

Space Heaters

Space heaters are used to maintain internal air temperature above the dewpoint during periods of motor shutdown. In this way, water accumulation caused by moisture condensation inside the motor is prevented. Space heaters are recommended for installation in damp locations and should be activated when the motor is de-energized. Space heater capacity is selected, depending on the size of the enclosure, to maintain the temperature within the motor approximately 5° to 10° above the ambient temperature.

The only space heater currently in use for NEMA frame motors is a flexible type. The flexible space heater consists of a heating element enclosed within a silicone rubber jacket. These heaters are tied to the ends of the winding and conform to the shape of the coil end surfaces. Usually, one or more heaters are installed on each end of the stator winding.

The standard space heater data sheet shown on the following page indicates the total space heater wattage required for a particular frame size. Individual space heaters are arranged in series or parallel depending on the supply voltage to obtain the desired total wattage.

Note that for Division 2, we need a T3 (200°) temperature code or higher. The nameplate is marked "Max Surface Temp 200°C."

Space heater leads will normally be brought to the main conduit box of low voltage (600 volts and below), but can optionally be terminated in a conduit or auxiliary terminal box.