



**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY	
APPLICATION #:	OSP – 0599 – 10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Daikin Applied

Manufacturer's Technical Representative: Chris Stocker

Mailing Address: 13600 Industrial Park Blvd., Plymouth, MN 55441

Telephone: (763) 553-5349 Email: Chris.Stocker@daikinapplied.com

Product Information

Product Name: Rebel® Commercial Packaged Rooftop Systems

Product Type: Air Conditioning Units - Packaged

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

General Description: Packaged rooftop air conditioning system with internal and external components as outline in Product Matrices. Seismic modifications made to address anomalies observed during tests shall be incorporated into the production units.

Mounting Description: Rigid-base mounted.

Applicant Information

Applicant Company Name: TRU Compliance, by Structural Integrity Associates, Inc

Contact Person: Andy Coughlin

Mailing Address: 5215 Hellyer Ave., Suite 210, San Jose, CA 95138

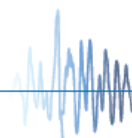
Telephone: 844-878-0200 Email: acoughlin@structint.com

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: 4/12/2019

Title: Director Company Name: TRU Compliance, by Structural Integrity Associates, Inc

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"





**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

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

Company Name: TRU Compliance, by Structural Integrity Associates, Inc

Name: Andy Coughlin, SE California License Number: S6082

Mailing Address: 5215 Hellyer Ave., Suite 210, San Jose, CA 95138

Telephone: 844-878-0200 Email: acoughlin@structint.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): _____

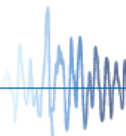
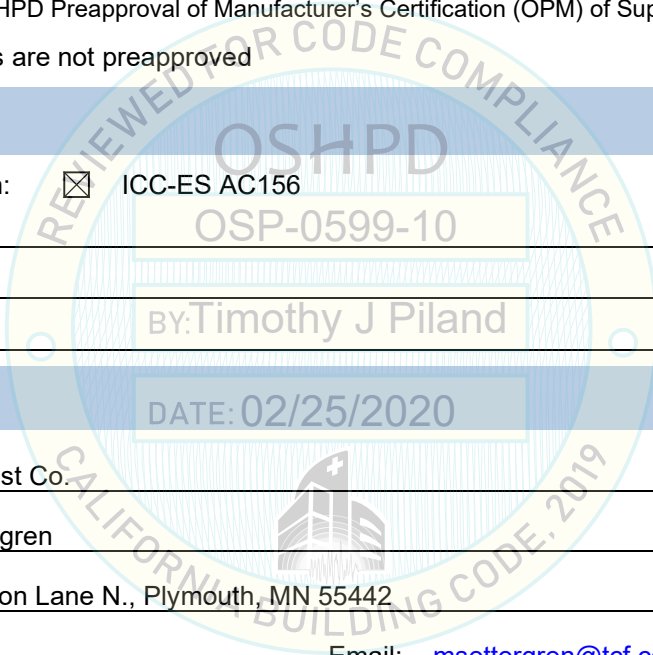
Testing Laboratory

Company Name: Seismic Test Co.

Contact Name: Matt Settergren

Mailing Address: 5959 Trenton Lane N., Plymouth, MN 55442

Telephone: (763) 551-7535 Email: msettergren@tcf.com





OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: [X] Yes [] No

Design Basis of Equipment or Components (Fp/Wp) = 1.50 (SDS = 2.00, z/h = 1); 1.13 (SDS = 2.50, z/h = 0)

SDS (Design spectral response acceleration at short period, g) = 2.00 (z/h = 1), 2.50 (z/h = 0)

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

Rp (Equipment or component response modification factor) = 6.0

Omega_0 (System overstrength factor) = 2

Ip (Importance factor) = 1.5

z/h (Height factor ratio) = 1 (SDS = 2.00), 0 (SDS = 2.50)

Equipment or Component Natural Frequencies (Hz) = See Attachments

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

Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: [] Yes [X] No

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

SDS (Design spectral response acceleration at short period, g) =

SD1 (Design spectral response acceleration at 1 second period, g) =

R (Response modification coefficient) =

Omega_0 (System overstrength factor) =

Cd (Deflection amplification factor) =

Ip (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 [X] No

List of Attachments Supporting Special Seismic Certification

[X] Test Report(s) [] Drawings [] Calculations [X] Manufacturer's Catalog

[X] Other(s) (Please Specify): Product Matrices

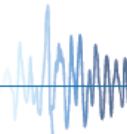
OSHPD Approval (For Office Use Only) - Approval Expires on December 31, 2025

Signature: [Signature] Date: February 25, 2020

Print Name: Timothy J. Piland Title: SSE

Special Seismic Certification Valid Up to: SDS (g) = See Above z/h = See Above

Condition of Approval (if applicable):



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX



TRU PROJECT NO. 1700755

Manufacturer: Daikin Applied	TABLE 1
Model Line: Rebel™ Packaged Rooftop Units	

Certified Product Construction Summary:
Galvanized carbon steel double-wall foam cabinet

Certified Options Summary:
Small (A) Cabinet Unit: 208/230V or 460V; Medium (B) Cabinet Unit: 208/230V, 460V; Large (C) Cabinet Unit: 208/230V or 460V See Tables 2 and 3 for certified options. Vertical Discharge (UUT 1, 2, and 5), Horizontal Dishcharge (UUT 3 and 4)

Mounting Configuration:
Base mounted - rigid
Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code: CBC 2019 **Seismic Certification Limits:** $S_{DS} = 2.0 g$ $z/h = 1.0$ $I_p = 1.5$
 $S_{DS} = 2.5 g$ $z/h = 0.0$

Model Line	Model	Dimensions (in)			Weight ^{1,2} (lb)	Notes	UUT
		Depth	Width	Height			
Rebel™ Standard ³ (Small cabinet)	DPS 003	87	85	41	1,186	3 tons UUT1: 1,150 lbs w/electric heat UUT4: 1,186 lbs w/hw coils	1, 4
	DPS 004	87	85	41	1,470	4 tons	Interp.
	DPS 005	87	85	41	1,514	5 tons	Interp.
	DPS 006	87	85	41	1,514	6 tons	Interp.
Rebel™ Standard ³ (Medium cabinet)	DPS 007	87	85	41	1,922	7.5 tons UUT2: 1,922lbs	2
	DPS 010	87	85	41	2,463	10 tons	Interp.
	DPS 012	87	85	41	2,463	12 tons	Interp.
	DPS 015	97	107	56	2,626	15 tons	Interp.
Rebel™ Standard ³ (Large cabinet)	DPS 016	77	186	71	3,892	15.5 tons	Interp.
	DPS 018	77	186	71	3,997	18 tons	Interp.
	DPS 020	77	186	71	4,041	20.1 tons	Interp.
Rebel™ with Energy Recovery Wheel ³ (Small cabinet)	DPS 003	87	103	41	1,630	3 tons	Interp.
	DPS 004	87	103	41	1,645	4 tons	Interp.
	DPS 005	87	103	41	1,689	5 tons	Interp.
	DPS 006	87	103	41	1,689	6 tons	Interp.
Rebel™ with Energy Recovery Wheel ³ (Medium cabinet)	DPS 007	97	133	56	2,567	7.5 tons	Interp.
	DPS 010	97	133	56	2,720	10 tons	Interp.
	DPS 012	97	133	56	2,720	12 tons	Interp.

¹Weight does not include curb weight
²Weights listed are of the base cabinet. Refer to Notes for specific weights of UUTs.
³Seismic upgrade according to UUT summaries.

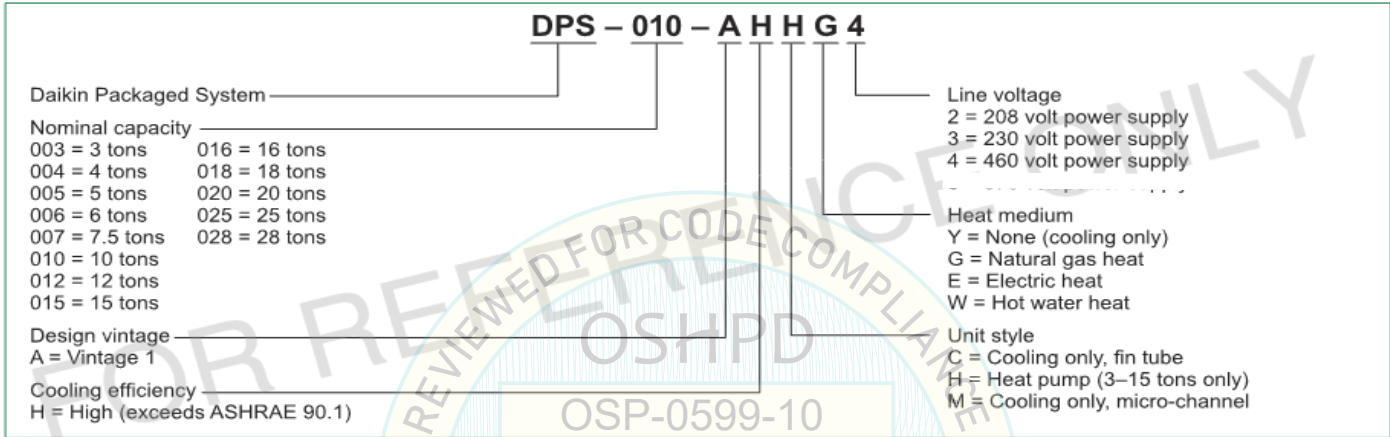
SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX



TRU PROJECT NO. 1700755

Manufacturer: Daikin Applied
Model Line: Rebel™ Packaged Rooftop Units

TABLE 1



Model	Small Cabinet					Medium Cabinet		
	003	004	005	006	007	010	012	015
Weight (lbs.)								
Base Weight ¹	1000	1000	1025	1058	1600	1600	1600	1763
Heat pump	1030	1030	1058	1058	1660	1660	1660	1823
Electric Heat	45	45	45	45	100	100	100	100
Hot Water 2 Row	11	11	11	16.5	30	30	30	30
Hot Water 1 Row	32	32	32	20	31	31	31	31
Gas Heat	75	75	63	93	186	186	186	186
Hot Gas Re-heat	8	8	12	12	28	31	31	31
Economizer	163	163	163	163	308	308	308	308
High capacity coil	105	105	105	105	215	215	215	215
Energy Wheel Weight Adds (lbs.)								
100% OA	160	160	160	160	300	300	300	300
Mixed Air	175	175	175	175	250	250	250	250

1. Includes standard cooling coil

**SPECIAL SEISMIC CERTIFICATION
CERTIFIED COMPONENT MATRIX**

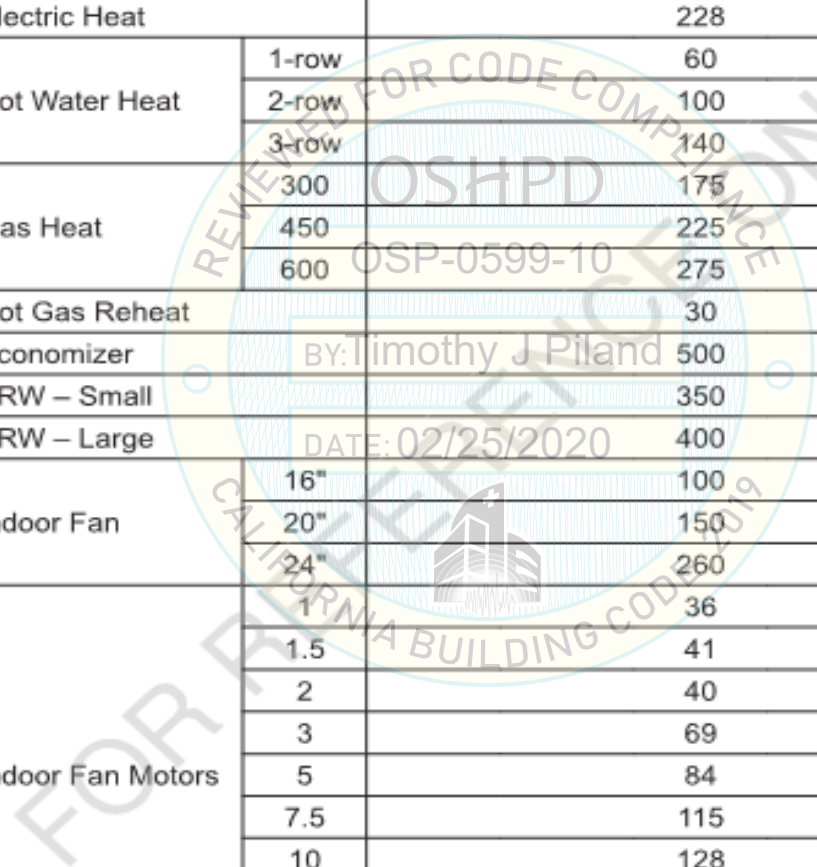


TRU PROJECT NO. 1700755

Manufacturer: Daikin Applied
Model Line: Rebel™ Packaged Rooftop Units

TABLE 1

Model		Large Cabinet				
		016	018	020	025	028
Base Weight (in lbs.)		2,465		2,575	2,700	
Heat Pump		—	—	—	—	—
Electric Heat		228				
Hot Water Heat	1-row	60				
	2-row	100				
	3-row	140				
Gas Heat	300	175				
	450	225				
	600	275				
Hot Gas Reheat		30				
Economizer		500				
ERW – Small		350				
ERW – Large		400				
Indoor Fan	16"	100				
	20"	150				
	24"	260				
Indoor Fan Motors	1	36				
	1.5	41				
	2	40				
	3	69				
	5	84				
	7.5	115				
	10	128				
	15	211				
20	225					
Exhaust Fan		250				



SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 1700755



Manufacturer: Daikin Applied Model Line: Rebel™ Packaged Rooftop Units		Table Description: Fan Motors			TABLE 2	
Building Code: CBC 2019		Seismic Certification Limits:			$S_{DS} = 2.0g \quad z/h = 1.0$ $S_{DS} = 2.5g \quad z/h = 0.0$	
					$I_p = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT	
Fan - Indoor	EBM Papst	EG1R-***-310-**	Aluminum, 310MM, 35 lbs	Centrifugal Airfoil (SWSI), supply and exhaust	4	
		EG1R-***-355-**	Aluminum, 355MM, 50 lbs		2	
		EG1R-***-400-**	Aluminum, 400MM, 75 lbs		1	
		EG1R-***-450-**	Aluminum, 450MM, 110 lbs		Interp.	
		EG1R-***-560-**	Aluminum, 560MM, 150 lbs		5	
	Twin City Fans	200 EPLFN	Stainless steel, 20", 150 lbs	Centrifugal Airfoil (SWSI)	3b	
Fan - Outdoor	Daikin Industries	Daikin PN 113170001	Composite (Plastic), 27", 7.5 lbs	blade assembly only	1,2,4,5	
	EBM Papst	W3G990-CZ0X-**A	Steel, 39", 145 lbs	full assembly	3	
Fan Motor - Indoor	EBM Papst	1.3 hp	Integral to fan assembly	Weight: included above, Direct Drive	4	
		2.3 hp	Integral to fan assembly	Weight: included above, Direct Drive	2	
		4 hp	Integral to fan assembly	Weight: included above, Direct Drive	1,5b	
		8 hp	Integral to fan assembly	Weight: included above, Direct Drive	5a	
	Baldor	EM3218T-*	Super E series, 5hp, Direct Drive, 84 lbs.		3b	
Fan Motor - Outdoor	Nidec	*2113*	ECM, weatherproof, 0.5 hp, 15.9 lbs		1,4	
	Panasonic	DMSB*8PMQ	ECM, weatherproof, 1 hp		2,5	
	EBM Papst	W3G990-CZ0X-**A	ECM, integral to fan assembly, 3.5 hp	Weight: included above, Direct Drive	3	

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

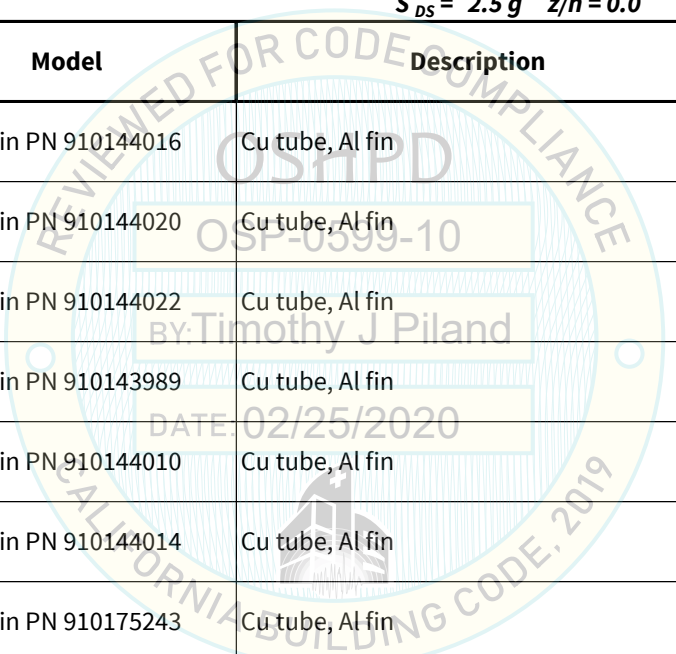
TRU PROJECT NO. 1700755



Manufacturer:	Daikin Applied	Table Description: Coils	TABLE 3
Model Line:	Rebel™ Packaged Rooftop Units		

Building Code:	CBC 2019	Seismic Certification Limits:	$S_{DS} = 2.0g$ $z/h = 1.0$	$I_p = 1.5$
			$S_{DS} = 2.5g$ $z/h = 0.0$	

Component Type	Manufacturer	Model	Description	Notes	UUT
Indoor Coil	Daikin Applied	Daikin PN 910144016	Cu tube, Al fin	3 Rows, 16 fins per inch, 3 ton, Face area: 4.8 sf	1,4
		Daikin PN 910144020	Cu tube, Al fin	4 Rows, 16 fins per inch, 4 ton, Face area: 4.8 sf	Interp.
		Daikin PN 910144022	Cu tube, Al fin	4 Rows, 14 fins per inch, 5 & 6 ton Face area: 6 sf	Interp.
		Daikin PN 910143989	Cu tube, Al fin	3 Rows, 15 fins per inch, 7 ton, Face area: 14 sf	2
		Daikin PN 910144010	Cu tube, Al fin	4 Rows, 15 fins per inch, 10 & 12 ton Face area: 15.4 sf	Interp.
		Daikin PN 910144014	Cu tube, Al fin	6 Rows, 12 fins per inch, 15 ton, Face area: 15.4 sf	5
		Daikin PN 910175243	Cu tube, Al fin	3 Rows, 15 fins per inch, 16 & 18 ton Face area: 22 sf	Interp.
		Daikin PN 910161000	Cu tube, Al fin	4 Rows, 15 fins per inch, 20 ton heat pump, Face area: 21.6 sf	3

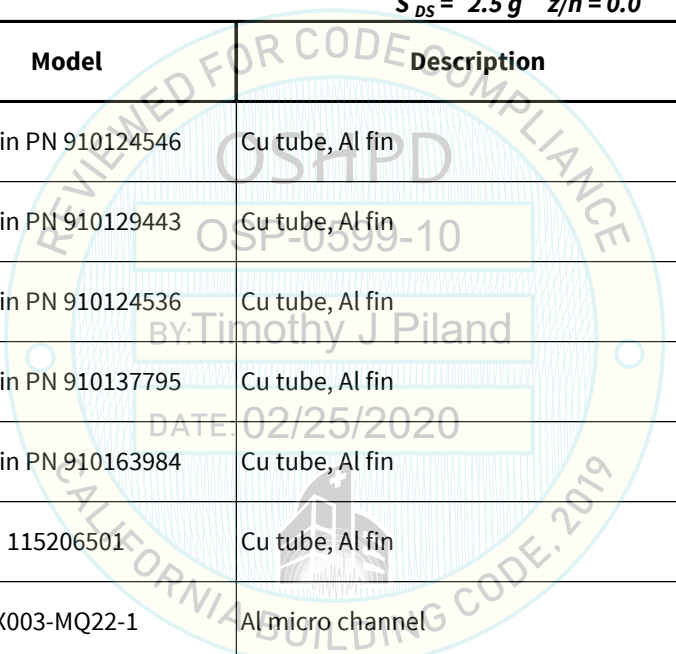


SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1700755-CR-001 R2



Manufacturer: Daikin Applied Model Line: Rebel™ Packaged Rooftop Units		Table Description: Coils			TABLE 3	
Building Code: CBC 2019		Seismic Certification Limits:			$S_{DS} = 2.0 g \quad z/h = 1.0$ $S_{DS} = 2.5 g \quad z/h = 0.0$	
					$I_P = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT	
Outdoor Coil	Daikin Applied	Daikin PN 910124546	Cu tube, Al fin	2 Rows, 16 fins per inch, 3 & 4 ton Heat Pump	1	
		Daikin PN 910129443	Cu tube, Al fin	3 Rows, 16 fins per inch, 5 & 6 ton Non Heat Pump	Interp.	
		Daikin PN 910124536	Cu tube, Al fin	3 Rows, 16 fins per inch, 5 & 6 ton Heat Pump	Interp.	
		Daikin PN 910137795	Cu tube, Al fin	4 Rows, 16 fins per inch, 15 ton Heat Pump	Interp.	
		Daikin PN 910163984	Cu tube, Al fin	4 Rows, 16 fins per inch, 20 ton Heat Pump	3	
	Modine	115206501	Cu tube, Al fin	3 Rows, 16 fins per inch, 7 ton Heat Pump	2	
	Sanhua	X003-MQ22-1	Al micro channel	1 Rows, 21 fins per inch, 3 & 4 ton Non Heat Pump	4	
		X004-MQ21	Al micro channel	1 Rows, 21 fins per inch, 7 ton Non Heat Pump	Interp.	
		X001-MQ25-2	Al micro channel	1 Rows, 21 fins per inch, 10 & 12 ton Non Heat Pump	Interp.	
		X004-MQ17	Al micro channel	1 Rows, 21 fins per inch, 15 ton Non Heat Pump	5	

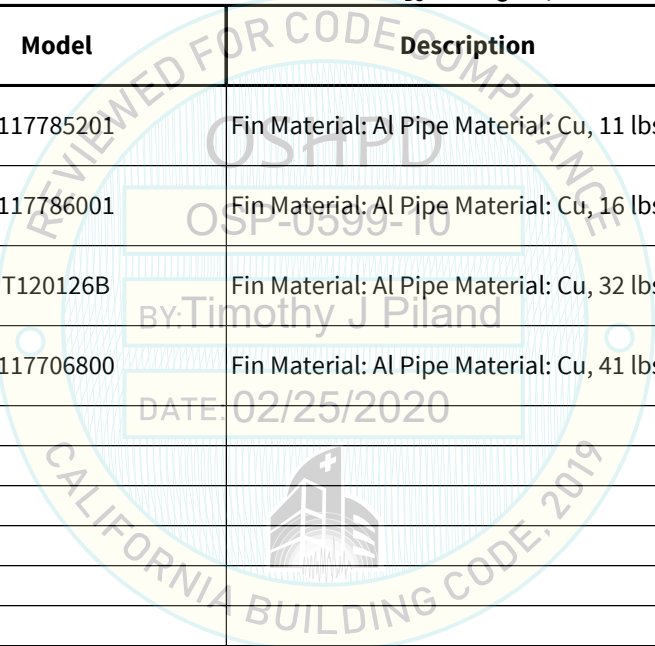


**SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX**

TRU PROJECT NO. 1700755



Manufacturer: Daikin Applied Model Line: Rebel™ Packaged Rooftop Units		Table Description: Coils			TABLE 3	
Building Code: CBC 2019		Seismic Certification Limits:		$S_{DS} = 2.0g$ $z/h = 1.0$ $S_{DS} = 2.5g$ $z/h = 0.0$		$I_p = 1.5$
Component Type	Manufacturer	Model	Description	Notes	UUT	
Hot Water Coils	Modine	117785201	Fin Material: Al Pipe Material: Cu, 11 lbs	1 Rows, 8 fins per inch, 3-6 tons, Face area: 2.5 sf	4	
		117786001	Fin Material: Al Pipe Material: Cu, 16 lbs	2 Rows, 10 fins per inch, 3-6 tons, Face area: 2.5 sf	Interp.	
		T120126B	Fin Material: Al Pipe Material: Cu, 32 lbs	1 Rows, 8 fins per inch, 7-15 tons, Face area: 5.4 sf	Interp.	
		117706800	Fin Material: Al Pipe Material: Cu, 41 lbs	2 Rows, 10 fins per inch, 7-15 tons, Face area: 5.4 sf	2	



SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 1700755



Manufacturer: Daikin Applied Model Line: Rebel™ Packaged Rooftop Units		Table Description: Heat Options			TABLE 4	
Building Code: CBC 2019		Seismic Certification Limits:		$S_{DS} = 2.0g \quad z/h = 1.0$ $S_{DS} = 2.5g \quad z/h = 0.0$		
					$I_p = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT	
Gas Heating	Beckett	MQ812	2 stage, 5:1 turn down, 75 lbs	80 MBh	Extrap.	
		MQ813	2 stage, 5:1 turn down, 75 lbs	120 MBh	Extrap.	
		MQ814	2 stage, 5:1 turn down, 93 lbs	160 MBh	Extrap.	
		MQ504	2 stage, 5:1, 10:1 turn down, 186 lbs	200 MBh	Extrap.	
		MQ506	2 stage, 5:1, 10:1 turn down, 186 lbs	300 MBh	5b	
		MQ508	2 stage, 5:1, 10:1 turn down, 186 lbs	400 MBh	5a	
		Daikin Applied	Daikin PN 910*****	4 stage, 12:1 turn down, 225 lbs	450 MBh	3c
Hot Gas Reheat	Modine	116091900	Al micro channel, 8 lbs	Modulating control	4	
		115893200	Al micro channel, 12 lbs		Interp.	
		116013900	Al micro channel, 28 lbs		Interp.	
		115710800	Al micro channel, 28 lbs		5	
Electric Heating	Thermolec	910124902	6kw/2Stage/208v, 45 lbs	A Cabinet, Qty=1	Extrap.	
		910124903	6kw/2Stage/230v, 45 lbs		Extrap.	
		910121554	6kw/2Stage/460v, 45 lbs		1	
		910124956	6kw/SCR/208v, 45 lbs		Interp.	
		910124957	6kw/SCR/230v, 45 lbs		Interp.	
		910124958	6kw/SCR/460v, 45 lbs		Interp.	
		910124905	12kw/2Stage/208v, 45 lbs		Interp.	
		910124906	12kw/2Stage/230v, 45 lbs		Interp.	
		910124908	12kw/2Stage/460v, 45 lbs		Interp.	
		910124960	12kw/SCR/208v, 45 lbs		Interp.	
		910124962	12kw/SCR/230v, 45 lbs		Interp.	
		910124963	12kw/SCR/460v, 45 lbs		Interp.	

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 1700755



Manufacturer: Daikin Applied	Table Description: Heat Options	TABLE 4
Model Line: Rebel™ Packaged Rooftop Units		

Building Code: CBC 2019	Seismic Certification Limits: $S_{DS} = 2.0 g$ $z/h = 1.0$ $S_{DS} = 2.5 g$ $z/h = 0.0$	$I_p = 1.5$
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Component Type	Manufacturer	Model	Description	Notes	UUT
Electric Heating	Thermolec	910124910	18kw/4Stage/208v, 45 lbs	A Cabinet, Qty=1	Interp.
		910124911	18kw/4Stage/230v, 45 lbs		Interp.
		910124912	18kw/4Stage/460v, 45 lbs		Interp.
		910124965	18kw/SCR/208v, 45 lbs		Interp.
		910124966	18kw/SCR/230v, 45 lbs		Interp.
		910124967	18kw/SCR/460v, 45 lbs		Interp.
		910124915	30kw/4Stage/208v, 45 lbs		Interp.
		910124917	30kw/4Stage/230v, 45 lbs		Interp.
		910124919	30kw/4Stage/460v, 45 lbs		Interp.
		910124969	30kw/SCR/208v, 45 lbs		Interp.
		910124970	30kw/SCR/230v, 45 lbs	Interp.	
		910124972	30kw/SCR/460v, 45 lbs	Interp.	
		910124921	18kw/4Stage/208v, 100 lbs	B Cabinet, Qty=1	Interp.
		910124922	18kw/4Stage/230v, 100 lbs		Interp.
		910121553	18kw/4Stage/460v, 100 lbs		Interp.
		910124974	18kw/SCR/208v, 100 lbs		Interp.
		910124975	18kw/SCR/230v, 100 lbs		Interp.
		910124976	18kw/SCR/460v, 100 lbs		Interp.
		910124924	36kw/4Stage/208v, 100 lbs		Interp.
		910124925	36kw/4Stage/230v, 100 lbs		Interp.
910124926	36kw/4Stage/460v, 100 lbs	Interp.			
910124978	36kw/SCR/208v, 100 lbs	Interp.			
910124979	36kw/SCR/230v, 100 lbs	Interp.			

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 1700755



Manufacturer: Daikin Applied	Table Description: Heat Options	TABLE 4
Model Line: Rebel™ Packaged Rooftop Units		

Building Code: CBC 2019	Seismic Certification Limits: $S_{DS} = 2.0g$ $z/h = 1.0$ $S_{DS} = 2.5g$ $z/h = 0.0$	$I_p = 1.5$
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Component Type	Manufacturer	Model	Description	Notes	UUT
Electric Heating	Thermolec	910124980	36kw/SCR/460v, 100 lbs	B Cabinet, Qty=1	Interp.
		910124928	54kw/4Stage/208v, 100 lbs		Interp.
		910124930	54kw/4Stage/230v, 100 lbs		Interp.
		910124931	54kw/4Stage/460v, 100 lbs		Interp.
		910124982	54kw/SCR/208v, 100 lbs		Interp.
		910124983	54kw/SCR/230v, 100 lbs		Interp.
		910124984	54kw/SCR/460v, 100 lbs		Interp.
		910124935	72kw/4Stage/460v, 100 lbs		Interp.
		910124933	72kw/SCR/208v, 100 lbs		Interp.
		910124934	72kw/SCR/230v, 100 lbs		Interp.
		910186690	10kw/2Stage/208v, 228 lbs	C Cabient, Qty=1	Interp.
		910186691	10kw/2Stage/230v, 228 lbs		Interp.
		910186692	10kw/2Stage/460v, 228 lbs		Interp.
		910186694	10kw/SCR/208v, 228 lbs		Interp.
		910186696	10kw/SCR/230v, 228 lbs		Interp.
		910186697	10kw/SCR/460v, 228 lbs		Interp.
		910195561	20kw/4Stage/208v, 228 lbs		Interp.
		910168952	20kw/4Stage/208v, 228 lbs		Interp.
		910195562	20kw/4Stage/230v, 228 lbs		Interp.
		910168951	20kw/4Stage/230v, 228 lbs		Interp.
		910195563	20kw/4Stage/460v, 228 lbs		Interp.
		910168950	20kw/4Stage/460v, 228 lbs		Interp.
		910195532	20kw/SCR/208v, 228 lbs		Interp.

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 1700755



Manufacturer:	Daikin Applied	Table Description: Heat Options	TABLE 4
Model Line:	Rebel™ Packaged Rooftop Units		

Building Code:	CBC 2019	Seismic Certification Limits:	$S_{DS} = 2.0g$ $z/h = 1.0$	$I_p = 1.5$
			$S_{DS} = 2.5g$ $z/h = 0.0$	

Component Type	Manufacturer	Model	Description	Notes	UUT
Electric Heating	Thermolec	910169574	20kw/SCR/208v, 228 lbs	C Cabient, Qty=1	Interp.
		910195534	20kw/SCR/230v, 228 lbs		Interp.
		910169575	20kw/SCR/230v, 228 lbs		Interp.
		910195535	20kw/SCR/460v, 228 lbs		Interp.
		910169576	20kw/SCR/460v, 228 lbs		Interp.
		910195565	30kw/4Stage/208v, 228 lbs		Interp.
		910168947	30kw/4Stage/208v, 228 lbs		Interp.
		910195566	30kw/4Stage/230v, 228 lbs		Interp.
		910168946	30kw/4Stage/230v, 228 lbs		Interp.
		910195567	30kw/4Stage/460v, 228 lbs		Interp.
		910168945	30kw/4Stage/460v, 228 lbs		Interp.
		910195537	30kw/SCR/208v, 228 lbs		Interp.
		910169578	30kw/SCR/208v, 228 lbs		Interp.
		910195538	30kw/SCR/230v, 228 lbs		Interp.
		910169579	30kw/SCR/230v, 228 lbs		Interp.
		910195539	30kw/SCR/460v, 228 lbs		Interp.
		910169580	30kw/SCR/460v, 228 lbs		Interp.
		910195569	45kw/4Stage/208v, 228 lbs		Interp.
		910168943	45kw/4Stage/208v, 228 lbs		Interp.
		910195570	45kw/4Stage/230v, 228 lbs		Interp.
910168942	45kw/4Stage/230v, 228 lbs	Interp.			
910195572	45kw/4Stage/460v, 228 lbs	Interp.			
910168941	45kw/4Stage/460v, 228 lbs	Interp.			

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 1700755



Manufacturer: Daikin Applied	Table Description: Heat Options	TABLE 4
Model Line: Rebel™ Packaged Rooftop Units		

Building Code: CBC 2019	Seismic Certification Limits:	$S_{DS} = 2.0g$ $z/h = 1.0$	$I_p = 1.5$
		$S_{DS} = 2.5g$ $z/h = 0.0$	

Component Type	Manufacturer	Model	Description	Notes	UUT
Electric Heating	Thermolec	910195541	45kw/SCR/208v, 228 lbs	C Cabient, Qty=1	Interp.
		910169582	45kw/SCR/208v, 228 lbs		Interp.
		910195542	45kw/SCR/230v, 228 lbs		Interp.
		910169583	45kw/SCR/230v, 228 lbs		Interp.
		910195543	45kw/SCR/460v, 228 lbs		Interp.
		910169584	45kw/SCR/460v, 228 lbs		Interp.
		910195574	60kw/4Stage/208v, 228 lbs		Interp.
		910168938	60kw/4Stage/208v, 228 lbs		Interp.
		910195575	60kw/4Stage/230v, 228 lbs		Interp.
		910168937	60kw/4Stage/230v, 228 lbs		Interp.
		910195576	60kw/4Stage/460v, 228 lbs		Interp.
		910168936	60kw/4Stage/460v, 228 lbs		Interp.
		910195547	60kw/SCR/208v, 228 lbs		Interp.
		910169586	60kw/SCR/208v, 228 lbs		Interp.
		910195548	60kw/SCR/230v, 228 lbs		Interp.
		910169587	60kw/SCR/230v, 228 lbs		Interp.
		910195549	60kw/SCR/460v, 228 lbs		Interp.
		910169588	60kw/SCR/460v, 228 lbs		Interp.
		910195578	72kw/4Stage/208v, 228 lbs		Interp.
		910169570	72kw/4Stage/208v, 228 lbs		Interp.
910195579	72kw/4Stage/230v, 228 lbs	Interp.			
910169571	72kw/4Stage/230v, 228 lbs	Interp.			
910195580	72kw/4Stage/460v, 228 lbs	Interp.			

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 1700755



Manufacturer:	Daikin Applied	Table Description: Heat Options	TABLE 4
Model Line:	Rebel™ Packaged Rooftop Units		

Building Code:	CBC 2019	Seismic Certification Limits:	$S_{DS} = 2.0 g$ $z/h = 1.0$	$I_p = 1.5$
			$S_{DS} = 2.5 g$ $z/h = 0.0$	

Component Type	Manufacturer	Model	Description	Notes	UUT
Electric Heating	Thermolec	910169572	72kw/4Stage/460v, 228 lbs	C Cabient, Qty=1	Interp.
		910195551	72kw/SCR/208v, 228 lbs		Interp.
		910169590	72kw/SCR/208v, 228 lbs		Interp.
		910195552	72kw/SCR/230v, 228 lbs		Interp.
		910169591	72kw/SCR/230v, 228 lbs		Interp.
		910195553	72kw/SCR/460v, 228 lbs		Interp.
		910169592	72kw/SCR/460v, 228 lbs		Interp.
		910168933	90kw/4Stage/208v, 228 lbs		Interp.
		910168932	90kw/4Stage/230v, 228 lbs		Interp.
		910195582	90kw/4Stage/460v, 228 lbs		Interp.
		910168931	90kw/4Stage/460v, 228 lbs		Interp.
		910195583	90kw/4Stage/575v, 228 lbs		Interp.
		910168930	90kw/4Stage/575v, 228 lbs		Interp.
		910169594	90kw/SCR/208v, 228 lbs		Interp.
		910169595	90kw/SCR/230v, 228 lbs		Interp.
		910195555	90kw/SCR/460v, 228 lbs		Interp.
		910169596	90kw/SCR/460v, 228 lbs		Interp.
		910195584	120kw/4Stage/460v, 228 lbs		Interp.
		910168929	120kw/4Stage/460v, 228 lbs		Interp.
		910195557	120kw/SCR/460v, 228 lbs		3b

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

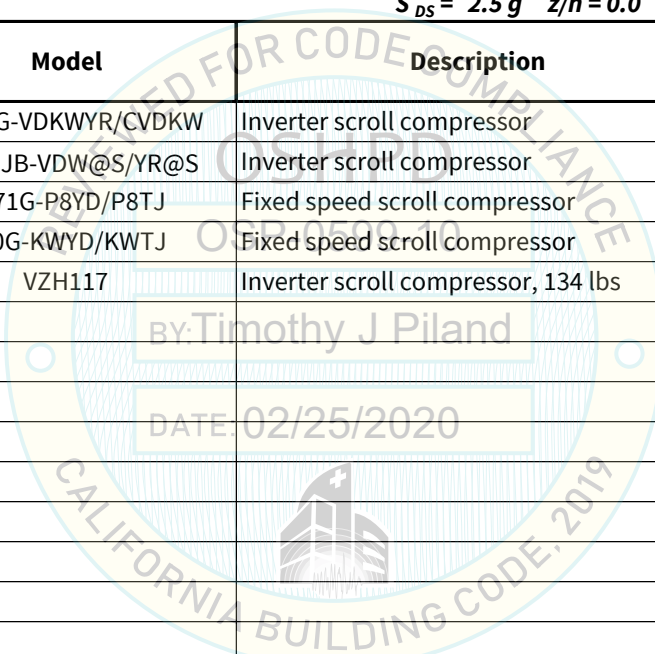
TRU PROJECT NO. 1700755



Manufacturer: Daikin Applied	Table Description: Compressor	TABLE 5
Model Line: Rebel™ Packaged Rooftop Units		

Building Code: CBC 2019	Seismic Certification Limits:	$S_{DS} = 2.0g \quad z/h = 1.0$	$I_p = 1.5$
		$S_{DS} = 2.5g \quad z/h = 0.0$	

Component Type	Manufacturer	Model	Description	Notes	UUT
Compressor	Daikin Industries	JT100G-VDKWYR/CVDKW	Inverter scroll compressor		1,4
		JT150JB-VDW@S/YR@S	Inverter scroll compressor		5
		JT71G-P8YD/P8TJ	Fixed speed scroll compressor		2
		JT0G-KWYD/KWTJ	Fixed speed scroll compressor		5
	Danfoss	VZH117	Inverter scroll compressor, 134 lbs	Modulating	3



**SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX**

TRU PROJECT NO. 1700755



Manufacturer: Daikin Applied	Table Description: Valves	TABLE 6
Model Line: Rebel™ Packaged Rooftop Units		

Building Code: CBC 2019	Seismic Certification Limits: $S_{DS} = 2.0g$ $z/h = 1.0$ $S_{DS} = 2.5g$ $z/h = 0.0$	$I_p = 1.5$
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Component Type	Manufacturer	Model	Description	Notes	UUT
Reversing Valve	Saginomiya	STF-03U1G	4-way valve	3 and 4 ton	1
		STF-04U4G	4-way valve	5 through 7 ton	Interp.
		STF-07U31G	4-way valve	10 and 12 ton	Interp.
		STF-20U11G	4-way valve	15 ton	Interp.
		STF-25U5G	4-way valve	20 ton	3
Electronic Expansion Valves	Danfoss	ETS 12.5	Brass body, 1.5 lbs		3,5
	Saginomiya	UKV18	0.11 lbs		1,4
		UKV25	0.11 lbs		Interp.
		UKV32	0.11 lbs		Interp.
		UKV40	0.11 lbs		2

**SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX**

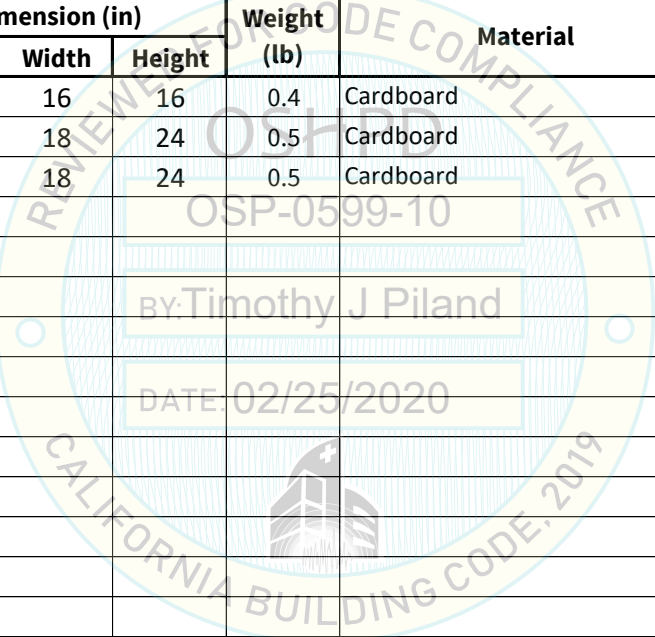
TRU PROJECT NO. 1700755



Manufacturer: Daikin Applied	Table Description: Filters	TABLE 7
Model Line: Rebel™ Packaged Rooftop Units		

Building Code: CBC 2019	Seismic Certification Limits: $S_{DS} = 2.0 g \quad z/h = 1.0$ $S_{DS} = 2.5 g \quad z/h = 0.0$	$I_p = 1.5$
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Model Line (Manufacturer)	Model	Dimension (in)			Weight (lb)	Material	Notes	UUT
		Depth	Width	Height				
AAF	2" Filter	2	16	16	0.4	Cardboard	7.1 sf (4 total)	1,4
	2" Filter	2	18	24	0.5	Cardboard	18 sf (6 total)	2,5
	2" MERV8 Filter	2	18	24	0.5	Cardboard	27 sf (9 total)	3

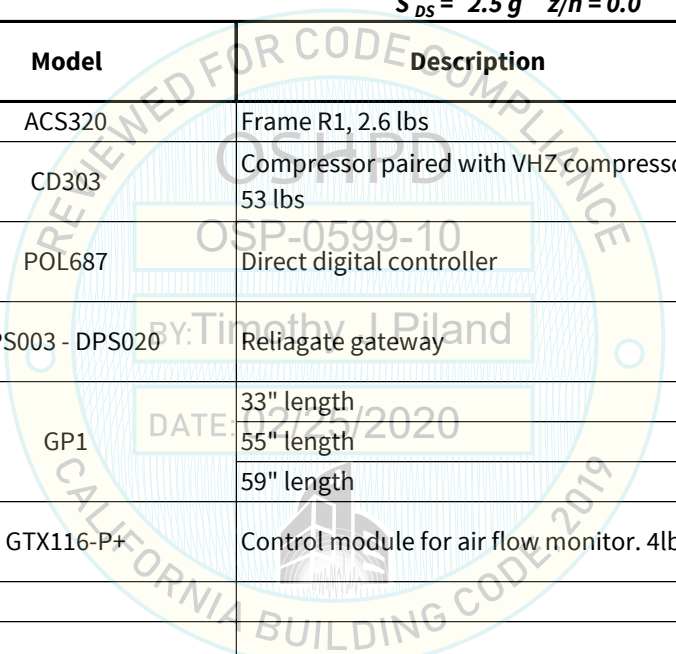


SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 1700755



Manufacturer: Daikin Applied		Table Description: Electrical - Controls			TABLE 8
Model Line: Rebel™ Packaged Rooftop Units					
Building Code: CBC 2019		Seismic Certification Limits:		$I_p = 1.5$	
		$S_{DS} = 2.0 g \quad z/h = 1.0$			
		$S_{DS} = 2.5 g \quad z/h = 0.0$			
Component Type	Manufacturer	Model	Description	Notes	UUT
VFD	ABB	ACS320	Frame R1, 2.6 lbs		3,5
	Danfoss	CD303	Compressor paired with VHZ compressor, 53 lbs		3
MicroTech® III Controls	Siemens	POL687	Direct digital controller	Din rail mounted on the control panel mentioned above	1,2,3,4,5
Intelligent Equipment	Eurotech	DPS003 - DPS020	Reliagate gateway		3,4
Outdoor Air Monitor	Ebtron	GP1	33" length		3
			55" length		Interp.
			59" length		4
		GTX116-P+	Control module for air flow monitor. 4lbs		3,4



SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 1700755



Manufacturer: Daikin Applied		Table Description: Optional			TABLE 9
Model Line: Rebel™ Packaged Rooftop Units					
Building Code: CBC 2019		Seismic Certification Limits:		$I_p = 1.5$	
		$S_{DS} = 2.0g \quad z/h = 1.0$			
		$S_{DS} = 2.5g \quad z/h = 0.0$			
Component Type	Manufacturer	Model	Description	Notes	UUT
Energy Recovery Wheel	AirXchange	ERC-2513C	Galvanized steel wheel housing held within a galvanized steel track, 175 lbs		Extrap.
		ERC-3622C	Galvanized steel wheel housing held within a galvanized steel track, 300 lbs		5
		ERC-4136C	Galvanized steel wheel housing held within a galvanized steel track, 400 lbs		3
Economizer	Daikin Applied	DPS003 - DPS006	Galvanized steel housing and blades with end seals, 163 lbs	Economizers are multiple sheet metal components manufactured by Daikin specific for each model.	4
		DPS007 - DPS015	Galvanized steel housing and blades with end seals, 308 lbs		2,5
		DPS016 - DPS020	Galvanized steel housing and blades with end seals, 500 lbs		3

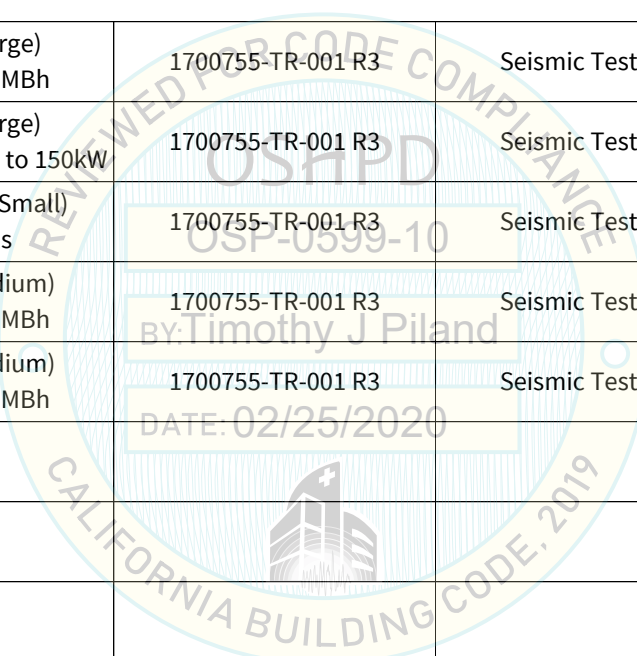
UNIT UNDER TEST (UUT) SUMMARY SHEET



TRU PROJECT NO. 1700755

Manufacturer: Daikin Applied
Model Line: Rebel™ Packaged Rooftop Units

UUT	Unit Description	Report Number	Testing Laboratory	S _{DS}	z/h	I _p
1	DPS 003 Standard (Small) Electric Heat - 6kW to 30 kW	1700755-TR-001 R3	Seismic Test Co.	2.0 2.5	1.0 0.0	1.5
2	DPS 007 Standard (Medium) Hot Water Coils	1700755-TR-001 R3	Seismic Test Co.	2.0 2.5	1.0 0.0	1.5
3a	NOT USED					
3b	DPS 020 ERW (Large) Gas Heating - 600 MBh	1700755-TR-001 R3	Seismic Test Co.	2.0 2.5	1.0 0.0	1.5
3c	DPS 020 ERW (Large) Electric Heating - 10kW to 150kW	1700755-TR-001 R3	Seismic Test Co.	2.0 2.5	1.0 0.0	1.5
4	DPS 003 Standard (Small) Hot Water Coils	1700755-TR-001 R3	Seismic Test Co.	2.0 2.5	1.0 0.0	1.5
5a	DPS 015 ERW (Medium) Gas Heating - 400 MBh	1700755-TR-001 R3	Seismic Test Co.	2.0 2.5	1.0 0.0	1.5
5b	DPS 015 ERW (Medium) Gas Heating - 300 MBh	1700755-TR-001 R3	Seismic Test Co.	2.0 2.5	1.0 0.0	1.5



Notes:

UNIT UNDER TEST (UUT) SUMMARY SHEET



TRU PROJECT NO. 1700755

Manufacturer: Daikin Applied	UUT 1
Model Line: Rebel™ Packaged Rooftop Units	
Model Number: DPS-003	
Serial Number: N/A	

Product Construction Summary:
 Double wall galvanized carbon steel panels, foam insulation - R7.
 Seismic Upgrade: A 14 ga Daikin bracket (PN: 910175767A) added to restrain compressor, copper tubing from compressor has been elegated in a U shape to increase flexibility. Door latches are replaced with Allegis 35 mm zinc cast compression latch (PN:241387-XX)

Options/Subcomponent Summary:
 EBM Papst Fan - 400mm, Daikin Industries Fan - 27", EBM Papst Fan Motor - 4hp, Nidec Fan Motor - 0.5 hp, Daikin Applied Indoor Coil - 3 ton, Daikin Applied Outdoor Coil - 3/4 ton, Thermolec Electric Heating - 6kW to 30kW, Saginomiya Reversing Valve - 3 to 4 ton, Discharge Location Daikin Applied - Vertical, Daikin Industries Compressor - Inverter Scroll Compressor, Design Ready Controls Electrical Panel, Siemens MicroTech III Controls, Saginomiya Electronic Expansion Valves

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
1,150	87	85	41	6.31	8.49	6.30

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2019	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.2	2.4	1.67	0.67
		2.5	0.0	1.5				

Test Mounting Details:



The UUT was mounted to Thybar curb (PN: Standard DPS003-006) by use of four (4) S-shaped restraining brackets (PN: ACSWRDKB0012RC). Restraining brackets were mounted to the curb using seven (7) #14-1" self-tapping screws. The restraining bracket was mounted to the unit with five (5) #14-1" self-tapping screws. The curb was mounted to the table with 1/8" x 2" fillet welds spaced at 24" OC on all four sides.
 Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
 Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



TRU PROJECT NO. 1700755

Manufacturer: Daikin Applied	UUT 2
Model Line: Rebel™ Packaged Rooftop Units	
Model Number: DPS-007	
Serial Number: N/A	

Product Construction Summary:
Double wall galvanized carbon steel panels, foam insulation - R7.

Options/Subcomponent Summary:
EBM Papst Fan - 355mm, Daikin Industries Fan - 27", EBM Papst Fan Motor - 2.3 hp, Panasonic Fan Motor - 1 hp, Daikin Applied Indoor Coil - 7 ton, Modine Outdoor Coil - 7 ton, Modine Hot Water Coil - 2 row 10 fpi, Daikin Applied Economizer, Daikin Applied Discharge Location - Vertical, Daikin Industries Compressor - Fixed Speed Scroll Compressor, Design Ready Controls Electrical Panel, Siemens MicroTech III Controls, Saginomiya Electronic Expansion Valves, Siemens Economizer Diagnostics

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
1,922	87	85	41	4.88	7.84	5.40

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2019	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.2	2.4	1.67	0.67
		2.5	0.0	1.5				

Test Mounting Details:



The UUT was mounted to a Thybar curb (PN: Standard DPS007-015) by use of four (4) S-shaped restraining brackets (PN: ACSWRDKB0012RC). Restraining brackets were mounted to the curb using seven (7) #14-1" self-tapping screws. The restraining bracket was mounted to the unit with seven (7) #14-1" self-tapping screws. The curb was mounted to the table with 1/8" x 2" fillet welds spaced at 24" OC on all four sides.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



TRU PROJECT NO. 1700755

Manufacturer:	Daikin Applied	UUT 3b
Model Line:	Rebel™ Packaged Rooftop Units	
Model Number:	DPS-020	
Serial Number:		N/A

Product Construction Summary:
 Double wall galvanized carbon steel panels, foam insulation - R13.
 Seismic Upgrades: Energy recovery wheel is restrain to the frame using (3) #10-3/4 self-taping screws, door latches are replaced with Allegis 35 mm zinc cast compression latch (PN:241387-XX), galvanized brace on condenser, two (2) additional angles added to compressor shelf base. See next page for details.

Options/Subcomponent Summary:
 Twin City Fans Fan - 24", EBP Papst Fan - 39", Baldor Fan Motor -5 hp, EBM Papst Fan Motor - 3.5 hp, Daikin Applied Indoor Coil - 20 ton, Daikin Applied Outdoor Coil - 20 ton, Daikin Applied Gas Heating - 600 MBh, Saginomiya Reversing Valve - 20 ton, AirXchange Energy Recovery Wheel, Daikin Applied Economizer, Danfoss Compressor - Inverter Scroll Compressor, ABB VFD - ACS320, Danfoss VFD - CD303, Daikin Applied Electrical Panel, Siemens MicroTech III Controls, Danfoss Electronic Expansion Valves, Eurotech Intelligent Equipment, Ebtron Outdoor Air Monitor - 33" length, Ebtron Outdoor Air Monitor - Control Module.

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
4,222	77	205	71	3.28	2.69	3.41

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
		CBC 2019	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.2	2.4
		2.5	0.0	1.5				

Test Mounting Details:



The unit was base mounted onto a Thybar curb (PN: ERW DPS020-028) by use of (8) restraining brackets (PN: ACSWRDKB0013RC). Each restraining bracket was mounted to the curb using (14) #14-1" self-tapping screws. Each restraining bracket was fastened to the unit by use of (14) #14-1" self-tapping screws. The curb was mounted to the table by use of 1/8" x 2" fillet welds spaced at 24" OC in on all four sides.
 Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
 Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



TRU PROJECT NO. 1700755

Manufacturer: Daikin Applied
Model Line: Rebel™ Packaged Rooftop Units
Model Number: DPS-020

Serial Number: N/A

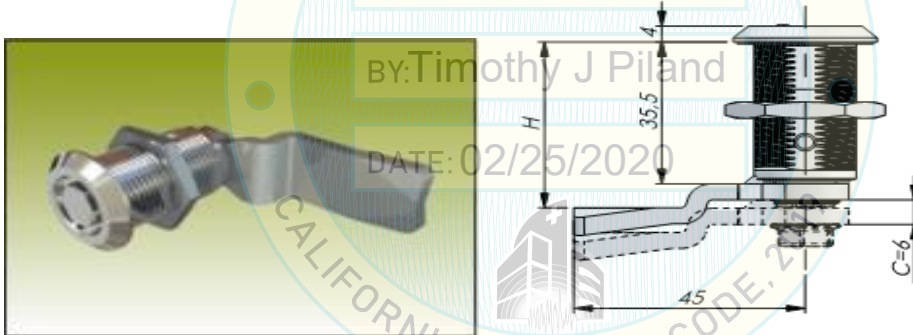
UUT 3b

Seismic Modifications/Upgrades:

1. Energy recovery wheel modification - restrain wheel to the frame using (3) #10-3/4 self-tapping screws.



2. Replace of door latches with compression door latch.



3. Galvanized Condensor Brace and compressor shelf angles.



UNIT UNDER TEST (UUT) SUMMARY SHEET



TRU PROJECT NO. 1700755

Manufacturer:	Daikin Applied	UUT 3c
Model Line:	Rebel™ Packaged Rooftop Units	
Model Number:	DPS-020	
Serial Number:		N/A

Product Construction Summary:
 Double wall galvanized carbon steel panels, foam insulation - R13.
 Seismic Upgrades: Energy recovery wheel is restrain to the frame using (3) #10-3/4 self-taping screws, door latches are replaced with Allegis 35 mm zinc cast compression latch (PN:241387-XX), galvanized brace on condenser, two (2) additional angles added to compressor shelf base. See next page for details.

Options/Subcomponent Summary:
 Twin City Fans Fan - 24", EBP Papst Fan - 39", Baldor Fan Motor - 5 hp, EBM Papst Fan Motor - 3.5 hp, Daikin Applied Indoor Coil - 20 ton, Daikin Applied Outdoor Coil - 20 ton, Thermolec Electric Heating - 10kW to 150kW, Saginomiya Reversing Valve - 20 ton, AirXchange Energy Recovery Wheel, Daikin Applied Economizer, Danfoss Compressor - Inverter Scroll Compressor, ABB VFD - ACS320, Danfoss VFD - CD303, Daikin Applied Electrical Panel, Siemens MicroTech III Controls, Danfoss Electronic Expansion Valves, Eurotech Intelligent Equipment, Ebtron Outdoor Air Monitor - 33" length, Ebtron Outdoor Air Monitor - Control Module.

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
4,222	77	205	71	4.24	2.59	5.94

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2019	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.2	2.4	1.67	0.67
		2.5	0.0	1.5				

Test Mounting Details:



The unit was base mounted onto a (PN: ERW DPS020-028) Thybar curb by use of (8) restraining brackets (PN: ACSWRDKB0013RC). Each restraining bracket was mounted to the curb using (14) #14-1" self-tapping screws. Each restraining bracket was fastened to the unit by use of (14) #14-1" self-tapping screws. The curb was mounted to the table by use of 1/8" x 2" fillet welds spaced at 24" OC in on all four sides.
 Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
 Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



TRU PROJECT NO. 1700755

Manufacturer: Daikin Applied
Model Line: Rebel™ Packaged Rooftop Units
Model Number: DPS-020

Serial Number: N/A

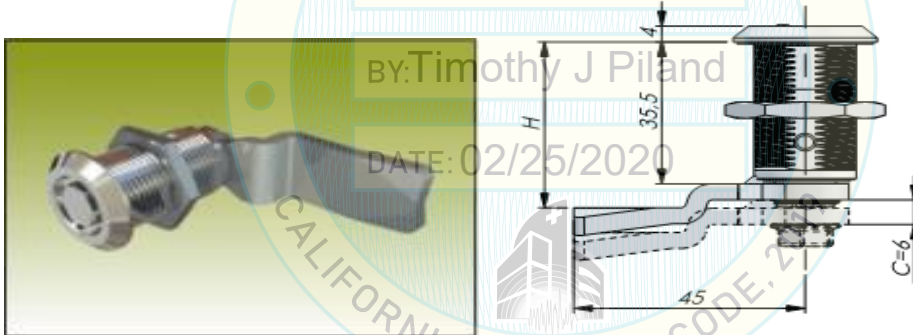
UUT 3c

Seismic Modifications/Upgrades:

1. Energy recovery wheel modification - restrain wheel to the frame using (3) #10-3/4 self-tapping screws.



2. Replace of door latches with compression door latch.



3. Galvanized Condensor Brace and compressor shelf angles.



UNIT UNDER TEST (UUT) SUMMARY SHEET



TRU PROJECT NO. 1700755

Manufacturer: Daikin Applied	UUT 4
Model Line: Rebel™ Packaged Rooftop Units	
Model Number: DPS-003	
Serial Number: N/A	

Product Construction Summary:
Double wall galvanized carbon steel panels, foam insulation - R13.

Options/Subcomponent Summary:
EBM Papst Fan - 310mm, Daikin Industries Fan - 27", EBM Papst Fan Motor - 1.3hp, Nidec Fan Motor - 0.5 hp, Daikin Applied Indoor Coil - 3 ton, Daikin Applied Outdoor Coil - 5/6 ton, Sanhua Outdoor Coil - 3/4 ton, Modine Hot Water Coil - 1 row 8 fpi, Modine Hot Gas Reheat, Daikin Applied Economizer, Daikin Industries Compressor - Inverter Scroll Compressor, Design Ready Controls Electrical Panel, Siemens MicroTech III Controls, Saginomiya Electronic Expansion Valves, Eurotech Intelligent Equipment, Ebtron Outdoor Air Monitor - 59" length, Siemens Communication Card, Siemens Economizer Diagnostics

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
1,186	87	85	41	6.31	9.37	7.00

UUT Highest Passed Seismic Run Information								
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2019	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.2	2.4	1.67	0.67
		2.5	0.0	1.5				

Test Mounting Details:



The UUT was mounted to a Thybar curb (PN: Standard DPS003-006) by use of four (4) S-shaped restraining brackets (PN: ACSWRDKB0012RC). Restraining brackets were mounted to the curb using seven (7) #10-3/4" self-tapping screws. The restraining bracket was mounted to the unit with five (5) #10-3/4" self-tapping screws. The curb was mounted to the table with 1/8" x 2" fillet welds spaced at 24" OC on all four sides. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



TRU PROJECT NO. 1700755

Manufacturer:	Daikin Applied	UUT 5a
Model Line:	Rebel™ Packaged Rooftop Units	
Model Number:	DPS-015	
Serial Number:		N/A

Product Construction Summary:
 Double wall galvanized carbon steel panels, foam insulation - R13.
 Seismic Upgrades: Energy recovery wheel is restrain to the frame using (3) #10-3/4 self-taping screws, door latches are replaced with Allegis 35 mm zinc cast compression latch (PN:241387-XX). See next page for details.

Options/Subcomponent Summary:
 EBM Papst Fan - 560mm, Daikin Industries Fan - 27", EBM Papst Fan Motor - 4 hp, EBM Papst Fan Motor - 8 hp, Panasonic Fan Motor - 1 hp, Daikin Applied Indoor Coil - 6 row 12 fpi, Sanhua Outdoor Coil - 15 ton, Moding Hot Gas Reheat, Beckett Gas Heating - 400MBh, AirXchange Energy Recovery Wheel, Daikin Applied Economizer, Daikin Industries Compressor - Inverter Scroll Compressor, Daikin Industries Compressor - Fixed Speed Scroll Compressor, ABB VFD - ACS320, Design Ready Controls Electrical Panel, Danfoss Electronic Expansion Valves

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
2,788	97	150	56	8.32	10.35	10.14

UUT Highest Passed Seismic Run Information								
Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2019	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.2	2.4	1.67	0.67
		2.5	0.0	1.5				

Test Mounting Details:



The unit was welded to the surface of the table using 1/8" Fillet welds. The welds along the narrow and long exposed sides were 2" long spaced at 24" OC. Welds along the condenser fan consisted of (2) 6" welds at the corners along the cabinet. Welds along the Economizer cabinet protrusion consisted of (2) 4" welds at the corners.

Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



TRU PROJECT NO. 1700755

Manufacturer: Daikin Applied
Model Line: Rebel™ Packaged Rooftop Units
Model Number: DPS-015

Serial Number: N/A

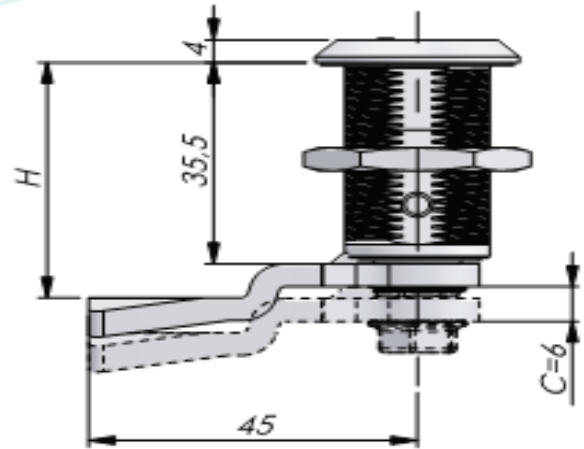
UUT 5a

Seismic Modifications/Upgrades:

1. Energy recovery wheel modification - restrain wheel to the frame using (3) #10-3/4 self-taping screws.



2. Replace of door latches with compression door latch.



UNIT UNDER TEST (UUT) SUMMARY SHEET



TRU PROJECT NO. 1700755

Manufacturer:	Daikin Applied	UUT 5b
Model Line:	Rebel™ Packaged Rooftop Units	
Model Number:	DPS-015	
Serial Number:		N/A

Product Construction Summary:
 Double wall galvanized carbon steel panels, foam insulation - R13.
 Seismic Upgrades: Energy recovery wheel is restrain to the frame using (3) #10-3/4 self-taping screws, door latches are replaced with Allegis 35 mm zinc cast compression latch (PN:241387-XX). See next page for details.

Options/Subcomponent Summary:
 EBM Papst Fan - 560mm, Daikin Industries Fan - 27", EBM Papst Fan Motor - 4 hp, EBM Papst Fan Motor - 8 hp, Panasonic Fan Motor - 1 hp, Daikin Applied Indoor Coil - 6 row 12 fpi, Sanhua Outdoor Coil - 15 ton, Moding Hot Gas Reheat, Beckett Gas Heating - 300MBh, AirXchange Energy Recovery Wheel, Daikin Applied Economizer, Daikin Industries Compressor - Inverter Scroll Compressor, Daikin Industries Compressor - Fixed Speed Scroll Compressor, ABB VFD - ACS320, Design Ready Controls Electrical Panel, Danfoss Electronic Expansion Valves

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
2,788	97	150	56	7.84	9.37	10.14

UUT Highest Passed Seismic Run Information								
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2019	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.2	2.4	1.67	0.67
		2.5	0.0	1.5				

Test Mounting Details:



The unit was welded to the surface of the table using 1/8" Fillet welds. The welds along the narrow and long exposed sides were 2" long spaced at 24" OC. Welds along the condenser fan consisted of (2) 6" welds at the corners along the cabinet. Welds along the Economizer cabinet protrusion consisted of (2) 4" welds at the corners.

Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



TRU PROJECT NO. 1700755

Manufacturer: Daikin Applied
Model Line: Rebel™ Packaged Rooftop Units
Model Number: DPS-015

Serial Number: N/A

UUT 5b

Seismic Modifications/Upgrades:

1. Energy recovery wheel modification - restrain wheel to the frame using (3) #10-3/4 self-taping screws.



2. Replace of door latches with compression door latch.

