WATLOW ELECTRIC MANUFACTURING COMPANY

Installation & Maintenance Manual for Flange / Circulation Heaters

I&M MANUAL No: 316-42-8-1 Page: 1
Date: 05/01/2017 Rev: A

General Statement

The purpose of this product manual (the "Manual") is for Watlow Electric Manufacturing Company ("Watlow") to convey certain recommendations, advisories, and requirements regarding your purchase and use of the product(s) described below (the "Product"). This Manual is not intended to be an exhaustive list of recommendations, advisories, or requirements for the use of the Products. Please visit Watlow's website (http://www.watlow.com/) or contact Watlow customer service (1-800-WATLOW2) for more information regarding Watlow's products. To ensure the proper use of the Product, each User of the Products should carefully review this Manual. FAILURE TO COMPLY WITH THE INFORMATION PROVIDED HEREIN SHALL CAUSE THE USER TO ASSUME ALL RISK AND LIABILITY ARISING OUT OF SUCH FAILURE.

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Product Description

This document is intended to convey Watlow's recommendations for Flange / Circulation Heaters designed with WATROD, FIREBAR, MULTICELL, and/or FIREROD elements, to the following specifications:

Component Process flange heaters, up to 14" ANSI (or other rated) flange or plate flanges of various sizes, with or without thermocouple temperature sensor(s), with or without process thermostat, with or without thermowell, with or without terminal enclosures, with or without terminal blocks, rated voltage up to 600 VAC for North America or 1000 VAC @ mains frequency (or 1500 VDC) for the EU, 1 or 3 phase, sheath watt density up to 100 WSI, for use in Ordinary (Non-Classified) Locations only. May be provided with a vessel or circulation tank. See product number on product label / nameplate. For CE Marked products, see product designation on the back of the Declaration of Conformity.

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NOTE: Flange heaters are primarily designed to heat liquids in tanks or vessels. However, they can also be used to heat gases and other substances.

NOTE: This style of heater is primarily designed to be powered by the Mains and hence will be operated at a frequency of 50 or 60 hertz. They may optionally be powered by DC.

NOTE: The Operating Current is important for the User to calculate, in order to properly size the feed wire and other components for the safe operation of the heater. Rated Voltage and wattage are provided for this purpose.

NOTE: The rated temperature range is not stated, since this heater is a component in the User's overall system, however it is the User's responsibility to keep the electrical enclosure temperature below 93°C (200°F). Be sure to read and understand the warnings given in the Electrical Enclosure section of this manual.

Safety Statements

The following markers utilized throughout this Manual shall have the meanings set forth below.



DANGER

This is a Danger statement that is related to the use of this heater. Failure to heed these messages will result in serious personal injury or death.



WARNING

This is a Warning statement that is related to the use of this heater. These statements warn of actions that may result in physical injury or death.



WARNING - Risk of Electric Shock

This is a Warning statement that warns of the presence of electrical voltages which can cause physical injury or death.



CAUTION

This is a Caution statement that is related to the use of this heater. These statements cautions against actions which may damage the heater or associated equipment.

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Safety (Generally)

The following sets forth general safety requirements and recommendations relating to the use of the Product(s).



WARNING

The User must ensure that the installer uses all relevant PPE (Personal Protection Equipment).



WARNING

This appliance/component is not intended for use by persons (including children) with reduced sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.



WARNING

Electric heaters are inherently dangerous!! Care should be taken to read and completely understand this document before installing and wiring the heater.

Due to the design intent of this component, it will inherently become hot during operation. Therefore, the User must conduct their own Risk assessment to identify if there is any residual risk pertaining to direct contact with hot surfaces.

Due to the weight of some heaters, additional lifting equipment may be required. Use caution whenever handling the heater.



WARNING - Risk of Electric Shock

Any installation and maintenance performed on this heater shall only be done by a qualified electrician, in accordance with applicable national and local electrical codes.

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