
PART 1 **GENERAL**

1.1 **RELATED SECTIONS**

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 78 00 - Closeout Submittals.

1.2 **REFERENCES**

- .1 Codes and standards referenced in this section refer to the latest edition thereof.
- .2 Canadian Standards Association (CSA International)
 - .1 CSA C22.2 No.46, Electric Air-Heaters.

1.3 **PRODUCT DATA**

- .1 Submit product data in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit product data sheets for unit heaters. Include:
 - .1 Product characteristics.
 - .2 Performance criteria.
 - .3 Mounting methods.
 - .4 Physical size.
 - .5 kW rating, voltage, phase.
 - .6 Cabinet material thicknesses.
 - .7 Limitations.
 - .8 Colour and finish.
- .3 Submit product data sheets for unit heaters.
 - .1 Include product characteristics, performance criteria, physical size, limitations and finish.
- .4 Manufacturer's Instructions: Provide to indicate special handling criteria, installation sequence and cleaning procedures.

1.4 **CLOSEOUT SUBMITTALS**

- .1 Provide operation and maintenance data for unit heaters for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

PART 2 **PRODUCTS**

2.1 **MANUFACTURERS**

- .1 Acceptable Product:
 - .1 Ouellet
 - .2 Dimplex
 - .3 Stelpro.

2.2 **UNIT HEATERS**

- .1 Unit heater: to CSA C22.2 No.46, horizontal discharge complete with adjustable louvers finished to match cabinet or vertical discharge cone type with cone diffusers as indicated.
- .2 Fan type unit heaters with built-in high-heat limit protection, fan-delay switches.
- .3 Fan motor: totally enclosed, permanently lubricated ball bearing type with resilient mount.
 - .1 Built-in fan motor thermal overload protection.
- .4 Hangers: as indicated.
- .5 Elements: mineral insulated steel sheath with aluminum, continuous helical brazed fins.
- .6 Cabinet: steel, 1.6 mm thick, fitted with brackets for rod or wall mounting.
 - .1 Phosphatized and finished with 2 coats baked enamel in beige colour.

2.3 **CONTROLS**

- .1 Wall mounted or integral thermostats (as noted on the drawings): type line, low voltage or electronic, and solid state relays, Energy Star certified.

PART 3 **EXECUTION**

3.1 **INSTALLATION**

- .1 Suspend unit heaters from ceiling or mount on wall as indicated. Provide mounting bracket as required.
- .2 Install thermostats in locations indicated.
- .3 Make power and control connections.

3.2 **COMMISSIONING**

- .1 Perform tests in accordance with Section 26 05 00 – Common Work Results-Electrical.
- .2 Test cut-out protection when air movement is obstructed.

- .3 Test fan delay switch to assure dissipation of heat after element shut down.
- .4 Test unit cut-off when fan motor overload protection has operated.
- .5 Ensure heaters and thermostatic controls operate correctly.

END OF SECTION