





### WIND RESISTANT DESIGN CERTIFICATION OF NONSTRUCTURAL COMPONENTS AND SYSTEMS



#### Certification No.

# VMA-50365-02C (REVISION 6)

Expiration Date: 12/31/2024

### **Certification Parameters:**

The nonstructural products listed on this certificate are CERTIFIED FOR WIND APPLICATIONS in accordance with the following building code<sup>1</sup> releases.

## IBC 2009, 2012, 2015, 2018

The following model designations, options, and accessories are included in this certification. Reference report number VMA-50365-02 as issued by VMC Group for a complete list of certified models, included accessories/options, and certified installation methods.

### CAT C Series Diesel Fuel Generator Set Enclosures

The above referenced equipment is **APPROVED** for wind application when properly installed<sup>2</sup>, used as intended, and contains a Wind Certification Label referencing this Certificate of Compliance<sup>3</sup>. As limited by the tabulated values, installations in essential facilities, for life safety applications, and/or of equipment containing hazardous contents are permitted and included in this certification.

Certified Wind Design Levels								
Certified IBC 2018		V ≤ 11:	2 mph	V ≤ 82 mph				
	Importance IP ≤ 1.15 Exposure Categories B-D Risk Categories I-IV	V ≤ 5	0 m/s	V ≤ 37 m/s				
		z ≤ ′	15 ft	z ≤ 500 ft				
		z ≤	5 m	z ≤ 152 m				
		Pressure F <sub>h</sub>		53.03 lbs/ft <sup>2</sup>				
		Basis⁴	$\frac{1}{A_f} = c$	$q_z G C_f = \frac{53.03 \text{ lbs/ft}^2}{2.65 \text{ kPa}}$				

## **Certified Wind Installation Methods**

Rigid mounting from unit base to rigid structure







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Model	Туре	Material	Wind Velocity z ≤ 15 ft. Exposure B			Wind Velocity z ≤ 15 ft. Exposure C			$\frac{F_h}{A_f}$
			ASCE	ASCE	ASCE	ASCE	ASCE		[psf]
C2.2	Sound Attenuated Level 1	Steel	7-16	7-10	7-05	7-16	7-10	7-05	
02.2	Weather Protective	Steel		183 mph					
	Sound Attenuated Level 1	Steel							
C4.4	Sound Attenuated Level 1	Steel							
	Sound Attenuated Level 2	Aluminum							
	Weather Protective	Steel			240 mph	150 mph	150 mph		
	Sound Attenuated Level 1	Steel	183					197 mph	78.92
C6.6	Sound Attenuated Level 2	Steel	mph						
	Sound Attenuated Level 2	Aluminum							
	Weather Protective	Steel							
<b>•</b>	Sound Attenuated Level 1	Steel							
C7.1	Sound Attenuated Level 2	Steel							
	Sound Attenuated Level 2	Aluminum							
	Weather Protective	Steel							
00	Sound Attenuated Level 1	Steel							
C9	Sound Attenuated Level 2	Steel							
	Sound Attenuated Level 2	Aluminum							
	Weather Protective	Steel		150 mph	197 mph	123 mph	123 mph	161 mph	53.03
010	Sound Attenuated Level 1	Steel							
C13	Sound Attenuated Level 1	Aluminum							
	Sound Attenuated Level 2	Steel							
	Weather Protective	Steel							
C15	Sound Attenuated Level 1	Steel	150						
015	Sound Attenuated Level 1	Aluminum	mph						
	Sound Attenuated Level 2	Steel	mpn						
	Weather Protective	Steel							
C18	Sound Attenuated Level 1	Steel							
	Sound Attenuated Level 1	Aluminum							
C18 Tier 4F	Sound Attenuated Level 1	Steel							
	Sound Attenuated Level 1	Steel							
	Sound Attenuated Level 1	Aluminum							
C18 (650-750kW)	Cold Weather	Steel							
	Cold Weather	Aluminum							



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#### C2.2, C4.4, C6.6 & C7.1 Gensets

IBC		2018			2015, 2012			2009		
ASCE		7-16			7-10			7-05		
Exposure Catergory		В	С	D	В	С	D	В	С	D
Velocity <sup>5</sup>	z ≤ 15 ft	183	150	136	183	150	136	240	197	179
(mph)	z ≤ 500 ft	111	104	100	145	136	132	145	136	132

### C9, C13, C15, C18, & C18PD Gensets

IBC		2018				2015, 2012		2009		
ASCE		7-16			7-10			7-05		
Exposure Catergory		В	С	D	В	С	D	В	С	D
Velocity <sup>5</sup>	z ≤ 15 ft	150	123	112	150	123	112	197	161	146
(mph)	z ≤ 500 ft	91	85	82	119	112	108	119	112	108



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### Notes and Comments:

1. The following building codes are addressed under this certification:

ASCE 7-05 - Minimum Design Loads for Buildings and Other Structures ASCE 7-10 - Minimum Design Loads for Buildings and Other Structures ASCE 7-16 - Minimum Design Loads for Buildings and Other Structures IBC 2009 – referencing ASCE 7-05 IBC 2012 – referencing ASCE 7-10 IBC 2015 – referencing ASCE 7-10 IBC 2018 – referencing ASCE 7-16

- 2. Refer to the manufacturer supplied installation drawings for anchor requirements and mounting considerations for wind applications. Required anchor locations, size, style, and load capacities (tension and shear) are specified on the installation drawings. Mounting requirement details such as anchor brand, type, embedment depth, edge spacing, anchor-to-anchor spacing, concrete strength, special inspection, wall design, and attachment to non-building structures must be outlined and approved by the Engineer of Record for the project or building. Structural walls, structural floors, and housekeeping pads must also be sufficiently designed and approved by the project or building Structural Engineer of Record to withstand the wind anchor loads as defined on the installation drawings. The installing contractor is responsible for observing the installation detailed in the wind installation drawings and the proper installation of all anchors and mounting hardware.
- 3. For this certificate to remain valid, it must correspond to the "Wind Certification Label" found affixed to the unit by the factory. The label ensures the manufacturer built the unit in conformance to the IBC wind design criteria set forth by the Product Certification Agency, The VMC Group, and meets the wind design levels claimed by this certificate.
- 4. The qualified wind design pressure stated is for the horizontal wind pressure for applications utilizing ASCE 7-10, for more detailed ranges of qualified wind design levels, sees the report cited on Page 1. This wind design pressure utilizes LRFD load combinations.
- 5. Design velocity (highlighted in yellow) was chosen based on the corresponding ASCE 7 wind map. Other velocities were derived from the design pressure resulting from the design velocity.
- 6. Mechanical, Electrical, and Plumbing connections to the equipment must be flexibly attached as to not transfer load through the connection. The structural integrity of any conduit, cable trays, piping, ductwork and/or flexible connections is the responsibility of others. This certification does not guarantee the equipment will remain compliant to UL or NEMA standards after a wind action.
- This certificate applies to units manufactured at: 1720 West Kingsbury Street, Seguin, TX 78155 Rodovia Luiz de Queiorz-KM 157 CEP 13420-900, Piracicaba/SP-Brazil

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John P. Giuliano, PE President, The VMC Group

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