



November 10, 2022



TAG: VCU-1 THRU VCU-3

Prepared For:

GENERAL

TAG: VCU-1 – Qty. 44; VCU-2 – Qty. 1; VCU-3 – Qty. 2

Forty-Seven (47) Daikin Applied, model RCS, air cooled single package scroll condensing unit, utilizing refrigerant R-410a, and complete with

- 460/60/3 single power connection
- Disconnect switch **-for VCU-1 & VCU-3 only**
- Multiple scroll compressors with maximum steps of capacity control **-VCU-1 & VCU-3 only**
- **2 scroll compressors and 2 steps of capacity control – for VCU-2 only**
- Low ambient head pressure controls
- Hot gas bypass kit **– for field installation for VCU-1 & VCU-3 only**

NOTE: Refrigeration piping / specialties, valves, and controls are not included

Job Information		Technical Data Sheet
Job Name		
Date		
Submitted By		
Software Version	09.10	
Unit Tag	VCU-1 (JO)	



Unit Overview						
Model Number	Voltage V/Hz/Phase	Total Refrigeration Effect Btu/hr	Total Unit Power kW	EER AHRI Conditions	IEER AHRI Conditions	ASHRAE 90.1
RCS040D	460/60/3	422754	38.8	11.3	14.9	2013 Compliant

Unit		
Model Number:	RCS040D	
Type:	Applied	
Approval:	ETL - USA	
Refrigerant Type:	No. of Refrigerant Circuits	Refrigerant Weight
R410A	2	21.8 lb

Condensing Section				
Temperature		Altitude	Refrigeration Effect	Power
Suction	Ambient			
42.0 °F	95.0 °F	0 ft	422754 Btu/hr	38.8 kW

Compressor			
Quantity	Type	Capacity Control	Compressor Isolation
4	Digital Scroll & Fixed Scroll	Mod Control with Digital Compressor	Resilient
Full Load Current:			
Compressor 1	16.7 A		
Compressor 2	16.7 A		
Compressor 3	16.7 A		
Compressor 4	16.7 A		

Condenser					
Coil			Fans	Fan Motors	
Type	Number of Rows	Fins per Inch	Condenser Fan Type	Quantity	Full Load Current
Aluminum tube micro channel	1	18	Standard	4	2.10 A

Sound							
Casing Radiated Sound Power (db)							
63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
0	98	93	91	90	87	83	79

Physical

Dimensions and Weight			
Length	Height	Width	Operating Weight
80.0 in	55.5 in	99.0 in	2496 lb
Connections			
Connection	Connection Sizes		
Suction Line Circuit	(2) 1.62 in.		
Liquid Line Circuit	(2) 0.88 in.		
Hot Gas Bypass Circuit	(2) 0.88 in.		

Electrical

Voltage	MROPD	Field Power Connection	MCA	SCCR	Field Outlet Connection
460/60/3 V/Hz/Phase	90 A	Thru-the-door disconnect switch	80.6 A	42 10 kAIC	115V, 20 amp service
Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.				

Options

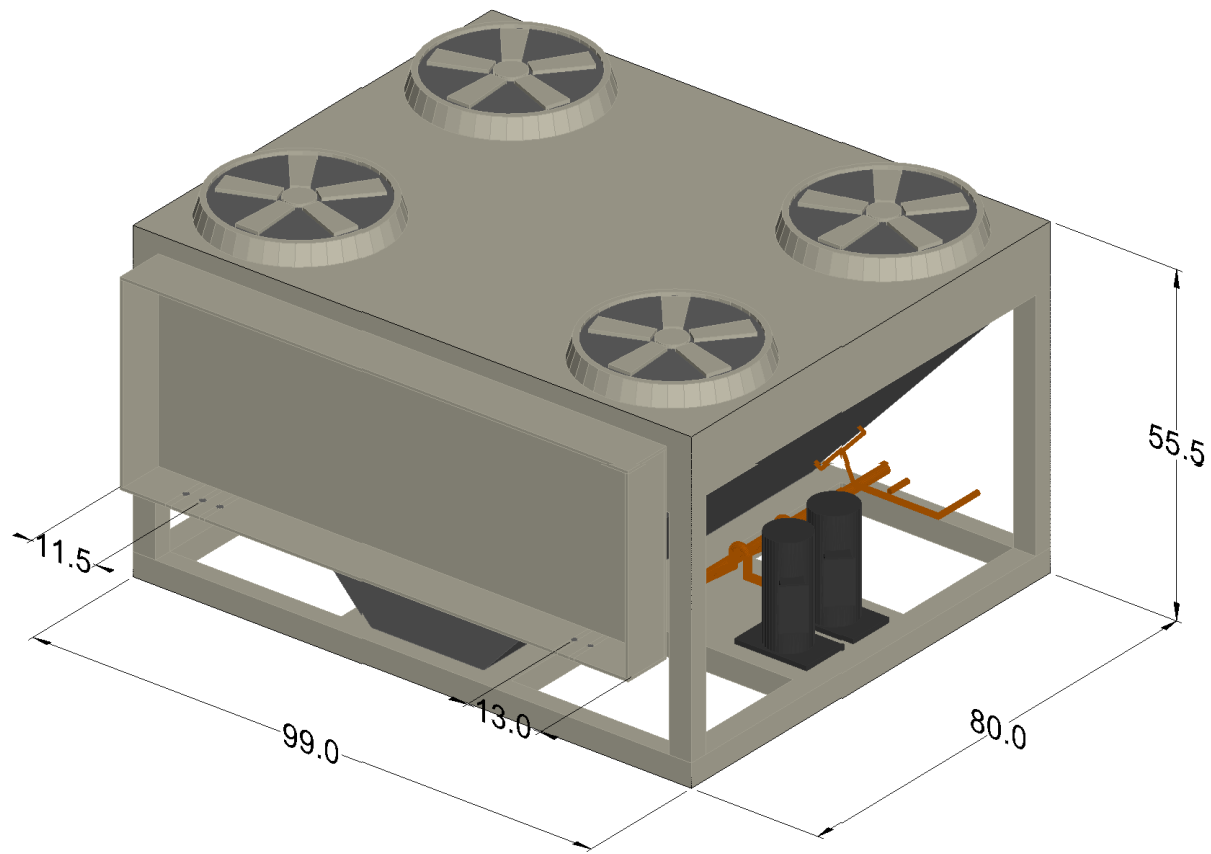
Unit	
Isolation Valves Per Circuit:	Refrigeration Service Valves
Hot Gas Bypass:	HGBP Tee (See Accessory Tab)
Condenser Coil Options:	Condenser with built in hail protection, Electrofin Coating
Electrical	
Electrical Options:	Ground fault protection
Field Connection	Thru-the-door disconnect switch
Wiring Options	Sealtite conduit
GFI Receptacle	Factory powered
Unit Control	
Temperature Controls:	No temp control, 115 V transformer
Low Ambient Control:	Speedtrol, Low ambient control to 0 degrees F

Warranty

Parts:	Standard one year parts
Compressor:	Extended four year compressor, five year total

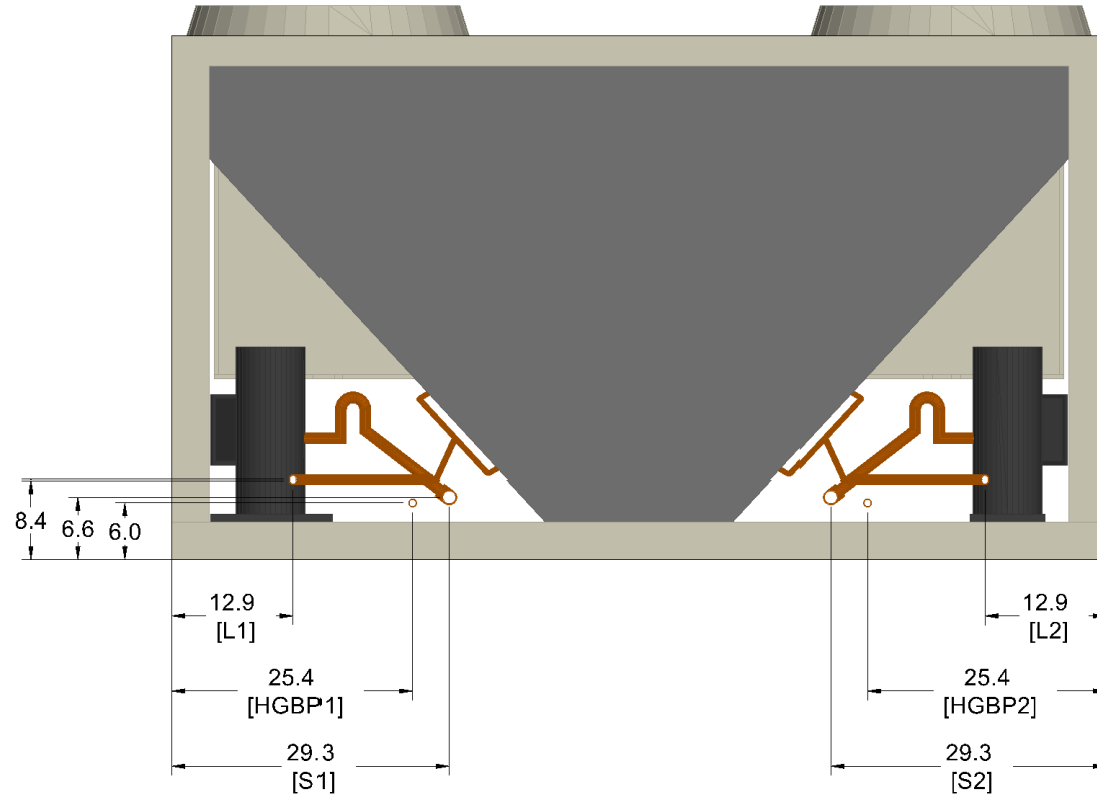
Accessories

Optional	
Part Number	Description
193330721	Hot gas bypass kit, one circuit



Product Drawing	Unit Tag: VCU-1 (JO)			Sales Office			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 09.10
Product:	Project Name:			Sales Engineer:			
Model: RCS040D	Nov. 10, 2022	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	

No change to this drawing may be made unless approved in writing by Daikin Applied. Purchaser must determine that the equipment is fit and sufficient for the job specifications.



ELEVATION VIEW - PIPE CONNECTION DETAILS

Product Drawing	Unit Tag: VCU-1 (JO)			Sales Office:			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 09.10
Product:	Project Name:			Sales Engineer:			
Model: RCS040D	Nov. 10, 2022	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	

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Job Information		Technical Data Sheet
Job Name		
Date		
Submitted By		
Software Version	09.10	
Unit Tag	VCU-2 (JO)	



Unit Overview				
Model Number	Voltage V/Hz/Phase	Refrigeration Effect Btu/hr	Unit Power kW	IEER
RCS12H150D	460/60/3	143020	11.9	14.2

Unit			
Model Number:	RCS12H150D		
Type:	Commercial		
Approval:	cULus		
Refrigerant Type:	No. of Refrigerant Circuits	Refrigerant Weight	
R410A	1	25.9 lb	

Condensing Section				
Temperature		Altitude	Refrigeration Effect	Power
Suction	Ambient			
45.0 °F	95.0 °F	0 ft	143020 Btu/hr	11.9 kW

Compressor			
Quantity	Type	Capacity Control	Compressor Isolation
2	Scroll	2 steps	Resilient
Full Load Current:			
Compressor 1	9.7 A		
Compressor 2	9.7 A		

Condenser					
Coil			Fans	Fan Motors	
Type	Number of Rows	Fins per Inch	Condenser Fan Type	Quantity	Full Load Current
Copper tube	2	22	Standard	2	2.50 A

Physical			
Dimensions and Weight			
Length	Height	Width	Operating Weight
73.9 in	44.8 in	38.4 in	647 lb
Connections			
Connection	Connection Sizes		
Suction Line Circuit	(1) 1.625 in.		
Liquid Line Circuit	(1) 0.625 in.		

Electrical

Voltage	MROPD	Field Power Connection	MCA	SCCR	Field Outlet Connection
460/60/3 V/Hz/Phase	45 A	Single power block	30.0 A	5 kAIC	None
Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.				

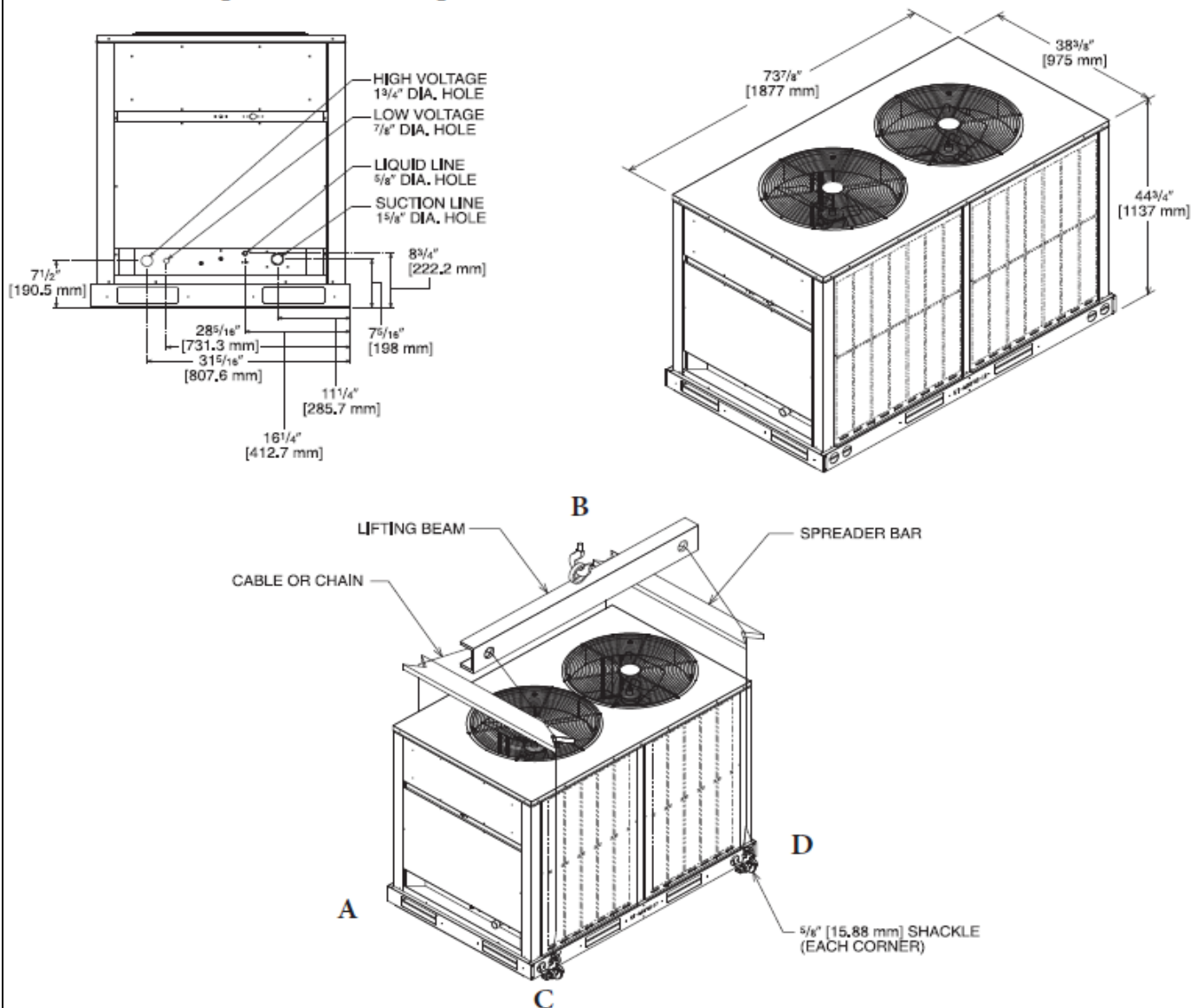
Options

Unit	
Hot Gas Bypass:	None
Condenser Coil Options:	Aluminum fins
Electrical	
Field Connection	Single power block
Wiring Options	Sealtite conduit
GFI Receptacle	None
Unit Control	
Temperature Controls:	Terminal strip for YGR
Low Ambient Control:	0 degree standard

Warranty

Parts:	Standard one year parts
Compressor:	Standard five year compressor

UNIT DIMENSIONS AND WEIGHTS 10 & 12.5 TON [35.2 & 44.0 kW]



10 & 12.5 TON [35.2 & 44.0 kW]

MODEL	TOTAL WEIGHT LBS. [kg]	CORNER WEIGHTS, LBS. [kg]			
		A	B	C	D
RCS010H	565 [256]	97 [44]	181 [82]	215 [98]	73 [33]
RCS012H	647 [293]	189 [86]	157 [71]	161 [73]	139 [63]

[] Designates Metric Conversions

Product Drawing		Unit Tag: VCU-2 (JO)			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 09.10		
Product:		Project Name:					
Model: RCS12H150D		Sales Office					
Sales Engineer:		Nov. 10, 2022	Ver/Rev:	Sheet 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in [mm]
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Job Information		Technical Data Sheet
Job Name		
Date		
Submitted By		
Software Version	09.10	
Unit Tag	VCU-3 (JO)	



Unit Overview						
Model Number	Voltage V/Hz/Phase	Total Refrigeration Effect Btu/hr	Total Unit Power kW	EER AHRI Conditions	IEER AHRI Conditions	ASHRAE 90.1
RCS025D	460/60/3	276969	25.5	11.0	13.6	2013 Compliant

Unit			
Model Number:	RCS025D		
Type:	Applied		
Approval:	ETL - USA		
Refrigerant Type:	No. of Refrigerant Circuits	Refrigerant Weight	
R410A	2	16.6 lb	

Condensing Section				
Temperature		Altitude	Refrigeration Effect	Power
Suction	Ambient			
43.5 °F	95.0 °F	0 ft	276969 Btu/hr	25.5 kW

Compressor			
Quantity	Type	Capacity Control	Compressor Isolation
2	Digital Scroll & Fixed Scroll	Mod Control with Digital Compressor	Resilient
Full Load Current:			
Compressor 1	19.2 A		
Compressor 2	19.2 A		

Condenser					
Coil			Fans	Fan Motors	
Type	Number of Rows	Fins per Inch	Condenser Fan Type	Quantity	Full Load Current
Aluminum tube micro channel	1	18	Standard	2	2.10 A

Sound							
Casing Radiated Sound Power (db)							
63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
0	91	88	86	86	83	80	79

Physical

Dimensions and Weight

Length	Height	Width	Operating Weight
58.0 in	55.5 in	99.0 in	1853 lb

Connections

Connection	Connection Sizes
Suction Line Circuit	(2) 1.62 in.
Liquid Line Circuit	(2) 0.88 in.
Hot Gas Bypass Circuit	(2) 0.88 in.

Electrical

Voltage	MROPD	Field Power Connection	MCA	SCCR	Field Outlet Connection
460/60/3 V/Hz/Phase	60 A	Thru-the-door disconnect switch	48.0 A	10 kAIC	115V, 20 amp service
Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.				

Options

Unit

Isolation Valves Per Circuit:	Refrigeration Service Valves
Hot Gas Bypass:	HGBP Tee (See Accessory Tab)
Condenser Coil Options:	Condenser with built in hail protection, Electrofin Coating

Electrical

Electrical Options:	Ground fault protection
Field Connection	Thru-the-door disconnect switch
Wiring Options	Sealtite conduit
GFI Receptacle	Factory powered

Unit Control

Temperature Controls:	No temp control, 115 V transformer
Low Ambient Control:	Speedtrol, Low ambient control to 0 degrees F

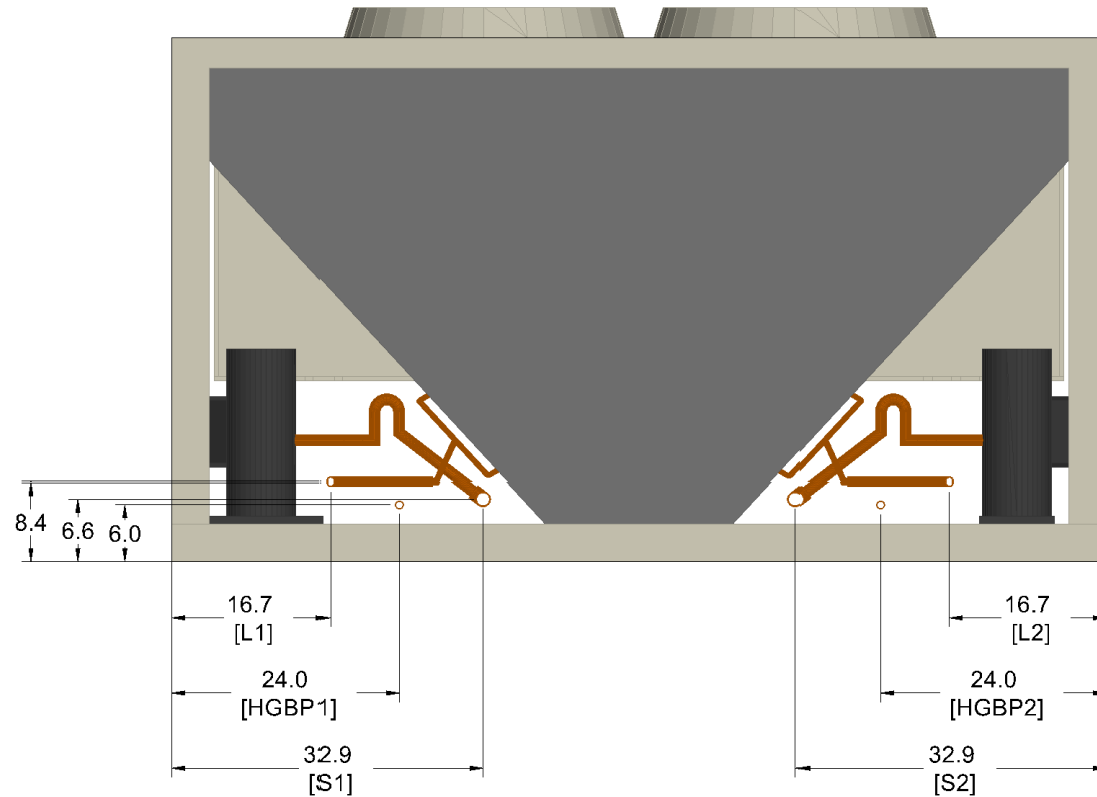
Warranty

Parts:	Standard one year parts
Compressor:	Extended four year compressor, five year total

Accessories

Optional

Part Number	Description
193330721	Hot gas bypass kit, one circuit



ELEVATION VIEW - PIPE CONNECTION DETAILS

Product Drawing	Unit Tag: VCU-3 (JO)			Sales Office:			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 09.10
Product:	Project Name:			Sales Engineer:			
Model: RCS025D	Nov. 10, 2022	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	

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Hot Gas Bypass Valve

Part Number: 258951301

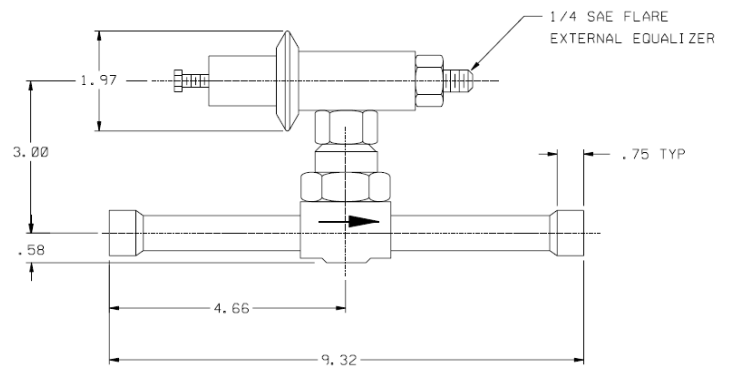
Description

Hot gas bypass provides protection against low suction pressure. It also helps keep the unit operating at light load without excessive cycling. The hot gas bypass valve is shipped loose in a kit (PN: 193330721). One valve is used for the entire tonnage range. Field will downsize piping to mate to valve.

The system consists of a pressure regulating valve that starts to modulate open at 100 psig (32°F). The valve is fully open at 90 psig (26°F). The factory settings can be modified in the field as the valve is adjustable.



Images courtesy of Sporlan Division – Parker Hannifin Corporation



Diagram

