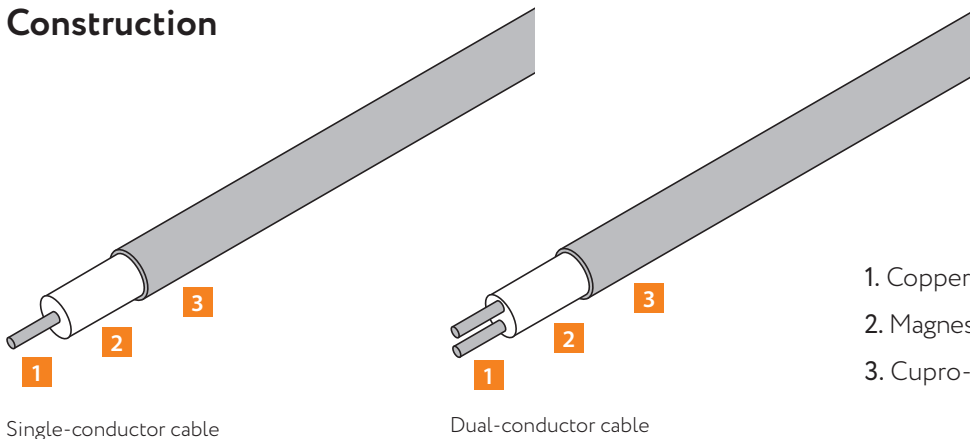


The MICN range of cupronickel sheathed Mineral Insulated (MI) heating cable has been developed to meet the specific need for a cable having a high temperature capability and electrical resistance values needed for long circuit lengths. To meet the requirement, TEC has combined a cupronickel sheath with heating conduc-

tors to enable an operating temperature of 400°C with resistance values from 4Ω/km down to 28000Ω/km. MI cables have excellent mechanical strength and are resistant to corrosion. They are series resistance heaters, which must be designed to provide the required heat output.

Construction



1. Copper or copper alloy Conductor
2. Magnesium Oxide Insulation
3. Cupro-Nickel Sheath

Single-conductor cable

Dual-conductor cable

Application

Cupronickel sheathed Mineral Insulated heating cables are widely used within a range of industrial application, from oil and gas, chemicals and

petroleum, power plant, gas storage and many other industrial application.

Specification

Heating Cable Ordering Code

Example: MI CN-B 16K2390/60/2520/220/E1
 Digit: ① ② ③ ④ ⑤ ⑥ ⑦

Digit number	Description	Explication
1	Sheath material	CN
2	Cable configuration	See Table 1
3	Cable reference	See Table 2, 3, 4
4	Cable length	In meter
5	Cable wattage	In Watts
6	Cable voltage	In volt
7	Gland size	See Table 5

Heating Cable Decoding

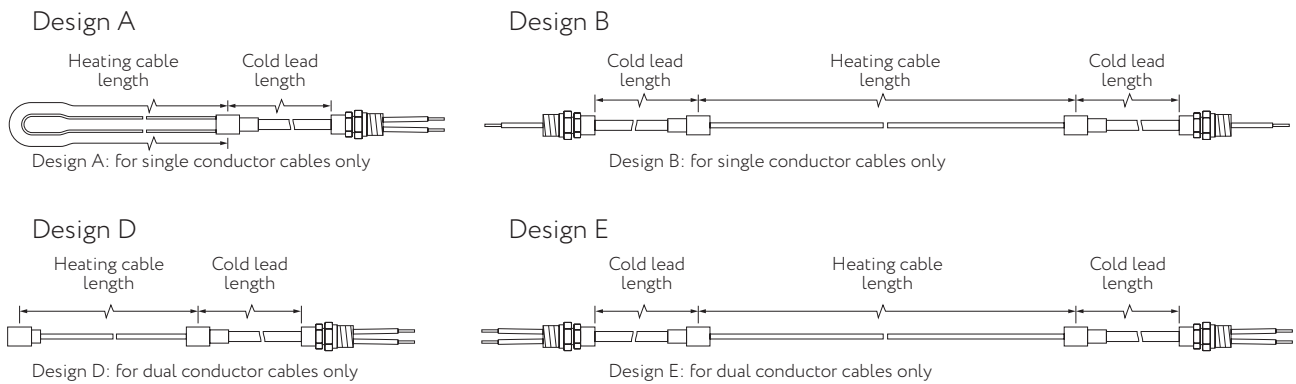
Example: 1 6 K 2390
 Digit: ① ② ③ ④

Digit number	Description	Explication
1	Number of conductors	1 or 2
2	Maximum voltage rating	3=300V, 6=600V
3	Conductor material	K, N
4	Cable resistance × 1000	2390=2.39 Ω/m × 1000

Cupronickel Sheathed Mineral Insulated Heating Cable

Cable Configurations

Table 1



Cable References

Table 2 Single Conductor 600V

Cable ref	Diameter	Resist. at 20 °C	Nominal Length	Nominal Weight
	mm			
16C4	5.9	0.004	190	161.0
16C7	5.3	0.007	240	117.8
16C11	4.9	0.011	290	101.7
16C17	4.6	0.017	300	89.9
16C25	3.7	0.025	500	58.2
16C40	3.4	0.04	600	48.4
16C63	3.2	0.063	650	42.0
16K82	5.7	0.082	200	163.2
16K122	5.2	0.122	250	130.1
16K160	4.9	0.16	280	112.5
16K188	4.7	0.188	300	102.3
16K250	4.4	0.25	350	87.9
16K312	4.2	0.312	380	78.6
16K400	4.0	0.4	430	68.8
16K478	3.8	0.478	470	62.8
16K630	3.7	0.63	500	58.6
16K1000	3.4	1.0	600	48.5
16K1600	3.2	1.6	600	42.6
16K2400	3.1	2.4	600	38.9

HEATING CABLE



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Table 3 Dual Conductor 600V

Cable ref	Diameter mm	Resiet. at 20 °C Ω/m	Nominal Length m	Nominal Weight kg/km
26K160	11.2	0.16	55	565.4
26K240	9.9	0.24	70	433.4
26K300	9.3	0.3	80	378.4
26K380	9.0	0.38	85	348.7
26K480	8.6	0.48	90	314.6
26K620	8.0	0.62	105	270.0
26K960	7.5	0.96	120	232.9
26K1480	7.1	1.48	135	205.7
26K1890	6.8	1.89	145	187.6
26K2340	6.4	2.34	165	165.7
26K3100	6.2	3.1	175	154.6
26K4800	5.8	4.8	200	134.4

Table 4 Dual Conductor 300V

Cable ref	Diameter mm	Resiet. at 20 °C Ω/m	Nominal Length m	Nominal Weight kg/km
23K160	10.4	0.16	60	497.6
23K240	9.4	0.24	85	366.6
23K300	8.4	0.3	95	315.9
23K380	8.0	0.38	105	281.9
23K480	7.7	0.48	115	257.0
23K620	7.1	0.62	135	216.7
23K960	6.5	0.96	160	178.0
23K1480	6.0	1.48	190	149.2
23K1890	5.7	1.89	210	133.7
23K2340	5.5	2.34	225	123.7
23K3100	5.3	3.1	240	114.0
23K4800	4.9	4.8	285	96.7

Note: For the required voltage 600 V above application, please contact us.

Cupronickel Sheathed Mineral Insulated Heating Cable

Gland Size

Table 5

Max. voltage (V)	Design A, D, E			Design B		
	Max. current (amps)	Gland size (English)	(Metric)	Max. current (amps)	Gland size (English)	(Metric)
600	15	E1	M1	20	E1	M1
600	20	E1	M1	25	E1	M1
600	30	E2	M2	40	E2	M2
600	50	E2	M2	70	E2	M2
600	70	E2	M2	100	E2	M2

Note 1: E1 stands for 1/2" NPT; E2 stands for 3/4" NPT; M1 stands for gland diameter M20; M2 stands for gland diameter M25. Stands model shall be advised properly while design.

Note 2: 2-meter-long cold lead is supplied with heating cable. For special requirement, please contact us.

Corrosion Resistance

Table 6

Substance	Recommendation
Sulphuric Acid	Not Recommended
Hydrochloric Acid	Check for Specific Data
Hydrofluoric Acid	Check for Specific Data
Phosphoric Acid	Check for Specific Data
Nitric Acid	Check for Specific Data
Organic Acid	Check for Specific Data
Alkalis	Check for Specific Data
Sea Water	Good-Excellent
Chloride	Good-Excellent

Explosion Proof

MICN heating cables can be used in C1D2 explosion-proof area, for detailed design, contact us for further assistance.

Approval

ATEX; IECEX



Manufacturer

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Supplier

SST GmbH

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