

SPECIAL SEISMIC CERTIFICATION COMPLIANCE REPORT

2000293-CR-001-R0



Manufacturer: Data Aire Inc
Model Line: gForce Ultra
For specific models included in this seismic certification, see Certified Component and Subcomponent Matrices.
Product Type: Evaporators
Issue Date: July 10, 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

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Model Line:	gForce Ultra
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Product Type:	Evaporators

Product Certification Levels for gForce Ultra Base Mounted-Rigid:

• $S_{DS} = 1.04$ g; $z/h = 1.0$; $I_p = 1.0$	$a_p = 2.5$	Component Amplification Factor
• $S_{DS} = 1.73$ g; $z/h = 0.0$; $I_p = 1.0$	$R_p = 6.0$	Component Response Modification Factor
	$W_p = 3,470$ lbs.	Maximum Component Operating Weight
	$F_p = 1,804$ lbs.	Seismic Design Force (Horizontal)
	$F_{pv} = 1,215$ lbs.	Seismic Design Force (Vertical)

Product Certification Levels for gForce Ultra Base Mounted-Rigid Floor Stand:

• $S_{DS} = 1.10$ g; $z/h = 1.0$; $I_p = 1.0$	$a_p = 2.5$	Component Amplification Factor
• $S_{DS} = 1.39$ g; $z/h = 0.0$; $I_p = 1.0$	$R_p = 6.0$	Component Response Modification Factor
	$W_p = 3,987$ lbs.	Maximum Component Operating Weight
	$F_p = 2,193$ lbs.	Seismic Design Force (Horizontal)
	$F_{pv} = 1,116$ lbs.	Seismic Design Force (Vertical)

Product Certification Levels for gForce Ultra Base Mounted-Neoprene Isolated Floor Stand:

• $S_{DS} = 0.46$ g; $z/h = 1.0$; $I_p = 1.0$	$a_p = 2.5$	Component Amplification Factor
• $S_{DS} = 1.38$ g; $z/h = 0.0$; $I_p = 1.0$	$R_p = 2.5$	Component Response Modification Factor
	$W_p = 3,987$ lbs.	Maximum Component Operating Weight
	$F_p = 2,193$ lbs.	Seismic Design Force (Horizontal)
	$F_{pv} = 1,116$ lbs.	Seismic Design Force (Vertical)

- Notes:**
- Mounting arrangement: Varies, See Tables
 - 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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Model Line:	gForce Ultra
	<i>For specific models included in this seismic certification, see Certified Component and Subcomponent Matrices.</i>
Product Type:	Evaporators

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-001-R0



Manufacturer: Data Aire Inc	TABLE 1
Model Line: gForce Ultra	

Certified Product Construction Summary:
Aluminum housing with aluminum finned, copper tube coils, cold formed steel framing

Certified Options Summary:
Phase: 3 Phase, **Voltage:** 208V/230V, 380V, 460V or 575V
Evaporator Coil with: Auxiliary Chilled Water Coil or Energy Saver Coil
Cooling: Glycol, Water or Air Cooled

Mounting Configuration:
Base Mounted - Rigid (no floor stand)
Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those analyzed.

Building Code: IBC 2018 **Seismic Certification Limits:** $S_{DS} = 1.04g$ $z/h = 1.0$ $I_p = 1.0$
 $S_{DS} = 1.73g$ $z/h = 0.0$

Model Line	Model	Dimensions (in)			Weight (lb)	Notes
		Depth	Width	Height ¹		
gForce Ultra (Downflow)	GUAD-022XX	40.5	53.5	84.0	1,185	
	GUWD-022XX	40.5	53.5	84.0	1,185	
	GUGD-022XX	40.5	53.5	84.0	1,185	
	GUAD-036XX	40.5	72.5	84.0	1,861	
	GUWD-036XX	40.5	72.5	84.0	1,861	
	GUGD-036XX	40.5	72.5	84.0	1,861	
	GUAD-045XX	40.5	72.5	84.0	2,024	
	GUWD-045XX	40.5	72.5	84.0	2,024	
	GUGD-045XX	40.5	72.5	84.0	2,024	
	GUAD-070XX	40.5	106.0	84.0	2,660	
	GUWD-070XX	40.5	106.0	84.0	2,660	
	GUGD-070XX	40.5	106.0	84.0	2,660	
	GUAD-091XX	40.5	106.0	84.0	2,875	
	GUWD-091XX	40.5	106.0	84.0	2,875	
	GUGD-091XX	40.5	106.0	84.0	2,875	
	GUAD-125XX	40.5	139.5	84.0	3,470	Unit analyzed in 2000293-ER-001
	GUWD-125XX	40.5	139.5	84.0	3,470	
	GUGD-125XX	40.5	139.5	84.0	3,470	
gForce Ultra (Upflow)	GUAU-022XX	40.5	53.5	84.0	1,185	
	GUWU-022XX	40.5	53.5	84.0	1,185	
	GUGU-022XX	40.5	53.5	84.0	1,185	
	GUAU-036XX	40.5	72.5	84.0	1,861	

Notes:
1) Maximum heights listed, all units with heights less than listed are covered in this certification.

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000293-CR-001-R0



Manufacturer: Data Aire Inc	TABLE 1
Model Line: gForce Ultra	

Certified Product Construction Summary:
Aluminum housing with aluminum finned, copper tube coils, cold formed steel framing

Certified Options Summary:
Phase: 3 Phase, **Voltage:** 208V/230V, 380V, 460V or 575V
Evaporator Coil with: Auxiliary Chilled Water Coil or Energy Saver Coil
Cooling: Glycol, Water or Air Cooled

Mounting Configuration:
Base Mounted - Rigid (no floor stand)
Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those analyzed.

Building Code: IBC 2018 **Seismic Certification Limits:** $S_{DS} = 1.04g \quad z/h=1.0$ $I_p = 1.0$
 $S_{DS} = 1.73g \quad z/h=0.0$

Model Line	Model	Dimensions (in)			Weight (lb)	Notes
		Depth	Width	Height ¹		
gForce Ultra (Upflow)	GUWU-036XX	40.5	72.5	84.0	1,861	
	GUGU-036XX	40.5	72.5	84.0	1,861	
	GUAU-045XX	40.5	72.5	84.0	2,024	
	GUWU-045XX	40.5	72.5	84.0	2,024	
	GUGU-045XX	40.5	72.5	84.0	2,024	
	GUAU-070XX	40.5	106.0	84.0	2,660	
	GUWU-070XX	40.5	106.0	84.0	2,660	
	GUGU-070XX	40.5	106.0	84.0	2,660	
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	GUWU-091XX	40.5	106.0	84.0	2,875	
	GUGU-091XX	40.5	106.0	84.0	2,875	
	GUAU-125XX	40.5	139.5	84.0	3,470	Unit analyzed in 2000293-ER-001
	GUWU-125XX	40.5	139.5	84.0	3,470	
	GUGU-125XX	40.5	139.5	84.0	3,470	

Notes:
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SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2000293-CR-001-R0



Manufacturer: Data Aire Inc	TABLE 2
Model Line: gForce Ultra	

Certified Product Construction Summary:
Aluminum housing with aluminum finned, copper tube coils, cold formed steel framing

Certified Options Summary:
Phase: 3 Phase, **Voltage:** 208V/230V, 380V, 460V or 575V
Evaporator Coil with: Auxiliary Chilled Water Coil or Energy Saver Coil
Stand: up to 30" height (36" total height) (Data-Aire Dwg #560-918-010)

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

Building Code: IBC 2018 **Seismic Certification Limits:** $S_{DS} = 1.10g \quad z/h=1.0$ $I_p = 1.0$
 $S_{DS} = 1.39g \quad z/h=0.0$

Model Line	Model	Dimensions (in)			Weight (lb)	Notes
		Depth	Width	Height ¹		
gForce Ultra (Downflow)	GUAD-022XX	40.5	53.5	84.0	1,185	
	GUWD-022XX	40.5	53.5	84.0	1,185	
	GUGD-022XX	40.5	53.5	84.0	1,185	
	GUAD-036XX	40.5	72.5	84.0	1,861	
	GUWD-036XX	40.5	72.5	84.0	1,861	
	GUGD-036XX	40.5	72.5	84.0	1,861	
	GUAD-045XX	40.5	72.5	84.0	2,024	
	GUWD-045XX	40.5	72.5	84.0	2,024	
	GUGD-045XX	40.5	72.5	84.0	2,024	
	GUAD-070XX	40.5	106.0	84.0	2,660	
	GUWD-070XX	40.5	106.0	84.0	2,660	
	GUGD-070XX	40.5	106.0	84.0	2,660	
	GUAD-091XX	40.5	106.0	84.0	2,875	
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	GUWD-125XX	40.5	139.5	84.0	3,470	
	GUGD-125XX	40.5	139.5	84.0	3,470	
gForce Ultra (Upflow)	GUAU-022XX	40.5	53.5	84.0	1,185	
	GUWU-022XX	40.5	53.5	84.0	1,185	
	GUGU-022XX	40.5	53.5	84.0	1,185	
	GUAU-036XX	40.5	72.5	84.0	1,861	

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Manufacturer: Data Aire Inc	TABLE 2
Model Line: gForce Ultra	

Certified Product Construction Summary:
Aluminum housing with aluminum finned, copper tube coils, cold formed steel framing

Certified Options Summary:
Phase: 3 Phase, **Voltage:** 208V/230V, 380V, 460V or 575V
Evaporator Coil with: Auxiliary Chilled Water Coil or Energy Saver Coil
Stand: up to 30" height (36" total height) (Data-Aire Dwg #560-918-010)

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

Building Code: IBC 2018 **Seismic Certification Limits:** $S_{DS} = 1.10g \quad z/h=1.0$ $I_p = 1.0$
 $S_{DS} = 1.39g \quad z/h=0.0$

Model Line	Model	Dimensions (in)			Weight (lb)	Notes
		Depth	Width	Height ¹		
gForce Ultra (Upflow)	GUWU-036XX	40.5	72.5	84.0	1,861	
	GUGU-036XX	40.5	72.5	84.0	1,861	
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	GUWU-045XX	40.5	72.5	84.0	2,024	
	GUGU-045XX	40.5	72.5	84.0	2,024	
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Manufacturer: Data Aire Inc	TABLE 3
Model Line: gForce Ultra	

Certified Product Construction Summary:
Aluminum housing with aluminum finned, copper tube coils, cold formed steel framing

Certified Options Summary:
Phase: 3 Phase, **Voltage:** 208V/230V, 380V, 460V or 575V
Evaporator Coil with: Auxiliary Chilled Water Coil or Energy Saver Coil
Stand: up to 30" height (36" total height) (Data-Aire Dwg #560-918-010)

Mounting Configuration:
Base Mounted - Neoprene Isolated Floor Stand
 Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those analyzed.

Building Code: IBC 2018 **Seismic Certification Limits:** $S_{DS} = 0.46g$ $z/h=1.0$ $I_p = 1.0$
 $S_{DS} = 1.38g$ $z/h=0.0$

Model Line	Model	Dimensions (in)			Weight (lb)	Notes
		Depth	Width	Height ¹		
gForce Ultra (Downflow)	GUAD-022XX	40.5	53.5	84.0	1,185	
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