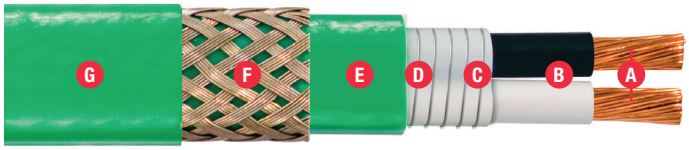
CZH CONSTANT-WATTAGE MEDIUM-TEMPERATURE HEATING CABLE

PRODUCT OVERVIEW



- **A** Twin 12 AWG Copper Bus Wires
- **B** FEP Insulation Jacket
- **C** Pairing Jacket
- **D** Nickel Chromium Wire
- **E** FEP Insulation
- **F** Tinned Copper Braid FEP
- **G** Overjacket

Chromalox CZH Cable is a multi-purpose heating cable designed for commercial pipe tracing, embedded floor warming, and frost heave pre vention. Chromalox's CZH Cable is constructed of a parallel heating core that produces uniform thermal output over its entire length. It can be easily cut to length, spliced, tee to more easily follow piping networks.Chromalox's CZH Heating Cable can be placed in conduit embedded in concrete to prevent frost heave or placed onto concrete slabs for supplemental comfort heat. Chromalox's CZH cable can even be placed inside of conduit for applications making replacement of the heating cable possible.

Chromalox CZH constant-wattage heating cable is designed for use on 120 to 480 V. With 392°F (200°C) fluoropolymer electrical insulation overjacketing, CZH cable has outstanding electrical and thermal properties, and is well suited for many environments. Chromalox constant wattage cables are thirdparty tested and approved for use in ordinary areas.

DESCRIPTION

The heating cable consists of two (2) 12 AWG copper bus wires embedded in fluorinated ethylene propylene (FEP) jacketing secured together in a pairing jacket that provides a wrapping surface for nichrome wire, the heating component of the cable. A rugged FEP Insulation sheath protects the nichrome wire winding to help ensure longer service life and provide protection against environmental application hazards. A tinned copper braid covering increases robust construction and provides protection against environmental application hazards and a positive ground path.

WARNING — A ground fault protection device is required by Chromalox, agency certifications, and NEC to minimize the danger of fire if the heating cable is damaged or improperly installed. A minimum trip level of 30 mA is recommended to minimize nuisance tripping.

APPLICATION

Trace surface type	Metal
Chemical Resistance	Exposure to aqueous solutions of inorganic compounds
	Exposure to liquids, organic chemicals, acids, or bases

VOLTAGE SUPPLY

120 Vac

208 to 277 Vac (240 Vac nominal)

480 Vac

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TEMPERATURE RATING

Maximum Maintenance Temperature..... 350°F (177°C)
Maximum Exposure Temperature, Power Off..... 392°F (200°C)
Minimum Installation Temperature..... -40°F (-40°C)

APPROVALS

• Ordinary Areas

DESIGN & INSTALLATION

For proper design and installation, use Chroma-Trace Heat Trace Project Design Software. Additional resources include the Pipe Heat Tracing Design Worksheet (PJ305), and Chomalox Commercial Heating Cable Products Installation Instructions (PJ970). These resources are available on the Chromalox website, www.chromalox.com.

NOMINAL POWER OUTPUT RATINGS

Output Wattage at Alternate voltages, 50°F (10°C), W/ft (W/m)

Model	120 Vac	208 Vac	220 Vac	240 Vac	277 Vac	480 Vac
CZH 4-1	4.0 (13.12)	N/A	N/A	N/A	N/A	N/A
CZH 8-1	8.0 (26.24)	N/A	N/A	N/A	N/A	N/A
CZH 12-1	12.0 (39.36)	N/A	N/A	N/A	N/A	N/A
CZH 4-2	N/A	3.0 (9.84)	3.4 (1.15)	4.0 (13.12)	5.3 (17.38)	N/A
CZH 8-2	N/A	6.0 (19.38)	6.7 (21.98)	8.0 (26.24)	10.7 (35.09)	N/A
CZH 12-2	N/A	9.0 (29.52)	10.1 (33.13)	12.0 (36.36)	16.0 (52.48)	N/A
CZH 12-4	N/A	2.3 (7.54)	2.5 (8.20)	3.0 (9.84)	4.0 (13.12)	12.0 (39.36)

MAXIMUM CIRCUIT LENGTHS

Model	Base Jacket Color	Output, W/ft (W/m)	Nominal Voltage, Vac	Circuit Load, A/ft (A/m)	Max. Circuit Length, ft (m)
CZH 4-1	Blue	4 (13)	120	0.033 (0.11)	350 (159)
CZH 8-1	Orange	8 (26)	120	0.067 (0.22)	240 (109)
CZH 12-1	Black	12 (39)	120	0.100 (0.33)	200 (91)
CZH 4-2	Green	4 (13)	240	0.017 (0.06)	700 (318)
CZH 8-2	Yellow	8 (26)	240	0.033 (0.11)	480 (218)
CZH 12-2	White	12 (39)	240	0.050 (0.16)	400 (181)
CZH 12-4	Green	12 (39)	480	0.025 (0.08)	780 (354)

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MAXIMUM ALLOWABLE PIPE MAINTENANCE TEMPERATURE WITH POWER ON

Output W/ft (W/m)	Temperature °F (°C)								
	3 (9.8)	4 (13.1)	6 (19.7)	6.7 (21.9)	8 (26.2)	9 (29.5)	10.1 (33.1)	10.6 (34.8)	12 (39.4)
w/o AT-1 Tape	340 (171)	325 (163)	293 (144)	282 (139)	262 (128)	246 (119)	229 (109)	222 (105)	200 (93)
w/ AT-1 Tape	350 (177)	344 (173)	332 (167)	328 (164)	320 (160)	314 (157)	307 (153)	304 (151)	296 (147)

PRODUCT CHARACTERISTICS

Maximum Bend Radius, in. (mm) 1.125 (28.5)

Bus Wire Size ..... 12 AWG

Heating Cable Dimensions WxH, in. (mm) ..... 0.356 x 0.246 (9.0 x 6.2)

Weight, lb per 1,000 ft (kg per 300m) 110 (50)

CONNECTION KITS

Chromalox has a complete line of accessories specifically designed for use with CZH cable. Use only Chromalox accessories to ensure the performance of the heat trace system, compliance with warranty, codes, and approval requirements.

Connection Kits and Thermostats		DL Series	EL Series
Power Connection	Heat trace to electrical service connection	RTPC	N/A
Splice & Tee		RTST	RT-TST
End Seal	For terminating cable	RTES	N/A
Lightened End Seal		RTST-SL	N/A
Thermostat	Ambient air sensing thermometer	RTAS	TPR
	Line sensing mechanical themostat	RTBC	TPR

ORDERING INFORMATION

Model	Volts	Output, (W/ft.)	PCN
CZH 4-1CT	120	4 @ 50F	390432
CZH 4-2CT	240	4 @ 50F	390440
CZH 8-1CT	120	8 @ 50F	390459
CZH 8-2CT	240	8 @ 50F	390467
CZH 12-1CT	120	12 @ 50F	390475
CZH 12-2CT	240	12 @ 50F	390483
CZH 12-4CT	480	12 @ 50F	390487

CHROMALOX

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LaVergne, TN 37086

TECHNICAL SUPPORT
412-967-3940

*press 11 to be directed to heat trace support

email: sales@chromalox.com
www.chromalox.com