



CERTIFICATE OF COMPLIANCE

SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS



Certification No.

VMA-50365-01C (Revision 18)

Expiration Date: 7/31/2029

Certification Parameters:

The nonstructural products (mechanical and/or electrical components) listed on this certificate are CERTIFIED¹ FOR SEISMIC APPLICATIONS in accordance with the following building code² releases.

IBC 2021, 2018, 2015, 2012

The following model designations, options, and accessories are included in this certification. Reference report number VMA-50365-01 as issued by The VMC Group for a complete list of certified models, included accessories/options, and certified installation methods.

Caterpillar; Diesel and Gas Gensets

Series C4.4LC, C4.4, C6.6, C7.1, C9, C13, C15, C18, CG18; 40 - 750 kW

The above referenced equipment is **APPROVED** for seismic application when properly installed³, used as intended, and contains a Seismic Certification Label referencing this Certificate of Compliance⁴. As limited by the tabulated values, below grade, grade, and roof-level installations, installations in essential facilities, for life safety applications, and/or of equipment containing hazardous contents are permitted and included in this certification with an Equipment Importance Factor assigned as $I_p=1.5$. The equipment is qualified by comparative analysis and successful seismic shake table testing at the nationally recognized University of California Berkeley Pacific Earthquake Engineering Research Center, CERL (US Army Corp. of Engineers) Laboratory, Clark Dynamic Test Laboratory, and Dynamic Certification Laboratories under the review of the ISO Accredited Product Certification Agency, the VMC Group.

Certified Seismic Design Levels			
Certified IBC	Importance $I_p \leq 1.5$ Soil Classes A-E Risk Categories I-IV Design Categories A-F	$z/h \leq 1.0$	$z/h = 0.0$
		$S_{DS} \leq 0.753 g$	$S_{DS} \leq 2.260 g$

Certified Seismic Installation Methods ⁸	
Rigid Mounting From Unit Base To Rigid Structure	Rigid Mounting From Unit Base To Fuel Tank
External Isolation Mounting From Unit Base To Rigid Structure	



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Certified Product Table:

Series	Max Rating [kW]	EPA Rating	Length [in]	Width [in]	Height [in]	Max. Off Tank Weight [lbs]	Max. On Tank Weight [lbs]	S _{DS} at z/h=0.0	S _{DS} at z/h=1.0	Certified Installation Methods
C4.4LC	60	Tier 3	98	43	78	2,293	4,979	2.49	0.83	Rigid
C4.4	100		136	44	92	3,961	8,516			
C6.6	175		198		96	5,080	12,752			
C7.1	200		5,338		13,010					
C9	300		219	81	114	8,364	19,850			
C13	400	286	124		11,036	30,864				
C15	450	Tier 2	251		127	11,393	28,504			
	500		11,923		29,034					
C18	600		286		124	12,179	32,031			
	500	Tier 4F	247	90	111	13,720	21,687			
	750	Tier 2	275	91	106	15,585	N/A	1.29	Rigid	
					N/A	28,209				
CG18	500	N/A	206	85	89	13,118	N/A		0.75	

Group	Type	SDS (z/h=0)	SDS (z/h=1)	A _{Flex-H}	A _{Rig-H}	A _{Flex-V}	A _{Rig-V}	F _p /W _p (z/h=1)
Seismic	AC156	2.26	0.75	2.26	0.9	1.51	0.6	1.70

Notes:

- Weights include genset, enclosure (where applicable), tank and fuel (where applicable)
- For a detailed list of weights, certified installation methods, and certified seismic design levels please refer to the certification report referenced on the first page of this certificate.

This certification includes the open generator set and the enclosed generator set when installed with or without the sub-base tank. This certification also includes the sub-base tank as a stand-alone accessory. The generator set and included options shall be a catalogue design and factory supplied. The generator set and applicable options shall be installed and attached to the building structure per the manufacturer supplied seismic installation instructions. For a list of certified configurations and options please directly contact the manufacturer. This certification excludes all non-factory supplied accessories, including but not limited to mufflers, isolation/restraint devices, remote control panels, remote radiators, pumps and other electrical/mechanical components.



VMA-50365-01C (Revision 18)
Issue Date: May 6, 2016
Revision Date: October 26, 2026
Expiration Date: July 31, 2029



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Notes & Comments:

1. All equipment listed herein successfully passed the seismic acceptance criteria for shake testing non-structural components and systems as set forth in the ICC AC-156. The Test Response Spectrum (TRS) enveloped the Required Response Spectrum (RRS) for all units tested. The tested units were representative sample(s) of a contingent of models and all remained captive and structurally sound after the seismic shake simulation. The units also remained functionally operational after the simulation testing as functional testing was completed by the equipment manufacturer before and after the seismic simulations. Although a seismic qualified unit inherently contains some wind resisting capacity, that capacity is undetermined and is excluded from this certification. Snow/Ice loads have been neglected and thus limit the unit to be installed both indoors (covered by an independent protective structure) and out of doors (exposed to accumulating snow/ice) for ground snow loads no greater than 30 psf for all applications.
2. The following building codes are addressed under this certification:
IBC 2021 referencing ASCE7-16 and ICC-ES AC-156
IBC 2018 referencing ASCE7-16 and ICC-ES AC-156
IBC 2015 referencing ASCE7-10 and ICC-ES AC-156
IBC 2012 referencing ASCE7-10 and ICC-ES AC-156
3. Refer to the manufacturer supplied installation drawings for anchor requirements and mounting considerations for seismic applications. Required anchor locations, size, style, and load capacities (tension and shear) may be specified on the installation drawings or specified by a 3rd party. 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 seismically designed and approved by the project or building Structural Engineer of Record to withstand the seismic anchor loads as defined on the installation drawings. The installing contractor is responsible for ensuring the proper installation of all anchors and mounting hardware.
4. For this certificate and certification to remain valid, this certificate must correspond to the "Seismic Certification Label" found affixed to the unit by the factory. The label ensures the manufacturer built the unit in conformance to the IBC seismic design criteria set forth by the Certified Seismic Qualification Agency, the VMC Group, and meets the seismic design levels claimed by this certificate.
5. 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 makes no statements of compliance in regards to NEMA, IP, UL, CSA, or other relevant standards after a seismic event. For compliance to other relevant standards, please contact the manufacturer.
6. This certificate applies to units manufactured at:
1720 West Kingsbury Street, Seguin, TX 78155
Rodovia Luiz de Queiroz, KM 157, S/n - CEP 13420-900, Unileste, Piracicaba, São Paulo, Brazil
7. This certification follows the VMC Group's ISO-17065 Scheme.
8. The certified seismic installation methods stated are a summary for all product lines this certificate covers. For individual certified seismic installation methods, see the certified product tables.

John P. Giuliano, PE
President, VMC Group



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