

DUCTLESS ROOM SIZE REQUIREMENTS



UALS01A
Ductless Refrigerant
Detection Sensor
(RDS)

Building codes and industry standards have been updated to include safety requirements for A2L refrigerants. One of these requirements is the use of a **Refrigerant Detection Sensor (RDS)** in some applications.

The RDS detects leaking refrigerant before it reaches its lower flammability limit. If a leak is detected, the system will shut down the compressor and turn on the indoor fan to disperse the refrigerant. However, not every system requires a leak sensor.

HIGHWALLS



- Installed 6–8 ft from the ground
- If a leak occurs, the concentration of refrigerant is expected to disperse as it falls to the ground
- If the total system charge is over 3.9 lbs, check the minimum room size requirement to see if an RDS is needed (field installation required)
- 2026 Premium highwall models (QS06WP2BEA, QS09WP2BEB, QS12WP2BEB, QS18WP2BEB, QS24WP2BEB) include factory built-in RDS

CASSETTE (1-WAY and 4-WAY)



- Installed in the ceiling
- If a leak occurs, the concentration of refrigerant is expected to evenly disperse as it falls to the ground
- If the charge is over 3.9 lbs, check the minimum room size requirement to see if an RDS is needed (field installation required)
- If the total system charge is over 3.9 lbs, check the minimum room size requirement

CONSOLES



Built-in RDS

- Installed at ground level
- If a leak occurs, the built-in RDS helps ensure refrigerant doesn't stagnate in the floor area

DUCTED



Built-in RDS

- Connected to duct work
- If a leak occurs, the built-in RDS helps ensure refrigerant doesn't stagnate in the duct work



GE APPLIANCES
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AIR&WATER
SOLUTIONS

DUCTLESS ROOM SIZE REQUIREMENTS

UL60335-2-40 Edition 4

Single Zone	System Total Charge	Room Size Restriction and RDS Requirement
	≤ 3.9 lbs (62 oz)	No room size restriction, RDS not required.
	3.9 ~ 8 lbs (62 ~ 128 oz)	Room size restriction applies, but minimum room size requirement remains the same whether a RDS is installed. If you meet the room size requirement, RDS is not required.
	≥ 8 lbs (128 oz)	The installation of a RDS will help increase the minimum room size.

SINGLE ZONE HIGHWALLS



					Lineset Length ≤ 25 ft.	Lineset Length = 50 ft.	Total Charge with Maximum Lineset Length	
Series	Outdoor Model Number	Indoor Model Number	Maximum Line Length ft. / m	Factory Charge oz / lb	with or without RDS	with or without RDS	without RDS	with RDS
Tempo	1Q09TE1BEA	QS09WB1BEA	66 / 20	30.3 / 1.9	No Room Size Restriction (RDS not recommended)			
	1Q12TE1BEA	QS12WB1BEA	66 / 20	36.5 / 2.3				
	1Q09TE2BEA	QS09WB2BEA	66 / 20	36.5 / 2.3				
	1Q12TE2BEA	QS12WB2BEA	66 / 20	36.5 / 2.3				
	1Q18TE2BEA	QS18WB2BEA	83 / 25	45.9 / 2.9				
	1Q24TE2BEA	QS24WB2BEA	165 / 50	67 / 4.2	≥ 77 sq. ft.	≥ 83 sq. ft.	≥ 109 sq. ft.	
FlexFit	1Q09FF2BEA	QS09WB2BEA	66 / 20	36.5 / 2.3	No Room Size Restriction (RDS not recommended)			
	1Q12FF2BEA	QS12WB2BEA	66 / 20	36.5 / 2.3				
	1Q15FF2BEA	QS15WB2BEA	66 / 20	50.1 / 3.1				
	1Q18FF2BEA	QS18WB2BEA	83 / 25	45.9 / 2.9				
	1Q24FF2BEA	QS24WB2BEA	165 / 50	67 / 4.2	≥ 77 sq. ft.	≥ 83 sq. ft.	≥ 109 sq. ft.	
	1Q3036FF2BEA	QS30WB2BEA QS36WB2BEA	165 / 50	88.2 / 5.5	≥ 102 sq. ft.	≥ 116 sq. ft.	≥ 225 sq. ft.	≥ 182 sq. ft.
Arctic	1Q09RT2BEA	QS09WP2BEA	66 / 20	46.6 / 2.9	No Room Size Restriction (RDS not recommended)			
	1Q12RT2BEA	QS12WP2BEA	66 / 20	50.1 / 3.1				
	1Q18RT2BEA	QS18WP2BEA	83 / 25	58.6 / 3.7	No Room Size Restriction (up to 45 ft. lineset length)	≥ 73 sq. ft.	≥ 81 sq. ft.	
	1Q09RT2BEA	QS09WP2BEB	66 / 20	46.6 / 2.9	No Room Size Restriction (Factory built-in RDS)			
	1Q12RT2BEA	QS12WP2BEB	66 / 20	50.1 / 3.1				
	1Q18RT2BEA	QS18WP2BEB	83 / 25	58.6 / 3.7				
	1Q24RT2BEA	QS24WP2BEA/ QS24WP2BEB	165/50	77.7/4.9	≥ 90 sq. ft.	≥ 96 sq. ft.	≥ 121 sq. ft.	
	1Q3036RT2BEA	QS30WB2BEA/ QS36WB2BEA	165/50	109.4/6.8	≥ 126 sq. ft.	≥ 140 sq. ft.	≥ 289 sq. ft.	≥ 206 sq. ft.

SINGLE ZONE CASSETTES



Series	Outdoor Model Number	Indoor Model Number	Maximum Line Length ft. / m	Factory Charge oz / lb	Factory Charge (Lineset Length ≤ 25 ft.)	Lineset Length = 50 ft.		Total Charge with Maximum Lineset Length	
					Room Size Requirement	Charge oz / lb	Room Size Requirement	Max Charge oz / lb	Room Size Requirement
FlexFit	1Q09FF2BEA	US09CB2BEA	66 / 20	36.5 / 2.3	No Room Size Restriction (RDS not recommended)				
	1Q12FF2BEA	US12CB2BEA	66 / 20	36.5 / 2.3					
	1Q18FF2BEA	US18CB2BEA	83 / 25	45.9 / 2.9					
	1Q24FF2BEA	US24LB2BEA	165 / 50	67 / 4.2	≥ 63 sq. ft.	79.5	≥ 75 sq. ft.	137 / 8.6	≥ 129 sq. ft.
	1Q3036FF2BEA	US30LB2BEA / US36LB2BEA	165 / 50	88.2 / 5.5	≥ 83 sq. ft.	100.7 / 6.3	≥ 95 sq. ft.	158.2 / 9.9	≥ 151 sq. ft.
	1Q09FF2BEA	US09AB2BEA	66 / 20	36.5 / 2.3	No Room Size Restriction (RDS not recommended)				
	1Q12FF2BEA	US12AB2BEA	66 / 20	36.5 / 2.3					
	1Q18FF2BEA	US18AB2BEA	83 / 25	45.9 / 2.9					
Arctic	1Q09RT2BEA	US09CB2BEA	66 / 20	46.6 / 2.9	No Room Size Restriction (RDS not recommended)				
	1Q12RT2BEA	US12CB2BEA	66 / 20	50.1 / 3.1					
	1Q18RT2BEA	US18CB2BEA	83 / 25	58.6 / 3.7	No Room Size Restriction (up to 45 ft. lineset length)	63.6 / 4	≥ 60 sq. ft.	70.2 / 4.4	≥ 66 sq. ft.
	1Q09RT2BEA	US09AB2BEA	66 / 20	46.6 / 2.9	No Room Size Restriction (RDS not recommended)				
	1Q12RT2BEA	US12AB2BEA	66 / 20	50.1 / 3.1					
	1Q18RT2BEA	US18AB2BEA	83 / 25	58.6 / 3.7	No Room Size Restriction (up to 45 ft. lineset length)	63.6 / 4	≥ 60 sq. ft.	70.2 / 4.4	≥ 66 sq. ft.
	1G24RT2BEA	US24LB2BEA	165/50	77.7/4.9	≥ 73 sq. ft.	90.2 / 5.6	≥ 85 sq. ft.	147.7 / 9.2	≥ 139 sq. ft.
	1G3036RT2BEA	US30LB2BEA / US36LB2BEA	165/50	109.4/6.8	≥ 103 sq. ft.	121.9 / 7.6	≥ 115 sq. ft.	179.4 / 11.2	≥ 194 sq. ft.

DUCTLESS ROOM SIZE REQUIREMENTS

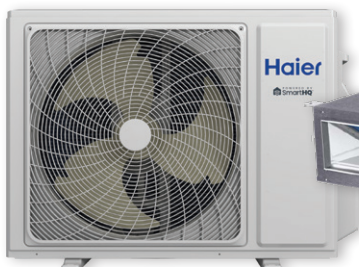
UL60335-2-40 Edition 4

SINGLE ZONE CONSOLES



				Factory Charge (Lineset Length ≤ 25 ft.)		Total Charge with Maximum Lineset Length	
Series	Outdoor Model Number	Indoor Model Number	Maximum Line Length ft. / m	Factory Charge oz / lb	Room Size Requirement	Max Charge oz / lb	Room Size Requirement
FlexFit	1Q09FF2BEA	US09FB2BEA	66 / 20	36.5 / 2.3	No Room Size Restriction	44.7 / 2.8	No Room Size Restriction
	1Q12FF2BEA	US12FB2BEA	66 / 20	36.5 / 2.3		44.7 / 2.8	
	1Q18FF2BEA	US18FB2BEA	83 / 25	45.9 / 2.9		57.5 / 3.6	
Arctic	1Q09RT2BEA	US09FB2BEA	66 / 20	46.6 / 2.9		54.8 / 3.4	
	1Q12RT2BEA	US12FB2BEA	66 / 20	50.1 / 3.1		58.3 / 3.6	
	1Q18RT2BEA	US18FB2BEA	83 / 25	58.6 / 3.7		70.2 / 4.4	No Room Size Restriction when lineset length is ≤ 45 ft. Refrigerant lineset length > 45 ft. requires 242 sq. ft. minimum room size.

SINGLE ZONE DUCTED



				Factory Charge (Lineset Length ≤ 25 ft.)		Lineset Length = 50 ft.		Total Charge with Maximum Lineset Length	
Series	Outdoor Model Number	Indoor Model Number	Maximum Line Length ft. / m	Factory Charge oz / lb	Room Size Requirement	Charge oz / lb	Room Size Requirement	Max Charge oz / lb	Room Size Requirement
FlexFit	1Q09FF2BEA	US09MB2BEA	66 / 20	36.5 / 2.3	No Room Size Restriction				
	1Q12FF2BEA	US12MB2BEA	66 / 20	36.5 / 2.3					
	1Q18FF2BEA	US18MB2BEA	83 / 25	45.9 / 2.9					
	1Q24FF2BEA	US24MB2BEA	165 / 50	67 / 4.2	≥ 63 sq. ft.	79.5	≥ 75 sq. ft.	137 / 8.6	≥ 129 sq. ft.
	1Q3036FF2BEA	US30MB2BEA US36MB2BEA	165 / 50	88.2 / 5.5	≥ 83 sq. ft.	100.7 / 6.3	≥ 95 sq. ft.	158.2 / 9.9	≥ 151 sq. ft.
Arctic	1Q09RT2BEA	US09MB2BEA	66 / 20	46.6 / 2.9	No Room Size Restriction				
	1Q12RT2BEA	US12MB2BEA	66 / 20	50.1 / 3.1					
	1Q18RT2BEA	US18MB2BEA	83 / 25	58.6 / 3.7	No Room Size Restriction (up to 45 ft. lineset length)	63.6 / 4	≥ 60 sq. ft.	70.2 / 4.4	≥ 66 sq. ft.
	1G24RT2BEA	US24MB2BEA	165/50	77.7/4.9	≥ 73 sq. ft.	90.2 / 5.6	≥ 73 sq. ft.	147.7 / 9.2	≥ 139 sq. ft.
	1G3036RT2BEA	US30MB2BEA/ US36MB2BEA	165/50	109.4/6.8	≥ 103 sq. ft.	121.9 / 7.6	≥ 115 sq. ft.	179.4 / 11.2	≥ 169sq. ft.

DUCTLESS ROOM SIZE REQUIREMENTS

UL60335-2-40 Edition 4

In a multi-zone application, each zone's room size requirement should be calculated independently to assess the need for an RDS on each indoor unit. An RDS should only be installed for a zone that needs one.

Multi Zone

System Total Charge	Room Size Restriction and RDS Requirement
≤ 3.9 lbs (62 oz)	No room size restriction, RDS not required.
> 3.9 lbs (62 oz)	The installation of a RDS will help increase the minimum room size.

MULTI-ZONE HIGHWALLS



Series	Outdoor Model Number	Factory Charge oz / lb	Factory Charge			Total Charge with Maximum Lineset Length			
			Maximum Lineset Length w/o Additional Charge ft / m	Room Size Requirement (without RDS)	Room Size Requirement (with factory-built or field installed RDS)	Max Charge oz / lb	Maximum Lineset Length ft. / m	Room Size Requirement (without RDS)	Room Size Requirement (with field-installed RDS)
FlexFit	2Q18FF2BEA	53 / 3.3	66 / 20	No Room Size Restriction (RDS not recommended)		59.4 / 3.7	98 / 30	No Room Size Restriction (RDS not recommended)	
	3Q24FF2BEA	60 / 3.8	100 / 30			79.4 / 5.0	197 / 60	≥ 91 sq. ft.	≥ 75 sq. ft.
	4Q36FF2BEA	81 / 5.1	131 / 40	≥ 93 sq. ft.	≥ 76 sq. ft.	100.8 / 6.3	230 / 70	≥ 116 sq. ft.	≥ 95 sq. ft.
Arctic	2Q20RT2BEA	60 / 3.8	66 / 20	No Room Size Restriction (RDS not recommended)		79.6 / 5.0	164 / 50	≥ 92 sq. ft.	≥ 75 sq. ft.
	3Q24RT2BEA	71 / 4.4	100 / 30	≥ 82 sq. ft.	≥ 67 sq. ft.	90.4 / 5.7	197 / 60	≥ 104 sq. ft.	≥ 85 sq. ft.
	4Q36RT2BEA	113 / 7.1	131 / 40	≥ 130 sq. ft.	≥ 106 sq. ft.	132.8 / 8.3	230 / 70	≥ 159 sq. ft.	≥ 125 sq. ft.
	5Q42RT2BEA	123 / 7.7	164 / 50	≥ 141 sq. ft.	≥ 116 sq. ft.	142.6 / 8.9	262 / 80	≥ 183 sq. ft.	≥ 134 sq. ft.

MULTI-ZONE CASSETTES



Series	Outdoor Model Number	Factory Charge oz / lb	Factory Charge		Total Charge with Maximum Lineset Length		
			Maximum Lineset Length w/o Additional Charge ft / m	Room Size Requirement	Max Charge oz / lb	Maximum Line Length ft. / m	Room Size Requirement
FlexFit	2Q18FF2BEA	53 / 3.3	66 / 20	No Room Size Restriction (RDS not recommended)	59.4 / 3.7	59.4 / 3.7	No Room Size Restriction (RDS not recommended)
	3Q24FF2BEA	60 / 3.8	100 / 30		79.4 / 5.0	79.4 / 5.0	≥ 75 sq. ft.
	4Q36FF2BEA	81 / 5.1	131 / 40	≥ 76 sq. ft.	100.8 / 6.3	100.8 / 6.3	≥ 95 sq. ft.
Arctic	2Q20RT2BEA	60 / 3.8	66 / 20	No Room Size Restriction (RDS not recommended)	79.6 / 5.0	79.6 / 5.0	≥ 75 sq. ft.
	3Q24RT2BEA	71 / 4.4	100 / 30	≥ 67 sq. ft.	90.4 / 5.7	90.4 / 5.7	≥ 85 sq. ft.
	4Q36RT2BEA	113 / 7.1	131 / 40	≥ 106 sq. ft.	132.8 / 8.3	132.8 / 8.3	≥ 125 sq. ft.
	5Q42RT2BEA	123 / 7.7	164 / 50	≥ 116 sq. ft.	142.6 / 8.9	142.6 / 8.9	≥ 134 sq. ft.

MULTI-ZONE CONSOLES AND DUCTED



Built-in RDS

Series	Outdoor Model Number	Factory Charge oz / lb	Factory Charge		Total Charge with Maximum Lineset Length		
			Maximum Lineset Length w/o Additional Charge ft / m	Room Size Requirement	Max Charge oz / lb	Maximum Line Length ft. / m	Room Size Requirement
FlexFit	2Q18FF2BEA	53 / 3.3	66 / 20	No Room Size Restriction	59.4 / 3.7	98 / 30	No Room Size Restriction
	3Q24FF2BEA	60 / 3.8	100 / 30		79.4 / 5.0	197 / 60	≥ 75 sq. ft.
	4Q36FF2BEA	81 / 5.1	131 / 40	≥ 76 sq. ft.	100.8 / 6.3	230 / 70	≥ 95 sq. ft.
Arctic	2Q20RT2BEA	60 / 3.8	66 / 20	No Room Size Restriction	79.6 / 5.0	164 / 50	≥ 75 sq. ft.
	3Q24RT2BEA	71 / 4.4	100 / 30	≥ 67 sq. ft.	90.4 / 5.7	197 / 60	≥ 85 sq. ft.
	4Q36RT2BEA	113 / 7.1	131 / 40	≥ 106 sq. ft.	132.8 / 8.3	230 / 70	≥ 125 sq. ft.
	5Q42RT2BEA	123 / 7.7	164 / 50	≥ 116 sq. ft.	142.6 / 8.9	262 / 80	≥ 134 sq. ft.