

DANFOSS LX CONSTANT WATTAGE HEATING MAT SPECIFICATION FOR INDOOR FLOOR WARMING

1. GENERAL

Supply and install a complete system comprised of heating cables, accessories, and controls.

2. MATERIAL

- 2.1. Shall be Danfoss LX twin conductor heating cable.
- 2.2. Mat with strong dual self-adhesive backing (flexible thermoplastic polymer coated fibreglass).
- 2.3. The mat is rated to produce 12 W/ft² at 120V or 240V.
- 2.4. Shall include 10' cold lead, single point connection.
- 2.5. Conductor: Copper or copper alloy, with tin-nickel coating.
- 2.6. Insulation: DuPont FEP insulation with an average thickness not less than 0.35mm.
- 2.7. Shield: Tin-coated drain wire combined with 0.050 mm aluminium foil coated with 0.012 mm PBT, 100% coverage.
- 2.8. Jacket: PVDF with an average thickness not less than 0.25mm.
- 2.9. Shall operate on line voltage of (select: 120V, 208-240V).
- 2.10. Shall be approved to applicable UL and CSA standards.

3. SYSTEM CONTROLS

- 3.1. The system temperature shall be controlled by a Danfoss thermostat with a floor or air sensor, or a combination of both.
- 3.2. The thermostat shall incorporate an integral 5mA Class A Ground Fault Circuit Interrupter (GFCI), a temperature set-back option to reduce energy consumption, and a digital readout.
- 3.3. Shall be approved to applicable UL and CSA standards.

4. EXECUTION

4.1. Installation

- a. System must be installed per manufacturer's recommendation using the method described in the installation guide.
- b. Place the heating mats and sensors in the surface material as per the installation guide.
- c. Inspect the cable and controls upon receiving the shipment. Note any damage and ensure materials received match the order and shipping documents.

4.2. Tests

- a. Refer to the manufacturer's literature for requirements for testing and documenting cable resistance and insulation-to-ground readings.
- b. Take tests as outlined in the Installation Manual.
- c. If problems are discovered, consult the manufacturer.
- d. If unable to correct problems notify the engineer before proceeding with the installation.
- e. Keep a record of all readings for inspection by the engineer or for submittal to the manufacturer to ensure a valid warranty.

5. WARRANTY

- 5.1. Manufacturer shall offer a 10-year, non-prorated warranty.