



CERTIFICATE OF COMPLIANCE

SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS



Certification No.

VMA-53893-01C (Revision 6)

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-53893-01 as issued by The VMC Group for a complete list of certified models, included accessories/options, and certified installation methods.

Caterpillar; Diesel Engine Generator Set
D40GC - D200GC; 40 kW - 200 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 successful seismic shake table testing at the nationally recognized University of California Berkeley Pacific Earthquake Engineering Research Center under the witness 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	$z/h \leq 1.0$	$z/h = 0.0$
		$S_{DS} \leq 0.567 g$	$S_{DS} \leq 1.700 g$

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



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Certified Product Table:

Model	Rating [kW]	Config	Off Tank Length [in.]	Off Tank Width [in.]	Off Tank Height [in.]	Off Tank Weight [lbs.]	On Tank Length [in.]	On Tank Width [in.]	On Tank Height [in.]	On Tank Weight [lbs.]
D40GC	40	Open	77	43	48	1847	107	43	55	3387
		Enclosed	96	44	52	2241	115	44	59	3781
D50GC	50	Open	77	43	48	2054	107	43	55	3594
		Enclosed	96	44	52	2448	115	44	59	3988
D60GC	60	Open	77	43	48	1997	107	43	55	3537
		Enclosed	96	44	52	2400	115	44	59	3931
D80GC	80	Open	83	43	53	2095	119	43	62	4220
		Enclosed	109	44	56	2512	128	44	66	4637
D100GC	100	Open	83	43	53	2222	119	43	62	4348
		Enclosed	109	44	56	2639	128	44	66	4765
D125GC	125	Open	104	51	55	3099	144	51	69	7072
	126	Enclosed	139	52	62	3704	158	52	76	7676
D150GC	150	Open	104	51	55	3443	144	51	69	7415
		Enclosed	139	52	62	4048	158	52	76	8020
D175GC	175	Open	104	51	59	3741	144	51	73	7713
	176	Enclosed	139	52	62	4346	158	52	76	8318
D200GC	200	Open	104	51	59	3917	144	51	73	7889
		Enclosed	139	52	62	4522	158	52	76	8490

Type	S _{DS} (z/h=0)	S _{DS} (z/h=1)	A _{Flex-H}	A _{Rig-H}	A _{Flex-V}	A _{Rig-V}	F _p /W _p (z/h=0)
AC156	1.70	0.57	1.70	0.68	1.13	0.45	0.77

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 muffers, isolation/restraint devices, remote control panels, remote radiators, pumps and other electrical/mechanical components.



VMA-53893-01C (Revision 6)
Issue Date: January 20, 2021
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:
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.

John P. Giuliano, PE
President, VMC Group



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