



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT

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

OFFICE USE ONLY

APPLICATION #: OSP-0697

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Caterpillar (CAT)

Manufacturer's Technical Representative: Blake Bennett

Mailing Address: 4955 Marconi Drive, Alpharetta, GA 30005

Telephone: (678) 983-0656

Email: Blake.Bennett@cat.com

Product Information

Product Name: Custom Generator Controls

Product Model Number(s): Custom Generator Controls

Product Category: Emergency and Standby Power Systems

Product Sub-Category: Generator Control Panels

General Description: Provides master level logic, operates, and controls engine-generators and circuit breakers.

Mounting Description: Several - See Certified Product Tables and UUT Sheet

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: WE Gundy & Associates, Inc

Contact Person: Travis Soppe

Mailing Address: PO Box 9121, Boise, ID 83707

Telephone: (208) 342-5989

Email: tsoppe@wegai.com

Title: President



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

Company Name: W.E. GUNDY & ASSOCIATES INC.

Name: Travis Soppe California License Number: S6115

Mailing Address: P.O. Box 9121, Boise, ID 83707

Telephone: (208) 342-5989 Email: tsoppe@wegai.com

Certification Method

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

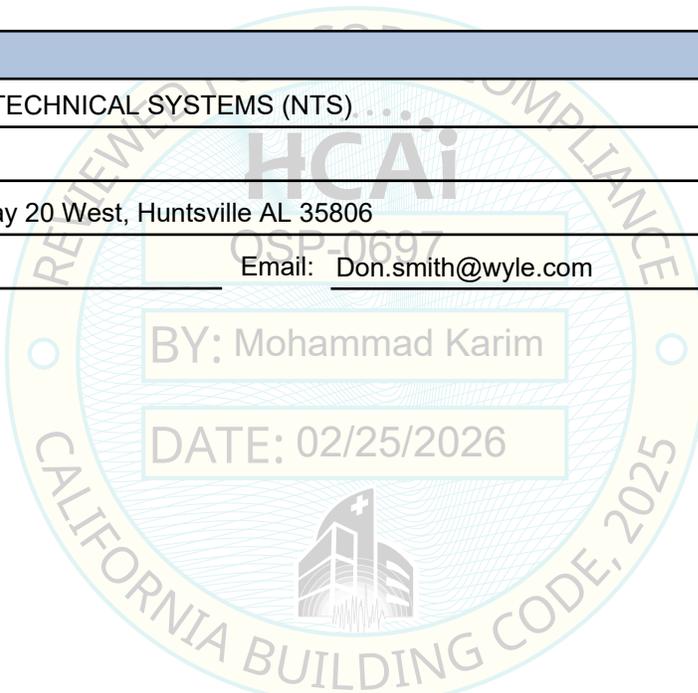
Testing Laboratory

Company Name: NATIONAL TECHNICAL SYSTEMS (NTS)

Contact Person: Don Smith

Mailing Address: 7800 Highway 20 West, Huntsville AL 35806

Telephone: (256) 837-4411 Email: Don.smith@wyle.com





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Seismic Parameters

Certified Response Spectral Acceleration Factors:(Fp/Wp)

Horizontal	(A Flx-H), g=	3.20 for Floor Mounted Controls and 4.43 for Wall Mounted	(A Rig-H), g=	2.15 for Floor Mounted Controls and 2.98 for Wall Mounted
Vertical	(A Flx-V), g=	1.34 for Floor Mounted Controls and 1.86 for Wall Mounted	(A Rig-V), g=	0.54 for Floor Mounted Controls and 0.75 for Wall Mounted

SDS (Design spectral response acceleration at short period, g) = 2.0 for Floor Mounted Components; and 2.77 for Wall Mounted Components

Hf (Force amplification height factor) = 3.50
 Ru (Structure ductility reduction factor) = 1.30
 Ip (Importance factor) = 1.5
 z/h (Height ratio factor) = 1

HCAI Approval (For Office Use Only) - Approval Expires on 02/25/2032

Date: 2/25/2026
 Name: Mohammad Karim Title: Supervisor, Health Facilities
 Condition of Approval (if applicable): DATE: 02/25/2026

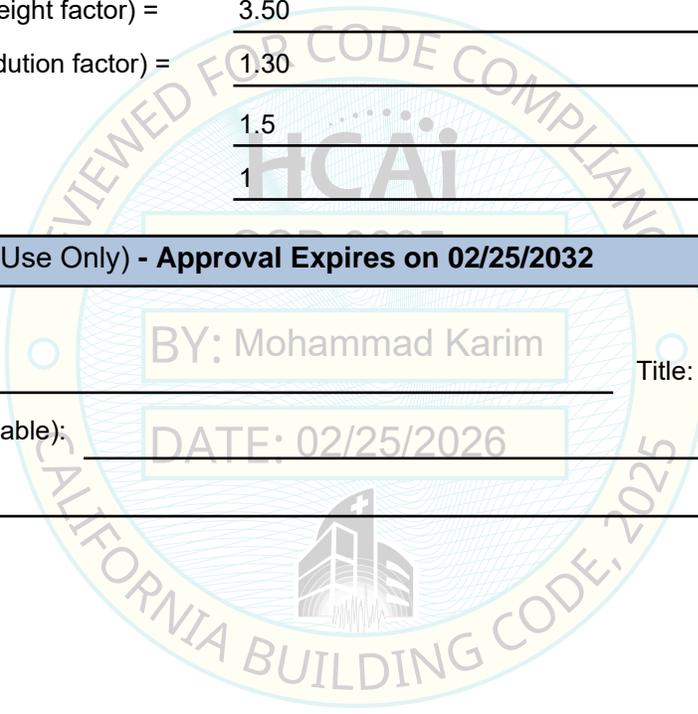


TABLE 1	CATERPILLAR CUSTOM GENERATOR CONTROLS CERTIFIED PRODUCT LINE MATRIX	 WEGAI <small>W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING</small>
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Identification ^{3,4}	UUT Part Number	Dimensions (in)			Weight (lb)	UUT
		Width	Depth	Height		

Floor Mounted Custom Generator Controls

FM-CGC-36x30x72	i0418-0437-MCP	36	30	72	630	UUT-4
FM-CGC-36xBxC		36	24 - 30	72 - 90	550 - 660	interpolated
FM-CGC-36x24x90	i0602-OSHPD-CP	36	24	90	660	UUT-1

Wall Mounted Custom Generator Controls

WM-CGC-24x10x30	EMCP4.4.MCP-EPG-8GEN	24	10	30	104	UUT-2
WM-CGC-AxBx30		24 - 30	8 - 10	30	90 - 115	interpolated
WM-CGC-30x8x30	i0418-0435-GCP	30	8	30	115	UUT-3

Notes:

¹ Custom generator controls include generator control panels, utility control panels, distribution control panels, and master control panels. Part numbers are listed for units that were constructed for testing.

² All control enclosures are constructed of carbon steel.

³ Dimensions "A", "B", "C" reference the width, depth, and height of interpolated units as indicated within the range of interpolation.

⁴ Identification Nomenclature - FM-CGC - "Floor Mounted Custom Generator Controls" and WM-CGC - "Wall Mounted Custom Generator Controls"

SEISMIC CERTIFICATION LIMITS: CBC 2025 - I_p = 1.5

System Component	S _{DS} (g)	z / h	H _f	R _μ	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
Floor Mounted Controls	2.00	1.0	3.50	1.30	3.20	2.15	1.34	0.54
Wall Mounted Controls	2.77	1.0	3.50	1.30	4.43	2.98	1.86	0.75

TABLE 2

**CATERPILLAR
CUSTOM GENERATOR CONTROLS
CERTIFIED SUBCOMPONENT MATRIX**



ID/Catalog Number	Manufacturer	Description	UUT
Floor Mounted Custom Generator Controls			
MTWDN7CDM500RXB02	BITRONICS	TRANSDUCER POWERPLEX II	UUT-1, UUT-4
PPXIITD	BITRONICS	METER DISPLAY	UUT-1
007-05GA-PZUL-C7	CROMPTON	VOLT METER 0-15KV	UUT-1
007-146A-PRAE-C6	CROMPTON	SYNCHROSCOPE 120VAC	UUT-1
007-41LA-RNAN-AN	CROMPTON	FREQUENCY METER	UUT-1
256-PLDU-PQBX-C7	CROMPTON	SYNC CHECK 120VAC WITH DEAD BUS	UUT-1
COMP-TSP-E-02 BTXE-817-E19-A-ISO	DYNICS	TOUCHSCREEN PROCESSOR	UUT-1
DNI-UNIKU-E10-B	DYNICS	REMOTE ACCESS SERVER	UUT-1
TS-19WS-24VDC-ISO	ELO	ELO 19" W/S TOUCHSCREEN (2094L)	UUT-1, UUT-4
171 CBU 980 91	MODICON	UNITY M1E PLC	UUT-1, UUT-4
170 AMM 110 30	MODICON	2AI 2AO 12DI 8DO 10-45 BASE	UUT-1, UUT-4
700G Series	SCHWEITZER	SEL-700G	UUT-1, UUT-4
TSBTBL2USCAT	TOSIBOX	INTELLIGENT REMOTE ACCESS	UUT-1
468:480	TTL	POTENTIAL TRANSFORMER	UUT-1
BMX-H58-2040K	MODICON	HOT STANDBY KIT	UUT-1
BME-CRA31210	MODICON	CRA DROP ADAPTER	UUT-1
BMX-CPS-3020	MODICON	POWER SUPPLY 24/48VDC ISOLATED (M340)	UUT-4
HMIBSUSND1W01	SCHNEIDER	S-BOX PC	UUT-1, UUT-4
2897253	PHOENIX	16-POINT OUTPUT MODULE	UUT-1
2897156	PHOENIX	16-POINT INPUT MODULE	UUT-1
2703981	PHOENIX	ETHERNET BUS COUPLER	UUT-1
9X9591	CATERPILLAR	SPEED BRICK, PWM	UUT-1
7803B	ELECTROSWITCH	86 LOCK OUT RELAY	UUT-1

TABLE 2

**CATERPILLAR
CUSTOM GENERATOR CONTROLS
CERTIFIED SUBCOMPONENT MATRIX**



ID/Catalog Number	Manufacturer	Description	UUT
Wall Mounted Custom Generator Controls			
MTWDN7CDM500RXB02	BITRONICS	TRANSDUCER POWERPLEX II	UUT-3
171 CBU 980 91	MODICON	UNITY M1E PLC	UUT-3
170 ADM 850 10	MODICON	24VDC 16IN/16OUT BASE	UUT-2, UUT-3
BME-NOE-0100	MODICON	ETHERNET MODULE (M340)	UUT-2
BMX-AMO-0140	MODICON	ANALOG OUTPUT 4-PT MODULE (M340)	UUT-2
BMX-CPS-3020	MODICON	POWER SUPPLY 24/48VDC ISOLATED (M340)	UUT-2
BMX-CPS-2010	MODICON	POWER SUPPLY 24/48VDC ISOLATED (M340)	UUT-2
BMX-DDI-1602	MODICON	16-PT 24VDC SINK INPUT (M340)	UUT-2, UUT-3
BMX-DRA-1605 BMX-DDO-1602	MODICON	DIGITAL 16-PT OUTPUTS 24VDC (M340)	UUT-2, UUT-3
BMX-FTB-2000	MODICON	SCR REMOVABLE 20-PT TB (M340)	UUT-2
BMX-P342-020	MODICON	CPU (M340)	UUT-2
BMX-XBP-0600	MODICON	6-SLOT BACKPLANE (M340)	UUT-2
DSPSX000	RED LION	DATA STATION PLUS	UUT-2
XCENET00	RED LION	ETHERNET CARD	UUT-2
HMIG3U-HMIDT732	SCHNEIDER	MAGELIS 15" TOUCHSCREEN	UUT-2



UUT-1

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid floor mounted with (4) 1/2" grade 5 bolts



Manufacturer: Caterpillar	Test Location: NTS - Huntsville, AL
Identification: FM-CGC-36x24x90	Test Date: August 24-28, 2020
Part Number: i0602-OSHPD-CP	Report Number: PR122431-TR-20
Test Name: Custom CP	

UUT Function: Provides master level logic, operates, and controls engine-generators and circuit breakers

UUT Description: Floor mounted master control panel with additional internal control components to cover varied options within the custom generator controls offering. See the following page for a list of critical subcomponents within the UUT.

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
660	36	24	90	8.7	11.5	> 33

SEISMIC TEST PARAMETERS - CBC 2025 / ICC-ES AC 156-24

S _{DS} (g)	z / h	H _f	R _μ	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
2.00	1	3.5	1.30	1.5	3.20	2.15	1.34	0.54

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

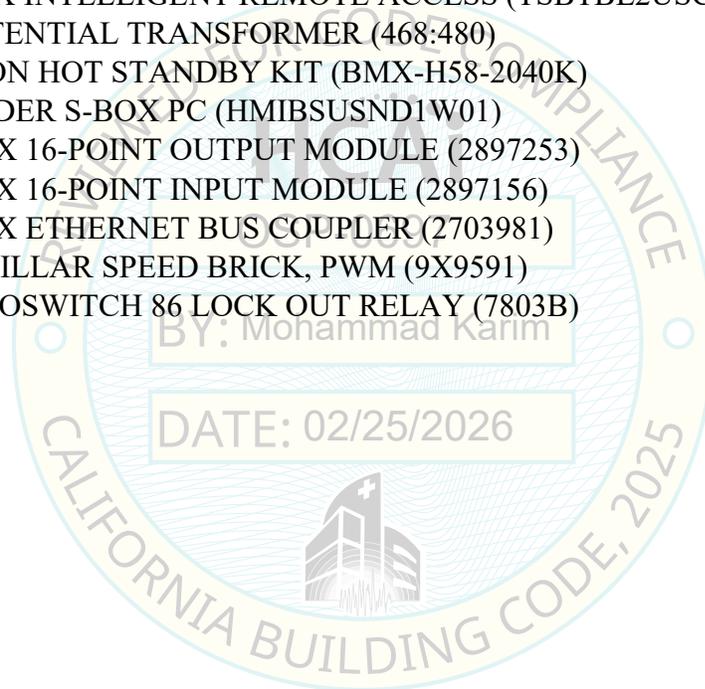
UUT-1

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



List of Subcomponents:

- BITRONICS TRANSDUCER POWERPLEX II (MTWDN7CDM500RXB02)
- BITRONICS METER DISPLAY (PPXIITD)
- CROMPTON SYNC CHECK 120VAC WITH DEAD BUS (256-PLDU-PQBX-C7)
- DYNICS TOUCHSCREEN PROCESSOR (COMP-TSP-E-02BTXE-817-E19-A-ISO)
- DYNICS REMOTE ACCESS SERVER (DNI-UNIKU-E10-B)
- ELO 19" W/S TOUCHSCREEN (2094L) (TS-19WS-24VDC-ISO)
- MODICON UNITY M1E PLC (171 CBU 980 91)
- MODICON 2AI 2AO 12DI 8DO 10-45 BASE (170 AMM 110 30)
- SCHWEITZER SEL-700G (700G Series)
- TOSIBOX INTELLIGENT REMOTE ACCESS (TSBTBL2USCAT)
- TTL POTENTIAL TRANSFORMER (468:480)
- MODICON HOT STANDBY KIT (BMX-H58-2040K)
- SCHNEIDER S-BOX PC (HMIBSUSND1W01)
- PHOENIX 16-POINT OUTPUT MODULE (2897253)
- PHOENIX 16-POINT INPUT MODULE (2897156)
- PHOENIX ETHERNET BUS COUPLER (2703981)
- CATERPILLAR SPEED BRICK, PWM (9X9591)
- ELECTROSWITCH 86 LOCK OUT RELAY (7803B)



UUT-4

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid floor mounted with (4) 1/2" grade 5 bolts



Manufacturer: Caterpillar	Test Location: NTS - Huntsville, AL
Component: FM-CGC-36x30x72	Test Date: August 24-28, 2020
Part Number: i0418-0437-MCP	Report Number: PR122431-TR-20
Test Name: EPIC – MCP	

UUT Function: Provides master level logic, operates, and controls engine-generators and circuit breakers

UUT Description: Floor mounted master control panel with additional internal control components to cover varied options within the custom generator controls offering. See the following page for a list of critical subcomponents within the UUT.

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
630	36	30	72	12.0	16.0	> 33

SEISMIC TEST PARAMETERS - CBC 2025 / ICC-ES AC 156-24

S _{DS} (g)	z / h	H _f	R _μ	I _p	A _{AFLX-H} (g)	A _{ARIG-H} (g)	A _{AFLX-V} (g)	A _{ARIG-V} (g)
2.00	1	3.5	1.30	1.5	3.20	2.15	1.34	0.54

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

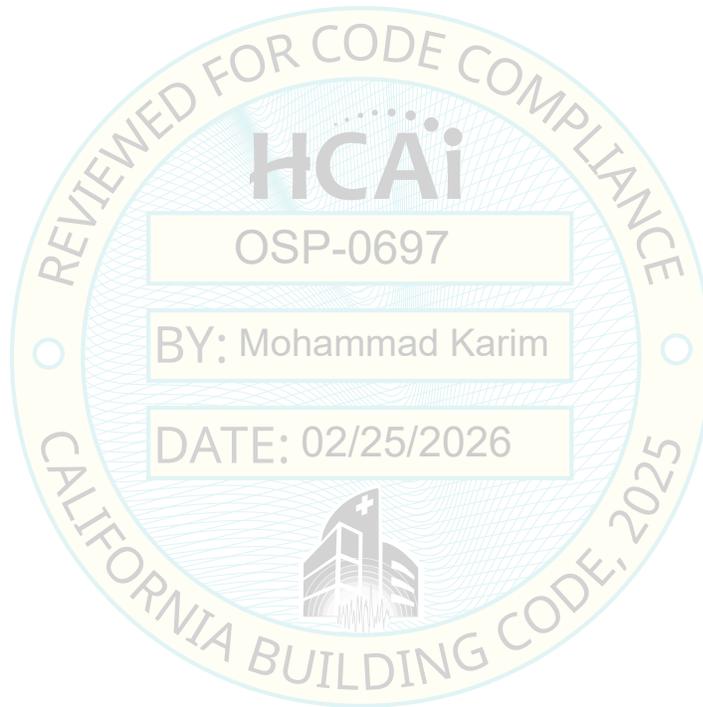
UUT-4

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



List of Subcomponents:

- BITRONICS TRANSDUCER POWERPLEX II (MTWDN7CDM500RXB02)
- ELO 19" W/S TOUCHSCREEN (2094L) (TS-19WS-24VDC-ISO)
- MODICON UNITY M1E PLC (171 CBU 980 91)
- MODICON 2AI 2AO 12DI 8DO 10-45 BASE (170 AMM 110 30)
- SCHWEITZER SEL-700G (700G Series)
- MODICON POWER SUPPLY 24/48VDC ISOLATED (M340) (BMX-CPS-3020)
- SCHNEIDER S-BOX PC (HMIBSUSND1W01)



UUT-2

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid wall mounted with (4) 3/8" grade 5 bolts



Manufacturer: Caterpillar	Test Location: NTS - Huntsville, AL
Component: WM-CGC-24x10x30	Test Date: August 24-28, 2020
Part Number: EMCP4.4.MCP-EPG-8GEN	Report Number: PR122431-TR-20
Test Name: EMCP 4.4 MCP	

UUT Function: Power metering, protective relaying, and engine generator controls and monitoring

UUT Description: Wall mounted master control panel with additional internal control components to cover varied options within the custom generator controls offering. See the following page for a list of critical subcomponents within the UUT.

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
104	24	10	30	NA	NA	NA

SEISMIC TEST PARAMETERS - CBC 2025 / ICC-ES AC 156-24

S _{DS} (g)	z / h	H _f	R _μ	I _p	A _{FLX-H} (g)	A _{RIX-H} (g)	A _{FLX-V} (g)	A _{RIX-V} (g)
2.77	1	3.5	1.30	1.5	4.43	2.98	1.86	0.75

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

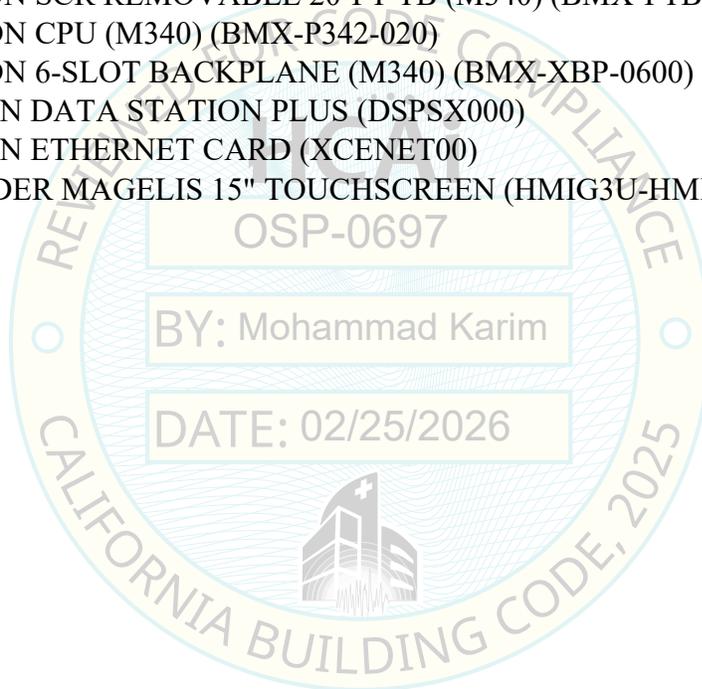
UUT-2

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



List of Subcomponents:

- MODICON UNITY M1E PLC (171 CBU 980 91)
- MODICON 24VDC 16IN/16OUT BASE (170 ADM 850 10)
- MODICON ETHERNET MODULE (M340) (BME-NOE-0100)
- MODICON ANALOG OTUPUT 4-PT MODULE (M340) (BMX-AMO-0140)
- MODICON POWER SUPPLY 24/48VDC ISOLATED (M340) (BMX-CPS-3020)
- MODICON POWER SUPPLY 24/48VDC ISOLATED (M340) (BMX-CPS-2010)
- MODICON 16-PT 24VDC SINK INPUT (M340) (BMX-DDI-1602)
- "MODICON DIGITAL 16-PT OUTPUTS 24VDC (M340) (BMX-DRA-1605
BMX-DDO-1602)"
- MODICON SCR REMOVABLE 20-PT TB (M340) (BMX-FTB-2000)
- MODICON CPU (M340) (BMX-P342-020)
- MODICON 6-SLOT BACKPLANE (M340) (BMX-XBP-0600)
- RED LION DATA STATION PLUS (DSPSX000)
- RED LION ETHERNET CARD (XCENET00)
- SCHNEIDER MAGELIS 15" TOUCHSCREEN (HMIG3U-HMIDT732)



UUT-3

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid wall mounted with (4) 3/8" grade 5 bolts



Manufacturer: Caterpillar	Test Location: NTS - Huntsville, AL
Component: WM-CGC-30x8x30	Test Date: August 24-28, 2020
Part Number: i0418-0435-GCP	Report Number: PR122431-TR-20
Test Name: EPIC-GCP	

UUT Function: Provides master level logic, operates, and controls engine-generators and circuit breakers

UUT Description: Wall mounted master control panel with additional internal control components to cover varied options within the custom generator controls offering. See the following page for a list of critical subcomponents within the UUT.

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
115	30	8	30	NA	NA	NA

SEISMIC TEST PARAMETERS - CBC 2025 / ICC-ES AC 156-24

S _{DS} (g)	z / h	H _f	R _μ	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
2.77	1	3.5	1.30	1.5	4.43	2.98	1.86	0.75

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

UUT-3

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



List of Subcomponents:

- BITRONICS TRANSDUCER POWERPLEX II (MTWDN7CDM500RXB02)
- MODICON UNITY M1E PLC (171 CBU 980 91)
- MODICON 24VDC 16IN/16OUT BASE (170 ADM 850 10)
- MODICON 16-PT 24VDC SINK INPUT (M340) (BMX-DDI-1602)
- MODICON DIGITAL 16-PT OUTPUTS 24VDC (M340) (BMX-DRA-1605)
- MODICON DIGITAL 16-PT OUTPUTS 24VDC (M340) (BMX-DDO-1602)

