

Automatic Transfer Switch Option Space Heaters

Introduction

Condensation within a manual or automatic transfer switch is one of the main problems for component(s) operation and life expectancy. It will also create additional hazardous conditions that did not exist before the condensation was present.

Water is a good conductor of electricity and will significantly reduce the insulating dielectric value between current carrying conductors.

Rule of Thumb: Over dry, insulating surfaces, 2" min required between current carrying conductors. Through Air, 1" min required between current carrying conductors.

These dimensions may vary depending on the magnitude of the current and voltage being applied to the system but will vary in accordance with the NEC.

Water is also a corrosive agent to any metals and will cause rusting / corrosion buildup on the equipment.

With water sitting within the ATS, the potential for it to create a current path (electrical short) is high. To help prevent these conditions, all outdoor ATS equipment will come standard with the space heater option.

The main purpose of the space heaters is not to heat the enclosure to a comfortable level for humans, but to prevent condensation on the internal controls and equipment.

This will help eliminate or reduce this dangerous condition which will make the ATS much safer for maintenance personnel.

NOTE: If the switch is located near the ocean, corrosion is a given factor to dropping the life expectancy of the ATS from the normal 15 to 20 year span down to 5 to 10 years; possibly less depending on the environment. The space heaters will help extend the life expectancy, but not guaranteed.

Features

- Molded Case ATS
 - 100 - 400 A, W/M or F/S Enclosures
 - 600 A, W/M Enclosure
 - Qty (1) Space Heater, 81 Watt Power Consumption
 - 600 A, F/S Enclosure
 - 800 - 1200 A, F/S Enclosure,
 - Qty (2) Space Heaters, 160 Watt Power Consumption
- Insulated Case ATS
 - All Amperage and Sizes,
 - Qty (4) Space Heaters, 350Watt Power Consumption
- Permanently Installed, Adjustable Thermostat
- Finger Safe Fuse Protection that May Be Used as a Circuit Disconnect for Maintenance

Product Description

(Option: MP [SH], EM [44])

This option provides 350 Watt, 250 Volt strip heater, or heaters depending on the enclosure size, run at 120Vac.

Total power consumption per heater is 81W. These are used in conjunction with a wall mount style thermostat to help eliminate moisture build-up in the enclosure and to help prevent the controls from freezing.

Recommendations

Lake Shore Electric Corporation believes in providing the customer with a full turnkey solution to their needs. If the equipment does not fully meet your needs, please consult the factory for further information.

Standard Product Specifications

HEATER CIRCUIT SPECIFICATIONS	
Operating Voltage	120 Vac Heater Operation Power Transformer may be Required
Power Consumption	81 Watts per Heater
Heater Power Rating	350 Watt Heater, 250 Volt (Derated for Half Power Operation)
Ambient Temperature: Operating	-20°C to +60°C [-4°F to 140°F]
Ambient Temperature: Storage	-40°C to +80°C [-40°F to 176°F]
Relative Humidity	0 to 95% non-condensing

Order Guide

Part Number Examples:

1. ICFA32000BPSF - Insulated Case ATS, 3 pole, 2000 Amp, 120/208Vac, **24Vdc Microprocessor Controls**, 65kAIC @ 480Vac, NEMA 3R Free Standing Enclosure; Unit is an Outdoor Unit, so Space Heaters will automatically come installed.
2. ICFA32000BPSB/SH - Insulated Case ATS, 3 pole, 2000 Amp, 120/208Vac, **24Vdc Microprocessor Controls**, 65kAIC @ 480Vac, NEMA 1 Free Standing Enclosure, with Option SH included.
3. MCDA30400CESA/44 - Molded Case ATS, 3 pole, 400 Amp, 277/480Vac, **Electromechanical Controls**, 35kAIC @ 480Vac, NEMA 1 Wall Mount Enclosure with Option 44 included.
4. MCDM30400CESA/44 - Molded Case MTS, 3 pole, 400 Amp, 277/480Vac, **Manual Transfer Switch**, 35kAIC @ 480Vac, NEMA 1 Wall Mount Enclosure with Option 44 included.