

470 Beauty Spot Rd. E

Bennettsville, SC 29512

	TAG/ITEM	QTY.	CATALOG NUMBER	DESCRIPTION
ACCESSORIES				
AND				
CONTROLS				

SUBMITTED BY:	DATE

APPROVED BY:	DATE

SUBMITTAL SHEET

**CDF SERIES** 

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**COMMERCIAL DOWNFLOW CEILING HEAT** 

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

The heating equipment shall include an electric, ceiling-mounted type CDF Series 500 fan-forced air heater suitable for large area heating as manufactured by QMark<sup>®</sup>, a Marley Engineered Products<sup>®</sup> Brand, Bennettsville, SC. Heater shall be cULus listed.

The heater shall be designed for surface, recess, or T-Bar mounting. For surface mounting, a QMark CDF-SE surface enclosure shall be used. For T-Bar mounting, a QMark CDF-RE recess enclosure shall be used. For recessed mounting in a permanent ceiling, a QMark CDF-RE recess enclosure and CDF-TK trim kit shall be used.

The heaters shall be factory wired for single-phase operation and field convertible to three-phase operation by removing one jumper wire.

The heaters should be factory wired for full wattage and field convertible to 75% or 50% wattage by the removal of one or two wires respectively.

**HEATER SECTION**: The heater section shall consist of a 20 gauge steel chassis on which are mounted the heating elements, fan motor and blade, fan control, thermal cutout, and 3-pole contactor. Heater section shall be completely prewired.

**HEATER ELEMENTS**: The heating elements shall be warrantied for five years and shall be of nonglowing design consisting of 80/20 NiCh resistance wire, enclosed in a steel sheath, to which steel plate fins are brazed. The elements shall cover the entire air intake area to ensure uniform heating of all discharged air. **MOTOR AND CONTROLS**: The fan motor shall be impedance-protected, permanently lubricated, and with totally-enclosed rotor. Fan control shall be bimetallic, snap-action type and shall activate the fan immediately and continue to operate the fan after the thermostat is satisfied and until all heated air has been discharged. Thermal cutout shall be bi-metallic snap-action type designed to automatically shut off the heater in the event of overheating and reactivate the heater when temperature returns to normal.

**OPERATIONAL CONTROLS**: Thermostat, disconnect switch, and all interlock relays shall be installed within the heater enclosure.

**RECESS ENCLOSURE**: The back box shall be designed for duty as a recessed rough-in box in masonry, T-Bar, or frame ceiling construction. The back box shall be 20 gauge galvanized steel and shall contain knockouts through which field wiring leads are brought. Enclosures to recess into a maximum 7 inches of ceiling space.

The louvered recess faceplate shall be of 20 gauge cold rolled steel, phosphatized, then electrostatically painted White by a baked enamel process.

**SURFACE ENCLOSURE**: The surface mounting plate shall be designed for duty as a rough-in box on masonry, T-Bar, or frame ceiling construction. The surface mounting plate shall be 20 gauge galvanized steel and shall contain knockouts through which field wiring leads are brought. Enclosure to extend a maximum of 6 inches into the heated space.

The louvered surface wrapper shall be contoured aluminum extrusion and 20 gauge sheet metal combination with rounded corners. The surface wrapper shall be electrostatically painted Navajo White or White by a baked enamel process.

\*QMark reserves the right to change specifications without prior notice

### Models & Specifications:

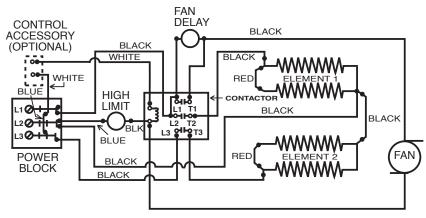
ITEM INFORMATION			ELECTRICAL DATA					
CATALOG NO.	UPC	MOUNTING	ĸw	BTU/HR.	AMPS	VOLTS	PHASE	SHIP WT.
CDF548	685360015101	Heater Section Only	4/3/2	13.7/10.2/6.8	19.2/14.2/9.6	208	1-3	27 lbs
CDF542	685360015088	Heater Section Only	4/3/2	13.7/10.2/6.8	16.7/12.5/8.3	240	1-3	27 lbs
CDF547	685360015095	Heater Section Only	4/3/2	13.7/10.2/6.8	14.4/10.8/7.2	277	1	27 lbs
CDF558	685360015132	Heater Section Only	5/3.8/2.5	17.1/13/8.5	24/18.3/12	208	1-3	27 lbs
CDF552	685360015118	Heater Section Only	5/3.8/2.5	17.1/13/8.5	20.8/15.8/10.4	240	1-3	27 lbs
CDF557	685360015125	Heater Section Only	5/3.8/2.5	17.1/13/8.5	18.1/13.7/9	277	1	27 lbs

#### **Optional Accessories:**

CATALOG NO.	UPC	DESCRIPTION	SHIP WT.
CDFSE	685360015019	Surface-mounted enclosure (Navajo White) — to be used With above heater section. 20" L x 16 $\frac{1}{2}$ " W x 5 $\frac{3}{4}$ " D	10 lbs
CDFRE	685360014982	Recessed-mounted enclosure (Navajo White) - to be used With above heater section. 23 3/4" L x 23 3/4" W x 7" D	18 lbs
CDFSENW	685360149615	Surface-mounted White — to be used With above heater section. 20" L x 16 $\frac{1}{2}$ " W x 5 $\frac{3}{4}$ " D	10 lbs
CDFRENW	685360149639	Recessed-mounted White – to be used With above heater section. 23 3/4" L x 23 3/4" W x 7" D	18 lbs
CDFT	685360015033	Integral thermostat SPST – Range 45 to 95°F	1 lbs
CDF24R	685360015071	Relay (Time Delay 45-60 sec. to close when energized) requires 24V supply from remote source	1 lbs
CDFR12	685360015002	Relay (Time Delay 45-60 sec. to close when energized) requires 120V supply from remote source	1 lbs
CDFDS_R	685360174952	Recessed Mount Power Disconnect Switch (3-Pole) 30 amps, 600 volts, 3Ø, 60 Hz	1 lbs
CDFDS_S	685360174945	Surface Mount Power Disconnect Switch (3-Pole) 30 amps, 600 volts, 3Ø, 60 Hz	1 lbs
CDFTK	685360015040	Trim Ring for mounting on permanent ceiling (cannot be factory installed)	1 lbs
CDFTR4	685360015057	208/240V Primary Transformer/24V sec. and 24V holding coil control relay	1 lbs
CDFTR7	685360015064	277V Primary Transformer/24V sec. and 24V holding coil control relay	1 lbs
CDFRFK	685360171548	Mounting Bracket Retrofit Kit	2.5 lbs

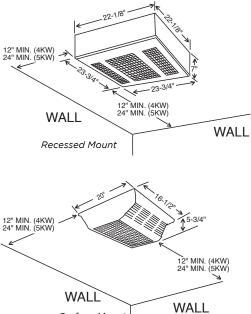
NOTE: Factory-wired for highest wattage, field-convertible to lower wattages. Factory-wired 1-PH, field convertible to 3-PH dual-phase units, maximum amp draw is listed. Amperage shown is for single phase. For factory installation of above controls, additional charges apply.

## Electrical Wiring, Standard Factory Wired Diagram:



CAUTION: Field wiring must be #10 AWG. min. rated 90°C. min.

#### Dimensions and Clearances:



Surface Mount

No matter the industry or application, Marley Engineered Products has a robust portfolio of innovative, reliable, high-performance comfort heating and ventilation solutions for all your heating needs.

Scan the QR code to access additional specs and features



For more information or assistance on your next project, contact Technical Services at 800-642-4328