

Guideline Specification

Schwank**HVAC Guideline Specifications****SECTION 23 83 00****eSchwank Titan Series**

Electric Infrared Heater – Indoor/ Outdoor Applications

Part 1 GENERAL**1.1 SYSTEM DESCRIPTION**

Indoor or outdoor commercial/ industrial overhead mounted, electric powered, short wave, infrared radiant heaters.

1.2 QUALITY ASSURANCE

- A. Heaters are tested in accordance with CSA C22.2 No. 46 and UL 2021 Standards and certified by ETL, for both Canada and USA (cETLus listed)
- B. Each heating element and assembled heater will be subjected to run testing on the assembly line.
- C. The heater will be warranted by the manufacturer for defects in material and workmanship for a period of two (2) years on heater components.

1.3 SUBMITTALS

- A. Product Specifications Sheets – All product data including:
 - 1. Rated heater capabilities in power (W) and rated voltage (V)
 - 2. Heater physical overall dimension
 - 3. Heater mounting configurations
 - 4. Heater clearances to combustibles requirements
- B. Installation and Operation Manuals

C. Mechanical schedule

D. Submittal documents

1.4 DELIVERY, STORAGE, AND HANDLING

The heater will be stored to secure against damage and handled per the manufacturer's recommendations.

Part 2 PRODUCT

2.1 MANUFACTURER

A. Acceptable Manufacturer: Schwank

2 Schwank Way, Waynesboro, GA 30830, USA

5285 Bradco Blvd., Mississauga, ON, L4W 2A6, CANADA

1-877-686-3779

csr@schwankgroup.com

B. Alternative or Substitutions: Not permitted. The Model shall be Schwank Titan series.

2.2 DESCRIPTION

A. Design and Performance

1. Heating element:

- a. The heater uses short wave bulbs to emit infrared heat, providing instant heat.
- b. The heating element will be manufactured utilizing tubular quartz with coiled tungsten filament.

2. Heater construction:

- a. The heater shall be constructed with 2 mm 6063 grade aluminum alloy extruded profile, with black powder coated finish.
- b. The heater shall be rated IP65 to protect against dust and other particles and low-pressure jets of directed water from any angle (limited ingress permitted with no harmful effects).
- c. Heating elements shall be pre-assembled with housing with completed wiring. Loose packed elements may be damaged during shipping or site installation. Loose packed elements are not allowed.

3. Reflector:

- a. Reflectors shall be constructed of 0.5 mm aluminum.
 - b. The reflectors are curved for optimized infrared reflection.
- 4. Junction box:
 - a. Heaters shall come up with IP65-rated weatherproof junction boxes with single-phase capability.
 - b. Terminal blocks shall be included in the junction box, and pre-connected with heating elements.
- 5. Front grille (Safeguard):
 - a. Heaters shall have optional front grille available, constructed with 3 mm diameter rods chrome plated steel.
 - b. It also works as a safeguard, to protect against accidental contact with heating elements. It shall be removable to allow heater maintenance.
- 6. Heater Brackets
 - a. Mounting brackets shall be included in the product packaging.
 - b. Heaters shall have the ability to be mounted horizontally or at an angle.
- 7. Serviceability:
 - a. Heaters shall be serviceable from the front while installed, following the detailed instructions from the manual. The operator shall be able to replace the heating element after its terminated life.
- B. Controls:
 - 1. The below optional controllers shall control the heaters:
 - a. Schwank ON/OFF disconnect switch
 - b. Schwank contactor panels with ON/OFF control
 - a. Working independently
 - b. Working with 24VAC thermostat
 - c. Working with 24VAC BMS control signal
 - d. Working with Schwank.ONE

Part 3 EXECUTION

3.1 PREPARATION

- A. The heater location shall meet the National Electrical Code, ANSI/NFPA 70 (USA), US National Electrical Code (NEC), and Canadian Electric Code CSA 22.1 (Canada) and comply with all local codes based on jurisdiction, as well as manufactures electrical and clearance requirements outlined in the product manual.

3.2 INSTALLATION

- A. Installation shall comply with all National Electrical Code requirements (NEC) and all applicable local codes.
- B. The heater shall be installed and operated according to the installation instructions, including maintaining the manufacturers' recommended clearances for combustibles.
- C. Electrical Installation must be performed by a licensed Electrician and shall comply with National Electrical Code ANSI/NFPA 70 and local jurisdictions and /or Canadian Electrical Code.

END OF SECTION