



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT

APPLICATION FOR HCAI SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0213

HCAI Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Johnson Controls Inc. (JCI)

Manufacturer's Technical Representative: Cameron Boyce

Mailing Address: 5005 Interstate Drive, Norman, OK 73069

Telephone: (405) 419-6830

Email: cameron.w.boyce@jci.com

Product Information

Product Name: Predator Rooftop Air Conditioning Units

Product Model Number(s): See attached

Product Category: Air Conditioning Units

Product Sub-Category: Air Conditioning Units - Packaged

General Description: The units are enclosures with the following subcomponents: refrigerant compressors, outdoor fan motors, indoor coils, outdoor coils, reversing valve with coil, thermostatic expansion valves, standard indoor blower motor, Variable frequency drive indoor blower motor, exhaust fan motor, variable frequency drive, economizer, electric heater, heat cells, filters, and other miscellaneous items included in the subcomponent tables.

Mounting Description: Rigid Curb and Isolated Curb Base Mounted

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: DCL Labs LLC

Contact Person: Kelly Laplace

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

Telephone: (775) 358-5085

Email: kelly.laplace@thevmcgroup.com

Title: Business Manager



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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 ☒ ICC-ES AC156 ☐ IEEE 344 ☐ IEEE 693 ☐ NEBS 3
☐ Other (Please Specify): _____

Testing Laboratory

Company Name: DYNAMIC CERTIFICATION LABORATORY (DCL)

Contact Person: Josh Sailer

Mailing Address: 1315 Greg St., Ste 109, Sparks NV 89431

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

BY: Mohammad Karim

DATE: 07/09/2025



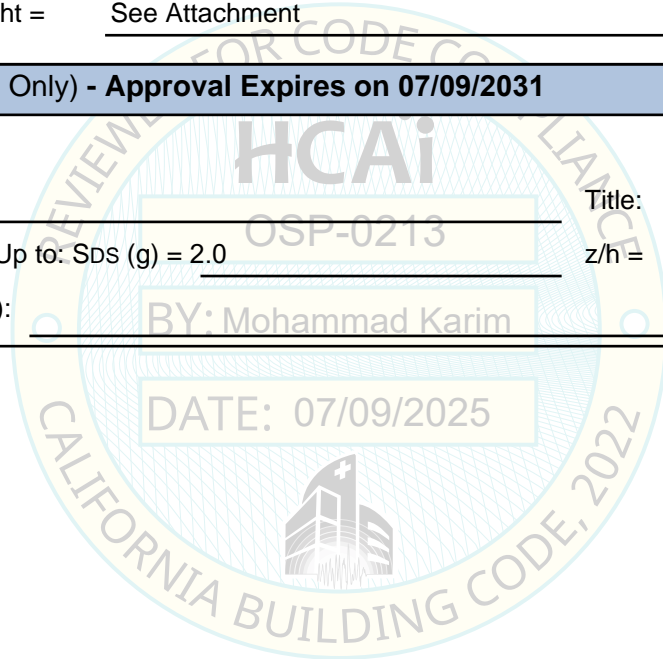
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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) =	Rigid Curb = 1.5; Spring Isolated Curb = 4.5
Sds (Design spectral response acceleration at short period, g) =	2.00
a_p (Amplification factor) =	2.5
R_p (Response modification factor) =	Rigid Curb = 6.0; Spring Isolated Curb = 2.0
Ω_0 (System overstrength factor) =	2.0
I_p (Importance factor) =	1.5
z/h (Height ratio factor) =	1
Natural frequencies (Hz) =	See Attachment
Overall dimensions and weight =	See Attachment

HCAI Approval (For Office Use Only) - Approval Expires on 07/09/2031

Date:	7/9/2025		
Name:	Mohammad Karim	Title:	Supervisor, Health Facilities Review
Special Seismic Certification Valid Up to:	Sds (g) = 2.0	z/h =	1
Condition of Approval (if applicable):			



Special Seismic Certification

Table 1- Certified Components



DCL Project Number: 69232-2401

Manufacturer: Johnson Controls and other Unitary Product Group brands (York, Coleman, Luxaire, Evcon, Fraser-Johnston and Ready Ship)

Product Line: JCI Packaged Rooftop Units

Product Construction: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options: 230-575 V, economizer, power exhaust, electric or gas heater, variable frequency drive

Mounting: Rigid Curb or Isolated Curb Mounting

Certified Seismic Levels: Sds 2.0 g at z/h=1.0

Product Type	Model Number ^{1,2}	Dimensions [in.]			Weight [lb.] ³	Nominal Cooling Capacity [Tons]	Unit
		Depth	Width	Height			
Predator Air Handling Units (Short)	ZJ/ZW/JA3 037	89	59	42	740	3	Extrapolated
	KJ037	89	59	42	785	3	Extrapolated
	ZH/ZU/JA3 037	89	59	42	860	3	UUT3a,b
	KT037	89	59	42	922	3	Interpolated
	ZT/ZV/JA3 037	89	59	42	922	3	Interpolated
	ZR/ZK/JA3 037	89	59	42	980	3	UUT1a,b
	ZJ/ZW/JA4 049	89	59	42	762	4	Extrapolated
	ZH/ZU/JA4 049	89	59	42	763	4	Extrapolated
	KJ049	89	59	42	800	4	Extrapolated
	ZR/ZK/JA4 049	89	59	42	880	4	Interpolated
	KT049	89	59	42	960	4	Interpolated
	ZT/ZV/JA4 049	89	59	42	960	4	Interpolated
	ZH/ZU/JA5 061	89	59	42	772	5	Interpolated
	KJ061	89	59	42	830	5	Interpolated
	ZT/ZV/JA5 061	89	59	42	968	5	Interpolated
	KT061	89	59	42	968	5	Interpolated
	ZJ/ZW/JA5 061	89	59	42	1,070	5	Interpolated
	ZJ/ZW/JA5 061	89	59	42	1,070	5	UUT4a,b
	ZR/ZK/JA5 061	89	59	42	1,070	5	UUT2a,b
Predator Air Handling Units (Standard)	ZH/ZU/J06 078	89	59	42	910	6.5	Interpolated
	WP078	89	59	51	1,080	6.5	Interpolated
	XP/XA/J06 078	89	59	42	970	6.5	UUT7a,b
	KJ078	89	59	51	1,025	6.5	Interpolated
	ZJ/ZW/J06 078	89	59	51	1,030	6.5	Interpolated
	ZR/ZK/J06 078	89	59	51	1,060	6.5	UUT5a,b
	ZF/ZS/J06 078	89	59	42	1,090	6.5	UUT10a,b
	ZF/ZS/J07 090	89	59	42	860	7.5	Interpolated
	ZH/ZU/J07 090	89	59	42	910	7.5	Interpolated
	XP/XA/J07 090	89	59	42	920	7.5	Interpolated
	ZR/ZK/J07 090	89	59	42	965	7.5	Interpolated
	KJ090	89	59	51	1,080	7.5	Interpolated
	ZJ/ZW/J07 090	89	59	51	1,081	7.5	Interpolated
	WP090	89	59	51	1,090	7.5	Interpolated
	ZF/ZS/J08 102	89	59	51	1,020	8.5	Interpolated
	ZH/ZU/J08 102	89	59	51	1,030	8.5	Interpolated
	ZJ/ZW/J08 102	89	59	51	1,060	8.5	Interpolated
	KJ102	89	59	51	1,060	8.5	Interpolated
	XP/XA/J08 102	89	59	51	1,135	8.5	Interpolated
	WP102	89	59	51	1,135	8.5	Interpolated
	ZR/ZK/J08 102	89	59	51	1,200	8.5	Interpolated
	ZF/ZS/J10 120	89	59	51	1,060	10	Interpolated
	ZJ/ZW/J10 120	89	59	51	1,070	10	Interpolated

Note:

- Model numbers are generalized for each type of unit and the associated BTU tonnage that the unit can output.
- Z and X units have 410A compressors and K and W units have 454B compressors. The new components are identical in construction to the tested components.
- Weights listed for tested units are actual, not approximate weights. The weights listed for interpolated units are maximum weights. Optional features are summarized in the table on the next page.

Special Seismic Certification

Table 1- Certified Components Continued



DCL Project Number: 69232-2401

Manufacturer: Johnson Controls and other Unitary Product Group brands (York, Coleman, Luxaire, Evcon, Fraser-Johnston and Ready Ship)

Product Line: JCI Packaged Rooftop Units

Product Construction: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options: 230-575 V, economizer, power exhaust, electric or gas heater, variable frequency drive

Mounting: Rigid Curb or Isolated Curb Mounting

Certified Seismic Levels: Sds 2.0 g at z/h=1.0

Product Type	Model Number ^{1,2}	Dimensions [in.]			Weight [lb.] ³	Nominal Cooling Capacity [Tons]	Unit
		Depth	Width	Height			
Predator Air Handling Units (Standard) (Continued)	ZH/ZU/J10 120	89	59	51	1,090	10	Interpolated
	KJ120	89	59	51	1,100	10	Interpolated
	XP/XA/J10 120	89	59	51	1,135	10	Interpolated
	WP120	89	59	51	1,135	10	Interpolated
	ZR/ZK/J10 120	89	59	51	1,200	10	Interpolated
	ZH/ZU/J12 150	119.5	59	51	1,250	12.5	UUT11a,b
	ZF/ZS/J12 150	119.5	59	51	1,253	12.5	Interpolated
	KJ150	119.5	59	51	1,380	12.5	Interpolated
	WP150	119.5	59	51	1,403	12.5	Interpolated
	XP/XA/J12 150	119.5	59	51	1,510	12.5	UUT8a,b
	ZJ/ZW/J12 150	119.5	59	51	1,570	12.5	UUT9a,b
	ZR/ZK/J12 150	119.5	59	51	1,600	12.5	UUT6a,b
Predator Air Handling Units (Ultra High Efficiency)	ZT/ZV 078	119.5	59	51	1,550	6.5	Interpolated
	KT078	119.5	59	51	1,288	6.5	Interpolated
	KB078	89	59	51	1,080	6.5	Interpolated
	KB090	89	59	51	1,080	7.5	Interpolated
	KT090	119.5	59	51	1,293	7.5	Interpolated
	ZT/ZV 090	119.5	59	51	1,550	7.5	Interpolated
	KB102	89	59	51	1,135	8.5	Interpolated
	KT102	119.5	59	51	1,304	8.5	Interpolated
	ZT/ZV 102	119.5	59	51	1,575	8.5	Interpolated
	KB120	89	59	51	1,135	10	Interpolated
	ZT/ZV 120	119.5	59	51	1,470	10	UUT12a,b
	KT120	119.5	59	51	1,481	10	Interpolated
	KB150	119.5	59	51	1,395	12.5	Interpolated
	KT150	119.5	59	51	1,498	12.5	Interpolated
	ZT/ZV 150	119.5	59	51	1,680	12.5	UUT13a,b

Note:

- Model numbers are generalized for each type of unit and the associated BTU tonnage that the unit can output.
- Z and X units have 410A compressors and K and W units have 454B compressors. The new components are identical in construction to the tested components
- Weights listed for tested units are actual, not approximate weights. The weights listed for interpolated units are maximum weights. Optional features are summarized in the table below.

Unit Accessory	Operating Weight [lb.]
Economizer	85
Power Exhaust	35
Electric Heat	49
Gas Heat	110
Variable Frequency Drive	30

- Weight given is for the maximum electric heater size available.
- Weight given for the gas heater is for the maximum number of tube heat exchangers available (8 tube).
- Weight includes mounting hardware, controls and manual bypass option.

Pro Model Number Nomenclature N524 3-12.5 Ton Single Package

York Brand
N524

1	2	3-5	6	7-8	9	10	11	12	13	14	15	16	17	18
K	J	120	N	24	B	2	A	1	A	A	A	1	A	1

Product Category (1)
Z = A/C, Single Package, R-410A
K = A/C, Single Package, R-454B
W = HP, Single Package, R-454B
X = HP, Single Package, R-410A

Efficiency (2)
T = A/C Ultra-High Efficiency (18 SEER)
J = A/C High Efficiency (12.2 EER)
P = HP Standard Efficiency
B = High Efficiency 3-Stage

Nominal Cooling Capacity - MBH (3-5)
037 = 3 Ton (KJ, KT)
049 = 4 Ton (KJ, KT)
061 = 5 Ton (KJ, KT)
078 = 6.5 Ton (KB, KJ, KT)(WP)
090 = 7.5 Ton (KB, KJ, KT)(WP)
102 = 8.5 Ton (KB, KJ, KT)(WP)
120 = 10 Ton (KB, ZJ, KT)(WP)
150 = 12.5 Ton (KB, KJ, KT)(WP)

Heat Type (6)
C = COOLING ONLY
E = Electric Heat
N = 2 STAGE GAS ALUMINIZED STEEL
S = 2 STAGE GAS STAINLESS STEEL

Heat Type & Nominal Heat Capacity (Unit Size Allowed) (7-8)
00 = Cooling Only, No Heat Installed

Gas Heat Options
06 = 60 MBH Input
08 = 80 MBH Input
12 = 120 MBH Input
16 = 160 MBH Input
18 = 180 MBH Input
24 = 240 MBH Input

Electric Heat Options
03 = 3 KW (037)
06 = 6 KW (037,049,061)
09 = 9 KW (078,090,102)
15 = 15 KW (037,049,061)
18 = 18 KW (078,090,102,120,150)
20 = 20 KW (049,061)
24 = 24 KW (078,090,102,120,150)
36 = 36 KW (078,090,102,120,150)
54 = 54 KW (120,150) - 54kW Not Available in 208/240 voltage

Blower (9)
B = Standard Static
D = High Static
E = VFD/VAV Std Static
G = VFD/VAV High Static
H = VFD/VAV w/Bypass Std Static
K = VFD/VAV w/Bypass High Static
L = VFD/VAV Customer Std Static
N = VFD/VAV Customer High Static
P = VFD IntelliSpeed Std Static
R = VFD IntelliSpeed High Static
S = VFD w/Byp IntelliSp Std Static
U = VFD w/Byp IntelliSp Hi Static
V = VFD Cust IntelliSp Std Static
X = VFD Cust IntelliSp Hi Static

Sensors (13)
A = NO Sensors
B = PHM (Phase Monitor)
C = DFS (Dirty Filter Switch)
D = SAD (Supply Air Smoke DET)
E = RSD (Return Air Smoke DET)
F = PHM,DFS
G = PHM,SAD
H = PHM,RSD
J = DFS,SAD
K = DFS,RSD
L = SAD,RSD
M = PHM,DFS,SAD
N = PHM,DFS,RSD
P = PHM,SAD,RSD
Q = DFS,SAD,RSD
R = PHM,DFS,SAD,RSD

Service Options (12)
1 = NO Service Options
2 = DSC (Disconnect Switch)
3 = NCO (Non-PWR Conv. Outlet)
4 = PCO (Powered Conv. Outlet)
5 = DSC,NCO
6 = DSC,PCO
A = RDS
B = RDS & DSC
C = RDS & NCO
D = RDS & PCO
E = RDS, DSC, & NCO
F = RDS, DSC, & PCO

Outdoor Air Option (11)
A = NO Economizer
B = Economizer w/Barometric RLF
D = Economizer w/Power EXH
E = Econ BAS Ready w/Baro RLF
G = Econ BAS Ready w/Power EXH
H = Motorized Damper
J = Motorized Damper w/Baro RLF

Voltage (10)
2 = 208/230-3-60
4 = 460-3-60
5 = 575-3-60

Add Options / National Accounts (16)
A = Autozone
C = CVS
M = McDonalds
F = KMART
K = Kohl's
T = Target with 2" Filter & ALC
G = Target with 2" Filter, CG & ALC
N = Target with 4" Filter & ALC
L = Target with 4" Filter, CG & ALC
R = Refrigerant Monitoring W/2" Filter & FDD
1 = STD Throwaway Filter
2 = 2" Pleated Filters (Merv 8)
3 = 4" Pleated Filters (Merv 13)
4 = Coil Guard (CG), STD Filter
5 = 2" Pleated Filter,CG
6 = 4" Pleated Filter,CG
Note: Add Options / National Accounts include tested options and configurations allowable within OSHPD guidelines

Refrigeration (15)
A = Standard REFRIGERATION
B = ECC (E-Coat Cond Coil)
C = EEC (E-Coat Evap Coil)
D = HGBP (Hot Gas Bypass)
E = REH (Reheat)
F = ECC,EEC
G = ECC,EEC,HGBP
H = ECC,EEC,REH
J = ECC,HGBP
L = ECC,REH
M = EEC,HGBP
P = EEC,REH

Controls Option (14)
A = Stand Alone Simplicity
C = BACnet MSTP,Mdbs,N2 COM Card (<1lb)
F = Fault Detection Diagnostics
S = Survivor
M = VERASYS SINGLE ZONE
N = VERASYS CHANGE OVER BYPASS
P = VERASYS VAV
Q = VERASYS SINGLE ZONE W/FDD
R = VERASYS COBP W/FDD
T = VERASYS VAV W/FDD

Generation (18)
1 = First
2 = Second

Cabinet (17)
A = Std Cabinet
E = SSD (SST Drain Pan)
R = Reverse Drain Pan

Nomenclature

6.5-12.5 Ton York® Model Number Nomenclature

X P 090 C00 A 2 A AA 3 0 1 2 4 A																
Product Category X = HP, Single Pkg., R-410A												Product Style A = Style A B = Style B C = Style C				
Product Identifier P = 11.0 EER HP																
Nominal Cooling Capacity 078 = 6.5 Ton 090 = 7.5 Ton 102 = 8.5 Ton 120 = 10.0 Ton 150 = 12.5 Ton																
Heat Type and Nominal Heat Capacity C00 = Cooling Only. No heat installed																
Electric Heat Options E09 = 9 KW E18 = 18 KW E24 = 24 KW E36 = 36 KW E54 = 54 KW																
Airflow A = Std. Motor B = Std. Motor/Econo./Barometric Relief (Downflow Only) C = Std. Motor/Econo./Power Exhaust (Downflow Only) D = Std. Motor/Motorized Damper (Downflow Only) E = Std. Motor/Horizontal Economizer (No Baro.) F = Std. Motor/Slab Econo./Power Exhaust (Downflow Only) G = Std. Motor/Slab Econo./Barometric Relief (Downflow Only) N = Hi Static P = Hi Static/Econo./Barometric Relief (Downflow Only) Q = Hi Static/Econo./Power Exhaust (Downflow Only) R = Hi Static/Motorized Damper (Downflow Only) S = Hi Static/Horizontal Economizer (No Baro.) T = Hi Static/Slab Econo./Power Exhaust (Downflow Only) U = Hi Static/Slab Econo./Barometric Relief (Downflow only)																
Voltage 2 = 208/230-3-60 4 = 460-3-60 5 = 575-3-60																
									Configuration Options (not required for all units) These four digits will not be assigned until a quote is requested, or an order placed. <ul style="list-style-type: none"> <input type="checkbox"/> SS Drain Pan <input type="checkbox"/> CPC Controller, DFS, APS <input type="checkbox"/> Johnson Controller, DFS, APS <input type="checkbox"/> Honeywell Controller, DFS, APS <input type="checkbox"/> Nevar Controller, DFS, APS <input type="checkbox"/> Simplicity IntelliComfort Controller <input type="checkbox"/> Simplicity IntelliComfort Controller w/Simplicity@LINC <input type="checkbox"/> 2" Pleated filters <input type="checkbox"/> BAS Ready Economizer (2-10 V.D.C. Actuator without a Controller) <input type="checkbox"/> Shipping Bag <input type="checkbox"/> Any Combination of Additional Options that Don't Have an Option Code Pre-assigned 							
									Product Generation 3 = Third Generation 4 = Fourth Generation							
									Additional Options <table border="1"> <tbody> <tr> <td> AA = None AB = Phase Monitor AC = Coil Guard AD = Dirty Filter Switch AE = Phase Monitor & Coil Guard AF = Phase Monitor & Dirty Filter Switch AG = Coil Guard & Dirty Filter Switch AH = Phase Monitor, Coil Guard & Dirty Filter Switch </td> <td> RC = Coil Guard, Shipping Bag & American Flag TA = Technicoat Condenser Coil TJ = Technicoat Evaporator Coil TS = Technicoat Evaporator & Condenser Coils </td> </tr> </tbody> </table>			AA = None AB = Phase Monitor AC = Coil Guard AD = Dirty Filter Switch AE = Phase Monitor & Coil Guard AF = Phase Monitor & Dirty Filter Switch AG = Coil Guard & Dirty Filter Switch AH = Phase Monitor, Coil Guard & Dirty Filter Switch	RC = Coil Guard, Shipping Bag & American Flag TA = Technicoat Condenser Coil TJ = Technicoat Evaporator Coil TS = Technicoat Evaporator & Condenser Coils			
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									Installation Options <table border="1"> <tbody> <tr> <td> A = No Options Installed B = Option 1 C = Option 2 D = Options 1 & 2 E = Option 3 F = Option 4 G = Options 1 & 3 H = Options 1 & 4 J = Options 1, 2 & 3 K = Options 1, 2, & 4 L = Options 1, 3 & 4 M = Options 1, 2, 3, & 4 N = Options 2 & 3 P = Options 2 & 4 Q = Options 2, 3, & 4 R = Options 3 & 4 S = Option 5 T = Options 1 & 5 U = Options 1, 3, & 5 V = Options 1, 4, & 5 W = Options 1, 3, 4, & 5 X = Options 3 & 5 Y = Options 4 & 5 Z = Options 3, 4 & 5 </td> </tr> </tbody> </table>			A = No Options Installed B = Option 1 C = Option 2 D = Options 1 & 2 E = Option 3 F = Option 4 G = Options 1 & 3 H = Options 1 & 4 J = Options 1, 2 & 3 K = Options 1, 2, & 4 L = Options 1, 3 & 4 M = Options 1, 2, 3, & 4 N = Options 2 & 3 P = Options 2 & 4 Q = Options 2, 3, & 4 R = Options 3 & 4 S = Option 5 T = Options 1 & 5 U = Options 1, 3, & 5 V = Options 1, 4, & 5 W = Options 1, 3, 4, & 5 X = Options 3 & 5 Y = Options 4 & 5 Z = Options 3, 4 & 5				
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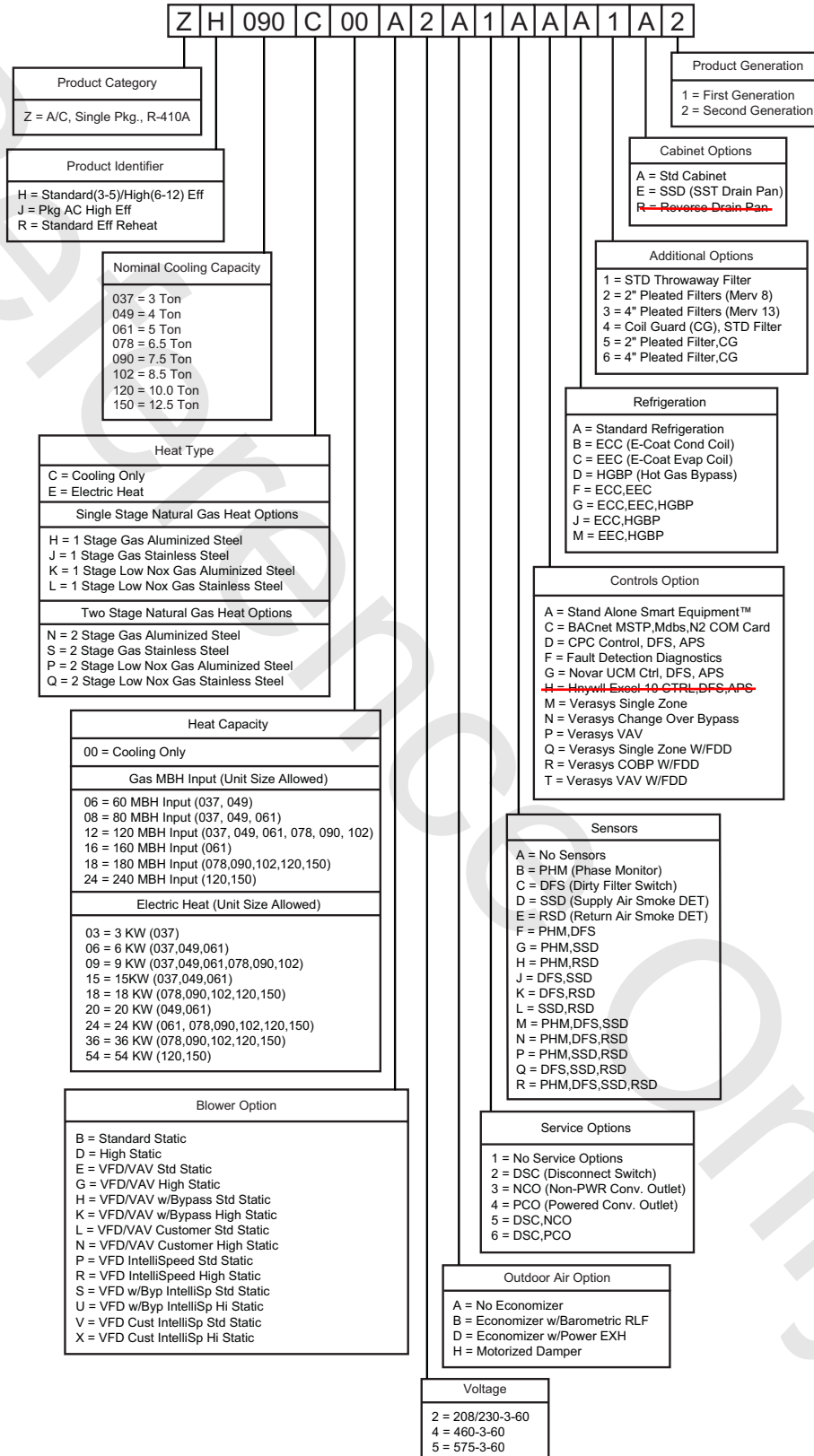
Nomenclature

6.5-12.5 Ton York® Model Number Nomenclature

Z F 090 N10 A 2 A AA 4 0 1 2 4 A													
Product Category		Product Identifier		Nominal Cooling Capacity		Heat Type and Nominal Heat Capacity		Gas Heat Options		Electric Heat Options			
Z = A/C, Single Pkg., R-410A		F = 11.2 + EER A/C R = Reheat		078 = 6.5 Ton 090 = 7.5 Ton 102 = 8.5 Ton 120 = 10.0 Ton 150 = 12.5 Ton		C00 = Cooling Only. No heat installed		N10 = 100 MBH Output Aluminized Steel N15 = 150 MBH Output Aluminized Steel N20 = 200 MBH Output Aluminized Steel S10 = 100 MBH Output Stainless Steel S15 = 150 MBH Output Stainless Steel S20 = 200 MBH Output Stainless Steel		E09 = 9 KW E18 = 18 KW E24 = 24 KW E36 = 36 KW E54 = 54 KW			
Airflow		Voltage		Configuration Options (not required for all units) These four digits will not be assigned until a quote is requested, or an order placed.		Product Generation		Additional Options		Installation Options			
A = Std. Motor B = Std. Motor/Econo./Barometric Relief (Downflow Only) C = Std. Motor/Econo./Power Exhaust (Downflow Only) D = Std. Motor/Motorized Damper (Downflow Only) E = Std. Motor/Horizontal Economizer (No Baro.) F = Std. Motor/Slab Econo./Power Exhaust (Downflow Only) G = Std. Motor/Slab Econo./Barometric Relief (Downflow Only) N = Hi Static P = Hi Static/Econo./Barometric Relief (Downflow Only) Q = Hi Static/Econo./Power Exhaust (Downflow Only) R = Hi Static/Motorized Damper (Downflow Only) S = Hi Static/Horizontal Economizer (No Baro.) T = Hi Static/Slab Econo./Power Exhaust (Downflow Only) U = Hi Static/Slab Econo./Barometric Relief (Downflow Only)		2 = 208/230-3-60 4 = 460-3-60 5 = 575-3-60		SS Drain Pan CFC Controller, DFG, APS Johnson Controller, UNT-1126 (N2 protocol), DFG, APS Honeywell Controller, DFG, APS Nuver Controller, DFG, APS Simplicity IntelliComfort Controller Simplicity IntelliComfort Controller w/Simplicity@LINC York Commercial Comfort System (YCCS) Rtu Controller Hot Gas Bypass (Standard on VAV, Optional on CV) Variable Air Volume, VFD (not available with factory installed BAS options) Variable Air Volume, VFD with Simplicity@LINC (not available with factory installed BAS options) Variable Air Volume, VFD and Manual Bypass (not available with factory installed BAS options) Variable Air Volume, VFD and Manual Bypass with Simplicity@LINC (not available with factory installed BAS options) Variable Air Volume, VFD (BAS ready) Variable Air Volume, VFD and Manual Bypass (BAS ready) Variable Air Volume, VFD Ready (for customer-provided, field-installed drive) Variable Air Volume, VFD Ready with Simplicity@LINC (for customer-provided, field-installed drive) 2" Pleated filters 4" Pleated filters (ZF Only) BAS Ready Economizer (2-10 V.D.C. Actuator without a Controller) Shipping Bag Any Combination of Additional Options that Don't Have an Option Code Pre-assigned		4 = Fourth Generation		AA = None AB = Phase Monitor AC = Coil Guard AD = Dirty Filter Switch AE = Phase Monitor & Coil Guard AF = Phase Monitor & Dirty Filter Switch AG = Coil Guard & Dirty Filter Switch AH = Phase Monitor, Coil Guard & Dirty Filter Switch RC = Coil Guard, Shipping Bag & American Flag TA = Technicoat Condenser Coil TJ = Technicoat Evaporator Coil TS = Technicoat Evaporator & Condenser Coils ZZ = If desired option combination is not listed above, ZZ will be assigned and configuration options will be located in digits 15-18.		A = No Options Installed B = Option 1 C = Option 2 D = Options 1 & 2 E = Option 3 F = Option 4 G = Options 1 & 3 H = Options 1 & 4 J = Options 1, 2 & 3 K = Options 1, 2, & 4 L = Options 1, 3 & 4 M = Options 1, 2, 3, & 4 N = Options 2 & 3 P = Options 2 & 4 Q = Options 2, 3, & 4 R = Options 3 & 4 S = Option 5 T = Options 1 & 5 U = Options 1, 3, & 5 V = Options 1, 4, & 5 W = Options 1, 3, 4, & 5 X = Options 3 & 5 Y = Options 4 & 5 Z = Options 3, 4 & 5		1 = Disconnect 2 = Non-Pwr'd Conv. Outlet 3 = Smoke Detector S.A. 4 = Smoke Detector R.A. 5 = Pwr'd Conv. Outlet	
Product Style		Product Identifier		Nominal Cooling Capacity		Heat Type and Nominal Heat Capacity		Gas Heat Options		Electric Heat Options			
A = Style A B = Style B C = Style C		F = 11.2 + EER A/C R = Reheat		078 = 6.5 Ton 090 = 7.5 Ton 102 = 8.5 Ton 120 = 10.0 Ton 150 = 12.5 Ton		C00 = Cooling Only. No heat installed		N10 = 100 MBH Output Aluminized Steel N15 = 150 MBH Output Aluminized Steel N20 = 200 MBH Output Aluminized Steel S10 = 100 MBH Output Stainless Steel S15 = 150 MBH Output Stainless Steel S20 = 200 MBH Output Stainless Steel		E09 = 9 KW E18 = 18 KW E24 = 24 KW E36 = 36 KW E54 = 54 KW			

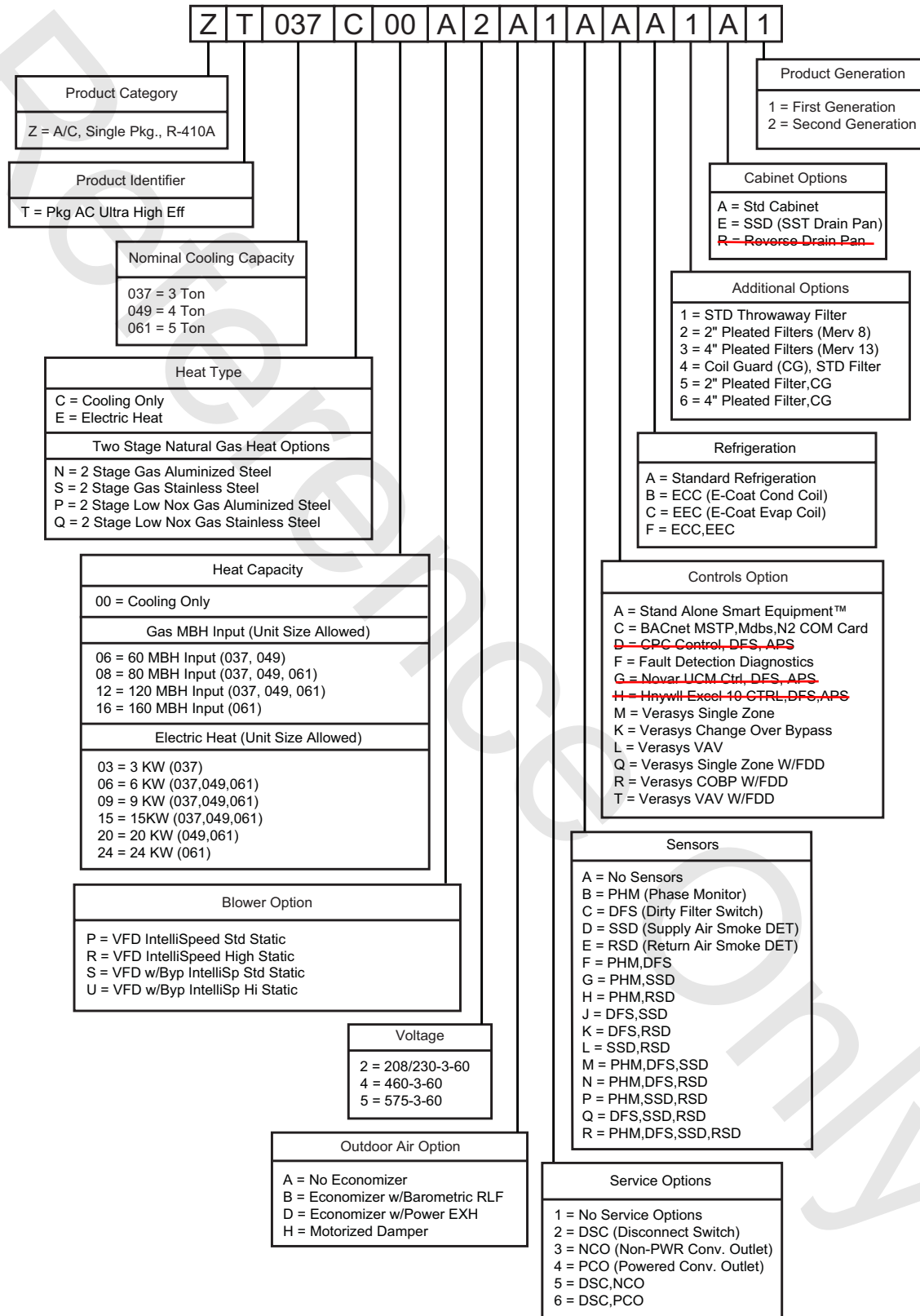
Nomenclature

3-12.5 Ton York® Model Number Nomenclature



Nomenclature

3-5 Ton York® Model Number Nomenclature



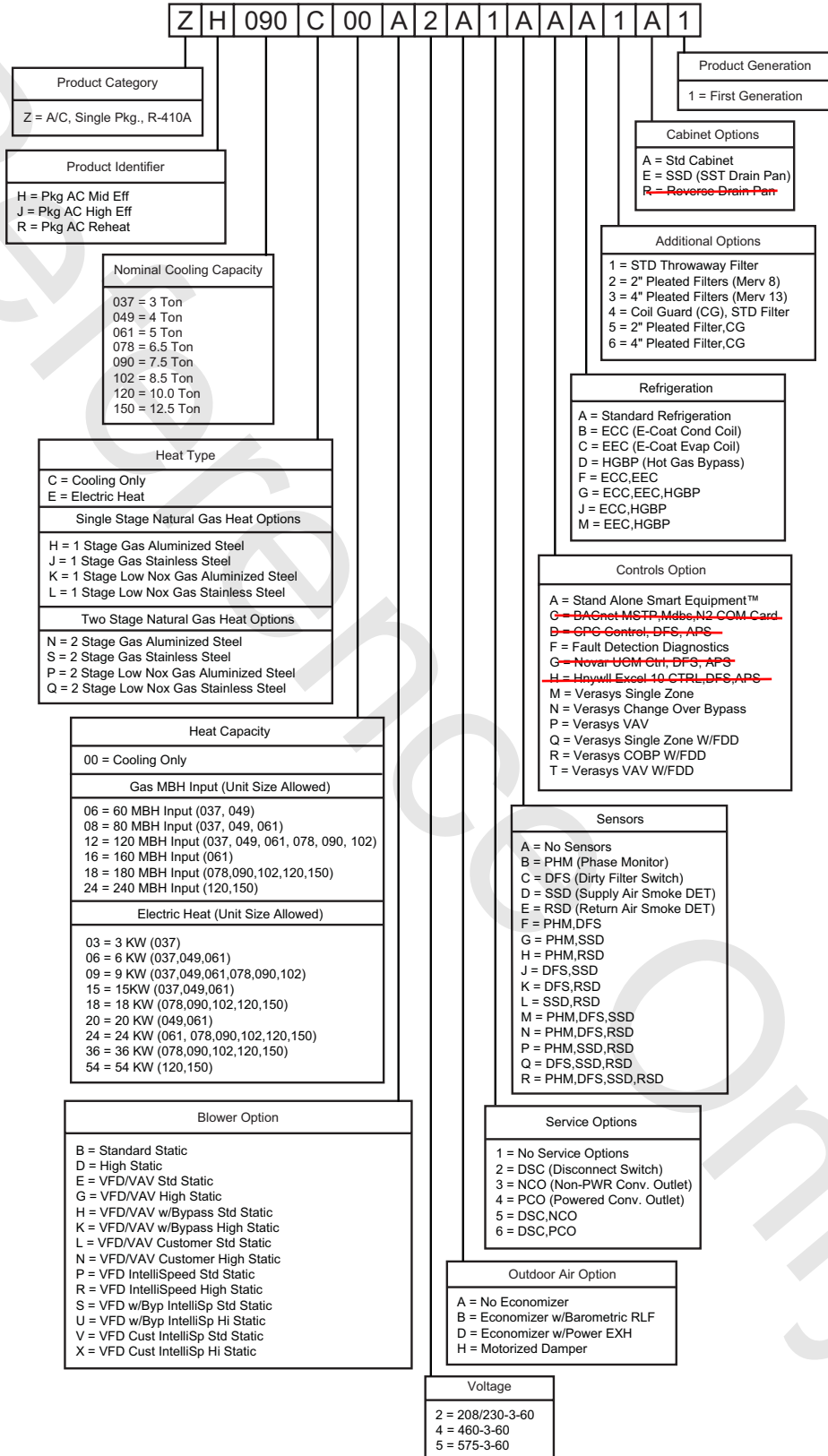
Nomenclature

3-12.5 Ton York® Model Number Nomenclature

Z H 090 N10 A 2 A AA 5 0 1 2 4 A											
Product Category Z = A/C, Single Pkg., R-410A			Product Style A = Style A B = Style B C = Style C								
Product Identifier H = 11.7-11.8 EER J = 12.2 EER R = Reheat			Configuration Options (not required for all units) These four digits will not be assigned until a quote is requested, or an order placed.								
Nominal Cooling Capacity 037 = 3 Ton 049 = 4 Ton 061 = 5 Ton 078 = 6.5 Ton 090 = 7.5 Ton 102 = 8.5 Ton 120 = 10.0 Ton 150 = 12.5 Ton			<input type="checkbox"/> SS Drain Pan <input type="checkbox"/> CPC Controller, DFS, APS <input type="checkbox"/> Johnson Controller UNT-1126 (N2 protocol), DFS, APS <input type="checkbox"/> Honeywell Controller, DFS, APS <input type="checkbox"/> Nevar Controller, DFS, APS <input type="checkbox"/> Simplicity IntelliComfort Controller <input type="checkbox"/> Simplicity IntelliComfort Controller w/Simplicity@LINC <input type="checkbox"/> York Commercial Comfort System (YCCS) Rtu Controller <input type="checkbox"/> Hot Gas Bypass (Standard on VAV, Optional on CV) <input type="checkbox"/> Variable Air Volume, VFD (not available with factory installed BAS options) <input type="checkbox"/> Variable Air Volume, VFD with Simplicity@LINC (not available with factory installed BAS options) <input type="checkbox"/> Variable Air Volume, VFD and Manual Bypass (not available with factory installed BAS options) <input type="checkbox"/> Variable Air Volume, VFD and Manual Bypass with Simplicity@LINC (not available with factory installed BAS options) <input type="checkbox"/> Variable Air Volume, VFD (BAS ready) <input type="checkbox"/> Variable Air Volume, VFD and Manual Bypass (BAS ready) <input type="checkbox"/> Variable Air Volume, VFD Ready (for customer-provided, field-installed drive) <input type="checkbox"/> Variable Air Volume, VFD Ready with Simplicity@LINC (for customer-provided, field-installed drive) <input type="checkbox"/> 2" Pleated filters <input type="checkbox"/> 4" Pleated filters <input type="checkbox"/> BAS Ready Economizer (2-10 V.D.C. Actuator without a Controller) <input type="checkbox"/> Any Combination of Additional Options that Don't Have an Option Code Pre-assigned								
Heat Type and Nominal Heat Capacity (Unit Size Allowed) C00 = Cooling Only, No heat installed Single Stage Natural Gas Heat Options A05 = 49 MBH Output Aluminized Steel, Single Stage (037, 049) A07 = 65 MBH Output Aluminized Steel, Single Stage (037, 049, 061) A09 = 97 MBH Output Aluminized Steel, Single Stage (037, 049, 061) A13 = 129 MBH Output Aluminized Steel, Single Stage (061) B05 = 49 MBH Output Stainless Steel, Single Stage (037, 049) B07 = 65 MBH Output Stainless Steel, Single Stage (037, 049, 061) B09 = 97 MBH Output Stainless Steel, Single Stage (037, 049, 061) B13 = 129 MBH Output Stainless Steel, Single Stage (061) Two Stage Natural Gas Heat Options N05 = 49 MBH Output Aluminized Steel, Two Stage (037, 049) N07 = 65 MBH Output Aluminized Steel, Two Stage (037, 049, 061) N09 = 97 MBH Output Aluminized Steel, Two Stage (037, 049, 061) N13 = 129 MBH Output Aluminized Steel, Two Stage (061) S05 = 49 MBH Output Stainless Steel, Two Stage (037, 049) S07 = 65 MBH Output Stainless Steel, Two Stage (037, 049, 061) S09 = 97 MBH Output Stainless Steel, Two Stage (037, 049, 061) S13 = 129 MBH Output Stainless Steel, Two Stage (061) N10 = 100 MBH Output Aluminized Steel, Two Stage (078, 090, 102) N15 = 150 MBH Output Aluminized Steel, Two Stage (078, 090, 102, 120, 150) N20 = 200 MBH Output Aluminized Steel, Two Stage (120, 150) S10 = 100 MBH Output Stainless Steel, Two Stage (078, 090, 102) S15 = 150 MBH Output Stainless Steel, Two Stage (078, 090, 102, 120, 150) S20 = 200 MBH Output Stainless Steel, Two Stage (120, 150)			Product Generation 5 = Fifth Generation								
Electric Heat Options E03 = 3 KW (037) E06 = 6 KW (037, 049, 061) E08 = 9 KW (037, 049, 061) E09 = 9 KW (078, 090, 102) E15 = 15 KW (037, 049, 061) E18 = 18 KW (078, 090, 102, 120, 150) E20 = 20 KW (049, 061) E23 = 24 KW (061) E24 = 24 KW (078, 090, 102, 120, 150) E36 = 36 KW (078, 090, 102, 120, 150) E54 = 54 KW (120, 150)			Additional Options <table border="1"> <tr> <td> AA = None AB = Phase Monitor AC = Coil Guard AD = Dirty Filter Switch AE = Phase Monitor & Coil Guard AF = Phase Monitor & Dirty Filter Switch </td> <td> AG = Coil Guard & Dirty Filter Switch AH = Phase Monitor, Coil Guard & Dirty Filter Switch RC = Coil Guard, Shipping Bag & American Flag TA = Technicoat Condenser Coil TJ = Technicoat Evaporator Coil TS = Technicoat Evaporator & Condenser Coils </td> </tr> </table> ZZ = If desired option combination is not listed above, ZZ will be assigned and configuration options will be located in digits 15-18.							AA = None AB = Phase Monitor AC = Coil Guard AD = Dirty Filter Switch AE = Phase Monitor & Coil Guard AF = Phase Monitor & Dirty Filter Switch	AG = Coil Guard & Dirty Filter Switch AH = Phase Monitor, Coil Guard & Dirty Filter Switch RC = Coil Guard, Shipping Bag & American Flag TA = Technicoat Condenser Coil TJ = Technicoat Evaporator Coil TS = Technicoat Evaporator & Condenser Coils
AA = None AB = Phase Monitor AC = Coil Guard AD = Dirty Filter Switch AE = Phase Monitor & Coil Guard AF = Phase Monitor & Dirty Filter Switch	AG = Coil Guard & Dirty Filter Switch AH = Phase Monitor, Coil Guard & Dirty Filter Switch RC = Coil Guard, Shipping Bag & American Flag TA = Technicoat Condenser Coil TJ = Technicoat Evaporator Coil TS = Technicoat Evaporator & Condenser Coils										
Voltage 2 = 208/230-3-60 4 = 460-3-60 5 = 575-3-60			Installation Options A = No Options Installed B = Option 1 C = Option 2 D = Options 1 & 2 E = Option 3 F = Option 4 G = Options 1 & 3 H = Options 1 & 4 J = Options 1, 2 & 3 K = Options 1, 2, & 4 L = Options 1, 3 & 4 M = Options 1, 2, 3, & 4 N = Options 2 & 3 P = Options 2 & 4 Q = Options 2, 3, & 4 R = Options 3 & 4 S = Option 5 T = Options 1 & 5 U = Options 1, 3, & 5 V = Options 1, 4, & 5 W = Options 1, 3, 4, & 5 X = Options 3 & 5 Y = Options 4 & 5 Z = Options 3, 4 & 5								
Airflow A = Std. Motor B = Std. Motor/Econo./Barometric Relief (Downflow Only) C = Std. Motor/Econo./Power Exhaust (Downflow Only) D = Std. Motor/Motorized Damper (Downflow Only) E = Std. Motor/Horizontal Economizer (No Baro.) F = Std. Motor/Slab Econo./Power Exhaust (Downflow Only) G = Std. Motor/Slab Econo./Barometric Relief (Downflow Only) N = Hi Static P = Hi Static/Econo./Barometric Relief (Downflow Only) Q = Hi Static/Econo./Power Exhaust (Downflow Only) R = Hi Static/Motorized Damper (Downflow Only) S = Hi Static/Horizontal Economizer (No Baro.) T = Hi Static/Slab Econo./Power Exhaust (Downflow Only) U = Hi Static/Slab Econo./Barometric Relief (Downflow Only)			Options 1 = Disconnect 2 = Non-Pwr'd Conv. Outlet 3 = Smoke Detector S.A. 4 = Smoke Detector R.A. 5 = Pwr'd Conv. Outlet								

Nomenclature

3-12.5 Ton York® Model Number Nomenclature



Special Seismic Certification

Table 2 - Certified Subcomponents



DCL Project Number: 69232-2401

Product Line: JCI Packaged Rooftop Units

Refrigerant Compressor ¹				
Model Number	Manufacturer	Material	Nominal Capacity [BTU/hr]	Unit
H82J263	Bristol	Carbon Steel	26000	UUT1a,b
H82J283			28000	UUT3a,b
H82J293			29000	Interpolated
H82J303			30000	UUT10a,b
H82J353			35000	Interpolated
H83C363			36000	UUT7a,b
H82J373			37000	Interpolated
H82J403			40000	Interpolated
H83R443			44000	Interpolated
H82J483			48000	UUT2a,b; UUT4a,b
H83R513			51000	Interpolated
H83R683			68000	UUT8a,b
HLH068	Danfoss	Carbon Steel	68000	UUT6a,b; UUT11a,b
ZP29K6E			29000	Extrapolated
YA29K1E	Copeland	Carbon Steel	29000	Extrapolated
YAS30K1E			30000	Extrapolated
ZPS30K5E			30000	Extrapolated
ZP34K6E			34000	Extrapolated
YA36K1E			36000	Extrapolated
ZP36K5E			36000	UUT5a,b
YA38K1E			38000	Interpolated
ZP38K6E			38000	Interpolated
ZP39K5E			39000	Interpolated
YA40K1E			40000	Interpolated
YAS40K1E			40000	Interpolated
ZP40K6E			40000	Interpolated
ZPS40K5E			40000	UUT12a,b
ZP42K5E			42000	Interpolated
YA42K1E			42000	Interpolated
ZP44K5E			44000	Interpolated
YA44K1E			44200	Interpolated
YA49K1E			49000	Interpolated
YAS49K1E			49000	Interpolated
ZP49K6E			49000	Interpolated
ZPS49K5E			49000	UUT12a,b
YA51K1E			51000	Interpolated
YAS51K1E			51000	Interpolated
ZP51K5E			51000	UUT9a,b
ZPS51K5E			51000	Interpolated
ZP54K6E			54000	Interpolated
YAS60K1E			60000	Interpolated
ZPS60K5E			60000	UUT13a,b
ZP61K5E			61000	Interpolated
YA67K1E			67000	Interpolated
ZP67KCE			67000	Interpolated
YA72KCE			72000	Interpolated
ZP72KCE			72000	UUT13a,b

Note:

1. Refrigerant Compressors are bookended by nominal capacity.
2. The ZP compressors operate with refrigerant R-410A and YA compressors operate with refrigerant R-454B but are identical in construction.

Special Seismic Certification
Table 3 - Certified Subcomponents



DCL Project Number: 69232-2401

Product Line: JCI Packaged Rooftop Units

Outdoor Fan Motors					
Model Number	Manufacturer	Voltage [V]	Material	Weight [lb.]	Unit
F48T	AO Smith	230/460/575	Carbon Steel	16	UUT1a,b; UUT2a,b; UUT3a,b; UUT4a,b
F48N		230/460/576		16	UUT5a,b; UUT6a,b; UUT7a,b; UUT10a,b; UUT11a,b
5411939	Genteq	230	Carbon Steel	13	Extrapolated
5271257		230		14	Extrapolated
5271258		460		14	Extrapolated
5400378		230		15	Extrapolated
1041518		230		15	Extrapolated
5400376		230		16	UUT12a,B
5400377		460		17	Interpolated
5411940		460		17	Interpolated
5400379		460		17	UUT13a,b
Indoor Coils					
Model Number	Manufacturer	Description	Dimensions [total ft^2]	Material	Unit
84978	JCI	Evaporating Coils	7.8	Copper	UUT5a,b
84974		Evaporating Coils	10.0		UUT13a,b
5522860		Evaporating Coils	10.0		UUT13a,b
83725		Evaporating Coils	8.0	Aluminum & Copper	UUT3a,b
74105		Evaporating Coils	10.6		UUT2a,b
83730		Evaporating Coils	10.6		UUT1a,b; UUT4a,b; UUT5a,b; UUT7a,b; UUT10a,b
83694		Evaporating Coils	13.2		Interpolated
83748		Evaporating Coils	13.2		UUT6a,b; UUT8a,b; UUT9a,b; UUT11a,b
286479		Reheat Coil	6.6		UUT5a,b
635816		Reheat Coil	10.0		UUT6a,b

Special Seismic Certification
Table 4 - Certified Subcomponents



DCL Project Number: 69232-2401

Product Line: JCI Packaged Rooftop Units

Outdoor Coils ¹					
Model Number	Manufacturer	Description	Dimensions [total ft^2]	Material	Unit
JCI#449602	Delphi	Condenser Coil	11.9	Aluminum	UUT3a,b
JCI#666492		Condenser Coil	11.9		UUT1a,b
JCI#670762		Condenser Coil	11.9		UUT2a,b
JCI#449598		Condenser Coil	18.5		UUT10a,b
JCI#513695		Condenser Coil	18.5		Interpolated
JCI#449600		Condenser Coil	23.8		UUT4a,b
JCI#519832		Condenser Coil	23.8		Interpolated
JCI#520526		Condenser Coil	23.8		Interpolated
JCI#551643		Condenser Coil	23.8		Interpolated
JCI#579297		Condenser Coil	23.8		UUT5a,b
JCI#579313		Condenser Coil	23.8		Interpolated
JCI#519833		Condenser Coil	29.0		Interpolated
JCI#519834		Condenser Coil	29.0		UUT11a,b
JCI#513697		Condenser Coil	29.0		Interpolated
JCI#519833		Condenser Coil	29.0		Interpolated
JCI#579319		Condenser Coil	29.0		Interpolated
JCI#520697		Condenser Coil	47.5		UUT9a,b
JCI#85075		Condenser Coil	47.5		UUT6a,b
256903	JCI	Fin/Tube	23.8	Aluminum & Copper	UUT7a,b
260544		Fin/Tube	23.8		Interpolated
176560		Fin/Tube	29.0		Interpolated
177201		Fin/Tube	29.0		Interpolated
253771		Fin/Tube	47.5		UUT8a,b
5410631	Sanhua	Condenser Coil	9.4	Aluminum	Extrapolated
5399396		Condenser Coil	12.1		UUT12
5444909		Condenser Coil	12.1		Interpolated
5399395		Condenser Coil	12.1		UUT13
5444910		Condenser Coil	14.8		UUT13
5399399		Condenser Coil	14.8		UUT13
5399400		Condenser Coil	14.8		UUT13
5399400		Condenser Coil	14.8		Interpolated
5410632		Condenser Coil	11.8		Interpolated
5399402		Condenser Coil	14.4		UUT12

Notes:

1. Outdoor Coils are bookended by dimensions.

Special Seismic Certification

Table 5 - Certified Subcomponents



DCL Project Number: 69232-2401

Product Line: JCI Packaged Rooftop Units

Reversing Valve with Coil					
Model Number	Manufacturer	Description	Material	Unit	
STF04U23G	Danfoss	Reversing Valve with Coil	Brass, Copper	UUT7a,b	
STF07U21G		Reversing Valve with Coil		UUT8a,b	
Thermostatic Expansion Valves ¹					
Model Number	Manufacturer	Description	Material	Weight [lb.]	Unit
BBIZE-3	Sporlan	460V Motor	Brass, Copper	<1	UUT5a,b; UUT7a,b; UUT10a,b
BBIZE-4		575V Motor	Brass, Copper	<1	Interpolated
BBIZE-5		460V Motor	Brass, Copper	<1	Interpolated
BBIZE-6		575V Motor	Brass, Copper	<1	UUT5a,b; UUT8a,b; UUT9a,b; UUT11a,b
Indoor Blower Motor, Standard					
P63PYC	Emerson	1.5 to 2.0 HP	Carbon Steel	UUT1a,b - UUT5a,b; UUT7a,b; UUT10a,b	
U56T	Marathon	1.5 to 3.0 HP/575V	Carbon Steel	UUT5a,b - UUT11a,b	
Q56T		3.0 HP/230-460V		UUT6a,b; UUT8a,b; UUT9a,b; UUT11a,b	
8-158756PP	AO Smith	2.0 HP/230-460V	Carbon Steel	UUT5a,b; UUT7a,b; UUT10a,b	
36J448	Baldor	5.0 HP/230-460V	Carbon Steel	UUT6a,b; UUT8a,b; UUT9a,b; UUT11a,b	
36B106		5.0 HP/575V		UUT6a,b; UUT8a,b; UUT9a,b; UUT11a,b	
Indoor Blower Motor, Variable Frequency Drive					
35Y377S	Baldor	1.5 HP 230/460V	Carbon Steel	UUT10a,b	
35Y041P		2.0 HP 230/460V		UUT10a,b	
35Y041M		1.5 HP 575V		UUT10a,b	
35Y377S		2.0 HP 575V		UUT10a,b	
35Y041T		3.0 HP 230/460V		UUT9a,b; UUT11a,b	
35Y041S		3.0 HP 575V		UUT9a,b; UUT11a,b	
36M381		5.0 HP/230-460V		UUT9a,b; UUT11a,b	
36M382		5.0 HP/575V		UUT9a,b; UUT11a,b	
Exhaust Fan Motor					
Model Number	Manufacturer	Description	Material	Weight [lb.]	Unit
F48X26	A.O. Smith	230V Motor	Carbon Steel	13	UUT4a,b
F48X06		460V Motor	Carbon Steel	13	Interpolated
F48W97		575V Motor	Carbon Steel	16	UUT10a,b
Variable Frequency Drive					
Model Number	Manufacturer	Description	Material	Unit	
MVX002A0-2	Eaton	1.5 to 2.0 HP, 230V	Plastic, Aluminum	UUT10a,b	
MVX002A0-4		1.5 to 2.0 HP, 460V		UUT10a,b	
MVX002A0-5		1.5 to 2.0 HP, 575V		UUT10a,b	
MVX003A0-4		3.0 HP, 460V		UUT9a,b; UUT11a,b	
MVX003A0-5		3.0 HP, 575V		UUT9a,b; UUT11a,b	
MVX003A0-2		3.0 HP, 230V		UUT9a,b; UUT11a,b	
MVX005A0-2		5.0 HP, 230V		UUT9a,b; UUT11a,b	
MVX005A0-4		5.0 HP, 460V		UUT9a,b; UUT11a,b	
MVX005A0-5		5.0 HP, 575V		UUT9a,b; UUT11a,b	
FR-D720-070-NA	Mitsubishi ²	2 HP, 230V	Plastic, Aluminum	Extrapolated	
FR-D740-036-NA		2 HP, 480V		Extrapolated	
FR-E560-1.5K-NA		2 HP, 575V		Extrapolated	
FR-D720-100-NA		3 HP, 230V		UUT12a,b	
FR-D740-050-NA		3 HP, 480V		Interpolated	
FR-E560-2.2K-NA		3 HP, 575V		Interpolated	
FR-D720-165-NA		5 HP, 230V		Interpolated	
FR-D740-080-NA		5 HP, 480V		Interpolated	
FR-E560-3.7K-NA		5 HP, 575V		UUT13a,b	

Note:

- Two valves were tested on each UUT.
- Mitsubishi VFDs are bookended by horsepower.

Special Seismic Certification

Table 6 - Certified Subcomponents



DCL Project Number: 69232-2401

Product Line: JCI Packaged Rooftop Units

Economizer					
Model Number	Manufacturer	Description		Material	Unit
2EE04706024	JCI	Horizontal Economizer		Carbon Steel	UUT1a,b - UUT11a,b
2EE04705824		Slab Economizer			UUT1a,b - UUT5a,b; UUT7a,b; UUT10a,b
2EE04705724		Slab Economizer			UUT6a,b; UUT8a,b - UUT11a,b
2MD04703724		2-Position Economizer			UUT1a,b - UUT11a,b
2EE04706924	RRS	Econ, Fact, Down, SSE w/Belimo actuator, Tall		Carbon Steel	UUT12a,b
2EE04706924		Econ, Fact, Down, SSE w/ JCI actuator, w/PE, Tall			UUT13a,b
Electric Heater ¹					
Model Number	Manufacturer	Rating [kW]	Description	Material	Unit
2TP04540925	Tutco	9	230V, Standard Predator, 42" cabinet, AC and HP	Carbon Steel	UUT7a,b
2TP04540946		9	460V, Standard Predator, 42" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04540958		9	575V, Standard Predator, 42" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04520925		9	230V, Standard Predator, 50" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04520946		9	460V, Standard Predator, 50" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04520958		9	575V, Standard Predator, 50" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04541825		18	230V, Standard Predator, 42" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04541846		18	460V, Standard Predator, 42" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04541858		18	575V, Standard Predator, 42" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04531825		18	230V, Standard Predator, 50" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04531846		18	460V, Standard Predator, 50" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04521858		18	575V, Standard Predator, 50" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04542425		24	230V, Standard Predator, 42" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04542446		24	460V, Standard Predator, 42" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04542458		24	575V, Standard Predator, 42" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04532425		24	230V, Standard Predator, 50" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04532446		24	460V, Standard Predator, 50" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04522458		24	575V, Standard Predator, 50" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04543625		36	230V, Standard Predator, 42" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04543646		36	460V, Standard Predator, 42" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04543658		36	575V, Standard Predator, 42" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04533625		36	230V, Standard Predator, 50" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04533646		36	460V, Standard Predator, 50" cabinet, AC and HP	Carbon Steel	Interpolated
2TP04523658		36	575V, Standard Predator, 50" cabinet, AC and HP	Carbon Steel	Interpolated
2HP04535425		54	230V, Standard Predator, 50" cabinet, heat pump	Carbon Steel	Interpolated
2HP04535446		54	460V, Standard Predator, 50" cabinet, heat pump	Carbon Steel	Interpolated
2TP04525425		54	230V, Standard Predator, 50" cabinet, AC only	Carbon Steel	Interpolated
2TP04525446		54	460V, Standard Predator, 50" cabinet, AC only	Carbon Steel	Interpolated
2TP04525458		54	575V, Standard Predator, 50" cabinet, AC only	Carbon Steel	Interpolated
2HP04535458		54	575V, Standard Predator, 50" cabinet, heat pump	Carbon Steel	UUT8a,b

Notes:

1. Electric Heaters are bookended by rating [kW].

Special Seismic Certification

Table 7 - Certified Subcomponents



DCL Project Number: 69232-2401

Product Line: JCI Packaged Rooftop Units

Heat Cells (Heat Type and Nominal Heat Capacity)					
Model Number	Manufacturer	Output [MBH]	Description ¹	Material	Unit
Single Stage Natural Gas Heat Options					
A05	JCI	49	Aluminized Steel, Single Stage	Carbon Steel	UUT1a,b
A07		65	Aluminized Steel, Single Stage		Interpolated
A09		97	Aluminized Steel, Single Stage		Interpolated
A13		129	Aluminized Steel, Single Stage		UUT2a,b
B05		49	Stainless Steel, Single Stage	Stainless Steel	Interpolated ²
B07		65	Stainless Steel, Single Stage		Interpolated ²
B09		97	Stainless Steel, Single Stage		Interpolated ²
B13		129	Stainless Steel, Single Stage		Interpolated ²
Two Stage Natural Gas Heat Options					
N05	JCI	49	Aluminized Steel, Two Stage	Carbon Steel	Interpolated
N07		65	Aluminized Steel, Two Stage		Interpolated
N09		97	Aluminized Steel, Two Stage		Interpolated
N10		100	Aluminized Steel, Two Stage		UUT5a,b
N13		129	Aluminized Steel, Two Stage		Interpolated
N15		150	Aluminized Steel, Two Stage		Interpolated
N20		200	Aluminized Steel, Two Stage		UUT6a,b
S05		JCI	49		Stainless Steel, Two Stage
S07	65		Stainless Steel, Two Stage	Interpolated	
S09	97		Stainless Steel, Two Stage	Interpolated	
S10	100		Stainless Steel, Two Stage	UUT10a,b	
S13	129		Stainless Steel, Two Stage	UUT4a,b	
S15	150		Stainless Steel, Two Stage	Interpolated	
S20	200		Stainless Steel, Two Stage	UUT9a,b	
Filters					
Model Number	Manufacturer	Description		Material	Unit
198	American Air Filter	16" x 24" x 2" Fiberglass TA Filter		Cardboard, Fiberglass	UUT1a,b - UUT11a,b
300X		16" x 24" x 2" Pleated Filter			UUT1a,b - UUT11a,b
AA1300		16" x 24" x 4" Pleated Filter			UUT1a,b - UUT11a,b
102-741-020	Koch	2" x 16" x 24" Fiberglass TA Filter		Cardboard, Fiberglass	UUT12a,b
141-604-859		4" x 20" x 24" Fiberglass TA Filter			UUT13a,b

Notes:

1. All heat cells are both stainless and aluminized.

2. Single stage units are bookended by UUT3a,b and UUT4a,b.

Special Seismic Certification

Table 8- Certified Subcomponents



DCL Project Number: 69232-2401

Product Line: JCI Packaged Rooftop Units

Miscellaneous				
Model Number	Manufacturer	Description	Material	Unit
CY017	Advanced Controls Inc.	VFD Bypass Switch	Carbon Steel, Plastic	UUT9a,b - UUT11a,b
5KCP39N	GE	230 / 460V Power Exhaust Fan Motor	Carbon Steel	UUT1a,b - UUT11a,b; UUT13a,b
F48P	AO Smith	575V Power Exhaust Fan Motor	Carbon Steel	UUT1a,b - UUT11a,b
YD4120	System Sensor	Smoke Detector	Plastic	UUT1a,b - UUT13a,b
FHL/KHL/JGL	Square D	Electrical Disconnect Switch	Plastic	UUT1a,b - UUT11a,b; UUT13a,b
AE 00203	Ayrshire	Controller, Simplicity Lite Board gas/Elec	Epoxy Resin, Fiberglass, Copper	UUT1a,b - UUT4a,b
AE 00401		Controller, Simplicity 1A Board gas/Elec		UUT5a,b; UUT6a,b; UUT9a,b - UUT11a,b
AE 00501		Controller, Simplicity 1A Board heat pump		UUT7a,b; UUT8a,b
5786050	JCI	Controller, Simplicity SE 1-stage	Epoxy Resin, Fiberglass, Copper	Extrapolated
5786051		Controller, Simplicity SE 1-stage w/ COM		Extrapolated
6786052		Controller, Simplicity SE 2-stage		Extrapolated
6786053		Controller, Simplicity SE 2-stage w/ COM		UUT12a,b; UUT13a,b
6786054		Controller, Simplicity SE 4-stage board		UUT12a,b; UUT13a,b
6786056		Controller, Simplicity SE Economizer Board		UUT12a,b; UUT13a,b
65674 (026-39484-000A)	JCI	Evaporator Coil Drain Pan (20 ga 304 Stainless Steel), 56.56"L x 4.13"W x 4"D	Stainless Steel	UUT1a,b - UUT11a,b
10241 (032-00184-000)	JCI	Evaporator Coil Drain Pan (Plastic), 56.56"L x 4.13"W x 4"D Polymer, 0.200"THK	Plastic	UUT1a,b - UUT11a,b
1159-10	United Technologies	Intelli Comfort Board	Epoxy Resin, Fiberglass, Copper	UUT1a,b - UUT4a,b; UUT10a,b
1084-900		Defrost Board		UUT7a,b; UUT8a,b
AE 1010044	Ayrshire	VAV Board	Epoxy Resin, Fiberglass, Copper	UUT9a,b; UUT10a,b

Special Seismic Certification

Table 9- Tested Units



DCL Project Number: 69232-2401

Manufacturer: Johnson Controls and other Unitary Product Group brands (York, Coleman, Luxaire, Evcon, Fraser-Johnston and Ready Ship)

Product Line: JCI Packaged Rooftop Units

Tested Product Construction: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Tested Options: 230-575 V, economizer, power exhaust, electric or gas heater, variable frequency drive

Mounting: Rigid Curb or Isolated Curb Mounting

Certified Seismic Levels: Sds 2.0 g at z/h=1.0

Product Type	Model Number	Dimensions [in.]			Weight [lb.]	Nominal Cooling Capacity [Tons]	Unit
		Length	Width	Height			
Predator Air Handling Units (Short)	ZR037A05D2DAE5	89	59	42	980	3	UUT1a,b
	ZR061A13S5GZZ50001	89	59	42	1,070	5	UUT2a,b
	ZH037S05A2HZZ50001	89	59	42	860	3	UUT3a,b
	ZI061S13T5BZZ50001	89	59	42	1,070	5	UUT4a,b
Predator Air Handling Units (Standard)	ZR078N10D2DZZ5001	89	59	53	1,060	6.5	UUT5a,b
	ZR150N20N5GZZ50001	119.5	59	42	1,600	12.5	UUT6a,b
	XP078E09A2BAC5	89	59	42	970	6.5	UUT7a,b
	XP150E54N5HZZ50001	119.5	59	51	1,510	12.5	UUT8a,b
	ZI150S20S5BZZ50001	119.5	59	51	1,570	12.5	UUT9a,b
	ZF078S10F2BZZ5001	89	59	42	1,090	6.5	UUT10a,b
	ZH150C00A2BAC5	119.5	59	51	1,250	12.5	UUT11a,b
Predator Air Handling Units (Ultra High Efficiency)	ZT120N18P2B1LAACA1	119.5	59	51	1,470	10	UUT12a,b
	ZT150S24R4D5LAE3E1	119.5	59	51	1,680	12.5	UUT13a,b

Special Seismic Certification

Table 9 - Tested Units



DCL Project Number: 69232-2401

Manufacturer: Johnson Controls and other Unitary Product Group brands (York, Coleman, Luxaire, Evcon, Fraser-Johnston and Ready Ship)

Product Line: JCI Packaged Rooftop Units

Tested Product Construction: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Tested Options: 230-575 V, economizer, power exhaust, electric or gas heater, variable frequency drive

Mounting: Rigid Curb or Isolated Curb Mounting

Certified Seismic Levels: Sds 2.0 g at z/h=1.0

Product Type	Model Number	Dimensions [in.]			Weight [lb.]	Nominal Cooling Capacity [Tons]	Unit
		Length	Width	Height			
Predator Air Handling Units (Short)	ZR037A05D2DAE5	89	59	42	980	3	UUT1a,b
	ZR061A13S5GZZ50001	89	59	42	1,070	5	UUT2a,b
	ZH037S05A2HZZ50001	89	59	42	860	3	UUT3a,b
	ZI061S13T5BZZ50001	89	59	42	1,070	5	UUT4a,b
Predator Air Handling Units (Standard)	ZR078N10D2DZZ5001	89	59	53	1,060	6.5	UUT5a,b
	ZR150N20N5GZZ50001	119.5	59	42	1,600	12.5	UUT6a,b
	XP078E09A2BAC5	89	59	42	970	6.5	UUT7a,b
	XP150E54N5HZZ50001	119.5	59	51	1,510	12.5	UUT8a,b
	ZI150S20S5BZZ50001	119.5	59	51	1,570	12.5	UUT9a,b
	ZF078S10F2BZZ5001	89	59	42	1,090	6.5	UUT10a,b
	ZH150C00A2BAC5	119.5	59	51	1,250	12.5	UUT11a,b
Predator Air Handling Units (Ultra High Efficiency)	ZT120N18P2B1LAAKA1	119.5	59	51	1,470	10	UUT12a,b
	ZT150S24R4D5LAE3E1	119.5	59	51	1,680	12.5	UUT13a,b

UNIT UNDER TEST (UUT) Summary Sheet



UUT-01a

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Short 3-5 Ton)

Model Number: ZR037A05D2DAE5

Mounting: Rigid Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: Aluminized 3-ton natural gas fired heat exchanger, 230V, with solenoid valves and indoor (ID) reheat coil, IDB motor, 12"x9" wide blower wheel, micro channel OD coil, a single reciprocating type compressor, and a single refrigeration circuit. The unit uses TXV for modulating refrigerant control. An optional Motorized economizer/no power exhaust (PE), non-powered convenience outlet, standard controller, phase monitor (PM), no Dirty Filter Switch (DFS), standard plastic drain pan & standard 2" throw-away (TA) fiberglass filters were selected. The ZR/ZK and ZJ/ZW 3 ton series uses a single outdoor fan (ODF) motor deck arrangement.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-01a	980.0	89.0	59.0	42.0	7.8	7.5	13.3

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 2022	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

Unit Mounting Description:

Unit was mounted to a rigid roof curb supplied by MicroMetl, part #0564-C14D-0010. The unit rested on the perimeter of the curb. The curb had (4) 12Ga anchoring pockets, (2) on the each of the long side of the curb. The unit was attached to each of the pockets using (6) # 12 self tapping screws. The curb was attached to a 3/4" thick steel plate with (14) 1/2"-dia Gr. 2 bolts. The min spacing for the bolts was 8". The steel plate was attached to the shake table with (22) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-01b

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Short 3-5 Ton)

Model Number: ZR037A05D2DAE5

Mounting: Isolated Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: Aluminized 3-ton natural gas fired heat exchanger, 230V, with solenoid valves and indoor (ID) reheat coil, IDB motor, 12"x9" wide blower wheel, micro channel OD coil, a single reciprocating type compressor, and a single refrigeration circuit. The unit uses TXV for modulating refrigerant control. An optional Motorized economizer/no power exhaust (PE), non-powered convenience outlet, standard controller, phase monitor (PM), no Dirty Filter Switch (DFS), standard plastic drain pan & standard 2" throw-away (TA) fiberglass filters were selected. The ZR/ZK and ZJ/ZW 3 ton series uses a single outdoor fan (ODF) motor deck arrangement.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-01b	980.0	89.0	59.0	42.0	3.0	2.5	4.0

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 2022	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

Unit Mounting Description:

Unit was mounted to an isolated roof curb supplied by Ruskin (Provent), part #ISCALPRD371522_104. The unit rested on the perimeter of the curb. The curb had (6) 10Ga anchoring pockets, (2) on the each of the long side of the curb and (1) on each short side. The unit was attached to each of the pockets using (4) # 12 self tapping screws. The curb was attached to a 3/4" thick steel plate with (8) 3/8"-dia Gr. 5 bolts. The bolts were spaced 5-inches in from each side of the curb. The steel plate was attached to the shake table with (12) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-02a

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Short 3-5 Ton)

Model Number: ZR061A13S5GZZ50001

Mounting: Rigid Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: Short 5-ton reheat unit with aluminized gas heat section, 575V, solenoid valves, ID reheat coil, IDB motor, 12"x9" wide blower wheel, micro channel OD coil, a single reciprocating type compressor, and a single refrigeration circuit. The unit uses TXV for modulating refrigerant control. An optional fully modulating horizontal economizer/no power exhaust (PE), no convenience outlet, standard controller, no PM, optional DFS, optional supply air (SA) smoke detector, optional stainless steel drain pan & 2" pleated air filters were selected. The ZR/ZK and ZJ/ZW 4 & 5 ton use a dual outdoor fan (ODF) motor deck arrangement.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-02a	1070.0	89.0	59.0	42.0	6.8	6.0	6.5

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 2022	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

Unit Mounting Description:

Unit was mounted to a rigid roof curb supplied by MicroMetl, part #0564-C14D-0010. The unit rested on the perimeter of the curb. The curb had (4) 12Ga anchoring pockets, (2) on the each of the long side of the curb. The unit was attached to each of the pockets using (6) # 12 self tapping screws. The curb was attached to a 3/4" thick steel plate with (14) 1/2"-dia Gr. 2 bolts. The min spacing for the bolts was 8". The steel plate was attached to the shake table with (22) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-02b

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Short 3-5 Ton)

Model Number: ZR061A13SSGZZ50001

Mounting: Isolated Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: Short 5-ton reheat unit with aluminized gas heat section, 575V, solenoid valves, ID reheat coil, IDB motor, 12"x9" wide blower wheel, micro channel OD coil, a single reciprocating type compressor, and a single refrigeration circuit. The unit uses TXV for modulating refrigerant control. An optional fully modulating horizontal economizer/no power exhaust (PE), no convenience outlet, standard controller, no PM, optional DFS, optional supply air (SA) smoke detector, optional stainless steel drain pan & 2" pleated air filters were selected. The ZR/ZK and ZJ/ZW 4 & 5 ton use a dual outdoor fan (ODF) motor deck arrangement.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-02b	1070.0	89.0	59.0	42.0	3.0	2.8	5.3

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 2022	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

Unit Mounting Description:

Unit was mounted to an isolated roof curb supplied by Ruskin (Provent), part #ISCALPRD371522_102. The unit rested on the perimeter of the curb. The curb had (6) 10Ga anchoring pockets, (2) on the each of the long side of the curb and (1) on each short side. The unit was attached to each of the pockets using (4) # 12 self tapping screws. The curb was attached to a 3/4" thick steel plate with (8) 3/8"-dia Gr. 5 bolts. The bolts were spaced 5-inches in from each side of the curb. The steel plate was attached to the shake table with (12) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-03a

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Short 3-5 Ton)

Model Number: ZH037S05A2HZZ50001

Mounting: Rigid Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: Short 3-ton cooling only unit with single ODF deck construction, stainless steel natural gas fired heat exchanger, 230V, IDB motor, 12"x9" wide blower wheel, a single reciprocating type compressor and a single refrigeration circuit. The unit uses TXV for refrigerant control. Standard controller, standard plastic drain pan, and 4" high efficiency pleated filters were selected.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-03a	860.0	89.0	59.0	42.0	6.5	5.8	5.8

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 2022	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

Unit Mounting Description:

Unit was mounted to a rigid roof curb supplied by MicroMetl, part #0564-C14D-0010. The unit rested on the perimeter of the curb. The curb had (4) 12Ga anchoring pockets, (2) on the each of the long side of the curb. The unit was attached to each of the pockets using (6) # 12 self tapping screws. The curb was attached to a 3/4" thick steel plate with (14) 1/2"-dia Gr. 2 bolts. The min spacing for the bolts was 8". The steel plate was attached to the shake table with (22) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-03b

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Short 3-5 Ton)

Model Number: ZH037S05A2HZZ50001

Mounting: Isolated Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: Short 3-ton cooling only unit with single ODF deck construction, stainless steel natural gas fired heat exchanger, 230V, IDB motor, 12"x9" wide blower wheel, a single reciprocating type compressor and a single refrigeration circuit. The unit uses TXV for refrigerant control. Standard controller, standard plastic drain pan, and 4" high efficiency pleated filters were selected.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-03b	860.0	89.0	59.0	42.0	3.3	2.8	4.3

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 2022	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

Unit Mounting Description:

Unit was mounted to an isolated roof curb supplied by MicroMetl, part #0405-642D-01. The unit rested on the perimeter of the curb. The curb had (4) 10Ga, 11-inch side anchoring pockets, (2) on the each of the long side of the curb. The unit was attached to each of the pockets using (8) # 12 self tapping screws. The curb was attached to a 3/4" thick steel plate with (14) 1/2"-dia Gr. 2 bolts. The min spacing for the bolts was 8". The steel plate was attached to the shake table with (22) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-04a

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Short 3-5 Ton)

Model Number: ZJ061S13T5BZZ50001

Mounting: Rigid Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: Short 5-ton cooling-only unit with stainless steel natural gas fired heat exchanger, 575V, IDB motor, 12"x9" wide blower wheel, a single reciprocating type compressor and a single refrigeration circuit. The unit uses TXV for refrigerant control. Full modulating slab economizer with PE, optional IntelliComfort controller, standard plastic drain pan & standard 2" TA air filters were selected.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-04a	1070.0	89.0	59.0	42.0	6.8	5.8	6.0

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 2022	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

Unit Mounting Description:

Unit was mounted to a rigid roof curb supplied by MicroMetl, part #0564-C14D-0010. The unit rested on the perimeter of the curb. The curb had (4) 12Ga anchoring pockets, (2) on the each of the long side of the curb. The unit was attached to each of the pockets using (6) # 12 self tapping screws. The curb was attached to a 3/4" thick steel plate with (14) 1/2"-dia Gr. 2 bolts. The min spacing for the bolts was 8". The steel plate was attached to the shake table with (22) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-04b

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Short 3-5 Ton)

Model Number: ZJ061S13T5BZZ50001

Mounting: Isolated Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: Short 5-ton cooling-only unit with stainless steel natural gas fired heat exchanger, 575V, IDB motor, 12"x9" wide blower wheel, a single reciprocating type compressor and a single refrigeration circuit. The unit uses TXV for refrigerant control. Full modulating slab economizer with PE, optional IntelliComfort controller, standard plastic drain pan & standard 2" TA air filters were selected.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-04b	1070.0	89.0	59.0	42.0	3.3	3.3	4.3

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 2022	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

Unit Mounting Description:

Unit was mounted to an isolated roof curb supplied by MicroMetl, part #0405-642D-01. The unit rested on the perimeter of the curb. The curb had (4) 10Ga, 11-inch side anchoring pockets, (2) on the each of the long side of the curb. The unit was attached to each of the pockets using (8) # 12 self tapping screws. The curb was attached to a 3/4" thick steel plate with (14) 1/2"-dia Gr. 2 bolts. The min spacing for the bolts was 8". The steel plate was attached to the shake table with (22) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-05a

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Standard 6.5-12.5 Ton)

Model Number: ZR078N10D2DZZ5001

Mounting: Rigid Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: 6.5-ton standard reheat unit with aluminized natural gas fired heat exchanger, 230V, solenoid valves, indoor (ID) reheat coil, IDB motor, 12"x12" blower wheel, micro channel OD coils, dual reciprocating type compressors, and dual refrigeration circuits. These units use TXV for modulating refrigerant control. An optional Motorized economizer/no power exhaust (PE), non-powered convenience outlet, standard controller, standard plastic drain pan, & 2" pleated air filters were selected. The ZR/ZK 6.5 ton series uses a dual ODF motor deck arrangement.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-05a	1060.0	89.0	59.0	53.0	6.0	5.5	5.8

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 2022	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

Unit Mounting Description:

Unit was mounted to a rigid roof curb supplied by MicroMetl, part #0564-C14D-0010. The unit rested on the perimeter of the curb. The curb had (4) 12Ga anchoring pockets, (2) on the each of the long side of the curb. The unit was attached to each of the pockets using (6) # 12 self tapping screws. The curb was attached to a 3/4" thick steel plate with (14) 1/2"-dia Gr. 2 bolts. The min spacing for the bolts was 8". The steel plate was attached to the shake table with (22) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-05b

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Standard 6.5-12.5 Ton)

Model Number: ZR078N10D2DZZ5001

Mounting: Isolated Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: 6.5-ton standard reheat unit with aluminized natural gas fired heat exchanger, 230V, solenoid valves, indoor (ID) reheat coil, IDB motor, 12"x12" blower wheel, micro channel OD coils, dual reciprocating type compressors, and dual refrigeration circuits. These units use TXV for modulating refrigerant control. An optional Motorized economizer/no power exhaust (PE), non-powered convenience outlet, standard controller, standard plastic drain pan, & 2" pleated air filters were selected. The ZR/ZK 6.5 ton series uses a dual ODF motor deck arrangement.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-05b	1060.0	89.0	59.0	53.0	2.8	2.8	4.5

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 2022	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

Unit Mounting Description:

Unit was mounted to an isolated roof curb supplied by MicroMetl, part #0405-642D-02. The unit rested on the perimeter of the curb. The curb had (4) 10Ga, 11-inch side anchoring pockets, (2) on the each of the long side of the curb. The unit was attached to each of the pockets using (8) # 12 self tapping screws. The curb was attached to a 3/4" thick steel plate with (14) 1/2"-dia Gr. 2 bolts. The min spacing for the bolts was 8". The steel plate was attached to the shake table with (22) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-06a

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Standard 6.5-12.5 Ton)

Model Number: ZZR150N20N5GZZ50001

Mounting: Rigid Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: 12.5-ton standard reheat unit with aluminized gas heat section, 575V, solenoid valves, ID reheat coil, IDB motor, 12x15" wide blower wheel, micro channel OD coils, dual reciprocating type compressors, and dual refrigeration circuits. The unit uses TXV for modulating refrigerant control. Standard controller was used. An optional supply air (SA) smoke detector, stainless steel drain pan, & 4" pleated air filters were selected.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-06a	1600.0	119.5	59.0	42.0	6.8	4.0	5.0

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 2022	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.34	0.54

Unit Mounting Description:

Unit was mounted to a rigid roof curb supplied by MicroMetl, part #0564-C14D-0010. The unit rested on the perimeter of the curb. The curb had (4) 12Ga anchoring pockets, (2) on the each of the long side of the curb. The unit was attached to each of the pockets using (6) # 12 self tapping screws. The curb was attached to a 3/4" thick steel plate with (14) 1/2"-dia Gr. 2 bolts. The min spacing for the bolts was 8". The steel plate was attached to the shake table with (22) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-06b

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Standard 6.5-12.5 Ton)

Model Number: ZZR150N20N5GZZ50001

Mounting: Isolated Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: 12.5-ton standard reheat unit with aluminized gas heat section, 575V, solenoid valves, ID reheat coil, IDB motor, 12x15" wide blower wheel, micro channel OD coils, dual reciprocating type compressors, and dual refrigeration circuits. The unit uses TXV for modulating refrigerant control. Standard controller was used. An optional supply air (SA) smoke detector, stainless steel drain pan, & 4" pleated air filters were selected.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-06b	1600.0	119.5	59.0	42.0	2.8	2.5	5.8

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 2022	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.34	0.54

Unit Mounting Description:

Unit was mounted to an isolated roof curb supplied by MicroMetl, part #0405-642D-04. The unit rested on the perimeter of the curb. The curb had (4) 10Ga, 11-inch side anchoring pockets, (2) on the each of the long side of the curb. The unit was attached to each of the pockets using (8) # 12 self tapping screws. The curb was attached to a 3/4" thick steel plate with (14) 1/2"-dia Gr. 2 bolts. The min spacing for the bolts was 8". The steel plate was attached to the shake table with (22) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-07a

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Standard 6.5-12.5 Ton)

Model Number: XP078E09A2BAC5

Mounting: Rigid Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: 6.5 ton standard heat pump unit with 9kW electric heat section, 230V, finned/tube OD coils, IDB motor, 12"x12" wide blower wheel, fin/tube OD coils, dual scroll type compressors, and dual refrigeration circuits. The unit uses TXV for modulating refrigerant control on both ID/OD coils. A standard controller, standard plastic drain pan, 2" fiberglass TA air filters and dual outdoor fan (ODF) motor deck arrangement were used.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-07a	970.0	89.0	59.0	42.0	12.3	8.3	13.8

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 2022	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

Unit Mounting Description:

Unit was mounted to a rigid roof curb supplied by Ruskin, part #80-270-4414. The unit rested on the perimeter of the curb. The curb had (12) 12Ga anchoring pockets, (2) on the each of the short sides of the curb and (4) on each of the long sides of the curb. The unit was attached to each of the pockets using (2) # 14 - 5 inch long self tapping screws. The curb was attached to a 3/4" thick steel plate with (8) 3/8" dia Gr. 2 bolts. There were two bolts on each side of the unit. The bolts were mounted five inches inward from the edge of the curb flange. The steel plate was attached to the shake table with (22) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-07b

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Standard 6.5-12.5 Ton)

Model Number: XP078E09A2BAC5

Mounting: Isolated Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: 6.5 ton standard heat pump unit with 9kW electric heat section, 230V, finned/tube OD coils, IDB motor, 12"x12" wide blower wheel, fin/tube OD coils, dual scroll type compressors, and dual refrigeration circuits. The unit uses TXV for modulating refrigerant control on both ID/OD coils. A standard controller, standard plastic drain pan, 2" fiberglass TA air filters and dual outdoor fan (ODF) motor deck arrangement were used.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-07b	970.0	119.5	59.0	42.0	2.8	2.5	3.5

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 2022	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

Unit Mounting Description:

Unit was mounted to an isolated roof curb supplied by Ruskin (Provent), part #ISCALPRD371522_104. The unit rested on the perimeter of the curb. The curb had (6) 10Ga anchoring pockets, (2) on the each of the long side of the curb and (1) on each short side. The unit was attached to each of the pockets using (4) # 12 self tapping screws. The curb was attached to a 3/4" thick steel plate with (8) 3/8"-dia Gr. 5 bolts. The bolts were spaced 5-inches in from each side of the curb. The steel plate was attached to the shake table with (12) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-08a

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Standard 6.5-12.5 Ton)

Model Number: XP150E54N5HZZ50001

Mounting: Rigid Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: 12.5 ton standard heat pump with 54 kW electric heat section, 575V, finned/tube OD coils, IDB motor, 15x15" wide blower wheel, fin/tube OD coils, dual scroll type compressors, and dual refrigeration circuits. The unit uses TXV for modulating refrigerant control. Optional IntelliComfort controller, optional return air (RA) smoke detector, standard plastic drain pan & standard 2" fiberglass TA air filters were used.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-08a	1510.0	119.5	59.0	51.0	9.8	6.0	14.8

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 2022	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.34	0.54

Unit Mounting Description:

Unit was mounted to a rigid roof curb supplied by Ruskin, part #80-270-4414. The unit rested on the perimeter of the curb. The curb had (12) 12Ga anchoring pockets, (2) on the each of the short sides of the curb and (4) on each of the long sides of the curb. The unit was attached to each of the pockets using (2) # 14 - 5 inch long self tapping screws. The curb was attached to a 3/4" thick steel plate with (8) 3/8" dia Gr. 2 bolts. There were two bolts on each side of the unit. The bolts were mounted five inches inward from the edge of the curb flange. The steel plate was attached to the shake table with (22) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-08b

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Standard 6.5-12.5 Ton)

Model Number: XP150E54N5HZZ50001

Mounting: Isolated Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: 12.5 ton standard heat pump with 54 kW electric heat section, 575V, finned/tube OD coils, IDB motor, 15x15" wide blower wheel, fin/tube OD coils, dual scroll type compressors, and dual refrigeration circuits. The unit uses TXV for modulating refrigerant control. Optional IntelliComfort controller, optional return air (RA) smoke detector, standard plastic drain pan & standard 2" fiberglass TA air filters were used.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-08b	1510.0	119.5	59.0	51.0	2.0	2.3	3.5

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 2022	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.34	0.54

Unit Mounting Description:

Unit was mounted to an isolated roof curb supplied by Ruskin (Provent), part #ISCALPRD371522_103. The unit rested on the perimeter of the curb. The curb had (6) 10Ga anchoring pockets, (2) on the each of the long side of the curb and (1) on each short side. The unit was attached to each of the pockets using (4) # 12 self tapping screws. The curb was attached to a 3/4" thick steel plate with (8) 3/8"-dia Gr. 5 bolts. The bolts were spaced 5-inches in from each side of the curb. The steel plate was attached to the shake table with (12) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-09a

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Standard 6.5-12.5 Ton)

Model Number: ZJ150S20S5BZZ50001

Mounting: Rigid Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: 12.5 ton standard cooling only unit with stainless steel gas heat section, 575V, IDB motor, 15x15" wide blower wheel, Micro Channel OD coils, dual reciprocating type compressors, dual refrigeration circuits, 4 ODFs, and a "W" shaped OD condenser coil. The unit uses TXV for modulating refrigerant control. An optional VFD w/ manual bypass switch, fully modulating horizontal economizer/no PE, no convenience outlet, standard controller, standard plastic drain pan & standard 2" TA air filters were used.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-09a	1570.0	119.5	59.0	51.0	7.8	5.5	10.3

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 2022	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.34	0.54

Unit Mounting Description:

Unit was mounted to a rigid roof curb supplied by Ruskin, part #80-270-4414. The unit rested on the perimeter of the curb. The curb had (12) 12Ga anchoring pockets, (2) on each of the short sides of the curb and (4) on each of the long sides of the curb. The unit was attached to each of the pockets using (2) # 14 - 5 inch long self tapping screws. The curb was attached to a 3/4" thick steel plate with (8) 3/8" dia Gr. 2 bolts. There were two bolts on each side of the unit. The bolts were mounted five inches inward from the edge of the curb flange. The steel plate was attached to the shake table with (22) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-09b

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Standard 6.5-12.5 Ton)

Model Number: ZJ150S20S5BZZ50001

Mounting: Isolated Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: 12.5 ton standard heat pump with 54 kW electric heat section, 575V, finned/tube OD coils, IDB motor, 15x15" wide blower wheel, fin/tube OD coils, dual scroll type compressors, and dual refrigeration circuits. The unit uses TXV for modulating refrigerant control. Optional IntelliComfort controller, optional return air (RA) smoke detector, standard plastic drain pan & standard 2" fiberglass TA air filters were used.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-09b	1570.0	119.5	59.0	51.0	2.8	2.5	2.8

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 2022	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.34	0.54

Unit Mounting Description:

Unit was mounted to an isolated roof curb supplied by MicroMetl, part #0405-642D-04. The unit rested on the perimeter of the curb. The curb had (4) 10Ga, 11-inch side anchoring pockets, (2) on the each of the long side of the curb. The unit was attached to each of the pockets using (8) # 12 self tapping screws. The curb was attached to a 3/4" thick steel plate with (14) 1/2"-dia Gr. 2 bolts. The min spacing for the bolts was 8". The steel plate was attached to the shake table with (22) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-10a

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Standard 6.5-12.5 Ton)

Model Number: ZF078S10F2BZZ5001

Mounting: Rigid Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: 6.5 ton standard cooling only unit with smallest stainless steel natural gas fired heat exchanger, 230V, 12"x12" wide blower wheel, Micro Channel OD coils, dual reciprocating type compressors, and dual refrigeration circuits. TXV used for modulating refrigerant control. Optional VFD used with fully modulating slab economizer with PE, standard controller, standard plastic drain pan & standard 2" TA air filters. Dual outdoor fan (ODF) motor deck arrangement.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-09a	1090.0	89.0	59.0	42.0	11.3	7.5	9.0

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 2022	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

Unit Mounting Description:

Unit was mounted to a rigid roof curb supplied by Ruskin, part #80-270-4414. The unit rested on the perimeter of the curb. The curb had (12) 12Ga anchoring pockets, (2) on the each of the short sides of the curb and (4) on each of the long sides of the curb. The unit was attached to each of the pockets using (2) # 14 - 5 inch long self tapping screws. The curb was attached to a 3/4" thick steel plate with (8) 3/8" dia Gr. 2 bolts. There were two bolts on each side of the unit. The bolts were mounted five inches inward from the edge of the curb flange. The steel plate was attached to the shake table with (22) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-10b

Test Report Number: 90300-1107

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Standard 6.5-12.5 Ton)

Model Number: ZF078S10F2BZZ5001

Mounting: Isolated Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: 6.5 ton standard cooling only unit with smallest stainless steel natural gas fired heat exchanger, 230V, 12"x12" wide blower wheel, Micro Channel OD coils, dual reciprocating type compressors, and dual refrigeration circuits. TXV used for modulating refrigerant control. Optional VFD used with fully modulating slab economizer with PE, standard controller, standard plastic drain pan & standard 2" TA air filters. Dual outdoor fan (ODF) motor deck arrangement.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-10b	1090.0	89.0	59.0	42.0	2.8	2.5	4.5

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 2022	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

Unit Mounting Description:

Unit was mounted to an isolated roof curb supplied by MicroMetl, part #0405-642D-02. The unit rested on the perimeter of the curb. The curb had (4) 10Ga, 11-inch side anchoring pockets, (2) on the each of the long side of the curb. The unit was attached to each of the pockets using (8) # 12 self tapping screws. The curb was attached to a 3/4" thick steel plate with (14) 1/2"-dia Gr. 2 bolts. The min spacing for the bolts was 8". The steel plate was attached to the shake table with (22) M12 threaded studs.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-12a

Test Report Number: 07181-1901

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Standard 6.5-12.5 Ton)

Model Number: ZT120N18P2B1LAAKA1

Mounting: Rigid Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: The UUT is comprised of components including the following: refrigerant compressor, outdoor fan motor, outdoor and indoor coils, VFD, economizer, Filters, smoke detector, Simplicity SE

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-12a	1470.0	119.5	59.0	51.0	6.5	9.5	12.5

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 2022	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.34	0.54

Unit Mounting Description:

The unit was mounted to a rigid roof curb supplied by Ruskin part #80270-2914 8" height model. The unit rested on the perimeter of the curb. The unit was attached to the curb via (18) manufacturer provided mounting clips on the curb with (2) #10 TEK screw holes each spaced at 5" on each clip and each clip spaced 8", 20.5", 11", 20.5", and 8" on center respectively on the longer side and 18" on center on the shorter side for a total of (36) #10 TEK self tapping screws. The curb was attached to a steel plate shake table interface plate with (8) 3/8"-diameter grade 5 bolts and washers. The bolts were spaced 38" depth wise and 68" widthwise.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-12b

Test Report Number: 07181-1901

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Standard 6.5-12.5 Ton)

Model Number: ZT120N18P2B1LAAKA1

Mounting: Isolated Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: The UUT is comprised of components including the following: refrigerant compressor, outdoor fan motor, outdoor and indoor coils, VFD, economizer, Filters, smoke detector, Simplicity SE

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-12b	1470.0	119.5	59.0	51.0	3.5	4.0	8.0

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 2022	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.34	0.54

Unit Mounting Description:

Unit was mounted to a isolated roof curb supplied by MicroMetl part #CRBV-PRD01FA-081-020. The unit rested on the perimeter of the curb. The unit was mounted using (48) Tek 10 self-drilling screws, screwed to mounting clips. (6) screws were screwed per clip spaced 1-3/8" on center. Each clip is spaced 20" on center widthwise. The isolated curb was mounted to the DCL steel plate interface using (8) 3/8" grade 5 bolts, each with a standard washer spaced 71.5" on center and 41" on center



UNIT UNDER TEST (UUT) Summary Sheet



UUT-13a

Test Report Number: 07181-1901

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Standard 6.5-12.5 Ton)

Model Number: ZT120N18P2B1LAAKA1

Mounting: Rigid Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: The UUT is comprised of components including the following: refrigerant compressor, outdoor fan motor, outdoor and indoor coils, VFD, economizer, Filters, smoke detector, Simplicity SE 2-stage with COM, Simplicity SE 4-stage board.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-13a	1680.0	119.5	59.0	51.0	6.0	9.0	13.0

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 2022	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.34	0.54

Unit Mounting Description:

The unit was mounted to a rigid roof curb supplied by Ruskin part #80-270-2914 14" height model. The unit rested on the perimeter of the curb. The unit was attached to the curb via (18) manufacturer provided mounting clips on the curb with (2) #10 TEK screw holes each spaced at 5" on each clip and each clip spaced 8", 20.5", 11", 20.5", and 8" on center respectively on the longer side and 18" on center on the shorter side for a total of (36) #10 TEK self tapping screws. The curb was attached to a steel plate shake table interface plate with (8) 3/8"-diameter grade 5 bolts and washers. The bolts were spaced 38" depth wise and 68" widthwise.



UNIT UNDER TEST (UUT) Summary Sheet



UUT-13b

Test Report Number: 07181-1901

Manufacturer: Johnson Controls Incorporated

Product Line: Predator (Standard 6.5-12.5 Ton)

Model Number: ZT120N18P2B1LAAKA1

Mounting: Isolated Cub Mounted

Product Construction Summary: Cabinet is constructed of G90 galvanized 1,000 hour salt spray (per ASTM-B117) rated powder-coated 20 gage carbon steel wrapper and duct panel with integral corner posts, all attached at the base to four (4) full perimeter 14 gage base rails with #10 sheet metal screws.

Options / Component Summary: The UUT is comprised of components including the following: refrigerant compressor, outdoor fan motor, outdoor and indoor coils, VFD, economizer, Filters, smoke detector, Simplicity SE 2-stage with COM, Simplicity SE 4-stage board.

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

UUT Properties

Tested unit	Dimensions (in)				Lowest Natural Frequency (Hz)		
	Operating Weight (lb)	Depth	Width	Height	Front-Back	Side-Side	Vertical
UUT-13b	1680.0	119.5	59.0	51.0	2.5	3.5	6.0

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 2022	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.34	0.54

Unit Mounting Description:

Unit was mounted to a isolated roof curb supplied by MicroMetl part #CRBV-PRD01FA-1412-P40. The unit rested on the perimeter of the curb. The unit was mounted using (48) Tek 10 self-drilling screws, screwed to mounting clips. (6) screws were screwed per clip spaced 1-3/8" on center. Each clip is spaced 20" on center widthwise. The isolated curb was mounted to the DCL steel plate interface using (8) 3/8" grade 5 bolts, each with a standard washer spaced 71.5" on center and 41" on center.

