North Ja
Ph : 2

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 09/29/14

Submittal

Job: 1403
Nathan Clifford
180 Falmouth Street
Portland, ME

Spec Section No: 230000 2.11
Submittal No: 1
Revision No: 0
Sent Date: 3/24/2014
Due Date: 3/31/2014

Spec Section Title:

Submittal Title: Cabinet Unit Heaters
Color Selection Must Be Made As Well

Contractor:
Ranor Mechanical
Wes Sirois

Contractor's Stamp

CCB, Inc

Architect's Stamp

Engineer's Stamp

Digitally signed by Wesley P. Sirois
DN: cn=Wesley P. Sirois, o=Ranor Mechanical, ou, email=wes@ranormech.com, c=US
Date: 2014.03.31 13:00:26 -04'00'

CUH1-6

QMARK®
A Marley Engineered Products Brand

470 Beauty Spot Rd. E, Bennettsville, SC 29512

SUBMITTAL SHEET
SMART SERIES
DIGITAL FAN-FORCED HIGH OUTPUT WALL HEATERS
SSHO SERIES

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SMART™ ENERGY SAVER

green wizard

CAPACITIES
1800 - 4000 Watts 208V, 240V, and 277V @ 1Ø

Thermostat Range: 40 - 99 Degrees F
Air Movement: 100 CFM

JOB NAME: Nathan Clifford School
LOCATION: Portland Maine
ARCHITECT:
ENGINEER:
CONTRACTOR: Ranor
SUBMITTED BY: FW Webb/ Ed Bonenfant
DATE: 3/21/14

ITEM	QTY.	CATALOG NUMBER	TAG	WATTS	VOLTS	AMPS	BMS CONNECTION (Y/N)
	6	SSHO4008	CUH	4000	208V	19.2	N

ACCESSORIES AND CONTROLS

ITEM	QTY.	CATALOG NUMBER	TAG	DESCRIPTION

SUBMITTED BY:	DATE

APPROVED BY:	DATE

SERIES - DIGITAL FAN-FORCED HIGH OUTPUT WALL HEATERS

SSHO SERIES

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SELECTION CHART

CATALOG NUMBER	VOLTS	WATTS	AMPS	BTUHR
SSHO4008	208	1800 - 4000	8.7 - 19.2	13,650
SSHO4004	240	1800 - 4000	7.5 - 16.7	13,650
SSHO4007	277	1800 - 4000	6.5 - 14.4	13,650

Note: Standard grille color is Northern White
Add NV (Navajo White) or SB (Stat Bronze) suffix to catalog number.
Example: SSHO4008NV
Allow two weeks delivery for models with special color.
See Color Selection Chart for custom colors.

SELECTION CHART

CATALOG NUMBER	DESCRIPTION
HTWHSM	Surface Mounting Frame 16-1/4" W x 19-3/8" H x 3-7/8" D
HTWHS1	1" Semi-Recess Mounting Frame 16-1/4" W x 19-3/8 " H x 1" D
HTWHS2	2" Semi-Recess Mounting Frame 16-1/4" W x 19-3/8" H x 2" DNote: Standard grille color is Northern White

Add NV (Navajo White) or SB (Stat Bronze) suffix to catalog number.
Example: SSHO4008NV
Allow two weeks delivery for models with special color.
See Color Selection Chart for custom colors.

MOUNTING LIMITATIONS
Do not install heater closer than 12 inches to the floor, 12 inches to an adjacent wall, 36 inches to the ceiling. Do not install heater behind towel rack or door, upside down or sideways, in the floor, in the ceiling, or in closets.

Architect's and Engineer's Specifications

The electric fan-forced High Output wall heater shall be as manufactured by QMark, A Marley Engineered Products Brand, Bennettsville, SC. Heaters shall be certified by ETL to standard for heating equipment and meet UL standard 2021. All capacities, voltages, physical sizes, grille arrangements and options shall be specified in the heater schedule. The heater shall be designed for wall recess or surface mounting.

Heater Assembly: The heater assembly which fits into the back box shall consist of an 18 gauge, powder coated steel fan panel which are mounted all of the operational parts of the heater. The front grille shall be of the louvered type and shall be commercial grade 20 gauge steel construction finished in polyester powder coating which resists fading and abrasion.

Heating Elements: The heating elements shall be warranted for five years and shall be of non-glowing design consisting of 80-20 Ni/Cr resistance wire enclosed in a steel sheath to which steel plate fins are brazed. The heating element shall cover the entire air discharge area to ensure uniform heating of all discharge air.

Thermal Limit: The heater shall be equipped with a manual-reset safety limit control that will automatically shut off heater in event of overheating due to any cause. The safety cutouts shall directly interrupt power to the elements. A red warning light will illuminate (visible through the grille) to alert that this control has been activated.

Fan and Motor Assembly: The motor and fan assembly shall be direct drive and mounted on rigid heavy gauge brackets for quiet operation. The fan shall be five-bladed aluminum. The fan motor shall be totally enclosed.

Fan Delay Control: Fan control shall delay fan startup of the fan motor until the heating elements have warmed up. It shall maintain motor operation after heating elements have been de-energized to dissipate residual heat build-up.

Temperature Control: The unit is designed to be controlled electronically with a built-in electronic digital LCD touch screen display mounted on the grille and control board mounted on the fan panel. This control will maintain room temperatures within 1-½ degrees of set point. The output of heat is proportionally controlled as to how much heat is needed to satisfy the set point. Heater automatically adjusts wattage output for optimum comfort. Heater settings can be locked out for security purposes.

Disconnect Switch: This ON/OFF switch shall be mounted on the fan deck to disconnect single point connection to power supply for the internal electrical components, including the heating element. It will be completely concealed behind the front grille panel.

Building Management Connection: The unit shall include a unique built-in Building Management System (BMS) connection. This allows the building management system to connect directly to the heater using a dry contact switch (no voltage) to control the heater. A BMS icon is illuminated and all other icons are turned OFF and all buttons are disabled.

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COLOR SELECTION CHART

STANDARD PAINTED COLORS

Navajo White

Statuary Bronze

Northern White

Desert Tan

Charcoal Grey

Neutral Grey

Aluminum

Gloss Black

OPTIONAL PAINTED COLORS - **Custom colors, are available at additional cost.** Please contact your local QMark sales representative. Clear and Bronze Anodized finishes are available for Type DBA/SHA and DSH convectors only.
NOTE: All colors are approximate - as nearly correct as can be produced by modern printing.

PAINT POLICY
Primer: For applications that require a primer coat, a "Neutral Grey" powder coat will be provided as standard color. If needed, consult factory for more detailed information.

To minimize the possibility of error when ordering material painted a custom color, a color chip of the custom color must be included with the order.

The chip must be a minimum 3" x 5" and be of the same material as the enclosure of the ordered heater (ie, Steel or Aluminum).

NOTE: All colors are approximate - as nearly correct as can be produced by modern commercial printing.