



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

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

OFFICE USE ONLY

APPLICATION #: OSP-0125

OSHPD Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Carrier Corporation

Manufacturer's Technical Representative: Scott Mautz

Mailing Address: 13995 Pasteur Boulevard, Palm Beach Gardens, FL 33418

Telephone: (561) 365-2000

Email: Scott.Mautz@Carrier.com

Product Information

Product Name: Air Conditioning Units

Product Type: Air Conditioning Units - Split

Product Model Number: MBFQ/MARBQ/MBRBQ/MAP/MMD/MMK/MMU/RBM/MBDQ/MAHBQ/MBCQ

General Description: Indoor/Outdoor Split Air Conditioning Units.

Mounting Description: Floor, wall, floor/wall, and ceiling - all rigid mounted, rigid curb mounted up to 40" and isolated curb mounted up to 34"

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

Applicant Information

Applicant Company Name: Structural Integrity Associates, Inc.

Contact Person: Katie Braman

Mailing Address: 233 SW Wilson Suite 101, Bend, OR 92201

Telephone: (844) 878-0200

Email: kbraman@structint.com

Title: Program Manager





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

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

Company Name: STRUCTURAL INTEGRITY ASSOCIATES, INC.
Name: Andrew Coughlin California License Number: S6082
Mailing Address: 5215 Hellyer Ave, Suite 101, San Jose, CA 95138-1025
Telephone: (415) 635-8461 Email: acoughlin@structint.com

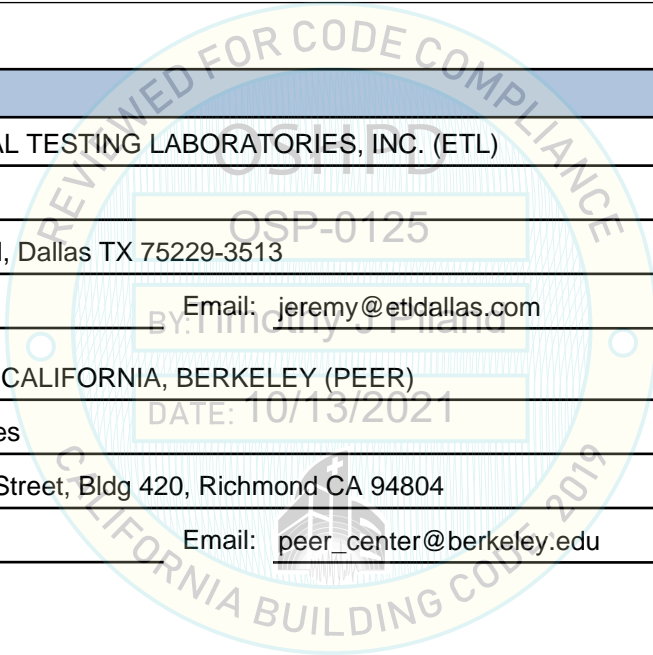
Certification Method

GR-63-Core ICC-ES AC156 IEEE 344 IEEE 693 NEBS 3
 Other (Please Specify): _____

Testing Laboratory

Company Name: ENVIRONMENTAL TESTING LABORATORIES, INC. (ETL)
Contact Person: Jeremy Lange
Mailing Address: 11034 Indian Trail, Dallas TX 75229-3513
Telephone: (972) 247-9657 Email: jeremy@etldallas.com

Company Name: UNIVERSITY OF CALIFORNIA, BERKELEY (PEER)
Contact Person: Clement B. Barthes
Mailing Address: 1301 South 46th Street, Bldg 420, Richmond CA 94804
Telephone: (510) 642-3437 Email: peer_center@berkeley.edu





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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 1.5 (SDS = 2.00); 1.125 (SDS = 2.50)

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

a_p (Amplification factor) = 2.5

R_p (Response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

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

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

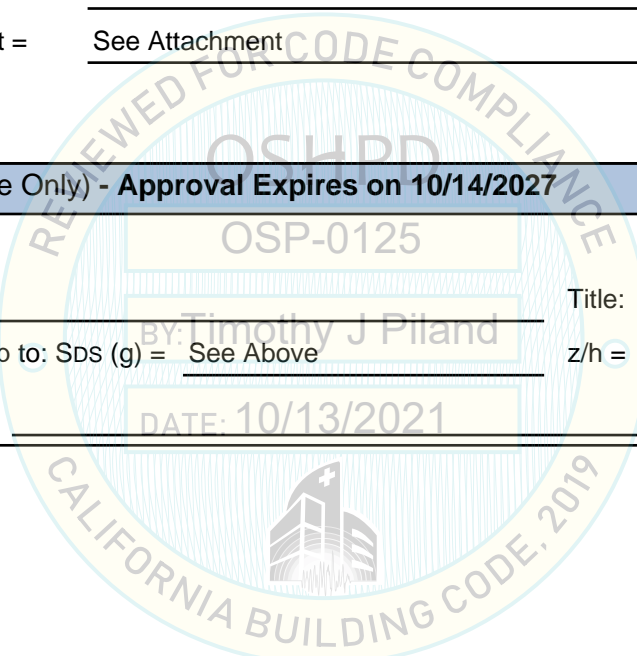
OSHPD Approval (For Office Use Only) - Approval Expires on 10/14/2027

Date: 10/13/2021

Name: Timothy Piland Title: Senior Structural Engineer

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

Condition of Approval (if applicable): DATE: 10/13/2021



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1



Manufacturer: Carrier Corporation						TABLE 1		
Model Line: Carrier Outdoor Units								
Certified Product Construction Summary: Carbon steel cabinet construction								
Certified Options Summary: Outdoor units listed in this table have indoor companion units listed in Tables 2 and 3.								
Mounting Configuration: Rigid base mounted. Roof top units base mounted on up to 40" tall rigid curb or up to 32" tall iso curb. Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.								
Building Code: CBC 2019						Seismic Certification Limits:	$S_{DS} = 2.0 g$ $z/h=1.0$ $S_{DS} = 2.5 g$ $z/h=0.0$	$I_p = 1.5$
Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT	
		Depth	Width	Height				
AHA (Cooling Only)	24AHA-418-A003	14.6	36.9	31.1	146	1.5 ton-cooling only	1	
	24AHA-4##-A00#	...	...	...	...	...	Interp.
	24AHA-460-A006	17.1	44.5	37.1	245	5 ton-cooling only	Interp.	
HHA (Heat Pump)	25HHA-418-A003	14.6	36.9	25.1	150	1.5 ton-heating/cooling	Interp.	
	25HHA-4##-A00#	...	...	...	...	...	Interp.
	25HHA-460-A006	17.1	44.5	43.1	258	5 ton-heating/cooling	2	
RAV (Heat Pump)	RAV-SP180AT2	11.4	30.7	21.7	98	1.5 ton-heating/cooling	9	
	RAV-SP##0AT2	...	...	...	...	2 ton-heating/cooling	Interp.
	RAV-SP420AT2	12.6	35.4	52.8	211.5	3.5 ton-heating/cooling	10	
MAQ (Heat Pump)	38MAQB09R-1	13.11	32.09	21.81	82.9	0.75 ton-heating/cooling	17	
	38MAQB##R-#	...	...	...	...	...	Interp.
	38MAQB36R-3	16.14	37.24	31.89	147.3	3 ton-heating/cooling	18	
Ductless Outdoor Single Zone Residential	38MARBQ09AA3	13	31.7	24.2	74		Interp.	
	38MARBQ##AA#	...	...	...	...		Interp.
	38MARBQ12AA1	13	31.7	21.8	65		59	
	38MARBQ##AA#	...	...	...	...		Interp.
	38MARBQ36AA3	16.1	37.2	31.9	142		60	
MBR (Heat Pump)	38MBRQ36A-3	17.91	40.63	31.89	154	3 ton-heating/cooling	19	
	38MBRQ48A-3	17.64	40.63	52.48	220	4 ton-heating/cooling	20	
MBRQ Outdoor Single Zone	38MBRBQ36AA3	16.1	37.2	31.9	155		61	
	38MBRBQ48AA3	15.6	37.2	52.5	216		62	
MGR (Heat Pump)	38MGRQ18B-3	14.82	37.31	27.64	105.8	1.5 ton-heating/cooling	21	
	38MGRQ###-3	...	...	...	...	...	Interp.
	38MGRQ48E-3	17.63	41.15	52.48	223.8	4 ton-heating/cooling	22	

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1



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Building Code: CBC 2019						Seismic Certification Limits:	$S_{DS} = 2.0 g$ $z/h=1.0$ $S_{DS} = 2.5 g$ $z/h=0.0$	$I_p = 1.5$
Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT	
		Depth	Width	Height				
MMYH Heat Pump 208/230V-3-60	MMY-MAP0726HT9P	30.7	39	72.9	621	6 ton-heating/cooling	31	
	MMY-MAP###6HT9P	Interp.	
	MMY-MAP1686HT9P	30.7	63	72.9	838	14 ton-heating/cooling	Interp.	
MMYH - Combo Heat Pump 208/230V-3-60	MMY-AP1926HT9P	30.7	95.2	72.9	1368	2X 0966HT9P	Interp.	
	MMY-AP2166HT9P	30.7	95.2	72.9	1368	1206HT9P + 0966HT9P	Interp.	
	MMY-AP2406HT9P	30.7	110.6	72.9	1522	1446HT9P + 0966HT9P	Interp.	
	MMY-AP2646HT9P	30.7	110.6	72.9	1522	1446HT9P + 1206HT9P	Interp.	
MMYH - Combo Heat Pump 208/230V-3-60	MMY-AP2886HT9P	30.7	126	72.9	1676	2X 1446HT9P	Interp.	
	MMY-AP3126HT9P	30.7	126	72.9	1676	1686HT9P + 1446HT9P	Interp.	
	MMY-AP3366HT9P	30.7	126	72.9	1676	2X 1686HT9P	Interp.	
	MMY-AP3606HT9P	30.7	142.8	72.9	2052	3X 1206HT9	Interp.	
	MMY-AP3846HT9P	30.7	158.2	72.9	2206	1446HT9P + 2X 1206HT9P	Interp.	
	MMY-AP4086HT9P	30.7	173.6	72.9	2360	2X 1446HT9P + 1206HT9P	Interp.	
	MMY-AP4326HT9P	30.7	189	72.9	2360	1686HT9P+ 1446HT9P + 1206HT9P	Interp.	
	MMY-AP4566HT9P	30.7	189	72.9	2360	2X 1686HT9P + 1206HT9P	Interp.	
MMYH - Combo Heat Pump 208/230V-3-60 Space Saving	MMY-AP192S6HT9P	30.7	89.6	72.9	1258	1206HT9P + 0726HT9P	Interp.	
	MMY-AP240S6HT9P	30.7	95.2	72.9	1368	2X 1206HT9P	Interp.	
	MMY-AP288S6HT9P	30.7	110.6	72.9	1522	1686HT9P + 1206HT9P	Interp.	
	MMY-AP408S6HT9P	30.7	158.2	72.9	2206	1686HT9P + 2X 1206HT9P	Interp.	
MMYH Heat Pump 480V-3-60	MMY-MAP0726HT6P	30.7	39	72.9	574	6 ton-heating/cooling	Interp.	
	MMY-MAP###6HT6P	8 ton-heating/cooling	Interp.	
	MMY-MAP1686HT6P	30.7	63	72.9	838	14 ton-heating/cooling	Interp.	

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Manufacturer: Carrier Corporation	TABLE 1
Model Line: Carrier Outdoor Units	

Certified Product Construction Summary:
Carbon steel cabinet construction

Certified Options Summary:
Outdoor units listed in this table have indoor companion units listed in Tables 2 and 3.

Mounting Configuration:
Rigid base mounted. Roof top units base mounted on up to 40" tall rigid curb or up to 32" tall iso curb.
Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

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

Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT	
		Depth	Width	Height				
MMYH - Combo Heat Pump 480V-3-60	MMY-AP1926HT6P	30.7	95.2	72.9	1368	2X 0966HT6P	Interp.	
	MMY-AP2166HT6P	30.7	95.2	72.9	1368	1206HT6P + 0966HT6P	Interp.	
	MMY-AP2406HT6P	30.7	110.6	72.9	1522	1446HT6P + 0966HT6P	Interp.	
	MMY-AP2646HT6P	30.7	110.6	72.9	1522	1446HT6P + 1206HT6P	Interp.	
	MMY-AP2886HT6P	30.7	126	72.9	1676	2X 1446HT6P	Interp.	
	MMY-AP3126HT6P	30.7	126	72.9	1676	1686HT6P + 1446HT6P	Interp.	
	MMY-AP3366HT6P	30.7	126	72.9	1676	2X 1686HT6P	Interp.	
	MMY-AP3606HT6P	30.7	142.8	72.9	2052	3X 1206HT6	Interp.	
MMYH - Combo Heat Pump 480V-3-60	MMY-AP3846HT6P	30.7	158.2	72.9	2206	1446HT6P + 2X 1206HT6P	Interp.	
	MMY-AP4086HT6P	30.7	173.6	72.9	2360	2X 1446HT6P + 1206HT6P	Interp.	
	MMY-AP4326HT6P	30.7	189	72.9	2360	1686HT6P+ 1446HT6P + 1206HT6P	Interp.	
MMYH - Combo Heat Pump 480V-3-60 Space Saving	MMY-AP4566HT6P	30.7	189	72.9	2360	2X 1686HT6P + 1206HT6P	Interp.	
	MMY-AP192S6HT6P	30.7	89.6	72.9	1258	1206HT6P + 0726HT6P	Interp.	
	MMY-AP240S6HT6P	30.7	95.2	72.9	1368	2X 1206HT6P	Interp.	
MMYH - Combo Heat Pump 480V-3-60 Space Saving	MMY-AP288S6HT6P	30.7	110.6	72.9	1522	1686HT6P + 1206HT6P	Interp.	
	MMY-AP408S6HT6P	30.7	158.2	72.9	2206	1686HT6P + 2X 1206HT6P	Interp.	
	MMYF/ MMYF Combo Heat Recovery 208/230V-1-60	MMY-MAP0726FT2P	30.7	39	72.9	600	6 ton-heating/cooling	Interp.
	MMYF/ MMYF Combo Heat Recovery 208/230V-1-60	MMY-AP1446FT2PUL	30.7	78	72.9	1200	2X 0726FT2P	Interp.
MMYF Heat Recovery 208/230V-3-60	MMY-MAP0726FT9P	30.7	39	72.9	600	6 ton-heating/cooling	Interp.	
	MMY-MAP###6FT9P	...	...	...	...	...	Interp.
	MMY-MAP1686FT9P	30.7	63	72.9	882	14 ton-heating/cooling	Interp.	
MMYF - Combo Heat Recovery 208/230V-3-60	MMY-AP1926FT9P	30.7	95.2	72.9	1442	2X 0966FT9P	Interp.	
	MMY-AP2166FT9P	30.7	95.2	72.9	1442	1206FT9P+ 0966FT9P	Interp.	
	MMY-AP2406FT9P	30.7	110.6	72.9	1603	1446FT9P + 0966FT9P	Interp.	

TRU Compliance, by Structural Integrity Associates, Inc.
844.TRU.0200 | info@trucompliance.com

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

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Mounting Configuration: Rigid base mounted. Roof top units base mounted on up to 40" tall rigid curb or up to 32" tall iso curb. Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.							
Building Code: CBC 2019						Seismic Certification Limits:	
						$S_{DS} = 2.0 g \quad z/h=1.0$	
						$S_{DS} = 2.5 g \quad z/h=0.0$	
		$I_p = 1.5$					
Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
MMYF - Combo Heat Recovery 208/230V-3-60	MMY-AP2646FT9P	30.7	110.6	72.9	1603	1446FT9P + 1206FT9P	Interp.
	MMY-AP2886FT9P	30.7	126	72.9	1764	2X 1446FT9P	Interp.
	MMY-AP3126FT9P	30.7	126	72.9	1764	1686FT9P + 1446FT9P	Interp.
	MMY-AP3366FT9P	30.7	142.8	72.9	2163	2X 1206FT6P + 0966FT6P	Interp.
	MMY-AP3606FT9P	30.7	142.8	72.9	2163	3X 1206FT6P	Interp.
	MMY-AP3846FT9P	30.7	158.2	72.9	2324	1446FT6P + 2X 1206FT6P	Interp.
	MMY-AP4086FT9P	30.7	173.6	72.9	2485	2X 1446FT6P + 1206FT6P	Interp.
	MMY-AP4326FT9P	30.7	189	72.9	2646	1686FT6P+ 1446FT6P + 1206FT	Interp.
MMYF - Combo Heat Recovery 208/230V-3-60 Space Saving	MMY-AP192S6FT9P	30.7	89.6	72.9	1321	1206FT9P + 0726FT9P	Interp.
	MMY-AP240S6FT9P	30.7	95.2	72.9	1442	2X 1206FT9P	Interp.
	MMY-AP288S6FT9P	30.7	110.6	72.9	1603	1686FT9P +1206FT9P	Interp.
	MMY-AP336S6FT9P	30.7	126	72.9	1764	2X 1686FT9P	Interp.
MMYF Heat Recovery 460V-3-60	MMY-MAP0726FT6P	30.7	39	72.9	615	6 ton-heating/cooling	Interp.
	MMY-MAP###6FT6P	...	...	...	...	...	Interp.
	MMY-MAP1686FT6P	30.7	63	72.9	875	14 ton-heating/cooling	32
MMYF - Combo Heat Recovery 480V-3-60	MMY-AP1926FT6P	30.7	95.2	72.9	1472	2X 0966FT6P	Interp.
	MMY-AP2166FT6P	30.7	95.2	72.9	1472	1206FT6P+ 0966FT6P	Interp.
	MMY-AP2406FT6P	30.7	110.6	72.9	1611	1446FT6P + 0966FT6P	Interp.
	MMY-AP2646FT6P	30.7	110.6	72.9	1611	1446FT6P + 1206FT6P	Interp.
	MMY-AP2886FT6P	30.7	126	72.9	1750	2X 1446FT6P	Interp.
	MMY-AP3126FT6P	30.7	126	72.9	1750	1686FT6P + 1446FT6P	Interp.
	MMY-AP3366FT6P	30.7	142.8	72.9	2208	2X 1206FT6P + 0966FT6P	Interp.
MMY-AP3606FT6P	30.7	142.8	72.9	2208	3X 1206FT6P	Interp.	

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Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT	
		Depth	Width	Height				
MMYF - Combo Heat Recovery 480V-3-60	MMY-AP3846FT6P	30.7	158.2	72.9	2347	1446FT6P + 2X 1206FT6P	Interp.	
	MMY-AP4086FT6P	30.7	173.6	72.9	2486	2X 1446FT6P + 1206FT6P	Interp.	
	MMY-AP4326FT6P	30.7	189	72.9	2625	1686FT6P+ 1446FT6P + 1206FT6P	Interp.	
	MMY-AP4566FT6P	30.7	189	72.9	2625	2X 1686FT6P + 1206FT6P	Interp.	
MMYF - Combo Heat Recovery 480V-3-60 Space Saving	MMY-AP192S6FT6P	30.7	89.6	72.9	1351	1206FT6P + 0726FT6P	Interp.	
	MMY-AP240S6FT6P	30.7	95.2	72.9	1472	2X 1206FT6P	Interp.	
	MMY-AP288S6FT6P	30.7	110.6	72.9	1611	1686FT6P + 1206FT6P	Interp.	
	MMY-AP336S6FT6P	30.7	126	72.9	1750	2X 1686HT6P	Interp.	
VRF SMMS-e Heat Pump	MCY-MAP0367HS-UL	17.4	39.8	61.0	311	Identical to MCY-MAP0607HS-UL	Interp.	
	MCY-MAP0487HS-UL	17.4	39.8	61.0	311	Identical to MCY-MAP0607HS-UL	Interp.	
	MCY-MAP0607HS-UL	17.4	39.8	61.0	311		63	
40QQ Rooftop Unit (Heat Recovery & Heat Pump)	40QQ-036ABA3-0A0	46.6	74.4	33.4	359	Filter Curb	64	
	40QQ-0##ABA#-0A0		Interp.	
	40QQ-060ABA6-0A0	46.6	74.4	41.6	425	34" Isolated Curb	65	
VRF Vertical AHU	MMD-AP0120VHG2UL	22.3	17.7	46.9	125	1 ton capacity	66	
	MMD-AP0###VHG2UL	Interp.	
	MMD-AP0600VHG2UL	31.3	24.2	57.9	227	5 ton capacity	67	
VMA	38VMA144HDS	31.1	53.8	64.3	782		73	

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1



Manufacturer: Carrier Corporation
Model Line: Outdoor Units

TABLE 1.1

For Reference Only

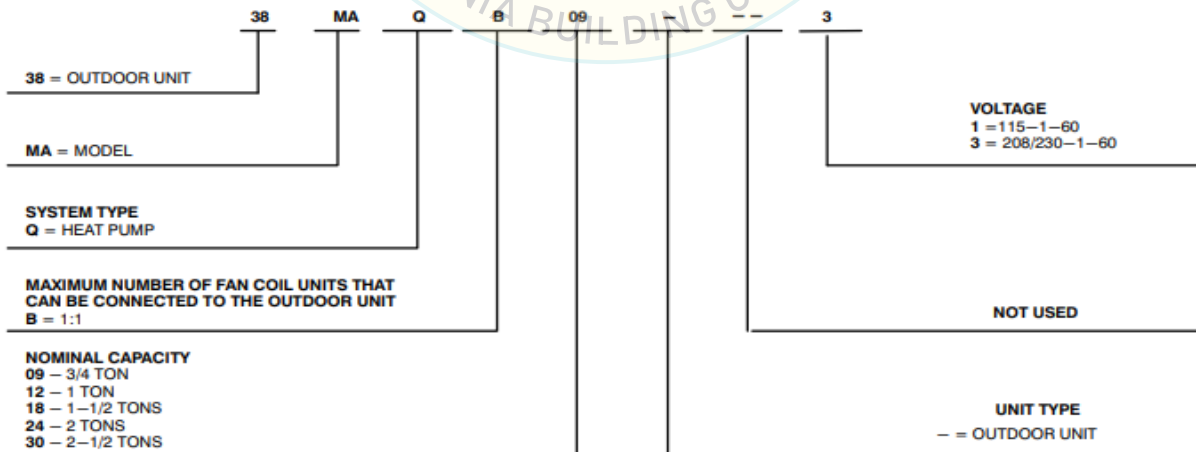
24AHA

1	2	3	4	5	6	7	8	9	10	11	12	13
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2	4	A	H	A	4	1	8	A	0	0	3	0
Product Series	Product Family	Product Type	Major Series	SEER	Cooling Capacity			Variations	Open	Open	Voltage	Minor Series
24 = AC	A = AC	H = Horizontal Discharge		4 = 14 SEER				A = Standard	0 = Not Defined	0 = Not Defined	3=208/230-1 5=208/230-3 6=460/3	0, 1, 2...

25HHA

1	2	3	4	5	6	7	8	9	10	11	12	13
N	N	A	A	A/N	N	N	N	A/N	A/N	A/N	N	N
2	5	H	H	A	4	1	8	A	0	0	3	0
Product Series	Product Family	Product Type	Major Series	SEER	Cooling Capacity			Variations	Open	Open	Voltage	Minor Series
25 = HP	H = HP	H = Horizontal Discharge		4 = 14 SEER				A = Standard	0 = Not Defined	0 = Not Defined	3 = 208/230-1 5 = 208/230-3 6 = 460/3	0, 1, 2...

38MAQ



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1



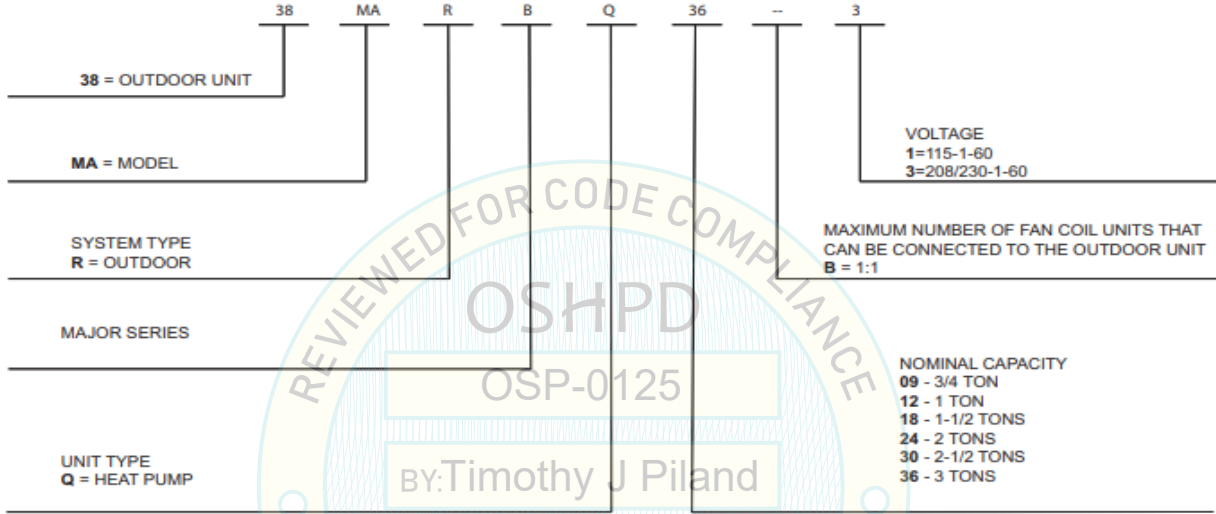
Manufacturer: Carrier Corporation
Model Line: Outdoor Units

TABLE 1.1

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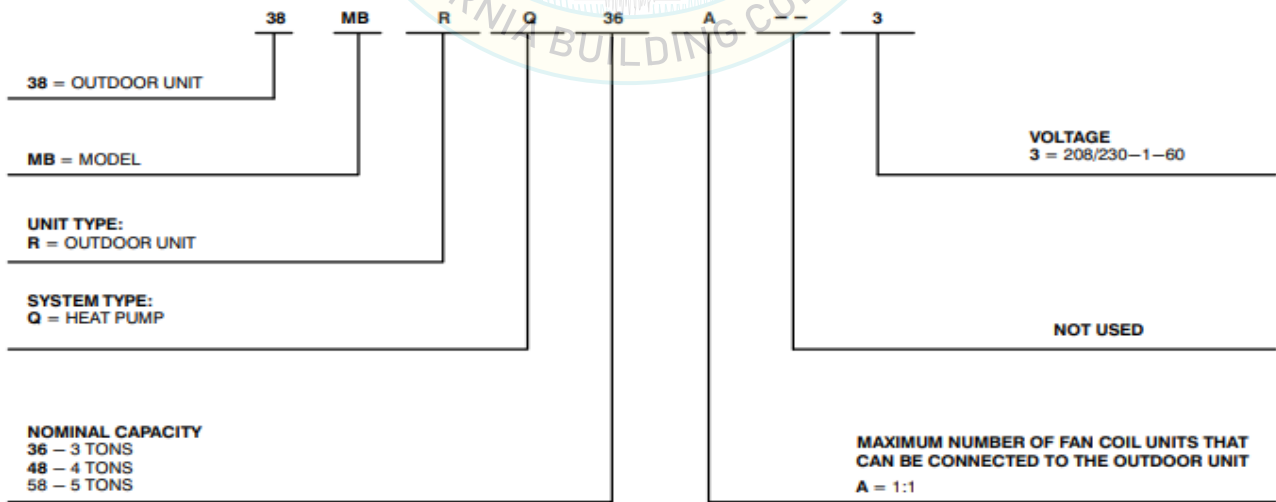
38MARB

OUTDOOR UNIT



38MBRQ

OUTDOOR UNIT



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1

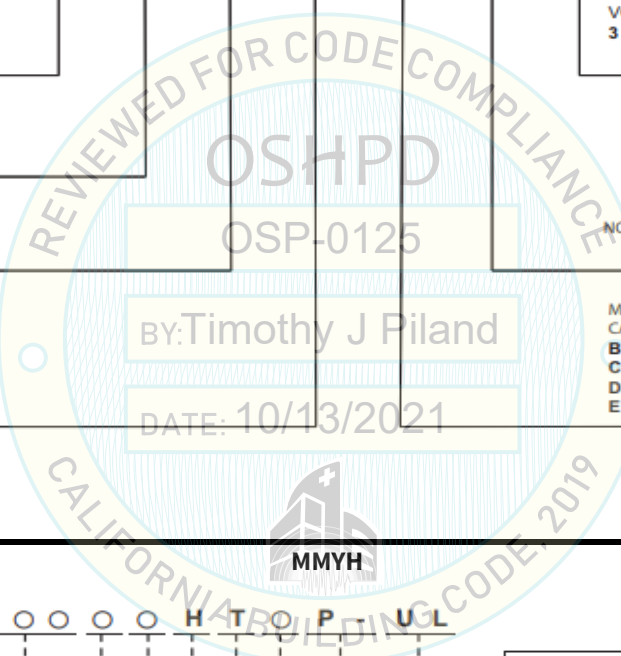
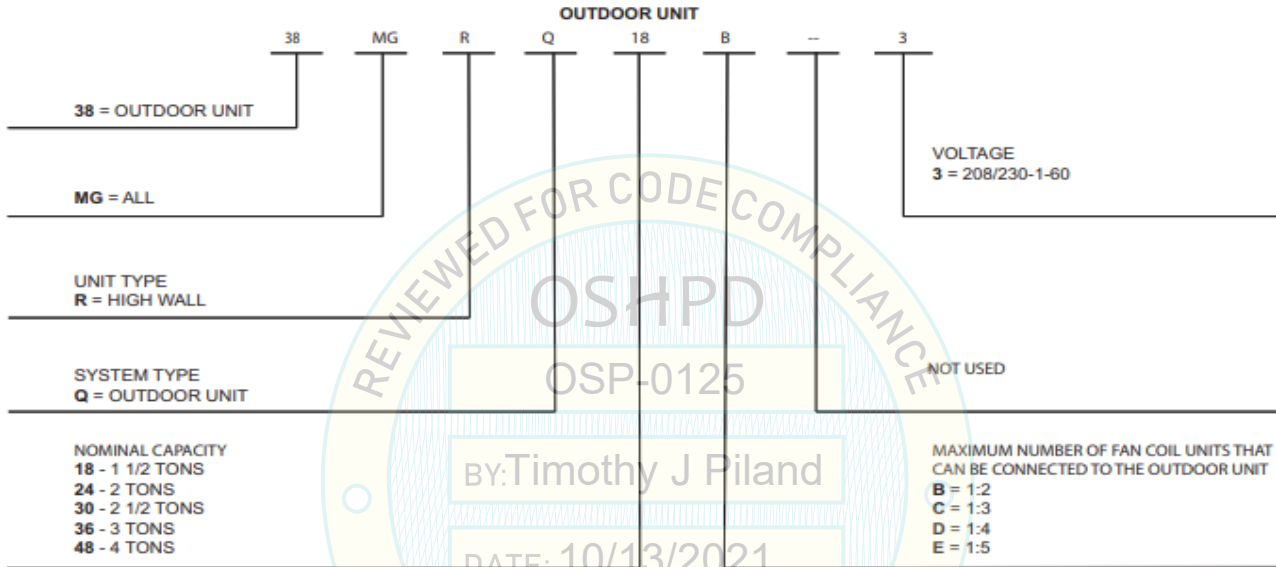


Manufacturer: Carrier Corporation
Model Line: Outdoor Units

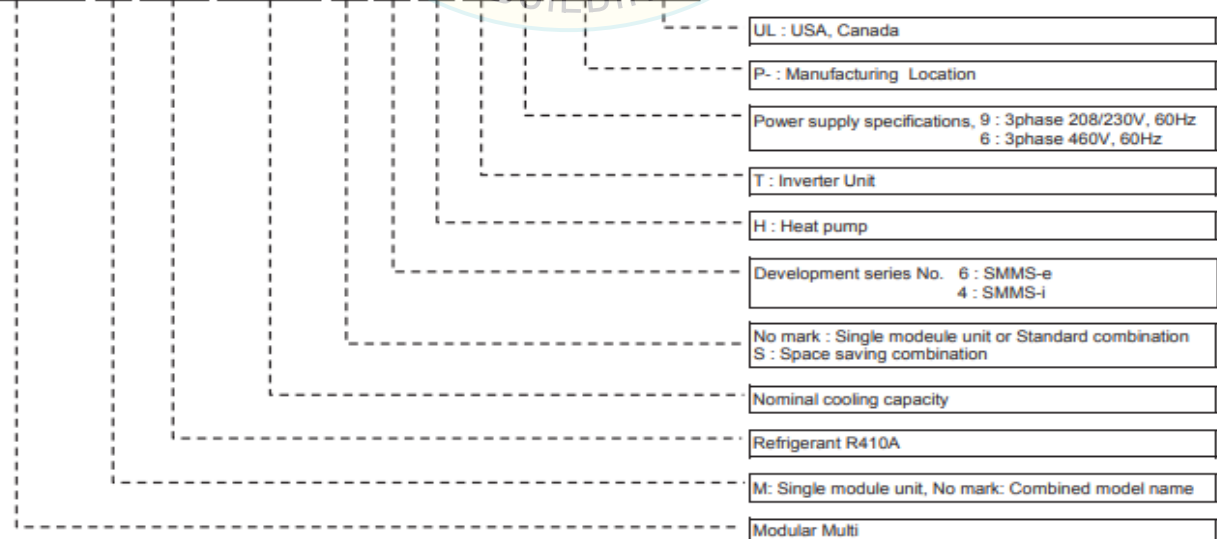
TABLE 1.1

For Reference Only

MGR



M M Y - M A P O O O O H T O P U L



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1

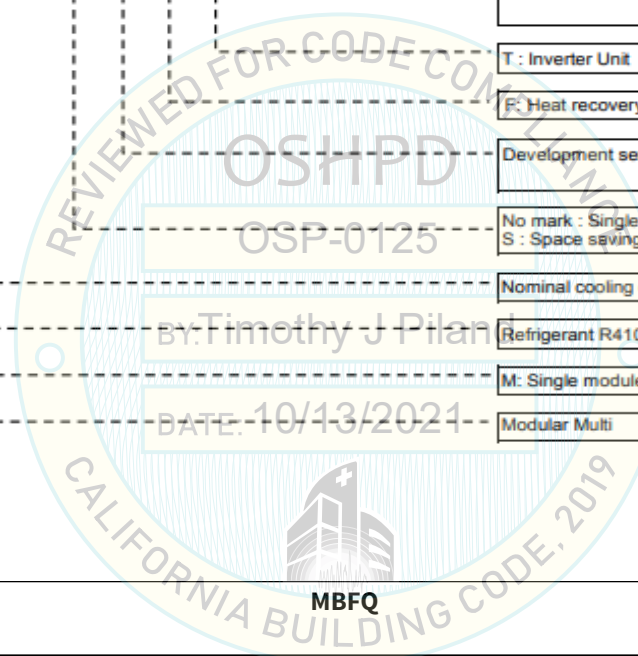
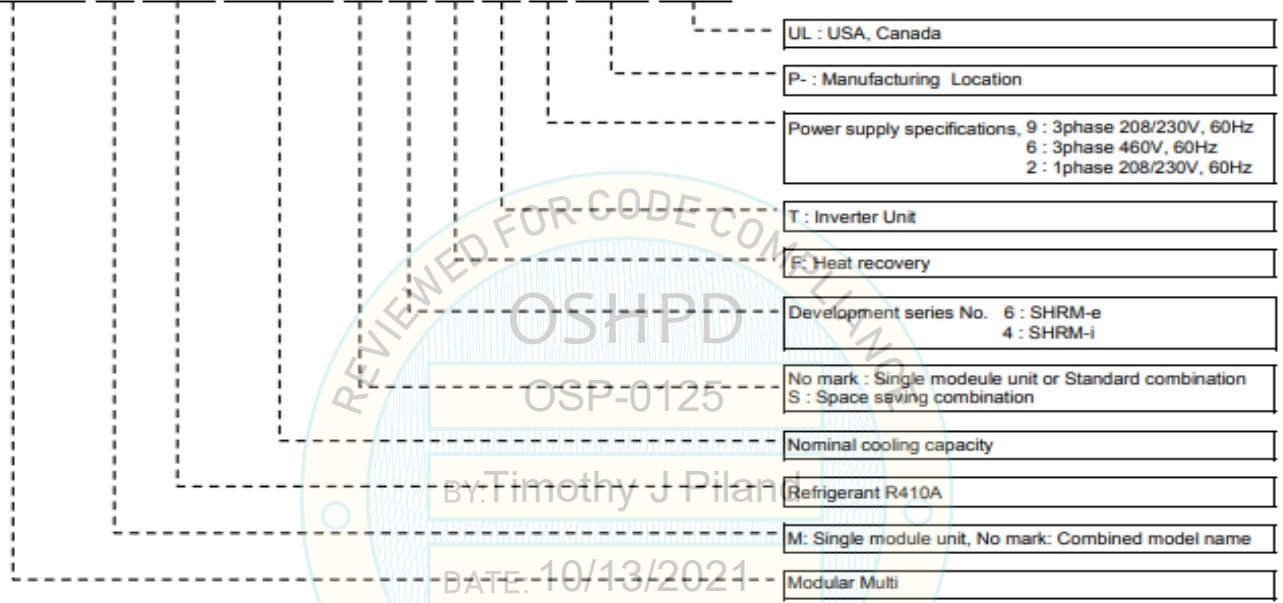


Manufacturer: Carrier Corporation	TABLE 1.1
Model Line: Outdoor Units	

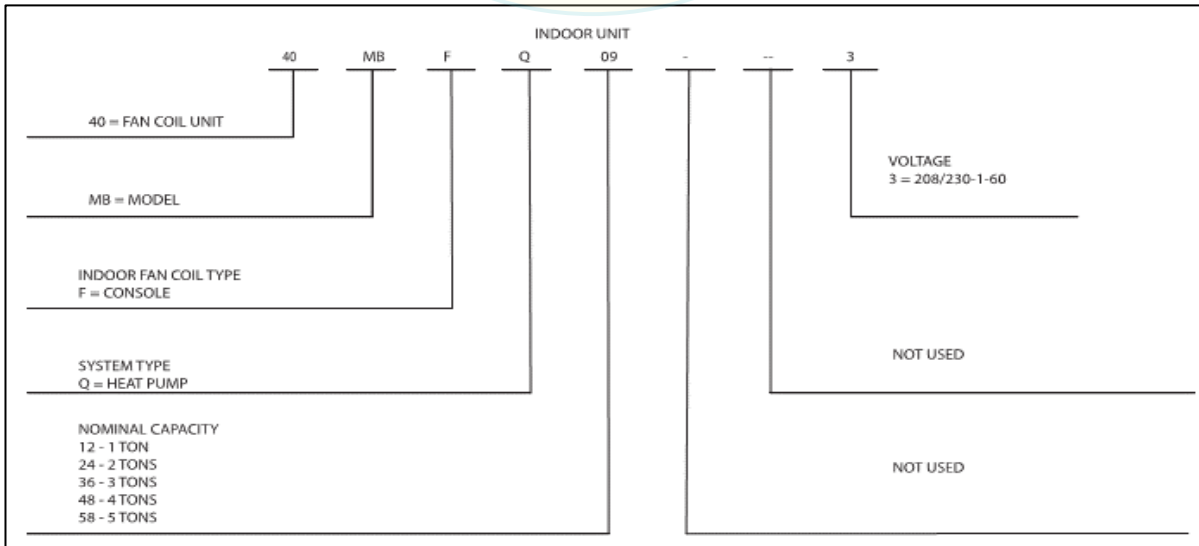
For Reference Only

MMYF

M M Y - M A P O O O O F T O P - U L



MBFQ



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1



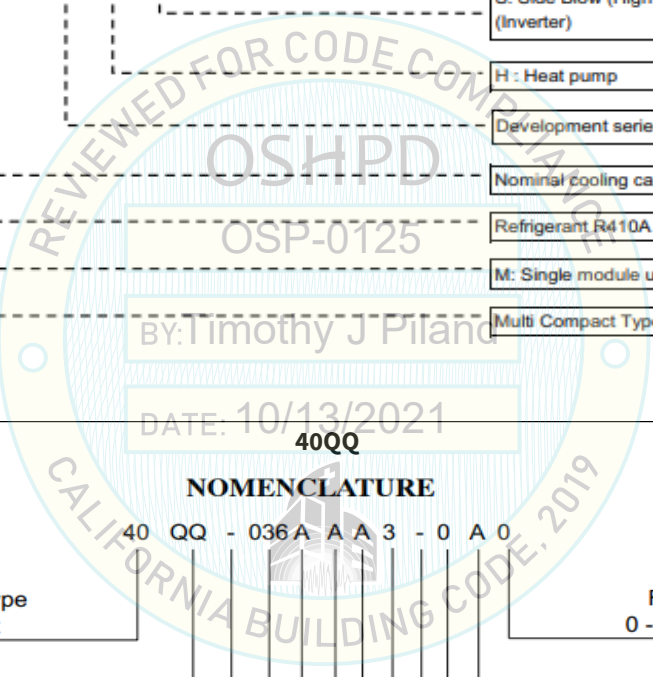
Manufacturer: Carrier Corporation	TABLE 1.1
Model Line: Outdoor Units	

For Reference Only

MCY-MAP

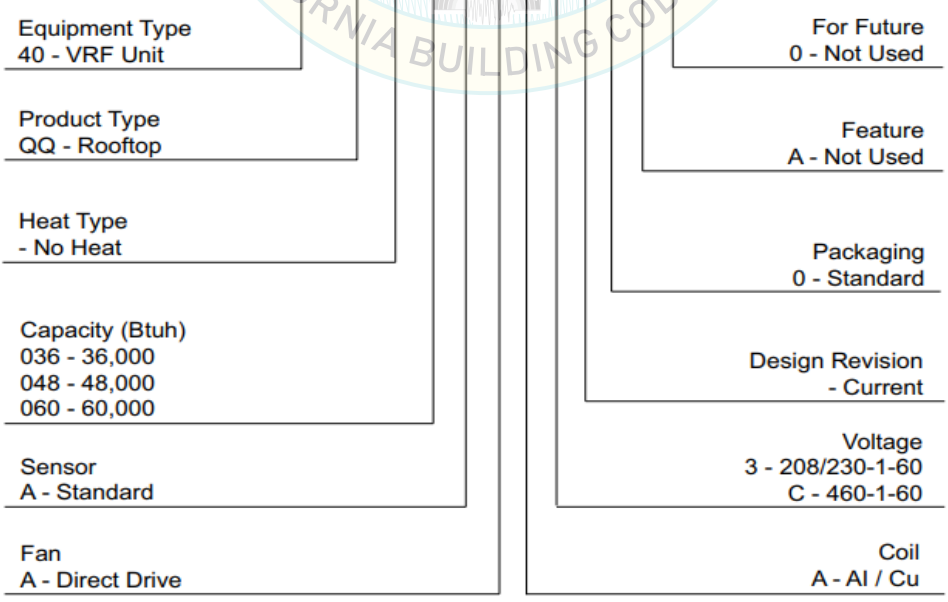
M C Y - M A P O O O O H S - U L

- UL : USA, Canada
- S: Side Blow (High spec) series, (Inverter)
- H : Heat pump
- Development series No.
- Nominal cooling capacity
- Refrigerant R410A
- M: Single module unit
- Multi Compact Type



NOMENCLATURE

40 QQ - 036 A A A 3 - 0 A 0



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

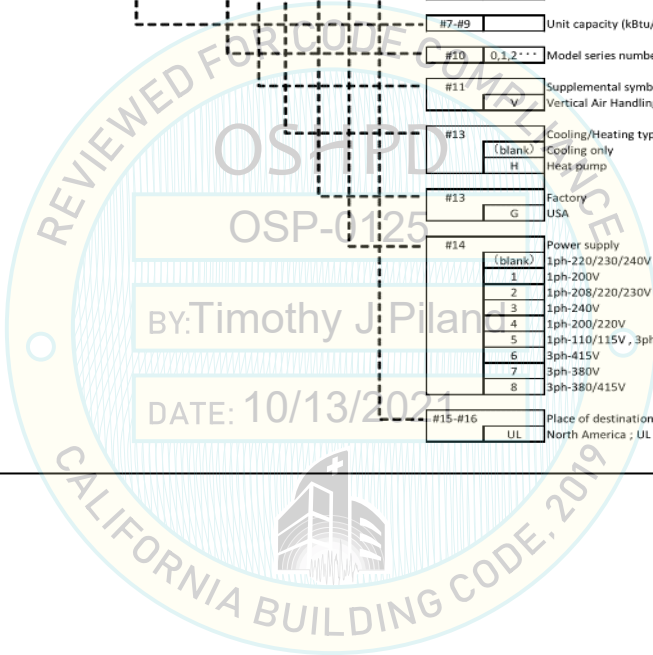
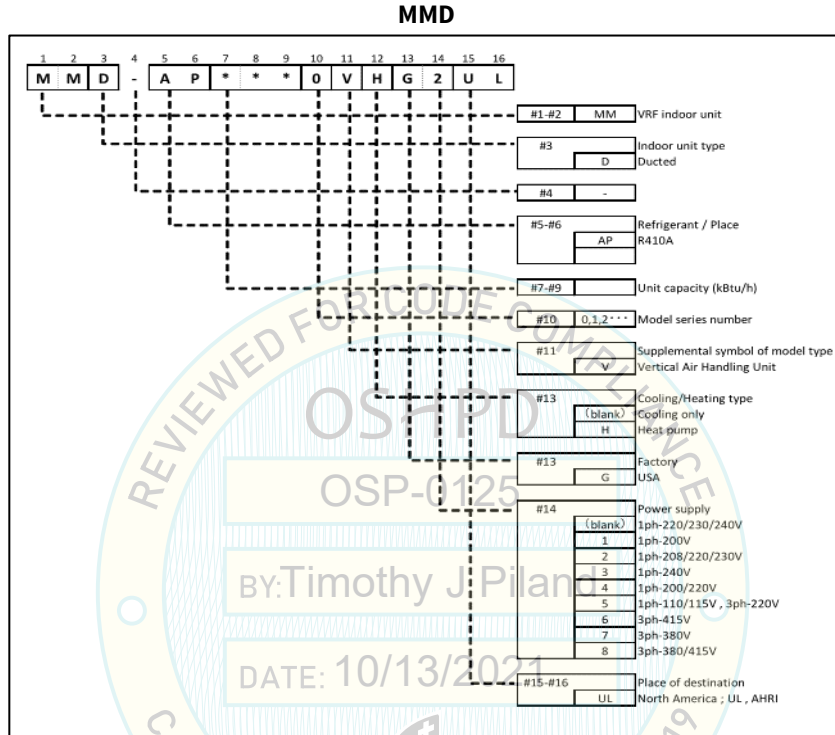
2000830-CR-001-R1



Manufacturer: Carrier Corporation
Model Line: Outdoor Units

TABLE 1.1

For Reference Only



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1



Manufacturer: Carrier Corporation						TABLE 2	
Model Line: Indoor Wall Units							
Certified Product Construction Summary: Carbon steel frame with plastic cover							
Certified Options Summary: 208/230V Single Phase							
Mounting Configuration: Wall Mounted - Rigid Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.							
Building Code: CBC 2019,		Seismic Certification Limits:			$S_{DS} = 2.0g$	$z/h=1.0$	$I_p = 1.5$
					$S_{DS} = 2.5g$	$z/h=0.0$	
Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
MK (High Wall)	40MKCB18B-3	10.2	46.7	13.4	37.5	1-1/2 Ton cooling only	3
	40MK#B##B-3	...	...	...	...	...	Interp.
	40MKQB28B-3	10.4	57.1	13.4	55.1	2-1/3 Ton heating/cooling	4
MK (Low Wall)	40MKCB18F-3	9.3	42	26.6	59.7	1.4 Ton cooling only	5
	40MK#B##F-3	...	...	...	...	...	Interp.
	40MKQB48F-3	9.3	65	26.6	98.8	3.9 Ton heating/cooling	6
RAV (High Wall)	RAV-SP180KRT-UL	9	41.3	12.6	36	1.5 Ton heating/cooling	15
	RAV-SP240KRT-UL	9	41.3	12.6	36	2 Ton heating/cooling	16
MAQ (High Wall)	40MAQB##B-#	...	...	...	...	...	Extrap.
	40MAQB12B-3	7.8	32.87	11.02	19.18	1 Ton heating/cooling	23
	40MAQB##B-#	...	...	...	...	...	Interp.
	40MAQB36B-3	10.16	46.69	13.39	40.12	3 Ton heating/cooling	24
MBQ (Low Wall)	40MBQB09F-3	23.6	27.6	8.3	32.4	3/4 Ton heating/cooling	29
	40MBQB12F-3	23.6	27.6	8.3	32.4	1 Ton heating/cooling	30
MMK (High Wall)	MMK-AP0073H2UL	9	41.3	12.6	33	0.58 Ton heating/cooling	33
	MMK-AP0##3H2UL	...	...	...	...	...	Interp.
	MMK-AP0243H2UL	9	41.3	12.6	33	2 Ton heating/cooling	34
	MMK-AP0077HPUL ¹	9.1	31.5	11.6	24		70
	MMK-AP0##7HPUL ¹	...	...	...	...		Interp.
	MMK-AP0247HPUL ¹	9.9	41.4	12.6	33		71

¹Requires seismic enhancements: Two (2) #8 zip screws add to the plastic housing on top and bottom (4 total)

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1



Manufacturer: Carrier Corporation	TABLE 2
Model Line: Indoor Wall Units	
Certified Product Construction Summary: Carbon steel frame with plastic cover	

Certified Options Summary: 208/230V Single Phase
--

Mounting Configuration: Wall Mounted - Rigid
Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

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

Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
MAH (High Wall Residential)	40MAHBQ12XA1	8.9	31.3	11.6	24		68
	40MAHBQ##XA#	...	...	...	...		Interp.
	40MAHBQ36XA3	10.8	44.9	14.6	47.5		69
MBF - Ductless Floor Console	40MBFQ12---3	8.3	27.7	23.6	32.5		57
	40MBFQ##---3	...	...	...	...		Interp.
	40MBFQ58---3	9.25	65	26.6	97.5		58
VMW Ductless	40VMW030--3 ¹	10	47	13.5	38		72

¹Requires seismic enhancements: Two (2) #8 zip screws add to the plastic housing on top and bottom (4 total)

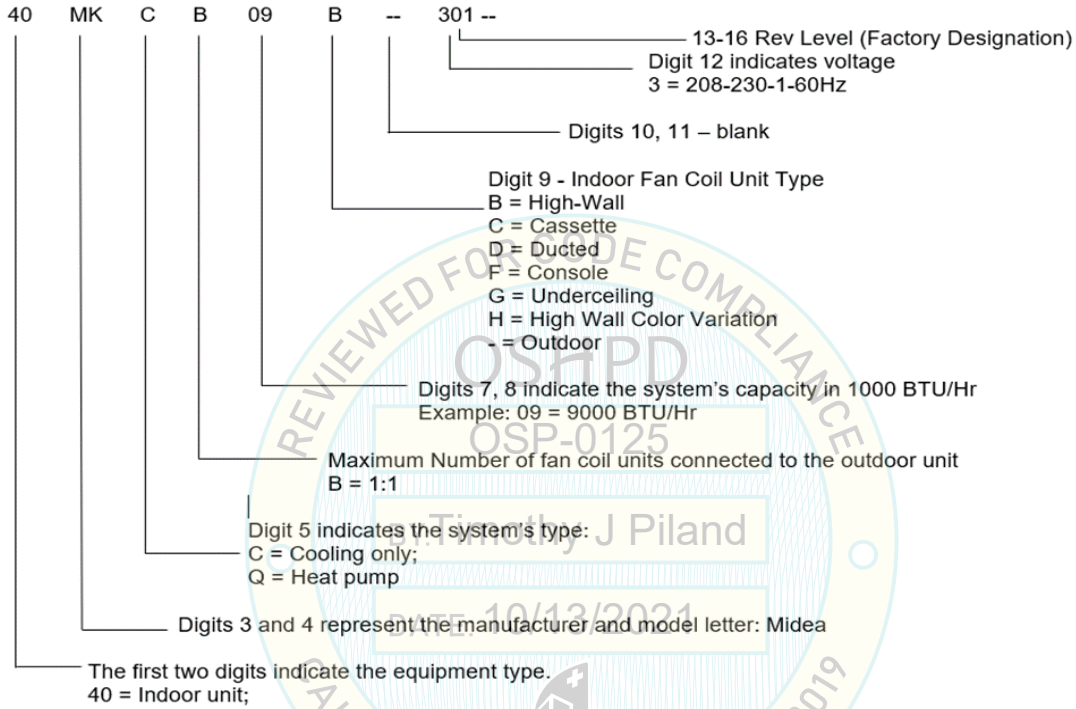
SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1



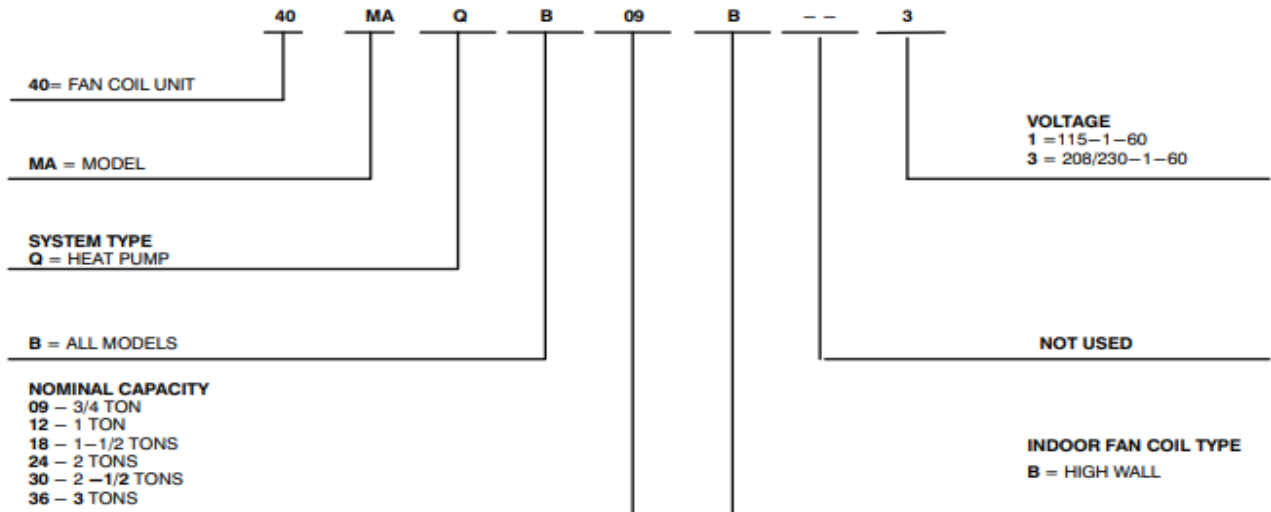
Manufacturer: Carrier Corporation	TABLE 2.1
Model Line: Indoor Wall Units	

For Reference Only
40MK Low Wall



40MAQ-High Wall

INDOOR UNIT



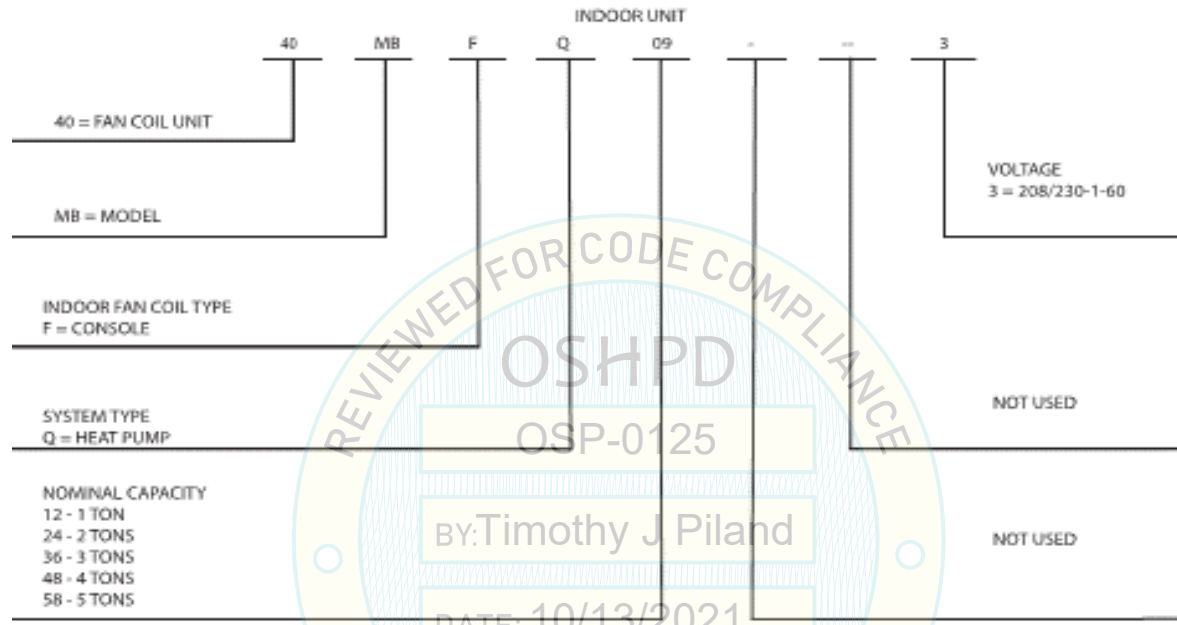
SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1



Manufacturer: Carrier Corporation	TABLE 2.1
Model Line: Indoor Wall Units	

For Reference Only
MBF Ductless Floor Console



MMK High Wall

POSITION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
EXAMPLE	-	-	-	-	A	P	0	0	Z	Z	H	P	U	L	-	-
ALPHA / NUMERIC	<u>M</u>	<u>M</u>	<u>K</u>	-	<u>A</u>	<u>P</u>	<u>0</u>	<u>0</u>	<u>Z</u>	<u>Z</u>	<u>H</u>	<u>P</u>	<u>U</u>	<u>L</u>		
Position	Description															
1, 2	Product Series					MM=VRF Indoor Unit										
3	Indoor Type					C = Underceiling D = Ducted K = Highwall U = Cassette										
4	-					Not used										
5, 6	Refrigerant					AP=Refrigerant R-410a										
7, 8, 9	Cooling Capacity					007=7,000; 024=24,000; etc.										
10, 11	Development series															
12	Manufacturing location					P=Thailand										
13, 14	Electrical Characteristics					UL=North America										

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1

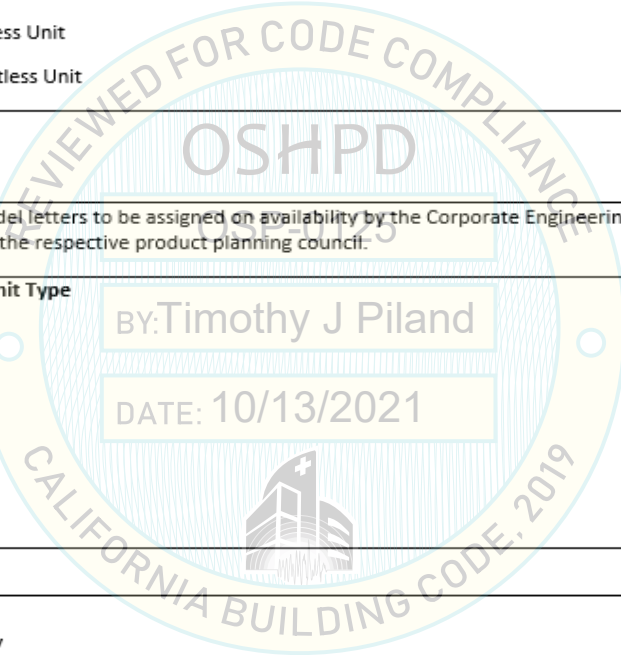


Manufacturer: Carrier Corporation	TABLE 2.1
Model Line: Indoor Wall Units	

For Reference Only

MAH High Wall Residential

POSITION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
EXAMPLE	4	0	M	A	H	B	Q	0	9	X	A	3	0	1	-	-
ALPHA NUMERIC	N	N	A	A	A	A	N	N	A	A	A	N	N	N	A	A
POSITION 1, 2	Product Series (Corporate Engineering Standards assigns numbers) (Ref. Prd-Admn.004) 40 = Indoor Ductless Unit 38 = Outdoor Ductless Unit															
POSITION 3	Manufacturer M = Midea															
POSITION 4	Model letter (Model letters to be assigned on availability by the Corporate Engineering Standards Department in concurrence with the respective product planning council:															
POSITION 5	Indoor Fan Coil Unit Type C = Cassette D = Ducted F = Floor Console H = High Wall R = Outdoor															
POSITION 6	Major Series															
POSITION 7	Unit Type: C = Cooling Only Q = Heat Pump															
POSITION 8,9	COOLING CAPACITY Increments of 1,000 BTUH. Ex.: 24 = 24,000 BTUH etc.															
POSITION 10	Maximum Number of fan coil units connected to the outdoor unit (Applies only to outdoors) A = 1 B = 2 C = 3 D = 4 E = 5 F = 6 G = 7 H = 8 J = 9 X = Indoor Unit															
POSITION 11	Variations A = Standard															
POSITION 12	ELECTRICAL CHARACTERISTICS 1 = 115/1/60 3 = 208-230/1/60															
POSITION 13	Indicates unit changes or design variations that do not affect selling price, configuration, size interchangeability, or customer requirements.															



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1



Manufacturer: Carrier Corporation	TABLE 2.1
Model Line: Indoor Wall Units	

For Reference Only
MBF Ductless Floor Console

POSITION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
EXAMPLE	4	0	M	B	F	Q	1	2	-	-	-	3	0	1	-	-
ALPHA / NUMERIC	N	N	A	A	A	A	N	N	A	A	A	N	N	N	A	A
POSITION 1, 2	Product Series (Corporate Engineering Standards assigns numbers) (Ref. Prd-Admn.004) 40 = Indoor Ductless Unit 38 = Outdoor Ductless Unit															
POSITION 3	Manufacturer M = Midea															
POSITION 4	Model letter (Model letters to be assigned on availability by the Corporate Engineering Standards Department in concurrence with the respective product planning council.															
POSITION 5	Unit Type H = High Wall, C = Cassette, D = Ducted, F = Floor Console , R = Outdoor															
POSITION 6	System Type: C = Cooling Only Q = Heat Pump															
POSITION 7, 8	COOLING CAPACITY Increments of 1,000 BTUH. Ex.: 12 = 12,000 BTUH etc.															
POSITION 9	Maximum Number of fan coil units connected to the outdoor unit (Applies only to outdoor units) A = 1 B = 2 C = 3 D = 4 E = 5 F = 6 G = 7 H = 8 J = 9 - = NA															
POSITION 10	- = Not defined															
POSITION 11	- = Not defined															
POSITION 12	ELECTRICAL CHARACTERISTICS 1 = 115V/60 3 = 208-230V/60															
POSITION 13	Indicates unit changes or design variations that do not affect selling price, configuration, size interchangeability, or customer requirements.															
POSITION 14	PACKAGING CHARACTERISTICS 1 = All products designated for use in the USA and Canada															
POSITION 15	- = Not defined															
POSITION 16	- = Not defined															

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1



Manufacturer: Carrier Corporation						TABLE 3		
Model Line: Indoor Ceiling Units								
Certified Product Construction Summary: Carbon steel frame with plastic or carbon steel cover								
Certified Options Summary: 208/230V Single Phase								
Mounting Configuration: Ceiling Suspended/Mounted - Rigid Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.								
Building Code: CBC 2019,						Seismic Certification Limits:	$S_{DS} = 2.0 g$ $z/h=1.0$ $S_{DS} = 2.5 g$ $z/h=0.0$	$I_p = 1.5$
Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT	
		Depth	Width	Height				
MK (Underceiling)	40MKCB18F-3 ¹	9.3	42	26.6	59.7	1.4 Ton cooling only	7	
	40MKXB##F-3 ¹	...	...	...	...	...	Interp.
	40MKQB48F-3 ¹	9.3	65	26.6	98.8	3.9 Ton heating/cooling	8	
RAV (Four Way Cassette)	RAV-SP180UT-UL	33.1	33.1	10.1	44	1.5 Ton heating/cooling	13	
	RAV-SP###UT-UL	...	...	..	...	...	Interp.
	RAV-SP420UT-UL	33.1	33.1	12.6	53	3.5 Ton heating/cooling	14	
RAV (Underceiling)	RAV-SP180CT-UL ³	26.8	35.8	8.3	44	1.5 Ton heating/cooling	11	
	RAV-SP###CT-UL ³	...	...	...	...	...	Interp.
	RAV-SP420CT-UL ³	26.8	62.8	8.3	73	3.5 Ton heating/cooling	12	
MBQ (Four Way Cassette)	40MBQB09C-3	25.47	25.47	12.21	40.8	0.75 Ton heating/cooling	27	
	40MBQB##C-3	...	...	...	...	...	Interp.
	40MBQB18C-3	25.47	25.47	12.21	45.2	1.5 Ton heating/cooling	28	
MBQ (Duct System)	40MBQB09D-3 ¹	25	27.56	8.27	39.9	0.75 Ton heating/cooling	25	
	40MBQB###-3 ¹	...	...	...	...	...	Interp.
	40MBQB24D-3 ¹	25	36.22	10.63	57.3	2 Ton heating/cooling	26	
	40MBQB36D-3 ²	30.51	44.88	10.63	77.2	3 Ton heating/cooling	41	
	40MBQB48D-3 ²	34.06	47.24	11.81	99.2	4 Ton heating/cooling	42	
MBCQ (Four Way Cassette)	40MBCQ09---3	25.5	25.5	12.5	37.5	Dimensions include plastic panel	43	
	40MBCQ##---3	...	...	...	...		Interp.
	40MBCQ48---3	37.4	37.4	13.5	77.5		44	

¹Requires seismic enhancements: (6) #10 self-tapping screws in each mounting bracket (24 total)

²Requires seismic enhancements: (4) #10 self-tapping screws in each mounting bracket (16 total)

³Requires seismic enhancements: (4) #10 washers at bolt head connecting support bracket to plastic cover (4 total)

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1



Manufacturer: Carrier Corporation						TABLE 3		
Model Line: Indoor Ceiling Units								
Certified Product Construction Summary: Carbon steel frame with plastic or carbon steel cover								
Certified Options Summary: 208/230V Single Phase								
Mounting Configuration: Ceiling Suspended/Mounted - Rigid Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.								
Building Code: CBC 2019,						Seismic Certification Limits:	$S_{DS} = 2.0 g \quad z/h=1.0$ $S_{DS} = 2.5 g \quad z/h=0.0$	$I_p = 1.5$
Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT	
		Depth	Width	Height				
MMU (Four Way Cassette)	MMU-AP0074HPUL	37.4	37.4	10	44	Dimensions include plastic panel	47	
	MMU-AP0###HPUL	...	...	...	...		Interp.
	MMU-AP0484HPUL	37.4	37.4	12.6	67	Identical to UUT 48-software	48	
	MMU-AP0544HPUL	37.4	37.4	12.6	67		Extrap.	
MMC (Underceiling)	MMC- AP0181H2UL	26.8	35.8	8.3	46	1.5 Ton heating/cooling	35	
	MMC- AP###1H2UL	...	...	...	...	...	Interp.
	MMC- AP0421H2UL	26.8	62.8	8.3	75	3.5 Ton heating/cooling	36	
MBDQ (Duct System)	40MBDQ09---3	19.9	27.6	7.9	47		45	
	40MBDQ##---3 ⁴	...	...	...	...		Interp.
	40MBDQ58---3 ⁴	33.8	55.1	11.8	182		46	
MMD (High Static Duct)	MMD-AP0246HPUL	29.5	39.3	11.7	76.5		51	
	MMD-AP0###H###L	...	...	...	...		Interp.
	MMD-AP0966HP-UL	35.4	55.1	17.6	218		52	
MMD (Concealed Duct)	MMD-AP0074BH2UL	31.5	21.7	12.6	64	0.58 Ton heating/cooling	37	
	MMD-AP###4BH2UL	...	...	...	...	...	Interp.
	MMD-AP0484BH2UL	31.5	53.2	12.6	119	4 Ton heating/cooling	38	
	MMD-AP0076BHPUL	29.5	27.6	9.3	54		49	
	MMD-AP0###BHPUL	...	...	...	...		Interp.
	MMD-AP0546BHPUL	29.5	55.1	9.3	90.5		50	
RBM (Flow Selector Unit)	RBM-Y0383FUL	6.3	9.77	7.49	11	0 to 3 ton capacity	39	
	RBM-Y0613FUL	6.3	9.77	7.49	13	3 to 5 ton capacity	Interp.	
	RBM-Y0963FUL	7.88	15.8	7.88	20	5 to 8 ton capacity	40	
	RBM-Y0384FUL	11.8	19.4	7.1	25		53	

⁴Requires seismic enhancements: (4) 1/4" self-tapping screws in each mounting bracket (16 total)

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

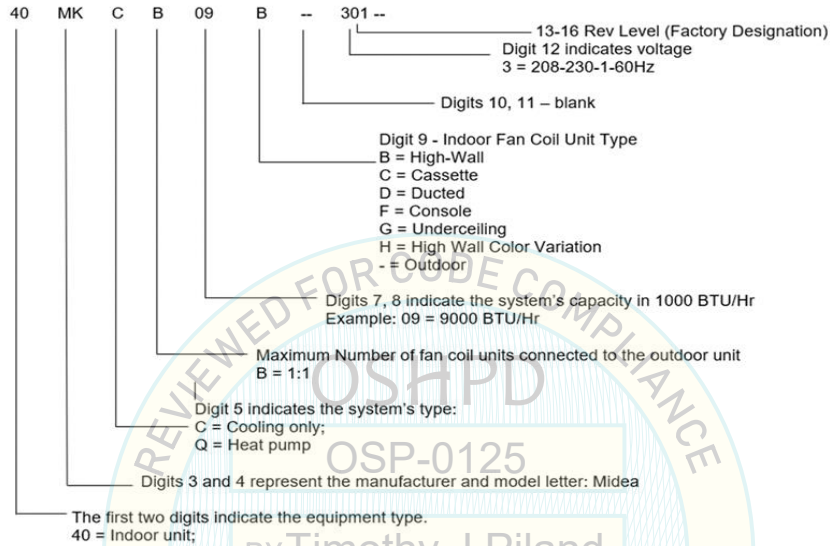
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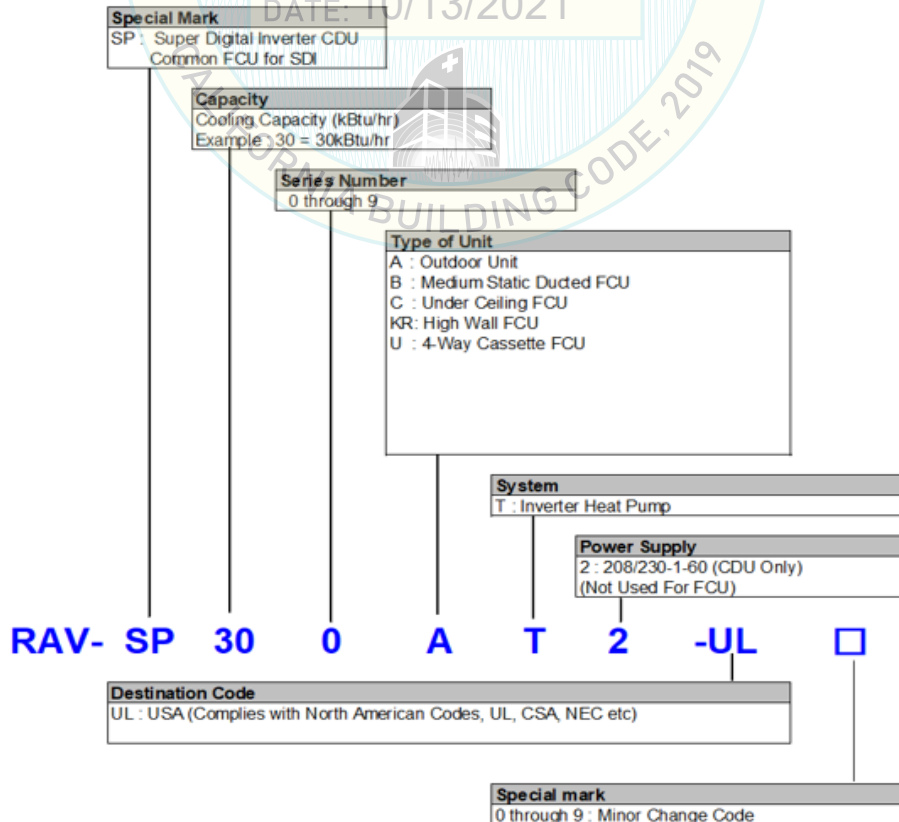
Manufacturer: Carrier Corporation	TABLE 3.1
Model Line: Indoor Ceiling Units	

For Reference Only

40MK



RAV



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1



Manufacturer: Carrier Corporation
Model Line: Indoor Ceiling Units

TABLE 3.1

For Reference Only

MBQ

INDOOR UNIT

40 MB Q B 09 D -- 3

40 = FAN COIL UNIT

MB = MODEL

SYSTEM TYPE
Q = HEAT PUMP

MAXIMUM NUMBER OF FAN COIL UNITS THAT
CAN BE CONNECTED TO THE OUTDOOR UNIT
B = 1:1

NOMINAL CAPACITY
09 - 3/4 TON
12 - 1 TON
18 - 1-1/2 TONS
24 - 2 TONS
36 - 3 TONS
48 - 4 TONS

VOLTAGE
3 = 208/230-1-60

NOT USED

INDOOR FAN COIL TYPE
D = DUCTED

OSHPD
OSP-0125
BY: Timothy J Piland

DATE: 10/13/2021

MBCQ

INDOOR UNIT

40 MB C Q 09 -- 3

40 = FAN COIL UNIT

MB = MODEL

INDOOR FAN COIL TYPE
C = CASSETTE

SYSTEM TYPE
Q = HEAT PUMP

NOMINAL CAPACITY
09 - 3/4 TON
12 - 1 TON
18 - 1-1/2 TONS
24 - 2 TONS
36 - 3 TONS
48 - 4 TONS

VOLTAGE
3 = 208/230-1-60

NOT USED

NOT USED

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1



Manufacturer: Carrier Corporation
Model Line: Indoor Ceiling Units

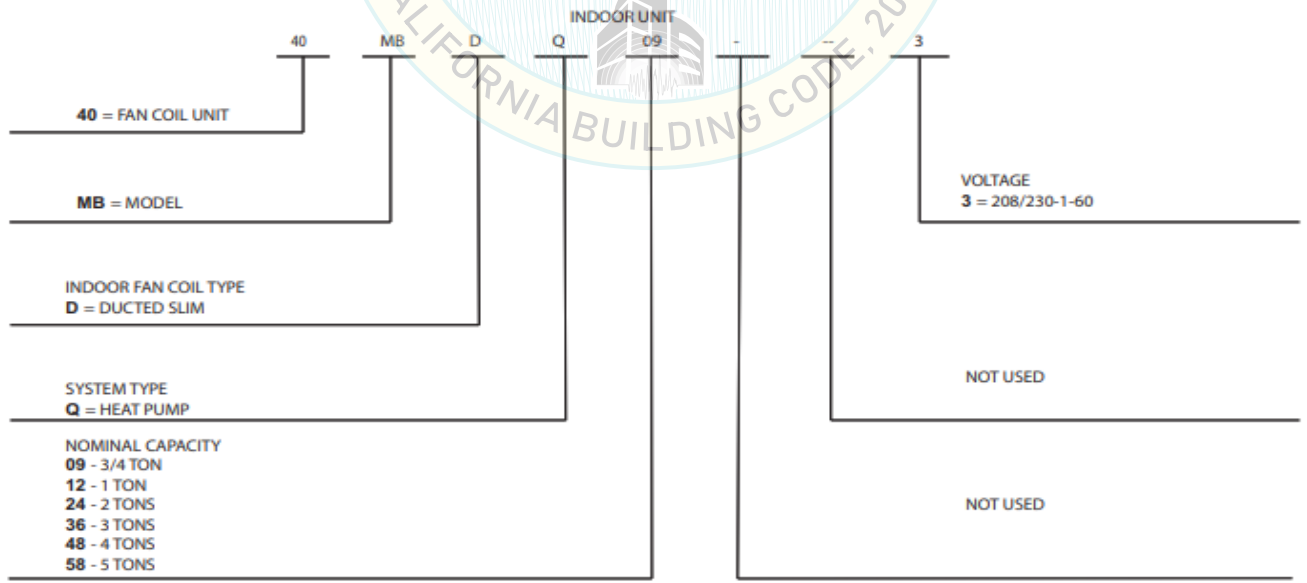
TABLE 3.1

For Reference Only

MMC/MMD/MMU

POSITION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
EXAMPLE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>ALPHA / NUMERIC</u>	<u>M</u>	<u>M</u>	<u>U</u>	-	<u>A</u>	<u>P</u>	<u>Q</u>	<u>Q</u>	<u>Z</u>	<u>Z</u>	<u>H</u>	<u>P</u>	<u>U</u>	<u>L</u>		
Position	Description															
1, 2	Product Series		MM=VRF Indoor Unit													
3	Indoor Type		G = Underceiling D = Ducted K = Highwall U = Cassette													
4			Not used													
5, 6	Refrigerant		AP=Refrigerant R-410a													
7, 8, 9	Cooling Capacity		007=7,000; 024=24,000; etc.													
10, 11	Development series															
12	Manufacturing location		P=Thailand													
13, 14	Electrical Characteristics		UL=North America													

40MBDQ



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000830-CR-001-R1



Manufacturer: Carrier Corporation
Model Line: Indoor Ceiling Units

TABLE 3.1

For Reference Only

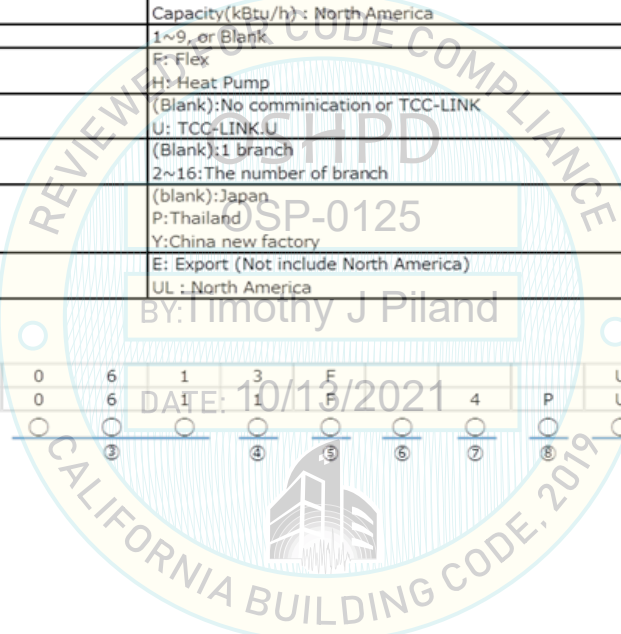
RBM

(Max. 15 Characters)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
 -
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

①	Product Classification	RBM: Options for multi air-conditioner
②	Unit	Y:FS unit SV:Shut-off Valve box
③	Capacity Class	Capacity(kW) : Euro, Asia, LO model Capacity(kBtu/h) : North America
④	Development Number	1~9, or Blank
⑤	Type	F: Flex H: Heat Pump
⑥	Control Type	(Blank):No communication or TCC-LINK U: TCC-LINK.U
⑦	Branch	(Blank):1 branch 2~16:The number of branch
⑧	Factory	(blank):Japan P:Thailand Y:China new factory
⑨	Area Classification	E: Export (Not include North America) UL : North America

R B M - Y 0 6 1 3 F U L
 R B M - Y 0 6 1 3 F U L
 -
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨



SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

2000830-CR-001-R1



Manufacturer: Carrier Corporation Model Line: 40QQ		Table Description: Accessories			TABLE 4	
Building Code: CBC 2019,		Seismic Certification Limits:			$S_{DS} = 2.0g \quad z/h = 1.0$ $S_{DS} = 2.5g \quad z/h = 0.0$	
					$I_p = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT	
Pulse Motor Valve Kit	Carrier Corporation	RBM-A0121GUL		Tested rigid and isolated	64, 65	
		RBM-A0961GUL			64,65	
Flow Selector	Carrier Corporation	RBM-Y0383-FUL		Tested rigid and isolated	64,65	
		RBM-Y0384-FUL			64,65	
		RBM-Y0383-FUL		Ceiling suspended	39	
		RBM-Y0384-FUL			53	
		RBM-Y0613FUL			Interp.	
		RBM-Y0963FUL			40	
DX Controller	Carrier Corporation	TCB-IFDA1-GUL)		Tested rigid and isolated	64,65	
Electric Heat	Carrier Corporation	CRHEATER337A00		Tested rigid and isolated	65	
Vertical Economizer with Power Exhaust	MicroMetl	PEBD-SRT12CA-XXXX-XXX-X ...			Extrap.	
		PEBD-SRT12CA-D2DH-2AY	JADE, backward inclined (Cyclone), 208/230V	Mounted to unit on a rigid curb	78	
		PEBD-SRT12CA-XXXX-XXX-X ...			Interp.	
		PEBD-SRT12CA-D0DB-4AY-4	Belimo, backward inclined (Cyclone), 460V	Mounted to unit on an isolated curb	77	
		PECD-SRT12CA-D0DB-2L1-4	Belimo, w/Power exhaust 208/230V		Interp.	
		PECD-SRT12CA-D2DH-2L1	JADE, w/Power exhaust 208/230V		Interp.	
		PECD-SRT12CA-D0DB-4L1-4	Belimo, w/Power exhaust 460V		Interp.	
PECD-SRT12CA-D2DH-4L1	JADE, w/Power exhaust 460V	Mounted to unit on an isolated curb	76			

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

2000830-CR-001-R1



Manufacturer: Carrier Corporation Model Line: 40QQ		Table Description: Accessories			TABLE 4	
Building Code: CBC 2019,		Seismic Certification Limits:			$S_{DS} = 2.0g \quad z/h = 1.0$ $S_{DS} = 2.5g \quad z/h = 0.0$	
					$I_p = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT	
Pulse Motor Valve Kit	Carrier Corporation	RBM-A0121GUL		Tested rigid and isolated	64, 65	
		RBM-A0961GUL			64,65	
Flow Selector	Carrier Corporation	RBM-Y0383-FUL		Tested rigid and isolated	64,65	
		RBM-Y0384-FUL			64,65	
		RBM-Y0383-FUL		Ceiling suspended	39	
		RBM-Y0384-FUL			53	
		RBM-Y0613FUL			Interp.	
		RBM-Y0963FUL			40	
DX Controller	Carrier Corporation	TCB-IFDA1-GUL)		Tested rigid and isolated	64,65	
Electric Heat	Carrier Corporation	CRHEATER337A00		Tested rigid and isolated	65	
Vertical Economizer with Power Exhaust	MicroMetl	PEBD-SRT12CA-XXXX-XXX-X ...			Extrap.	
		PEBD-SRT12CA-D2DH-2AY	JADE, backward inclined (Cyclone), 208/230V	Mounted to unit on a rigid curb	78	
		PEBD-SRT12CA-XXXX-XXX-X ...			Interp.	
		PEBD-SRT12CA-D0DB-4AY-4	Belimo, backward inclined (Cyclone), 460V	Mounted to unit on an isolated curb	77	
		PECD-SRT12CA-D0DB-2L1-4	Belimo, w/Power exhaust 208/230V		Interp.	
		PECD-SRT12CA-D2DH-2L1	JADE, w/Power exhaust 208/230V		Interp.	
		PECD-SRT12CA-D0DB-4L1-4	Belimo, w/Power exhaust 460V		Interp.	
PECD-SRT12CA-D2DH-4L1	JADE, w/Power exhaust 460V	Mounted to unit on an isolated curb	76			

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

2000830-CR-001-R1



Manufacturer: Carrier Corporation	Table Description: Accessories	TABLE 4
Model Line: 40QQ		

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

Component Type	Manufacturer	Model	Description	Notes	UUT
Horizontal Economizer with Power Exhaust	MicroMetl	PECH-SRT12CA-D2DH-4L1	JADE, w/Power exhaust 460V		Extrap.
		PECH-SRT12CA-D2DH-4L1-4	JADE, w/Power exhaust 208/230V		Extrap.
		PECH-SRT12CA-D0DB-4L1-4	Belimo, w/Power exhaust 460V		Extrap.
Horizontal Economizer with Power Exhaust	MicroMetl	PECH-SRT12CA-D0DB-2L1-4	Belimo, w/Power exhaust 208/230V		Extrap.
		PEBH-SRT12CA-D0DB-2AY-4	Belimo Only, backward inclined (Cyclone), 208/230V	Tested rigid wall/based mounted	74
		PEBH-SRT12CA-D2DH-2AY	JADE, backward inclined (Cyclone), 208/230V		Interp.
		PEBH-SRT12CA-D0DB-4AY-4	Belimo, backward inclined (Cyclone), 460V		Interp.
		PEBH-SRT12CA-D2DH-4AY	JADE, backward inclined (Cyclone), 460V	Tested rigid wall/based mounted	75

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation

Model Line: MBFQ/MARBQ/MBRBQ/MAP/QQ/MMD/MMK/MAHBQ/MBCQ/MBDQ/MMU/MMD/RBM

UUT	Unit Description	Report Number	Testing Laboratory	S _{DS}	z/h	I _p
1	24AHA-418-A003	16043-TR-001 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
2	25HHA-460-A006	16043-TR-001 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
3	40MKCB18B-3	16043-TR-001 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
4	40MKQB28B-3	16043-TR-001 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
5	40MKCB18F-3	16043-TR-001 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
6	40MKQB48F-3	16043-TR-001 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
7	40MKCB18F-3	16043-TR-001 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
8	40MKQB48F-3	16043-TR-001 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
9	RAV-SP180AT2-UL	16043-TR-001 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
10	RAV-SP420AT2-UL	16043-TR-001 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
11	RAV-SP180UT2-UL	16043-TR-001 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
12	RAV-SP420UT2-UL	16043-TR-001 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
13	RAV-SP180CT-UL	16043-TR-001 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
14	RAV-SP420CT-UL	16043-TR-001 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
15	RAV-SP180KRT-UL	16043-TR-001 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
16	RAV-SP420KRT-UL	16043-TR-001 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5

Notes:

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation

Model Line: MBFQ/MARBQ/MBRBQ/MAP/QQ/MMD/MMK/MAHBQ/MBCQ/MBDQ/MMU/MMD/RBM

UUT	Unit Description	Report Number	Testing Laboratory	S _{DS}	z/h	I _p
17	38MAQB09R-1	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
18	38MAQB36R-3	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
19	38MBRQ36A-3	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
20	38MBRQ48A-3	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
21	38MGQ18B-3	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
22	38MGQ48E-3	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
23	40MBQ09B-3	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
24	40MAQB36B-3	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
25	40MBQB09D-3	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
26	40MBQB24D-3	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
27	40MBQB09C-3	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
28	40MBQB18C-3	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
29	40MBQB09F-3	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
30	40MBQB12F-3	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
31	MMY-MAP0726HT9UL	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
32	MMY-MAP1686FT6UL	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5

Notes:

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer:		Carrier Corporation				
Model Line:		MBFQ/MARBQ/MBRBQ/MAP/QQ/MMD/MMK/MAHBQ/MBCQ/MBDQ/MMU/MMD/RBM				
UUT	Unit Description	Report Number	Testing Laboratory	S _{DS}	z/h	I _p
33	MMK-AP0073H2UL	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
34	MMK-AP0243H2UL	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
35	MMC-AP0181H2UL	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
36	MMC-AP0421H2UL	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
37	MMD-AP0074BH2UL	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
38	MMD-AP0484BH2UL	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
39	RBM-Y0383FUL	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
40	RBM-Y0963FUL	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
41	40MBQB36D-3	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
42	40MBQB48D-3	16043-TR-002 Rev. 1	Pacific Earthquake Engineering Research Center (PEER)	2.0 2.5	1.0 0.0	1.5
43	40MBCQ09---3	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
44	40MBCQ48---3	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
45	40MBDQ09---3	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
46	40MBDQ58---3	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
47	MMU-AP074HPUL	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
48	MMU-AP0484HPUL	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
49	MMD-AP0077BHPUL	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
Notes:						

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation
Model Line: MBFQ/MARBQ/MBRBQ/MAP/QQ/MMD/MMK/MAHBQ/MBCQ/MBDQ/MMU/MMD/RBM

UUT	Unit Description	Report Number	Testing Laboratory	S _{DS}	z/h	I _p
50	MMU-AP0546BHPUL	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
51	MMD-AP00246HPUL	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
52	MMD-AP00966HPUL	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
53	RBM-Y0384FUL	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
54	Not Used					
55	RMB-Y0611F4PUL	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
56	RMB-Y06116PUL	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
57	40MBFQ12---3	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
58	40MBFQ58---3	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
59	38MARBQ12AA1	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
60	38MARBQ36AA3	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
61	38MBRQ36AA3	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
62	38MBRQ48AA3	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
63	MCY-MAP0607HS-UL	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
64	40QQ-036AB3-0A0	2000971-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
65	40QQ-060ABA6-0A0	2000971-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
66	MMD-AP0120VHG2UL	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
67	MMD-AP0600VHG2UL	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5

Notes:

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation

Model Line: MBFQ/MARBQ/MBRBQ/MAP/QQ/MMD/MMK/MAHBQ/MBCQ/MBDQ/MMU/MMD/RBM

UUT	Unit Description	Report Number	Testing Laboratory	S _{DS}	z/h	I _p
68	40MAHBQ12XA1	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
69	40MAHBQ36XA3	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
70	MMK-AP0077HPUL	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
71	MMK-AP0247HPUL	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
72	40VMW030--3	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
73	38VMA144HDS	2000830-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
74	PEBH-SRT12CA-D0DB-2AY-4	2000971-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
75	PEBH-SRT12CA-D2DH-4AY	2000971-TR-001-R0	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
76	48FCTN07M3R6A3A5F0	2000971-TR-001-R0 (UUT 6)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
77	48GCLN06M3R6A2A0D0	2000971-TR-001-R0 (UUT 7)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5
78	48GCL04ALF5A0A0F0	2000971-TR-001-R0 (UUT 8)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.0 0.0	1.5

Notes:

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 1
Model Line: 24AHA/25HHA	
Model Number: 24AHA-418-A003 Serial Number: 3716X94714	

Product Construction Summary:
Carbon steel housing

Options/Subcomponent Summary:
Cooling only, single phase 208/230V

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
146	14.6	36.9	31.1	11.2	23.6	>33.3

UUT Highest Passed Seismic Run Information

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

Test Mounting Details:



The UUT was rigid floor mounted using six (6) 3/8" Grade 8 Bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 2
Model Line: 24AHA/25HHA	
Model Number: 25HHA-460-A006 Serial Number: 3616X90140	

Product Construction Summary:
Carbon steel housing

Options/Subcomponent Summary:
Heating and cooling, 3 phase 460V

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
245	17.1	44.5	43.1	5.8	13.8	>33.3

UUT Highest Passed Seismic Run Information

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

Test Mounting Details:



The UUT was rigid floor mounted using six (6) 3/8" Grade 8 Bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 3
Model Line: 40MK	
Model Number: 40MKCB18B-3 Serial Number: 2816V00518	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
37.5	10.2	46.7	13.4	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was rigid wall mounted using nineteen (19) #12 sheet metal screws.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 4
Model Line: 40MK	
Model Number: 40MKQB28B-3 Serial Number: 2515V00550	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
55.1	10.4	57.1	13.4	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was rigid wall mounted using twenty two (22) #12 sheet metal screws.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 5
Model Line: 40MK	
Model Number: 40MKCB18F-3 Serial Number: 4515V00035	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
59.7	42	9.3	26.6	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was rigid wall mounted using four (4) 3/8" A307 Thru bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 6
Model Line: 40MK	
Model Number: 40MKQB48F-3 Serial Number: 3015V00793	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
98.8	9.3	65	26.6	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was rigid wall mounted using four (4) 3/8" A307 Thru bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 7
Model Line: 40MK	
Model Number: 40MKCB18F-3 Serial Number: 4575V00034	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
59.7	42	26.6	9.3	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling suspended using four (4) 3/8" A36 hanger rods w/rod stiffeners & four (4) 1/8" cable braces w/Mason SCB-1/SCBH-1 clips at each end. The brackets were mounted to the unit using six (6) #10 self-tapping screws each. Unit maintained structural integrity and remained functional per manufacturer requirement. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 8
Model Line: 40MK	
Model Number: 40MKQB48F-3 Serial Number: 3015V00793	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
98.8	26.6	65	9.3	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling suspended using four (4) 3/8" A36 hanger rods w/rod stiffeners & four (4) 1/8" cable braces w/Mason SCB-1/SCBH-1 clips at each end. The brackets were mounted to the unit using six (6) #10 self-tapping screws each. Unit maintained structural integrity and remained functional per manufacturer requirement. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 9
Model Line: RAV	
Model Number: RAV-SP180AT2-UL Serial Number: 60620057	

Product Construction Summary:
Carbon steel housing

Options/Subcomponent Summary:

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
98	11.4	30.7	21.7	17.2	21.1	>33.3

UUT Highest Passed Seismic Run Information

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

Test Mounting Details:



The UUT was rigid floor mounted using four (4) 3/8" Grade 8 Bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 10
Model Line: RAV	
Model Number: RAV-SP420AT2-UL Serial Number: 606B001	

Product Construction Summary:
Carbon steel housing

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
211.5	12.6	35.4	52.8	3.1	6.8	>33.3

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

Test Mounting Details:



The UUT was rigid floor mounted using four (4) 1/2" Grade 8 Bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 11
Model Line: RAV	
Model Number: RAV-SP180UT-UL Serial Number: 60370013	

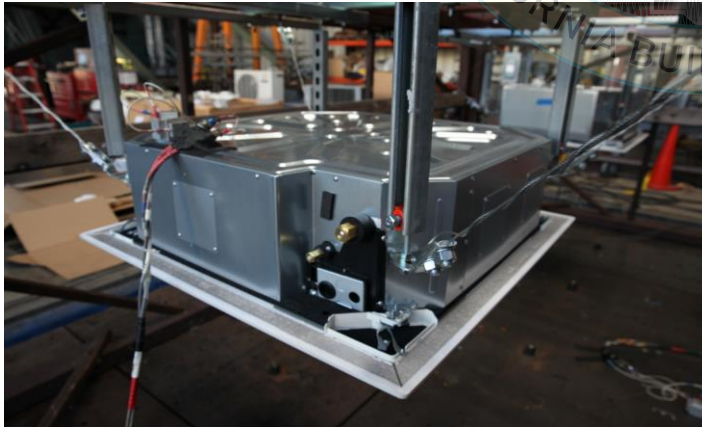
Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
44	33.1	33.1	10.1	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling suspended using four (4) 3/8" A36 hanger rods w/rod stiffeners & four (4) 1/8" cable braces w/Mason SCB-1/SCBH-1 clips at each end. Future installations will require (8) perpendicular cable braces minimum to restrain against torsion. Unit maintained structural integrity and remained functional per manufacturer requirement. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 12
Model Line: RAV	
Model Number: RAV-SP420UT-UL	
Serial Number: 60670004	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
53	33.1	33.1	12.6	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling suspended using four (4) 3/8" A36 hanger rods w/rod stiffeners & four (4) 1/8" cable braces w/Mason SCB-1/SCBH-1 clips at each end. Future installations will require (8) perpendicular cable braces minimum to restrain against torsion. Unit maintained structural integrity and remained functional per manufacturer requirement. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 13
Model Line: RAV	
Model Number: RAV-SP180CT-UL Serial Number: 50820030	

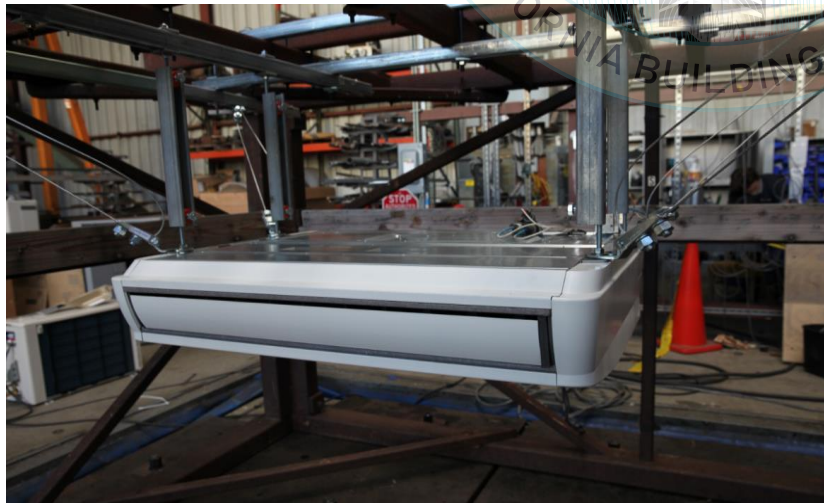
Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
46	26.8	35.8	8.3	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling hung using four (4) A36 hanger rods w/rod stiffeners and four (4) 1/8" cable braces w/ Mason SCB-1/SCBH-1 clips at each end.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 14
Model Line: RAV	
Model Number: RAV-SP420CT-UL	
Serial Number: 60420008	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
73	26.8	62.8	8.3	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling hung using four (4) A36 hanger rods w/rod stiffeners and four (4) 1/8" cable braces w/ Mason SCB-1/SCBH-1 clips at each end.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 15
Model Line: RAV	
Model Number: RAV-SP180KRT-UL Serial Number: 62600060	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
31	9	41.3	12.6	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was rigid wall mounted using ten (10) #10 sheet metal screws.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 16
Model Line: RAV	
Model Number: RAV-SP240KRT-UL Serial Number: 62400016	

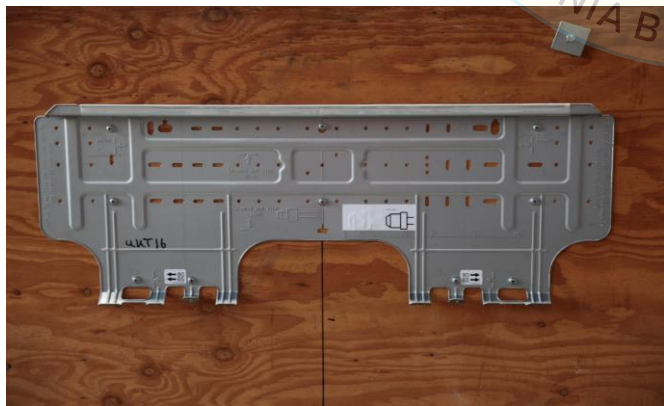
Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
31	9	41.3	12.6	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was rigid wall mounted using ten (10) #10 sheet metal screws.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 17
Model Line: 38MAQ	
Model Number: 38MAQB09R - 1 Serial Number: 2016V15947	

Product Construction Summary:
Carbon steel housing

Options/Subcomponent Summary:

<i>UUT Properties</i>						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
82.45	12.2	31.89	21.97	17.7	12.8	>33.3

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

Test Mounting Details:



The UUT was rigid floor mounted using four (4) 3/8" lag screws with washers.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 18
Model Line: 38MAQ	
Model Number: 38MAQB36R - 3	
Serial Number: 3616V10300	

Product Construction Summary:
Carbon steel housing

Options/Subcomponent Summary:

<i>UUT Properties</i>						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
147.3	16.14	31.89	37.2	11.7	7.7	>33.3

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

Test Mounting Details:



The UUT was rigid floor mounted using four (4) 3/8" lag screws with washers.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 19
Model Line: 38MBR	
Model Number: 38MBRQ36A - 3 Serial Number: 2616V14685	

Product Construction Summary:
Carbon steel housing

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
154	15.55	37.2	31.89	9.9	13.9	>33.3

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

Test Mounting Details:



The UUT was rigid floor mounted using four (4) 3/8" A307 bolts with washers.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 20
Model Line: 38MBR	
Model Number: 38MBRQ48A - 3	
Serial Number: 2316V13891	

Product Construction Summary:
Carbon steel housing

Options/Subcomponent Summary:

<i>UUT Properties</i>						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
220	15.43	36.93	53.9	8.5	7.1	21.2

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

Test Mounting Details:



The UUT was rigid floor mounted using four (4) 3/8" A307 bolts with washers.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 21
Model Line: 38MGQ	
Model Number: 38MGQ18B - 3 Serial Number: 2316V12708	

Product Construction Summary:
Carbon steel housing

Options/Subcomponent Summary:

<i>UUT Properties</i>						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
105.8	12.6	33.27	27.56	14.5	11.3	>33.3

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

Test Mounting Details:



The UUT was rigid floor mounted using four (4) 3/8" lag screws with washers.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 22
Model Line: 38MGQ	
Model Number: 38MGQ48E - 3 Serial Number: 3116V14026	

Product Construction Summary:
Carbon steel housing

Options/Subcomponent Summary:

<i>UUT Properties</i>						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
227.7	15.43	36.9	53.9	9.5	6.4	>33.3

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

Test Mounting Details:



The UUT was rigid floor mounted using four (4) 3/8" lag screws with washers.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 23
Model Line: 40MAQ	
Model Number: 40MAQB09B-3 Serial Number: 2616V11354	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
19.18	7.8	32.87	11.02	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was rigid wall mounted using fifteen (15) #10 sheet metal screws.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 24
Model Line: 40MAQ	
Model Number: 40MAQB36B-3 Serial Number: 3916V10089	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
40.12	10.16	46.69	13.39	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was rigid wall mounted using fifteen (15) #10 sheet metal screws.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 25
Model Line: 40MBQ	
Model Number: 40MBQB09D - 3 Serial Number: 1915V41300	

Product Construction Summary:
Carbon steel internal frame; carbon steel outer cover

Options/Subcomponent Summary:
Requires seismic enhancements: (6) #10 self-tapping screws in each mounting bracket (24 total)

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
39.9	25	27.6	8.3	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners and four (4) 1/8" Ø diagonal cable braces w/ Mason SCB-1/SCBH-1 clips at each end.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 26
Model Line: 40MBQ	
Model Number: 40MBQB24D - 3 Serial Number: 2116V15495	

Product Construction Summary:
Carbon steel internal frame; carbon steel outer cover

Options/Subcomponent Summary:
Requires seismic enhancements: (6) #10 self-tapping screws in each mounting bracket (24 total)

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
57.3	25	36.2	10.6	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners and four (4) 1/8" Ø diagonal cable braces w/ Mason SCB-1/SCBH-1 clips at each end.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 27
Model Line: 40MBQ	
Model Number: 40MBQB09C - 3 Serial Number: 3116V12025	

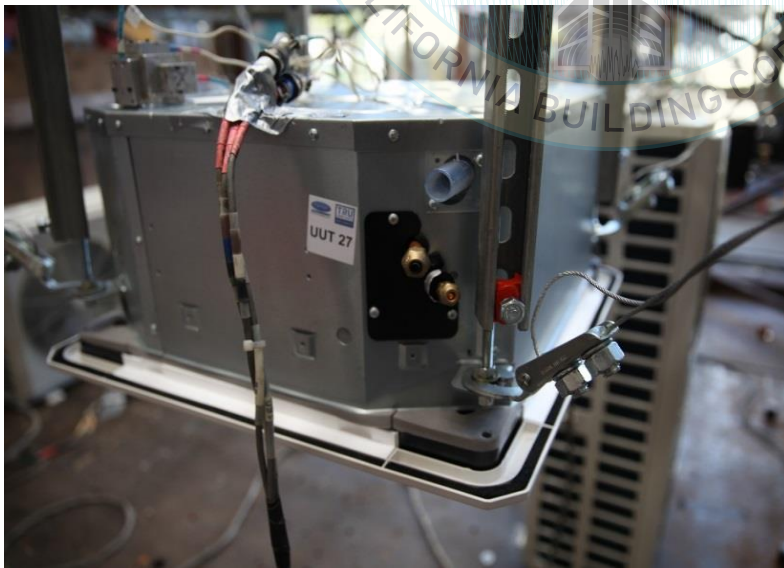
Product Construction Summary:
Carbon steel internal frame; plastic and carbon steel outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
40.8	22.4	22.4	10.2	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners and four (4) 1/8" Ø diagonal cable braces w/ Mason SCB 1/SCBH-1 clips at each end. Future installations will require (8) perpendicular cable braces minimum to restrain against torsion. Unit maintained structural integrity and remained functional per manufacturer requirement. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 28
Model Line: 40MBQ	
Model Number: 40MBQB18C - 3 Serial Number: 2216V17296	

Product Construction Summary:
Carbon steel internal frame; plastic and carbon steel outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
45.2	22.4	22.4	10.2	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners and four (4) 1/8" Ø diagonal cable braces w/ Mason SCB 1/SCBH-1 clips at each end. Future installations will require (8) perpendicular cable braces minimum to restrain against torsion. Unit maintained structural integrity and remained functional per manufacturer requirement. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 29
Model Line: 40MBQ	
Model Number: 40MBQB09F - 3	Serial Number: 1715V28949

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
32.4	23.6	27.6	8.3	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

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

Test Mounting Details:



The UUT was rigid wall mounted using eight (8) #10 sheet metal screws.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 30
Model Line: 40MBQ	
Model Number: 40MBQB12F - 3 Serial Number: 1516V10082	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

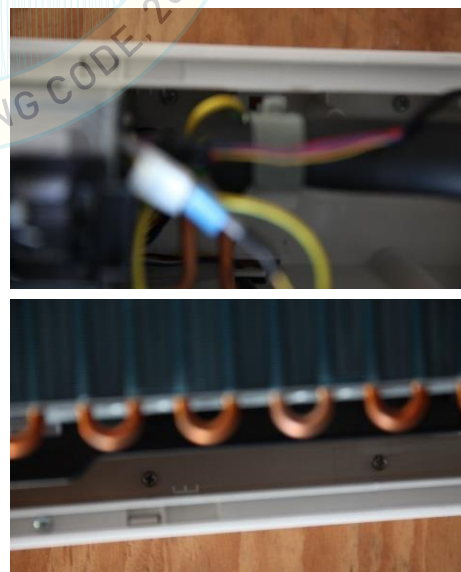
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
32.4	23.6	27.6	8.3	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

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

Test Mounting Details:



The UUT was rigid wall mounted using eight (8) #10 sheet metal screws.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 31
Model Line: MMY	
Model Number: MMY-MAP0726HT9UL	
Serial Number: 62800002	

Product Construction Summary:
Carbon steel housing

Options/Subcomponent Summary:

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
621	30.7	39	72.8	8.3	11.5	>33.3

UUT Highest Passed Seismic Run Information

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

Test Mounting Details:



The UUT was rigid floor mounted using four (4) 1/2" A307 bolts with washers.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 32
Model Line: MMY	
Model Number: MMY-MAP1686FT6UL	
Serial Number: 6280004	

Product Construction Summary:
Carbon steel housing

Options/Subcomponent Summary:

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
875	30.7	63	72.9	7.0	14.4	>33.3

UUT Highest Passed Seismic Run Information

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

Test Mounting Details:



The UUT was rigid floor mounted using eight (8) 1/2" A307 bolts with washers.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 33
Model Line: MMK	
Model Number: MMK-AP0073H2UL Serial Number: 62800002	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
33	9	41.3	12.6	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was rigid wall mounted using nine (9) #10 sheet metal screws.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 34
Model Line: MMK	
Model Number: MMK-AP0243H2UL Serial Number: 62600007	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
33	9	41.3	12.6	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was rigid wall mounted using nine (9) #10 sheet metal screws.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 35
Model Line: MMC	
Model Number: MMC-AP0181H2UL Serial Number: 5092009	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
46	26.8	35.8	8.3	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners and four (4) 1/8" Ø diagonal cable braces w/ Mason SCB-1/SCBH-1 clips at each end.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 36
Model Line: MMC	
Model Number: MMC-AP0421H2UL Serial Number: 60720009	

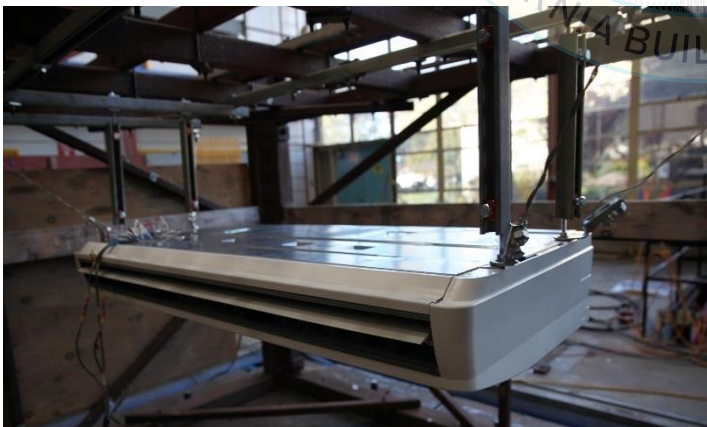
Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
75	26.8	62.8	8.3	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners and four (4) 1/8" Ø diagonal cable braces w/ Mason SCB-1/SCBH-1 clips at each end.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 37
Model Line: MMD	
Model Number: MMD-AP0074BH2UL	
Serial Number: 40680035	

Product Construction Summary:
Carbon steel internal frame; carbon steel outer cover

Options/Subcomponent Summary:

<i>UUT Properties</i>						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
64	31.5	21.7	12.6	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners and four (4) 1/8" Ø diagonal cable braces w/ Mason SCB-1/SCBH-1 clips at each end.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 38
Model Line: MMD	
Model Number: MMD-AP0484BH2UL	
Serial Number: 40680003	

Product Construction Summary:
Carbon steel internal frame; carbon steel outer cover

Options/Subcomponent Summary:

<i>UUT Properties</i>						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
119	31.5	53.2	12.6	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners and four (4) 1/8" Ø diagonal cable braces w/ Mason SCB-1/SCBH-1 clips at each end.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 39
Model Line: RBM	
Model Number: RBM-Y0383FUL	
Serial Number: 60880027	

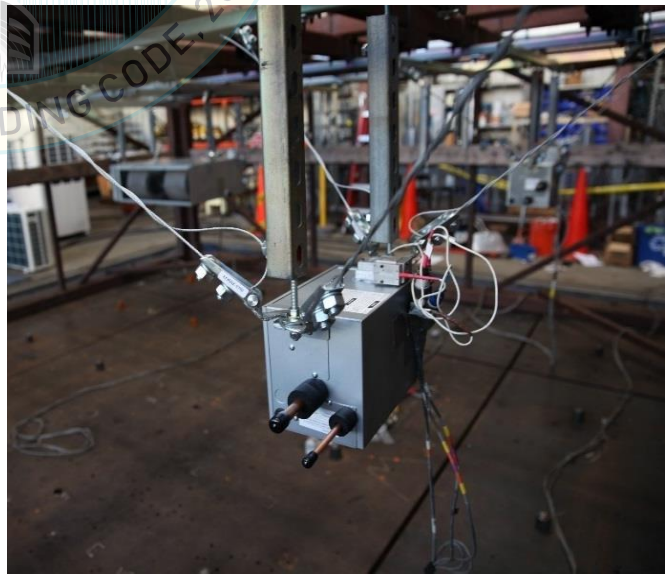
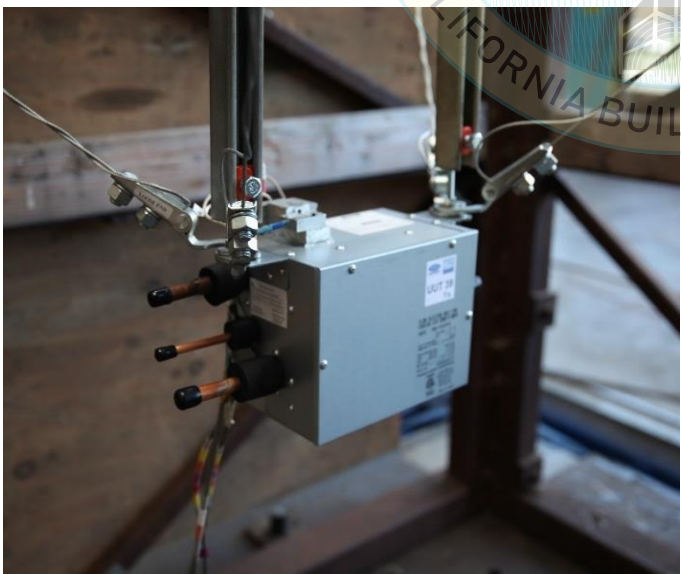
Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
11	6	9.7	7.5	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling hung using two (2) 3/8" Ø A36 hanger rods w/ rod stiffeners and four (4) 1/8" Ø diagonal cable braces w/ Mason SCB-1/SCBH-1 clips at each end.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 40
Model Line: RBM	
Model Number: RBM-Y0963FUL	
Serial Number: 31180021	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

<i>UUT Properties</i>						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
20	7.9	15.8	7.9	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling hung using two (2) 3/8" Ø A36 hanger rods w/ rod stiffeners and four (4) 1/8" Ø diagonal cable braces w/ Mason SCB-1/SCBH-1 clips at each end.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 41
Model Line: 40MBQ	
Model Number: 40MBQB36D-3 Serial Number: 4215V51146	

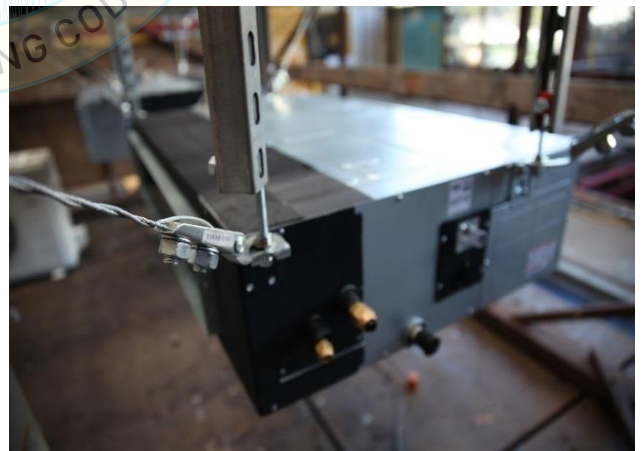
Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:
Requires seismic enhancements: (4) #10 self-tapping screws in each mounting bracket (16 total)

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
77.2	34.1	47.2	11.8	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners and four (4) 1/8" Ø diagonal cable braces w/ Mason SCB-1/SCBH-1 clips at each end.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 42
Model Line: 40MBQ	
Model Number: 40MBQB48D-3 Serial Number: 4215V51146	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:
Requires seismic enhancements: (4) #10 self-tapping screws in each mounting bracket (16 total)

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
99.2	30.51	47.24	11.81	N/A	N/A	N/A

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

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners and four (4) 1/8" Ø diagonal cable braces w/ Mason SCB-1/SCBH-1 clips at each end.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 43
Model Line: MBCQ	
Model Number: 40MBCQ09---3 Serial Number: n/a	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in) ¹			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
37.5	25.5	25.5	12.2	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners, square washers, and eight (8) 3/32" Ø diagonal cable braces w/ Mason SCB-0/SCBH-0 clips at each end.

¹Dimensions include plastic panel.

Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 44
Model Line: MBCQ	
Model Number: 40MBCQ48---3 Serial Number: 3220V13311	

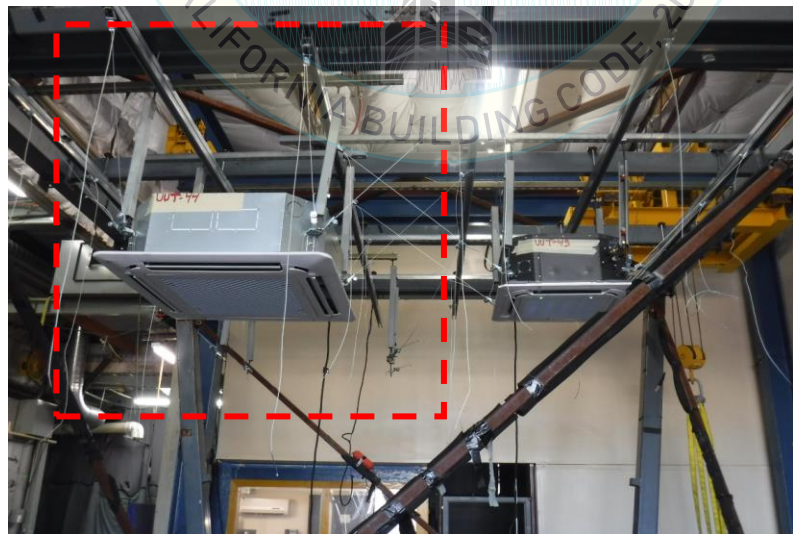
Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in) ¹			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
77.5	37.4	37.4	13.5	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners, square washers, and eight (8) 3/32" Ø diagonal cable braces w/ Mason SCB-0/SCBH-0 clips at each end.

¹Dimensions include plastic panel.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 45
Model Line: MBDQ	
Model Number: 40MBDQ09-3 Serial Number: 1120V22510	

Product Construction Summary:
Carbon steel internal frame; carbon steel outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
47	19.9	27.6	7.9	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners, square washers, and four (4) 3/32" Ø diagonal cable braces w/ Mason SCB-0/SCBH-0 clips at each end. Two (2) 3/8" -1" zip screws added to each mounting bracket. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 46
Model Line: MBDQ	
Model Number: 40MBDQ58---3 Serial Number: n/a	

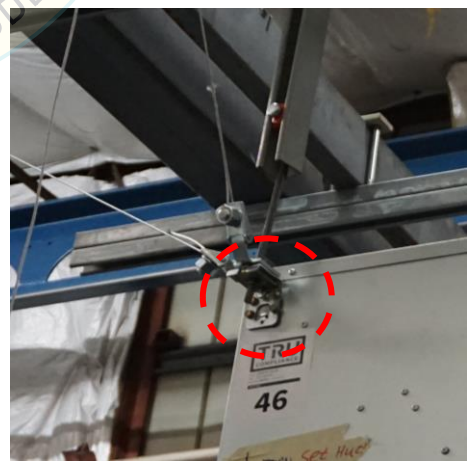
Product Construction Summary:
Carbon steel internal frame; carbon steel outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
182	33.8	55.1	11.8	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



The UUT was ceiling hung using four (4) 1/2" Ø A36 hanger rods w/ rod stiffeners, square washers, and eight (8) 1/8" Ø diagonal cable braces w/ Mason SCB-1/SCBH-1 clips at each end. Four (4) 1/4" -1" zip screws added to each mounting bracket. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 47
Model Line: MMU	
Model Number: MMU-AP0074HPUL Serial Number: n/a	

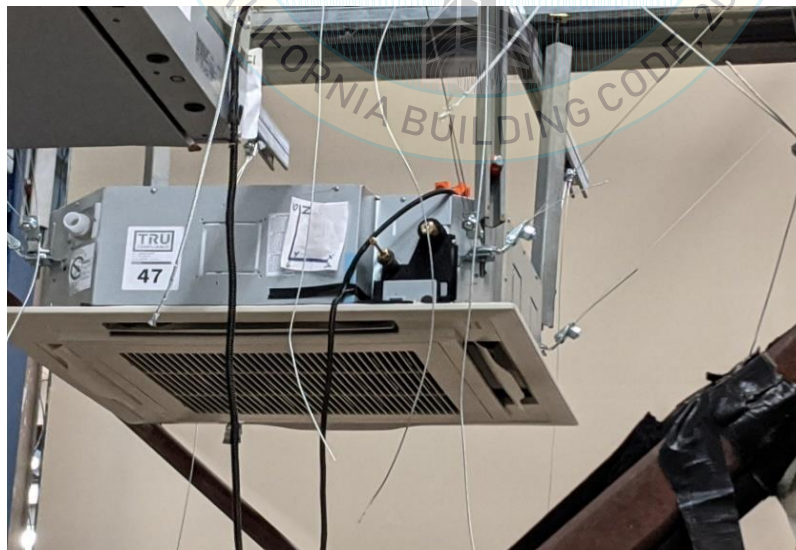
Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in) ¹			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
44	37.4	37.4	10	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners and eight (8) 3/32" Ø diagonal cable braces w/ Mason SCB-0/SCBH-0 clips at each end.

¹Dimensions include plastic panel.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 48
Model Line: MMU	
Model Number: MMU-AP0484HPUL Serial Number: n/a	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in) ¹			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
67	37.4	37.4	12.6	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners and eight (8) 3/32" Ø diagonal cable braces w/ Mason SCB-0/SCBH-0 clips at each end.

¹Dimensions include plastic panel.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 49
Model Line: MMD	
Model Number: MMD-AP0076BHPUL Serial Number: n/a	

Product Construction Summary:
Carbon steel internal frame; carbon steel outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
54	29.5	27.6	9.3	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners and eight (8) 3/32" Ø diagonal cable braces w/ Mason SCB-0/SCBH-0 clips at each end.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 50
Model Line: MMD	
Model Number: MMD-AP0546BHPUL	
Serial Number: n/a	

Product Construction Summary:
Carbon steel internal frame; carbon steel outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
90.5	29.5	55.1	9.3	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners and four (4) 3/32" Ø diagonal cable braces w/ Mason SCB-0/SCBH-0 clips at each end.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 51
Model Line: MMD	
Model Number: MMD-AP0246HPUL Serial Number: n/a	

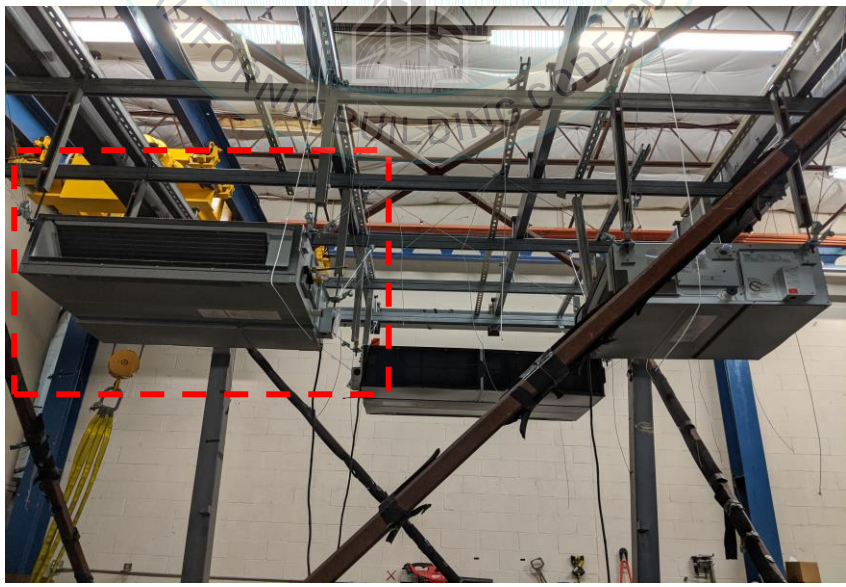
Product Construction Summary:
Carbon steel internal frame; carbon steel outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
76.5	29.5	39.3	11.7	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners and eight (8) 3/32" Ø diagonal cable braces w/ Mason SCB-0/SCBH-0 clips at each end.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 52
Model Line: MMD	
Model Number: MMD-AP0966HPUL Serial Number: 200004	

Product Construction Summary:
Carbon steel internal frame; carbon steel outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
218.5	35.4	55.1	17.6	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
Building Code: CBC 2019	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



The UUT was ceiling hung using four (4) 1/2" Ø A36 hanger rods w/ rod stiffeners, square washers, and eight (8) 1/8" Ø diagonal cable braces w/ Mason SCB-1/SCBH-1 clips at each end. See additional mounting detail below. Unit maintained structural integrity and remained functional per manufacturer requirement. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation

Model Line: MMD

Model Number: MMD-AP0966HPUL

Serial Number: 200004

UUT 52

Additional Mounting Details

Two parallel Unistrut pieces added to the top of the unit with four (4) 1/2" grade 5 bolts with washers. These two pieces of Unistrut are referred to as horizontally mounted Unistrut below.



The hanging rod run through the horizontal Unistrut that has been attached to the top of the unit.



Horizontally mounted Unistrut

Hanging Rod

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 53
Model Line: RMB	
Model Number: RMB-Y0384FUL Serial Number: n/a	

Product Construction Summary:
Carbon steel internal frame; carbon steel outer cover

Options/Subcomponent Summary:

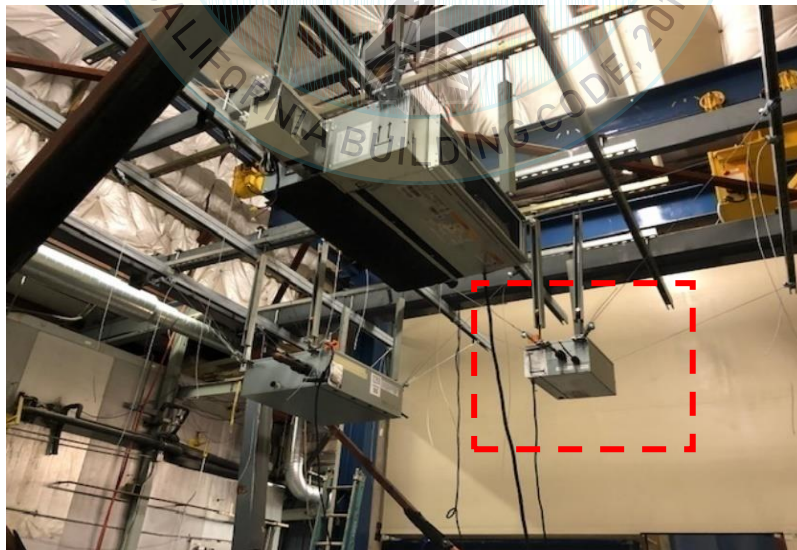
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
25	11.8	19.4	7.1	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67
		2.5	0.0					

Test Mounting Details:



The UUT was ceiling hung using three (3) 3/8" Ø A36 hanger rods w/ rod stiffeners and four (4) 3/32" Ø diagonal cable braces w/ Mason SCB-0/SCBH-0 clips at each end. Unit had two mounting brackets on one side and only a single bracket in the center on the opposite.

Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 55
Model Line: RBM - Branch Selector	
Model Number: RBM-Y0611F4PUL Serial Number: 92600018	

Product Construction Summary:
Carbon steel internal frame; carbon steel outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
83.5	22.4	28.8	8.5	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



The UUT was ceiling hung using four (4) 3/8" Ø A36 hanger rods w/ rod stiffeners and eight (8) 3/32" Ø diagonal cable braces w/ Mason SCB-0/SCBH-0 clips at each end. Two (2) 3/8" -1" zip screws added to each mounting bracket. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 56
Model Line: RBM-Branch Selector	
Model Number: RBM-Y0611F6PUL	
Serial Number: 2800041	

Product Construction Summary:
Carbon steel internal frame; carbon steel outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
117	22.4	41.4	8.5	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



The UUT was ceiling hung using four (4) 1/2" Ø A36 hanger rods w/ rod stiffeners and four (4) 1/8" Ø diagonal cable braces w/ Mason SCB-1/SCBH-1 clips at each end. Three (3) 1/4" Grade 5 bolts with washer and nuts added to each mounting bracket. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 57
Model Line: MBFQ	
Model Number: 40MBFQ12---3 Serial Number: n/a	


Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
32.5	8.3	27.7	23.6	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



Unit wall mounted-rigid with four (4) #8 wood screws. Mounting plated attached to fixture, unit snaps onto mounting plate. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 58
Model Line: MBFQ	
Model Number: 40MBFQ58---3	Serial Number: 3820V12461

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
97.5	9.25	65.0	26.6	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



Unit wall mounted-rigid with four (4) 3/8" lag bolts with wash and nut.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 59
Model Line: MARB	
Model Number: 38MARBQ12AA101	
Serial Number: 4920V1443	

Product Construction Summary:
Carbon steel

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
65	13.0	31.7	21.8	15.9	12.1	31.3

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



UUT base mounted-rigid with four (4) 3/8" Grade 8 Bolts with washers and rubber pads provided by manufacturer. Bolts torqued to 15ft-lbs.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 60
Model Line: MARB	
Model Number: 38MARBQ36AA301	
Serial Number: 4920V1444	

Product Construction Summary:
Carbon steel

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
142	16.1	37.2	31.9	7.4	7.6	26.8

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



UUT base mounted-rigid with four (4) 3/8" Grade 8 Bolts with washers and rubber pads provided by manufacturer. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 61
Model Line: MBRBQ	
Model Number: 38MBRBQ36AA301	Serial Number: 2920V11625

Product Construction Summary:
Carbon steel

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
155	16.1	37.2	31.9	8.5	12.5	28.8

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



UUT base mounted-rigid with four (4) 3/8" Grade 8 bolts with washers and rubber pads provided by manufacturer. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 62
Model Line: MBRBQ	
Model Number: 38MBRBQ48AA3	Serial Number: 2720V11345

Product Construction Summary:
Carbon steel

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
216	16.3	37.5	52.5	6.2	9.1	31.4

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



UUT base mounted-rigid with four (4) 3/8" Grade 8 bolts with washers and rubber pads provided by manufacturer. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 63
Model Line: MCY-MAP	
Model Number: MCY-MAP0607HS-UL	
Serial Number: 006E0037	

Product Construction Summary:
Carbon steel

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
310.5	17.4	39.8	61	15.01	15.07	28.35

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



UUT base mounted-rigid with four (4) 3/8" Grade 8 bolts with washers.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 64a
Model Line: 40QQ	
Model Number: 40QQ-036ABA3A0A0	
Serial Number: 4420C88680	

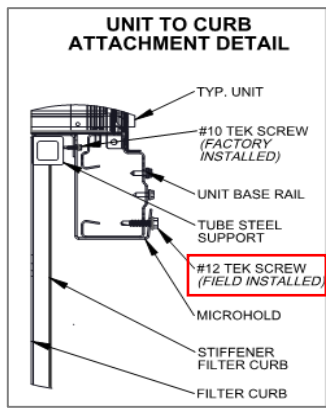
Product Construction Summary:
Formed carbon steel construction.

Options/Subcomponent Summary:
DX-PMV Kit (PN: RBM-A0121GUL), Brach Selector(PN:RBM-Y0384-FUL)

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
359	46.6	74.4	33.4	9.91	21.72	11.82

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019, IBC 2018	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



Three brackets on each long side
Four (4) #12 screws used in each bracket.



MicroMetl rigid filter curb, 40" tall (PN:W537-FLT-12-SA-CBC) mounted to the table with twelve (12) 1/2" Grade 8 bolts with washers. Unit mounted to curb with twenty-four (24) #12x1-1/2" screws.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 64b
Model Line: 40QQ	
Model Number: 40QQ-036ABA3A0A0	
Serial Number: 4420C88680	

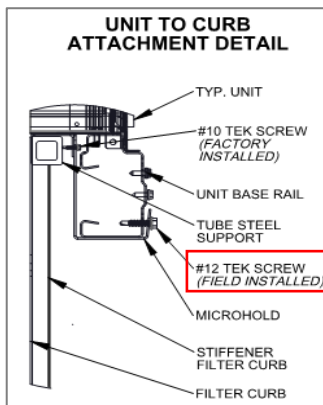
Product Construction Summary:
Formed carbon steel construction.

Options/Subcomponent Summary:
DX PMV Kit (PN: RBM-A0961GUL), DX Controller (PN: TCB-IFDA1-GUL), Brach Selector(PN:RBM-Y0384-FUL)

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
359	46.6	74.4	33.4	9.91	21.72	11.82

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019, IBC 2018	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



Three brackets on each long side
Four (4) #12 screws used in each bracket.



MicroMetl rigid filter curb, 40" tall (PN:W537-FLT-12-SA-CBC) mounted to the table with twelve (12) 1/2" Grade 8 bolts with washers. Unit mounted to curb with twenty-four (24) #12x1-1/2" screws.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 65a
Model Line: 40QQ	
Model Number: 40QQ-060ABA6A0A0	
Serial Number: 1320C86727	

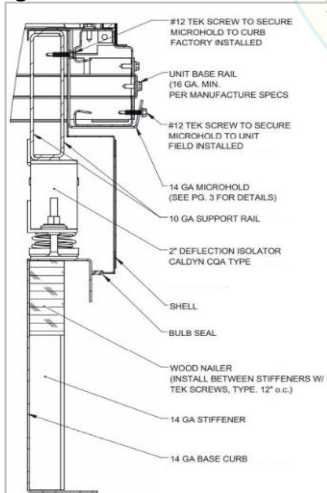
Product Construction Summary:
Formed carbon steel construction.

Options/Subcomponent Summary:
Electric Heat (PN: CRHEATER337A00), DX PMV Kit (PN: RBM-A0961GUL), DX Controller (PN: TCB-IFDA1-GUL), Branch Selector (PN: RBM-Y0383FUL)

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
425	46.6	74.4	41.4	4.54	6.31	8.04

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019, IBC 2018	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



Two brackets on all sides. Three (3) #12 screws in each bracket

MicroMetl isolator curb 34" tall (PN:CRBV-SRT12GA-2412-P20) mounted to the table with twelve (12) 1/2" Grade 8 bolts with washers. Unit mounted to curb with twenty-four (24) #12x1-1/2" screws.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 65b
Model Line: 40QQ	
Model Number: 40QQ-060ABA6A0A0	
Serial Number: 1320C86727	

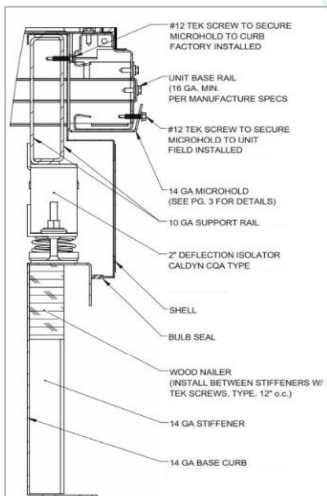
Product Construction Summary:
Formed carbon steel construction.

Options/Subcomponent Summary:
DX-PMV Kit (PN: RBM-A0121GUL)L, Branch Selector (PN: RBM-Y0383FUL)

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
425	46.6	74.4	41.4	4.54	6.31	8.04

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019, IBC 2018	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



Two brackets on all sides. Three (3) #12 screws in each bracket

MicroMetl isolator curb 34" tall (PN:CRBV-SRT12GA-2412-P20) mounted to the table with twelve (12) 1/2" Grade 8 bolts with washers. Unit mounted to curb with twenty-four (24) #12x1-1/2" screws.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 66
Model Line: MMD	
Model Number: MMD-AP0120VVHG2UL	
Serial Number: 003R3955	

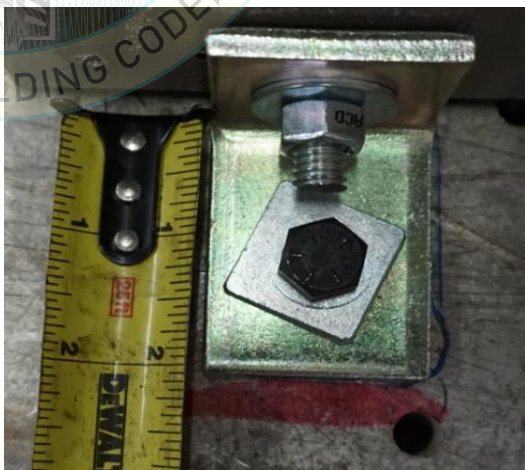
Product Construction Summary:
Carbon steel

Options/Subcomponent Summary:

<i>UUT Properties</i>						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
124.5	22.3	17.7	46.9	13.5	22.3	>33.3

<i>UUT Highest Passed Seismic Run Information</i>									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



UUT base mounted - rigid with 2" x 2" (both vertical and horizontal legs) by 1/4" thick carbon steel angles with six (6) 3/8" grade 8 bolt and 1" x 1" carbon steel washer. Two angles each used on rear and sides only. Front side does not have mounting angles. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 67
Model Line: MMD	
Model Number: MMD-AP0600VHG2UL	
Serial Number: 011R4959	

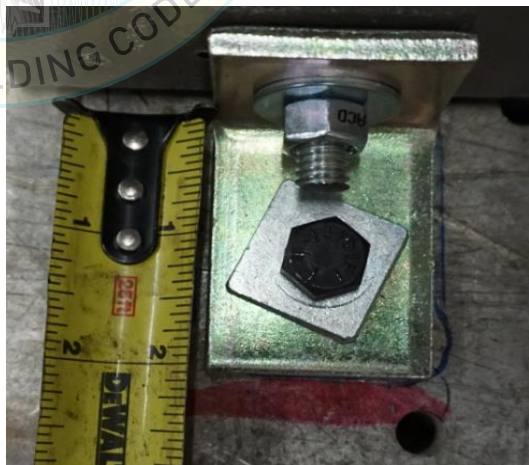
Product Construction Summary:
Carbon steel

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
227	31.3	24.2	57.9	8.9	19.7	12.6

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



UUT base mounted - rigid with 2" x 2" (both vertical and horizontal legs) by 1/4" thick carbon steel angles with six (6) 3/8" grade 8 bolt and 1" x 1" carbon steel washer. Two angles each used on rear and sides only. Front side does not have mounting angles. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 68
Model Line: MAHB	
Model Number: 40MAHBQ12XA1	Serial Number: 4920V1441

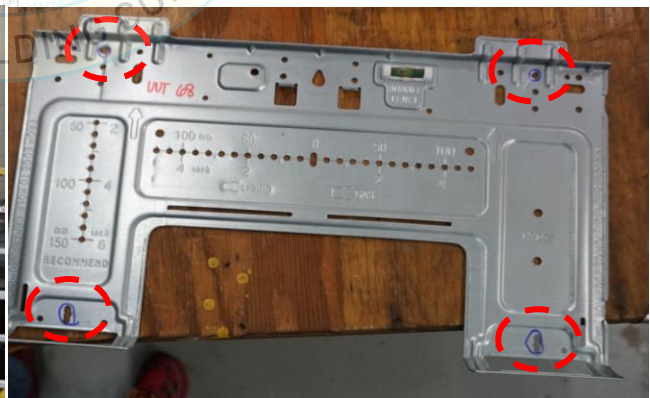
Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
24	8.9	31.3	11.6	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



Unit wall mounted-rigid with four (4) #8 wood screws. See mounting plate in photo above for mounting screw locations. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 69
Model Line: RBM	
Model Number: 40MAHBQ36XA3	Serial Number: 4920V14442

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
47.5	10.8	44.9	14.6	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



Unit wall mounted-rigid with five (5) #8 wood screws. See mounting plate in photo above for mounting screw locations. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 70
Model Line: MMK	
Model Number: MMK-AP0077HPUL Serial Number: n/a	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
24	9.1	31.5	11.6	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



Unit wall mounted-rigid with five (5) #8 wood screws. Two (2) #8 zip screws add to the plastic housing on top and bottom to secure the unit to the wall for seismic installations. Locations shown in images above.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 71
Model Line: MMK	
Model Number: MMK-AP0247HPUL Serial Number: n/a	

Product Construction Summary:
Carbon steel internal frame; plastic outer cover

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
33	9.9	41.4	12.6	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



Unit wall mounted-rigid with five (5) #8 wood screws. Two (2) #8 zip screws add to the plastic housing on top and bottom to secure the unit to the wall for seismic installations. Locations shown in images above.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 72
Model Line: VMW	
Model Number: 40VMW030--3 Serial Number: n/a	


Product Construction Summary:
Carbon steel internal frame; plastic outer cover



Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
38	10	47	13.5	n/a	n/a	n/a

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



Two screws on top of unit, left screw not shown in image.

UUT wall mounted rigid with five (5) #8 wood screws. Two (2) #8 zip screws on top and bottom.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 73
Model Line: VMA	
Model Number: 38VMA144HDS Serial Number: n/a	

Product Construction Summary:
Carbon steel

Options/Subcomponent Summary:

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
781.5	31.1	53.8	64.3	7.84	11.64	9.20

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67
		2.5	0.0					

Test Mounting Details:



UUT base mounted rigid with four (4) 1/2" Grade 5 bolts with washer.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 74
Model Line: PEBH	
Model Number: PEBH-SRT12CA-D2DH-4AY Serial Number: N/A	

Product Construction Summary:
Carbon steel construction.

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
117.5	20.63	24.25	20.44	9.36	1.35	8.84

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



Two (2) MicroMetl legs (PN: MP-1908-049) each attached to the front of the unit with two (2) #12 self tappers. Each leg was attached to the shake table with two (2) 1/4" Grade 8 bolts with washers. Test unit attached to sheet metal on the wall fixture with twelve (12) #12 self tappers, three (3) on each side of the unit.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 75
Model Line: PEBH	
Model Number: PEBH-SRT12CA-D2DH-4AY Serial Number: n/a	

Product Construction Summary:
Formed carbon steel construction.

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
117.5	20.63	24.25	20.44	8.76	17.14	24.33

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



Two (2) MicroMetl legs (PN: MP-1908-049) each attached to the front of the unit with two (2) #12 self tappers. Each leg was attached to the shake table with two (2) 1/4" Grade 8 bolts with washers. Test unit attached to sheet metal on the wall fixture with twelve (12) #12 self tappers, three (3) on each side of the unit.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer:	Carrier Corporation	UUT 76
Model Line:	48FC	
Model Number:	48FCTN07M3R6A3A5F0	Serial Number: 4920C85926

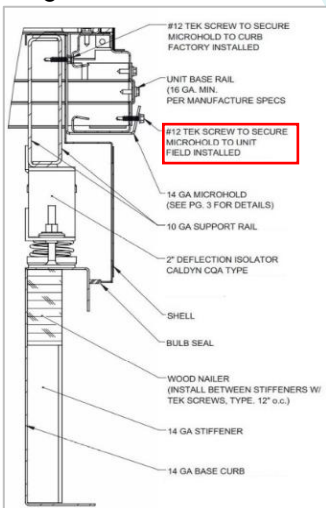
Product Construction Summary:
Formed carbon steel construction.

Options/Subcomponent Summary:
Micrometl Economizer & Power Exhaust (PECD-SRT12CA-D2DH-4L1), Scroll Compressor (ZPS60K5E-TFD-130), Gas Heat(48TC002699), Condenser Coils (Custom-Cu/Cu), Evaporator Coil (Custom-Cu/Cu), Humidifier Coil (Custom-Cu/Cu), Solenoid Valve (EF23VS130, EF23VS183), TEV (BBIZE-6-GA-B5), Controls (48TCFSRBDZ-A00), Condenser Fan (48TC003644), Condenser Fan Motor (5KCP39HGWG04s), Evaporator Fan (48TC001693), Evaporator Fan Motor (M3G112-EA90-G5), SA Smoke Detector (HK50ZT001), Louvered Hail Guard (CRLVHLGD049A00)

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
569	46.6	74.4	41.4	3.15	4.95	>33.3

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



Two brackets on all sides. Three (3) #12 screws in each bracket

MicroMetl isolator curb 34" tall (PN:CRBV-SRT12GA-2412-P20) mounted to the table with twelve (12) 1/2" Grade 8 bolts with washers. Unit mounted to curb with twenty-four (24) #12x1-1/2" screws. Weight does not include power exhaust. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

2000830-CR-001-R1



Manufacturer: Carrier Corporation	UUT 77
Model Line: 48GC	
Model Number: 48GCLN06M3R6A2A0D0	
Serial Number: 4920C85974	

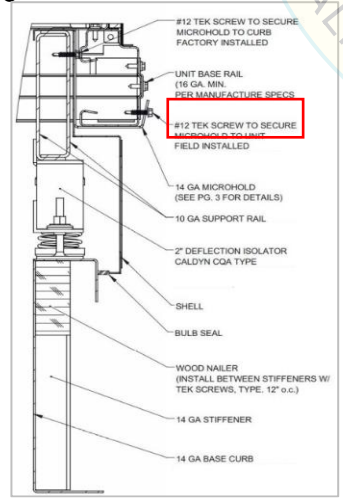
Product Construction Summary:
Formed carbon steel construction.

Options/Subcomponent Summary:
Micrometl Economizer & Power Exhaust (PEBD-SRT12CA-D0DB-4AY-4), Scroll Compressor (ZPS49K5E-TFD-130), Gas Heat(48TC003555), Condenser Coils (Custom-Cu/Cu), Evaporator Coil (Custom-Cu/Cu), Solenoid Valve (EF23VS186, EF23VS183), TEV (Danfoss-068L1263), Reamer Valve (99CC405124), Controls (48TCFSRADR-A00), Condenser Fan (48TC003644), Condenser Fan Motor (5KCP39LGWF92S), Evaporator Fan (48TC001693), Evaporator Fan Motor (M3G084-GF01-V9), SA Smoke Detector (HK50ZT001), Louvered Hail Guard (CRLVHLGD049A00)

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
754	46.6	74.4	41.4	3.07	4.50	6.17

UUT Highest Passed Seismic Run Information								
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67
		2.5	0.0					

Test Mounting Details:



Two brackets on all sides. Three (3) #12 screws in each bracket



MicroMetl isolator curb 34" tall (PN:CRBV-SRT12GA-2412-P20) mounted to the table with twelve (12) 1/2" Grade 8 bolts with washers. Unit mounted to curb with twenty-four (24) #12x1-1/2" screws. Weight does not include power exhaust. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET



2000830-CR-001-R1

Manufacturer: Carrier Corporation	UUT 78
Model Line: 48GC	
Model Number: 48GCL04ALF5A0A0F0	
Serial Number: 4920C85843	

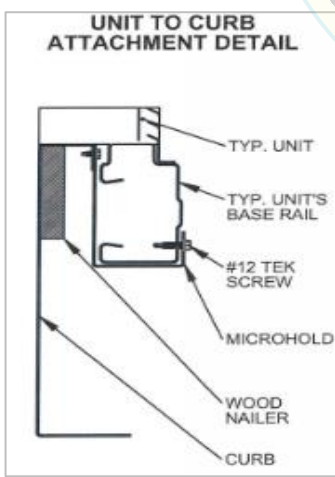
Product Construction Summary:
Formed carbon steel construction.

Options/Subcomponent Summary:
Micrometl Economizer & Power Exhaust (PEBD-SRT12CA-D2DH-2AY), Scroll Compressor (ZPS49K5E-TFD-130), Gas Heat(48TC003555), Condenser Coils (Custom-Cu/Cu), Evaporator Coil (Custom-Cu/Cu), Solenoid Valve (EF23VS186, EF23VS183), TEV (Danfoss-068L1263), Reamer Valve (99CC405124), Controls (48TCFSRBDH-A00), Condenser Fan (48TC003644), Condenser Fan Motor (5KCP39LGWF92S), Evaporator Fan (48TC001693), Evaporator Fan Motor (M3G084-GF01-V9), SA Smoke Detector (HK50ZT001), Louvered Hail Guard (CRLVHLGD049A00)

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
624	46.6	74.4	33.4	>33.3	9.08	9.42

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019,	ICC-ES AC156 (2018)	2.0	1.0	1.5	3.20	2.40	1.67	0.67	
		2.5	0.0						

Test Mounting Details:



Two brackets on long side of the unit.
Four (4) #12 screws in each bracket



MicroMetl rigid curb 24" tall (PN:CRBW-SRT12GA-2411) mounted to the table with twelve (12) 1/2" Grade 8 bolts with washers. Unit mounted to curb with sixteen (16) #12x1-1/2" screws. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.