

Coil & Cable Heaters



Bulk Round Heater Cable

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Typical Applications

- ◆ Blown Film Die Heaters
- ◆ Heat Tracing
- ◆ De-icing Car Wash Door Rails
- ◆ De-icing Outside Stairways

Design and Construction Specifications

Terminations

See page 5-5 for potted lead transitions. There are two choices of potting compounds. Either cement potting for a high temperature application or high temperature epoxy for 450°F (232°C) maximum temperature. Also, there are three major choices of lead wires:

- M1** — TGGT (Teflon® tape, fiberglass, Teflon® treated fiberglass overbraid) insulated lead wire for 482°F (250°C).
- M2** — Teflon® insulated lead wire, which is normally potted with a high temperature epoxy rated 450°F (232°C)
- M3** — MGT (mica tape, Teflon® treated fiberglass overbraid) insulated lead wire for 842°F (450°C).

Minimum Bending Radius

Minimum bending radius for all mineral insulated cable heaters is two times the sheath diameter.

Power Calculation

The required wattage can be calculated using the following formula:

$$\text{Wattage} = \frac{(\text{Voltage})^2}{\text{Cable length (in feet)} \times \text{Ohms/foot (from table)}}$$

Standard Single Conductor Heater Cable

Sheath OD		Resistance (+/-10%)		Maximum Length		Sheath Material	Maximum Current Allowed (Amps)	Part Number
in	mm	ohms/ft.	ohms/mtr.	feet	meters			
.125	3.17	0.67	2.2	250	75	Inconel® 600	13.3	CAS01125
.125	3.17	0.72	2.4	250	75	Inconel® 600	12.5	CAS02125
.125	3.17	0.78	2.6	250	75	Inconel® 600	12.0	CAS03125



Standard Double Conductor (Duplex) Heater Cable

Sheath OD		Resistance (+/-10%)		Maximum Length		Sheath Material	Maximum Current Allowed (Amps)	Part Number
in	mm	ohms/ft.	ohms/mtr.	feet	meters			
.040	1.00	37.0	122.0	500	152	Inconel® 600	1.5	CAW00040
.055	1.39	16.4	54.1	500	152	Inconel® 600	2.3	CAW00055
.062	1.59	13.7	45.2	400	121	Inconel® 600	2.9	CAW00062
.062	1.59	13.2	43.6	400	121	304 SS	3.0	CAW01062
.062	1.59	8.1	26.7	400	121	304 SS	4.0	CAW02062
.062	1.59	7.9	26.1	400	121	304 SS	4.1	CAW03062
.062	1.59	4.6	15.1	400	121	304 SS	5.8	CAW05062
.064	1.62	6.5	21.4	400	121	304 SS	4.7	CAW04064
.125	3.18	7.0	23.1	250	75	304 SS	4.7	CAC53125
.125	3.18	3.4	11.2	250	75	Inconel® 600	7.3	CAW00125
.147	3.73	4.8	15.8	200	60	304 SS	5.9	CAC53147
.147	3.73	2.5	8.2	200	60	Inconel® 600	9.0	CAW00147
.153	3.88	4.5	14.8	150	45	304 SS	6.0	CAC53153
.153	3.88	2.3	7.6	150	45	Inconel® 600	9.2	CAW00153
.153	3.88	1.9	6.3	150	45	304 SS	9.7	CAW01153
.153	3.88	1.6	5.3	150	45	304 SS	11.5	CAW02153
.153	3.88	1.4	4.6	150	45	304 SS	13.0	CAW03153
.163	4.14	4.0	13.2	130	39	304 SS	6.5	CAC53163
.163	4.14	2.1	6.9	130	39	Inconel® 600	9.6	CAW00163
.163	4.14	1.7	5.6	130	39	304 SS	10.5	CAW01163
.163	4.14	1.5	4.9	130	39	304 SS	12.5	CAW02163
.163	4.14	1.2	3.9	130	39	304 SS	14.0	CAW03163
.188	4.77	3.0	9.9	100	30	304 SS	7.0	CAC53188
.188	4.77	1.5	5.0	100	30	Inconel® 600	12.0	CAW00188
.188	4.77	1.3	4.3	100	30	304 SS	13.3	CAW01188
.188	4.77	1.06	3.5	100	30	304 SS	15.5	CAW02188
.188	4.77	0.86	2.8	100	30	304 SS	17.0	CAW03188
.210	5.33	1.18	3.9	80	24	Inconel® 600	15.4	CAW00210
.210	5.33	1.17	3.8	80	24	304 SS	15.5	CAW01210
.210	5.33	0.84	2.7	80	24	304 SS	18.3	CAW02210
.210	5.33	0.75	2.5	80	24	304 SS	20.0	CAW03210
.220	5.59	2.17	7.1	75	22	304 SS	9.5	CAC53220
.220	5.59	0.98	3.2	75	22	304 SS	16.5	CAW01220
.220	5.59	0.76	2.5	75	22	304 SS	19.5	CAW02220
.250	6.35	1.8	5.9	58	17	304 SS	11.3	CAC53250
.250	6.35	0.9	2.9	58	17	Inconel® 600	18.3	CAW00250
.250	6.35	0.87	2.9	58	17	304 SS	20.0	CAW01250
.250	6.35	0.59	1.9	58	17	304 SS	23.0	CAW02250
.250	6.35	0.48	1.6	58	17	304 SS	25.0	CAW03250



Note: Maximum lengths shown are manufactured lengths. Cable is shipped in random lengths unless specific lengths are ordered.