



# Certificate of Compliance

**Certificate:** 2757862

**Master Contract:** 161241

**Project:** 80104407

**Date Issued:** 2022-04-21

**Issued To:** nVent Thermal LLC  
899 Broadway Street  
Redwood City, California, 94063  
United States

**Attention:** James Lim

*The products listed below are eligible to bear the CSA Mark shown*

**Issued by:** *Thong Tong*  
Thong Tong



## **PRODUCTS**

CLASS - C287801 - HEATERS Cable and Cable Sets - For Hazardous Locations

**Class I, Div. 1 and 2, Groups A, B, C, D; Class II, Div. 1 and 2, Groups E, F, G; Class III**

### Heating Cable:

Parallel self-regulating heating cables for heating of pipe or vessel tracing, LBTV2-CT 5W/ft @10°C (50°F); max continuous exposure temperature 65°C (150°F); maximum intermittent exposure temperature 85°C (185°F), T-Code Rating T6; maximum circuit size 56A, max voltage 208-277V ac; min recommended installation temperature -60°C/-76°F, usage -WS.

### Termination Kits:

**Class I, Div. 1 & 2, Groups A, B, C, D; Class II, Div. 1 & 2, Groups E, F, G; Class III**

HAK-C-100 Connection Kit



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**Class I, Div. 2, Groups B, C, D; Class II, Div. 2, Groups F, and G; Class III**

JBM-100-LBTV2 Multiple Power Connection Kit and E-100-LBTV2 End Seal Kit.

PMKG-LS Splice Kit, PMKG-LT Tee Kit and PMKG-LE End Seal Kit, JBU-100-A, JBU-100-A6 and JBU-100-L-A termination kits.

Notes:

- 1) Installation in accordance with Canadian Electrical Code Part I.
- 2) The above heating cable is combined with the above kits to create a heating cable set whose hazardous locations rating is the lowest rating of heating cable and kits.
- 3) Minimum Installation Temperature (-60°C).

**APPLICABLE REQUIREMENTS**

CSA C22.2 No.0-10	- General Requirements - Canadian Electrical Code, Part II
CSA C22.2 No. 25-1966 (R2012)	- Enclosures for Use in Class II, Groups E, F and G Hazardous Locations
CSA C22.2 No. 30-M1986 (R2016)	- Explosion - Proof Enclosures for use in Class I Hazardous Locations
CSA-C22.2 No. 130-16	- Requirements for Electrical Resistance Trace Heating and Heating Device Sets
CAN/CSA C22.2 No. 60079-30-1:17	- Explosive atmospheres- Part 30-1: Electrical resistance trace heating- General testing requirements
CSA C22.2 No. 213-17	- Nonincendive Electrical Equipment for use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations

**MARKINGS**

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

**I. Heating Cable Sets (Field-Assembled Heating Cable Sets)**

Heating devices intended for field assembly shall be clearly and permanently marked with the following information:

- a) the manufacturer's name, trademark, or Master Contract No. "161241", or CSA Legacy File No. "LR 33381";



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- b) the catalogue number, reference number, or model;
- c) the month and year of manufacture, date code, applicable serial number, or equivalent;
- d) the word “parallel” and the usage marking as shown in Table 1 of CSA Std. 130-16;
- e) the rated voltage;
- f) the rated output in watts per unit length or area and the specified temperature;
- g) the maximum permissible steady-state current;
- h) the words "HAZARDOUS LOCATIONS" or the abbreviations "HAZ LOC"; and the words "DIVISION 1" or the abbreviations "DIV 1", "DIVISION 2" or the abbreviations "DIV 2" where appropriate; the Class(es) and, where appropriate, Group(s) of hazardous locations rating (e.g., Class I, Division 2, Groups A, B, C, and D, etc.);
- i) the temperature code (e.g., T6) or the maximum sheath temperature of the heating device except where engineered systems contain this information on drawings or other documentation;
- j) the usage marking (in accordance with Table 1 of CSA Std. 130-16);
- k) the CSA Mark.

#### Kits: Connections and Termination Components

The cartons or containers and the instructions of all connection and termination kits shall be clearly marked with the following information:

- a) the manufacturer’s name, trademark, or Master Contract No. “161241”, or CSA Legacy File No. “LR 33381”;
- b) the catalogue number, reference number, or model;
- c) intended use (i.e., FOR USE WITH \_\_\_\_\_(Manufacturer)\_\_\_\_ MODEL (type, series, or designation) HEATING CABLE/SURFACE HEATING DEVICE ONLY);
- d) the words “Refer to installation instructions” and any applicable notices, warnings, or directions to the user;
- e) the rated voltage;
- f) maximum temperature continuous exposure;
- g) when required by Clause 4.6.1 of CSA Std. 130-16, the words “Temperature at the point of connection to branch circuit conductors may exceed 60 °C”;
- h) the maximum permissible steady-state current;
- i) the words "HAZARDOUS LOCATIONS" or the abbreviations "HAZ LOC"; and the words "DIVISION 2" or the abbreviations "DIV 2" where appropriate; the Class(es) and, where appropriate, Division(s) and Group(s) of hazardous locations rating (e.g., Class I, Division 2, Groups A, B, C, and D, etc.);
- j) the temperature code (e.g., T6) or the maximum sheath temperature of the heating device except where engineered systems contain this information on drawings or other documentation;
- k) the CSA Mark.

#### II. Packaging

The original carton, container, spool, or reel in or on which the heating device or heating device set leaves the factory shall be clearly marked with the following information:



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- a) the manufacturer's name, trademark, or Master Contract No. "161241", or CSA Legacy File No. "LR 33381";
- b) the catalogue number, reference number, or model;
- c) the month and year of manufacture, date code, applicable serial number, or equivalent;
- d) the words "Refer to installation instructions", or equivalent wording, and any applicable notices, warnings and directions to the installer;
- e) the warning "CAUTION: a ground fault protection device must be used with this heating device" and "ATTENTION: ce produit doit être utilisé avec une protection de mise à la terre";
- f) the maximum voltage for which the heating device or heating device set is intended;
- g) the maximum rated current or, for factory-assembled heating device sets, the total wattage;
- h) the rated output of the device expressed in watts per unit length or unit area at a reference temperature;
- i) the words "heating cable", "heating cable set", "surface heating device", or "surface heating device set", and usage marking and usage as shown in Table 1 (CSA Std. 130-16);
- j) the manufacturer's declared minimum installation temperature -40C;
- k) the Class(es) and, where appropriate, Division(s) and Group(s) of hazardous locations rating (e.g., Class I, Division 2, Groups A, B, C, and D, etc.);
- l) the temperature code (e.g., T6) or the maximum sheath temperature of the heating device except where engineered systems contain this information on drawings or other documentation;
- m) the CSA Mark.

### III. Installation Instructions

The manufacturer shall provide complete instructions for the installation and maintenance of the heating device and a statement that the heating device set must be installed in accordance with applicable codes. Instructions shall also include caution or warning notices that are specific to the heating device and its intended use. Instructions shall include the following:

- a) applicable ground fault protection requirements, when a ground fault protection device is not provided with the heating device;
- b) any restrictions that the heating portion of the heating device set shall not touch, cross over, or overlap itself;
- c) restrictions relating to the minimum spacing between adjacent heating devices, e.g., distance between parallel runs of heating cable;
- d) the recommended location of any temperature control sensor(s);
- e) restrictions regarding clearances from combustible surfaces;
- f) the minimum bending radius of each flexible heating device;
- g) recommended attachment methods;
- h) an explanation of the attribute and application markings for the heating device or heating device set;
- i) recommended inspection and test procedures;
- j) the minimum installation temperature for the heating device or heating device set -40C;



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- k) restrictions on permissible thickness and material (or insulation factor) of thermal insulation;
  - l) explanation of specific applications;
  - m) the Class(es) and, where appropriate, Division(s) and Group(s) of hazardous locations rating (e.g., Class I, Division 2, Groups A, B, C, and D, etc.);
  - n) the temperature code (e.g., T6) or the maximum sheath temperature of the heating device except where engineered systems contain this information on drawings or other documentation;
  - o) Field Assembly of Heating Devices:
    - a list of the components of the heating device set;
    - the maximum length of the heating device;
    - the recommended size of the overcurrent protective device;
    - the order, preparation, and method of assembling all components; and
    - explanation of specific applications.

**Notes:**

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Products certified under Class C287801 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). [www.scc.ca](http://www.scc.ca)

