CERTIFICATE OF COMPLIANCE

SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS

Certification No.

VMA-51951-01C (Revision 14)

Expiration Date: 9/30/2027

Certification Parameters:

The nonstructural products (mechanical and/or electrical components) listed on this certificate are CERTIFIED[1] FOR SEISMIC APPLICATIONS in accordance with the following building code[2] releases.

IBC 2024, 2021, 2018, 2015

The following model designations, options, and accessories are included in this certification. Reference report number VMA-51951-01 as issued by VMC Group for a complete list of certified models, included accessories/options, and certified installation methods.

ASEA Brown Boveri; Variable Frequency Drives

ACS580, ACH580, ACQ580, ACS880, AYK580, ACS180, ACH180; 1.6 A - 477 A

The above referenced equipment is **APPROVED** for seismic application when properly installed[3], used as intended, and contains a Seismic Certification Label referencing this Certificate of Compliance[4]. 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 Dynamic Certification Laboratories 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 ≤ 1.0	z/h = 0.0
		$S_{DS} \leq 2.000$ g	$S_{DS} \leq 2.500$ g

Certified Seismic Installation Methods[8]	
Directly To Structural Wall	Directly To Non-Structural Wall/Enclosure
Rigid Mounting From Unit Base To Rigid Structure	

CERTIFICATE OF COMPLIANCE

SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS

Certified Product Table:

Product Series	Model	Output Current Range	Voltage	Inverter Frame Size	Max. Weight (lbs)	UL Enclosure Type	Mounting
ACS580 ACQ580 ACH580 AYK580	-01	3.5A-45A	-2 (240V) -4 (480V)	R1-R3	61.4	1 12 4X/IP66	Rigid/Isolated Wall (with or without Flange Kit)
		2.4A-32A	-6 (600V)	R2-R3			
	-01 -31	3.5A-273A	-2 (240V) -4 (480V) -6 (600V)	R3-R9	224.9	1 12	
ACS880	-01 -11 -31	3.7A-260A	-2 (200 V)	R1-R8	238		
		1.7A-414A	-5 (500 V)	R1-R9			
		6.1A-271A	-7 (700 V)	R3-R9			
ACH580 ACS580 ACQ580	-VCR, -VDR, -PCR, -PDR, -PPR, -BCR, -BDR, -BPR, -PC, -PD, -0P	3.5A-273A	-2 (200 V)	R1-R8	728	1, 12, 3R, 4X	Rigid/Isolated Wall (with or without Flange Kit), Rigid Base to Floor
		1.6A-240A	-4 (400 V)	R1-R9	1170		
		2.4A-414A	-6 (600 V)		358		
ACS880	-PCR, -PDR,	87A-274A	-2 (200 V)	R5-R8	515	1, 12, 3R	
		96A-414A	-5 (500 V)	R6-R9	815		
ACH580 ACQ580	-3BCR, -3BDR,	7A-77A	-4 (400 V)	R3-R6	273	1	Rigid/Isolated Wall
	-3PCR, -3PDR,	7A-180A		R3-R8	409		
	-3BCR, -3BDR,	96A-477A		R8-R11	1440	1 12	Rigid Base to Floor
	-3PCR, -3PDR,	240A-477A		R11	1510		
ACS180 ACH180	-04	2.4A-50.2A	-2 (200 V)	R0-R4	12	Open	Rigid/Isolated Wall
		1.6A-42A	-4 (400 V)				

Mounting	Test Criteria	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	(ASCE7-16) F_p/W_p	(ASCE7-22) F_p/W_p
Rigid Base & Wall	AC156	2.50	2.00	3.20	2.40	1.67	0.67	Where z/h=1	1.50	2.26
Isolated									4.50	4.80

Note 1: NEC and IEC ratings are available but only the NEC rating is shown. Note 2: Contact manufacturer for detailed listing of certified models. This certification includes the variable frequency drive units and factory supplied accessories and options. The product and included accessories and options shall be a catalogue design and factory supplied. The product 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 excluded all non-factory supplied accessories, including but not limited to enclosures, isolation/restraint devices, remote control panels, mounting brackets, and other electrical/mechanical components.

IBC CERTIFIED VMC GROUP

VMA-51951-01C (Revision 14)
Issue Date: September 17, 2018
Revision Date: October 7, 2026
Expiration Date: September 30, 2027

CERTIFICATE OF COMPLIANCE

SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS

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 2024 referencing ASCE7-22 and ICC-ES AC-156
   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

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:
   18250 W Lincoln Ave, New Berlin, WI 53146
   ABB Oy Drives, Hiomotie 13, FI-00380 Helsinki, Finland
   Bräukerweg 132, 58708 Menden, Deutschland
   Henry Fordlaan 12/3 Block 1,Unit 3, BE-3600 Genk, Belgium

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

IAS ACCREDITED Product Certification Agency

VMA-51951-01C (Revision 14)
Issue Date: September 17, 2018
Revision Date: October 7, 2026
Expiration Date: September 30, 2027

IBC® CERTIFIED VMC GROUP