



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR HCAI SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

APPLICATION #: OSP-0688

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Rolls-Royce Solutions America Inc.

Manufacturer's Technical Representative: Ben Stratton

Mailing Address: 100 Power Drive, Mankato, MN 56001

Telephone: (507) 625-7973

Email: Ben.Stratton@ps.rolls-royce.com

Product Information

Product Name: Emergency and Standby Power Systems

Product Type: Generator Control Panels

Product Model Number: XS00E560.00037, XS00E560.00036

General Description: Unit consists of industrial PC and complimentary input/output, remote modules, drive components, enabling it to operate as a complete system to display and control equipment.

Mounting Description: Several – See UUT Sheets, Flexible wall mounted, rigid wall mounted & rigid base mounted (using manufacturer provided stand).

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: VMC Group

Contact Person: John Giuliano

Mailing Address: Main Street, Bloomingdale, NJ 07403

Telephone: (973) 838-1780

Email: john.giuliano@thvmcgroup.com

Title: President





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California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

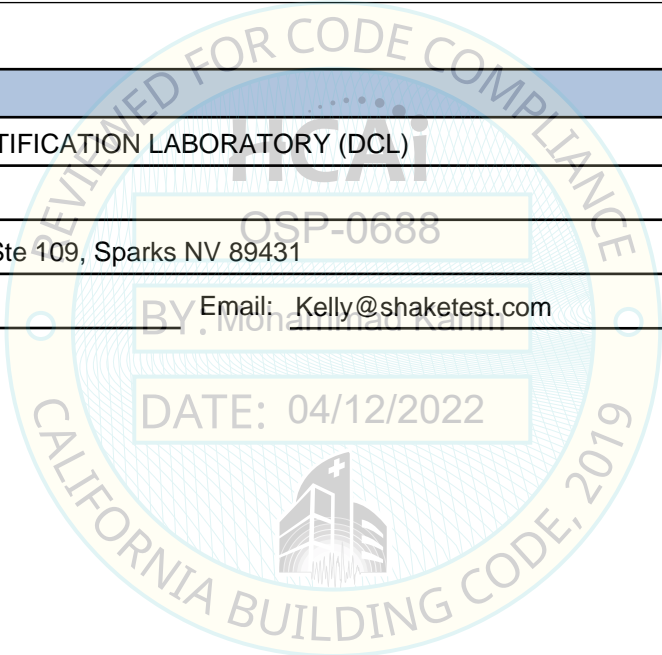
Company Name: THE VMC GROUP
Name: Kenneth Tarlow California License Number: S2851
Mailing Address: 980 9th Street, 16th Floor, Sacramento, CA 95814
Telephone: (832) 627-2214 Email: ken.tarlow@thevmcgroup.com

Certification Method

GR-63-Core ICC-ES AC156 IEEE 344 IEEE 693 NEBS 3
 Other (Please Specify): _____

Testing Laboratory

Company Name: DYNAMIC CERTIFICATION LABORATORY (DCL)
Contact Person: Kelly Laplace
Mailing Address: 1315 Greg St., Ste 109, Sparks NV 89431
Telephone: (775) 358-5085 Email: Kelly@shaketest.com





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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 1.80 Rigid Mounted & 5.63 Flexible Wall Mounted

SDS (Design spectral response acceleration at short period, g) = 2.5

a_p (Amplification factor) = 1.0 Rigid Mounted & 2.5 Flexible Wall Mounted

R_p (Response modification factor) = 2.5 Rigid Mounted & 2.0 Flexible Wall Mounted

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 1

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

HCAI Approval (For Office Use Only) - Approval Expires on 04/12/2028

Date: 4/12/2022

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = 2.5 z/h = 1

Condition of Approval (if applicable): DATE: 04/12/2022

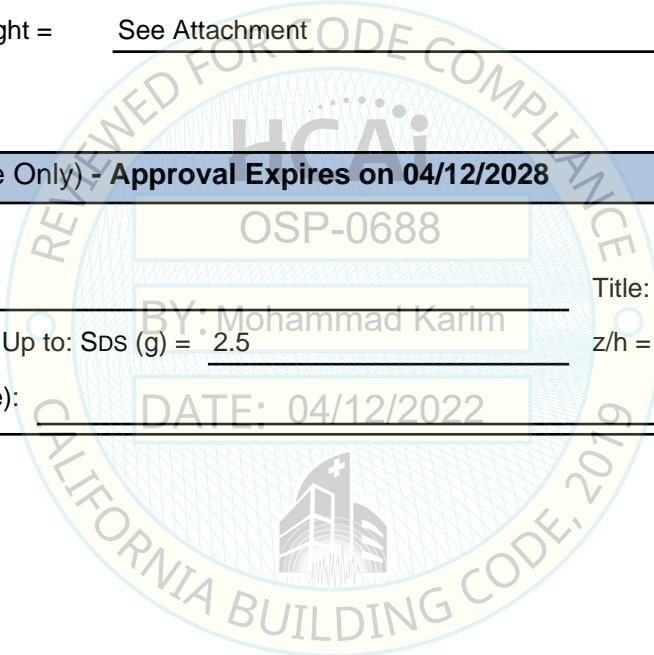


Table 1- Certified Product Table

Model	Part Number	MFR	Dimensions [in]			Max. Weight [lb]	Mounting	S _{DS}	z/h	UUT
			Height	Depth	Width					
Master Control Panel	XS00E560.00037	Rolls-Royce Solutions America Inc.	37	11	24	130	Rigid/Flexible Wall Mounted	2.5	1	Extrapolated
	XS00E560.00036		37	11	24	140	Rigid Wall Mounted	2.5	1	UUT1A
			Flexible Wall Mounted	2.5	1		UUT1B			

Extrapolated unit is a de-populated option with same subcomponents inside, which were present on the tested UUT.

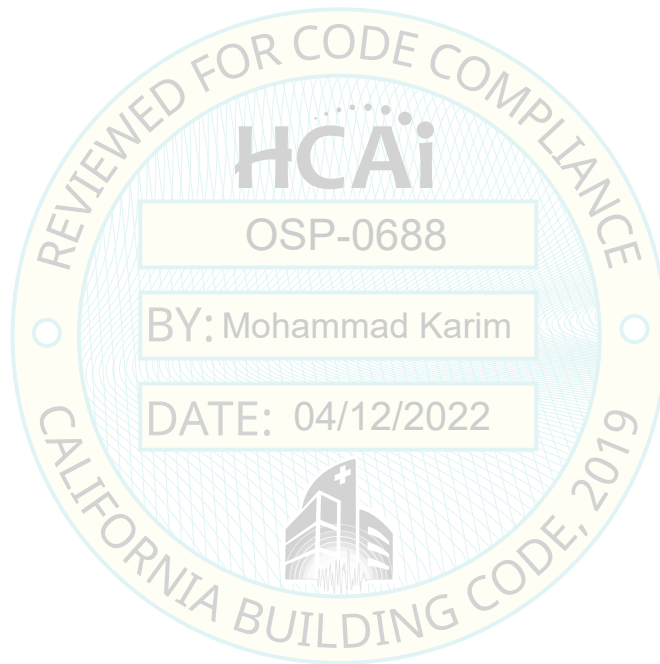


Table 2 - Enclosures

Part Number	MFR	Description	Weight [lb]	Qty	Dimensions [in]			UUT
					Height	Depth	Width	
X00E30900064	Rolls-Royce Solutions America Inc.	Enclosure Assembly, NEMA 1	89.87	1	37	11	24	UUT-1A, UUT-1B

Table 3 - Controllers

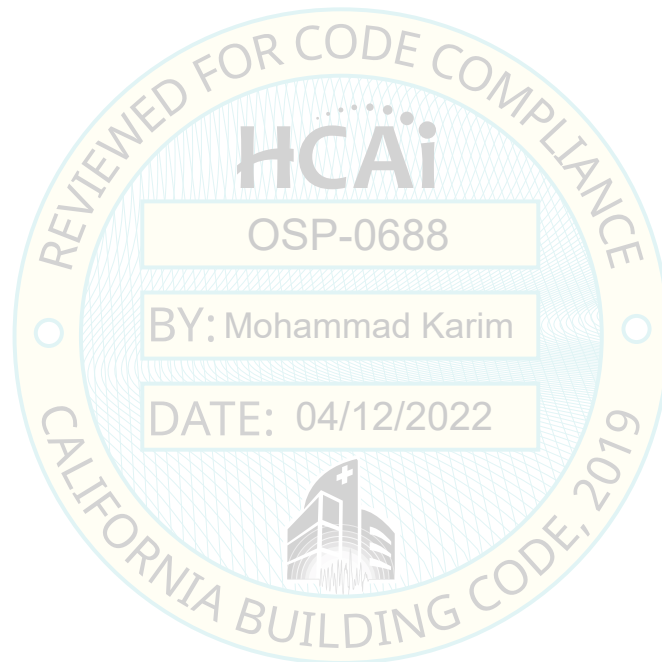
Part Number	MFR	Description	Weight [lb]	Qty	UUT
X00E30900075	B&R	Control Panel	9.90	1	UUT-1A, UUT-1B

Table 4 - Switches / Modules, etc.

Part Number	MFR	Description	Weight [lb]	Qty	UUT
SUA86666	IDEC	Switch E-Stop Maintained 4 NC YE	0.176	1	UUT-1A, UUT-1B
SUA105563	Mallory Sonalert	Alarm Buzzer 16-28VDC STD Panel	0.099	1	
X00E30900099	IDEC	Pushbutton Switch	0.506	18	
X52830900137	Phoenix	Industrial Phoenix Ethernet Switch	0.836	8	
SUA106429	Eaton	10A DIN Rail Mounted Circuit Breaker	0.308	2	
X52830900154	Eaton	6A DIN Rail Mounted Circuit Breaker	0.308	1	
SUA105009	B&R	Bus Controller (BC) Module	0.264	1	
SUA105010	B&R	Bus Controller (BC) Module Base	0.220	2	
SUA105011	B&R	(BC) Power Module	0.092	1	
SUA105013	B&R	Digital Input Module	0.092	8	
SUA105015	B&R	Digital Input/Output Module Power	0.110	16	
SUA105012	B&R	16-PIN X20 Input Term Block	0.110	8	
X52830900155	B&R	Digital Output Module	0.092	8	
SUA105016	B&R	12-PIN X20 24VDC Term Block	0.110	11	
X52830900156	B&R	Expandable Power Module	0.092	2	
X52830900157	B&R	Expandable Power Module Base	0.110	2	
X52830900158	B&R	X20 Locking Plate, Left	0.022	1	
X52830900159	B&R	X20 Locking Plate, Right	0.022	1	
X52830900135	Phoenix	Trio Diode	1.144	1	
X52830900134	Phoenix	Power Supply Unit	2.640	1	
X52830900136	Phoenix	UPS	2.332	1	
X52830900104	Phoenix	Term Block, PT 4-Quattro	0.030	34	
X52830900163	Phoenix	Term Block, Quattro End Cover	0.004	2	
SUA93571	Phoenix	Term Block, Markers Blank	0.033	202	
X52830900133	Phoenix	Term Block, PE Quattro	0.033	3	
SUA93502	Phoenix	Term Block, Jumper	0.198	4	

Table 4 - Switches / Modules, etc., Continued

Part Number	MFR	Description	Weight [lb]	Qty	UUT
SUA93505	Phoenix	Terminal Strip End Block	0.033	10	UUT-1A, UUT-1B
SUA100392	Phoenix	Term Block, Strip Marker Label	0.003	4	
X52830900160	Phoenix	24VDC Relay	0.013	24	
X52830900161	Phoenix	Relay Base	0.070	24	
SUA106165	Phoenix	Continuous Plug-in Bridge for Relays	0.092	1	
X52822500032	Phoenix	Relay Marker	0.006	24	
X52830900085	Phoenix	Term Block, ST 2.5-3L	0.040	55	
X52830900093	Phoenix	Marker Holder ST 2.5-3L	0.002	55	
X52830900088	Phoenix	Term Block, End Cover ST 2.5-3L	0.012	2	
X52830900162	Phoenix	Relay, Separating Plate	0.027	1	





UNIT UNDER TEST (UUT) Summary Sheet

UUT-1A

DCL 13347-2001, UUT3A

Model Line	Model Number	Manufacturer
Master Control Panel	Master Control Panel XS00E560.00036 (MCP2.0)	Rolls-Royce Solutions America Inc.

Product Construction Summary

16 GA Carbon Steel Enclosure with subcomponents

Options / Subcomponent Summary

Rolls-Royce Solutions America Inc. Enclosure, B&R Control Panel, Switches and Modules manufactured by IDEC and Mallory Sonalert and Phoenix and Eaton and B&R.

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
140	24	11	37	16	18.5	25

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2019	ICC-ES AC156	2.5	1.00	1.5	3.2	3	1.68	0.68

Test Mounting Details

UUT was mounted to the wall fixture via unistrut with (4) 3/8" dia. grade 8 bolts, washers, 3" x 3" x 3/8" low carbon steel plate washers and spring nuts. Wall fixture is rigidly mounted to shake table.



All units were filled with contents and maintained structural integrity and functionality after AC-156 test.



UNIT UNDER TEST (UUT) Summary Sheet

UUT-1B

DCL 13347-2001, UUT3B

Model Line	Model Number	Manufacturer
Master Control Panel	Master Control Panel XS00E560.00036 (MCP2.0)	Rolls-Royce Solutions America Inc.

Product Construction Summary

16 GA Carbon Steel Enclosure with subcomponents

Options / Subcomponent Summary

Rolls-Royce Solutions America Inc. Enclosure, B&R Control Panel, Switches and Modules manufactured by IDEC and Mallory Sonalert and Phoenix and Eaton and B&R.

UUT Properties						
Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
140	24	11	37	3.5	3.5	17.5

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}	
CBC 2019	ICC-ES AC156	2.5	1.00	1.5	3.2	3	1.68	0.68	

Test Mounting Details

UUT was mounted to the wall fixture via unistrut with (4) 3/8" dia. grade 8 bolts, washers, 3" x 3" x 3/8" low carbon steel plate washers and spring nuts. Wall fixture is mounted atop VMC Spring isolators. Isolators mounted to steel interface plate. Steel interface plate mounted to shake table.



All units were filled with contents and maintained structural integrity and functionality after AC-156 test.