

# MIQ™ Mineral Insulated Heating Cable

## Product Specifications

### Application . . .

#### Process Temperature Maintenance or Freeze Protection

MIQ high performance mineral insulated heating cables are used extensively for high temperature maintenance, high temperature exposure and/or high watt density applications which exceed the limitations of thermoplastic insulated cables.

Thermon's MIQ mineral insulated cables are available with Alloy 825, to meet the temperature and exposure requirements of the application.

MIQ cables are approved for use in ordinary (nonclassified) areas and are certified to the ATEX directive for use in Category 2 and 3 (Zone 1 and 2) classified areas.

### Ratings . . .

Rated voltages <sup>1</sup> .....	600 Vac
Maximum maintenance temperature <sup>2</sup> .....	500°C
Maximum continuous exposure temperature	
Power-off .....	600°C
Maximum Watt density <sup>2</sup> .....	260 W/m
Minimum installation temperature .....	-60°C
Minimum bend radius.....	6 x cable O.D.
T-rating <sup>3</sup>	
Based on stabilised design <sup>4</sup> .....	T1 to T6

### Available MI Sheaths . . .

Product Type	Metal Sheath Material	Maximum Exposure Temperature
MIQ	Alloy 825	600°C

### MI Heater Sets . . .

Thermon MIQ cable sets are available in various factory-fabricated configurations designed for the cable type and number of conductors. The standard assemblies consists of an engineered length of heating cable joined to a standard 1,5 meter nonheating cold lead with 20 cm long teflon insulated pigtails.

The nonheating section of the circuit is sealed and fitted with a suitable rated M25 (6,0 mm<sup>2</sup> cold lead standard) brass gland for connection into the junction box.

### Notes . . .

- Specific voltage depends on circuit length and design conditions.
- Watt density limitations are correlated to maintain temperatures.
- T-rating per internationally recognised testing agency guidelines.
- Thermon heating cables are approved for the listed T-ratings using the stabilised design method. This enables the cable to operate in hazardous areas without limiting thermostats. The T-rating may be determined using CompuTrace® Electric Heat Tracing Design Software or contact Thermon for design assistance.



### Construction . . .

- 1 Solid Alloy or Copper Conductor
- 2 Compacted Magnesium Oxide Insulation
- 3 Metallic Sheath

### Certification/Approval . . .

**CENELEC** European Organisation for Electrotechnical Standardisation  
Hazardous (Classified) Locations

**CE** 0539 **Ex** II 2 G & D Ex d IIC T1 to T6  
II 2 G & D Ex de IIC T1 to T6

MIQ has additional hazardous area approvals including:

- GGTN • Kazakhstan

### Product Features . . .

- Withstands voltage 2,0 KV rms AC on the complete assembly
- Allows cable to be installed at temperatures to -60°C
- Corrosion resistance and high resistance to mechanical abuse
- High performance output



**THERMON . . . The Heat Tracing Specialists®**

www.thermon.com

European Headquarters  
Boezemweg 25 • 2641 KG Pijnacker  
PO Box 205 • 2640 AE Pijnacker • The Netherlands  
Phone: +31 (0) 15-36 15 370 • Facsimile: +31 (0) 15-36 15 379

Corporate Headquarters  
100 Thermon Dr. • PO Box 609  
San Marcos, TX 78667-0609 • U.S.A.  
Phone: +1 512-396-5801 • Facsimile: +1 512-396-3627



### Available Cables . . .

Product Type	Resistance <sup>1</sup> Ohm/km at 20°C	Minimum Cold Lead Size mm <sup>2</sup>	Cable Diameter mm
MIQ-20E1H-1S	6500	2,5	4,32
MIQ-16E1H-1S	5200	2,5	4,32
MIQ-13E1H-1S	4200	2,5	4,32
MIQ-10E1H-1S	3300	2,5	4,32
MIQ-85E2H-1S	2800	2,5	4,32
MIQ-70E2H-1S	2300	2,5	4,32
MIQ-50E2H-1S	1650	2,5	4,32
MIQ-38E2H-1S	1250	2,5	4,32
MIQ-30E2H-1S	1000	2,5	4,32
MIQ-25E2H-1S	800	2,5	4,32
MIQ-20E2H-1S	650	2,5	4,45
MIQ-17E2H-1S	550	2,5	4,57
MIQ-15E2H-1S	500	2,5	4,32
MIQ-10E2H-1S	330	2,5	4,32
MIQ-80E3H-1S	260	2,5	4,32
MIQ-70E3H-1S	230	2,5	4,32
MIQ-60E3H-1S	200	2,5	4,32
MIQ-40E3H-1S	130	2,5	4,45
MIQ-30E3H-1S	100	2,5	4,70
MIQ-20E3H-1S	65	2,5	5,08
MIQ-10E3H-1S	34	2,5	4,32
MIQ-65E4H-1S	21	2,5	4,57
MIQ-40E4H-1S	13	2,5	4,83
MIQ-25E4H-1S	8	6,0	5,33

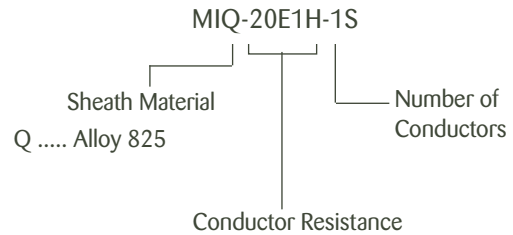
### Circuit Breaker Sizing and Type . . .

Maximum circuit lengths for MIQ heating cables will be a function of cable resistance, circuit length and operating voltage. Circuit length, breaker sizing and earth-fault protection should be based on applicable local codes.

Earth-fault protection of equipment should be provided for each branch circuit supplying electric heating equipment.

### Product Reference Legend . . .

Example:



### Available MI Cold Leads . . .

Cold Lead Size mm <sup>2</sup>	Current Rating A	Gland Size
2,5	22	M20 <sup>2</sup>
6,0	43	M25

### Notes . . .

1. All resistances shown are per meter length of cable at 20°C and are subject to a ±10% manufacturing tolerance.
2. M20 gland is standard, M25 available upon request; contact factory.

