

WIND CERTIFICATION COMPLIANCE REPORT

2000293-CR-003-R0



Manufacturer:	Data Aire
Model Line:	GHRC/GHFC <i>For specific models included in this wind certification, see Certified Component and Subcomponent Matrices.</i>
Product Type:	Outdoor Remote Condenser/Fluid Cooler
Issue Date:	July 15, 2020
Expiration Date:	December 31, 2025

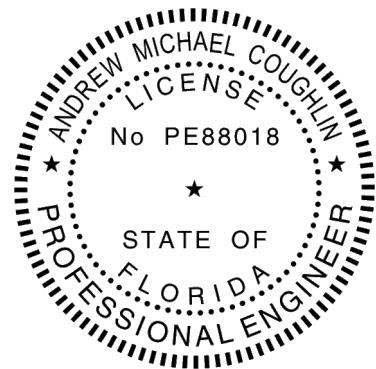
Equipment Manufacturer:	
Company:	Data Aire
Address:	230 West Blueridge Ave. Orange, CA 92865
Telephone:	800-347-2473
Website:	www.dataaire.com

Wind 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

Product Certification Levels Included in this Special Wind Certification ¹:			
Wind Level(s):	$K_{zt} = 1.0$	Topographic Factor	
	$K_d = 0.85$	Wind Directionality Factor	
	$K_e = 1.0$	Ground Elevation Factor	
	$q_h = 66 \text{ psf}$	Wind Velocity Pressure at Mean Roof Height	
	$q_{lateral} = 125 \text{ psf}$	Maximum Wind Lateral Pressure	
	$q_{uplift} = 99 \text{ psf}$	Maximum Wind Uplift Pressure	

^[1]Note: Unit certified to maintain structural integrity up to certification levels specified.

Wind Certification Approval:	
I certify that I have reviewed impartially and independently the documentation in support of this compliance report and have determined that this wind certification is in general conformance with the referenced code provisions.	
Signature:	
Decision Maker:	Andy Coughlin, PE
Telephone:	844-TRU-0200
E-mail:	acoughlin@structint.com
License Number:	PE88018 (Florida)



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

TRU Compliance, by Structural Integrity Associates, Inc.

WIND CERTIFICATION COMPLIANCE REPORT

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

Product Certification Levels Included in this Special Wind Certification (GHRC/GHFC):

- V = 208 mph; z = 0 ft - 30 ft; Exposure = B
- V = 189 mph; z = 0 ft - 15 ft; Exposure = C
- V = 171 mph; z = 0 ft - 15 ft; Exposure = D

		Qualified Wind Speed (mph) ¹		
Height above ground, z		Exposure		
ft	(m)	B	C	D
0-15	4.6	208	189	171
20	6.1	208	183	167
25	7.6	208	179	164
30	9.1	208	175	161
40	12.2	199	170	157
50	15.2	193	166	154
60	18	188	163	152
70	21.3	184	160	150
80	24.4	180	158	148
90	27.4	177	156	146
100	30.5	175	154	145
120	36.6	170	152	143
140	42.7	167	149	141
160	48.8	163	147	139
180	54.9	161	145	138
200	61	158	144	137
250	76.2	153	140	134
300	91.4	149	138	132
350	106.7	146	135	130
400	121.9	143	133	129
450	137.2	141	132	127
500	152.4	139	130	126

^[1]Note: Linear interpolation for intermediate values of height z is acceptable

Notes:

- Mounting arrangement: Base mounted - rigid
- Reference 2000293-ER-001 R0 for determination of achieved certified wind levels.

WIND CERTIFICATION COMPLIANCE REPORT

2000293-CR-003-R0



Manufacturer:	Data Aire
Model Line:	GHRC/GHFC <i>For specific models included in this wind certification, see Certified Component and Subcomponent Matrices.</i>
Product Type:	Outdoor Remote Condenser/Fluid Cooler

Special Wind Certification Compliance Report Notes:

1. This certification expires on December 31, 2023.
2. Analysis was performed in general conformance with the 2015 International Building Code (IBC 2015), 2017 Florida Building Code 6th Edition, and the American Society of Civil Engineers Standard (ASCE 7-10)
3. This compliance report is based on a maximum wind velocity pressure at mean roof height (q_n) as specified for the models listed in the tables attached herein. Specific products included in this special wind 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.
4. 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 wind 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.
6. 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.

Special Conditions of Approval:

SPECIAL WIND CERTIFICATION CERTIFIED COMPONENT MATRIX

2000293-CR-003-R0



Manufacturer: Data Aire					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 receiver (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		Wind Certification Limits:		$q_{lateral} = 125 \text{ psf (Max)}$ $q_{uplift} = 99 \text{ psf (Max)}$		
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	Unit Analyzed in 2000293-ER-001
	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	

PRODUCT INSTALLATION SUMMARY SHEET

2000293-CR-003-R0



Manufacturer: Data Aire

Model Line: GHRC/GHFC

Unit Base Anchor Schedule (GHRC):

Model Line	Model	Unit Base Anchor ³		
		No. Anchor Points ¹	T _{Allow} ² (lbs.)	V _{Allow} ² (lbs.)
Outdoor Remote Condensers	GHRC-025	4	425	157
	GHRC-032	4	425	157
	GHRC-039	6	436	137
	GHRC-053	6	436	137
	GHRC-060	6	436	137
	GHRC-074	8	463	151
	GHRC-084	8	463	151
	GHRC-099	8	463	151
	GHRC-106	10	484	160
	GHRC-130	10	484	160
	GHRC-141	10	484	160
	GHRC-155	12	508	166
	GHRC-176	12	508	166
	GHRC-201	16	319	79
	GHRC-215	20	325	80
	GHRC-264	20	325	80
	GHRC-281	20	325	80
	GHRC-310	24	342	83
GHRC-352	24	342	83	

Notes:

^[1]Number of anchor points are defined as the total number of anchors

^[2]Loads are at service level (ASD), to transform to ultimate (LRFD) multiply by 1.6

^[3]Installation for all heights and qualified wind speeds defined by product certification levels

Unit Base Anchor Notes

1. Number of anchor points shall not be less than number provided in schedule.
2. At contractors option, alternative attachment acceptable provided attachment has capacity to meet minimum required loads provided in schedule.

PRODUCT INSTALLATION SUMMARY SHEET

2000293-CR-003-R0



Manufacturer: Data Aire
Model Line: GHRC/GHFC

Unit Base Anchor Schedule (GHFC):

Model Line	Model	Unit Base Anchor ³		
		No. Anchor Points ¹	T _{Allow} ² (lbs.)	V _{Allow} ² (lbs.)
Outdoor Fluid Coolers (Dry Coolers)	GHFC-021	4	429	157
	GHFC-025	4	429	157
	GHFC-032	4	429	157
	GHFC-039	6	428	135
	GHFC-053	6	428	135
	GHFC-060	6	428	135
	GHFC-074	8	459	150
	GHFC-084	8	459	150
	GHFC-099	8	459	150
	GHFC-106	10	499	159
	GHFC-130	10	499	159
	GHFC-141	10	499	159
	GHFC-155	12	518	165
	GHFC-176	12	518	165
	GHFC-201	16	320	80
	GHFC-215	20	341	79
	GHFC-264	20	341	79
	GHFC-281	20	341	79
	GHFC-310	24	354	82
GHFC-352	24	354	82	

Notes:

- ^[1]Number of anchor points are defined as the total number of anchors
- ^[2]Loads are at service level (ASD), to transform to ultimate (LRFD) multiply by 1.6
- ^[3]Installation for all heights and qualified wind speeds defined by product certification levels

Unit Base Anchor Notes

1. Number of anchor points shall not be less than number provided in schedule.
2. At contractors option, alternative attachment acceptable provided attachment has capacity to meet minimum required loads provided in schedule.

UNIT DRAWINGS SUMMARY SHEET

2000293-CR-003-R0



Manufacturer: Data Aire Inc

Model Line: GHRC/GHFC

Model Number:

Serial Number:

GHFC 021-176 KW:

Seismic and wind certified models have unistrut cross-bracing

MODEL NUMBER	LENGTH	UNIT NET WT. (CONTR. TRAILER)	NET WT. (CONTR. TRAILER)	CONTR. MOTORS	QTY.	HW	SHA	TOTAL CHM	350/250/160V	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	10000	6.6	3.4
GHFC 031	62-1/4"	425	2-1/8	2-1/8	2	104	1490	10000	6.6	3.4
GHFC 033	62-1/4"	430	2-1/8	2-1/8	2	104	1490	10000	6.6	3.4
GHFC 037	62-1/4"	450	2-1/8	2-1/8	3	104	1490	15900	9.9	5.1
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	14600	9.9	5.1
GHFC 054	62-1/4"	450	2-1/8	2-1/8	3	104	1490	14600	9.9	5.1
GHFC 104	125-1/4"	900	2-5/8	2-5/8	4	104	1490	20000	13.0	6.8
GHFC 130	125-1/4"	940	2-5/8	2-5/8	4	104	1490	19000	13.0	6.8
GHFC 141	125-1/4"	970	2-5/8	2-5/8	4	104	1490	19000	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 176	152-1/4"	1200	2-5/8	2-5/8	5	104	1490	24000	17.0	8.5

NOTE: UNIT WEIGHT IS AN ESTIMATED UNPAID WEIGHT.

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.

REVISIONS			
REV	DESCRIPTION	DATE	BY / CHECKED
D	REVISED PIPE CONNECTION SIZES	05-22-19	RK / DM

UNIT DRAWINGS SUMMARY SHEET

2000293-CR-003-R0



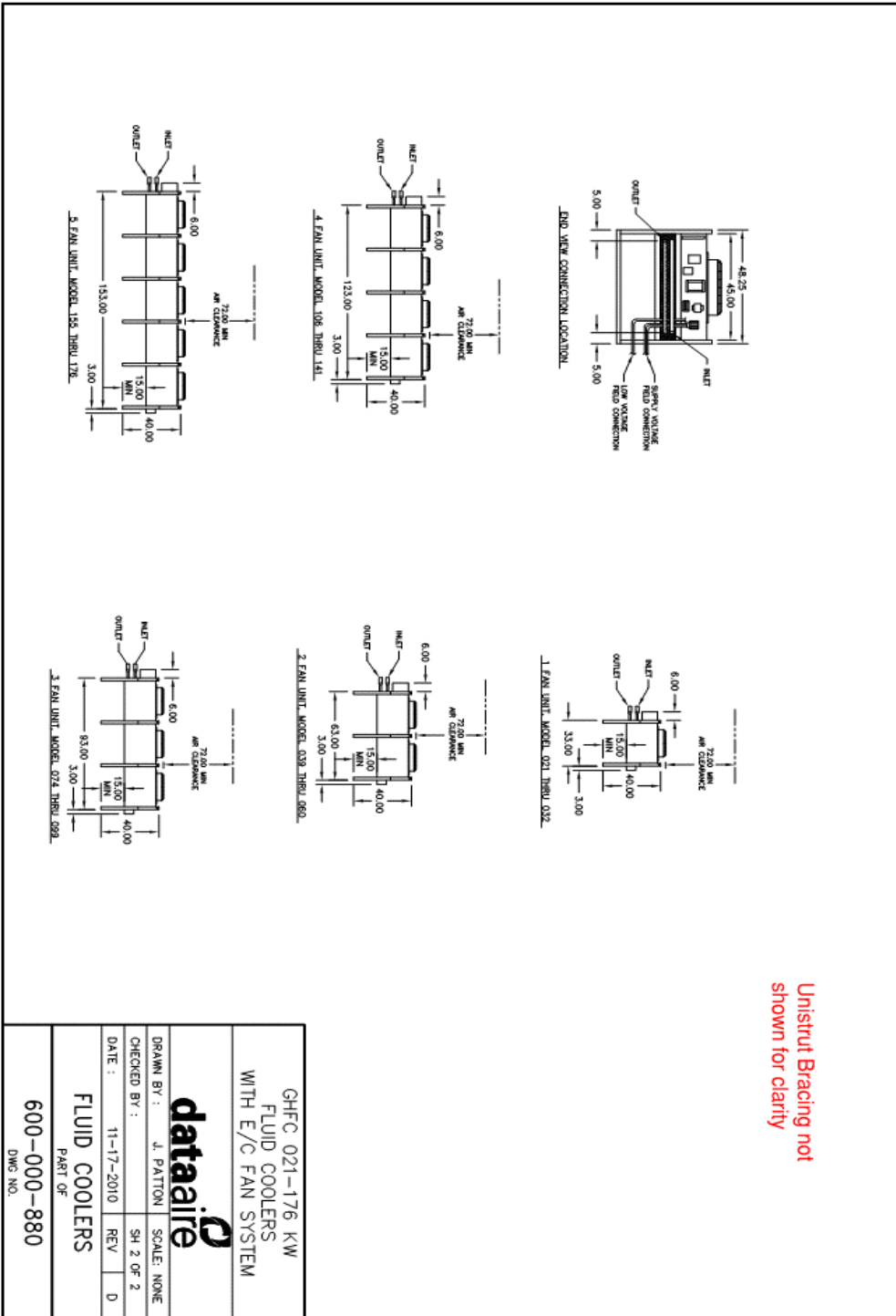
Manufacturer: Data Aire Inc

Model Line: GHRC/GHFC

Model Number:

Serial Number:

GHFC 021-176 KW:



UNIT DRAWINGS SUMMARY SHEET

2000293-CR-003-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 # POUNDS	QTY	STANDARD CONDENSER		
				KW	RPM	TOTAL CFM
GHFC 201	92'-1/4"	1750	6	1.04	1450	29,500
GHFC 215	122'-1/4"	1800	8	1.04	1450	40,000
GHFC 264	122'-1/4"	1880	8	1.04	1450	39,000
GHFC 281	122'-1/4"	1940	8	1.04	1450	38,000
GHFC 310	152'-1/4"	2200	10	1.04	1450	49,000
GHFC 352	152'-1/4"	2400	10	1.04	1450	48,000

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-003-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)	PERF CONNECTION (COVER STRIP) QTY.	STANDARD CONDENSER MOTOR FLA
GHRC 025	35" (893.20)	240	1-1/8" 7/8"	1.04
GHRC 032	35" (893.20)	241	1-1/8" 7/8"	1.04
GHRC 039	65" (1651.20)	369	1-1/8" 7/8"	1.04
GHRC 063	65" (1651.20)	359	1-1/8" 7/8"	1.04
GHRC 060	65" (1651.20)	358	1-3/8" 7/8"	1.04
GHRC 074	95" (2412.20)	677	1-3/8" 7/8"	1.04
GHRC 084	95" (2412.20)	704	1-3/8" 7/8"	1.04
GHRC 099	95" (2412.20)	733	1-3/8" 7/8"	1.04
GHRC 106	123" (3124.20)	803	1-5/8" 1-1/8"	1.04
GHRC 130	123" (3124.20)	940	1-5/8" 1-1/8"	1.04
GHRC 141	123" (3124.20)	970	1-5/8" 1-1/8"	1.04
GHRC 150	153" (3888.20)	1100	1-5/8" 1-1/8"	1.04
GHRC 176	153" (3888.20)	1200	1-5/8" 1-1/8"	1.04

NOTE: UNIT WEIGHT IS AN ESTIMATED UNGRADED WEIGHT.

NOTES:
1. ALL UNIT DIMENSIONS ARE IN INCH [mm] FORMAT.

REVISIONS

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

Seismic and wind certified models have unistrut cross-bracing

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

dataaire

DRAWN BY: _____ SCALE: NONE
GABE
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-003-R0



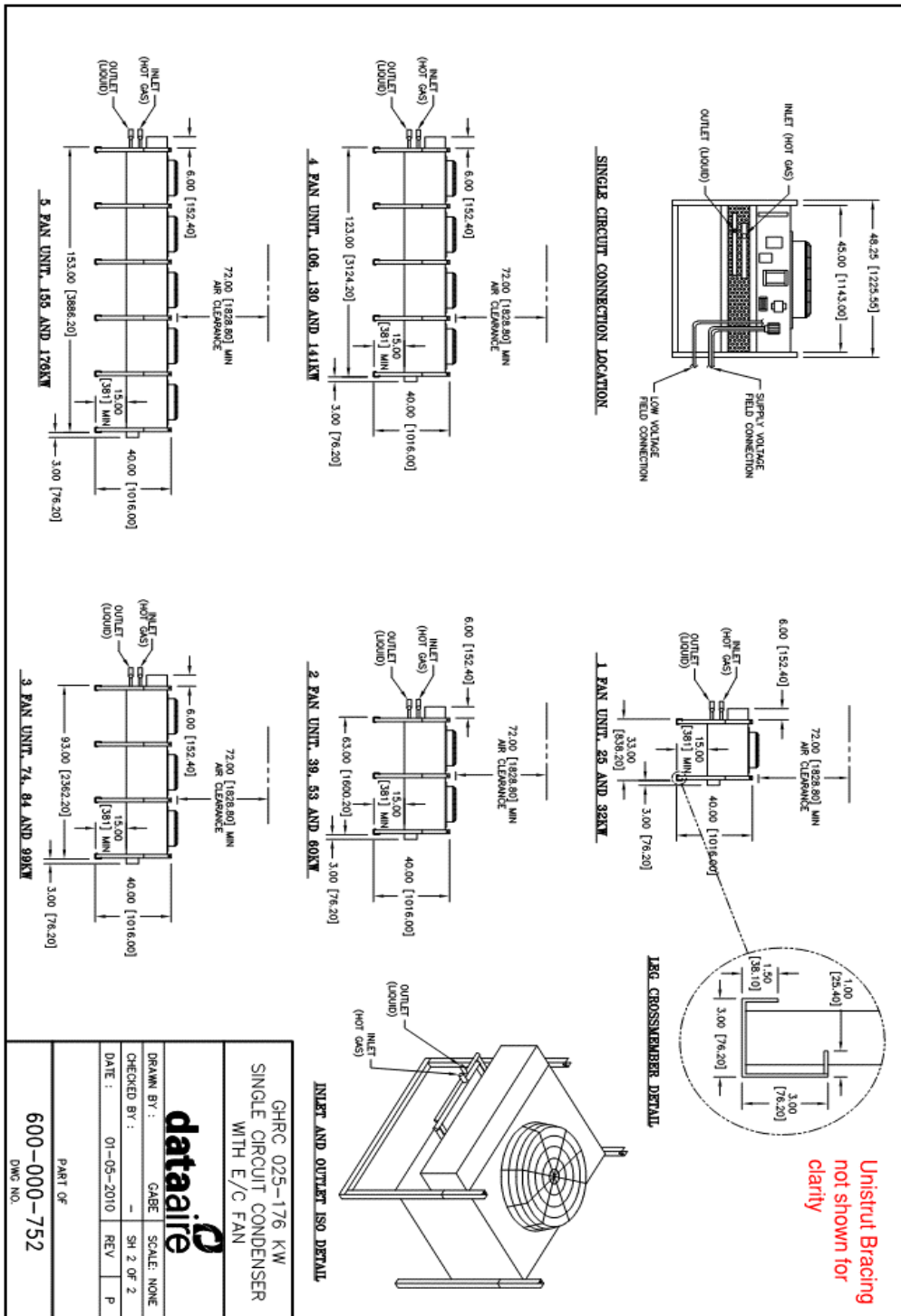
Manufacturer: Data Aire Inc

Model Line: GHRC/GHFC

Model Number:

Serial Number:

GHRC 025-176 KW:



Unistrut Bracing
not shown for
clarity

GHRC 025-176 KW SINGLE CIRCUIT CONDENSER WITH E/C FAN	
DRAWN BY :	GABE SCALE: NONE
CHECKED BY :	SH 2 OF 2
DATE :	01-05-2010 REV: P
PART OF	
600-000-752	
DWG NO.	

UNIT DRAWINGS SUMMARY SHEET

2000293-CR-003-R0



Manufacturer: Data Aire Inc

Model Line: GHRC/GHFC

Model Number:

Serial Number:

GHRC 201-352 KW:

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.

RECOMMENDED CLEARANCE FOR ELECTRICAL AND COMPONENT ACCESS TO BE 36" (914.40) SIDES TO BE 24" (609.60)

FIELD LINE VOLTAGE SUPPLY WIRING (UNDERSIDE OF CONTROL BOX)

FIELD LOW VOLTAGE CONTROL WIRING (UNDERSIDE OF CONTROL BOX)

REQUIRE 1" (25.40) GAP BETWEEN SECTIONS

MODEL NUMBER	LENGTH	UNIT NET WT #	COMP. PHASES	QTY	STANDARD CONDENSER	WATER FLOW			
GHRC 201	93"	2382.20	1466	1-5/8 7/8	6	1.04 VARIABLE	29,500	20	10
GHRC 215	123"	3124.20	1606	1-5/8 7/8	8	1.04 VARIABLE	39,500	26	14
GHRC 264	123"	3124.20	1890	1-5/8 1-1/8	8	1.04 VARIABLE	39,000	26	14
GHRC 281	123"	3124.20	1940	1-5/8 1-1/8	8	1.04 VARIABLE	38,000	26	14
GHRC 310	153"	3886.20	2200	1-5/8 1-1/8	10	1.04 VARIABLE	49,000	33	17
GHRC 352	153"	3886.20	2400	1-5/8 1-1/8	10	1.04 VARIABLE	49,000	33	17

NOTE: UNIT WEIGHT IS AN ESTIMATED UNCRATED WEIGHT.

REVISIONS

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

HIGH VOLTAGE (FIELD PROVIDED) PER LOCAL CODES, BETWEEN TERMINAL STRIPS OF ELECTRICAL BOXES, 6 TO 10 CONDUCTORS

SECTIONS ARE SHIPPED LOOSE AND ARE TO BE FIELD CONNECTED WITH 1" (25.40) GAP BETWEEN THE SECTIONS.

LOW VOLTAGE FIELD CONNECTION

SUPPLY VOLTAGE FIELD CONNECTION

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.