concrete slab being poured. Whether you are heating concrete, asphalt or pavers the SCM will keep your area clear and safe to walk on.

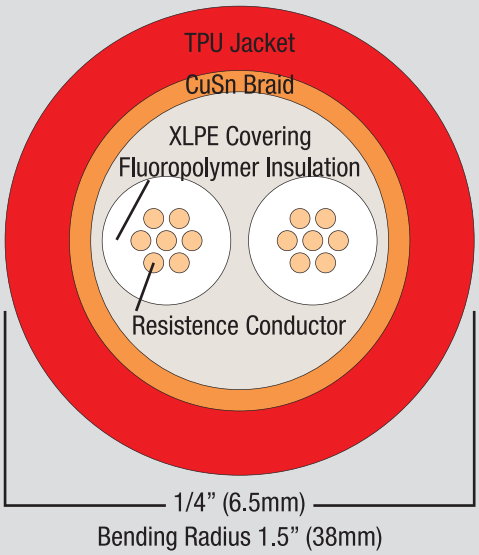
SC & SCM Concrete Installation



SC & SCM Asphalt/Paver Installation



SC & SCM Cable Construction



Snow Melt Cable

Model Code:

SC	24	12	245
A	B	C	D

A: Snow Melt Cable
B: 24-240V
C: Watts per Foot
D: Linear Length in Feet

SC Series Snow Melt Cable is designed for a variety of cold weather applications, melting snow and ice for improved safety conditions.

SC Snow Melt Cable Features

- For use in concrete, asphalt and under pavers
- For use in sidewalks, driveways, stairs, ramps, etc.
- 20 Ft. Cold Lead
- Twin conductor
- Emits zero EMFs (electromagnetic fields)
- Single point connection, 10 year warranty
- Tefzel® Insulation, TPU Jacket

240V

MODEL	UPC	VOLTS	CABLE LENGTH		(3" SPACING-50W/SQ.FT.)	(4" SPACING-37W/SQ.FT.)	WATTS (12W/FT.)	AMPS
SC2412-40	42016	240	40 FT.	12.2 M	10 SQ. FT.	13 SQ. FT.	480	2.0
SC2412-60	42017	240	60 FT.	18.3 M	15 SQ. FT.	20 SQ. FT.	720	3.0
SC2412-80	42018	240	80 FT.	24.4 M	20 SQ. FT.	27 SQ. FT.	960	4.0
SC2412-100	42019	240	100 FT.	30.5 M	25 SQ. FT.	33 SQ. FT.	1200	5.0
SC2412-120	42020	240	120 FT.	36.6 M	30 SQ. FT.	40 SQ. FT.	1440	6.0
SC2412-145	42021	240	145 FT.	44.2 M	36 SQ. FT.	48 SQ. FT.	1740	7.3
SC2412-185	42023	240	185 FT.	56.4 M	46 SQ. FT.	62 SQ. FT.	2220	9.3
SC2412-205	42024	240	205 FT.	62.5 M	51 SQ. FT.	68 SQ. FT.	2460	10.3
SC2412-245	42025	240	245 FT.	74.7 M	61 SQ. FT.	82 SQ. FT.	2940	12.3
SC2412-285	42026	240	325 FT.	99.1 M	81 SQ. FT.	108 SQ. FT.	3900	16.3
SC2412-325	42027	240	370 FT.	112.8 M	93 SQ. FT.	123 SQ. FT.	4440	18.5
SC2412-370	42028	240	370 FT.	112.8 M	93 SQ. FT.	123 SQ. FT.	4440	18.5
SC2412-410	42029	240	410 FT.	125.0 M	103 SQ. FT.	137 SQ. FT.	4920	20.5
SC2412-475	42030	240	475 FT.	144.8 M	119 SQ. FT.	158 SQ. FT.	5700	23.8
SC2412-535	42031	240	535 FT.	163.1 M	134 SQ. FT.	178 SQ. FT.	6420	26.8

**Controls and thermostats should always be used with King heating systems.

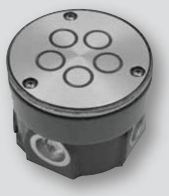
ACCESSORIES

SCS1	25' Metal Cable Strapping for installation on existing concrete slab
SCS13	Snowmelt Cable Repair Kit

CONTROLS

DS-2C

DS-5C



SIT-6E

23832
Sensor Housing

SMNPLT

MODEL	UPC	DESCRIPTION
DS-2C	42331	DS Rain/Snow Controller 100-277V 30A, w/Built in Sensor
DS-5C	42332	DS Roof/Gutter Controller 120/240/277V 30A, w/Built in Sensor
SIT-6E	40505	Snow Melt Pavement Sensor (Requires 23832 Pavement Sensor Housing)
23832 Sensor Housing	40506	Snow Melt Pavement Sensor Housing (For SIT-6E HSC-4 HSC-5)
SMNPLT	40507	Snow Melt Brushed Stainless Steel Name Plate (per NEC 426.13 requirements)

Snow Melt Mats

Model Code:

SCM	24	48	24	-5
A	B	C	D	E

A: Snow Melt Mat
B: 24 - 240V
C: Watts per Sq/Ft
36 W/FT² = 4" Spacing
48 W/FT² = 3" Spacing
D: Width of Mat
E: Mat Length

SCM Series Snow Melt Mat is designed for melting snow and ice for improved safety conditions.

SCM Snow Melt 240V Mat Features

- 20 Ft. Cold Lead, for use in concrete, asphalt & under pavers
- 10 year warranty, Emits zero EMFs (electromagnetic fields)
- Use in sidewalks, driveways, stairs, ramps, etc.
- Single point connection, Tefzel® Insulation, TPU Jacket

	MODEL (24" WIDE)	UPC (093319)	MAT LENGTH	HEATED AREA (3" SPACING)	WATTS (48 W/FT²)	AMPS
	SCM244824-5	42128	5.0 FT.	10.0 SQ. FT.	480	2.0
	SCM244824-7	42129	7.5 FT.	15.0 SQ. FT.	720	3.0
	SCM244824-10	42130	10.0 FT.	20.0 SQ. FT.	960	4.0
24"	SCM244824-12	42131	12.5 FT.	25.0 SQ. FT.	1200	5.0
240V	SCM244824-15	42132	15.1 FT.	30.0 SQ. FT.	1440	6.0
3" SPACING	SCM244824-18	42133	18.1 FT.	36.3 SQ. FT.	1740	7.3
	SCM244824-20	42134	20.6 FT.	41.3 SQ. FT.	1980	8.3
	SCM244824-23	42135	23.1 FT.	46.3 SQ. FT.	2220	9.3
	SCM244824-25	42136	25.6 FT.	51.3 SQ. FT.	2460	10.3
	SCM244824-30	42137	30.6 FT.	61.3 SQ. FT.	2940	12.3
	SCM244824-35	42138	35.6 FT.	71.3 SQ. FT.	3420	14.3
	SCM244824-46	42140	46.3 FT.	92.5 SQ. FT.	4440	18.5
	SCM244824-51	42141	51.3 FT.	102.5 SQ. FT.	4920	20.5
	SCM244824-59	42142	59.4 FT.	118.8 SQ. FT.	5700	23.8
	SCM244824-66	42143	66.9 FT.	133.8 SQ. FT.	6420	26.8

	MODEL (30" WIDE)	UPC (093319)	MAT LENGTH	HEATED AREA (3" SPACING)	WATTS (48 W/FT²)	AMPS
	SCM244830-4	42160	4.0 FT.	10.0 SQ. FT.	480	2.0
	SCM244830-6	42161	6.0 FT.	15.0 SQ. FT.	720	3.0
30"	SCM244830-8	42162	8.0 FT.	20.0 SQ. FT.	960	4.0
240V	SCM244830-12	42164	12.0 FT.	30.0 SQ. FT.	1440	6.0
3" SPACING	SCM244830-14	42165	14.5 FT.	36.3 SQ. FT.	1740	7.3
	SCM244830-20	42168	20.5 FT.	51.3 SQ. FT.	2460	10.3
	SCM244830-24	42169	24.5 FT.	61.3 SQ. FT.	2940	12.3
	SCM244830-28	42170	28.5 FT.	71.3 SQ. FT.	3420	14.3
	SCM244830-37	42172	37.0 FT.	92.5 SQ. FT.	4440	18.5
	SCM244830-41	42173	41.0 FT.	102.5 SQ. FT.	4920	20.5
	SCM244830-47	42174	47.5 FT.	118.8 SQ. FT.	5700	23.8
	SCM244830-53	42175	53.5 FT.	133.8 SQ. FT.	6420	26.8

	MODEL (36" WIDE)	UPC (093319)	MAT LENGTH	HEATED AREA (3" SPACING)	WATTS (48 W/FT²)	AMPS
	SCM244836-3	42192	3.3 FT.	10.0 SQ. FT.	480	2.0
	SCM244836-5	42193	5.0 FT.	15.0 SQ. FT.	720	3.0
36"	SCM244836-6	42194	6.7 FT.	20.0 SQ. FT.	960	4.0
240V	SCM244836-10	42196	10.0 FT.	30.0 SQ. FT.	1440	6.0
3" SPACING	SCM244836-12	42197	12.1 FT.	36.3 SQ. FT.	1740	7.3
	SCM244836-17	42200	17.1 FT.	51.3 SQ. FT.	2460	10.3
	SCM244836-20	42201	20.4 FT.	61.3 SQ. FT.	2940	12.3
	SCM244836-23	42202	23.8 FT.	71.3 SQ. FT.	3420	14.3
	SCM244836-30	42204	30.8 FT.	92.5 SQ. FT.	4440	18.5
	SCM244836-34	42205	34.2 FT.	102.5 SQ. FT.	4920	20.9
	SCM244836-39	42206	39.6 FT.	118.8 SQ. FT.	5700	23.8
	SCM244836-44	42207	44.6 FT.	133.8 SQ. FT.	6420	26.8

Snow Melt Mats

	MODEL (24" WIDE)	UPC (093319)	MAT LENGTH	HEATED AREA (4" SPACING)	WATTS (36 W/FT²)	AMPS
	SCM243624-6	42144	6.7 FT.	13.3 SQ. FT.	480	2
	SCM243624-10	42145	10.0 FT.	20.0 SQ. FT.	720	3
	SCM243624-13	42146	13.3 FT.	26.7 SQ. FT.	960	4
24"	SCM243624-16	42147	16.7 FT.	33.3 SQ. FT.	1200	5
240V	SCM243624-20	42148	20.0 FT.	40.0 SQ. FT.	1440	6
4" SPACING	SCM243624-24	42149	24.2 FT.	48.3 SQ. FT.	1740	7.3
	SCM243624-27	42150	27.5 FT.	55.0 SQ. FT.	1980	8.3
	SCM243624-30	42151	30.8 FT.	61.7 SQ. FT.	2220	9.3
	SCM243624-34	42152	34.2 FT.	68.3 SQ. FT.	2460	10.3
	SCM243624-40	42153	40.8 FT.	81.7 SQ. FT.	2940	12.3
	SCM243624-47	42154	47.5 FT.	95.0 SQ. FT.	3420	14.3
	SCM243624-61	42156	61.7 FT.	123.3 SQ. FT.	4440	18.5
	SCM243624-68	42157	68.3 FT.	136.7 SQ. FT.	4920	20.5
	SCM243624-79	42158	79.2 FT.	158.3 SQ. FT.	5700	23.8
	SCM243624-89	42159	89.2 FT.	178.3 SQ. FT.	6420	26.8

More voltages available. Call for additional information

****Controls and thermostats should always be used with King heating cable systems.**

	MODEL (30" WIDE)	UPC (093319)	MAT LENGTH	HEATED AREA (4" SPACING)	WATTS (36 W/FT²)	AMPS
	SCM243630-5	42176	5.3 FT.	13.3 SQ. FT.	480	2
30"	SCM243630-8	42177	8.0 FT.	20.0 SQ. FT.	720	3
240V	SCM243630-10	42178	10.7 FT.	26.7 SQ. FT.	960	4
4" SPACING	SCM243630-16	42180	16.0 FT.	40.0 SQ. FT.	1440	6
	SCM243630-19	42181	19.3 FT.	48.3 SQ. FT.	1740	7.3
	SCM243630-22	42182	22.0 FT.	55.0 SQ. FT.	1980	8.3
	SCM243630-27	42184	27.3 FT.	68.3 SQ. FT.	2460	10.3
	SCM243630-32	42185	32.7 FT.	81.7 SQ. FT.	2940	12.3
	SCM243630-38	42186	38.0 FT.	95.0 SQ. FT.	3420	14.3
	SCM243630-49	42188	49.3 FT.	123.3 SQ. FT.	4440	18.5
	SCM243630-54	42189	54.7 FT.	136.7 SQ. FT.	4920	20.5
	SCM243630-69	42190	63.3 FT.	158.3 SQ. FT.	5700	23.8
	SCM243630-71	42191	71.3 FT.	178.3 SQ. FT.	6420	26.8

	MODEL (36" WIDE)	UPC (093319)	MAT LENGTH	HEATED AREA (4" SPACING)	WATTS (36 W/FT²)	AMPS
36"	SCM243636-4	42208	4.4 FT.	13.3 SQ. FT.	480	2
240V	SCM243636-6	42209	6.7 FT.	20.0 SQ. FT.	720	3
4" SPACING	SCM243636-8	42210	8.9 FT.	26.7 SQ. FT.	960	4
	SCM243636-13	42212	13.3 FT.	40.0 SQ. FT.	1440	6
	SCM243636-16	42213	16.1 FT.	48.3 SQ. FT.	1740	7.3
	SCM243636-18	42214	18.3 FT.	55.0 SQ. FT.	1980	8.3
	SCM243636-20	42215	20.6 FT.	61.7 SQ. FT.	2220	9.3
	SCM243636-22	42216	22.8 FT.	68.3 SQ. FT.	2460	10.3
	SCM243636-31	42218	31.7 FT.	95.0 SQ. FT.	3420	14.3
	SCM243636-41	42220	41.1 FT.	123.3 SQ. FT.	4440	18.5
	SCM243636-52	42222	52.8 FT.	158.3 SQ. FT.	5700	23.8
	SCM243636-59	42223	59.4 FT.	178.3 SQ. FT.	6420	26.8

More voltages available. Call for additional information

****Controls and thermostats should always be used with King heating cable systems.**

MODEL	ACCESSORIES
SCS13	Snowmelt Cable Repair Kit

CONTROLS

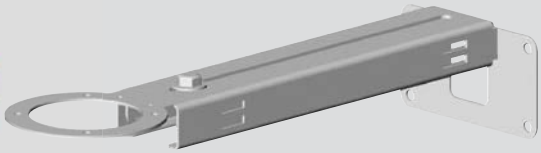
MODEL	UPC	DESCRIPTION
DS-2C	42331	DS Rain/Snow Controller 100-277V 30A, w/Built in Sensor
DS-5C	42332	DS Roof/Gutter Controller 120/240/277V 30A, w/Built in Sensor
SIT-6E	40505	Snow Melt Pavement Sensor (Requires 23832 Pavement Sensor Housing)
23832 Sensor Housing	40506	Snow Melt Pavement Sensor Housing (For SIT-6E HSC-4 HSC-5)
SMNPLT	40507	Snow Melt Brushed Stainless Steel Name Plate (per NEC 426.13 requirements)

PYRO Snow Melt/De-Icing System

PYROBOX5/19 PYROBOX3/19 & 3C/19

PYROULS

PYROSENSE/19



PYROSB

PYROCON19

PYRO De-Icing Systems

The unique staggering feature of the PYRO control melts snow & ice over larger areas, without the need to upgrade the power supply on site. Use a high demand heating system on a limited power supply source by controlling up to 5 different zones. The modular design allows customers to choose the right configuration for the specific property needs.

Enables use of high demand heating system on a limited power supply source. Modular: Up to (5) circuits/contactors. Up to 600V & 600A Sequence of zoning 1/2/3/4 + auxiliary (such as giutter sensor). Suitable for parallel, star & triangle connection. North American consideration operating algorithm.

- User friendly programming and adjusting
- Interface provided for B.M.S. and SmartHome using Bacnet or ModBus over RS485 communication wires
- Adjustable cycle time
- Adjustable delay (Hold on Time)
- Adjsutable On or Off
- Adjustable trip setting
- No obtrusive adjustable snow sensor
- Integrated Fault Detector. GFCI non class A
- Logical setting for installer / set-up & service
- Surface Upper limit adjustable Temperature Sensor
- Integrated option for universal gutter de-icing sensor
- Programmable & precise snow & ice sensor
- Suitable for electrical & Hydronic de-icing installations

MODEL	UPC	Item	Description
PYROBOX3/19	33765	Power Box 3	4 Zone Controller, 4-30A/2P Contactors, 1-Phase, 277V Max
PYROBOX3C/19	33766	Power Box 3C	2 Zone Controller, 2-50A/3P Contactors, 3-Phase, 600V Max +1 Zone Aux Controller, 1-30A/2P Contactor, 1-Phase, 277V Max
PYROBOX5/19	33767	Power Box 5	4 Zone Controller, 4-50A/3P Contactors, 3-Phase, 600V Max +1 Zone Aux Controller, 1-30A/2P Contactor, 1-Phase, 277V Max
PYROSENSE/19	33764	Snow sensor	Outdoor Snow Sensor
PYROCON19	33762	Main Controller	Controller and User Interface panel
PYROSB	42326	Mounting Bracket	Wall mounting adjustable rust free holding bar

PYROBOX units are complete with PYROCON19 controller and PYROULS. Order PYROSENSE and PYROSB separately.
**Controls and thermostats should always be used with King heating systems.

Pipe Freeze Protection

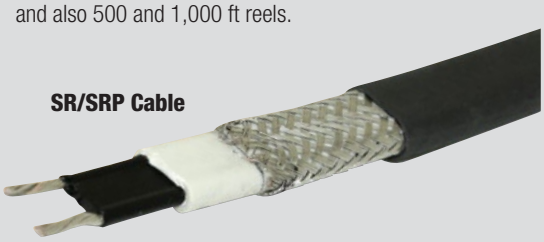
Pipe Freeze Protection Systems

King's Pipe Freeze Protection sytems ensure that your pipes remain clear of ice and water continues to flow all winter long. Easy installation makes the process go quickly so you can be prepared long before winter arrives. Perfect for residential, commercial or industrial applications.

SRP Series Self-Regulating Pre-Assembled Heating Cable is designed for a variety of pipe freeze protection applications. The cable is constructed so that it will not burn out or overheat when overlapped and can be used on metal and plastic pipes. The cable is pre-terminated with a 30 inch cold lead.

SR Series Self-Regulating Heating Cable is designed for commercial and industrial pipe trace applications. The cable is constructed so that it will not burn out or overheat when overlapped, and can be used on metal and plastic pipes. The cable is available in 100 and 250 ft coils and also 500 and 1,000 ft reels.

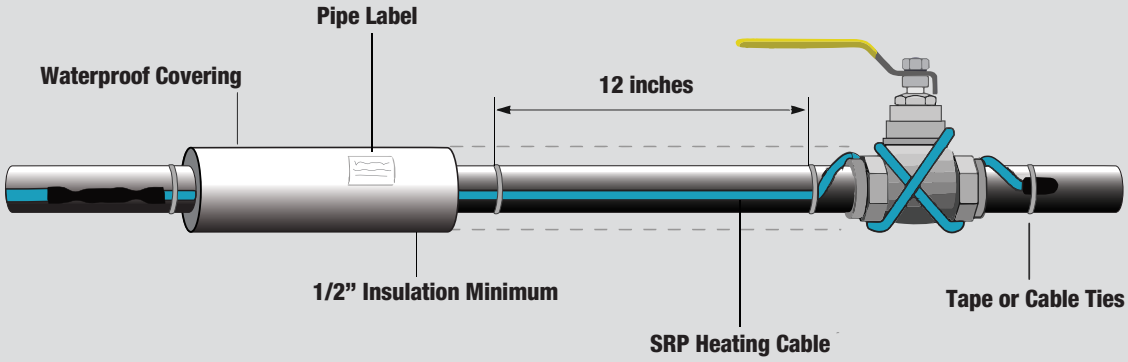
SR/SRP Cable



Cable Construction Table

Outer Jacket	Rugged Polyolefin UV Jacket
Outer Jacket (-CT)*	Flouropolymer jacket
Ground Braid	Tinned copper
Inner Jacket	Flame retardent thermoplastic
Core	Self-regulating semi-conductive core
Bus Wire	16 gauge tinned copper
Bending Radius	1" (24mm)

SR/SRP Application



Pre-Assembled Self-Regulating Pipe Trace Cable

Pre-Assembled

120 Volt - Grounded Plug

Model Code:

SRP	12	6	-6
A	B	C	D

A: Pre-Assembled Self Reg.
B: 12 - 120V
24 - 240V
C: Watts per foot
D: Linear Length in feet

SRP Series Self-Regulating Pre-Assembled Heating Cable is designed for a variety of pipe freeze protection applications.

SRP Self-Regulating Pre-Assembled Heating Cable Features

- Pre-terminated with 30 inch grounded plug and end splice
- Suitable for use on metal and plastic pipes
- 2 year warranty
- Cable will not overheat or burn out when overlapped
- 16 gauge heating cable bus wire
- 6 w/ft at 40°F (5°C)

c ETL LISTED US
Intertek

120V

MODEL	UPC	LENGTH	VOLTS	WATTS*
SRP126-6	40400	6 FT.	120	36
SRP126-12	40402	12 FT.	120	72
SRP126-18	40404	18 FT.	120	108
SRP126-24	40406	24 FT.	120	144
SRP126-37	48711	37.5 FT.	120	225
SRP126-50	40408	50 FT.	120	300
SRP126-62	48712	62.5 FT.	120	375
SRP126-75	40410	75 FT.	120	450
SRP126-87	48713	87.5 FT.	120	525
SRP126-100	40412	100 FT.	120	600
SRP126-125	48714	125 FT.	120	750
SRP126-150	48715	150 FT.	120	900

*Wattage rating for pipe freeze protection application is 6 w/ft determined at 40°F (5°C).

240 Volt - Cold Leads

SRP Series Self-Regulating Pre-Assembled Heating Cable is designed for a variety of pipe freeze protection applications.

SRP Self-Regulating Pre-Assembled Heating Cable Features

- Pre-terminated with 30 inch grounded plug and end splice
- Suitable for use on metal and plastic pipes
- 2 year warranty
- Cable will not overheat or burn out when overlapped
- 16 gauge heating cable bus wire
- 6 w/ft at 40°F (5°C)

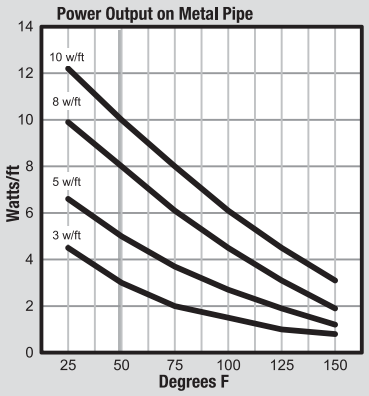
c ETL LISTED US
Intertek

240V

MODEL	UPC	LENGTH	VOLTS	WATTS*
SRP246-6	42373	6 FT.	240	36
SRP246-12	42374	12 FT.	240	72
SRP246-18	42375	18 FT.	240	108
SRP246-24	42376	24 FT.	240	144
SRP246-37	48716	37.5 FT.	240	225
SRP246-50	42377	50 FT.	240	300
SRP246-62	48717	62.5 FT.	240	375
SRP246-75	42378	75 FT.	240	450
SRP246-87	48718	87.5 FT.	240	525
SRP246-100	42379	100 FT.	240	600
SRP246-125	48719	125 FT.	240	750
SRP246-150	48720	150 FT.	240	900
SRP246-175	48721	175 FT.	240	1050
SRP246-200	48722	200 FT.	240	1200

*Wattage rating for pipe freeze protection application is 6 w/ft determined at 40°F (5°C).

Self-Regulating Pipe Trace Cable



1,000 ft. Reel

Model Code:

SR	12	3	-250
A	B	C	D

A: Self Regulating Cable
B: 12 - 120V
24 - 240V
C: Watts per Foot
D: Linear Length in Feet

SR Series Self-Regulating Heating Cable is designed for a variety of industrial and commercial pipe trace applications.

SR Self-Regulating Heating Cable Features

- Stops pipe and valve freeze down to -40°F
- Cable will not overheat or burn when overlapped
- Suitable for use on metal and plastic pipes
- 2 year warranty

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	AVAILABLE LENGTHS						
	VOLTS	PIPE RATING** WATTS/FT.	100 FT. LENGTH MODEL / UPC	250 FT. LENGTH MODEL / UPC	500 FT. LENGTH MODEL / UPC	1000 FT. LENGTH MODEL / UPC	WEIGHT/FT.
120V	120	3	SR123-100 / 40513	SR123-250 / 40414	SR123-500 / 48735	SR123-1000 / 40416	0.080 LBS./FT.
	120	5	SR125-100 / 40514	SR125-250 / 40418	SR125-500 / 48736	SR125-1000 / 40420	0.080 LBS./FT.
	120	8	SR128-100 / 40515	SR128-250 / 40422	SR128-500/ 48737	SR128-1000 / 40424	0.080 LBS./FT.
	120	10	SR1210-100 / 40516	SR1210-250 / 40426	SR1210-500 / 48742	SR1210-1000 / 40428	0.080 LBS./FT.
	VOLTS	PIPE RATING** WATTS/FT.	100 FT. LENGTH MODEL / UPC	250 FT. LENGTH MODEL / UPC	500 FT. LENGTH MODEL / UPC	1000 FT. LENGTH MODEL / UPC	WEIGHT/FT.
240V	240*	3	SR243-100 / 40517	SR243-250 / 40430	SR243-500 / 48739	SR243-1000 / 40432	0.080 LBS./FT.
	240*	5	SR245-100 / 40518	SR245-250 / 40434	SR245-500 / 48740	SR245-1000 / 40436	0.080 LBS./FT.
	240*	8	SR248-100 / 40519	SR248-250 / 40438	SR248-500 / 48741	SR248-1000 / 40440	0.080 LBS./FT.
	240*	10	SR2410-100 / 40520	SR2410-250 / 40442	SR2410-500 / 48746	SR2410-1000 / 40444	0.080 LBS./FT.

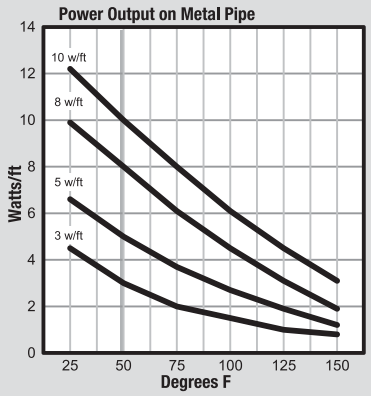
*Approved for 208, 220, 240, 277 volt operation, refer to wattage adjustment tables for output rating. (See Page 19, Table 4)
**Wattage rating for pipe freeze protection application is determined at 50°F (10°C).

Controls and thermostats should always be used with King heating cable systems.

SR ACCESSORIES Refer to page 20 for Pipe Freeze Protection Accessories

MODEL	UPC	DESCRIPTION	WEIGHT
SRK00	40462	Hard wired power connection kit, includes end seal	0.3 lbs.
SRK02	40461	Connection kit, includes end seal	0.3 lbs.
SRK03	40464	Pipe trace tape (66ft) and 10 labels per package	1.0 lbs.
SRK04	61713	2.5" x 50 yards 2 mil foil tape	1.6 lbs.
SRK08	40466	Plug in 120V connection kit with GFEP device, includes end seal	1.0 lbs.
SRK10	40468	Weatherproof splice/tee kit, includes end seal	0.2 lbs.
SRK12	40470	End seal kit (2 per package)	0.1 lbs.
SRK17	40477	11 & 13mm Gel end seal	0.1 lbs.
SRK18	40512	Lighted end seal, 85-277V	0.3 lbs.
IFC12	40490	Plug in fixed thermostat, 120V, 15 amp, on at 35°F off at 45°F (12/case)	0.3 lbs.
TRF-115-005	40486	Freeze protection thermostat, weatherproof with 5 ft. remote bulb & capillary, 25 amp at 120/208/240V, 22 amp at 277V, adjustable temp 0°F, suitable for 24 VAC operation (w/Power-On indicator light)	0.3 lbs.

CT Self-Regulating Pipe Trace Cable



1,000 ft. Reel

Model Code:

SR	12	3	-250	CT
A	B	C	D	E

A: Self Regulating Cable
B: 12 - 120V
24 - 240V
C: Watts per foot
D: Linear Length in feet
E: FlouroPolymer Jacket

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

Zone Approvals
T5 or T6

CT self-regulating heating cables are designed for industrial and commercial freeze protection and process-temperature maintenance applications. CT cables maintain process temperatures up to 150°F (65°C) and can withstand intermittent exposure to temperatures up to 185°F (85°C). The heating cables are configured for use in nonhazardous and hazardous locations, including areas where corrosives may be present.

CT Self-Regulating Heating Cable Features

- For both hazardous and non-hazardous locations
- Stops pipe and valve freeze down to -40F
- Cable will not overheat or burn out when overlapped
- Suitable for use on metal and plastic pipes
- 10 year warranty

AVAILABLE LENGTHS

	VOLTS	PIPE RATING** WATTS/FT.	100 FT. LENGTH MODEL / UPC	250 FT. LENGTH MODEL / UPC	500 FT. LENGTH MODEL / UPC	1000 FT. LENGTH MODEL / UPC	WEIGHT/FT.
120V	120	3	SR123-100-CT / 40522	SR123-250-CT / 40523	SR123-500-CT / 40538	SR123-1000-CT / 40375	0.080 LBS./FT.
	120	5	SR125-100-CT / 40524	SR125-250-CT / 40525	SR125-500-CT / 48744	SR125-1000-CT / 40377	0.080 LBS./FT.
	120	8	SR128-100-CT / 40526	SR128-250-CT / 40527	SR128-500-CT / 48745	SR128-1000-CT / 40379	0.080 LBS./FT.
	120	10	SR1210-100-CT / 40528	SR1210-250-CT / 40529	SR1210-500-CT / 48742	SR1210-1000-CT / 40428	0.080 LBS./FT.
	VOLTS	PIPE RATING** WATTS/FT.	100 FT. LENGTH MODEL / UPC	250 FT. LENGTH MODEL / UPC	500 FT. LENGTH MODEL / UPC	1000 FT. LENGTH MODEL / UPC	WEIGHT/FT.
240V	240*	3	SR243-100-CT / 40530	SR243-250-CT / 40531	SR243-500-CT / 48747	SR243-1000-CT / 40376	0.080 LBS./FT.
	240*	5	SR245-100-CT / 40532	SR245-250-CT / 40533	SR245-500-CT / 48748	SR245-1000-CT / 40378	0.080 LBS./FT.
	240*	8	SR248-100-CT / 40534	SR248-250-CT / 40535	SR248-500-CT / 48749	SR248-1000-CT / 40380	0.080 LBS./FT.
	240*	10	SR2410-100-CT / 40536	SR2410-250-CT / 40537	SR2410-500-CT / 48746	SR2410-1000-CT / 40382	0.080 LBS./FT.

*Approved for 208, 220, 240, 277 volt operation, refer to wattage adjustment tables for output rating. (See Page 19, Table 4)
**Wattage rating for pipe freeze protection application is determined at 50°F (10°C).
***Also rated for Roof/Gutter De-Icing. Wattage rating is 8 w/Ft determined at 32°F (0°C).

Controls and thermostats should always be used with King heating cable systems.

CT ACCESSORIES FOR NON HAZARDOUS APPLICATIONS

SRK00	Hard wired power connection kit, includes end seal
SRK02	connection kit, includes end seal
SRK03	Pipe trace tape (66 ft) and 10 labels per pack
SRK04	2.5" x 50 yards 2 Mil foil tape
SRK08	Plug in 120V connection kit with GFEP device, includes end seal
SRK10	Weatherproof splice/tee kit, includes end seal
SRK12	End seal kit (2 per package)
SRK17	11 & 13mm Gel end seal
SRK18	Lighted end seal, 85-277V

CT ACCESSORIES FOR HAZARDOUS APPLICATIONS

CT-9002	CT square box
CT-9003	CT splice connection
CT-9004	CT tee connection
CT-9005	CT end seal

CT-9002

CT-9003

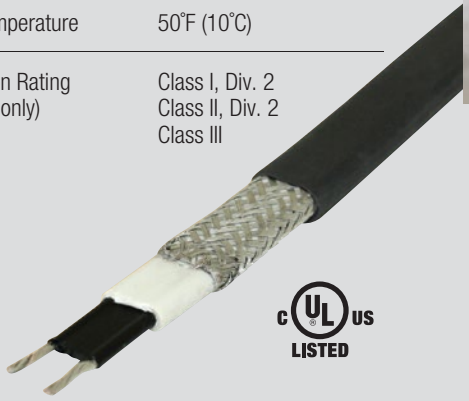
CT-9004

CT-9005

Charts & Tables SR Pipe Trace Cable

Technical Data Table

Maximum operating temperature	150˚F (65˚C)
Maximum exposure temperature	185˚F (85˚C)
Minimum installation temperature	-40˚F (-40˚C)
Minimum bending radius	1" (24mm)
Dimensions	0.496" x 0.236" (12.6mm x 6mm)
Service Voltage	110V-120V, 208V-277V
Wattage rating temperature	50˚F (10˚C)
Hazardous Location Rating (-CT Outer Jacket only)	Class I, Div. 2 Class II, Div. 2 Class III



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For Pipe Freeze Protection

Heating Cable Selection for Pipe Freeze Protection

Pipe	Type	5'	10'	15'	20'	25'	30'	35'	40'	45'	50'	55'	60'	65'	70'	75'	80'	85'	90'	95'	100'	125'	150'	175'	200'
1/2"	M	A	B	C	D	E	E	E	F	F	F	G	G	H	H	H	I	I	J	J	J	K	L	M	N
	P	A	B	C	D	E	E	F	F	F	G	G	H	H	H	I	I	J	J	J	K	L	M	N	-
1"	M	A	B	C	D	E	E	E	F	F	F	G	G	H	H	H	I	I	J	J	J	K	L	M	N
	P	B	B	C	D	E	E	F	F	F	G	G	H	H	H	I	I	J	J	J	K	L	M	N	-
1 1/2"	M	A	B	C	D	E	E	E	F	F	F	G	G	H	H	H	I	I	J	J	J	K	L	M	N
	P	B	C	D	E	E	F	F	F	G	G	H	H	H	I	I	J	J	J	K	K	M	N	-	-
2"	M	A	B	C	D	E	E	E	F	F	G	G	H	H	H	I	I	J	J	J	K	L	M	N	-
	P	B	C	E	E	F	G	H	H	I	J	J	K	K	L	L	L	M	M	M	N	-	-	-	-
2 1/2"	M	A	C	C	D	E	F	F	F	G	G	H	H	I	I	J	J	K	K	K	K	L	N	-	-
	P	B	D	E	F	G	H	I	J	K	K	L	L	M	M	N	N	-	-	-	-	-	-	-	-

A	B	C	D	E	F	G	H	I	J
SRP126-6 SRP246-6	SRP126-12 SRP246-12	SRP126-18 SRP246-18	SRP126-24 SRP246-24	SRP126-37.5 SRP246-37.5	SRP126-50 SRP246-50	SRP126-62.5 SRP246-62.5	SRP126-75 SRP246-75	SRP126-87.5 SRP246-87.5	SRP126-100 SRP246-100

K	L	M	N
SRP126-125 SRP246-125	SRP126-150 SRP246-150	SRP246-175	SRP246-200

M = Metal Pipe / P = Plastic Pipe

Add 1 foot to the cable length for each valve or spigot.

Chart is based on the lowest outside temperature of 0°F (-18°C)
with a minimum of 1/2" thick fiberglass insulation. Use 1" insulation for protection down to -20°F (-29°C).

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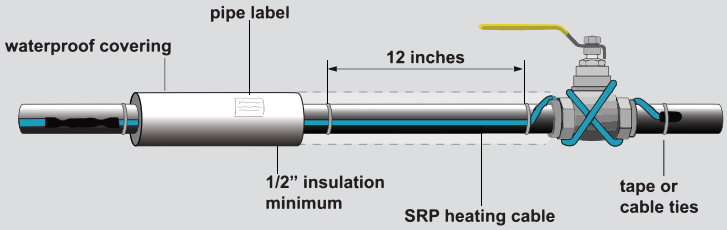
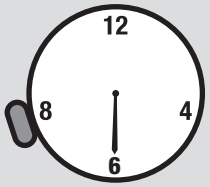
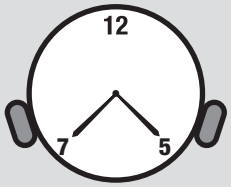
Heating Cable Selection for Pipe Freeze Protection



Use Table 1 to select the cable size for metal pipes and use Table 2 for plastic pipes. Read across the table to find the pipe size, then drop down to the row corresponding to the design air temperature and the thickness of the insulation that will be used. The cell that intersects will give the power (watts/ft.) of the heating cable required, it may also have a (2) in the cell which means 2 cables are required.



Single Cable Location



Double Cable Location

For a single cable, run it straight along the bottom of the pipe in the 4 or 8 o'clock position. If two cables are required, attach them at the 4 and 8 o'clock positions as shown in the figure above.

Table 1 - SR Cable Selection for Metal Pipes (w/ft.)[1]

Lowest Air Temp.	Insulation Thickness	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
0˚F (-18˚C)	1/2"	3	3	3	3	5	5	5	5	8	8	10
	1"	3	3	3	3	3	3	3	5	5	8	8
	1-1/2"	3	3	3	3	3	3	3	3	5	5	5
	2"	3	3	3	3	3	3	3	3	3	5	5
-20˚F (-29˚C)	1/2"	3	5	5	5	5	5	8	8	10	10	*
	1"	3	3	3	3	3	5	5	5	8	8	10
	1-1/2"	3	3	3	3	3	3	3	5	5	8	8
	2"	3	3	3	3	3	3	3	3	5	5	8
-40˚F (-40˚C)	1/2"	5	5	5	5	8	8	10	(2) 8	(2) 8	(2) 10	*
	1"	3	3	3	5	5	5	8	8	8	10	(2) 8
	1-1/2"	3	3	3	3	3	5	5	5	8	8	10
	2"	3	3	3	3	3	3	3	5	5	8	8
	3"	3	3	3	3	3	3	3	3	3	5	5

Table 2 - SR Cable Selection for Plastic Pipes (w/ft.)[1]

Lowest Air Temp.	Insulation Thickness	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
0˚F (-18˚C)	1/2"	3	5	5	5	8	8	8	10	(2) 8	(2) 10	*
	1"	3	3	3	5	5	5	5	5	5	8	8
	1-1/2"	3	3	3	3	3	3	5	8	8	8	10
	2"	3	3	3	3	3	3	3	5	5	8	8
-20˚F (-29˚C)	1/2"	5	5	8	8	10	10	(2) 8	(2) 8	(2) 10	*	*
	1"	3	3	5	5	5	8	8	8	10	(2) 8	(2) 10
	1-1/2"	5	5	5	5	5	5	5	8	8	10	(2) 8
	2"	3	3	3	3	3	5	5	5	8	8	10
-40˚F (-40˚C)	1/2"	8	8	8	8	10	10	(2) 8	(2) 10	*	*	*
	1"	5	5	5	8	8	8	10	10	(2) 8	*	*
	1-1/2"	5	5	5	5	5	8	8	8	10	(2) 8	(2) 10
	2"	5	5	5	5	5	5	5	8	8	10	(2) 8
	3"	3	3	5	5	5	5	5	5	5	8	10

1. Tables are based on using fiberglass insulation or equivalent while maintaining a 40˚F (4˚C) pipe temperature with a 10% safety factor and 20 mph wind speed.

*Contact King for proper cable selection.

Charts & Tables SR Pipe Trace Cable

SR Heating Cable Selection and Design

CALCULATE THE TOTAL HEATING CABLE LENGTH

Cable length = A+B+C+D+E+F

A. Pipe length x number of cables
B. 4 ft. x number of valves
C. 2 ft. x number of flanges, supports, etc.
D. 1 ft. for each power connection
E. 2 ft. for each splice connection
F. 3 ft. for each tee connection

= Total heating cable length

MAXIMUM CIRCUIT LENGTH ALLOWED

Ensure that your circuits do not exceed the maximum circuit length listed in table 3. If necessary, use additional shorter circuits

EXAMPLE

Pipe Size: 2" metal pipe	Valves: 2
Lowest air temp: -20°F	Pipe supports: 12
Insulation thickness: 1"	Power connections: 1
Cable selection: (1) 5w/ft. (from table 1)	Splice connections: 1
Pipe length: 80 ft.	

HEATING CABLE REQUIRED

A. Pipe length x number of cables	80 ft. x 1 = 80 ft.
B. 4 ft. x number of valves	4 ft. x 2 = 8 ft.
C. 2 ft. x number of flanges, supports, etc.	2 ft. x 12 = 24 ft.
D. 1 ft. for each power connection	1 ft. x 1 = 1 ft
E. 2 ft. for each splice connection	1 ft. x 1 = 1 ft
F. 3 ft. for each tee connection	3 ft. x 0 = 0 ft
= Total heating cable length	**114 ft.**

Table 3 - Maximum Single Cable Length

Model	Volts	Watts/ft	Maximum Single Run Length
SR123	120V	3 w/ft.	318 ft. (96M)
SR243	240V	3 w/ft.	636 ft. (193M)
SR125	120V	5 w/ft.	246 ft. (75M)
SR245	240V	5 w/ft.	499 ft. (152M)
SR128	120V	8 w/ft.	197 ft. (60M)
SR248	240V	8 w/ft.	394 ft. (120M)
SR1210	120V	10 w/ft.	174 ft. (53M)
SR2410	240V	10 w/ft.	344 ft. (104M)

Table 4 - Wattage Adjustment (w/ft.)

Model	240V	208V	220V	277V
SR243	3.0	2.5	2.7	3.4
SR245	5.0	4.3	4.6	5.5
SR248	8.0	7.0	7.44	8.6
SR2410	10.0	9.0	9.4	10.5

The maximum length of a single cable run is noted in Table 3 and cannot be exceeded. If the application requires a longer cable run, then multiple cables and additional power circuits must be used.

When using 240 volt SR cable on 208, 220 or 277 volt applications, the power output (wattage) must be adjusted. Refer to Table 4 for the adjusted watts/ft. of the cable when operated at a voltage other than 240 volt.

Circuit protection depends on the length of cable required and the start-up temperature since the cable will draw more power (wattage) when cold. Multiple cables can be run from a single power circuit up to a maximum combined length as noted in Table 5. Larger amperage circuit breakers can handle longer combined cable lengths, but the maximum length for a single cable run does not change. The NEC requires the use of ground fault protection breakers for heating cable.
NOTE: 240 volt cable lengths in Table 5 are also good for 208, 220 and 277 volt.

Table 5 - Circuit Protection Per Combined Cable Length for Pipe Freeze Protection

Cable	Volts	Start up Temp.	15 Amp (ft.)	20 Amp (ft.)	30 Amp (ft.)	40 Amp (ft.)
SR123 3 w/ft.	120V	50°F (10°C)	318	318	318	318
		0°F (-18°C)	265	274	274	274
		-20°F (-29°C)	258	258	258	258
SR125 5 w/ft.	120V	50°F (10°C)	246	246	246	246
		0°F (-18°C)	199	218	218	218
		-20°F (-29°C)	175	205	205	205
SR128 8 w/ft.	120V	50°F (10°C)	164	197	197	197
		0°F (-18°C)	126	167	173	173
		-20°F (-29°C)	112	148	162	162
SR1210 10 w/ft.	120V	50°F (10°C)	120	160	174	174
		0°F (-18°C)	92	122	153	153
		-20°F (-29°C)	83	109	146	146
SR243 3 w/ft.	240V	50°F (10°C)	636	636	636	636
		0°F (-18°C)	548	548	548	548
		-20°F (-29°C)	515	515	515	515
SR245 5 w/ft.	240V	50°F (10°C)	499	499	499	499
		0°F (-18°C)	398	437	437	437
		-20°F (-29°C)	351	410	410	410
SR248 8 w/ft.	240V	50°F (10°C)	328	394	394	394
		0°F (-18°C)	252	334	345	345
		-20°F (-29°C)	225	296	325	325
SR2410 10 w/ft.	240V	50°F (10°C)	240	320	344	344
		0°F (-18°C)	184	244	306	306
		-20°F (-29°C)	166	219	292	292

SR/SRP Pipe Freeze Protection Accessories

SRK00 Hard Wire Power Connection Kit
Contains labels, pipe mounting bracket, box connector, wire nuts and heat shrink tubing to make electrical supply connection to a metal junction box. Includes one end seal.

SRK02 Connection Kit
Contains heat shrink tubing and woven braid
Also includes one end seal.

SRK10 Splice and Tee Kit
Contains heat shrink tubing and other materials to make one splice or one tee connection
Also includes one end seal.

SRK08 Plug in 120V Connection Kit with GFCI Device
Contains labels, GFCI protection device with 120V plug, cable ties, crimp type connectors, heat shrink tubing and labels.
Includes one end seal.

SRK12 End Seal Kit
Contains heat shrink tubing and other materials to make two end seals.

SRK04
2.5" x 50 yards 2 mil foil tape.

SRK03 Tape
Pipe trace tape and labels.

IFC12
Plug in fixed thermostat

TRF115-005
Freeze Protection Thermostat

SRK17
11 & 13mm Gel end seal

SRK18
Lighted end seal

MODEL	UPC	DESCRIPTION	WEIGHT
SRK00	40462	Hard wired power connection kit, includes end seal	0.3 lbs.
SRK02	40461	Connection kit, includes end seal	0.3 lbs.
SRK03	40464	Pipe trace tape (66ft) and 10 labels per package	1.0 lbs.
SRK04	61713	2.5" x 50 yards 2 mil foil tape	1.6 lbs.
SRK08	40466	Plug in 120V connection kit with GFCI device, includes end seal	1.0 lbs.
SRK10	40468	Weatherproof splice/tee kit, includes end seal	0.2 lbs.
SRK12	40470	End seal kit (2 per package)	0.1 lbs.
SRK17	40477	11 & 13mm Gel end seal	0.1 lbs.
SRK18	40512	Lighted end seal, 85-277V	0.3 lbs.
IFC12	40490	Plug in fixed thermostat, 120V, 15 amp, on at 35°F off at 45°F (12/case)	0.3 lbs.
TRF-115-005	40486	Freeze protection thermostat, weatherproof with 5 ft. remote bulb & capillary, 25 amp at 120/208/240V, 22 amp at 277V, adjustable temp 0°F, suitable for 24 VAC operation (w/Power-On indicator light)	0.3 lbs.

PYRO FPC Freeze Protection Controller

FPC-02-120

PYRO FPC Freeze Protection Controller

Freeze Protection Controller and a Power panel for heat tracing, ice and snow melt applications.

When the temperature drops below the pre-defined, adjustable set-points, the contactor is activated energizing the heating elements. The Technician Settings mode enables an installer, or a technician to adjust the parameters for customized installations using the electronic controller installed in the front panel.

- Up to 30A & 120/240V outputs to the heaters
- Hold-On (Time delay) adjustable range of up to 99 hours
- Temperature input from the provided temperature sensor (10 m. / 30 feet long) and also from a 3rd party aquastat
- Integrated electronic controller with backlit LCD display
- Integral 30mA GFEP allows manual reset from the front panel
- Adjustable Set-points, Hold ON/OFF Time delay and manual ON duration
- Manual and Automatic modes, selected by a button
- Testing/commissioning mode for easy and fast system test, all year long (even during summer or at high temperature condition)
- Multiple sensors input-optional
- ETL listed

MODEL	UPC	Item	Description
FPC-02-120	19112	Pyro FPC Freeze Protection Controller	Freeze Protection Controller 120V, 30A, w/GFEP
FPC-02-240	19113	Pyro FPC Freeze Protection Controller	Freeze Protection Controller 240V, 30A, w/GFEP

**Controls and thermostats should always be used with King heating systems.

PYRO Pipe Trace System

Innovative Zone Based Control System For Pipe Trace Heating Cable.
The Ultimate Controller For Industrial, Commercial and Residential.

PYROBOX3C/19-TRACE

PYROCON19-TRACE

PYRO Pipe Trace System

The unique staggering feature of the PYRO TRACE control keeps pipes from freezing, without the need to upgrade the power supply on site. Use a high demand heating system on a limited power supply by controlling up to 3 different zones. The modular design allows customers to choose the right configuration for the specific property needs.

Enables use of high demand heating system on a limited power supply source. Modular: Up to 3 circuits/contactors.
Up to 600v & 300A Sequence of zoning 1/2 + auxiliary (such as gutter sensor). Suitable for parallel, star & triangle connection.
North American consideration operating algorithm.

- Adjustable temperature sensor
- Interface provided for B.M.S. and SmartHome using Bacnet or ModBus over RS485 communication wires
- Adjustable cycle time between zones
- Adjustable delay (Hold on Time)
- Adjustable on and off
- Logical setting for installer / set up & service
- Second input for temperature switch
- User friendly programming and adjusting
- Integrated Fault Detector. GFCI non class A
- Adjustable trip setting
- Non obtrusive adjustable snow sensor
- Electrical and Hydronic freezing applications Manual mode

MODEL	UPC	Item	Description
PYROBOX3C/19-TRACE	33768	Power Box 3C/19 Trace	2 Zone Controller, 2-50A/3P Contactors, 3-Phase, 600V Max +1 Zone Aux Controller, 1-30A/2P Contactor, 1-Phase, 300V Max
PYROCON19-TRACE	33763	Main Controller	Controller and User Interface panel

PYROBOX units are complete with PYROCON12 TRACE controller and PYROULS.
**Controls and thermostats should always be used with King heating systems.

Roof/Gutter De-Icing

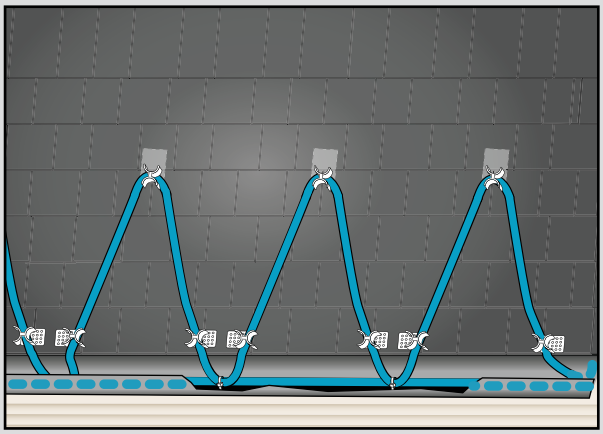
Roof/Gutter De-Icing Systems

King's Roof/Gutter De-Icing Systems helps prevent snow and ice build up on roofs and gutters. Whether installed on a shake, shingle or metal roof, the SRP & SR will give you the desired results you are looking for. The sysetm is reliable and will not overheat or burn out if overlapped.

SRP Series Self-Regulating Pre-Assembled Heating Cable is designed for ca variety of gutter and roof de-icing applications. The cable is constructed so that it will not burn out or overheat when overlapped, and can be used on metallic and nonmetallic downspouts and gutters. The cable is pre-terminated with a 30 inch cold lead and ground plug.

SR Series Self-Regulating Heating Cable is designed for commercial and industrial pipe trace applications. The cable is constructed so that it will not burn out or overheat when overlapped, and can be used on metal and plastic pipes. The cable is available in 100 and 250 ft coils and also 500 and 1,000 ft reels.

Shake/Shingle Roof Installation



Metal Seam Roof Installation

Pre-Assembled Self-Regulating De-Icing Cable

Pre-Assembled

120 Volt - Grounded Plug

Model Code:

SRP	12	3	-6
A	B	C	D

A: Pre-Assembled Self Reg.
B: 12 - 120V
24 - 240V
C: Watts per foot
D: Linear Length in feet

SRP Series Self-Regulating Pre-Assembled Heating Cable is designed for a variety of roof & gutter de-icing applications.

SRP Self-Regulating Pre-Assembled Heating Cable Features

- Pre-terminated with 30 inch grounded plug and end splice
- Suitable for use on metal and plastic pipes
- 2 year warranty
- Cable will not overheat or burn out when overlapped
- 16 gauge heating cable bus wire
- 8 w/ft at 32°F (0°C)

c ETL LISTED US
Intertek

120V

MODEL	UPC	LENGTH	VOLTS	WATTS*
SRP126-6	40400	6 FT.	120	48
SRP126-12	40402	12 FT.	120	96
SRP126-18	40404	18 FT.	120	144
SRP126-24	40406	24 FT.	120	192
SRP126-37	48711	37.5 FT.	120	300
SRP126-50	40408	50 FT.	120	400
SRP126-62	48712	62.5 FT.	120	500
SRP126-75	40410	75 FT.	120	600
SRP126-87	48713	87.5 FT.	120	700
SRP126-100	40412	100 FT.	120	800
SRP126-125	48714	125 FT.	120	1000
SRP126-150	48715	150 FT.	120	1200

*Wattage rating for roof and gutter de-icing application is 8 w/ft determined at 32˚F (0˚C).

240 Volt - Cold Leads

SRP Series Self-Regulating Pre-Assembled Heating Cable is designed for a variety of roof & gutter de-icing applications.

SRP Self-Regulating Pre-Assembled Heating Cable Features

- Cable will not overheat or burn out when overlapped
- Suitable for use on metal and plastic pipes
- 2 year warranty
- 16 gauge heating cable bus wire
- 8 w/ft at 32°F (0°C)

c ETL LISTED US
Intertek

240V

MODEL	UPC	LENGTH	VOLTS	WATTS*
SRP246-6	42373	6 FT.	240	48
SRP246-12	42374	12 FT.	240	96
SRP246-18	42375	18 FT.	240	144
SRP246-24	42376	24 FT.	240	192
SRP246-37	48716	37.5 FT.	240	300
SRP246-50	42377	50 FT.	240	400
SRP246-62	48717	62.5 FT.	240	500
SRP246-75	42378	75 FT.	240	600
SRP246-87	48718	87.5 FT.	240	700
SRP246-100	42379	100 FT.	240	800
SRP246-125	48719	125 FT.	240	1000
SRP246-150	48720	150 FT.	240	1200
SRP246-175	48721	175 FT.	240	1400
SRP246-200	48722	200 FT.	240	1600

*Wattage rating for roof and gutter de-icing application is 8 w/ft determined at 32˚F (0˚C).

Self-Regulating Roof/Gutter De-Icing Cable

Model Code:

SR	12	3	-250
A	B	C	D

A: Self Regulating Cable
B: 12 - 120V
24 - 240V
C: Watts per Foot
D: Linear Length in Feet

SR Series Self-Regulating Heating Cable is designed for a variety of industrial and commercial de-icing applications.

SR Self-Regulating Heating Cable Features

- Cable will not overheat or burn when overlapped
- Suitable for use on metallic and nonmetallic gutters and downspouts
- 2 year warranty

c UL us LISTED

			AVAILABLE LENGTHS				
	VOLTS	DE-ICING RATING** WATTS/FT.	100 FT. LENGTH MODEL / UPC	250 FT. LENGTH MODEL / UPC	500 FT. LENGTH MODEL / UPC	1000 FT. LENGTH MODEL / UPC	WEIGHT/FT.
120V	120	5	SR123-100 / 40513	SR123-250 / 40414	SR123-500 / 48735	SR123-1000 / 40416	0.080 LBS./FT.
	120	8	SR125-100 / 40514	SR125-250 / 40418	SR125-500 / 48736	SR125-1000 / 40420	0.080 LBS./FT.
	120	12.1	SR128-100 / 40515	SR128-250 / 40422	SR128-500 / 48737	SR128-1000 / 40424	0.080 LBS./FT.
	120	14.8	SR1210-100 / 40516	SR1210-250 / 40426	SR1210-500 / 48733	SR1210-1000 / 40428	0.080 LBS./FT.
	VOLTS	DE-ICING RATING** WATTS/FT.	100 FT. LENGTH MODEL / UPC	250 FT. LENGTH MODEL / UPC	500 FT. LENGTH MODEL / UPC	1000 FT. LENGTH MODEL / UPC	WEIGHT/FT.
240V	240	5	SR243-100 / 40517	SR243-250 / 40430	SR243-500 / 48739	SR243-1000 / 40432	0.080 LBS./FT.
	240	8	SR245-100 / 40518	SR245-250 / 40434	SR245-500 / 48740	SR245-1000 / 40436	0.080 LBS./FT.
	240	12.1	SR248-100 / 40519	SR248-250 / 40438	SR248-500 / 48741	SR248-1000 / 40440	0.080 LBS./FT.
	240	14.8	SR2410-100 / 40520	SR2410-250 / 40442	SR2410-500 / 48738	SR2410-1000 / 40444	0.080 LBS./FT.

**Wattage rating for roof and gutter de-icing application is determined at 32˚F (0˚C).
*Approved for 208, 220, 277 volt operation, refer to wattage adjustment tables for output rating. (See Page 29, Table 11)

****Controls and thermostats should always be used with King heating cable systems.**

SR ACCESSORIES Refer to page 31 for Roof & Gutter De-Icing Accessories

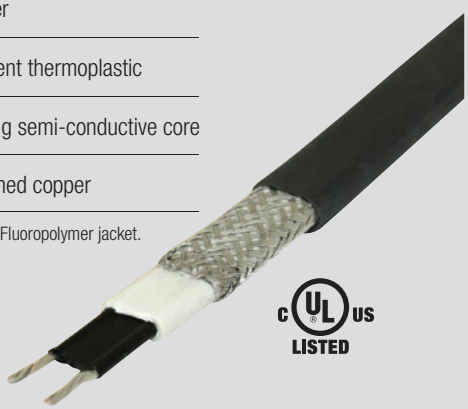
MODEL	UPC	DESCRIPTION	WEIGHT
SRK02	40461	Connection kit, includes end seal	0.3 lbs.
SRK04	61713	2.5" x 50 yards 2 Mil Foil tape	1.0 lbs.
SRK08	40466	Plug in 120V connection kit with GFEP device, includes end seal	1.0 lbs.
SRK10	40468	Weatherproof splice/tee kit, includes end seal	0.2 lbs.
SRK12	40470	End seal kit (2 per package)	0.1 lbs.
SRK13	40472	Roof Clip (25 per package)	0.1 lbs.
SRK14	40473	3M VHB double sided acrylic foam pads (25 per package)	0.1 lbs.
SRK15	40476	Downspout haner and cable ties	0.1 lbs.
SRK17	40477	11 & 13mm Gel end seal	0.1 lbs.
SRK18	40512	Lighted end seal, 85-277V	0.3 lbs.
IFC12	40490	Plug in fixed thermostat, 120V, 15 amp, on at 35°F off at 45°F (12/case)	0.3 lbs.
TRF-115-005	40477	Freeze protection thermostat, weatherproof with 5ft. remote bulb & capillary, 25 amp at 120/208/240V, 22 amp at 277V, adjustable temp 0°F, suitable for 24 VAC operation (w/Power-On indicator light)	0.3 lbs.

Charts & Tables SR Roof/Gutter De-Icing Cable

Cable Construction Table

Outer Jacket	Rugged polyolefin UV jacket
Outer Jacket (-CT)*	Fluoropolymer jacket
Ground Braid	Tinned copper
Inner Jacket	Flame retardent thermoplastic
Core	Self-regulating semi-conductive core
Bus Wire	16 gauge tinned copper

*Add -CT to the end of the model number for Fluoropolymer jacket.



Technical Data Table

Maximum operating temperature	150˚F (65˚C)
Maximum exposure temperature	185˚F (85˚C)
Minimum installation temperature	-40˚F (-40˚C)
Minimum bending radius	1" (24mm)
Dimensions	0.496" x 0.236" (12.6mm x 6mm)
Service Voltage	110V-120V, 208V-277V
Wattage rating temperature	50˚F (10˚C)
Hazardous Location Rating (-CT Outer Jacket only)	Class I, Div. 2 Class II, Div. 2 Class III

Selecting the Required Heating Cable Length for Roof and Gutter De-icing

How to Calculate the proper Heating Cable Length:

Use the formula below to determine the amount of heating cable required.

Total heating cable length = A+B+C+D

A (Roof edge) x (heating cable multiplier)

B (Roof edge x 0.5)

C (Total gutter length)

D (Total downspout length + 1 ft.)

=Total heating cable length required.

Example: Standard Roof

1. Roof edge = 14 ft.
2. Eave overhang = 1 ft. (Refer to cable multiplier table)
3. Gutter = 14 ft.
4. Downspout = 12 ft.

Heating Cable Required:

Roof edge:	14 ft. x 2.8 (Multiplier from table)	= 39.2 ft.
Roof extension*:	14 ft. x 0.5	= 7.0 ft.
Roof gutter:	14 ft.	=14.0 ft.
Downspout:	12 ft. + 1 ft.	= 13.0 ft.
Total heating cable length required:		= 73.2 ft.

Solution for Example = SRP126-75

*Roof extension is the length of cable required to prevent ice dams between the roof edge and the gutter. When there are no gutters present it forms a drip loop to prevent ice dams at the roof edge.

Heating Cable Multiplier Table

Eave Overhang	**Standard Roof**	**Metal Roof** (18" Seam)	**Metal Roof** (24" Seam)
None	2.0	2.5	2.0
12"	2.8	2.8	2.4
24"	3.8	3.6	2.9
36"	4.8	4.3	3.6

Use the number in the table and multiply it by the length of the roof edge.

Calculations for Gutters, Downspouts and Valleys:

1. For standard non-metal roofs, add 1 foot of heating cable for each foot of gutter.
2. Add 1 foot of heating cable per foot of downspout.
3. If the downspout is in the middle of the run, loop the cable down and back up. Double the length of the downspout for determining the length of cable to install.
4. For valleys, run the heating cable two thirds of the way up and down the valley. Add this additional length to the overall cable.
5. For gutters 6 inches wide use two cable runs.

Heating Cable Selection for Roof/Gutter De-Icing

Calculation For Heating Cable Length

Total heating cable length = A+B+C+D+E+F+G

A (Roof edge) x (heating cable multiplier)

B (Roof edge x 0.5)

C (Total gutter length)

D (Total downspout length + 1 ft.)

E (1 ft. for each power connection)

F (2 ft. for each splice)

G (3 ft. for each tee connection)

=Total heating cable length required.

Example:

1. Roof edge = 48 ft.
2. Eave overhang = 1 ft. (Refer to cable table 6)
3. Gutter = 48 ft.
4. Downspout = 22 ft.
5. Power connection = 2 each
6. Splice = 3 each

Heating Cable Required:

A Roof edge:	48 ft. x 2.8 (From table 6)	= 134.4 ft.
B Roof extension*:	48 ft. x 0.5	= 24.0 ft.
C Roof gutter:	48 ft.	= 48.0 ft.
D Downspout:	22 ft. + 1 ft.	= 23.0 ft.
E Power Connection:	2 x 1 ft.	= 2.0 ft.
F Splice Connection:	3 x 2 ft.	= 6.0 ft.
G Tee Connection:	0 x 3 ft.	= 0 ft.
Total heating cable length required:		= 237.4 ft.

*Roof extension is the length of cable required to prevent ice dams between the roof edge and the gutter. When there are no gutters present it forms a drip loop to prevent ice dams at the roof edge.

Table 6 - Heating Cable Multiplier

Eave Overhang	Standard Roof	Metal Roof 18" Seam	Metal Roof 24" Seam
None	2.0	2.5	2.0
12"	2.8	2.8	2.4
24"	3.8	3.6	2.4
36"	4.8	4.3	3.6

Use the number in the table and multiply it by the length of the roof

Calculations for Gutters, Downspout and Valley

1. For standard non-metal roofs, add 1 foot of heating cable for each foot of gutter.
2. Add 1 foot of heating cable per foot of downspout.
3. If the downspout is in the middle of the run, loop the cable down and back up. Double the length of the downspout for determining the length of the cable to install.
4. For valleys, run the heating cable two thirds of the way up and down the valley. Add this additional length to the overall cable.
5. For gutters 6 inches wide use two cable runs.

Design Notes

1. In-line splices and tee splices should be avoided where possible.
2. Heating cable in downspouts should be looped and extend below the frost line if tied into a drainage system.
3. End terminations should not be located in an area where moisture is present. End terminations should not be located at the lowest point of downspouts.
4. For roof drains leading into a heated area, a loop of heating cable should be installed to a depth of 3 ft.

Charts & Tables SR Roof/Gutter De-Icing Cable

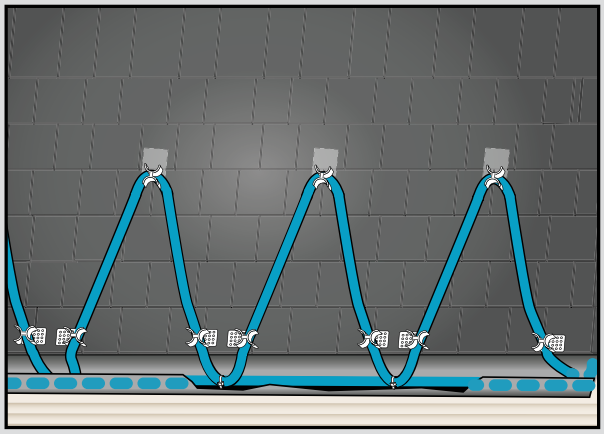


Table 7 - Tracing Heights for Shake/Shingle Roof

Eave Overhang	Tracing Width	Tracing Height	Cable/Roof Edge
None	24”	18”	2.0 ft.
12”	24”	18”	2.8 ft.
24”	24”	30”	3.8 ft.
36”	24”	42”	4.8 ft.

The last column gives the amount of cable required per foot of roof edge for standard shake and shingle roof (table 7) or a metal seam roof (table 8).

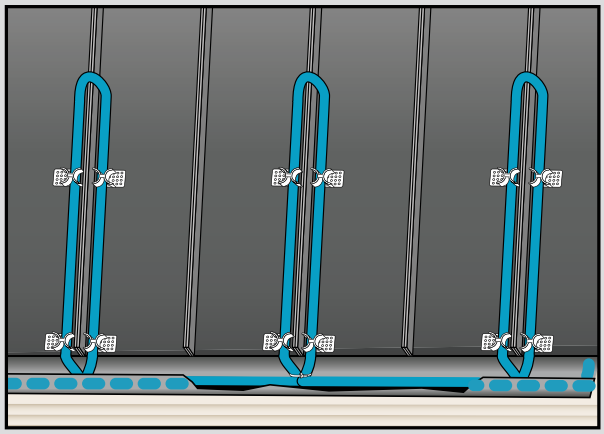


Table 8 - Tracing Heights for Metal Seam Roof

Eave Overhang	Tracing Width	Tracing Height	Cable/Roof Edge
None	18”	18”	2.5 ft.
12”	18”	24”	2.8 ft.
24”	18”	36”	3.6 ft.
36”	18”	48”	4.3 ft.
None	24”	18”	2.0 ft.
12”	24”	24”	2.4 ft.
24”	24”	36”	2.9 ft.
36”	24”	48”	3.6 ft.

Table 9 - Circuit Breaker Protection for De-icing

Cable	Volts	Start up Temp.	15 Amp (ft.)	20 Amp (ft.)	30 Amp (ft.)	40 Amp (ft.)
SR123	120V	32˚F (0˚C)	298	298	298	298
		20˚F (-7˚C)	287	287	287	287
		0˚F (-18˚C)	274	274	274	274
		-20˚F (-29˚C)	258	258	258	258
SR243	208V	32˚F (0˚C)	586	586	586	586
		20˚F (-7˚C)	558	558	558	558
		0˚F (-18˚C)	532	532	532	532
		-20˚F (-29˚C)	500	500	500	500
SR243	240V	32˚F (0˚C)	604	604	604	604
		20˚F (-7˚C)	575	575	575	575
		0˚F (-18˚C)	548	548	548	548
		-20˚F (-29˚C)	515	515	515	515
SR243	277V	32˚F (0˚C)	652	652	652	652
		20˚F (-7˚C)	621	621	621	621
		0˚F (-18˚C)	592	592	592	592
		-20˚F (-29˚C)	556	556	556	556
SR125	120V	32˚F (0˚C)	231	233	233	233
		20˚F (-7˚C)	216	225	225	225
		0˚F (-18˚C)	199	218	218	218
		-20˚F (-29˚C)	175	205	205	205
SR245	208V	32˚F (0˚C)	425	429	429	429
		20˚F (-7˚C)	397	414	414	414
		0˚F (-18˚C)	366	402	402	402
		-20˚F (-29˚C)	323	377	377	377
SR245	240V	32˚F (0˚C)	462	466	466	466
		20˚F (-7˚C)	431	450	450	450
		0˚F (-18˚C)	398	437	437	437
		-20˚F (-29˚C)	351	410	410	410
SR245	277V	32˚F (0˚C)	499	503	503	503
		20˚F (-7˚C)	465	486	486	486
		0˚F (-18˚C)	430	472	472	472
		-20˚F (-29˚C)	379	443	443	443
SR128	120V	32˚F (0˚C)	146	187	187	187
		20˚F (-7˚C)	136	179	179	179
		0˚F (-18˚C)	126	167	167	167
		-20˚F (-29˚C)	112	148	162	162

Table 9 - Continued

Cable	Volts	Start up Temp.	15 Amp (ft.)	20 Amp (ft.)	30 Amp (ft.)	40 Amp (ft.)
SR248	208V	32˚F (0˚C)	263	337	337	337
		20˚F (-7˚C)	245	322	322	322
		0˚F (-18˚C)	227	301	311	311
		-20˚F (-29˚C)	203	266	293	293
SR248	240V	32˚F (0˚C)	292	374	374	374
		20˚F (-7˚C)	272	358	358	358
		0˚F (-18˚C)	252	334	345	345
		-20˚F (-29˚C)	225	296	325	325
SR248	277V	32˚F (0˚C)	324	415	415	415
		20˚F (-7˚C)	302	397	397	397
		0˚F (-18˚C)	280	371	383	383
		-20˚F (-29˚C)	250	329	361	361
SR1210	120V	32˚F (0˚C)	107	142	164	164
		20˚F (-7˚C)	100	132	159	159
		0˚F (-18˚C)	92	122	153	153
		-20˚F (-29˚C)	83	109	146	146
SR2410	208V	32˚F (0˚C)	187	251	289	289
		20˚F (-7˚C)	175	232	281	281
		0˚F (-18˚C)	162	215	269	269
		-20˚F (-29˚C)	146	193	257	257
SR2410	240V	32˚F (0˚C)	213	285	328	328
		20˚F (-7˚C)	199	264	319	319
		0˚F (-18˚C)	184	244	306	306
		-20˚F (-29˚C)	166	219	292	292
SR2410	277V	32˚F (0˚C)	236	316	364	364
		20˚F (-7˚C)	221	293	354	354
		0˚F (-18˚C)	204	271	340	340
		-20˚F (-29˚C)	184	243	324	324

Table 10 - Technical Data Ratings

Technical Data Table	
Maximum operating temp.	150˚F (65˚C)
Maximum exposure temp.	185˚F (85˚C)
Minimum installation temp.	0˚F (-18˚C)
Minimum bending radius	1" (24mm)
Dimensions	0.496" x 0.236" (12.6mm x 6mm)
Service voltage	110-120V, 208V-277V

Table 11 - Maximum Single Run Length

Model	Volts	Output at 32˚F (0˚C)	Maximum Single Run Length
SR123	120V	3.3 w/ft.	298 ft. (90M)
SR243	208V	2.7 w/ft.	585 ft. (178M)
	240V	3.3 w/ft.	604 ft. (184M)
	277V	3.8 w/ft.	652 ft. (198M)
SR125	120V	5.6 w/ft.	233 ft. (71M)
SR245	208V	4.8 w/ft.	428 ft. (130M)
	240V	5.6 w/ft.	466 ft. (142M)
	277V	6.2 w/ft.	503 ft. (153M)
SR128	120V	8.9 w/ft.	187 ft. (57M)
SR248	208V	7.9 w/ft.	336 ft. (102M)
	240V	9 w/ft.	374 ft. (114M)
	277V	9.6 w/ft.	415 ft. (126M)
SR1210	120V	11.3 w/ft.	164 ft. (50M)
SR2410	208V	10.1 w/ft.	288 ft. (88M)
	240V	11.2 w/ft.	328 ft. (100M)
	277V	11.8 w/ft.	364 ft. (111M)

Table 12 - Circuit Length Adjustments

Model	208V	277V
SR243	0.97	1.08
SR245	0.92	1.08
SR248	0.90	1.11
SR2410	0.88	1.11

Technical Data Notes:

1. The maximum single cable run is the longest length of heating cable before there is a significant voltage drop which will lower the wattage rating of the cable.
2. The circuit breaker sizes in Table 9 are per the National Electric Code (NEC). Circuit length adjustments for 240V cables operated 208V and 277V are noted in Table 12
3. The NEC requires ground-fault equipment protection (GFEP) for fixed outdoor de-icing equipment. All electrical connections should be made by a licensed electrician.

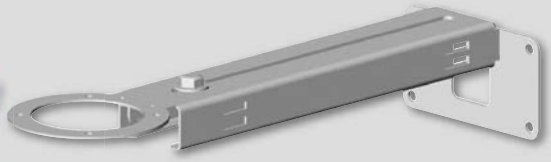
PYRO Snow Melt/De-Icing System

PYROBOX5/19

PYROBOX3/19 & 3C/19

PYROULS

PYROSENSE/19



PYROSB

PYROCON19

PYRO De-Icing System

The unique staggering feature of the PYRO control melts snow & ice over larger areas, without the need to upgrade the power supply on site. Use a high demand heating system on a limited power supply source by controlling up to 5 different zones. The modular design allows customers to choose the right configuration for the specific property needs.

Enables use of high demand heating system on a limited power supply source. Modular: Up to 5 circuits/contactors. Up to 600V & 600A Sequence of zoning 1/2/3/4 + auxillary (such as gutter sensor). Suitable for parallel, star & triangle connection. North American consideration operating algorithm.

- User friendly programming and adjusting
- Interface provided for B.M.S. and SmartHome using Bacnet or ModBus over RS485 communication wires
- Adjustable cycle time
- Adjustable delay (Hold on Time)
- Adjustable On or Off
- Adjustable trip setting
- No obtrusive adjustable snow sensor
- Integrated Fault Detector. GFCI non class A
- Logical setting for installer / set-up & service
- Surface Upper limit adjustable Temperature Sensor
- Integrated option for universal gutter de-icing sensor
- Programmable & precise snow & ice sensor
- Suitable for electrical & Hydronic de-icing installations

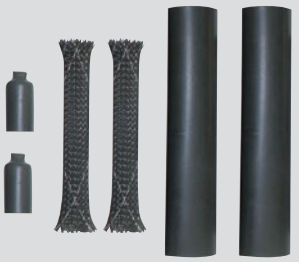
MODEL	UPC	Item	Description
PYROBOX3/19	33765	Power Box 3	4 Zone Controller, 4-30A/2P Contactors, 1-Phase, 277V Max
PYROBOX3C/19	33766	Power Box 3C	2 Zone Controller, 2-50A/3P Contactors, 3-Phase, 600V Max +1 Zone Aux Controller, 1-30A/2P Contactor, 1-Phase, 277V Max
PYROBOX5/19	33767	Power Box 5	4 Zone Controller, 4-50A/3P Contactors, 3-Phase, 600V Max +1 Zone Aux Controller, 1-30A/2P Contactor, 1-Phase, 277V Max
PYROSENSE/19	33764	Snow sensor	Outdoor Snow Sensor
PYROCON19	33762	Main Controller	Controller and User Interface panel
PYROSB	42326	Mounting Bracket	Wall mounting adjustable rust free holding bar

PYROBOX units are complete with PYROCON19 controller and PYROULS. Order PYROSENSE and PYROSB separately.
**Controls and thermostats should always be used with King heating systems.

SR/SRP Roof & Gutter Accessories

SRK02 Connection Kit
Contains heat shrink tubing and woven braid.
Also includes one end seal.

SRK10 Splice and Tee Kit
Contains heat shrink tubing and other materials to make one splice or one tee connection.
Also includes one end seal.



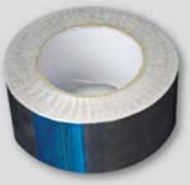
SRK12 End Seal Kit
Contains heat shrink tubing and other materials to make two end seals.

SRK08 Plug in 120V Connection Kit with GFCI Device
Contains labels, GFCI protection device with 120V plug, cable ties, crimp type connectors, heat shrink tubing and labels.
Includes one end seal.

SRK15 Downspout
Downspout hanger and cable ties

SRK13 Clip
Roof clip for mounting cable

SRK14
3M VHB double sided acrylic foam pads
For use with SRK13 clips in metal gutter



SRK04
2.5" x 50 yards 2 mil Foil tape

SRK17
11 & 13mm Gel end seal

MODEL	UPC	DESCRIPTION	WEIGHT
SRK02	40461	Connection kit, includes end seal	0.3 lbs.
SRK04	61713	2.5" x 50 yards 2 mil foil tape	1.6 lbs.
SRK08	40466	Plug in 120V connection kit with GFCI device, includes end seal	1.0 lbs.
SRK10	40468	Weatherproof splice/tee kit, includes end seal	0.2 lbs.
SRK12	40470	End seal kit (2 per package)	0.1 lbs.
SRK13	40472	Roof clip (25 per package)	0.2 lbs.
SRK14	40473	3M VHB double sided acrylic foam pads (25 per package)	0.1 lbs.
SRK15	40476	Downspout hanger and cable ties	0.3 lbs.
SRK17	40477	11 & 13mm Gel end seal	0.1 lbs.

SR/SRP Roof & Gutter Controls & Sensors

DS-8C
Gutter ice melting controller
NEMA 3R / 30A

DS-9C
Gutter ice melting controller
NEMA 3R / (2) 30A

DS-824C
Gutter ice melting controller
NEMA 3R / 24V

GIT-1
GIT-1 Gutter De-Icing sensor

CDP-2
Indoor sensor
control display

MG-3
Gutter De-icing sensor

CS-1/CS-50
Control cable for CD-2 control panel
18"/50 ft leads

MODEL	UPC	DESCRIPTION
DS-8C	42335	Gutter ice melting controller, NEMA 3R, 120/208/240/277V, 30Amp, adjustable temperature range 34°F to 44°F, 1/2" Hub
EX5050	40475	DS extension cord 50 ft for DS-8C
DS-9C	42426	Gutter ice melting controller, NEMA 3R, 120/208/240/277V, 2-30amp, adjustable temperature range 34°F to 44°F, 1/2" Hub
DS-824C	40479	Gutter ice melting controller, NEMA 3R, 24V, 30amp, adjustable temperature range 34°F to 44°F, 1/2" Hub
GIT-1	40508	Gutter de-icing sensor
CDP-2	40482	Indoor sensor control display, manual/auto/standby modes, includes 18" lead
MG-3	40485	GIT-1 gutter de-icing sensor
CS-1	40483	Control cable for CDP-2 control panel, 18" lead
CS-50	40484	Control cable for CDP-2 control panel, 50 ft lead

Call for availability on additional ETI controls not shown above.

Roof/Drain De-Icing System

Note: Roof/Drain Jigs do not include the heating cable.
Consult the installation inspections for sizing the cable length to the jig.

With the introduction of membrane & rubber roofing materials, the attachment of de-icing cables to the roof has presented a dilemma for roofing specialists. A major concern of property owners is the damage caused by ice damming. The roof drain de-icing jig was created with several things in mind. The jig is lightwieght, inexpensive and uses SRG series de-icing cable without anchoring through the roof membrane. It is easy to customize to job conditions in the field. It adapts easily for use in canales and scuppers on southwestern and flat roof style architecture, both commercial and residential. It is easy to install with small hand tools.

4RDDJ22

6RDDJ22

365R14 RAY

MODEL	UPC	DESCRIPTION
4RDDJ22	40509	Canale/Scupper Jig, consists of 1 frame and 4 rays
6RDDJ22	40510	Flat Roof Drain Jig, consists of 1 frame and 6rays
3625R14 RAY	40511	Cable Keeper / RDDJ-Grid

Call for availability on additional ETI controls not shown above.

Freeze Protection Heaters

Freeze Protection Heaters

Cold temperatures can often damage or destroy objects and their contents. Pipes, valves, tanks, vessels, conveyers, and housings are examples of common objects that can be hurt by the cold. King's line of freeze protection heaters can protect them in even the most extreme conditions to ensures consistent warmth, thereby avoiding costly damage and disruptions caused by freezing temperatures. These heaters are reliable, easy to install, and provide efficient temperature control, making them ideal for residential, commercial, and industrial applications.

Pumphouse Heaters U Series

U-SS

U

Model Code:

U	24	10	-SS
A	B	C	D

A: Series
B: 12 - 120V 20 -208V
24 - 240V
C: Watts (1000)
D: -SS Stainless Steel

MADE IN USA
With U.S. & Global Materials

Rated for damp locations

- ETL listed for use in damp locations
- Available in stainless steel (-SS) or painted gray
- Designed to meet requirements outlined in ASSE-1060
- Built-in thermostat with frost protection (40° to 90°F)
- Standard baked enamel protective coating
- Built in mounting bracket
- Convection/Radiant heat
- Vertical (Up to 500W) or horizontal mount
- 1-year limited warranty

Available Model Range

WATTAGES AVAILABLE	VOLTAGE OPTIONS	PHASE OPTIONS	SCAN QR FOR MODEL CHART
62W - 1kW	120V, 208V or 240V	1PH	U-SS, U

Outdoor Rated Wall Heater WSC Series

Model Code:

W	12	10	-T2
A	B	C	D

A: Series
B: 12 - 120V 20 -208V
24 - 240V
C: Watts (500 to 2000)
D: Thermostat (Optional)

MADE IN USA
With U.S. & Global Materials

c UL us LISTED

SMART SLP LIMIT PROTECTION

- UL Certified For Outdoor Use
- Multiple Freeze Protection Applications
- Reduces Moisture From Mechanical Equipment
- Keeps Pumps, Valves, & Farm Machinery From Freezing
- Surface Mount Design
- NiChrome Open Coil Element For Quick Heat Transfer
- Dual Wattage Design
- C-Frame Motor
- 4-Blade Aluminum Fan
- Patented Smart Limit Protection®
- 1-year limited warranty

Available Model Range

WATTAGES AVAILABLE	VOLTAGE OPTIONS	PHASE OPTIONS	SCAN QR FOR MODEL CHART
500W - 2kW	120V, 208V or 240V	1PH	

Portable Unit Heaters PKB Series

PKBS

PKB-FM

Model Code:

PKB (S)	48	10	-3	-T	-FM
A	B	C	D	E	F

A: Series Add (S) For Stainless
B: 20 - 208V, 24 -240V, 48 - 480V
C: kW (10)
D: 1-Phase, 3-Phase
E: T=Mechanical Thermostat
F: FM=Floor Mount-
(2) Convenience Carry Handles
& Rubber Feet.

MADE IN USA
With U.S. & Global Materials

c ETL us LISTED

SMART SLP LIMIT PROTECTION

- 20 gauge 304 stainless steel (PKBS)
- High mass steel fin heat exchanger
- Built-in thermostat (40°-100°F)
- Dual carrying handles
- 4 heavy-duty rubber feet
- Adjustable louvers
- Long life unit bearing motor
- Fan only switch
- Patented Smart Limit Protection®
- 6ft. SO cord (no plug)
- N.E.M.A. 4 enclosure
- Non-mercury tip over switch
- For areas requiring periodic hose-down
- Standard color: Textured gray
- 2-year limited warranty

Available Model Range

WATTAGES AVAILABLE	VOLTAGE OPTIONS	PHASE OPTIONS	SCAN QR FOR MODEL CHART
5kW - 20kW	208V, 240V, or 480V	1PH or 3PH	PKB-FM PKBS

Stainless Steel Unit Heater KBS Series

Model Code:

KBS	48	10	-1	-T	-B1	-CT24
A	B	C	D	E	F	G

A: Series
B: 20 - 208V, 24 - 240V
27 - 277V, 48 - 480V
C: KiloWatts
D: -1 Phase, -3 Phase
E: -T = Built-In Thermostat
F: -B1 = Bracket
G: -CT24 = Provision for 24V Remote Thermostat
(Thermostat Purchased Seperately)

MADE IN USA
With U.S. & Global Materials

c UL us LISTED

SMART SLP LIMIT PROTECTION

- 304 Stainless Steel Construction
- For Areas Requiring Periodic Hose-Down
- Adjustable Louvers to Direct Air
- Permanent Lubricated Unit Bearing Motor
- Patented Smart Limit Protection®
- High Mass Steel Fin Heat Exchanger
- N.E.M.A. 4 Enclosure
- Universal Wall/Ceiling Bracket Included
- 2-Year Limited Warranty

Available Model Range

WATTAGES AVAILABLE	VOLTAGE OPTIONS	PHASE OPTIONS	SCAN QR FOR MODEL CHART
3kW - 40kW	208V, 240V, 277V or 480V	1PH or 3PH	

Compact Unit Heater KBP Series

Model Code:

KBP	24	06
A	B	C

A: Series
B: 12 - 120V 24 -240V
20- 208V 27 -277V
48 -480V
C: Watts (950 to 6000)

Pic-A-Watt
Steel Fin Element

MADE IN USA
With U.S. & Global Materials

c SA us

SMART SLP LIMIT PROTECTION

- Pic-A-Watt® element
- Multiple wattage selection
- Long life cast iron motor
- Aluminum fan blade
- High accuracy built-in thermostat
- Fan delay
- Patented Smart Limit Protection®
- Selector switch: Heat/Fan/Off-Disconnect
- Universal (wall/ceiling) mounting bracket
- Standard color: Onyx Gray
- 5-year limited warranty

Available Model Range

WATTAGES AVAILABLE	VOLTAGE OPTIONS	PHASE OPTIONS	SCAN QR FOR MODEL CHART
950W - 6kW	120V, 208V, 240V, 277V or 480V	1PH or 3PH	