APPLICATION FOR OSHPD SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY	
APPLICATION #:	OSP – 0001

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Baltimore Aircoil Company, Inc.

Manufacturer's Technical Representative: Linfeng Chen, Principal Engineer

Mailing Address: 7600 Dorsey Run Rd., Jessup, MD, 20794

Telephone: 410-799-6481 Email: lchen@baltimoreaircoil.com

Product Information

Product Name: PT2 Open Cooling Tower

Product Type: Open Cooling Tower

Product Model Number: See attached
(List all unique product identification numbers and/or part numbers)

General Description: Evaporative cooling towers with upgraded seismic structural bracing. Seismic enhancements made to the test units required to address the anomalies observed during the tests shall be incorporated into the production units.

Mounting Description: Rigid and isolated base mount

Applicant Information

Applicant Company Name: The VMC Group

Contact Person: John Giuliano

Mailing Address: 113 Main Street, Bloomingdale, NJ 07403

Telephone: 973-838-1780 Email: john.giuliano@thevmcgroup.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016.

Signature of Applicant: Date: 5/21/19

Title: President Company Name: The VMC Group

California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

Company Name: The VMC Group

Name: Kenneth Tarlow California License Number: SE-2851

Mailing Address: 113 Main Street, Bloomingdale, NJ 07403

Telephone: 973-838-1780 Email: ken.tarlow@thevmcgroup.com

Supports and Attachments Preapproval

☐ Supports and attachments are preapproved under OPM- _____
(Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)

☒ Supports and attachments are not preapproved

Certification Method

☒ Testing in accordance with: ☒ ICC-ES AC156

☐ Other (Please Specify): _____

Testing Laboratory

Company Name: Construction Engineering Research Laboratory (CERL)

Contact Name: James Wilcoski, Lab Manager

Mailing Address: 2902 Newmark Dr., Champaign, IL 61822

Telephone: 217-373-6763 Email: james.wilcoski@usace.army.mil

Company Name: University of Nevada, Large Scale Structures Laboratory

Contact Name: Sherif Elfass

Mailing Address: 1664 N. Virginia St., EEL Building #066, University of Nevada, Reno 89557

Telephone: 775-784-6664 Email: elfass@unr.edu

Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: ☒ Yes ☐ No

Design Basis of Equipment or Components (F_p/W_p) = 2.91 for rigid, 4.37 for isolated

S_{DS} (Design spectral response acceleration at short period, g) = 1.94

a_p (In-structure equipment or component amplification factor) = 2.5

R_p (Equipment or component response modification factor) = 3.0 for rigid, 2.0 for isolated

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1

Equipment or Component Natural Frequencies (Hz) = See attachment

Overall dimensions and weight (or range thereof) = See attachment

Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: ☐ Yes ☒ No

Design Basis of Equipment or Components (V/W) =

S_{DS} (Design spectral response acceleration at short period, g) =

S_{D1} (Design spectral response acceleration at 1 second period, g) =

R (Response modification coefficient) =

Ω_0 (System overstrength factor) =

C_d (Deflection amplification factor) =

I_p (Importance factor) = 1.5

Height to Center of Gravity above base =

Equipment or Component Natural Frequencies (Hz) =

Overall dimensions and weight (or range thereof) =

Tank(s) designed in accordance with ASME BPVC, 2015: ☐ Yes ☒ No

List of Attachments Supporting Special Seismic Certification

☒ Test Report(s) ☒ Drawings ☐ Calculations ☒ Manufacturer's Catalog

☐ Other(s) (Please Specify):

OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2025

Signature: Timothy J. Piland Date: February 23, 2021

Print Name: Timothy J. Piland Title: SSE

Special Seismic Certification Valid Up to : S_{DS} (g) = 1.94 z/h = 1

Condition of Approval (if applicable):

Table 1: Certified Units

Certified Mounting: Rigid and Isolated Base

Certified Level: S_{DS} = 1.94g , z.h=1.0

Base Model No.[1,2,3]	No. of Cells[4]	Shipping Weight[5] (lbs)	Operating Weight[5,6] (lbs)	Nominal Tonnage[7]	Length	Width	Height	Certification Basis[8]
PC2-50-0406-7.5/S	1	2,693	4,199	N/A	6'-0"	4'-0"	17'-9 3/4"	Tested - UUT D(a,b)
PT2-0412A-2J1/S	1	3,520	5,950	149	12’-0”	4’-0”	11’-1"	Interpolated
PT2-0709A-1H1/S	1	3,490	6,250	125	9’-0"	7’-4"	11’-5”	
PT2-0709A-1H2/S	2	7,100	12,610	253	18’-1"	7’-4"	12’-5”	
PT2-0709A-1H3/S	3	11,230	19,500	385	27’-2"	7’-4"	13’-5”	
PT2-0709A-1J1/S	1	3,490	6,250	143	9’-0"	7’-4"	11’-5”	
PT2-0709A-1J2/S	2	7,100	12,610	289	18’-1"	7’-4"	12’-5”	
PT2-0709A-1J3/S	3	11,230	19,500	439	27’-2"	7’-4"	13’-5”	
PT2-0709A-1K1/S	1	3,490	6,250	157	9’-0"	7’-4"	11’-5”	
PT2-0709A-1K2/S	2	7,100	12,610	316	18’-1"	7’-4"	12’-5”	
PT2-0709A-1K3/S	3	11,230	19,500	481	27’-2"	7’-4"	13’-5”	
PT2-0709A-2H1/S	1	3,780	6,540	141	9’-0”	7’-4"	12’-5”	
PT2-0709A-2H2/S	2	7,680	13,190	284	18’-1"	7’-4"	13’-5”	
PT2-0709A-2H3/S	3	11,720	19,990	430	27’-2"	7’-4"	14’-5”	
PT2-0709A-2J1/S	1	3,780	6,540	160	9’-0”	7’-4"	12’-5”	
PT2-0709A-2J2/S	2	7,680	13,190	323	18’-1"	7’-4"	13’-5”	
PT2-0709A-2J3/S	3	11,720	19,990	489	27’-2"	7’-4"	14’-5”	
PT2-0709A-2L1/S	1	3,780	6,540	199	9’-0”	7’-4"	12’-5”	
PT2-0709A-2L2/S	2	7,680	13,190	400	18’-1"	7’-4"	13’-5”	
PT2-0709A-2L3/S	3	11,720	19,990	606	27’-2"	7’-4"	14’-5”	
PT2-0709A-3J1/S	1	4,170	6,930	170	9’-0”	7’-4"	13’-5”	
PT2-0709A-3J2/S	2	8,470	13,980	341	18’-1"	7’-4"	14’-5”	
PT2-0709A-3J3/S	3	13,270	21,540	517	27’-2"	7’-4"	15’-5”	
PT2-0709A-3K1/S	1	4,170	6,930	185	9’-0”	7’-4"	13’-5”	
PT2-0709A-3K2/S	2	8,470	13,980	373	18’-1"	7’-4"	14’-5”	
PT2-0709A-3K3/S	3	13,270	21,540	565	27’-2"	7’-4"	15’-5”	
PT2-0709A-3L1/S	1	4,170	6,930	210	9’-0”	7’-4"	13’-5”	
PT2-0709A-3L2/S	2	8,470	13,980	423	18’-1"	7’-4"	14’-5”	
PT2-0709A-3L3/S	3	13,270	21,540	640	27’-2"	7’-4"	15’-5”	
PT2-0809A-1J1/S	1	3,840	6,920	153	9’-0"	8'-6"	11’-7"	
PT2-0809A-1J2/S	2	7,880	14,030	308	18’-1"	8'-6"	12’-7"	
PT2-0809A-1J3/S	3	11,950	21,180	468	27’-2"	8'-6"	13’-7"	
PT2-0809A-1K1/S	1	3,840	6,920	168	9’-0"	8'-6"	11’-7"	
PT2-0809A-1K2/S	2	7,880	14,030	338	18’-1"	8'-6"	12’-7"	
PT2-0809A-1K3/S	3	11,950	21,180	514	27’-2"	8'-6"	13’-7"	
PT2-0809A-2J1/S	1	4,140	7,220	173	9’-0"	8'-6"	12’-7"	
PT2-0809A-2J2/S	2	8,420	14,570	348	18’-1"	8'-6"	13’-7"	
PT2-0809A-2J3/S	3	12,850	22,080	527	27’-2"	8'-6"	14’-7"	
PT2-0809A-2K1/S	1	4,140	7,220	189	9’-0"	8'-6"	12’-7"	
PT2-0809A-2K2/S	2	8,420	14,570	381	18’-1"	8'-6"	13’-7"	
PT2-0809A-2K3/S	3	12,850	22,080	578	27’-2"	8'-6"	14’-7"	
PT2-0809A-2L1/S	1	4,140	7,220	215	9’-0"	8'-6"	12’-7"	
PT2-0809A-2L2/S	2	8,420	14,570	433	18’-1"	8'-6"	13’-7"	
PT2-0809A-2L3/S	3	12,850	22,080	656	27’-2"	8'-6"	14’-7"	
PT2-0809A-3K1/S	1	4,470	7,550	202	9’-0”	8'-6"	13’-7"	
PT2-0809A-3K2/S	2	9,080	15,230	406	18’-1"	8'-6"	14’-7"	
PT2-0809A-3K3/S	3	14,220	23,450	615	27’-2"	8'-6"	15’-7"	
PT2-0809A-3L1/S	1	4,470	7,550	229	9’-0”	8'-6"	13’-7"	
PT2-0809A-3L2/S	2	9,080	15,230	460	18’-1"	8'-6"	14’-7"	
PT2-0809A-3L3/S	3	14,220	23,450	697	27’-2"	8'-6"	15’-7"	
PT2-0809A-3M1/S	1	4,470	7,550	250	9’-0”	8'-6"	13’-7"	
PT2-0809A-3M2/S	2	9,080	15,230	503	18’-1"	8'-6"	14’-7"	
PT2-0809A-3M3/S	3	14,220	23,450	761	27’-2"	8'-6"	15’-7"	

Table 1 Continued: Certified Units

Certified Mounting: Rigid and Isolated Base

Certified Level: S_{DS} = 1.94g , z.h=1.0

Base Model No.[1,2,3]	No. of Cells[4]	Shipping Weight[5] (lbs)	Operating Weight[5,6] (lbs)	Nominal Tonnage[7]	Length	Width	Height	Certification Basis[8]
PT2-0812A-1L1/S	1	4,750	8,880	242	12’-0"	8'-6"	11’-8"	
PT2-0812A-1L2/S	2	9,680	17,950	490	24’-1"	8'-6"	12’-8"	
PT2-0812A-1L3/S	3	14,790	27,190	746	36’-2"	8'-6"	13’-8"	
PT2-0812A-1M1/S	1	4,750	8,880	265	12’-0"	8'-6"	11’-8"	
PT2-0812A-1M2/S	2	9,680	17,950	536	24’-1"	8'-6"	12’-8"	
PT2-0812A-1M3/S	3	14,790	27,190	816	36’-2"	8'-6"	13’-8"	
PT2-0812A-2L1/S	1	5,070	9,200	269	12’-0"	8'-6"	12’-8"	
PT2-0812A-2L2/S	2	10,320	18,590	543	24’-1"	8'-6"	13’-8"	
PT2-0812A-2L3/S	3	15,750	28,150	824	36’-2"	8'-6"	14’-8"	
PT2-0812A-2M1/S	1	5,070	9,200	294	12’-0"	8'-6"	12’-8"	
PT2-0812A-2M2/S	2	10,320	18,590	593	24’-1"	8'-6"	13’-8"	
PT2-0812A-2M3/S	3	15,750	28,150	900	36’-2"	8'-6"	14’-8"	
PT2-0812A-2N1/S	1	5,070	9,200	315	12’-0"	8'-6"	12’-8"	
PT2-0812A-2N2/S	2	10,320	18,590	635	24’-1"	8'-6"	13’-8"	
PT2-0812A-2N3/S	3	15,750	28,150	963	36’-2"	8'-6"	14’-8"	
PT2-0812A-3L1/S	1	5,390	9,520	284	12’-0”	8'-6"	13’-8"	
PT2-0812A-3L2/S	2	10,960	19,230	571	24’-1"	8'-6"	14’-8"	
PT2-0812A-3L3/S	3	17,460	29,860	865	36’-2"	8'-6"	15’-8"	
PT2-0812A-3M1/S	1	5,390	9,520	310	12’-0”	8'-6"	13’-8"	
PT2-0812A-3M2/S	2	10,960	19,230	624	24’-1"	8'-6"	14’-8"	
PT2-0812A-3M3/S	3	17,460	29,860	945	36’-2"	8'-6"	15’-8"	
PT2-0812A-3N1/S	1	5,390	9,520	331	12’-0”	8'-6"	13’-8"	
PT2-0812A-3N2/S	2	10,960	19,230	667	24’-1"	8'-6"	14’-8"	
PT2-0812A-3N3/S	3	17,460	29,860	1,010	36’-2"	8'-6"	15’-8"	
PT2-0812A-3O1/S	1	5,390	9,520	350	12’-0”	8'-6"	13’-8"	
PT2-0812A-3O2/S	2	10,960	19,230	704	24’-1"	8'-6"	14’-8"	
PT2-0812A-3O3/S	3	17,460	29,860	1,066	36’-2"	8'-6"	15’-8"	Interpolated
PT2-1009A-1J1/S	1	4,330	7,770	179	9’-0”	9’-10”	13’-1"	
PT2-1009A-1J2/S	2	8,820	15,710	359	18’-1”	9’-10”	14’-1"	
PT2-1009A-1J3/S	3	13,470	23,800	546	27’-2”	9’-10”	15’-1"	
PT2-1009A-1J4/S	4	18,610	32,390	724	18’-1”	19’-9”	16’-1"	
PT2-1009A-1K1/S	1	4,330	7,770	196	9’-0”	9’-10”	13’-1"	
PT2-1009A-1K2/S	2	8,820	15,710	393	18’-1”	9’-10”	14’-1"	
PT2-1009A-1K3/S	3	13,470	23,800	598	27’-2”	9’-10”	15’-1"	
PT2-1009A-1K4/S	4	18,610	32,390	793	18’-1”	19’-9”	16’-1"	
PT2-1009A-1L1/S	1	4,330	7,770	223	9’-0”	9’-10”	13’-1"	
PT2-1009A-1L2/S	2	8,820	15,710	446	18’-1”	9’-10”	14’-1"	
PT2-1009A-1L3/S	3	13,470	23,800	679	27’-2”	9’-10”	15’-1"	
PT2-1009A-1L4/S	4	18,610	32,390	901	18’-1”	19’-9”	16’-1"	
PT2-1009A-2J1/S	1	4,640	8,080	198	9’-0”	9’-10”	14’-1"	
PT2-1009A-2J2/S	2	9,440	16,330	396	18’-1”	9’-10”	15’-1"	
PT2-1009A-2J3/S	3	14,400	24,730	601	27’-2”	9’-10”	16’-1"	
PT2-1009A-2J4/S	4	19,860	33,640	799	18’-1”	19’-9”	17’-1"	
PT2-1009A-2K1/S	1	4,640	8,080	217	9’-0”	9’-10”	14’-1"	
PT2-1009A-2K2/S	2	9,440	16,330	434	18’-1”	9’-10”	15’-1"	
PT2-1009A-2K3/S	3	14,400	24,730	658	27’-2”	9’-10”	16’-1"	
PT2-1009A-2K4/S	4	19,860	33,640	874	18’-1”	19’-9”	17’-1"	
PT2-1009A-2L1/S	1	4,640	8,080	246	9’-0”	9’-10”	14’-1"	
PT2-1009A-2L2/S	2	9,440	16,330	492	18’-1”	9’-10”	15’-1"	
PT2-1009A-2L3/S	3	14,400	24,730	746	27’-2”	9’-10”	16’-1"	
PT2-1009A-2L4/S	4	19,860	33,640	991	18’-1”	19’-9”	17’-1"	
PT2-1009A-2M1/S	1	4,640	8,080	268	9’-0”	9’-10”	14’-1"	
PT2-1009A-2M2/S	2	9,440	16,330	537	18’-1”	9’-10”	15’-1"	

Table 1 Continued: Certified Units

Certified Mounting: Rigid and Isolated Base

Certified Level: S_{DS} = 1.94g , z.h=1.0

Base Model No.[1,2,3]	No. of Cells[4]	Shipping Weight[5] (lbs)	Operating Weight[5,6] (lbs)	Nominal Tonnage[7]	Length	Width	Height	Certification Basis[8]
PT2-1009A-2M3/S	3	14,400	24,730	814	27’-2”	9’-10”	16’-1"	Interpolated
PT2-1009A-2M4/S	4	19,860	33,640	1,082	18’-1”	19’-9”	17’-1"	
PT2-1009A-3K1/S	1	5,230	8,670	228	9’-0”	9’-10”	15’-1"	
PT2-1009A-3K2/S	2	10,120	17,010	456	18’-1”	9’-10”	16’-1"	
PT2-1009A-3K3/S	3	15,800	26,130	690	27’-2”	9’-10”	17’-1"	
PT2-1009A-3K4/S	4	21,720	35,500	918	18’-1”	19’-9”	18’-1"	
PT2-1009A-3L1/S	1	5,230	8,670	258	9’-0”	9’-10”	15’-1"	
PT2-1009A-3L2/S	2	10,120	17,010	516	18’-1”	9’-10”	16’-1"	
PT2-1009A-3L3/S	3	15,800	26,130	782	27’-2”	9’-10”	17’-1"	
PT2-1009A-3L4/S	4	21,720	35,500	1,039	18’-1”	19’-9”	18’-1"	
PT2-1009A-3M1/S	1	5,230	8,670	282	9’-0”	9’-10”	15’-1"	
PT2-1009A-3M2/S	2	10,120	17,010	563	18’-1”	9’-10”	16’-1"	
PT2-1009A-3M3/S	3	15,800	26,130	852	27’-2”	9’-10”	17’-1"	
PT2-1009A-3M4/S	4	21,720	35,500	1,133	18’-1”	19’-9”	18’-1"	
PT2-1009A-3N1/S	1	5,230	8,670	301	9’-0”	9’-10”	15’-1"	
PT2-1009A-3N2/S	2	10,120	17,010	602	18’-1”	9’-10”	16’-1"	
PT2-1009A-3N3/S	3	15,800	26,130	911	27’-2”	9’-10”	17’-1"	
PT2-1009A-3N4/S	4	21,720	35,500	1,211	18’-1”	19’-9”	18’-1"	
PT2-1012A-1L1/S	1	6,210	10,800	266	12’-0”	9’-10”	13’-5"	
PT2-1012A-1L2/S	2	11,830	21,020	535	24’-1”	9’-10”	14’-4"	
PT2-1012A-1L3/S	3	18,070	31,850	813	36’-2”	9’-10”	15’-4"	
PT2-1012A-1L4/S	4	24,780	43,150	1,071	24’-1”	19’-9”	16’-4"	
PT2-1012A-1M1/S	1	6,210	10,800	292	12’-0”	9’-10”	13’-5"	
PT2-1012A-1M2/S	2	11,830	21,020	586	24’-1”	9’-10”	14’-4"	
PT2-1012A-1M3/S	3	18,070	31,850	890	36’-2”	9’-10”	15’-4"	
PT2-1012A-1M4/S	4	24,780	43,150	1,173	24’-1”	19’-9”	16’-4"	
PT2-1012A-2L1/S	1	6,210	10,800	297	12’-0”	9’-10”	14’-4"	
PT2-1012A-2L2/S	2	12,640	21,830	597	24’-1”	9’-10”	15’-4"	
PT2-1012A-2L3/S	3	19,270	33,050	905	36’-2”	9’-10”	16’-4"	
PT2-1012A-2L4/S	4	26,560	44,930	1,195	24’-1”	19’-9”	17’-4"	
PT2-1012A-2M1/S	1	6,210	10,800	325	12’-0”	9’-10”	14’-4"	
PT2-1012A-2M2/S	2	12,640	21,830	653	24’-1”	9’-10”	15’-4"	
PT2-1012A-2M3/S	3	19,270	33,050	990	36’-2”	9’-10”	16’-4"	
PT2-1012A-2M4/S	4	26,560	44,930	1,307	24’-1”	19’-9”	17’-4"	
PT2-1012A-2N1/S	1	6,210	10,800	348	12’-0”	9’-10”	14’-4"	
PT2-1012A-2N2/S	2	12,640	21,830	700	24’-1”	9’-10”	15’-4"	
PT2-1012A-2N3/S	3	19,270	33,050	1,060	36’-2”	9’-10”	16’-4"	
PT2-1012A-2N4/S	4	26,560	44,930	1,400	24’-1”	19’-9”	17’-4"	
PT2-1012A-2O1/S	1	6,210	10,800	368	12’-0”	9’-10”	14’-4"	
PT2-1012A-2O2/S	2	12,640	21,830	740	24’-1”	9’-10”	15’-4"	
PT2-1012A-2O3/S	3	19,270	33,050	1,120	36’-2”	9’-10”	16’-4"	
PT2-1012A-2O4/S	4	26,560	44,930	1,481	24’-1”	19’-9”	17’-4"	
PT2-1012A-3L1/S	1	6,620	11,210	315	12’-0”	9’-10”	15’-5"	
PT2-1012A-3L2/S	2	13,440	22,630	632	24’-1”	9’-10”	16’-4"	
PT2-1012A-3L3/S	3	20,970	34,750	956	36’-2”	9’-10”	17’-4"	
PT2-1012A-3L4/S	4	28,820	47,190	1,265	24’-1”	19’-9”	18’-4"	
PT2-1012A-3M1/S	1	6,620	11,210	344	12’-0”	9’-10”	15’-5"	
PT2-1012A-3M2/S	2	13,440	22,630	691	24’-1”	9’-10”	16’-4"	

Table 1 Continued: Certified Units

Certified Mounting: Rigid and Isolated Base

Certified Level: S_{DS} = 1.94g , z.h=1.0

Base Model No.[1,2,3]	No. of Cells[4]	Shipping Weight[5] (lbs)	Operating Weight[5,6] (lbs)	Nominal Tonnage[7]	Length	Width	Height	Certification Basis[8]
PT2-1012A-3M3/S	3	20,970	34,750	1,045	36’-2”	9’-10”	17’-4"	Interpolated
PT2-1012A-3M4/S	4	28,820	47,190	1,383	24’-1”	19’-9”	18’-4"	
PT2-1012A-3N1/S	1	6,620	11,210	368	12’-0”	9’-10”	15’-5"	
PT2-1012A-3N2/S	2	13,440	22,630	740	24’-1”	9’-10”	16’-4"	
PT2-1012A-3N3/S	3	20,970	34,750	1,118	36’-2”	9’-10”	17’-4"	
PT2-1012A-3N4/S	4	28,820	47,190	1,480	24’-1”	19’-9”	18’-4"	
PT2-1012A-3O1/S	1	6,620	11,210	389	12’-0”	9’-10”	15’-5"	
PT2-1012A-3O2/S	2	13,440	22,630	781	24’-1”	9’-10”	16’-4"	
PT2-1012A-3O3/S	3	20,970	34,750	1,182	36’-2”	9’-10”	17’-4"	
PT2-1012A-3O4/S	4	28,820	47,190	1,564	24’-1”	19’-9”	18’-4"	
PT2-1212A-1L1/S	1	6,560	11,800	307	12’-0”	11’-10”	13'-11"	
PT2-1212A-1L2/S	2	13,260	23,730	614	24’-1”	11’-10”	14'-11"	
PT2-1212A-1L3/S	3	20,120	35,830	930	36’-2”	11’-10”	15'-11"	
PT2-1212A-1L4/S	4	26,970	47,910	1,227	24’-1”	23’-9”	16'-11"	
PT2-1212A-1M1/S	1	6,560	11,800	337	12’-0”	11’-10”	13'-11"	
PT2-1212A-1M2/S	2	13,260	23,730	672	24’-1”	11’-10”	14'-11"	
PT2-1212A-1M3/S	3	20,120	35,830	1,018	36’-2”	11’-10”	15'-11"	
PT2-1212A-1M4/S	4	26,970	47,910	1,344	24’-1”	23’-9”	16'-11"	
PT2-1212A-1N1/S	1	6,560	11,800	361	12’-0”	11’-10”	13'-11"	
PT2-1212A-1N2/S	2	13,260	23,730	721	24’-1”	11’-10”	14'-11"	
PT2-1212A-1N3/S	3	20,120	35,830	1,092	36’-2”	11’-10”	15'-11"	
PT2-1212A-1N4/S	4	26,970	47,910	1,441	24’-1”	23’-9”	16'-11"	
PT2-1212A-2L1/S	1	7,110	12,350	349	12’-0”	11’-10”	14'-11"	
PT2-1212A-2L2/S	2	14,370	24,840	697	24’-1”	11’-10”	15'-11"	
PT2-1212A-2L3/S	3	21,780	37,490	1,054	36’-2”	11’-10”	16'-11"	
PT2-1212A-2L4/S	4	29,190	50,130	1,394	24’-1”	23’-9”	17'-11"	
PT2-1212A-2M1/S	1	7,110	12,350	382	12’-0”	11’-10”	14'-11"	
PT2-1212A-2M2/S	2	14,370	24,840	762	24’-1”	11’-10”	15'-11"	
PT2-1212A-2M3/S	3	21,780	37,490	1,153	36’-2”	11’-10”	16'-11"	
PT2-1212A-2M4/S	4	29,190	50,130	1,525	24’-1”	23’-9”	17'-11"	
PT2-1212A-2N1/S	1	7,110	12,350	409	12’-0”	11’-10”	14'-11"	
PT2-1212A-2N2/S	2	14,370	24,840	817	24’-1”	11’-10”	15'-11"	
PT2-1212A-2N3/S	3	21,780	37,490	1,234	36’-2”	11’-10”	16'-11"	
PT2-1212A-2N4/S	4	29,190	50,130	1,633	24’-1”	23’-9”	17'-11"	
PT2-1212A-2O1/S	1	7,110	12,350	432	12’-0”	11’-10”	14'-11"	
PT2-1212A-2O2/S	2	14,370	24,840	863	24’-1”	11’-10”	15'-11"	
PT2-1212A-2O3/S	3	21,780	37,490	1,305	36’-2”	11’-10”	16'-11"	
PT2-1212A-2O4/S	4	29,190	50,130	1,726	24’-1”	23’-9”	17'-11"	
PT2-1212A-3L1/S	1	7,660	12,900	373	12’-0”	11’-10”	15'-11"	
PT2-1212A-3L2/S	2	15,480	25,950	746	24’-1”	11’-10”	16'-11"	
PT2-1212A-3L3/S	3	23,440	39,150	1,126	36’-2”	11’-10”	17'-11"	
PT2-1212A-3L4/S	4	31,400	52,340	1,492	24’-1”	23’-9”	18'-11"	
PT2-1212A-3M1/S	1	7,660	12,900	408	12’-0”	11’-10”	15'-11"	
PT2-1212A-3M2/S	2	15,480	25,950	815	24’-1”	11’-10”	16'-11"	
PT2-1212A-3M3/S	3	23,440	39,150	1,230	36’-2”	11’-10”	17'-11"	
PT2-1212A-3M4/S	4	31,400	52,340	1,630	24’-1”	23’-9”	18'-11"	
PT2-1212A-3N1/S	1	7,660	12,900	437	12’-0”	11’-10”	15'-11"	
PT2-1212A-3N2/S	2	15,480	25,950	872	24’-1”	11’-10”	16'-11"	

Table 1 Continued: Certified Units

Certified Mounting: Rigid and Isolated Base

Certified Level: S_{DS} = 1.94g , z.h=1.0

Base Model No.[1,2,3]	No. of Cells[4]	Shipping Weight[5] (lbs)	Operating Weight[5,6] (lbs)	Nominal Tonnage[7]	Length	Width	Height	Certification Basis[8]
PT2-1212A-3N3/S	3	23,440	39,150	1,317	36’-2”	11’-10”	17'-11"	Interpolated
PT2-1212A-3N4/S	4	31,400	52,340	1,744	24’-1”	23’-9”	18'-11"	
PT2-1212A-3O1/S	1	7,660	12,900	461	12’-0”	11’-10”	15'-11"	
PT2-1212A-3O2/S	2	15,480	25,950	921	24’-1”	11’-10”	16'-11"	
PT2-1212A-3O3/S	3	23,440	39,150	1,391	36’-2”	11’-10”	17'-11"	
PT2-1212A-3O4/S	4	31,400	52,340	1,843	24’-1”	23’-9”	18'-11"	
PT2-1212A-3P1/S	1	7,660	12,900	502	12’-0”	11’-10”	15'-11"	
PT2-1212A-3P2/S	2	15,480	25,950	1,004	24’-1”	11’-10”	16'-11"	
PT2-1212A-3P3/S	3	23,440	39,150	1,515	36’-2”	11’-10”	17'-11"	
PT2-1212A-3P4/S	4	31,400	52,340	2,007	24’-1”	23’-9”	18'-11"	
PT2-1218A-1K1/S	1	10,250	19,640	355	18’-1”	11’-10”	14’-9”	
PT2-1218A-1K2/S	2	20,740	39,510	713	36’-1”	11’-10”	15’-9”	
PT2-1218A-1K3/S	3	31,310	59,470	1,072	54’-2”	11’-10”	16’-3”	
PT2-1218A-1K4/S	4	42,230	79,780	1,400	36’-1”	23’-9”	17’-3”	
PT2-1218A-1KT/S	2	20,870	39,640	711	18’-1”	23’-9”	16’-3”	
PT2-1218A-1L1/S	1	10,250	19,640	404	18’-1”	11’-10”	14’-9”	
PT2-1218A-1L2/S	2	20,740	39,510	811	36’-1”	11’-10”	15’-9”	
PT2-1218A-1L3/S	3	31,310	59,470	1,218	54’-2”	11’-10”	16’-3”	
PT2-1218A-1L4/S	4	42,230	79,780	1,591	36’-1”	23’-9”	17’-3”	
PT2-1218A-1LT/S	2	20,870	39,640	808	18’-1”	23’-9”	16’-3”	
PT2-1218A-1M1/S	1	10,250	19,640	442	18’-1”	11’-10”	14’-9”	
PT2-1218A-1M2/S	2	20,740	39,510	887	36’-1”	11’-10”	15’-9”	
PT2-1218A-1M3/S	3	31,310	59,470	1,334	54’-2”	11’-10”	16’-3”	
PT2-1218A-1M4/S	4	42,230	79,780	1,742	36’-1”	23’-9”	17’-3”	
PT2-1218A-1MT/S	2	20,870	39,640	884	18’-1”	23’-9”	16’-3”	
PT2-1218A-1N1/S	1	10,250	19,640	474	18’-1”	11’-10”	14’-9”	
PT2-1218A-1N2/S	2	20,740	39,510	952	36’-1”	11’-10”	15’-9”	
PT2-1218A-1N3/S	3	31,310	59,470	1,431	54’-2”	11’-10”	16’-3”	
PT2-1218A-1N4/S	4	42,230	79,780	1,869	36’-1”	23’-9”	17’-3”	
PT2-1218A-1NT/S	2	20,870	39,640	949	18’-1”	23’-9”	16’-3”	
PT2-1218A-1O1/S	1	10,250	19,640	502	18’-1”	11’-10”	14’-9”	
PT2-1218A-1O2/S	2	20,740	39,510	1,008	36’-1”	11’-10”	15’-9”	
PT2-1218A-1O3/S	3	31,310	59,470	1,515	54’-2”	11’-10”	16’-3”	
PT2-1218A-1O4/S	4	42,230	79,780	1,979	36’-1”	23’-9”	17’-3”	
PT2-1218A-1OT/S	2	20,870	39,640	1,005	18’-1”	23’-9”	16’-3”	
PT2-1218A-1P1/S	1	10,250	19,640	550	18’-1”	11’-10”	14’-9”	
PT2-1218A-1P2/S	2	20,740	39,510	1,104	36’-1”	11’-10”	15’-9”	
PT2-1218A-1P3/S	3	31,310	59,470	1,659	54’-2”	11’-10”	16’-3”	
PT2-1218A-1P4/S	4	42,230	79,780	2,167	36’-1”	23’-9”	17’-3”	
PT2-1218A-1PT/S	2	20,870	39,640	1,100	18’-1”	23’-9”	16’-3”	
PT2-1218A-2K1/S	1	10,920	20,310	402	18’-1”	11’-10”	15’-9”	
PT2-1218A-2K2/S	2	22,090	40,860	805	36’-1”	11’-10”	16’-9”	
PT2-1218A-2K3/S	3	33,330	61,490	1,209	54’-2”	11’-10”	17’-3”	
PT2-1218A-2K4/S	4	44,930	82,480	1,587	36’-1”	23’-9”	18’-3”	
PT2-1218A-2KT/S	2	22,220	40,990	803	18’-1”	23’-9”	17’-3”	
PT2-1218A-2L1/S	1	10,920	20,310	456	18’-1”	11’-10”	15’-9”	
PT2-1218A-2L2/S	2	22,090	40,860	914	36’-1”	11’-10”	16’-9”	
PT2-1218A-2L3/S	3	33,330	61,490	1,374	54’-2”	11’-10”	17’-3”	

Table 1 Continued: Certified Units

Certified Mounting: Rigid and Isolated Base

Certified Level: S_{DS} = 1.94g , z.h=1.0

Base Model No.[1,2,3]	No. of Cells[4]	Shipping Weight[5] (lbs)	Operating Weight[5,6] (lbs)	Nominal Tonnage[7]	Length	Width	Height	Certification Basis[8]
PT2-1218A-2L4/S	4	44,930	82,480	1,803	36′-1″	23′-9″	18′-3″	Interpolated
PT2-1218A-2LT/S	2	22,220	40,990	912	18′-1″	23′-9″	17′-3″	
PT2-1218A-2M1/S	1	10,920	20,310	500	18′-1″	11′-10″	15′-9″	
PT2-1218A-2M2/S	2	22,090	40,860	1,001	36′-1″	11′-10″	16′-9″	
PT2-1218A-2M3/S	3	33,330	61,490	1,504	54′-2″	11′-10″	17′-3″	
PT2-1218A-2M4/S	4	44,930	82,480	1,974	36′-1″	23′-9″	18′-3″	
PT2-1218A-2MT/S	2	22,220	40,990	999	18′-1″	23′-9″	17′-3″	
PT2-1218A-2N1/S	1	10,920	20,310	536	18′-1″	11′-10″	15′-9″	
PT2-1218A-2N2/S	2	22,090	40,860	1,074	36′-1″	11′-10″	16′-9″	
PT2-1218A-2N3/S	3	33,330	61,490	1,613	54′-2″	11′-10″	17′-3″	
PT2-1218A-2N4/S	4	44,930	82,480	2,117	36′-1″	23′-9″	18′-3″	
PT2-1218A-2NT/S	2	22,220	40,990	1,072	18′-1″	23′-9″	17′-3″	
PT2-1218A-2O1/S	1	10,920	20,310	568	18′-1″	11′-10″	15′-9″	
PT2-1218A-2O2/S	2	22,090	40,860	1,137	36′-1″	11′-10″	16′-9″	
PT2-1218A-2O3/S	3	33,330	61,490	1,709	54′-2″	11′-10″	17′-3″	
PT2-1218A-2O4/S	4	44,930	82,480	2,243	36′-1″	23′-9″	18′-3″	
PT2-1218A-2OT/S	2	22,220	40,990	1,135	18′-1″	23′-9″	17′-3″	
PT2-1218A-2P1/S	1	10,920	20,310	622	18′-1″	11′-10″	15′-9″	
PT2-1218A-2P2/S	2	22,090	40,860	1,245	36′-1″	11′-10″	16′-9″	
PT2-1218A-2P3/S	3	33,330	61,490	1,871	54′-2″	11′-10″	17′-3″	
PT2-1218A-2P4/S	4	44,930	82,480	2,455	36′-1″	23′-9″	18′-3″	
PT2-1218A-2PT/S	2	22,220	40,990	1,243	18′-1″	23′-9″	17′-3″	
PT2-1218A-2Q1/S	1	10,920	20,310	667	18′-1″	11′-10″	15′-9″	
PT2-1218A-2Q2/S	2	22,090	40,860	1,336	36′-1″	11′-10″	16′-9″	
PT2-1218A-2Q3/S	3	33,330	61,490	2,007	54′-2″	11′-10″	17′-3″	
PT2-1218A-2Q4/S	4	44,930	82,480	2,634	36′-1″	23′-9″	18′-3″	
PT2-1218A-2QT/S	2	22,220	40,990	1,333	18′-1″	23′-9″	17′-3″	
PT2-1218A-3K1/S	1	11,200	20,590	427	18′-1″	11′-10″	16′-9″	
PT2-1218A-3K2/S	2	22,650	41,420	854	36′-1″	11′-10″	17′-9″	
PT2-1218A-3K3/S	3	34,170	62,330	1,283	54′-2″	11′-10″	18′-3″	
PT2-1218A-3K4/S	4	46,040	83,590	1,687	36′-1″	23′-9″	19′-3″	
PT2-1218A-3KT/S	2	22,780	41,550	852	18′-1″	23′-9″	18′-3″	
PT2-1218A-3L1/S	1	11,200	20,590	485	18′-1″	11′-10″	16′-9″	
PT2-1218A-3L2/S	2	22,650	41,420	971	36′-1″	11′-10″	17′-9″	
PT2-1218A-3L3/S	3	34,170	62,330	1,458	54′-2″	11′-10″	18′-3″	
PT2-1218A-3L4/S	4	46,040	83,590	1,917	36′-1″	23′-9″	19′-3″	
PT2-1218A-3LT/S	2	22,780	41,550	969	18′-1″	23′-9″	18′-3″	
PT2-1218A-3M1/S	1	11,200	20,590	531	18′-1″	11′-10″	16′-9″	
PT2-1218A-3M2/S	2	22,650	41,420	1,063	36′-1″	11′-10″	17′-9″	
PT2-1218A-3M3/S	3	34,170	62,330	1,596	54′-2″	11′-10″	18′-3″	
PT2-1218A-3M4/S	4	46,040	83,590	2,099	36′-1″	23′-9″	19′-3″	
PT2-1218A-3MT/S	2	22,780	41,550	1,060	18′-1″	23′-9″	18′-3″	
PT2-1218A-3N1/S	1	11,200	20,590	569	18′-1″	11′-10″	16′-9″	
PT2-1218A-3N2/S	2	22,650	41,420	1,140	36′-1″	11′-10″	17′-9″	
PT2-1218A-3N3/S	3	34,170	62,330	1,712	54′-2″	11′-10″	18′-3″	
PT2-1218A-3N4/S	4	46,040	83,590	2,252	36′-1″	23′-9″	19′-3″	
PT2-1218A-3NT/S	2	22,780	41,550	1,138	18′-1″	23′-9″	18′-3″	
PT2-1218A-3O1/S	1	11,200	20,590	603	18′-1″	11′-10″	16′-9″	

Table 1 Continued: Certified Units

Certified Mounting: Rigid and Isolated Base

Certified Level: S_{DS} = 1.94g , z.h=1.0

Base Model No.[1,2,3]	No. of Cells[4]	Shipping Weight[5] (lbs)	Operating Weight[5,6] (lbs)	Nominal Tonnage[7]	Length	Width	Height	Certification Basis[8]
PT2-1218A-3O2/S	2	22,650	41,420	1,207	36'-1"	11'-10"	17'-9"	Interpolated
PT2-1218A-3O3/S	3	34,170	62,330	1,813	54'-2"	11'-10"	18'-3"	
PT2-1218A-3O4/S	4	46,040	83,590	2,385	36'-1"	23'-9"	19'-3"	
PT2-1218A-3OT/S	2	22,780	41,550	1,205	18'-1"	23'-9"	18'-3"	
PT2-1218A-3P1/S	1	11,200	20,590	660	18'-1"	11'-10"	16'-9"	
PT2-1218A-3P2/S	2	22,650	41,420	1,322	36'-1"	11'-10"	17'-9"	
PT2-1218A-3P3/S	3	34,170	62,330	1,986	54'-2"	11'-10"	18'-3"	
PT2-1218A-3P4/S	4	46,040	83,590	2,611	36'-1"	23'-9"	19'-3"	
PT2-1218A-3PT/S	2	22,780	41,550	1,319	18'-1"	23'-9"	18'-3"	
PT2-1218A-3Q1/S	1	11,200	20,590	708	18'-1"	11'-10"	16'-9"	
PT2-1218A-3Q2/S	2	22,650	41,420	1,418	36'-1"	11'-10"	17'-9"	
PT2-1218A-3Q3/S	3	34,170	62,330	2,130	54'-2"	11'-10"	18'-3"	
PT2-1218A-3Q4/S	4	46,040	83,590	2,801	36'-1"	23'-9"	19'-3"	
PT2-1218A-3QT/S	2	22,780	41,550	1,415	18'-1"	23'-9"	18'-3"	
PT2-1218A-3R1/S	1	11,200	20,590	750	18'-1"	11'-10"	16'-9"	
PT2-1218A-3R2/S	2	22,650	41,420	1,502	36'-1"	11'-10"	17'-9"	
PT2-1218A-3R3/S	3	34,170	62,330	2,256	54'-2"	11'-10"	18'-3"	
PT2-1218A-3R4/S	4	46,040	83,590	2,967	36'-1"	23'-9"	19'-3"	
PT2-1218A-3RT/S	2	22,780	41,550	1,499	18'-1"	23'-9"	18'-3"	
PT2-1218A-3S1/S	1	11,200	20,590	787	18'-1"	11'-10"	16'-9"	Tested - UUT F(a,b)
PT2-1218A-3S2/S	2	22,650	41,420	1,577	36'-1"	11'-10"	17'-9"	Extrapolated
PT2-1218A-3S3/S	3	34,170	62,330	2,368	54'-2"	11'-10"	18'-3"	
PT2-1218A-3S4/S	4	46,040	83,590	3,115	36'-1"	23'-9"	19'-3"	
PT2-1218A-3ST/S	2	22,780	41,550	1,574	18'-1"	23'-9"	18'-3"	

Notes:

1. Base models listed are for standard fan option. Actual unit model number may include a suffix "Q" designating low sound fan option (e.g., PT2-0709A-
2. Actual unit model number may include a suffix "X" designating non-Cooling Technology Institute (CTI) certified (e.g., PT2-0709A-1H1/SX).
3. The PC2 model listed is the smallest unit in the counterflow product family, which includes the PT2 open cooling tower line, the PC2 evaporative
4. Each cell of multi-cell units is a structurally independent cooling tower.
5. Weights are base unit weights. Actual weights may include accessory weight adds for the certified accessories and options listed in Table 12.
6. Operating weights at overflow water level. UUT test weight at operating water level.
7. Nominal tonnage represents 3 USGPM of water from 95°F to 85°F at a 78°F entering wet-bulb temperature.
8. UUT F configured with maximum air inlet height to account for multi-cell configurations.

Table 2: Certified Materials of Construction

Certified Mounting: Rigid and Isolated Base

Certified Level: S_{DS} = 1.94g , z.h=1.0

Equipment MOC Option[1,2,3]	MOC of Structural Elements	MOC of Cold Water Basin	Certification Basis
EVERTOUGH™ Construction	Galvanized Steel	Galvanized Steel	Tested - UUT D(a,b)
Galvanized Steel	Galvanized Steel	Galvanized Steel	Interpolated
Galvanized Steel with TriArmor® Cold Water Basin	Galvanized Steel	Galvanized Steel	
Galvanized Steel with Stainless Steel Cold Water Basin	Galvanized Steel	Stainless Steel	
Stainless Steel with TriArmor® Cold Water Basin	Stainless Steel	Galvanized Steel	
Stainless Steel	Stainless Steel	Stainless Steel	Tested - UUT F(a,b)

Notes:

1. TriArmor® is a coating system. Base material is Galvanized Steel.
2. EVERTOUGH™ Construction includes TriArmor® Cold Water Basin.
3. Structural elements and cold water basins listed are manufactured by Baltimore Aircoil.

Table 3: Certified Water Inlet Configurations

Certified Mounting: Rigid and Isolated Base

Certified Level: S_{DS} = 1.94g , z.h=1.0

Water Inlet Connection Option	Certification Basis
Face A Inlet	Extrapolated
Face B Inlet	
Face C Inlet	UUT F(a,b)
Face D Inlet	Extrapolated

Table 4: Certified PT2 Water Outlet Configurations

Certified Mounting: Rigid and Isolated Base

Certified Level: S_{DS} = 1.94g , z.h=1.0

Water Outlet Connection Option	Certification Basis
End Face A or B Location, Pump Suction	UUT F(a,b)
Bottom Location, Pump Suction	Extrapolated
Bottom Location, Remote Sump	
Side Face C Location, Pump Suction	

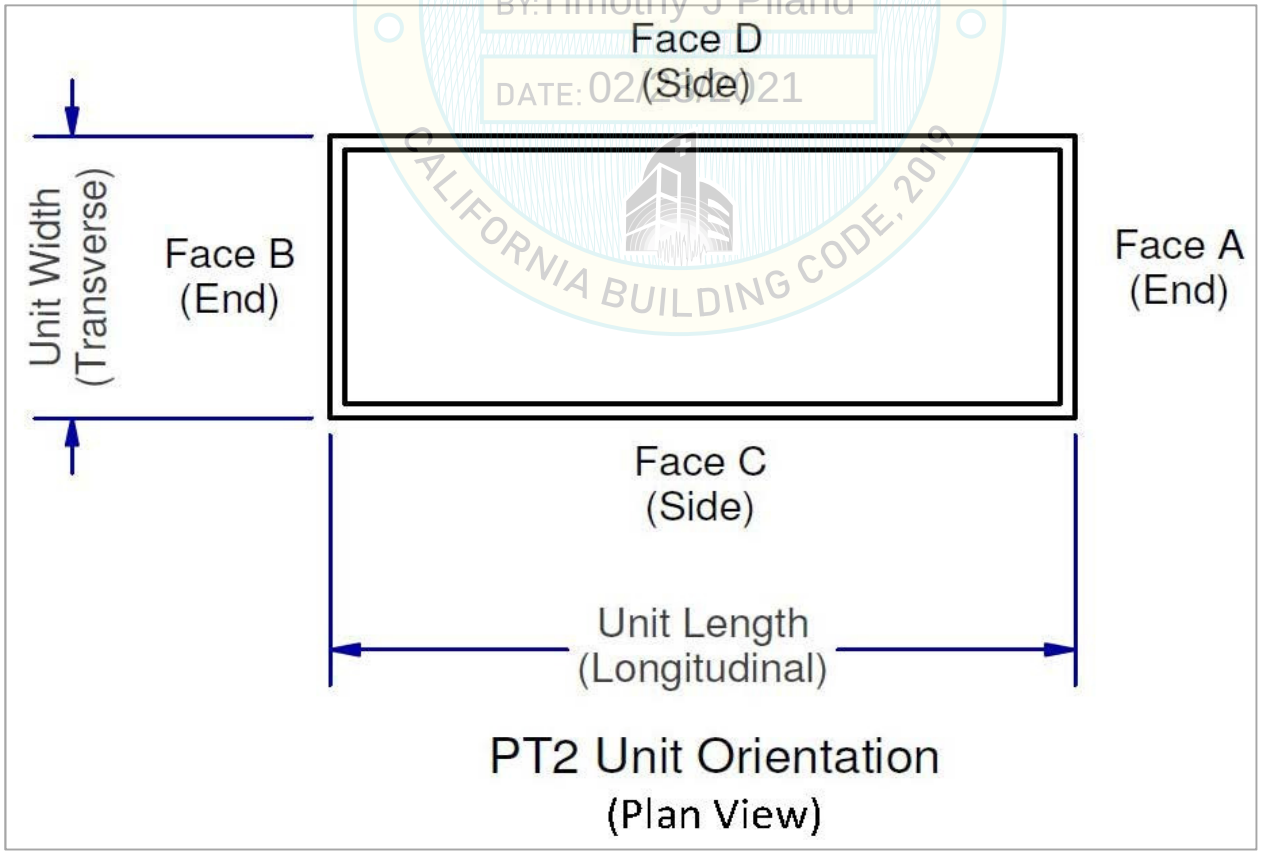

Table 5: Certified Water Equalizer Configurations

Certified Mounting: Rigid and Isolated Base

Certified Level: S_{DS} = 1.94g , z.h=1.0

Equalizer Connection Option	Certification Basis
Face A Equalizer	Extrapolated
Face B Equalizer	UUT F(a,b)
Face C Equalizer	Extrapolated
Bottom Equalizer	

Table 6: Certified PT2 Water Bypass Configurations

Certified Mounting: Rigid and Isolated Base

Certified Level: S_{DS} = 1.94g , z.h=1.0

Bypass Connection Option	Certification Basis
Face A Bypass	Extrapolated
Face B Bypass	
Face C Bypass	UU F(a,b)
Bottom Bypass	Extrapolated

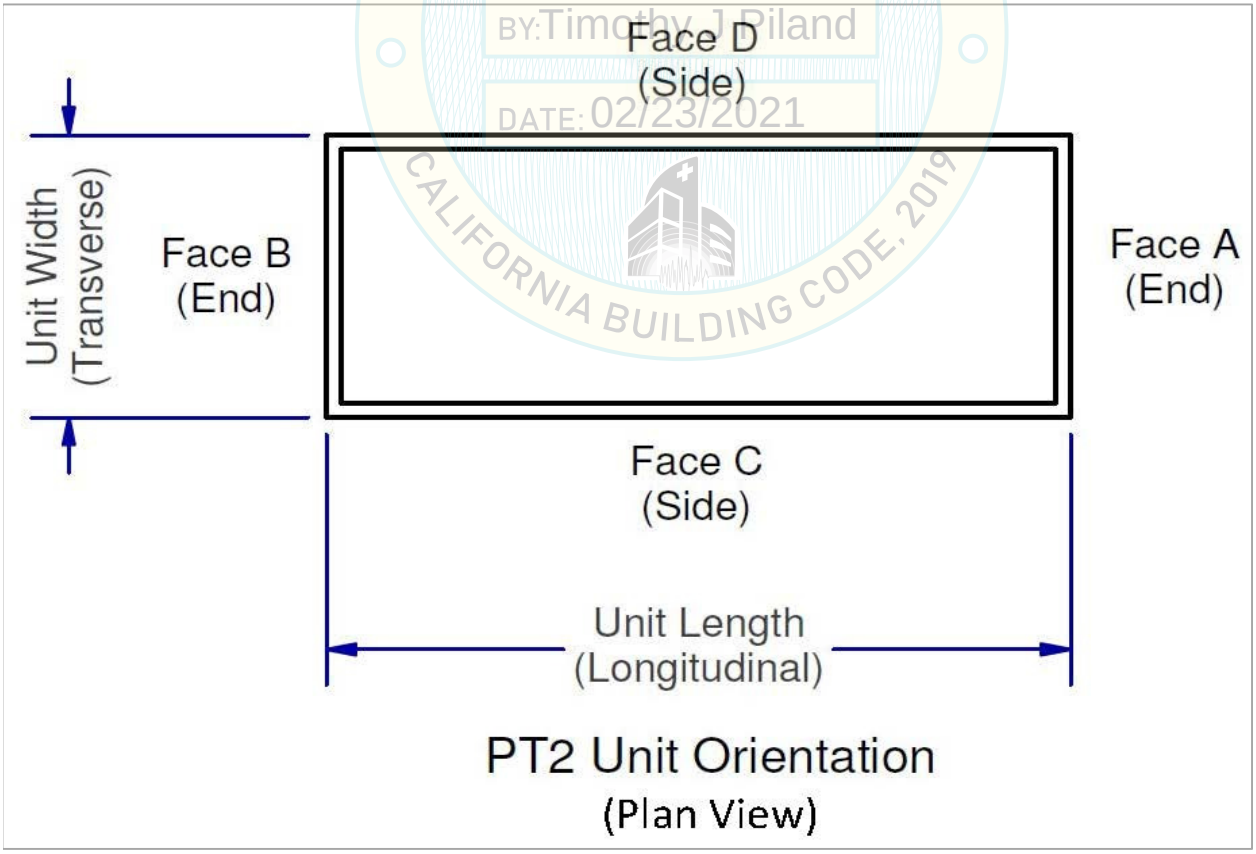

Table 7: Certified Fan Motors

Certified Mounting: Rigid and Isolated Base

Certified Level: S_{DS} = 1.94g , z.h=1.0

Component	Manufacturer	Material of Construction	Drive Type	HP	Voltage	Approximate Weight (lbs)	Certification Basis
Fan Motor	Nidec	Cast Iron	Direct	7.5	Motor voltage may be 200, 230, 230/460[1], 460, 575	100	Tested - UUT D(a,b)
Fan Motor	Nidec	Cast Iron	Belt	5		70	Tested - UUT G(a,b)
Fan Motor	Nidec	Cast Iron		7.5		100	Interpolated
Fan Motor	Nidec	Cast Iron		10		110	
Fan Motor	Nidec	Cast Iron		15		180	
Fan Motor	Nidec	Cast Iron		20		200	Tested - UUT F(a,b)
Fan Motor	Nidec	Cast Iron		25		340	Interpolated
Fan Motor	Nidec	Cast Iron		30		390	
Fan Motor	Nidec	Cast Iron		35		530	
Fan Motor	Nidec	Cast Iron		40		530	
Fan Motor	Nidec	Cast Iron		50		590	
Fan Motor	Nidec	Cast Iron		60		750	Tested - UUT H1(a,b)
Fan Motor	WEG	Cast Iron		5		70	Tested - UUT G(a,b)
Fan Motor	WEG	Cast Iron		7.5		100	Interpolated
Fan Motor	WEG	Cast Iron		10		110	
Fan Motor	WEG	Cast Iron		15		180	
Fan Motor	WEG	Cast Iron		20		200	
Fan Motor	WEG	Cast Iron		25		340	
Fan Motor	WEG	Cast Iron		30		390	
Fan Motor	WEG	Cast Iron		35		530	Tested - UUT F(a,b)
Fan Motor	WEG	Cast Iron		40		530	Interpolated
Fan Motor	WEG	Cast Iron		50		590	
Fan Motor	WEG	Cast Iron		60		750	Tested - UUT H2(a,b)

Note:

1. Tested motors were 230/460V dual voltage rating.

Table 8: Certified Fans

Certified Mounting: Rigid and Isolated Base

Certified Level: S_{DS} = 1.94g , z.h=1.0

Component	Manufacturer	Blade Material of Construction[1]	Diameter (in)	No. of Blades	Approximate Weight (lbs)	Certification Basis
Fan	Multi-Wing	Glass Fiber Reinforced Plastic	42	3	9	Extrapolated
Fan	Multi-Wing	Glass Fiber Reinforced Plastic	42	5	13	Tested - UUT D(a,b)
Fan	Multi-Wing	Glass Fiber Reinforced Plastic	42	6	32	Interpolated
Fan	Multi-Wing	Glass Fiber Reinforced Plastic	84	3	74	
Fan	Multi-Wing	Glass Fiber Reinforced Plastic	84	5	107	
Fan	Multi-Wing	Glass Fiber Reinforced Plastic	92	8	150	Tested - UUT G(a,b)
Fan	Cofimco	Aluminum	84	6	158	Tested - UUT G(a,b)
Fan	Cofimco	Aluminum	92	4	123	Interpolated
Fan	Cofimco	Aluminum	92	5	207	
Fan	Cofimco	Aluminum	92	6	240	
Fan	Cofimco	Aluminum	92	7	172	
Fan	Cofimco	Aluminum	108	4	198	
Fan	Cofimco	Aluminum	108	5	238	
Fan	Cofimco	Aluminum	108	6	278	
Fan	Cofimco	Aluminum	132	5	332	
Fan	Cofimco	Aluminum	132	6	389	
Fan	Cofimco	Aluminum	132	7	587	Tested - UUT H1(a,b) - H2(a,b)
Fan	Howden	Glass Fiber Reinforced Plastic	84	3	142	Tested - UUT F(a,b)
Fan	Howden	Glass Fiber Reinforced Plastic	92	3	183	Tested - UUT F(a,b)
Fan	Howden	Glass Fiber Reinforced Plastic	108	3	250	Extrapolated

Note:

1. Fan cowl (housing) material of construction follows the structural element material of construction (galvanized and stainless steel).

Table 9: Certified Options and Accessories

Certified Mounting: Rigid and Isolated Base

Certified Level: S_{DS} = 1.94g , z.h=1.0

Option or Accessory	Certification Basis
Access Door Face C	UUT G(a,b)
Access Door Face D	UUT F(a,b)
Inclined Aluminum Ladder	UUT F(a,b)
10 1/2" Fan Cylinder Extension	Interpolated
1'- 9" Fan Cylinder Extension	UUT F(a,b)
Stainless Steel Fan Guard	UUT F(a,b)
Vibration Cutout Switches	UUT F(a,b)
Mechanical Makeup[1]	UUT D(a,b)
Electric Water Level Control (EWLC) with Solenoid Valve	UUT F(a,b)
Penn F63 Float Switches	UUT F(a,b)
Stainless Steel Outlet Strainer	UUT F(a,b)
Motor Shaft Grounding Ring	UUT F(a,b)
Stainless Steel Fan Shaft	UUT F(a,b)

Note:

1. Mechanical Makeup consists of large-diameter polystyrene-filled float, adjustable linkage, and make-up valve.

Table 10: Certified Units

Certified Level: S_{DS} = 1.94g , z.h=1.0

Base Model No	Operating Weight (lbs)	Length	Width	Height	Mounting Configuration	Unit
PC2-50-0406-7.5/S	4,199	6'-0"	4'-0"	17'-9 3/4"	Rigid base	UUT D(a)
PC2-50-0406-7.5/S	4,199	6'-0"	4'-0"	17'-9 3/4"	Isolated Base	UUT D(b)
PT2-1218A-3S1/S	20,590	18’-1”	11’-10”	16’-9”	Rigid base	UUT F(a)
PT2-1218A-3S1/S	20,590	18’-1”	11’-10”	16’-9”	Isolated Base	UUT F(b)
Subcomponent	3,400	17' -11 1/2''	11’-10”	5' -0''	Rigid base	UUT G(a)
Subcomponent	3,400	17' -11 1/2''	11’-10”	5' -0''	Isolated Base	UUT G(b)
Subcomponent	3,520	17' -11 1/2''	11’-10”	5' -0''	Rigid base	UUT H1(a)
Subcomponent	3,520	17' -11 1/2''	11’-10”	5' -0''	Isolated Base	UUT H1(b)
Subcomponent	3,520	17' -11 1/2''	11’-10”	5' -0''	Rigid base	UUT H2(a)
Subcomponent	3,520	17' -11 1/2''	11’-10”	5' -0''	Isolated Base	UUT H2(b)

UUT D(a)

Unit Under Test Summary Sheet

DCL Dynamic Certification Laboratories

Manufacturer: Baltimore Aircoil Company

Product Line: PC2 Evaporative Cooler

Model Number: PC2-50-0406-7.5/S

Product Construction Summary:

Galvanized Steel Frame

Options / Component Summary:

Nidec direct drive 7.5 HP motor, Multi-Wing 42in diameter fan

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
4,199	48.0	71.8	118.9	8.1	12.6	26.9

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.34	1.0	1.5	3.74	2.81	1.56	0.62

Unit Mounting Description:

UUT D(a) was rigid base mounted to the shake table interface fixture with (4) 3/4'' diameter, grade 5, bolts. Bolts were spaced at approximately 70'' in length and 46'' in width on center.

UUT D(b)

Unit Under Test Summary Sheet

DCL Dynamic Certification Laboratories

Manufacturer: Baltimore Aircoil Company

Product Line: PC2 Evaporative Cooler

Model Number: PC2-50-0406-7.5/S

Product Construction Summary:

Galvanized Steel Frame

Options / Component Summary:

Nidec direct drive 7.5 HP motor, Multi-Wing 42in diameter fan

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
4,199	48.0	71.8	118.9	1.1	1.9	5.6

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	1.94	1.0	1.5	3.10	2.33	1.29	0.52

Unit Mounting Description:

UUT D(b) was isolated base mounted to the shake table interface fixture with (4) Mason Industries Inc. SLFADA200 isolators housing each with (2) SLF-C2 springs. Isolators were spaced at approximately 70'' in length and 46'' in width on center. The unit base was mounted to the isolator with a single 3/4'' diameter, grade 8 bolt and the isolator base was mounted to the test fixture with (2) 3/4'' diameter, grade 8, bolts each.

UUT F(a)

Unit Under Test Summary Sheet

DCL Dynamic Certification Laboratories

Manufacturer: Baltimore Aircoil Company

Product Line: PT2 Open Cooling Tower

Model Number: PT2-1218A-3S1/WQS

Product Construction Summary:

Stainless Steel Frame

Options / Component Summary:

Nidec 20HP and WEG 35HP belt drive motor, Howden 84in and 92in diameter fan

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
22,173	107.8	94.3	118.8	6.3	3.5	8.5

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.53

Unit Mounting Description:

UUT F(a) was rigid base mounted to the shake table interface fixture with (8) 3/4'' diameter, grade 5, bolts. Bolts were spaced at approximately 53'' in length and 93'' in width on center.

UUT F(b)

Unit Under Test Summary Sheet

DCL Dynamic Certification Laboratories

Manufacturer: Baltimore Aircoil Company

Product Line: PT2 Open Cooling Tower

Model Number: PT2-1218A-3S1/WQS

Product Construction Summary:

Stainless Steel Frame

Options / Component Summary:

Nidec 20HP and WEG 35HP belt drive motor, Howden 84in and 92in diameter fan

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
22,173	107.8	94.3	118.8	2.0	1.3	0.5

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.53

Unit Mounting Description:

UUT F(b) was isolated base mounted to the shake table interface fixture with (8) Mason Industries Inc. SLFADA350 isolator housings each with (2) SLF-109 springs. Isolators were spaced at approximately 53'' in length and 93'' in width on center. The unit base was mounted to the isolator with a single 5/8'' diameter, grade 8 bolt and the isolator base was mounted to the test fixture with (4) 5/8'' diameter, grade 8, bolts each.

UUT G(a)

Unit Under Test Summary Sheet

DCL Dynamic Certification Laboratories

Manufacturer: Baltimore Aircoil Company

Product Line: PT2 Open Cooling Tower

Model Number: Subcomponent Assembly

Product Construction Summary:

Galvanized Steel

Options / Component Summary:

Nidec and WEG belt drive 5HP motor, Cofimco 84in and Multi-Wing 92in diameter fan

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
3,400	215.5	142.0	60.0	9.3	15.5	12.0

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.53

Unit Mounting Description:

UUT G(a) was rigid base mounted to the shake table interface fixture with (116) 5/16'' diameter, grade 2, bolts. Bolts were spaced at approximately 6'' in length and 5'' in width on center.

UUT G(b)

Unit Under Test Summary Sheet

DCL Dynamic Certification Laboratories

Manufacturer: Baltimore Aircoil Company

Product Line: PT2 Open Cooling Tower

Model Number: Subcomponent Assembly

Product Construction Summary:

Galvanized Steel

Options / Component Summary:

Nidec and WEG belt drive 5HP motor, Cofimco 84in and Multi-Wing 92in diameter fan

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
3,400	215.5	142.0	60.0	4.0	4.0	11.0

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.53

Unit Mounting Description:

UUT G(b) was isolated base mounted. The unit was bolted to the shake table interface fixture with (116) 5/16'' diameter, grade 2, bolts. Bolts were spaced at approximately 6'' in length and 5'' in width on center. The interface fixture was mounted to (4) Mason Industries Inc. SLFADA350-104 isolators on the corners and (2) SLFADA350-106 isolators in the middle. The interface fixture base was mounted to the isolator with a single 5/8'' diameter, grade 8 bolt and the isolator base was mounted to the test fixture with (8) 5/8'' diameter, grade 8, bolts each.

UUT H1(a)

Unit Under Test Summary Sheet

DCL Dynamic Certification Laboratories

Manufacturer: Baltimore Aircoil Company

Product Line: PT2 Open Cooling Tower

Model Number: Subcomponent Assembly

Product Construction Summary:

Galvanized Steel Frame

Options / Component Summary:

Nidec 60HP belt drive motor, Cofimco 132in diameter fan

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
3,520	215.5	142.0	60.0	20.3	12.8	19.3

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.53

Unit Mounting Description:

UUT H1(a) was rigid base mounted to the shake table interface fixture with (116) 5/16'' diameter, grade 2, bolts. Bolts were spaced at approximately 6'' in length and 5'' in width on center.

UUT H1(b)

Unit Under Test Summary Sheet

DCL Dynamic Certification Laboratories

Manufacturer: Baltimore Aircoil Company

Product Line: PT2 Open Cooling Tower

Model Number: Subcomponent Assembly

Product Construction Summary:

Galvanized Steel Frame

Options / Component Summary:

Nidec 60HP belt drive motor, Cofimco 132in diameter fan

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
3,520	215.5	142.0	60.0	3.8	4.8	6.8

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.53

Unit Mounting Description:

UUT H1(b) was isolated base mounted. The unit was bolted to the shake table interface fixture with (116) 5/16'' diameter, grade 2, bolts. Bolts were spaced at approximately 6'' in length and 5'' in width on center. The interface fixture was mounted to (4) Mason Industries Inc. SLFADA350-104 isolators on the corners and (2) SLFADA350-106 isolators in the middle. The interface fixture base was mounted to the isolator with a single 5/8'' diameter, grade 8 bolt and the isolator base was mounted to the test fixture with (8) 5/8'' diameter, grade 8, bolts each.

UUT H2(a)

Unit Under Test Summary Sheet

DCL Dynamic Certification Laboratories

Manufacturer: Baltimore Aircoil Company

Product Line: PT2 Open Cooling Tower

Model Number: Subcomponent Assembly

Product Construction Summary:

Galvanized Steel Frame

Options / Component Summary:

WEG 60HP belt drive motor, Cofimco 132in diameter fan

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
3,520	215.5	142.0	60.0	20.0	13.3	10.8

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.53

Unit Mounting Description:

UUT H2(a) was rigid base mounted to the shake table interface fixture with (116) 5/16'' diameter, grade 2, bolts. Bolts were spaced at approximately 6'' in length and 5'' in width on center.

UUT H2(b)

Unit Under Test Summary Sheet

DCL Dynamic Certification Laboratories

Manufacturer: Baltimore Aircoil Company

Product Line: PT2 Open Cooling Tower

Model Number: Subcomponent Assembly

Product Construction Summary:

Galvanized Steel Frame

Options / Component Summary:

WEG 60HP belt drive motor, Cofimco 132in diameter fan

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
3,520	215.5	142.0	60.0	3.5	5.8	7.3

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.53

Unit Mounting Description:

UUT H2(b) was isolated base mounted. The unit was bolted to the shake table interface fixture with (116) 5/16'' diameter, grade 2, bolts. Bolts were spaced at approximately 6'' in length and 5'' in width on center. The interface fixture was mounted to (4) Mason Industries Inc. SLFADA350-104 isolators on the corners and (2) SLFADA350-106 isolators in the middle. The interface fixture base was mounted to the isolator with a single 5/8'' diameter, grade 8 bolt and the isolator base was mounted to the test fixture with (8) 5/8'' diameter, grade 8, bolts each.