DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR HCAI SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)	**OFFICE USE ONLY**
	APPLICATION #: OSP-0742

HCAI Special Seismic Certification Preapproval (OSP)

Type: [X] New   [ ] Renewal

Manufacturer Information

Manufacturer: Johnson Controls

Manufacturer's Technical Representative: Piyush Adhav

Mailing Address: 5005 York Drive, Norman, OK 73069

Telephone: (580) 878-0570   Email: piyush.adhav@jci.com

Product Information

Product Name: Air Conditioning Units

Product Type: Air Conditioning Units - Packaged

Product Model Number: See attachments

General Description: 27.5 - 50 Ton Select packaged rooftop units

Mounting Description: Rigid Custom Curb (See UUT Summary Sheets), Floor Mounted

Tested Seismic Enhancements: Seismic enhancements made to the test units and/or modifications required to address anomalies during the tests shall be incorporated into the production units.

Applicant Information

Applicant Company Name: Dynamic Certification Laboratories

Contact Person: Kelly Laplace

Mailing Address: 1315 Greg Street Suite 109, Sparks, NV 89431

Telephone: (775) 358-5085   Email: kelly@shaketest.com

Title: Business Manager

DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION

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

Company Name: THE VMC GROUP

Name: Kenneth Tarlow   California License Number: S2851

Mailing Address: 980 9th Street, 16th Floor, Sacramento, CA 95814

Telephone: (832) 627-2214   Email: ken.tarlow@thevmcgroup.com

Certification Method

[ ] GR-63-Core   [X] ICC-ES AC156   [ ] IEEE 344   [ ] IEEE 693   [ ] NEBS 3

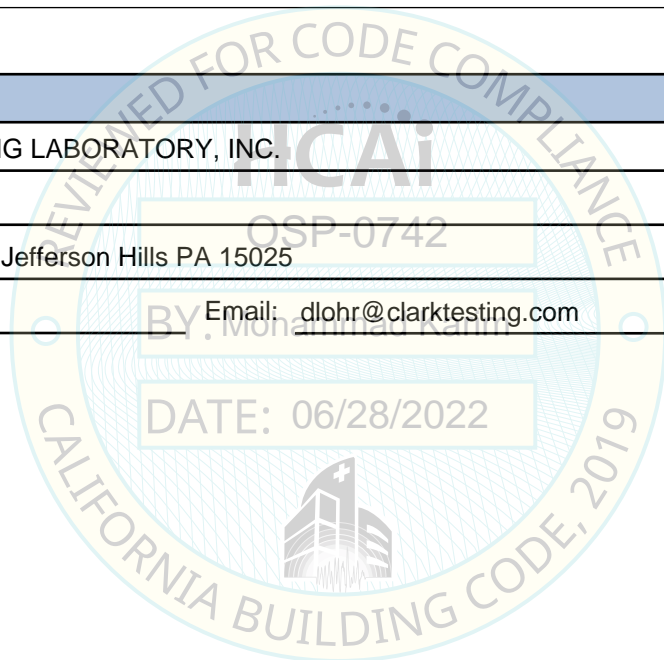[ ] Other (Please Specify):

Testing Laboratory

Company Name: CLARK TESTING LABORATORY, INC.

Contact Person: Devon Lohr

Mailing Address: 1801 Route 51, Jefferson Hills PA 15025

Telephone: (412) 387-1026   Email: dlohr@clarktesting.com

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HCAi OSP-0742
BY: Mohammad Karim
DATE: 06/28/2022
CALIFORNIA BUILDING CODE, 2019

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"
STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY

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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) =   1.05

S_{DS} (Design spectral response acceleration at short period, g) =   1.40

a_p (Amplification factor) =   2.5

R_p (Response modification factor) =   6

Ω_0 (System overstrength factor) =   2.0

I_p (Importance factor) =   1.5

z/h (Height ratio factor) =   1 and 0

Natural frequencies (Hz) =   See Attachment

Overall dimensions and weight =   See Attachment

HCAI Approval (For Office Use Only) - Approval Expires on 06/28/2028

Date: 6/28/2022

Name: Mohammad Karim   Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: S_{DS} (g) =   1.4   z/h =   See Above

Condition of Approval (if applicable):

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Special Seismic Certification
Table 1 - Certified Components

DCL Project Number: 35176-2001

Manufacturer: York (Johnson Controls)

Product Line: Select / Sun Select / OmniSelect / Relia Select / Optimum Select

Product Construction: Powder Coated Carbon Steel Enclosure

Mounting Description: Rigid Roof Curb Mounted

Product Line	Model Number	Dimensions (inches)			Operating Weight (lb)	Nominal Cooling Capacity (Tons)	Sds (g), z/h=1	Tested Heat	Unit
		Baserail Depth	Baserail Width	Height					
Select / Sun Select / OmniSelect / Relia Select / Optimum Select	YV28E3DJ5S3LGLC1G	180	90	70	5,002	28	1.4	Electric	UUT3
	xx28xxxxxxxxxxxxx	180	90	70	5,002	28		N/A	Interpolated
	YV30T3CV4K1C8TD6L	180	90	70	5,430	30		Gas	UUT1
	xx30xxxxxxxxxxxxx	180	90	70	5430	30		N/A	Interpolated
	xx35xxxxxxxxxxxxx	180	90	70	5430	35		N/A	Interpolated
	xx40xxxxxxxxxxxxx	232	90	77	6,220	40		N/A	Interpolated
	YH40N1DZ2Q2CGTC6A	232	90	77	6,220	40		Gas	UUT2
	xx50xxxxxxxxxxxxx	232	90	77	6,787	50		N/A	Interpolated
	YH50E1DV2R4L8LD7M	232	90	77	6,787	50		Electric	UUT4

BY: Mohammad Karim

DATE: 06/28/2022

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Model Number Nomenclature Chart

Manufacturer: York (Johnson Controls)
Product Line: Select / Sun Select / OmniSelect / Relia Select / Optimum Select
Mounting Description: Rigid Roof Curb Mounted

Sample Part Number

YORK® model number nomenclature

Y	V	3	5	N	1	C	P	2	A	1	C	A	A	1	1	A

Character	Category	Allowable Value	Description	Justification for Interpolation/ Extrapolation	Unit
Y	Package	J	JCI PACKAGE	Same as UUT1,2,3,4 (branding)	Extrapolated
		Y	YORK PACKAGE	N/A	UUT1,2,3,4
		U	BRANDED PACKAGE	Same as UUT1,2,3,4 (branding)	Extrapolated
		T	TEMPMASTER PACKAGE	Same as UUT1,2,3,4 (branding)	Extrapolated
V	Efficiency	V	Standard vertical	N/A	UUT1,3
		H	Standard horizontal	N/A	UUT2,4
35	Capacity	28	27.5 ton	N/A	UUT3
		30	30 ton	N/A	UUT1
		35	35 ton	Bookended by UUT1,3 and UUT2,4	Interpolated
		40	40 ton	N/A	UUT2
		50	50 ton	N/A	UUT4
N	Heat Type	C	Cooling Only	Depopulated version of UUT1,2,3,4	Extrapolated
		N	Natural Gas, Staged	N/A	UUT2
		S	Natural Gas, Staged Gas Heat with SS Heat Exchangers	Depopulated version of UUT1	Extrapolated
		E	Electric Heat	N/A	UUT3,4
		T	Natural Gas, Modulating Gas Heat with SS Heat Exchangers	N/A	UUT1
1	Heat Size	0	Cooling Only	Depopulated version of UUT1,2,3,4	Extrapolated
		1	Low Heat	N/A	UUT2,4
		2	Medium Heat	Bookended by UUT2,4, and UUT1,3	Interpolated
		3	High Heat / Mod Heat	N/A	UUT1,3
		4	Ultra High Heat	Same as UUT3	Extrapolated
C	Blower	B	Standard	Depopulated version of UUT1,2,3,4	Interpolated
		C	Medium	N/A	UUT1
		D	High	N/A	UUT2,3,4
P	Air Volume	G	VFD/VAV 4 Stage	Depopulated version of UUT3	Interpolated
		H	VFD/VAV w/ Shaft Grounding Ring 4 Stage	Bookended by UUT2,3	Interpolated
		J	VFD/VAV w/ Bypass 4 Stage	N/A	UUT3
		K	VFD/VAV w/ Bypass / Shaft Grounding Ring 4 Stage	Bookended by UUT2,3	Interpolated
		P	IntelliSpeed 2 Stage	Depopulated version of UUT2	Interpolated
		Q	IntelliSpeed w/ Shaft Grounding Ring 2 Stage	Depopulated version of UUT2	Interpolated
		R	IntelliSpeed w/Bypass 2 Stage	Depopulated version of UUT2	Interpolated
		S	IntelliSpeed w/ Bypass /Shaft Grounding Ring 2 Stage	Depopulated version of UUT2	Interpolated
		V	Constant Volume	N/A	UUT1,4
		W	IntelliSpeed 4 Stage	Depopulated version of UUT2	Interpolated
		X	IntelliSpeed w/ Shaft Grounding Ring 4 Stage	Depopulated version of UUT2	Interpolated
		Y	IntelliSpeed w/ Bypass 4 Stage	Depopulated version of UUT2	Interpolated
		Z	IntelliSpeed w/ Bypass /Shaft Grounding Ring 4 Stage	N/A	UUT2
2	Voltage	2	208/230-3-60	N/A	UUT2,4
		4	460-3-60	N/A	UUT1
		5	575-3-60	N/A	UUT3
		B	208/230-3-60 HIGH SCCR	Same as UUT2,4	Interpolated
		D	460-3-60 HIGH SCCR	Same as UUT1	Interpolated
		E	575-3-60 HIGH SCCR	Same as UUT3	Interpolated
A	Outdoor Air	A	No Economiser	Depopulated version of UUT1,2,3, 4	Extrapolated
		B	Manual Damper	Depopulated version of UUT1,2,3, 4	Extrapolated
		C	Economiser with Baromatric Relief	Depopulated version of UUT2	Interpolated
		D	Economiser with Modulating Power Exhaust	Depopulated version of UUT1,4	Interpolated
		E	Economiser with Power Exhaust	Depopulated version of UUT3	Interpolated
		F	Economiser BAS with Barometric Relief	Depopulated version of UUT2	Interpolated
		G	Economiser BAS with Modulating Power Exhaust	Depopulated version of UUT4	Interpolated
		H	Economiser BAS with Power Exhaust	Depopulated version of UUT 3	Interpolated
		J	Economiser with Baromatric Relief, Single Enthalpy	Depopulated version of UUT1 and UUT2	Interpolated
		K	Economiser with Modulating Power Exhaust, Single Enthalpy	N/A	UUT1
		L	Economiser with Power Exhaust, Single Enthalpy	Depopulated version of UUT1 and UUT3	Interpolated
		Q	Economiser with Barometric Relief, Dual Enthalpy	N/A	UUT2
		R	Economiser with Modulating Power Exhaust, Dual Enthalpy	N/A	UUT4
		S	Economiser with Power Exhaust, Dual Enthalpy	N/A	UUT3
1	Coils	1	Standard Condenser and Evaporator Coil	N/A	UUT1
		2	Standard Condenser and ElectroFin Evaporator Coil	N/A	UUT2
		3	ElectroFin Condenser & Standard Evaporator Coil	N/A	UUT3
		4	ElectroFin Condenser & ElectroFin Evaporator Coil	N/A	UUT4
		5	Standard Condenser and Evaporator Coil with IBC / HCAI Seismic Unit Construction	Same as tested in UUT1	Same
		6	Standard Condenser and ElectroFin Evaporator Coil with IBC / HCAI Seismic Unit Construction	Same as tested in UUT2	Same
		7	ElectroFin Condenser & Standard Evaporator Coil with IBC / HCAI Seismic Unit Construction	Same as tested in UUT3	Same
		8	ElectroFin Condenser & ElectroFin Evaporator Coil with IBC / HCAI Seismic Unit Construction	Same as tested in UUT4	Same
C	Controls	A	Smart Equipment Controls	Depopulated version of UUT1,2,3, 4	Interpolated
		C	Smart Equipment with COM	N/A	UUT1,2
		J	VERASYS SINGLE ZONE	Bookended by UUT1,2 and UUT3,4	Interpolated
		K	VERASYS Change over Bypass	Bookended by UUT1,2 and UUT3,4	Interpolated
		L	VERASYS VAV	N/A	UUT3,4

Model Number Nomenclature Chart (Continued)

Manufacturer: York (Johnson Controls)

Product Line: Select / Sun Select / OmniSelect / Relia Select / Optimum Select

Mounting Description: Rigid Roof Curb Mounted

Sample Part Number																	
YORK® model number nomenclature																	
Y	V	3	5	N	1	C	P	2	A	1	C	A	A	1	1	A	

Character	Category	Allowable Value	Description	Justification for Interpolation/ Extrapolation	Unit
A	Sensors	A	NO SENSORS	Depopulated version of UUT1,4	Interpolated
		B	AIR PROVING SWITCH	Depopulated version of UUT1,4	Interpolated
		C	DIRTY FILTER SWITCH	Depopulated version of UUT1,4	Interpolated
		D	SUPPLY AIR SMOKE DETECT	Depopulated version of UUT1,4	Interpolated
		E	RETURN AIR SMOKE DETECT	Depopulated version of UUT1,4	Interpolated
		F	CO2 SENSOR	Depopulated version of UUT1,4	Interpolated
		G	APS, DFS	N/A	UUT2,3
		H	APS, SSD	Depopulated version of UUT1,4	Interpolated
		J	APS, RSD	Depopulated version of UUT1,4	Interpolated
		K	APS, CO2	Depopulated version of UUT1,4	Interpolated
		L	DFS, SSD	Depopulated version of UUT1,4	Interpolated
		M	DFS, RSD	Depopulated version of UUT1,4	Interpolated
		N	DFS, CO2	Depopulated version of UUT1,4	Interpolated
		P	SSD, RSD	Depopulated version of UUT1,4	Interpolated
		Q	SSD, CO2	Depopulated version of UUT1,4	Interpolated
		R	RSD, CO2	Depopulated version of UUT1,4	Interpolated
		S	APS, DFS, SSD	Depopulated version of UUT1,4	Interpolated
		T	APS, DFS, RSD	Depopulated version of UUT1,4	Interpolated
		U	APS, DFS, CO2	Depopulated version of UUT1,4	Interpolated
		V	APS, SSD, RSD	Depopulated version of UUT1,4	Interpolated
		W	APS, SSD, CO2	Depopulated version of UUT1,4	Interpolated
		X	APS, RSD, CO2	Depopulated version of UUT1,4	Interpolated
		Y	DFS, SSD, RSD	Depopulated version of UUT1,4	Interpolated
		Z	DFS, SSD, CO2	Depopulated version of UUT1,4	Interpolated
		1	DFS, RSD, CO2	Depopulated version of UUT1,4	Interpolated
		2	SSD, RSD, CO2	Depopulated version of UUT1,4	Interpolated
		3	APS, DFS, SSD, RSD	Depopulated version of UUT1,4	Interpolated
		4	APS, DFS, SSD, CO2	Depopulated version of UUT1,4	Interpolated
		5	APS, DFS, RSD, CO2	Depopulated version of UUT1,4	Interpolated
		6	APS, SSD, RSD, CO2	Depopulated version of UUT1,4	Interpolated
		7	DFS, SSD, RSD, CO2	Depopulated version of UUT1,4	Interpolated
		8	APS, DFS, SSD, RSD, CO2	N/A	UUT1,4
A	Service Options	A	No Service Options	No Service called	Extrapolated
		B	Phase Monitor (PHM)	Depopulated version of UUT1,2	Interpolated
		C	Non-Power Convenience Outlet (NCO)	Depopulated version of UUT3,4	Interpolated
		D	Circuit Breaker (CB)	Depopulated version of UUT3,4	Interpolated
		E	Disconnect Switch (DSC)	Depopulated version of UUT1,2	Interpolated
		F	Powered Convenience Outlet (PCO)	Depopulated version of UUT1,2	Interpolated
		G	PHM, CB	Bookended by UUT1,2,3,4	Interpolated
		H	PHM, DSC	Depopulated version of UUT1,2	Interpolated
		J	PHM, NCO	Bookended by UUT1,2,3,4	Interpolated
		K	PHM, PCO	Depopulated version of UUT1,2	Interpolated
		L	CB, NCO	N/A	UUT3,4
		M	CB, PCO	Bookended by UUT1,2,3,4	Interpolated
		N	DSC, NCO	Bookended by UUT1,2,3,4	Interpolated
		P	DSC, PCO	Depopulated version of UUT1,2	Interpolated
		Q	PHM, CB, NCO	Bookended by UUT1,2,3,4	Interpolated
		R	PHM, CB, PCO	Bookended by UUT1,2,3,4	Interpolated
		S	PHM, DSC, NCO	Bookended by UUT1,2,3,4	Interpolated
		T	PHM, DSC, PCO	N/A	UUT1,2
1	Refrigeration	1	STANDARD	Depopulated version of UUT1,2,3,4	Interpolated
		3	Low Ambient Head Pressure Control (HPC)	Depopulated version of UUT2,3	Interpolated
		4	Modulating Hot Gas Reheat (HGR)	Depopulated version of UUT1,4	Interpolated
		A	SERVICE VALVES (SV)	Depopulated version of UUT1,2,3,4	Interpolated
		C	HPC, SV	N/A	UUT2,3
		D	HGR, SV	N/A	UUT1,4
1	Additional Options	1	Standard Throwaway Filter	N/A	UUT3
		2	2" Pleated Filter MERV 8	Depopulated version of UUT1,2	Interpolated
		4	4" Pleated Filter MERV 13	Depopulated version of UUT4	Interpolated
		5	Standard Filter, Coil Guard (CG)	Bookended by UUT1,2,3,4	Interpolated
		6	2" Pleated, CG	N/A	UUT1,2
		7	4" Pleated, CG	N/A	UUT4
A	Cabinet Options	A	Standard Cabinet	N/A	UUT2
		B	Hinged Access Panel (HAP)	Depopulated version of UUT3,4	Interpolated
		C	Condensate Overflow Switch (COF)	Depopulated version of UUT1,3,4	Interpolated
		D	Double Wall (DBL)	Depopulated version of UUT1	Interpolated
		E	Stainless Steel Drain Pan (SSD)	Depopulated version of UUT1,4	Interpolated
		F	HAP, SSD	Depopulated version of UUT4	Interpolated
		G	HAP, COF	N/A	UUT3
		H	SSD, COF	Depopulated version of UUT1,4	Interpolated
		J	DBL, SSD	Depopulated version of UUT1	Interpolated
		K	DBL, COF	Depopulated version of UUT1	Interpolated
		L	DBL, SSD, COF	N/A	UUT1
		M	HAP, SSD, COF	N/A	UUT4

Special Seismic Certification

Table 2 - Certified Subcomponents: Refrigerant Compressor

DCL Project Number: 35176-2001

Refrigerant Compressor				
Model Number	Manufacturer	Material	Weight (lb)	Unit
DSH161A4ALC	Danfoss	Carbon Steel	155	UUT1
DSH140A3ALA			157	Interpolated
DSH140A4ALB			157	Interpolated
DSH140A7ALA			157	UUT3
DSH184A4ALC			159	Interpolated
DSH161A3ALA			162	Interpolated
DSH161A7ALA			162	Interpolated
DSH184A3ALA			168	UUT2
DSH184A7ALA			168	Interpolated
DSH240A7AAC			253	Interpolated
DSH240A3AAC			256	UUT4
DSH240A4AAC			256	Interpolated
DSH240E-3			302	UUT4
DSH240E-4			302	Interpolated
DSH240E-7			302	Interpolated
ZPT152KCE-TF5	Copeland	Carbon Steel	186	Extrapolated
ZPT152KCE-TFD			186	Extrapolated
ZPT152KCE-TFE			186	Extrapolated
ZPT182KCE-TF5-270			190	UUT2
ZPT182KCE-TFD-270			190	Interpolated
ZPT182KCE-TFE-270			190	Interpolated
ZPT134KCE-TF5			205	Interpolated
ZPT134KCE-TFD			205	Interpolated
ZPT134KCE-TFE			205	UUT3

Special Seismic Certification
Table 3 - Certified Subcomponents:
Blower Motors

DCL Project Number: 35176-2001

| Blower Motors						
Model Number	Manufacturer	Voltage (V)	Power (HP)	Material	Weight (lb)	Unit
EM3311T-5	Baldor	575	7.5	Rolled Carbon Steel/ Cast Iron	114	Extrapolated
EM3311T-5G		575	7.5		114	Extrapolated
EM3311T		230-460	7.5		115	Extrapolated
EM3311T-G		230-460	7.5		115	Extrapolated
EM3313T-5		575	10		123	Extrapolated
EM3313T-G		230-460	10		127	Extrapolated
EM3313T		230-460	10		128	UUT1
EM3313T-5G		575	10		132	Interpolated
EM2513T-G		230-460	15		210	Interpolated
EM2513T-5G		575	15		210	Interpolated
EM2513T		230-460	15		211	Interpolated
EM2515T		230-460	20		225	UUT4
EM2515T-G		230-460	20		227	UUT2
EM2515T-5		575	20		227	Interpolated
EM2515T-5G		575	20		250	Interpolated
EM2513T-5		575	15		273	UUT3

Special Seismic Certification
Table 4 - Certified Subcomponents:
Outdoor Motors

DCL Project Number: 35176-2001

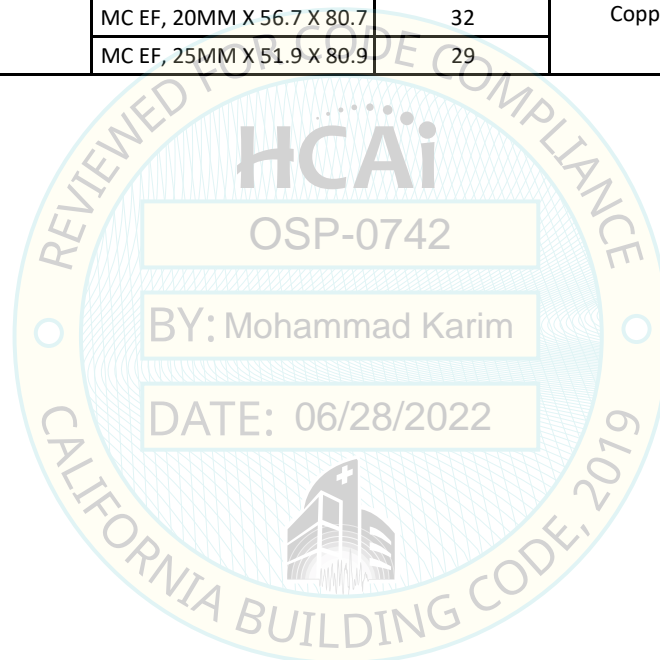| Outdoor Motors						
Model Number	Manufacturer	Voltage (V)	Power (HP)	Material	Weight (lb)	Unit
056T11O15586	Regal Beloit	208-230	1	Rolled Carbon Steel /Cast Iron	28	UUT2
056T11O15587		460	1		28	UUT1
056T11ORO40017A1		575	1		28	UUT3
56T11ORO40013A1		460	2		48	Interpolated
56T11ORO40014A1		575	2		48	Interpolated
56T11ORO40012A1		208-230	2		48	UUT4
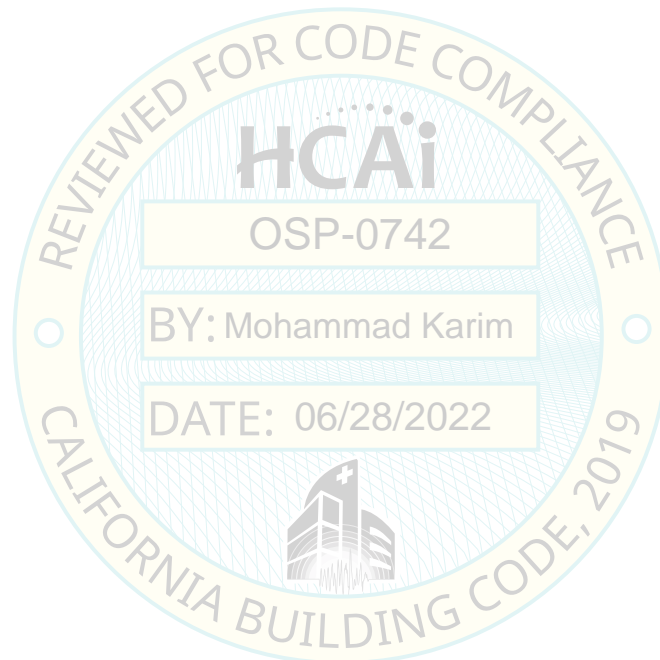
Special Seismic Certification
Table 5 - Certified Subcomponents:
Condenser Coils

DCL Project Number: 35176-2001

Condenser Coils						
Model Number	Manufacturer	Description	Dimensions (total ft^2)	Material	Weight (lb)	Unit
X005- JC334-1	Sanhua	MC, 20MM X 47.1 X 80.7	26	Aluminum & Copper	49	Interpolated
X006-JC328		MC, 20MM X 51.9 X 80	29		56	UUT2
X005- JC335-1		MC, 20MM X 56.7 X 80.7	32		60	UUT1
X006-JC326		MC, 25MM X 51.9 X 80.9	29		67	Interpolated
5876471		MC EF, 20MM X 47.1 X 80.7	26	Aluminium & Copper	49	UUT3
5876474		MC EF, 20MM X 51.9 X 80	29		56	Interpolated
5876472		MC EF, 20MM X 56.7 X 80.7	32		60	Interpolated
5876476		MC EF, 25MM X 51.9 X 80.9	29		67	UUT4

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HCAi

OSP-0742

BY: Mohammad Karim

DATE: 06/28/2022

CALIFORNIA BUILDING CODE, 2019

DCL Project Number: 35176-2001

Evaporator Coils						
Model Number	Manufacturer	Description	Dimensions (total ft^2)	Material	Weight (lb)	Unit
5751772	JCI	ASM EVAP COIL,STD,28-30T	34	Aluminum, Carbon Steel & Copper	210	UUT3
5876477		PURCHASE LEVEL EVAP GALV 27.5/30T, EF	34		210	Interpolated
5876478		PURCHASE LEVEL EVAP GALV 35T, EF	34		280	Interpolated
5751771		ASM EVAP COIL,STD,35T	34		280	Interpolated
5751770		ASM EVAP COIL,STD,40T	39		320	Interpolated
5876524		PURCHASE LEVEL EVAP GALV 40T, EF	39		320	UUT2
5751769		ASM EVAP COIL,STD,50T	39		400	Interpolated
5876525		PURCHASE LEVEL EVAP GALV 50T, EF	39		400	Interpolated
5840184		ASM EVAP COIL,STD SS 28-30T	34	Aluminum, Stainless Steel & Copper	210	UUT1
5876526		PURCHASE LEVEL EVAP SS 27.5/30T, EF	34		210	Interpolated
5840185		ASM EVAP COIL,STD SS 35T	34		280	Interpolated
5876527		PURCHASE LEVEL EVAP SS 35T, EF	34		280	Interpolated
5840186		ASM EVAP COIL,STD SS 40T	39		320	Interpolated
5876528		PURCHASE LEVEL EVAP SS 40T, EF	39		320	Interpolated
5876529		PURCHASE LEVEL EVAP SS 50T, EF	39		400	UUT4
5840187		ASM EVAP COIL,STD SS 50T	39		400	Interpolated

Special Seismic Certification
Table 7 - Certified Subcomponents:
**Hot Gas Reheat Coils**

DCL Project Number: 35176-2001

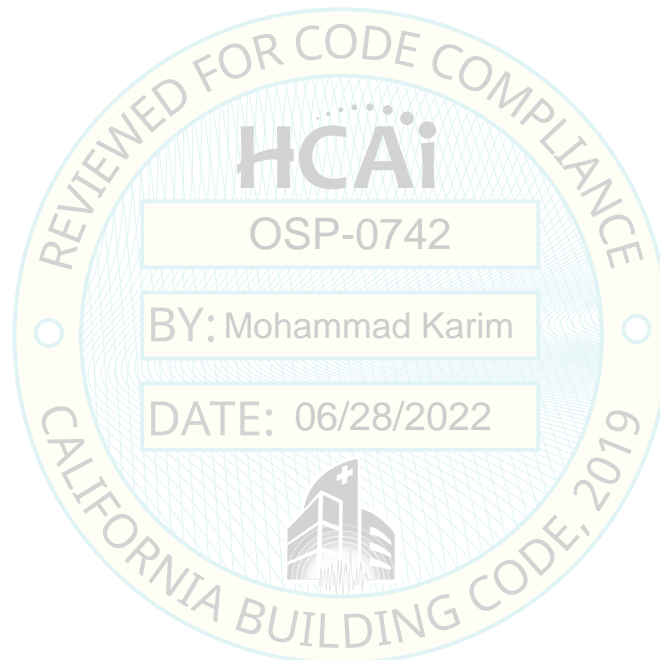| Hot Gas Reheat Coils						
Model Number	Manufacturer	Description	Dimensions (total ft^2)	Material	Weight (lb)	Unit
X003-JC347	Sanhua	MC 20MM X 73.4 X 35.6	18	Aluminum	37	UUT1
X003-JC340		MC 20MM X 73.4 X 48.6	24		47	Same as UUT4[2]
5876547		MC EF 20MM X 73.4 X 35.6	18	Aluminium	37	Same as UUT1[1]
5876548		MC EF 20MM X 73.4 X 48.6	24		47	UUT4
1. Same as tested in UUT1, but with anti-corrosion coating. Coating tested in condenser and evaporator coils.						
2. Same as tested in UUT4, but without anti-corrosion coating. Coating tested in UUT4.						
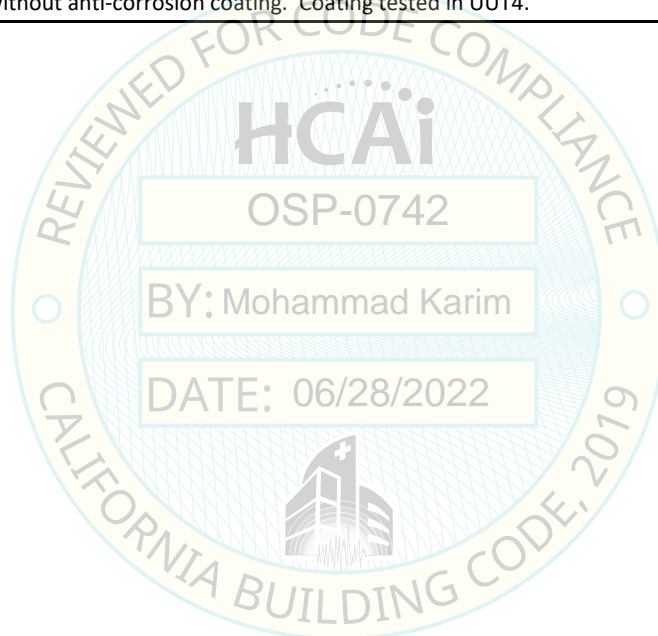
Special Seismic Certification
Table 8 - Certified Subcomponents:
Service Valves

DCL Project Number: 35176-2001

Service Valves					
Model Number	**Manufacturer**	**Description**	**Material**	**Weight (lb)**	**Unit**
AP17863	Mueller	BALL VALVE 3/4	Brass & Copper	1	UUT1
AP17864C		BALL VALVE 7/8		1	UUT3
AP17865		BALL VALVE 1-1/8		2	UUT1,2,3,4
A17866		BALL VALVE 1-3/8		3	Interpolated
A17867		BALL VALVE 1-5/8		4	UUT2,4

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DATE: 06/28/2022

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Special Seismic Certification
Table 9 - Certified Subcomponents:
Variable Frequency Drives

DCL Project Number: 35176-2001

Variable Frequency Drives					
Model Number	**Manufacturer**	**Description**	**Material**	**Weight (lb)**	**Unit**
131N0229	Danfoss	FC101 575V 7.5 HP VFD	Plastic & Electronics Component	15	Extrapolated
131N0231		FC101 575V 10 HP VFD		15	Extrapolated
131L9867		FC101 460V 7.5 HP VFD		16	Extrapolated
131L9868		FC101 460V 10 HP VFD		16	Extrapolated
131L9799		FC101 208V 10 HP VFD		17	Interpolated
131L9869		FC101 460V 15 HP VFD		17	Interpolated
131L9870		FC101 460V 20 HP VFD		17	Interpolated
131L9798		FC101 208V 7.5 HP VFD		17	Interpolated
131L9800		FC101 208V 15 HP VFD		21	Interpolated
131N0233		FC101 575V 15 HP VFD		25	UUT3
131N0235		FC101 575V 20 HP VFD		25	Interpolated
131L9805		FC101 208V 20 HP VFD		54	UUT2
131L9813		FC101 208V 25 HP VFD		54	Interpolated
VFD68BHG-502C	JCI	VFD68-3HP 200/230V	Plastic & Electronics Component	3	UUT2
VFD68CHH-502C		VFD68-3HP 460V		3	Interpolated
VFD68CJJ-502C		VFD68-5HP 460V		3	Interpolated
VFD68BJK-502C		VFD68-5HP 200/230V		4	Interpolated
VFD68DHM-502C		VFD68-3HP 575V		4	Interpolated
VFD68DJN-502C		VFD68-5HP 575V		8	UUT3

Special Seismic Certification
Table 10 - Certified Subcomponents:
Economizer

DCL Project Number: 35176-2001

		Economizer			
Model Number	**Manufacturer**	**Description**	**Material**	**Weight (lb)**	**Unit**
8330058B	Ruskin Rooftop Systems	Manual OA Damper, 0-100%, Small Cabinet	Galvanized Carbon Steel	85	Extrapolated
8345058H		Baro Relief HF, Factory, 28-35T		90	Extrapolated
8345059H		Baro Relief HF, Factory, 40-50T		104	UUT2
8330059B		Manual OA Damper, 0-100%, Large Cabinet		120	Interpolated
8346558H-23		Pwr Exh HF, Factory (208/230V) 28-35T		211	Interpolated
8346558H-33		Pwr Exh HF, Factory (460V) 28-35T		211	Interpolated
8346558H-43		Pwr Exh HF, Factory (575V) 28-35T		211	Interpolated
8346559H-23		Pwr Exh HF, Factory (208/230V) 40-50T		225	UUT4
8346559H-33		Pwr Exh HF, Factory (460V) 40-50T		225	Interpolated
8346559H-43		Pwr Exh HF, Factory (575V) 40-50T		225	Interpolated
8345058		Baro Relief DF, Factory, C1 (27.5-35T)		230	Interpolated
8345059		Baro Relief DF, Factory, C2		285	Interpolated
83368B58		Econ Low Leak DF,C1 (27.5-35T)		307	UUT1,3
8336858		Econ Low Leak DF, BAS,C1 (27.5-35T)		307	Interpolated
8346558-23		Pwr Exh CV, Factory (208/230V),C1 (27.5-35T)		314	Interpolated
8346558-33		Pwr Exh CV, Factory (460V),C1 (27.5-35T)		314	UUT1
8346558-43		Pwr Exh CV, Factory (575V),C1 (27.5-35T)		314	UUT3
83368B59		Econ Low Leak DF,C2 (40-50T)		359	Interpolated
8336859		Econ Low Leak DF, BAS,C2(40-50T)		359	Interpolated
8346559-23		Pwr Exh CV, Factory (208/230V),C2 (40-50T)		390	Interpolated
8346559-33		Pwr Exh CV, Factory(460V),C2 (40-50T)		390	Interpolated
8346559-43		Pwr Exh CV, Factory (575V),C2 (40-50T)		390	Interpolated
83398B58		Econ Low Leak HF w/ OA Hood,C1		398	Interpolated
8339858		Econ Low Leak HF w/ OA Hood, BAS, C1		398	Interpolated
83398B59		Econ Low Leak HF w/ OA Hood,C2		425	UUT2,4
8339859		Econ Low Leak HF w/ OA Hood, BAS, C2		425	Extrapolated

Special Seismic Certification
Table 11 - Certified Subcomponents:
Electric Heater

((○)) DCL
DYNAMIC
CERTIFICATION
LABORATORIES,LLC

DCL Project Number: 35176-2001

Electric Heater					
Model Number	Manufacturer	Description	Material	Weight (lb)	Unit
100-490838-01	Backer EHP	ELEC. HEAT 240V 36kW	Nickel Chrome Alloy Galvanized Carbon Steel	80	Extrapolated
100-490838-03		ELEC. HEAT 480V 36kW		80	Extrapolated
100-490838-02		ELEC. HEAT 240V 54kW		90	UUT4
100-490838-04		ELEC. HEAT 480V 54kW		90	Interpolated
100-490838-05		ELEC. HEAT 480V 72kW		90	Interpolated
100-490838-06		ELEC. HEAT 480V 90kW		90	Interpolated
100-490838-07		ELEC. HEAT 480V 108kW		90	Interpolated
100-490838-08		ELEC. HEAT 600V 54kW		90	Interpolated
100-490838-09		ELEC. HEAT 600V 72kW		90	Interpolated
100-490838-10		ELEC. HEAT 600V 90kW		90	UUT3
100-490838-11		ELEC. HEAT 600V 108kW		90	Extrapolated[1]
1. Extrapolated heater is same as tested in UUT3					

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BY: Mohammad Karim
DATE: 06/28/2022
CALIFORNIA BUILDING CODE, 2019
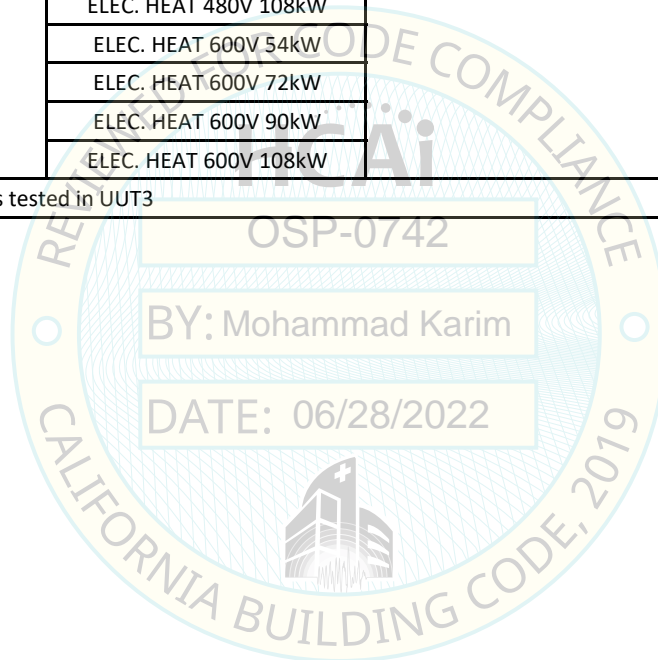
Special Seismic Certification
Table 12 - Certified Subcomponents:
Gas Heater

DCL Project Number: 35176-2001

Gas Heater					
Model Number	**Manufacturer**	**Description[1]**	**Material**	**Weight (lb)**	**Unit**
5783894	JCI	ASM 5 TUBE GH, 220K, 3.25" R, AL	Aluminized Carbon Steel	105	Interpolated
5783888		ASM 9 TUBE GH, 400K, 3.25" R, AL		155	Interpolated
5783889		ASM 9 TUBE GH, 400K, 4" R, AL		155	Interpolated
5783890		ASM 9 TUBE GH, 400K, 3.5" R, AL		155	UUT2
5783895		ASM 5 TUBE GH, 220K, 3.25" R, SS	Stainless Steel	105	UUT1
5783891		ASM 9 TUBE GH, 400K, 3.25" R, SS		155	Interpolated
5783892		ASM 9 TUBE GH, 400K, 4" R, SS		155	Interpolated
5783893		ASM 9 TUBE GH, 400K, 3.5" R, SS		155	Interpolated
5954946		ASM 9 TUBE MGH 400K, 4" R, SS		155	Interpolated
5954935		ASM 9 TUBE MGH 400K, 3.5" R, SS		155	Interpolated
5954934		ASM 9 TUBE MGH 400K, 3.25" R, SS		155	UUT1

1. R is for restrictor plate; the dimension in inches relates to the diameter of the opening in the plate.

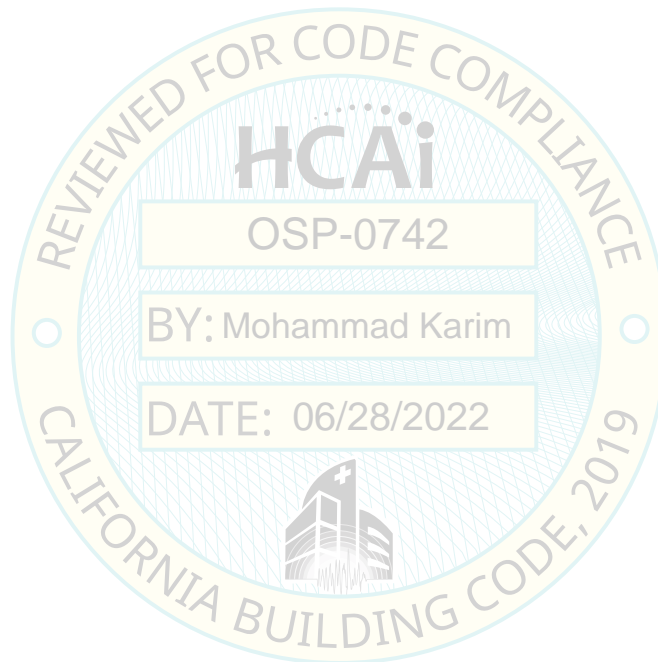BY: Mohammad Karim

DATE: 06/28/2022

Special Seismic Certification
Table 13 - Certified Subcomponents:
Filters

DCL Project Number: 35176-2001

Filters					
Model Number	**Manufacturer**	**Description**	**Material**	**Weight (lb)**	**Unit**
276-200-200-058	Koch Filter Corporation	20X20X2 Disposable	Fiberglass	< 1	UUT3
276-200-250-058		20X25X2 Disposable		< 1	UUT3
102-701-019		20X20X2 Pleated, MERV 8	Polypropylene Fibers	1	UUT1,2
102-740-021		20X25X2 Pleated, MERV 8		1	UUT1,2
102-714-028		20X20X4 Pleated, MERV 13		1	UUT4
102-714-030		20X25X4 Pleated, MERV 13		2	UUT4

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BY: Mohammad Karim

DATE: 06/28/2022

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Special Seismic Certification
Table 14 - Certified Subcomponents:
Miscellaneous

DCL Project Number: 35176-2001

Model Number	Manufacturer	Description	Material	Weight (lb)	Unit
Miscellaneous					
BBIZE-15 1/2X7/8 EQ 1/4 ODF 5'	Sporlan	Valve	Copper & Brass	2	UUT1
1135-14-3/16-10-42" B		Valve	Copper & Brass	3	UUT1,3
OZE-25 7/8X1 3/8 EQ 1/4 ODF 5'		Valve	Copper & Brass	5	Interpolated
OZE-20 7/8X1 3/8 EQ 1/4 ODF 5'		Valve	Copper & Brass	5	UUT2
1126-20-3/16-12-42" B		Valve	Copper & Brass	6	Interpolated
1126-22-3/16-12-42" B		Valve	Copper & Brass	6	UUT2
1128-28-3/16-12-48" B		Valve	Copper & Brass	9	UUT4
97647	Rectorseal	Condensate Overflow Switch 24V	Plastic	<1	UUT1
5758866	Gexpro	Condensate Overflow Switch 24V	Plastic	<1	UUT2,3,4
GS2AH130	Schneider Electric	Handle Disconnect Switch	Plastic	<1	UUT1,2,3,4
LK4JU3N	Schneider Electric	100A Non Fusible Disconnect Switch	Plastic	5	UUT1
LK4MU3N		200A Non Fusible Disconnect Switch	Plastic	5	Interpolated
LK4QU3N		400A Non Fusible Disconnect Switch	Plastic	14	UUT2
GS2JU3N	Schneider Electric	100A Fusible Disconnect Switch	Plastic	6	Extrapolated
GS2MU3N		200A Fusible Disconnect Switch	Plastic	8	UUT3
GS2QU3N		400A Fusible Disconnect Switch	Plastic	15	UUT4
P32AF-2D	JCI	Differential Pressure Switch	Plastic	<1	UUT1,2,3,4
D4SB	System Sensor	Smoke Detector Sensor	Plastic	3	UUT1,2,3,4
1782349	Ayrshire	Furnace control, modulating	Plastic & Electronics	<1	UUT1
1217-100	United Technologies	Control spark, modulating	Plastic & Electronics	<1	UUT1
IB-G	Sporlan	I/O Board L=76.20mm W=76mm	Plastic & Electronics	<1	UUT1,4
SE-SPU1002-7	JCI	Circuit Board SSE, 2 stage, no comm.	Plastic & Electronics	<1	Extrapolated
SE-SPU1012-7		Circuit Board SSE, 2 stage, w/ comm.	Plastic & Electronics	<1	UUT2,3
SE-SPU1004-7		Circuit Board SSE, 4 stage add on	Plastic & Electronics	<1	Interpolated
SE-ECO1001-7		Economizer controller	Plastic & Electronics	<1	UUT1,2,3,4
1171-64	United Technologies	Direct spark ignition module	Plastic & Electronics	<1	UUT2

Special Seismic Certification
Table 15 - Tested Units
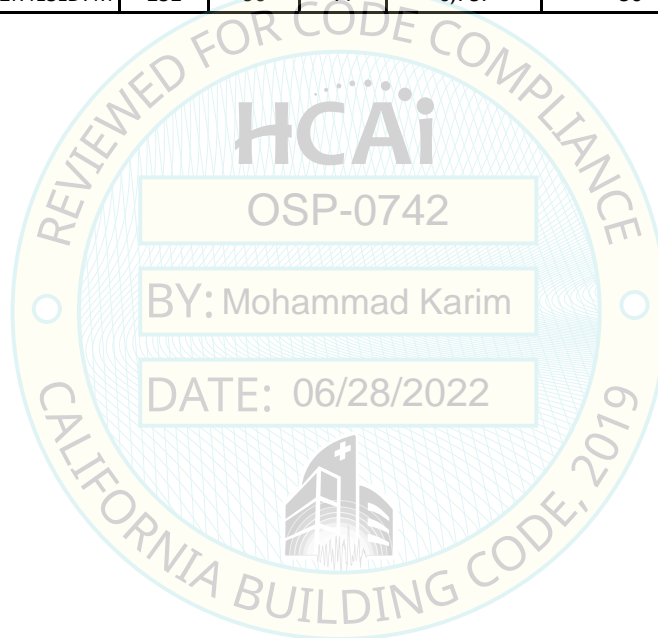
DCL Project Number: 35176-2001

Manufacturer: York (Johnson Controls)

Product Line: Select / Sun Select / OmniSelect / Relia Select / Optimum Select

Tested Product Construction: Powder Coated Carbon Steel Enclosure

Tested Mounting Description: Rigid Roof Curb Mounted

Product Line	Model Number	Dimensions (inches)			Operating Weight (lb)	Nominal Cooling Capacity (Tons)	Tested Unit Mounting	Sds (g), z/h=1	Unit
		Baserail Depth	Baserail Width	Height					
Select / Sun Select / OmniSelect / Relia Select / Optimum Select	YV30T3CV4K1C8TD6L	180	90	70	5,430	30	Rigid Curb	1.4	UUT1
	YH40N1DZ2Q2CGTC6A	232	90	77	6,220	40	Rigid Curb	1.4	UUT2
	YV28E3DJ5S3LGLC1G	180	90	70	5,002	28	Rigid Curb	1.4	UUT3
	YH50E1DV2R4L8LD7M	232	90	77	6,787	50	Rigid Curb	1.4	UUT4

UNIT UNDER TEST (UUT)
UUT1 Summary Sheet

(( )) DCL DYNAMIC CERTIFICATION LABORATORIES,LLC

DCL Project Number: 35176-2001

Manufacturer:	York (Johnson Controls)
Product Line:	Select / Sun Select / OmniSelect / Relia Select / Optimum Select
Model Number:	YV30T3CV4K1C8TD6L

Product Construction Summary:
Powder coated carbon steel enclosure

Options / Component Summary:
Refrigerant compressor, blower motor, outdoor motor, condenser coil, evaporator coil, hot gas reheat coil, service valves, economizer, gas heaters, filters, flow control valve, condensate overflow switch, handle disconnect switch, nonfusible disconnect switch, differential pressure switch, smoke detector sensor, furnace control board, spark control board, I/O board, economizer controller

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 system was maintained.

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Baserail Depth	**Baserail Width**	**Height**	**Front-Back**	**Side-Side**	**Vertical**
5,430	180	90	70	6.0	7.4	6.2

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 2019	ICC-ES AC156	1.40	1.0	1.5	2.24	1.68	0.93	0.37

Unit Mounting Description:
UUT1 was mounted to a VMC P-6000S non-isolated roof curb (drawing VMA-53946A). The curb was mounted to the shake table interface fixture with eight (8) hold-down stanchions. There were two hold-downs on the rail on one end of the unit, spaced approximately 72" on-center. There were three hold-downs on each long side of the unit, spaced approximately 60" on-center. Each hold-down was attached to the fixture with two (2) ½"-13 SAE grade 5 hex bolts, washers, and lock washers torqued to 75 ft-lb, for a total of sixteen (16) bolts. Corresponding with each hold-down location, there was a slotted lock down angle and ½"-13 SAE grade 5 hex bolt, washer and nut, attaching the unit to the curb. Each angle was field-welded to the unit overhang with a 3/8" fillet weld. The unit base rail was also welded to the curb with 3" long by 3/8" fillet welds spaced approximately 6" apart.

Overall view of UUT1

UNIT UNDER TEST (UUT)
UUT2 Summary Sheet

DCL Project Number: 35176-2001

Manufacturer:	York (Johnson Controls)
Product Line:	Select / Sun Select / OmniSelect / Relia Select / Optimum Select
Model Number:	YH40N1DZ2Q2CGTC6A

Product Construction Summary:
Powder coated carbon steel enclosure

Options / Component Summary:
Refrigerant compressors, blower motor, outdoor motor, condenser coil, evaporator coil, service valves, VFDs, economizer, gas heater, filters, flow control valve, condensate overflow switch, handle disconnect switch, nonfusible disconnect switch, differential pressure switch, smoke detector sensor, circuit board, economizer controller, direct spark ignition module

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)**		
	Baserail Depth	**Baserail Width**	**Height**	**Front-Back**	**Side-Side**	**Vertical**
6,220	232	90	77	7.6	4.9	9.8

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 2019	ICC-ES AC156	1.40	1.0	1.5	2.24	1.68	0.93	0.37

Unit Mounting Description:
UUT2 was mounted to a VMC P-6000S non-isolated roof curb (drawing VMA-53946B). The curb was mounted to the shake table interface fixture with eight hold-down stanchions. There were two hold-downs on the rail on one end of the unit, spaced approximately 72" on-center. There were three hold-downs on each long side of the unit, spaced approximately 72" on-center. Two of the three hold-downs on each long side of the unit were attached to the shake table interface fixture with three 1 ½" long by 3/8" fillet welds per hold-down. The remaining 4 hold-downs were each attached to the fixture with two (2) ½"-13 SAE grade 5 hex bolts, washers, and lock washers torqued to 75 ft-lb, for a total of eight (8) bolts. Corresponding with each hold-down location, there was a slotted lock down angle and ½"-13 SAE grade 5 hex bolt, washer and nut torqued to 75 ft-lb, attaching the unit to the curb. Each angle was field-welded to the unit overhang with a 3/8" fillet weld. The unit base rail was also welded to the curb with 3" long by 3/8" fillet welds spaced approximately 6" apart.

Overall view of UUT2

UNIT UNDER TEST (UUT)
UUT3 Summary Sheet

((O)) DCL
DYNAMIC CERTIFICATION LABORATORIES, LLC

DCL Project Number: 35176-2001

Manufacturer:	York (Johnson Controls)
Product Line:	Select / Sun Select / OmniSelect / Relia Select / Optimum Select
Model Number:	YV28E3DJ5S3LGLC1G

Product Construction Summary:
Powder coated carbon steel enclosure

Options / Component Summary:
Refrigerant compressors, blower motor, outdoor motor, condenser coil, evaporator coil, service valves, VFDs, economizer, electric heater, filters, flow control valve, condensate overflow switch, handle disconnect switch, fusible disconnect switch, differential pressure switch, smoke detector sensor, circuit board, economizer controller

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)		
	Baserail Depth	**Baserail Width**	**Height**	**Front-Back**	**Side-Side**	**Vertical**
5,002	180	90	70	6.2	8.1	6.4

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 2019	ICC-ES AC156	1.40	1.0	1.5	2.24	1.68	0.93	0.37

Unit Mounting Description:

UUT3 was mounted to a VMC P-6000S non-isolated roof curb (drawing VMA-53946A). The curb was mounted to the shake table interface fixture with eight (8) hold-down stanchions. There were two hold-downs on the rail on one end of the unit, spaced approximately 72" on-center. There were three hold-downs on each long side of the unit, spaced approximately 60" on-center. Each hold-down was attached to the fixture with two (2) ½"-13 SAE grade 5 hex bolts, washers, and lock washers torqued to 75 ft-lb, for a total of sixteen (16) bolts. Corresponding with each hold-down location, there was a slotted lock down angle and ½"-13 SAE grade 5 hex bolt, washer and nut torqued to 75 ft-lb, attaching the unit to the curb. Each angle was field-welded to the unit overhang with a 3/8" fillet weld. The unit base rail was also welded to the curb with 3" long by 3/8" fillet welds spaced approximately 6" apart.

Overall view of UUT3

UNIT UNDER TEST (UUT)
UUT4 Summary Sheet

(((•))) DCL DYNAMIC CERTIFICATION LABORATORIES, LLC

DCL Project Number: 35176-2001

Manufacturer:	York (Johnson Controls)
Product Line:	Select / Sun Select / OmniSelect / Relia Select / Optimum Select
Model Number:	YH50E1DV2R4L8LD7M

Product Construction Summary:
Powder coated carbon steel enclosure

Options / Component Summary:
Refrigerant compressors, blower motor, outdoor motor, condenser coil, evaporator coil, hot gas reheat coil, service valves, economizer, electric heater, filters, flow control valve, condensate overflow switch, handle disconnect switch, fusible disconnect switch, differential pressure switch, system sensor

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)		
	Baserail Depth	**Baserail Width**	**Height**	**Front-Back**	**Side-Side**	**Vertical**
6,787	232	90	77	13.0	5.0	8.8

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 2019	ICC-ES AC156	1.40	1.0	1.5	2.24	1.68	0.93	0.37

Unit Mounting Description:

UUT4 was mounted to a VMC P-6000S non-isolated roof curb (drawing VMA-53946B). The curb was mounted to the shake table interface fixture with eight (8) hold-down stanchions. There were two hold-downs on the rail on one end of the unit, spaced approximately 72" on-center. There were three hold-downs on each long side of the unit, spaced approximately 72" on-center. Each hold-down was attached to the fixture with two (2) ½"-13 SAE grade 5 hex bolts, washers, and lock washers torqued to 75 ft-lb, for a total of sixteen (16) bolts. Corresponding with each hold-down location, there was a slotted lock down angle and ½"-13 SAE grade 5 hex bolt, washer and nut torqued to 75 ft-lb, attaching the unit to the curb. Each angle was field-welded to the unit overhang with a 3/8" fillet weld. The unit base rail was also welded to the curb with 3" long by 3/8" fillet welds spaced approximately 6" apart.

Overall view of UUT4