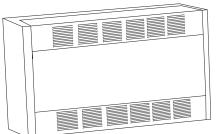
## PRODUCT SUBMITTAL SHEET

Submitted By:



Job Name:\_

Location: \_



### Capacities

2 - 32 KW 208, 240, 277, 347, 380, 480 or 600V 1 or 3 Phase Thermostat Range: 40° - 90° F Air Movement: 500 CFM MAX

# CUS SERIES CABINET UNIT HEATERS



Date:

Archite	ct:									
Engine	er:				Appro	ved By:			[	Date:
Contrac	tor:									
Submit	ted By:			]						
Date: _										
Item	QTY	Catalog Number	Tag	Wa	tts	Volts	PH	AM	PS	Weight

#### **SELECTION CHART**

CATALOG	KW			CFM	CABINET	WEIGHT						
NUMBER	HIGH / LOW	VOLTS	AMPS	HIGH LOW	LENGTH	LBS						
NON-FIELD CONVERTIBLE MODELS												
CUS93505271FFNC	5 / 3.3	277V / 1Ø	18.0	250 / 200	35"	120						
CUS93505483FFNC	5 / 3.3	480V / 3Ø	6.0	250 / 200	35"	120						
CUS94510271FFNC	10 /6.7	277V / 1Ø	36.0	500 / 400	45"	160						
CUS94510483FFNC	10 /6.7	480V / 3Ø	12.0	500 / 400	45"	160						
FIELD CONVERTIBLE	MODELS											
CUS93505203FF	5 / 3.3	208V / 3Ø	14.0	250 / 200	35"	120						
CUS93505243FF	5 / 3.3	240V / 3Ø	12.0	250 / 200	35"	120						
CUS93505483FF	5 / 3.3	480V / 3Ø	6.0	250 / 200	35"	120						
CUS93505603FF	5 / 3.3	600V / 3Ø	4.8	250 / 200	35"	120						
CUS94510203FF	10 / 6.7	208V / 3Ø	34.0	500 / 400	45"	160						
CUS94510243FF	10 / 6.7	240V / 3Ø	15.0	500 / 400	45"	160						
CUS94510483FF	10 / 6.7	480V / 3Ø	12.0	500 / 400	45"	160						
CUS94510603FF	10 / 6.7	600V / 3Ø	9.0	500 / 400	45"	160						

Note: Factory supplied 208 or 240 Volts, 3 Ph. field convertible to 1 Ph., 480 Volts 3 Ph. convertible to 277 Volts 1 Ph., 600 Volts 3 Ph. convertible to 347 Volts 1 Ph. Amps shown are 3 Ph., High heat operation.

### **ARCHITECT'S AND ENGINEER'S SPECIFICATIONS**

The electric cabinet unit heaters shall be as manufactured by QMark®, a Marley Engineered Products Brand. Heaters shall be UL/cUL Listed, designed for mounting in any position, including on-end, fully recessed, semi-recessed or surface mounted. All capacities, voltages, physical sizes should be as specified in the heater schedule. All three phase heaters shall have a balanced heating load. Control voltage is to be internally generated to standard 24 VAC (optional 120 VAC).

**CABINET** - The cabinet shall be of heavy duty cold-rolled steel. The heater front covers shall be securely attached to the cabinet with a maximum of two slotted head style spring latches (optional Toolhead Key Lock) and easily removable for access to elements, filters and control panel. Cabinet shall be finished in Neutral Gray (Optional - Color by Architect) polyester powder coated.

**HEATING ELEMENTS** - The heating elements shall be warrantied for five years and shall be of non-glowing design consisting of 80/20 NiChi resistance wire enclosed in a steel sheath to which steel plate fins are brazed. The heating element shall be located directly in front of the blower discharge air for uniform heating.

**SAFETY THERMAL CUTOUTS** - Thermal cutouts shall be built into the system to automatically shut off heater in event of overheating due to any cause. The thermal cutouts shall directly interrupt power to the elements and not depend on relays to interrupt the power. (Optional - Backup manual reset thermal safety cutout in the control circuit shall prevent heater reenergizing until cause of overheating has been cleared by a qualified service technician).

MOTOR AND BLOWER ASSEMBLY - The motor(s) and blower(s) shall be direct drive and resiliently mounted on a rigid heavy duty frame for quiet operation and long life. The motor(s) shall be two speed 1/8 H.P. with automatic reset overload protection. The motor(s) shall be vented and mounted in the air stream to provide maximum cooling of the motor(s). Motor(s) fuse protection shall be provided to meet UL, cUL and NEC requirements. The blower(s) shall be forward curved, double inlet, centrifugal type with discharge directly on the full length of the elements to provide uniform discharge air temperatures.

AIR FILTERS - The filter shall be located ahead of the motor and blower assembly to ensure clean air circulation. The filter shall filter either the returning room or the outside air if the optional outside air damper assembly is provided. Filter shall be easily removed for changing or cleaning by removing the front panel and pulling on the filter. A disposable filter is standard and a permanent washable filter is optional.

**FRONT COVER INTERLOCK** - Heater shall be provided with an electrical interlock to shut down the heater when the front cover is opened to provide safety to the maintenance personnel during filter cleaning (replacement) or other maintenance.

**FAN DELAY CONTROL** - Fan control shall delay start up of the fan motor(s) until the heating elements have warmed up. It shall maintain motor operation after heating elements have been de-energized to dissipate residual heat.

**TEMPERATURE CONTROL** - Thermostat shall be built-in, snap-action single stage with remote bulb sensor located in the return air stream. Terminals shall be provided in the control panel for direct connection of the remote wall mounted thermostats. Silent time delay relays shall be provided, rather than contactors,

to eliminate the noise of contactor opening and closing.

**TERMINALS FOR REMOTE INTERLOCK** - Terminals shall be provided in the control panel for connection to Building Automation or Energy Management Systems.

**HEAT SELECTION/FAN SPEED CONTROL**- Two fan speeds and high-low heat ranges shall be selectable by means of a single rocker switch located behind the front cover.

**CIRCUIT BREAKERS** - Circuit breakers shall be provided for branch circuit protection where required by UL, cUL and NEC (Optional - Circuit breakers shall be supplied on all heaters).

INTERCHANGEABLE INTAKE AND DISCHARGE LOUVERS - Heater shall be provided with intake louvers that can be changed from front to bottom by removing a maximum of two screws. Discharge louvers shall be able to be changed from front to top by removing a maximum of two screws.

