



COOLING TECHNOLOGY INSTITUTE

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August 25, 2021
(Revision 1)

Delta Cooling Towers Pvt. Ltd.
1st Floor, Bhagwati Sadan, Plot no. 8, Community Centre,
BH Block (East), Shalimar Bagh, DELHI-110088 (INDIA)

Subject: CTI Cooling Tower Certification for the
Delta Cooling Towers Pvt. Ltd.
DFC – 60UX Cooling Towers

Greetings:

The Delta Cooling Towers Pvt. Ltd. line of DFC – 60UX counter-flow, induced-draft, cooling towers, as described in your original application and subsequent revisions through August 9, 2021, has satisfactorily fulfilled the requirements for certification of thermal performance by the Cooling Technology Institute (CTI), as set forth in the CTI Certification Standard STD-201(19). A listing of the forty-one (41) DFC – 60UX models currently encompassed by this certification is included with this letter for reference.

The Delta Cooling Towers Pvt. Ltd. line of DFC – 60UX cooling towers has been assigned and should use CTI Certification Validation Number C85A-18R01. You are hereby authorized and encouraged to properly display the CTI Certification Logo in all pertinent literature for the line and required to affix the CTI Certification Label to all towers comprising the line, as provided in the CTI STD-201 Certification Standard.

This CTI Certification requires the successful completion of a CTI Annual Reverification Test to remain in effect in subsequent years.

Very truly yours,

Michael G. Womack, PE
CTI Thermal Certification Administrator



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Delta Cooling Towers Pvt. Ltd.
DFC – 60UX Line of CTI Certified Cooling Towers
CTI Certification Validation Number C85A-18R01
August 25, 2021

Single Cell Models

6070 UX	6200 UX
6080 UX	6220 UX
6100 UX	6240 UX
6115 UX	6260 UX
6130 UX	6280 UX
6140 UX	6300 UX
6160 UX	6330 UX
6170 UX	6360 UX
6180 UX	

Multi-cell Models

2-Cell Models	3-Cell Models	4-Cell Models	6-Cell Models	8-Cell Models	9-Cell Models
6400 UX	6900 UX	61K2 UX	62K4 UX	62K2 UX	62K5 UX
6450 UX	61K0 UX	61K3 UX	62K7 UX	62K3 UX	62K6 UX
6500 UX	61K1 UX	61K4 UX	63K0 UX	62K8 UX	
6600 UX		61K5 UX			
6700 UX		61K6 UX			
6800 UX		61K8 UX			
		62K0 UX			

See Footnotes, Next Page



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Footnotes:

1. The above models use side, end or bottom water inlet configuration.
2. The above listed models use standard construction materials - FRP (Fiberglass Reinforced Plastic) casing, basin/sump, fan deck & fan cylinder; HDG (Hot Dipped Galvanized) steel structure; GI hardware; direct driven fan; fixed type water distribution system & splash cups; PVC honeycomb fill; PVC extruded 'C' section drift eliminators; and, 415 Volt/50 Hz/3 Phase fan motor with extended shaft.
3. The above models can be provided with fan motors suitable for 220V, 380V or 460V and 60Hz. Flame proof motors can also be provided without impact on capacity. Optional high efficiency motors are also available.
4. Certification includes alternate casing and basin materials without compromising on the thermal performance of the above models. Such modified models will be suffixed 'A'. Alternate stainless steel hardware is also available.

Certified Model Number Examples:

Example 1: DFC 6400 UX

- DFC (-60 UX) – Line Designation
6400 UX – Model Number (Two-cell Model)



CTI Thermal Certification Test Report T85A-114-19C

**Annual Reverification Test (Carryover)
On the Delta Cooling Towers Pvt. Ltd.
DFC – 60UX Line, Model 6360 UX
1-cell, Induced-draft, Counter-flow Cooling Tower
Tested At a Customer Site
in Delhi, India**

**For Delta Cooling Towers Pvt. Ltd.
1st Floor, Bhagwati Sadan, Plot no. 8, Community Centre
BH Block (East), Shalimar Bagh, DELHI-110088 (INDIA)**

**Test Date: June 22, 2021
Test No. T85A-114-19C**

Prepared by: Michael G. Womack, P.E.
CTI Thermal Certification Administrator
c/o CleanAir Engineering

Summary

McHale and Associates, Inc. (McHale) has been designated by the Cooling Technology Institute (CTI) to conduct thermal certification tests as set forth in the CTI STD-201(19) certification standard. A CTI Annual Reverification Test was performed for Delta Cooling Towers Pvt. Ltd. (Delta) on their DFC – 60UX line, model 6360 UX, 1-cell, induced-draft, counter-flow cooling tower. The test was conducted at a Delta Customer Facility in Delhi, India. The purpose of the CTI Annual Reverification Test is to verify the thermal performance of the subject model as required to maintain CTI Certification of the line of cooling towers, and to support Revision 1 of the certification, adjusting the rated capacity of certain models. The work was performed by McHale as an independent contractor licensed by the CTI for STD-201 testing services.

The Annual Reverification Test was conducted on June 22, 2021, in accordance with the CTI Standard for Performance Rating of Evaporative Heat Rejection Equipment, STD-201RS(19). The test data were acquired in accordance with the CTI Acceptance Test Code for Water-Cooling Towers, ATC-105(00). All thermal parameters were measured with precision platinum RTD temperature probes and recorded using a data acquisition system consisting of a multi-channel data logger interfaced with a laptop computer. The circulating water flow was measured using a hydraulic pitot tube with an air-over-water manometer. Fan motor power was measured with a clamp-on digital kilowatt meter. Following the test, the computer system was used to average the test data, assist with selection of time periods for analysis, and calculate the test results.

The test results were calculated for one time period selected during the Annual Reverification Test by using the manufacturer's expanded rating table and the methods of analysis as specified in the CTI STD-201 certification standard. The data indicate that the Delta model 6360 UX cooling tower was operating at 95.5% of its published capacity during the test on June 22, 2021, which exceeds the 95% minimum allowed by the CTI STD-201.

Therefore, the Delta Cooling Towers Pvt. Ltd., DFC – 60UX line of cooling towers has fulfilled the testing requirement to maintain thermal certification as per CTI STD-201, and to support Revision 1 of the certification.

The CTI STD-201 Certification requires the successful completion of a CTI Annual Reverification Test on a different model each year to remain in effect in the subsequent year.

Clean Air Engineering, Inc.
Thermal Certification Administration Services

Prepared by:

Michael G. Womack, P.E.
CTI Certification Administrator