



CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION

No.: 2022312312000163

Applicant Heat Trace Asia Ltd
Address B410, No.189 Xijunhuan Road, Minhang, Shanghai, China
Manufacturer Heat Trace Limited
Address Mere's Edge, Chester Road, Helsby, Frodsham, Cheshire, WA6 0DJ, United Kingdom
Production Factory Heat Trace Limited
Production Address Mere's Edge, Chester Road, Helsby, Frodsham, Cheshire, WA6 0DJ, United Kingdom
Product Mineral insulated heating cable
Model/Type MAL-***
Ex marking Ex eb IIC T1...T6 Gb
Reference Standards GB/T 3836.1-2021, GB/T 3836.3-2021

Certification mode Type Test + Initial Factory Inspection + Post-Certification Surveillance

The product(s) is verified and certified according to CNCA-C23-01: 2019 *China Compulsory Certification Implementation Rule on Explosion Protected Electrical Product* and CNEX-C2301-2019 *Guideline of China Compulsory Certification Implementation Rule on Explosion Protected Electrical Product*.

See Annex for the detailed product information (5 pages)

Initial issue date: 2022-04-29

Issued date: 2022-10-22

Valid to: 2027-04-28

The validity of this certificate is maintained through the regular supervision of the issuing authority during the validity period.

Where any discrepancy arises between the English translation and the original Chinese version, the Chinese version shall prevail.

Director:

穆大玉



Nanyang Explosion Protected Electrical
Apparatus Research Institute Co., Ltd.



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CN 0001423



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Product information:

1. This certificate covers the following models:

- MAL-****

Nomenclature:

M	AL	-	*	*	*	*
1)	2)		3)	4)	5)	6)

1) MI Heating Cable

2) Sheath Material: AL=Alloy 825 sheath

3) Some Conductors: 1=1 Core, 2=2 Core

4) Voltage Grade: 3=300V, 6=600V

5) Conductor Material (product dependent)

C=Copper

K=Copper base alloy 6J40

N=Nickel chromium Cr20Ni80

6) Ohms/km (20°C)

Electrical data:

Single core: 600V

Model	Core Number	Core Material	Cable Outside Diameter (mm)	Resistance (Ω/Km @ 20°C)
MAL 16C2.1	1	C (Copper)	6.8	2.1
MAL 16C3.4	1	C (Copper)	5.9	3.4
MAL 16C5.3	1	C (Copper)	5.3	5.3
MAL 16C8.5	1	C (Copper)	4.8	8.5
MAL 16C13	1	C (Copper)	4.3	13
MAL 16C21	1	C (Copper)	4.0	21

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MAL	16K40	1	K (Copper Alloy)	5.8	40
MAL	16K50	1	K (Copper Alloy)	5.4	50
MAL	16K60	1	K (Copper Alloy)	5.2	60
MAL	16K80	1	K (Copper Alloy)	4.8	80
MAL	16K100	1	K (Copper Alloy)	4.7	100
MAL	16K120	1	K (Copper Alloy)	4.5	120
MAL	16N160	1	N (Nickel-Chr)	6.5	160
MAL	16N200	1	N (Nickel-Chr)	5.9	200
MAL	16N250	1	N (Nickel-Chr)	5.3	250
MAL	16N400	1	N (Nickel-Chr)	4.7	400
MAL	16N500	1	N (Nickel-Chr)	4.5	500
MAL	16N630	1	N (Nickel-Chr)	4.3	630
MAL	16N1000	1	N (Nickel-Chr)	3.9	1000
MAL	16N1600	1	N (Nickel-Chr)	3.6	1600
MAL	16N2500	1	N (Nickel-Chr)	3.4	2500
MAL	16N2800	1	N (Nickel-Chr)	3.4	2800
MAL	16N3300	1	N (Nickel-Chr)	3.4	3300
MAL	16N4000	1	N (Nickel-Chr)	3.2	4000
MAL	16N5200	1	N (Nickel-Chr)	3.2	5200
MAL	16N6300	1	N (Nickel-Chr)	3.2	6300
MAL	16N10000	1	N (Nickel-Chr)	3.2	10000

Dual core: 600V

Model	Core Number	Core Material	Cable Outside Diameter (mm)	Resistance (Ω /Km @ 20°C)
MAL 26C8.4	2	C (Copper)	9.8	8.4
MAL 26C13.4	2	C (Copper)	8.7	13.4
MAL 26C21	2	C (Copper)	7.9	21

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MAL	26C34	2	C (Copper)	7.3	34
MAL	26C54	2	C (Copper)	6.3	54
MAL	26C85	2	C (Copper)	5.6	85
MAL	26C130	2	C (Copper)	5.3	130
MAL	26K180	2	K (Copper Alloy)	7.9	180
MAL	26K260	2	K (Copper Alloy)	7.4	260
MAL	26K360	2	K (Copper Alloy)	6.8	360
MAL	26K500	2	K (Copper Alloy)	6.4	500
MAL	26K650	2	K (Copper Alloy)	5.9	650
MAL	26K1000	2	K (Copper Alloy)	5.7	1000
MAL	26K1300	2	K (Copper Alloy)	6.2	1300
MAL	26K2000	2	K (Copper Alloy)	5.8	2000
MAL	26K3300	2	K (Copper Alloy)	5.4	3300
MAL	26N4600	2	N (Nickel-Chr)	5.8	4600
MAL	26N8000	2	N (Nickel-Chr)	5.4	8000
MAL	26N13000	2	N (Nickel-Chr)	5.0	13000
MAL	26N27000	2	N (Nickel-Chr)	4.8	27000
MAL	26N40000	2	N (Nickel-Chr)	4.6	40000
MAL	26N60000	2	N (Nickel-Chr)	4.4	60000
MAL	26N72000	2	N (Nickel-Chr)	4.2	72000

Dual core: 300V

Model		Core Number	Core Material	Cable Outside Diameter (mm)	Resistance (Ω/Km @ 20°C)
MAL	23K210	2	K (Copper Alloy)	5.4	210
MAL	23K300	2	K (Copper Alloy)	5.0	300
MAL	23K400	2	K (Copper Alloy)	4.8	400
MAL	23K480	2	K (Copper Alloy)	4.8	480

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MAL	23K650	2	K (Copper Alloy)	4.6	650
MAL	23K1000	2	K (Copper Alloy)	4.1	1000
MAL	23K1300	2	K (Copper Alloy)	3.8	1300
MAL	23K2000	2	K (Copper Alloy)	5.0	2000
MAL	23K2400	2	K (Copper Alloy)	4.8	2400
MAL	23K3000	2	K (Copper Alloy)	4.6	3000
MAL	23K4600	2	K (Copper Alloy)	4.8	4600
MAL	23N7500	2	N (Nickel-Chr)	4.6	7500
MAL	23N11200	2	N (Nickel-Chr)	4.4	11200
MAL	23N1400	2	N (Nickel-Chr)	4.2	14000
MAL	23N1800	2	N (Nickel-Chr)	3.8	18000
MAL	23N26000	2	N (Nickel-Chr)	3.6	26000
MAL	23N40000	2	N (Nickel-Chr)	3.4	40000
MAL	23N50000	2	N (Nickel-Chr)	3.6	50000
MAL	23N60000	2	N (Nickel-Chr)	3.6	60000
MAL	23N72000	2	N (Nickel-Chr)	3.4	72000

Maximum withstand temperature: 800°C

Ex marking: Ex eb IIC T1...T6 Gb

- Producers should organize production in accordance with the technical documents approved by the certification body.

2. Specific conditions of safety use:

- Ambient temperature: -80°C...+40°C.

- Service temperature: -80°C...+440°C.

- Ingress protection: IP67.

- T Class shall be assigned with consideration to the graph shown in document Ex-

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MHC-0223-01. The following temperatures shall not be exceeded:

- T1=440°C
- T2=290°C
- T3=195°C
- T4=130°C
- T5=95°C
- T6=80°C

- The maximum surface temperature of the mineral insulated heating cable is limited by controlled design, CCC certified Ex thermal protective devices shall be used that are suitable for the application.

- See instruction for other information.

3. Certificate related report(s):

- Type test report: CQST2112C181, CQST2112C181/01
- Factory inspection report: CN2020Q010179

4. Certificate change information:

- 1st change on October 22, 2022: Updated the standards for certification.

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