

EVALUATION SUBJECT: **DAIKIN VRV IV SELECTED UNIT MODELS** TER-15-3052

REPORT HOLDER:
 DAIKIN NORTH AMERICA, LLC.
 5151 SAN FELIPE
 HOUSTON, TX 77056, USA
 855-770-5878 | DAIKINCOMFORT.COM

THIS IS A STRUCTURAL (WIND) PERFORMANCE EVALUATION ONLY. NO ELECTRICAL OR COOLING PERFORMANCE RATINGS OR CERTIFICATIONS ARE OFFERED OR IMPLIED HEREIN.

This Product Evaluation Report is being issued in accordance with the requirements of the 5th Edition Florida Building Code (FBC) per FBC Section 104.11, FBC 104.16, FBC 104.18, ASCE 7-10, FBC Existing Building sections 711.1, 716.8.1, FBC Building 102.2, and FBC Residential 102.02.1, 103.01.1, FBC 471.02.5, including Broward County Administrative Provisions 167.3.4. The product noted on this report has been tested and evaluated as described herein.

PRODUCT EVALUATION DOCUMENTS:
 Substantiating documentation has been submitted to provide this TER and is summarized in the sections below.

STRUCTURAL ENGINEERING CALCULATIONS:
 Structural engineering calculations have been prepared which evaluate the product based on comparative and/or rational analysis to quantify the following design criteria:

- Maximum allowable unit panel wind pressure resistance integrity. Based on static 1" gasket assembly.
- Maximum allowable uplift, tilting, and overturning moment for ground and roof applications.

INSTALLATION:
 The product(s) listed above shall be installed in strict accordance with this TER and manufacturer provided model specifications.

LIMITATIONS & CONDITIONS OF USE:
 Use of this product shall be in strict accordance with this TER as noted herein. See final page for complete limitations and conditions of use.

INSTALLATION:
 Shall follow manufacturer specifications as well as information provided herein.

FINISH:
 TGIC-Polyester 1.0 - 3.0 mils whole surface



STRUCTURAL PERFORMANCE:
 Models referenced herein are subject to the following design limitations:
 Up to and including 17mph (Ultimate Velocity)
 ASCE 7-10 Exposure Category D, Risk Category II
 Up to 200' Mean Roof Height (RV) (Rated 15' RV) (4-4)(V2)
 Ground or roof application per installation instructions

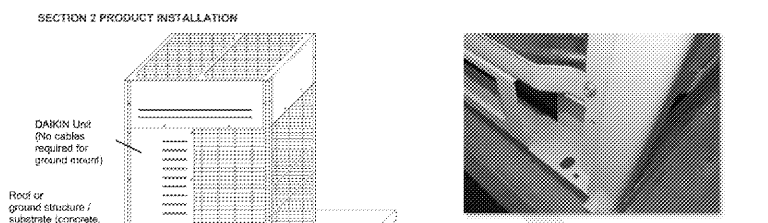
ANCHOR SCHEDULE TO HOST STRUCTURE

Model	Ground or Roof Height	Anchor Quantity	Concrete 4,000 Psi	3/8" Min. A36 Steel	1/8" Min. 6061-T6 Aluminum
REYQ72xxxx	Ground	4	A	N/A	N/A
	Up to 105'	6	N/A	B	B
REYQ 96-168 xxxx	Ground	4	A	N/A	N/A
	Up to 200'	6	N/A	B	B

TIE-DOWN CABLE SCHEDULE

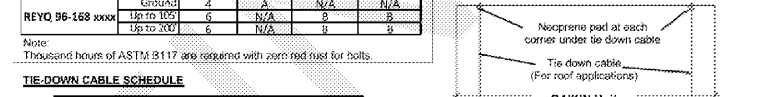
Model	Ground or Roof Height	Tie Down Cable	Cable Diameter
REYQ72xxxx	Ground	None	
	Up to 105'	2	1/2"
REYQ 96-168 xxxx	Ground	None	
	Up to 105'	2	3/8"
	Up to 200'	2	3/8"

Maximum Rated Wind Pressure:
203psf Lateral 103psf Uplift (per Dead Load)
 ORIGINAL SIGNATURE AND RAISED SEAL REQUIRED TO BE VALID PER CODE:
 September 30, 2016
 Frank L. Bennardo, P.E., SECB
 ENGINEERING EXPRESS®
 PE #0046549 CA #9885



ANCHOR SCHEDULE TO HOST STRUCTURE

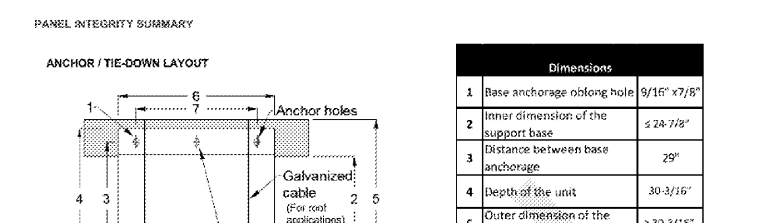
Model	Ground or Roof Height	Anchor Quantity	Concrete 4,000 Psi	3/8" Min. A36 Steel	1/8" Min. 6061-T6 Aluminum
REYQ72xxxx	Ground	4	A	N/A	N/A
	Up to 105'	6	N/A	B	B
REYQ 96-168 xxxx	Ground	4	A	N/A	N/A
	Up to 200'	6	N/A	B	B



TIE-DOWN CABLE SCHEDULE

Model	Ground or Roof Height	Tie Down Cable	Cable Diameter
REYQ72xxxx	Ground	None	
	Up to 105'	2	1/2"
REYQ 96-168 xxxx	Ground	None	
	Up to 105'	2	3/8"
	Up to 200'	2	3/8"

Tie-Down Cable Type: (for roof applications)
 - Galvanized cable 7x19, Diameter 5/16", minimum working load limit (WLL) 1800 lbs.
 - Diameter 3/8", minimum working load limit (WLL) 2880 lbs.
 - Minimum edge distance 4" from the unit corners.
 - Use two tie-down cables per cabinet.



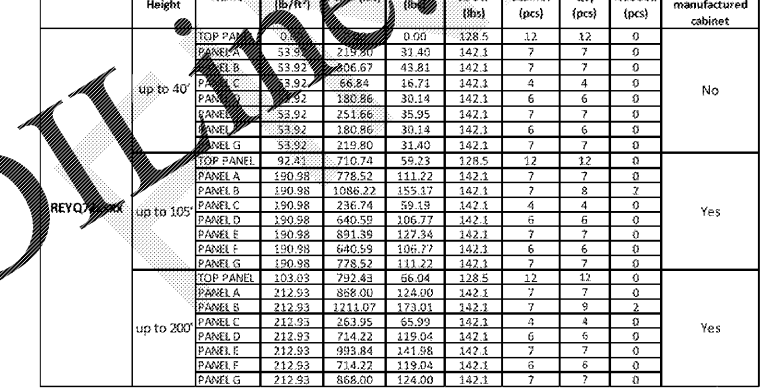
Dimensions

1	Base anchorage oblong hole	9/16" x 7/8"
2	Inner dimension of the support base	± 24-7/8"
3	Distance between base anchorage	29"
4	Depth of the unit	30-3/16"
5	Outer dimension of the support base	± 30-3/16"
6	Width of the unit	36-13/16"
7	Distance between base anchorage	30"

SECTION 3 SUPPORTING CALCULATIONS & SUMMARY

PANEL INTEGRITY SUMMARY

Model	Ground or Roof Height	Panel Name	Rprd Wind Pressure (lb/ft²)	For in Screw (lbs)	Max. Panel screw (lbs)	Screw Qty in Cabinet (pcs)	Min. Screw Qty (pcs)	Screw Qty Needed (pcs)	Additional screws required beyond original manufactured cabinet	
up to 40'		TOP PANEL	0.00	0.00	128.5	12	12	0	No	
		PANEL A	53.92	292.82	41.83	142.1	7	7		0
		PANEL B	53.92	324.19	45.31	142.1	7	7		0
		PANEL C	53.92	70.66	17.86	142.1	4	4		0
		PANEL D	53.92	180.86	30.14	142.1	6	6		0
		PANEL E	53.92	251.66	35.95	142.1	7	7		0
up to 105'		TOP PANEL	92.41	946.84	78.90	128.5	12	12	Yes	
		PANEL A	190.98	1037.15	148.16	142.1	7	7		0
		PANEL B	190.98	1148.29	164.04	142.1	7	7		0
		PANEL C	190.98	250.27	62.57	142.1	4	4		0
		PANEL D	190.98	640.59	106.77	142.1	6	6		0
		PANEL E	190.98	891.39	127.34	142.1	7	7		0
up to 200'		TOP PANEL	103.03	1055.67	87.97	128.5	12	12	Yes	
		PANEL A	212.93	1156.35	165.19	142.1	7	7		0
		PANEL B	212.93	1280.27	182.90	142.1	7	7		0
		PANEL C	212.93	279.03	69.76	142.1	4	4		0
		PANEL D	212.93	724.22	119.04	142.1	6	6		0
		PANEL E	212.93	993.84	141.98	142.1	7	7		0



IN ALL CONDITIONS IT IS THE RESPONSIBILITY OF THE PERMITTING AGENCY TO ENSURE THE HOST STRUCTURE IS CAPABLE OF WITHSTANDING THE RATED GRAVITY, LATERAL, AND UPLIFT FORCES AT THE SPECIFIC DESIGN. NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, IS OFFERED BY ENGINEERING EXPRESS AS TO THE INTEGRITY OF THE HOST STRUCTURE TO CARRY DESIGN FORCE LOADS INCURRED BY THIS UNIT.

FORCES ON UNIT SUMMARY

Model	Outlets Dimensions B (ft) x W (ft) x H (ft)	Height (ft)	Wind or Roof Height	Lateral Pressure (Psf)	Uplift Pressure (Psf)	Large Side Force (lbs)	Large Side Overturn (lb-in)	Large Side Tension (lbs)	Short Side Force (lbs)	Short Side Overturn (lb-in)	Short Side Tension (lbs)	Uplift Force (lbs)	
REYQ72xxxx	30.19	36.69	66.65	507	Ground	53.92	0.00	916.12	39546.79	922.07	753.81	1514.75	680.52
	30.19	36.69	66.65	507	205'	190.98	92.41	1282.05	1282.05	6072.96	8906.70	3220.15	710.74
	30.19	36.69	66.65	507	200'	212.93	128.08	1280.82	1280.82	5977.19	8928.59	3513.25	782.43
	30.19	36.69	66.65	507	Ground	53.92	0.00	1220.65	16694.36	1220.11	753.81	1514.75	680.52
	30.19	36.69	66.65	507	105'	190.98	92.41	1322.90	1441.58	6381.11	2650.97	8076.10	2450.95
	30.19	36.69	66.65	507	200'	212.93	128.08	1429.24	16970.93	13968.10	2792.68	8928.59	2763.67
REYQ 96-168 xxxx	30.19	36.69	66.65	780	Ground	53.92	0.00	1320.65	1320.65	1320.65	1320.65	1320.65	1320.65
	30.19	36.69	66.65	780	105'	190.98	92.41	1322.90	1441.58	6381.11	2650.97	8076.10	2450.95
	30.19	36.69	66.65	780	200'	212.93	128.08	1429.24	16970.93	13968.10	2792.68	8928.59	2763.67
	30.19	36.69	66.65	780	Ground	53.92	0.00	1320.65	1320.65	1320.65	1320.65	1320.65	1320.65
	30.19	36.69	66.65	780	105'	190.98	92.41	1322.90	1441.58	6381.11	2650.97	8076.10	2450.95
	30.19	36.69	66.65	780	200'	212.93	128.08	1429.24	16970.93	13968.10	2792.68	8928.59	2763.67

PANELS LOCATION & DIMENSIONS

REYQ72TU

Item	Dimensions	Quantity	Notes
1	Base bolt holes	9	5-3/16"
2	Pitch of base bolt holes	10	3-7/8"
3	Pitch of base bolt holes	11	4-3/16"
4	Pitch of base bolt holes	12	10-11/16"
5		13	18-1/16"
6		14	36-11/16"
7		15	6-9/16"
8		16	8-9/16"
9		17	10-1/2"
10		18	66-11/16"

LIMITATIONS & CONDITIONS OF USE:
 Use of this product shall be in strict accordance with this TER as noted herein. The supporting host structure shall be designed to resist all superimposed loads as determined by codes or a site specific basis as may be required by the Authority Having Jurisdiction (AHJ) or other applicable codes, which are not accounted for in the product's respective anchor schedule shall be designed for on a site-specific basis by a registered professional engineer. No evaluation is offered for the host supporting structure by use of this document. Adjustment factors noted herein and the applicable codes must be considered, where applicable.
 All supporting components which are permanently installed shall be protected against corrosion, contamination, and other such damage as follows:
 Fasteners must penetrate the supporting members such that the full length of the threaded portion is embedded within the host member.
 This installation also may refer to any installation in steel large multiple impact design requirements which typically are not required for this type of product. And it is limited to a static 1" stress analysis (no deformation or the material).

Galloway
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 GallowayUS.com
 NOT FOR CONSTRUCTION

Public Storage

PUBLIC STORAGE
 SEMINOLE COUNTY, FL
 PS#28091
 2431 Orange Blossom Trail
 Apopka, FL
 # Data Issue/Description
 1 04/24/2020 SECOND SUBMITTAL
 CONDENSING UNIT INSTALLATION
M5.01