

Electric duct heaters specification

- A. Supply and install electric heaters as manufactured by NEP (Neptronic) or approved equal, model DF, *slip-in or flanged or round collar* type, CSA-C and CSA-US certified according to CSA standard C22.2 No. 155 and UL 1996. Electric heaters shall be manufactured and approved for zero clearance for all combustible materials.
- B. Heater frames shall be made of *galvanized or stainless steel*, assembled with rivets – no welding allowed. The control panel shall have pre-punched flanges for easy field installation and rounded corners therefore preventing sharp edges.
- C. Heating elements shall be *open coil, grade C nickel chrome alloy (standard) or open coil, grade A (NiCr80) nickel chrome alloy, no traces of iron or tubular type, made of incoloy 800 (Nickel alloy) tube with a diameter of 3/8" (9.5mm) containing a heating coil in magnesium oxide powder or finned tubular type, made of incoloy 800 (Nickel alloy) tube with a diameter of 3/8" (9.5mm) containing a heating coil in magnesium oxide powder*, supported by ceramic bushings in an enclosed frame design.
- D. Electric heaters shall be provided with *an ON/OFF or a SSR modulating* first stage and fixed additional stages.
- E. All heaters have: *magnetic contactors (standard) or mercury contactors or silent type contactors; automatic thermal cutouts (standard) or manual thermal cutouts (when required by code); fixed or adjustable* airflow switch, transformer with secondary fuse, internal wiring for the number of stages indicated, disconnects etc.
- F. All the controls shall be integrated and pre-wired within a *NEMA-1 control panel which will include a removable, hinged door to provide easy access or NEMA-12 control panel which will include a removable, hinged door to provide easy access or NEMA-4 certified control panel or NEMA-4X certified control panel.*
- G. If scheduled, modulating electric heaters shall be supplied with an electronic sensor on each side of the heater to measure the temperature and the airflow, and a Neptronic HEC controller to adjust the output temperature in accordance with the measured parameters. The Neptronic HEC controller shall stop the electric heater when there is no airflow.