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Romans 10:11 For whosoever believes on Him shall not be ashamed.

MISS-KN MINERAL INSULATED





- End Termination 1
- Alloy 825 Stainless Steel 2.
- 3. Hot/Cold Joint

2

4. Compression Fitting

MI heater cables are seamless die drawn cables that are made to specified lengths to deliver high power output along the entire length of the cable. It's nichrome heating conductors are embedded in highly compressed magnesium oxide dielectric and covered with a stainless Alloy 825 sheath. The sheath is fully annealed and is easily hand formable.

MI heater cables are factory assembled and cannot be cut to length in the field. Both hot and cold sections are made to customer specifications. MI cables can be completely submersed which makes them great for gut tracing applications. MI cables can also be equipped with reversed glands and puller-eyes to assist in cable installation and capping small diameter pipes. MI cables resist the most aggressively corrosive environments. MI heating cable is totally inorganic and will not deteriorate with age. All heating units are factory fabricated to a specified length and rigorously tested to IEEE standards. MISS-KN type MI cables are capable of withstanding temperatures up to 1,200°F.

To minimize the danger of fire from sustained electrical arcing if the heating cable is damaged or improperly installed, and to comply with National Electric Code (NEC) Article 427.22 requirements, agency certifications, and local codes, ground-fault equipment protection must be used on each heating cable branch circuit. Arcing may not be stopped by conventional circuit protection. Ground fault protection is the responsibility of the end user and should be installed by a certified electrician.

MI heater cables are suitable for use in pipe tracing applications where high temperatures are required, pad heating/snow melting where removal of snow and ice are needed for safety. MI heater cables are also useful in large vessel and hopper heating applications. In tank and hopper heating applications MI is attached to sheets of wire mesh to help diffuse the heat into the tank walls. Because MI cables are silver soldered and waterproof they are a great choice in "gut" tracing applications.

To determine which conductor in Table 2 will satisfy performance requirements follow the arithmetic below.

Conductor (
$$\Omega$$
/Ft.) =

$$\frac{Voltage^2}{Length^2(Cable W/Ft.)}$$

Compare the answer to the closest available conductor that will yield desired effect. Recalculate using formula above to determine exact output and whether the result is favorable and will not impose any safety or damage potential. No more than 4 W/Ft. is permissible on PVC and polyethylene pipe. Some design complications may arise under certain circumstances due to variables, however there are workarounds such as transformers.

Example Configuration		MISS-KN142L-AN-100-03-C1-E								
MISS-KN	Conductor	Form	Hot Section	Cold Section	Options	Options Continued				
1200°F	Table 2	AN	See Notes	.5′ - 40′ Exp.	C1=1/2" Reversed Gland	P=PVC Jacketed Cold Section				
		BN	OR	DERIM	C2=3/4" Reversed Gland	U=NEMA 7 Termination				
		CN			E=Puller-Eye End	X=Other, Specify				
					G=Glass Wrapped Hot Section					
					R=Reel Delivery					
Note: Hot section length is dependent on several factors including voltage, cable output, conductor, amperage.										

		Single Cond	BI	l Form Factor				A
		Single Cond						
		Single Conu	luctor					
					Single Conduct	or Loop	CN Form Factor	
Cold Sect	tion	Hot Section						
300 Volt, 2 Conductor KNXXXL			600 Volt, 2 Conductor KNXXX			600 Volt, 1 Conductor KN		
Size	Ohms/Ft.	0.D.	Size	Ohms/Ft.	0.D.	Size	Ohms/Ft.	0.D.
2SP4458	0.0458	0.185	KN132	0.10	0.265	KN101	0.03	0.26
2SP4583	0.0583	0.184	KN142	0.15	0.245	KN111	0.04	0.24
2SP4734	0.0734	0.184	KN152	0.2	0.245	KN121	0.07	0.20
KN132L	0.10	0.180	62SQ3286	0.286	0.246	KN141	0.10	0.20
KN142L	0.15	0.160	62SQ3505	0.505	0.234	KN151	0.15	0.19
KN152L	0.2	0.146	KN182	0.7	0.265	KN161	0.20	0.19
KN162L	0.3	0.215	62ST2115	1.15	0.239	KN171	0.30	0.19
KN172L	0.5	0.196	KN222	2.0	0.245	KN191	0.50	0.18
KN182L	0.7	0.160	62SA2414	4.14	0.239	KN211	0.70	0.17
KN192L	1.0	0.196	KN252	6.0	0.215	KN221	1.0	0.17
KN222L	2.0	0.180	62SZF2900	9.0	0.215	KN241	2.0	0.16
KN242L	4.0	0.146	KN292	11.0	0.215			
KN252L	6.0	0.135						
2SF2900	9.0	0.140						
KN292L	11.0	0.130						
	Cold Sect 30 Size 2SP4458 2SP4583 2SP4734 KN132L KN142L KN152L KN152L KN162L KN162L KN192L KN192L KN242L KN242L KN252L 2SF2900 KN292L	Cold Section 300 Volt, 2 Conduc Size Ohms/Ft. 2SP4458 0.0458 2SP4458 0.0583 2SP4734 0.0734 KN132L 0.10 KN132L 0.10 KN152L 0.2 KN162L 0.3 KN172L 0.5 KN182L 0.7 KN182L 0.7 KN222L 2.0 KN252L 6.0 2SF2900 9.0 KN292L 11.0	Cold Section Hot Section 300 Volt, 2 Conductor KNXXXL Size Ohms/Ft. O.D. 2SP4458 0.0458 0.185 2SP4583 0.0583 0.184 2SP4734 0.0734 0.184 KN132L 0.10 0.180 KN142L 0.15 0.160 KN152L 0.2 0.146 KN162L 0.3 0.215 KN162L 0.5 0.196 KN172L 0.5 0.196 KN182L 0.7 0.160 KN182L 0.7 0.160 KN122L 2.0 0.180 KN222L 2.0 0.140 KN242L 4.0 0.146 KN252L 6.0 0.135 2SF2900 9.0 0.140 KN292L 11.0 0.130	Cold Section Hot Section 300 Volt, 2 Conductor KNXXXL 0.0 Size Ohms/Ft. 0.D. 2SP4458 0.0458 0.185 2SP4583 0.0583 0.184 KN132L 0.10 0.180 625Q3286 625Q3286 KN132L 0.10 0.180 KN142L 0.15 0.160 625Q3286 KN142L 0.15 0.160 625Q3286 KN152L 0.2 0.146 KN182 KN152L 0.2 0.146 KN222 KN152L 0.2 0.196 KN222 KN152L 0.2 0.196 KN222 KN152L 0.7 0.160 625X2414 KN192L 1.0 0.196 KN252 KN252L 6.0 0.135 25F2900 KN252L 6.0 0.130	Cold Section Hot Section 300 Volt, 2 Conductor KNXXXL 600 Volt, 2 Conductor KNXXXL Size Ohms/Ft. O.D. 2SP4458 0.0458 0.185 0.0583 0.184 KN132 2SP433 0.0583 0.184 KN132 0.10 0.180 625Q3286 0.286 KN132L 0.10 0.180 625Q3505 0.505 KN142L 0.15 0.160 625Q3505 KN152L 0.2 0.146 KN182 KN172L 0.5 0.196 KN222 KN182 0.7 KN182L 0.7 KN182L 0.7 KN182L 0.7 KN182L 0.7 KN192L 1.0 KN192L 1.0 KN252L 6.0 KN252L 6.0 KN252L 6.0 KN252L 6.0 KN252L 6.0 KN252L	Single Conduct Cold Section Hot Section 300 Volt, 2 Conductor KNXXXL 600 Volt, 2 Conductor KNXXX Size Ohms/Ft. O.D. 25P4458 0.0458 0.185 0.0583 0.184 KN132 0.10 0.265 25P4734 0.0734 0.184 KN152 0.2 0.245 KN132L 0.10 0.180 625Q3286 0.286 0.246 KN132L 0.10 0.180 625Q3286 0.286 0.245 KN152L 0.2 0.146 KN182 0.7 0.265 KN152L 0.2 0.146 KN182 0.7 0.265 KN172L 0.5 0.196 KN222 2.0 0.245 KN182L 0.7 0.160 625Z414 4.14 0.239 KN192L 1.0 0.196 KN252 6.0 0.215 KN252L 6.0 0.135 2.11.0 0.215 KN252L 6.0 0.130 2.10	Single Conductor Loop Cold Section Hot Section 300 Volt, 2 Conductor KNXXXI 600 Volt, 2 Conductor KNXXXI 600 Volt, 2 Conductor KNXXXX 6 Size Ohms/Ft. O.D. Size Ohms/Ft. O.D. Size 25P4458 0.0458 0.185 Size Ohms/Ft. O.D. Size KN101 25P434 0.0734 0.184 KN122 0.2 0.245 KN111 25P4734 0.0734 0.180 625Q3286 0.286 0.246 KN141 KN1321 0.10 0.180 625Q3505 0.505 0.234 KN161 KN1421 0.15 0.160 KN182 0.7 0.265 KN161 KN1621 0.3 0.215 KN222 2.0 0.245 KN161 KN1721 0.5 0.196 KN222 2.0 0.245 KN171 KN1821 0.7 0.160 625X2115 1.15 0.239 KN171 KN1812 0.7 0.265	Single Conductor Loop Norm Factor Single Conductor Norm Factor Size Ohms/Ft. O.D. Size Ohms/Ft. O.D. Size Ohms/Ft. O.D. Size Ohms/Ft. O.D. Size Ohms/Ft. O.D. Size Ohms/Ft. O.D. Size Ohms/Ft. O.D. Size Ohms/Ft. O.D. Size Ohms/Ft. O.D. Size Ohms/Ft. O.D. Size Ohms/Ft. O.D. Size Ohms/Ft. O.D. Size Ohms/Ft. O.D. Size Ohms/Ft. O.D. Size Ohms/Ft. O.D. Size O.0734 O.180 G62SQ3286 O.286 O.245 KN161 O.20 KN1521 O.2 O.160 KN222 O.0 O.235

Note: All values @ 68°F *Resistance curves apply, consu