

SPECIAL SEISMIC CERTIFICATION COMPLIANCE REPORT

2000293-CR-002-R0



Manufacturer: Data Aire Inc
Model Line: GHRC/GHFC
For specific models included in this seismic certification, see Certified Component and Subcomponent Matrices.
Product Type: Outdoor Remote Condensers/Fluid Coolers
Issue Date: July 15, 2020
Expiration Date: December 31, 2025

Equipment Manufacturer:
Company: Data Aire Inc
Address: 230 West Blueridge Ave.
Orange, CA 92865
Telephone: 800-347-2473
Website: www.dataaire.com

Seismic Certification Agency:
Company: TRU Compliance, by Structural Integrity Associates, Inc.
Address: 5215 Hellyer Ave, Suite 210
San Jose, CA 95138
Telephone: 844-TRU-0200
Website: www.trucompliance.com

<p>Analysis Performed by: Company: TRU Compliance, by Structural Integrity Associates, Inc. Contact: Stephen Reimus, PE Address: 233 SW Wilson Ave Bend, OR 97702 Telephone: 844-TRU-0200 Email: sreimus@structint.com</p>	<p>Analysis Notes: Analysis considers supports as defined in ASCE 7-16 Section 13.6.4. Subcomponents supported by supports in this certification have not been validated other than their attachment.</p>
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Seismic Certification Approval:
I certify that I have reviewed impartially and independently the documentation in support of this compliance report and have determined that this special seismic certification is in general conformance with the referenced code provisions.

Signature:

Decision Maker: Andy Coughlin, SE
Telephone: 844-TRU-0200
E-mail: acoughlin@structint.com

License Number: S6082 (California)



Verify current listings at www.trucompliance.com/certification-database

SPECIAL SEISMIC CERTIFICATION COMPLIANCE REPORT

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Manufacturer: Data Aire Inc
Model Line: GHRC/GHFC
For specific models included in this seismic certification, see Certified Component and Subcomponent Matrices.
Product Type: Outdoor Remote Condensers/Fluid Coolers

Product Certification Levels for GHRC/GHFC Base Mounted-Rigid:

• $S_{DS} = 1.78$ g; $z/h = 1.0$; $I_p = 1.0$	$a_p =$	2.5	Component Amplification Factor
• $S_{DS} = 5.34$ g; $z/h = 0.0$; $I_p = 1.0$	$R_p =$	3.0	Component Response Modification Factor
	$W_p =$	1,800 lbs.	Maximum Component Operating Weight
	$F_p =$	3,204 lbs.	Seismic Design Force (Horizontal)
	$F_{pv} =$	1,926 lbs.	Seismic Design Force (Vertical)

Notes:

- Mounting arrangement: Base Mounted - Rigid
- Components are analyzed in accordance with IBC 2018 and ASCE 7-16
- Products herein are also certified for previous version of listed building codes.
- Specific products included in this special seismic certification are outlined in the Tables included in this documentation. These Tables include detailed information relating to certification levels, construction details, options, subcomponents, and mounting arrangements.
- This ISO 17065 Certification fulfills the requirements of the TRU Compliance Certification Standard for Seismic, Wind, and Physical Security Performance, Revision 4, dated October 2, 2019 plus the standards referenced above.

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2000293-CR-002-R0



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Model Line:	GHRC/GHFC
	<i>For specific models included in this seismic certification, see Certified Component and Subcomponent Matrices.</i>
Product Type:	Outdoor Remote Condensers/Fluid Coolers

Special Seismic Certification Compliance Report Notes:

1. This certification expires on December 31, 2025.
2. This compliance report is based on a maximum short-period design spectral acceleration (S_{DS}) as specified in the Tables attached herein. All soil classes, seismic use groups and seismic design categories are covered by this certification as limited by the short-period design spectral acceleration.
3. Equipment seismic importance factor, I_p , equal to 1.0 indicates that the component does not pose a life or limb safety hazard due to collapse or due to major separation of subassemblies. Structural damage, such as limited yielding, is acceptable.
4. Equipment seismic importance factor, I_p , equal to 1.5 indicates that the component is deemed to be essential to the continued operation of a facility and/or contains materials deemed to be hazardous to humans or the environment in quantities greater than the exempted amounts listed in the code. After completion of seismic testing, the component was shown to satisfy functional requirements with equivalent results to those of the pre-test functional evaluation. Components deemed to be hazardous shall not be released into the environment in quantities greater than the exempted amounts listed in the code. In addition, component unit will not pose a life-safety hazard due to the collapse or major separation of subassemblies. Structural integrity of the anchorage and component force resisting system are maintained. Structural damage, such as limited yielding, is acceptable. Minor repairs may be required for components to satisfy complete functional requirements.
5. Proper installation, anchoring and mounting is required to validate this compliance report. Refer to the manufacturer's mounting and installation documents and drawings to determine the seismic mounting requirements and location of center of gravity. The equipment manufacturer and certification engineer listed in this compliance report are not responsible for the specification and performance of anchorage systems. The structural engineer of record on the project shall be responsible for anchorage details. The equipment installation contractor shall be responsible for ensuring the requirements specified by the structural engineer of record are satisfied. If detailed seismic installation calculations are required, please contact the manufacturer or certification engineer for the performance of this work.

Special Conditions of Approval:

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000293-CR-002-R0



Manufacturer: Data Aire Inc					TABLE 1	
Model Line: GHRC/GHFC						
Certified Product Construction Summary: Unit cabinets are constructed of heavy duty aluminum, reinforced with riveted gussets. Mounting legs are constructed of galvanized steel. GHRC and GHFC have same construction.						
Certified Options Summary: Phase: Single Phase or Three Phase, Voltage: 208V, 230V, 380V, 460V, 575V Option: Unit Mounted Reciever (GHRC Only)						
Mounting Configuration: Base mounted - Rigid Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those analyzed.						
Building Code: IBC 2018			Seismic Certification Limits:		$S_{DS} = 1.78g$ $z/h = 1.0$	$I_P = 1.0$
					$S_{DS} = 5.34g$ $z/h = 0.0$	
Model Line	Model	Dimensions (in)			Weight (lb)	Notes
		Width	Length	Height		
Outdoor Remote Condensers	GHRC-025	48.25	33	40	378.7	
	GHRC-032	48.25	33	40	378.7	
	GHRC-039	48.25	63	40	495.7	
	GHRC-053	48.25	63	40	495.7	
	GHRC-060	48.25	63	40	495.7	
	GHRC-074	48.25	93	40	991.2	
	GHRC-084	48.25	93	40	991.2	
	GHRC-099	48.25	93	40	991.2	
	GHRC-106	48.25	123	40	1400.5	
	GHRC-130	48.25	123	40	1400.5	
	GHRC-141	48.25	123	40	1400.5	
	GHRC-155	48.25	153	40	1630.5	
	GHRC-176	48.25	153	40	1630.5	
	GHRC-201	97.5	93	40	1982	(2) GHRC-099s Side by Side
	GHRC-215	97.5	123	40	2801	(2) GHRC-106s Side by Side
	GHRC-264	97.5	123	40	2801	(2) GHRC-130s Side by Side
	GHRC-281	97.5	123	40	2801	(2) GHRC-141s Side by Side
	GHRC-310	97.5	153	40	3261	(2) GHRC-155s Side by Side
	GHRC-352	97.5	153	40	3261	(2) GHRC-176s Side by Side
Outdoor Fluid Coolers (Dry Coolers)	GHFC-021	48.25	32.25	40	326	
	GHFC-025	48.25	32.25	40	326	
	GHFC-032	48.25	32.25	40	326	
	GHFC-039	48.25	62.25	40	518	
	GHFC-053	48.25	62.25	40	518	

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000293-CR-002-R0



Manufacturer: Data Aire Inc	TABLE 1
Model Line: GHRC/GHFC	

Certified Product Construction Summary:
Unit cabinets are constructed of heavy duty aluminum, reinforced with riveted gussets. Mounting legs are constructed of galvanized steel. GHRC and GHFC have same construction.

Certified Options Summary:
Phase: Single Phase or Three Phase, **Voltage:** 208V, 230V, 380V, 460V, 575V
Option: Unit Mounted Reciever (GHRC Only)

Mounting Configuration:
Base mounted - Rigid
Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those analyzed.

Building Code: IBC 2018 **Seismic Certification Limits:** $S_{DS} = 1.78g$ $z/h = 1.0$ $I_p = 1.0$
 $S_{DS} = 5.34g$ $z/h = 0.0$

Model Line	Model	Dimensions (in)			Weight (lb)	Notes
		Width	Length	Height		
Outdoor Fluid Coolers (Dry Coolers)	GHFC-060	48.25	62.25	40	518	
	GHFC-074	48.25	92.25	40	981	
	GHFC-084	48.25	92.25	40	981	
	GHFC-099	48.25	92.25	40	981	
	GHFC-106	48.25	122.25	40	1106	
	GHFC-130	48.25	122.25	40	1106	
	GHFC-141	48.25	122.25	40	1106	
	GHFC-155	48.25	152.25	40	1369	
	GHFC-176	48.25	152.25	40	1369	Unit Analyzed in 2000293-ER-001
	GHFC-201	98	92.25	40	1962	(2) GHFC-099s Side by Side
	GHFC-215	98	122.25	40	2212	(2) GHFC-106s Side by Side
	GHFC-264	98	122.25	40	2212	(2) GHFC-130s Side by Side
	GHFC-281	98	122.25	40	2212	(2) GHFC-141s Side by Side
	GHFC-310	98	152.25	40	2738	(2) GHFC-155s Side by Side
GHFC-352	98	152.25	40	2738	(2) GHFC-176s Side by Side	

UNIT DRAWINGS SUMMARY SHEET

2000293-CR-002-R0



Manufacturer: Data Aire Inc

Model Line: GHRC/GHFC

Model Number:

Serial Number:

GHFC 021-176 KW:

DETAIL "A-A"
TYP MOUNTING HOLE PATTERN PER LEG

DETAIL "A-A"
4.334" (2) PLCS GALVANIZED STEEL CHANNEL

FIELD LOW VOLTAGE SUPPLY WIRE ACCESS (UNDER SIDE OF CONTROL BOX)

FIELD LOW VOLTAGE CONTROL WIRE ACCESS (UPPER SIDE OF CONTROL BOX)

RECOMMENDED CLEARANCE FOR ELECTRICAL AND COMPONENT ACCESS TO BE 36" CLEARANCE FOR ALL OTHER SIDES TO BE 24"

INLET CONNECTION (UPPER HEADER)

ELECTRICAL BOX

OUTLET CONNECTION (LOWER HEADER)

SEE DETAIL "A-A"

36.00
60.00
60.00
60.00
120.00
150.00

12" FAN UNIT
12" FAN UNIT
12" FAN UNIT
12" FAN UNIT

40.00
40.00

36

Seismic and wind certified models have unistrut cross-bracing

REVISIONS

REV	DESCRIPTION	DATE	BY	CHKBY
D	REVISED PIPE CONNECTION SIZES	05-22-19	RK	DM

NOTE: UNIT WEIGHT IS AN ESTIMATED UNPAINTED WEIGHT.

MODEL NUMBER	LENGTH	UNIT NET WT. (CONTR. TRAILER)	NET WT. (CONTR. TRAILER)	CONTR. MOTORS	QTY.	HW	SH4	TOTAL CHM	250/250/400	MOTOR FLA
GHFC 021	32-1/4"	290	1-5/8	1-5/8	1	104	1490	5000	3.3	1.7
GHFC 023	32-1/4"	295	1-5/8	1-5/8	1	104	1490	4900	3.3	1.7
GHFC 025	32-1/4"	310	1-5/8	1-5/8	1	104	1490	4800	3.3	1.7
GHFC 029	62-1/4"	420	2-1/8	2-1/8	2	104	1490	10400	6.6	3.4
GHFC 031	62-1/4"	425	2-1/8	2-1/8	2	104	1490	10300	6.6	3.4
GHFC 033	62-1/4"	430	2-1/8	2-1/8	2	104	1490	10200	6.6	3.4
GHFC 037	62-1/4"	450	2-1/8	2-1/8	2	104	1490	10100	6.6	3.4
GHFC 041	62-1/4"	450	2-1/8	2-1/8	3	104	1490	15900	9.9	5.1
GHFC 044	62-1/4"	450	2-1/8	2-1/8	3	104	1490	14400	9.9	5.1
GHFC 046	62-1/4"	450	2-1/8	2-1/8	3	104	1490	14300	9.9	5.1
GHFC 104	125-1/4"	900	2-5/8	2-5/8	4	104	1490	35000	13.0	6.8
GHFC 130	125-1/4"	940	2-5/8	2-5/8	4	104	1490	34000	13.0	6.8
GHFC 141	152-1/4"	1100	2-5/8	2-5/8	4	104	1490	39000	13.0	6.8
GHFC 154	152-1/4"	1100	2-5/8	2-5/8	5	104	1490	24000	17.0	8.5
GHFC 178	152-1/4"	1200	2-5/8	2-5/8	5	104	1490	24000	17.0	8.5

GHFC 021-176 KW
FLUID COOLERS
WITH E/C FAN SYSTEM

dataaire

DRAWN BY: L. PATTON SCALE: NONE
CHECKED BY: SH 1 OF 2
DATE: 11-17-2010 REV: D

FLUID COOLERS
PART OF
600-000-880
DWG NO.

UNIT DRAWINGS SUMMARY SHEET

2000293-CR-002-R0



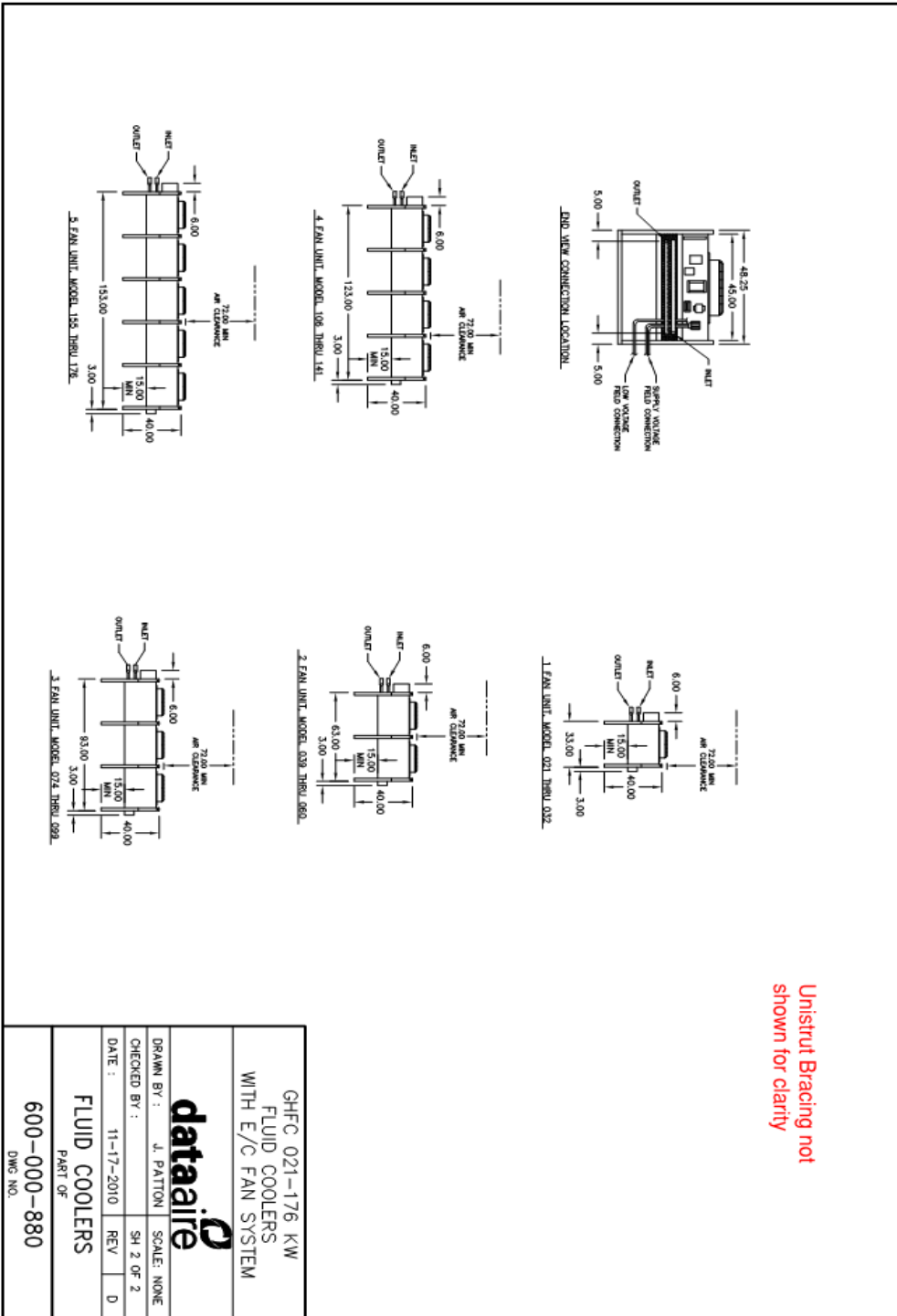
Manufacturer: Data Aire Inc

Model Line: GHRC/GHFC

Model Number:

Serial Number:

GHFC 021-176 KW:



Unistrut Bracing not shown for clarity

GHFC 021-176 KW FLUID COOLERS WITH E/C FAN SYSTEM	
DRAWN BY : J. PATTON	SCALE: NONE
CHECKED BY :	SH 2 OF 2
DATE : 11-17-2010	REV D
FLUID COOLERS	
PART OF	
600-000-880	
DWS NO.	

UNIT DRAWINGS SUMMARY SHEET

2000293-CR-002-R0



Manufacturer: Data Aire Inc

Model Line: GHRC/GHFC

Model Number:

Serial Number:

GHFC 201-352 KW:

NOTE: UNIT WEIGHT IS AN ESTIMATED UNCRATED WEIGHT.

MODEL NUMBER	LENGTH	UNIT NET WT #/BOXES	QTY	STANDARD CONDENSER			
				KW	RPM	TOTAL CFM	WATER T.A.
GHFC 201	92-1/4"	1750	6	1.04	1450	29,500	20
GHFC 215	122-1/4"	1800	8	1.04	1450	40,000	26
GHFC 264	122-1/4"	1880	8	1.04	1450	39,000	26
GHFC 281	122-1/4"	1940	8	1.04	1450	38,000	26
GHFC 310	152-1/4"	2200	10	1.04	1450	49,000	33
GHFC 352	152-1/4"	2400	10	1.04	1450	48,000	33

RECOMMENDED CLEARANCE FOR ELECTRICAL AND COMPONENT ACCESS TO BE 36" CLEARANCE FOR ALL OTHER SIZES TO BE 24"

REQUIRES A 1" GAP BETWEEN SECTIONS

REVISIONS

REV	DESCRIPTION	DATE	BY	CHKBY
D	REVISE TITLEBLOCK WITH NEW DATA AIRE LOGO	03-18-15	JAP	GM

DOUBLE WIDE FLUID COOLERS WITH E/C FANS

GHFC 201-352 KW

SCALE: NONE

SH 1 OF 1

DATE: 11-17-2010

REV: D

PART OF

600-000-881

DWG NO.

UNIT DRAWINGS SUMMARY SHEET

2000293-CR-002-R0



Manufacturer: Data Aire Inc

Model Line: GHRC/GHFC

Model Number:

Serial Number:

GHRC 025-176 KW:

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MODEL NUMBER	LENGTH	UNIT HGT W/ # (COVER STRIP)	FAN UNIT	QTY.	STANDARD CONDENSER	MOTOR FLA
GHRC 025	35" (893.20)	240	1-1/8" (7/8)	1	1.04	4.00
GHRC 032	35" (893.20)	241	1-1/8" (7/8)	1	1.04	4.00
GHRC 039	65" (1651.20)	369	1-1/8" (7/8)	2	1.04	10.00
GHRC 046	65" (1651.20)	369	1-1/8" (7/8)	2	1.04	10.00
GHRC 053	65" (1651.20)	369	1-1/8" (7/8)	2	1.04	10.00
GHRC 060	65" (1651.20)	369	1-1/8" (7/8)	2	1.04	10.00
GHRC 067	65" (1651.20)	369	1-1/8" (7/8)	2	1.04	10.00
GHRC 074	95" (2412.20)	677	1-3/8" (7/8)	3	1.04	15.00
GHRC 081	95" (2412.20)	677	1-3/8" (7/8)	3	1.04	15.00
GHRC 088	95" (2412.20)	677	1-3/8" (7/8)	3	1.04	15.00
GHRC 095	95" (2412.20)	677	1-3/8" (7/8)	3	1.04	15.00
GHRC 102	123" (3124.20)	903	1-3/8" (7/8)	4	1.04	20.00
GHRC 109	123" (3124.20)	903	1-3/8" (7/8)	4	1.04	20.00
GHRC 116	123" (3124.20)	903	1-3/8" (7/8)	4	1.04	20.00
GHRC 123	153" (3888.20)	1100	1-5/8" (1-1/8)	5	1.04	24.00
GHRC 130	153" (3888.20)	1100	1-5/8" (1-1/8)	5	1.04	24.00
GHRC 137	153" (3888.20)	1100	1-5/8" (1-1/8)	5	1.04	24.00
GHRC 144	153" (3888.20)	1100	1-5/8" (1-1/8)	5	1.04	24.00
GHRC 151	153" (3888.20)	1100	1-5/8" (1-1/8)	5	1.04	24.00
GHRC 158	153" (3888.20)	1100	1-5/8" (1-1/8)	5	1.04	24.00
GHRC 165	153" (3888.20)	1100	1-5/8" (1-1/8)	5	1.04	24.00
GHRC 172	153" (3888.20)	1100	1-5/8" (1-1/8)	5	1.04	24.00
GHRC 179	153" (3888.20)	1100	1-5/8" (1-1/8)	5	1.04	24.00

NOTE: UNIT WEIGHT IS AN ESTIMATED UNGRADED WEIGHT.

NOTES:

- ALL UNIT DIMENSIONS ARE IN INCH [mm] FORMAT.

RECOMMENDED CLEARANCE FOR ELECTRICAL AND COMPONENT ACCESS TO BE 36" [914.40] CLEARANCE FOR ALL OTHER SIDES TO BE 24" [609.60]

FIELD LOW VOLTAGE CONTROL WIRE ACCESS (UNDERSIDE OF CONTROL BOX)

FIELD LINE VOLTAGE SUPPLY WIRE ACCESS (UNDERSIDE OF CONTROL BOX)

SEE SHEET 2 FOR INLET AND OUTLET PIPING DETAILS

ELECTRICAL BOX

Seismic and wind certified models have unistrut cross-bracing

REV	DESCRIPTION	DATE	BY	CHK
P	UPDATED GHRC 074 HOT GAS CONN TO 1-3/8" (7/8) 07-11-19		MC	BM

GHRC 025-176 KW
SINGLE CIRCUIT CONDENSER
WITH E/C FAN

dataaire

DRAWN BY: _____ SCALE: NONE
CHECKED BY: _____ SH 1 OF 2
DATE: 01-05-2010 REV: P

PART OF
600-000-752
DMC NO.

UNIT DRAWINGS SUMMARY SHEET

2000293-CR-002-R0



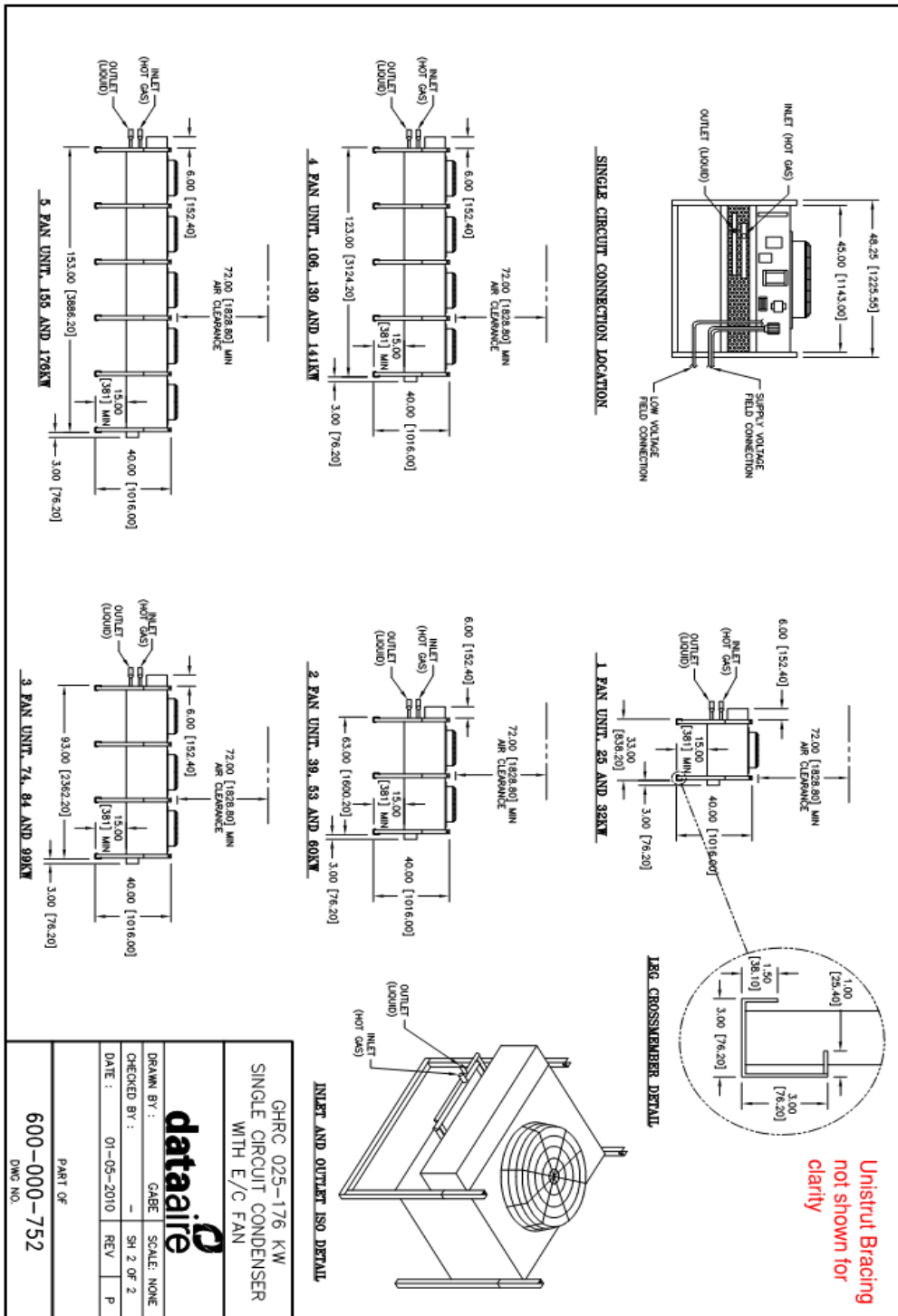
Manufacturer: Data Aire Inc

Model Line: GHRC/GHFC

Model Number:

Serial Number:

GHRC 025-176 KW:



UNIT DRAWINGS SUMMARY SHEET

2000293-CR-002-R0



Manufacturer: Data Aire Inc

Model Line: GHRC/GHFC

Model Number:

Serial Number:

GHRC 201-352 KW:

NOTE: UNIT WEIGHT IS AN ESTIMATED UNCRATED WEIGHT.

MODEL NUMBER	LENGTH	UNIT NET WT #	COMP. THROU NET WT. (LBS)	QTY. MOTORS	HP	STANDARD CONDENSER TOTAL CFM	WATER FLOW GPM
GHRC 201	93"	2382.20	1466	1-5/8	7/8	6	1.04 VARIABLE
GHRC 215	123"	3124.20	1606	1-5/8	7/8	8	1.04 VARIABLE
GHRC 264	123"	3124.20	1890	1-5/8	1-1/8	8	1.04 VARIABLE
GHRC 281	123"	3124.20	1940	1-5/8	1-1/8	8	1.04 VARIABLE
GHRC 310	153"	3886.20	2200	1-5/8	1-1/8	10	1.04 VARIABLE
GHRC 352	153"	3886.20	2400	1-5/8	1-1/8	10	1.04 VARIABLE

NOTES:

- ALL UNIT DIMENSIONS ARE IN INCH [mm] FORMAT.
- A DOUBLE WIDE CONDENSER SHIPS AS TWO EQUALLY SIZED SECTIONS THAT MUST BE MOUNTED SIDE BY SIDE AND RECONNECTED UPON INSTALLATION. A SINGLE SOURCE OF LINE VOLTAGE POWER BEHIND HIGH VOLTAGE WIRING FROM ONE ELECTRICAL BOX TO THE OTHERS REQUIRED. THE SECTION ON THE RIGHT HAS A COMPLETE ELECTRICAL BOX. THE OTHER HAS AN ELECTRICAL BOX THAT ONLY HAS A TERMINAL BLOCK. WIRING MUST BE FIELD CONNECTED BETWEEN THE ELECTRICAL BOX OF THE RIGHT SECTION TO THE ELECTRICAL BOX ON THE LEFT. REFER TO LOCAL ELECTRICAL CODES.

REVISIONS

REV	DESCRIPTION	DATE	BY
D	PER ECO: 016-14A, REMOVE MICRO-GROOVE	05-16-16	JAP

GHRC 201-352 KW
DOUBLE WIDE CONDENSER
WITH E/C FANS

dataaire

DRAWN BY: GABE SCALE: NONE
CHECKED BY: SH 1 OF 1
DATE: 10-29-2010 REV: D

PART OF
600-000-874
DWS NO.