

DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR HCAI SPECIAL SEISMIC	OFFICE USE ONLY
CERTIFICATION PREAPPROVAL (OSP)	APPLICATION #: OSP-0671
HCAI Special Seismic Certification Preapproval (OSP)	
Type: X New Renewal	
Manufacturer Information	
Manufacturer: Cummins Power Generation	
Manufacturer's Technical Representative: Danielle Malone	
Mailing Address: 1400 73rd Ave NE, Fridley, MN 55432	
Telephone: (763) 574-3559 Email: danielle.malone@	ocummins.com
Product Information	10.
Product Name: Emergency and Standby Power Systems	E.
Product Type: Generators	2
Product Model Number: DQGAx, DQKAx, DQLx	m
General Description: Diesel Powered Generator Sets, 1250 kW - 2750 k	w w
Mounting Description: Rigid or Spring Isolated, Mounting from unit base to	rigid str <mark>uctu</mark> re or fuel tank
Tested Seismic Enhancements: Seismic enhancements made to the test anomalies during the tests shall be incorp	units and/or modifications required to address porated into the production units.
Applicant Information	
	O ^K
Applicant Company Name: VMC Group	
Contact Person: John Giuliano	
Mailing Address: Main Street, Bloomingdale, NJ 07403	
Telephone: (973) 381-1780 Email: john.giuliano@the	evmcgroup.com
Title: President	

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"





DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION FACILITIES DEVELOPMENT DIVISION

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 X ICC-ES AC156 IEEE 344 IEEE 693 NEBS 3
Other (Please Specify):
FOR CODE CO
Testing Laboratory
Company Name: DYNAMIC CERTIFICATION LABORATORY (DCL)
Contact Person: Josh Sailer
Mailing Address: 1315 Greg St., Ste 109, Sparks NV 89431
Telephone: (775) 358-5085 Email: josh@shaketest.com
Company Name: UNIVERSITY OF CALIFORNIA, BERKELEY (PEER)
Contact Person: Amarnath Kasalanati DATE: 10/03/2022
Mailing Address: 1301 S. 46th Street, Building 420, Richmond CA 94804-1729
Telephone: (510) 642-6475 Email: amarnath1@berkeley.edu
BUILDING



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION FACILITIES DEVELOPMENT DIVISION

Seismic Parameters

Design Basis of Equipment or Component	s (Fp/Wp) = Sds=2.1 @ z/h= 0: Rigid Fp/Wp= 0.95, Isolated Fp/Wp= 1.6; Sds=2.0 @ z/h= 1: Rigid Fp/Wp= 1.44, Isolated Fp/Wp= 4.5; Sds=0.7 @ z/h= 1: Rigid Fp/Wp= 0.5, Isolated Fp/Wp= 1.58
SDS (Design spectral response acce	leration at short period, g) = 2.10 @ z/h=0; 2.00 @ z/h=1 or 0.7 @ z/h=1
ap (Amplification factor) =	Isolated: 2.5, Rigid: 1.0
Rp (Response modification factor) =	Isolated: 2.0, Rigid: 2.5
Ω_0 (System overstrength factor) =	2.0
lp (Importance factor) =	1.5
z/h (Height ratio factor) =	1 and 0
Natural frequencies (Hz) =	See Attachment
Overall dimensions and weight =	See Attachment
Le la	HCAI
HCAI Approval (For Office Use Only)	- Approval Expires on 10/03/2028
Date: 10/3/2022	
Name: Mohammad Karim	BY: Mohammad Karim Title: Supervisor, Health Facilities
Special Seismic Certification Valid Up to: S	Sps (g) = _See Above z/h = _See Above
Condition of Approval (if applicable):	DATE. TOTOSTZOZZ

DING CODE

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STATE OF CALIFORNIA - HEALTH AND HUMAN SERVICES AGENCY

HCA

Table 1 - Gensets Off Tanks

	Rating	Max Pack	age Dimens	sions [in]	Max	z/h = 0.0	z/h = 1.0	Mounting	
Model	[kW]	Length	Width	Height ¹	Weight ² [lbs]	S _{DS} ⁴	S _{DS} ⁴	Configuration	UUT
DQGAA, DQGAB	1250, 1500	235.0	79.0	112.0	29,262	2.100	2.000	Rigid / Isolated	Extrapolated
DQGAE, DQGAF, DQGAS	1250, 1500, 1500	254.0	98.0	123.0	33,556	2.100	2.000	Rigid / Isolated	Extrapolated
DQKAA, DQKAB	1750, 2000	240.0	100.0	120.0	35,846	2.100	2.000	Rigid / Isolated	Extrapolated
DQKAD, DQKAE, DQKAF, DQKAM	1750, 2000, 2250, 2250	275.0	98.0	161.0	43,805	2.100	2.000	Rigid / Isolated	Interpolated
DQKAF	2250	275.0	98.0	161.0	43,805	2.100	2.100	Rigid	UUT-16
DQKAF	2250	275.0	C 98.0 F	161.0	43,805	1.940	1.940	Isolated	UUT-17
DQKAN	2500	278.0	104.0	125.0	51,366	2.100	2.000	Rigid / Isolated	Interpolated
DQLF	2750	282.0	117.0	134.0	52,985	2.000	2.000	Isolated	UUT-22
DQLC. DQLD, DQLE, DQLF, DQLH	2500, 2750, 2750	292.0	125.0	153.0	57,168	2.100	2.000	Rigid / Isolated	Interpolated
DQLF	2750	292.0	125.0	153.0	57,168	2.000	2.000	Isolated	UUT-26

Table 2 - Gensets On Tanks

	Rating	Max Pack	age Dimens	sions [in]	Max	z/b = 0.0	z/h = 1.0	Mounting	
Model	[kW]	BLength	annmad k	(arim Height	Weight ^{2,3} [lbs]	S _{DS}	S _{DS}	Configuration	UUT
DQKAA, DQKAB	1750, 2 <mark>000</mark>	244.0	100.0	152.0	62,592	2.100	0.700	Rigid / Isolated	Extrapolated
DQKAB	2000	244.0	10100.02	2452.0	62,592	1.940	0.647	Isolated	UUT-15a
DQLF	2750	308.0	122.0	159.0	66,576	2.100	0.700	Isolated	UUT-20a
DQKAD, DQKAE, DQKAF, DQKAM	1750, 2000, 2250, 2250	275.0	98.0	185.0	70,639	2.100	0.700	Rigid / Isolated	Interpolated
DQKAF	2250	275.0	98.0	185.0	70,639	2.100	0.700	Rigid	UUT-18a
DQKAF	2250	275.0	98.0	185.0	70,639	2.100	0.700	Isolated	UUT-19a
DQKAN	2500	278.0	104.0	125.0	70,760	2.100	0.700	Rigid / Isolated	Interpolated
DQLC. DQLD, DQLE, DQLF, DQLH	2500, 2750, 2750	308.0	125.0	178.0	70,760	2.100	0.700	Rigid / Isolated	Interpolated
DQLF	2750	308.0	125.0	178.0	70,760	2.100	0.700	Isolated	UUT-25a

Notes

1. Does not include height of isolator

2. Does not include weight of isolator

3. Weights include genset, tank (where applicable), and tank fuel (where applicable)

4. Some S_{DS} levels limited by radiator

Component [MFR]	Model Number	Material	Weight ¹ [lbs]	UUT
Engine	QSK 50	Cast Iron	12,593	Interpolated
[Cummins]	QSK60 Trinity	Cast Iron	18,893	UUT-15a, 16, 17, 18a, 19a
[Cullininis]	QSK78	Cast Iron	21,627	UUT-20a, 22, 25a, 26
	S6	Steel Laminations & Copper Windings	5,152	Extrapolated
	P7	Steel Laminations & Copper Windings	9,259	UUT-15a
	MV7	Steel Laminations & Copper Windings	8,334	Interpolated
Alternator	P80 : LV	Steel Laminations & Copper Windings	13,082	UUT-16, 17, 18a, 19a
[Cummins]	S9: MV	Steel Laminations & Copper Windings	17,527	Interpolated
	S9: HV 🔥	Steel Laminations & Copper Windings	17,527	Interpolated
	P80 : MV	Steel Laminations & Copper Windings	17,800	Interpolated
	P80 : HV	Steel Laminations & Copper Windings	17,800	UUT-20a, 22, 25a, 26
Controller [Cummins]	PCC3300	OPrinted Circuit Board	< 2	UUT-16, 17, 18a, 19a, 20a, 22, 25a, 26
	PCC 3300 Control Box	Carbon Steel	240	UUT-40a, 40b
Engine CCV Filter [Cummins]	A062Y798	BY: Moharcanod Steelim	32	UUT-39a, 39b
Coolant Heater [Cummins]	A041A149	DATE: 10/03/2022	92	UUT-38a, 38b

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Table 3 - Certified Subcomponents

Note:

1. Listed weights are operating/wet weights

Component Part/Model Weight¹ z/h = 0.0 | z/h = 1.0 UUT Description Material [MFR] Number **S**_{DS} **S**_{DS} [lbs] 426 A029Y672 Copper Fins, Brass Tubes, Carbon Steel Structure 2.100 2.100 **UUT-30** Core Size 7sq.ft. Radiator Core Size 40 sq.ft. A030D331 Copper Fins, Brass Tubes, Carbon Steel Structure 3,278 1.940 0.647 Interpolated [Bearward] Core Size 63 sq.ft. A030D348 Copper Fins, Brass Tubes, Carbon Steel Structure 4.674 1.940 0.647 UUT-15a 265^{2} Core Size 7 sq.ft. A066Y502 Aluminum and Tubes. Carbon Steel Structure 2.280 2.000 UUT-01a.b Copper Fins, Brass Tubes, Carbon Steel Structure Radiator Core Size 43 sq.ft. A028V353 3,384 1.940 1.940 Interpolated Core Size 62 sq.ft. 0130-7741 Copper Fins, Brass Tubes, Carbon Steel Structure 5,423 1.940 1.940 Interpolated [Modine] A028V349 Copper Fins, Brass Tubes, Carbon Steel Structure 5.578 1.940 **UUT-17** Core Size 104 sq.ft. 1.940 Core Size 60 sq.ft. A030D337 Copper Fins, Brass Tubes, Carbon Steel Structure 4,700 2.100 2.000 Extrapolated Copper Fins, Brass Tubes, Carbon Steel Structure A047K752 6,494 2.100 2.000 Extrapolated Core Size 66 sq.ft. Radiator A044D619 Copper Fins, Brass Tubes, Carbon Steel Structure Core Size 72 sq.ft. 6,785 2.000 2.000 **UUT-22** [IEA] 2.100 0.700 UUT-25a A042V604 Copper Fins, Brass Tubes, Carbon Steel Structure 10,281 Core Size 100 sq.ft. 2.000 2.000 **UUT-26**

Table 4 - Certified Radiators

Note:

1) Listed weights are operating/wet weights

2) Tested UUT weight of 350 lbs included the skid





Summary Sheet

UUT-01a

Model Line		Μ	odel Numb	er		N	lanufacture	r
DSHAD	(Cumn	nins Installati	A066Y502 on Part Num	ber: 0179-4	219-03)		Radiator (Ranna (Radiator	
		Product C	onstruction	Summarv			-	
ctural Carbon Steel	Skid							
e: When installed wi	th full generator set, all	connections	to the gener	ator set are	flexible			
		Options / Su	ubcompone	nt Summai	у			
liator: Modine (Radia	ator weight: 265 lbs.)							
		OB	CODF	C				
	1	DEUK		-ON				
	, SI		UT Properti	es			· • • -	
Weight [lbs]			ons [in]		×1		st Nat. Freq	
350	Length 77.0	-	dth 0.2 -067		ight 3.0	F-B 19.6	S-S	V
330		Highest Pas	<u></u>	LACKACKACKACKOCKO		19.0	19.6	>33.
Building Code	Test Criteria	DV na b	amghad	Karim	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG}
_		2.28	0.0	1.5	-	-	1.52	0.61
CBC 2022	ICC-E <mark>S AC</mark> 156	Δ2.00 ·	10/03/2	029.5	3.20	2.40	-	-
		HA BI	TIDIN	GCOS				



Summary Sheet

UUT-1b

	I	A(nins Installation Product Con	066Y502				lanufacture	
	Skid	Product Con	Part Numbe	r: 0179-4	219-03)	Мс	odine Radiat	or
ructural Carbon Steel ote: When installed wit	Skid		struction S	ummary				
ote: When installed wit								
	h full generator set, all	connections to t	he generato	or set are	flexible			
		Options / Subo	omponent	Summar	у			
adiator: Modine (Radia	tor weight: 265 lbs.)							
		FORC	ODE C	ON				
	AF	UUT	Properties		~			
Weight	L.	Dimension	s [in]		Z	Lowes	st Nat. Freq.	[Hz]
[lbs]	Length	Width	0671	He	ight	F-B	S-S	V
350	77.0	40.2	0071	53	3.0	5.2	7.6	7.4
		Highest Passed	I Seismic R	un Infor	mation			
Building Code	Test Criteria	5Y s ylohar	nghad Ka	arıp	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG}
CBC 2022	ICC-ES AC156	2.28	0.0	1.5	-	-	1.52	0.61
000 2022		A2.00 1()/03/202	<u>21</u> .5	3.20	2.40	-	-
			DINC					



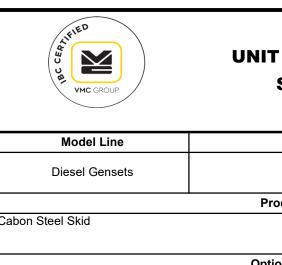
Summary Sheet

UUT-15a

PEER-STI/2010-05: UUT w/ tank	PEER-STI/2010-05; UUT w	// tank
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Model Line		Model Numb	er		N	Manufacture	er
Diesel Genset	ts	DQKAB				Cummins	
		Product Construction	n Summary				
oon Steel Skid, Carb	oon Steel Fuel Tank		_				
		Options / Subcompone		•			
ine: Cummins ; Alter	rnator: Cummins ; Radia	ator: Bearward ; Controll	er: Cummine	s; Fuel Tank	: IBI		
		2000					
		FORCODE	CON				
			VIL				
		UUT Propert Dimensions [in]	les	4	Lowo	st Nat. Freq	Г Ц 7 1
Weight [lbs]	Length	Width	He	eight	F-B	S-S	
62592	244	05P-067		52	7.0	2.8	4.
		Highest Passed Seismi	Rectarge exercises		_		
Building Code	Test Criteria	3Y syohamz/had	Karim	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RI}
CBC 2022	ICC-ES AC156 tank using (12) VMC M	1.94 0 Test Mounting I 2SSH-1E external spring		1.94	0.78	1.30 to shake tab	
nset mounted to fuel		A Test Mounting)etails	1.94	0.78	I	0.5 le inter
nset mounted to fuel		A Test Mounting)etails	1.94	0.78	I	
nset mounted to fuel		A Test Mounting)etails	1.94	0.78	I	
nset mounted to fuel		A Test Mounting)etails	1.94	0.78	I	
nset mounted to fuel		A Test Mounting)etails	1.94	0.78	I	
nset mounted to fuel		A Test Mounting)etails	1.94	0.78	I	
nset mounted to fuel		A Test Mounting)etails	1.94	0.78	I	
nset mounted to fuel		A Test Mounting)etails	1.94	0.78	I	
nset mounted to fuel		A Test Mounting)etails	1.94	0.78	I	
nset mounted to fuel		A Test Mounting)etails	1.94	0.78	I	
nset mounted to fuel		A Test Mounting)etails	1.94	0.78	I	
nset mounted to fuel		A Test Mounting)etails	1.94	0.78	I	
nset mounted to fuel		A Test Mounting)etails	1.94	0.78	I	





Summary Sheet

UUT-17

Model Line		Model Numbe	er		I	Manufacture	ər
Diesel Gense	ts	DQKAF				Cummins	
		Product Construction	Summary				
on Steel Skid							
		Options / Subcomponer		У			
ine: Cummins ; Alter	rnator: Cummins ; Radia	ator: Modine ; Controller: (Cummins				
		-D CODE					
		FORCODE	CONA				
	AF.	UUT Propertie	IS				
Weight	L.	Dimensions [in]		E.	Lowe	st Nat. Freq	. [Hz]
[lbs]	Length	Width	He	ight	F-B	S-S	v v
43805	275	098007	1	61	1.7	2.8	5.5
		Highest Passed Seismic	· · · · ·	mation			
			Karım 🚺		•	A _{FLX-V}	
Building Code	Test Criteria	5 Y sylonamz/had i	karım	A _{FLX-H}	A _{RIG-H}		
CBC 2022	ICC-E <mark>S AC</mark> 156	S _{DS} Z/h 1.94 1 Test Mounting Desting (16) CalDyn RJJEQ-I	1.5 etails	3.10	2.33	1.3	
CBC 2022	ICC-E <mark>S AC</mark> 156	1.94 1	1.5 etails	3.10	2.33		0.5
CBC 2022	ICC-E <mark>S AC</mark> 156	1.94 1	1.5 etails	3.10	2.33		
CBC 2022	ICC-E <mark>S AC</mark> 156	1.94 1	1.5 etails	3.10	2.33		
CBC 2022	ICC-E <mark>S AC</mark> 156	1.94 1	1.5 etails	3.10	2.33		
CBC 2022	ICC-E <mark>S AC</mark> 156	1.94 1	1.5 etails	3.10	2.33		
CBC 2022	ICC-E <mark>S AC</mark> 156	1.94 1	1.5 etails	3.10	2.33		
CBC 2022	ICC-E <mark>S AC</mark> 156	1.94 1	1.5 etails	3.10	2.33		
CBC 2022	ICC-E <mark>S AC</mark> 156	1.94 1	1.5 etails	3.10	2.33		
CBC 2022	ICC-E <mark>S AC</mark> 156	1.94 1	1.5 etails	3.10	2.33		
CBC 2022	ICC-E <mark>S AC</mark> 156	1.94 1	1.5 etails	3.10	2.33		
CBC 2022	ICC-E <mark>S AC</mark> 156	1.94 1	1.5 etails	3.10	2.33		
CBC 2022	ICC-E <mark>S AC</mark> 156	1.94 1	1.5 etails	3.10	2.33		



Summary Sheet

UUT-18a

Model Line		Model Numb	or	N	PEI-PEEF	
			C1			1
Diesel Gense	ts	DQKAF			Cummins	
	·	Product Construction	Summary	•		
oon Steel Skid, Carb	on Steel Fuel Tank					
		Options / Subcompone	-			
gine: Cummins ; Alte	rnator: Cummins ; Radia	ator: Modine ; Controller:	Cummins ; Fuel Tank: I	BI		
		2 CODE				
		FORCODE	COA			
			Mp.			
	, S	UUT Propertie	es		A Not From	711-1
Weight [lbs]		Dimensions [in]			st Nat. Freq	
	Length	Width 98-067	Height	F-B	S-S	V
70639	275	98 Highest Passed Seismic	185 T	1.7	2.8	4.4
Building Code	Test Criteria	Sponamz/had	Karip A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG}
CBC 2022	ICC-E <mark>S AC</mark> 156	2.1 0	1.5 2.1	0.84	1.41	0.57
000 2022	100 20 / 100	A Test Mounting D		0.04	1.41	0.01
2) 3/4" diameter A325	- To					
					THE OWNER WHEN	
		N/A HERE				
		KELDIN	300			
					2	



Summary Sheet

UUT-19a

		Мо	odel Numbe	er		N	Manufacture	er
Diesel Genset	s		DQKAF				Cummins	
		Product Co	onstruction	Summary				
bon Steel Skid, Carbo	on Steel Fuel Tank							
		Options / Sul	bcompone	nt Summar	у			
gine: Cummins ; Alter	nator: Cummins ; Radia	ator: Modine ;	Controller:	Cummins ;	Fuel Tank: I	31		
		FOR	CODE	Co				
		O FO F		N.				
	, Pr	UU	T Propertie	es 💦		-		
Weight	2	Dimensio	ns [in]		Z	Lowes	st Nat. Freq	. [Hz]
[lbs]	Length	Wid	\cdot D ()G (×	ight	F-B	S-S	v
71239	275	98			91 7	3.5	4.9	8.8
		Highest Pass		· · · ·			-	-
Building Code	Test Criteria	SY S _{ds} ona	am _{z/h} ad	karım	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG}
CBC 2022	ICC-E <mark>S AC</mark> 156	2.1	0	1.5	2.1	0.84	1.41	0.5
		MARU .						

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



Summary Sheet

UUT-20a

Model Line		Model Numbe	ər			Manufacture	er
Diesel Gense	ts	DQLF				Cummins	
		Product Construction	Summarv				
bon Steel Skid, Carbo	on Steel Fuel Tank		<u> </u>				
		Options / Subcomponer	nt Summar	·v			
gine: Cummins ; Alter		ator: IEA ; Controller: Cun		-			
		ORCODE	~				
		FURTHERE	CONA				
	A CONTRACTOR OF THE OFFICE OFF	UUT Propertie	as de la companya de				
Weight		Dimensions [in]		4	Lowe	st Nat. Freq	. [Hz]
[lbs]	Length	Width	He	ight	F-B	S-S	
66576	308	OSP-067		59	2.2	2.5	3.9
		Highest Passed Seismic	Run Infor	mation			
			/				
Building Code	Test Criteria	5 Y s _{os} ohamz _h ad I	karım	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG}
CBC 2022	ICC-ES AC156	S _{DS} Z/h 2.1 0 Test Mounting De RJRD-5880 external spri	1.5 etails	A _{FLX-H} 2.1	A _{RIG-H} 0.84	A _{FLX-V} 1.41 ed to shake	0.57
CBC 2022	ICC-ES AC156	2.1 0	1.5 etails	2.1	0.84	1.41	0.57
CBC 2022	ICC-ES AC156	2.1 0	1.5 etails	2.1	0.84	1.41	0.57
CBC 2022	ICC-ES AC156	2.1 0	1.5 etails	2.1	0.84	1.41	0.57
CBC 2022	ICC-ES AC156	2.1 0 Test Mounting D	1.5 etails	2.1	0.84	1.41	0.57
CBC 2022	ICC-ES AC156	2.1 0 Test Mounting D	1.5 etails	2.1	0.84	1.41	0.57
CBC 2022	ICC-ES AC156	2.1 0 Test Mounting D	1.5 etails	2.1	0.84	1.41	0.57
CBC 2022	ICC-ES AC156	2.1 0 Test Mounting D	1.5 etails	2.1	0.84	1.41	0.57
CBC 2022	ICC-ES AC156	2.1 0 Test Mounting D	1.5 etails	2.1	0.84	1.41	0.57
CBC 2022	ICC-ES AC156	2.1 0 Test Mounting D	1.5 etails	2.1	0.84	1.41	0.57
CBC 2022	ICC-ES AC156	2.1 0 Test Mounting D	1.5 etails	2.1	0.84	1.41	0.57
CBC 2022	ICC-ES AC156	2.1 0 Test Mounting D	1.5 etails	2.1	0.84	1.41	A _{RIG} . 0.57 table
CBC 2022	ICC-ES AC156	2.1 0 Test Mounting D	1.5 etails	2.1	0.84	1.41	0.57



Summary Sheet

UUT-22

PEI-PEER-CUM-12	29
Manufacturer	

Model Number Model Line DQLF Cummins **Diesel Gensets Product Construction Summary** Cabon Steel Skid **Options / Subcomponent Summary** Engine: Cummins ; Alternator: Cummins ; Radiator: IEA ; Controller: Cummins **UUT Properties** Dimensions [in] Lowest Nat. Freq. [Hz] Weight [lbs] Length Width Height F-B ۷ S-S 52985 282 117 134 2.5 3.5 3.5 UUT Highest Passed Seismic Run Information z/h20 **Building Code** Test Criteria larıp SDS A_{FLX-H} $\mathbf{A}_{\mathsf{RIG-H}}$ A_{RIG-V} A_{FLX-V} CBC 2022 ICC-ES AC156 2.0 1.5 3.2 2.4 1.34 0.54 1 **Test Mounting Details** Δ UUT mounted to shake table interface fixture using (18) CalDyn RJRD-5880 external spring isolators.



	IED	$\overline{\ }$
BC CERTA		
1	VMC GROUP	

Summary Sheet

UUT-26

)	Model Number	er		N	Manufacture	er
Diesel Gense	its	DQLF				Cummins	
		Product Construction	Summary				
abon Steel Skid							
		Ontiona / Subcompone	nt Cumana and				
ngine: Cummins ; Alte	ernator: Cummins ; Radia	Options / Subcompone ttor: IEA ; Controller: Cur	-				
	made to UUT: Increased			nection.			
		FORCODE	CON				
	NE	UUT Propertie	es				
Weight		Dimensions [in]		7,	Lowe	st Nat. Freq	. [Hz]
[lbs]	Length	Width	Heig	ht	F-B	S-S	v
57168	292	125	153		2.5	2.8	5.5
		lighest Passed Seismic		ation			
Building Code	Test Criteria	sy s _{ps} onam _{z/h} ad	karım	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2022	ICC-E <mark>S AC</mark> 156	2.0 1	1.5	3.2	2.4	1.34	0.54
UT mounted to shake	table interface fixture us	Test Mounting D			itors		
17	1		100	2		_	
	ASID	PULPA		4	AF		

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Summary Sheet

UUT-25a

							PEI-PEEF	R-CUM-1
Model Line		Ν	lodel Numb	ər		N	lanufacture	r
Diesel Gense	ts		DQLF				Cummins	
	ł	Product C	onstruction	Summary				
on Steel Skid, Carb	on Steel Fuel Tank							
		Options / Su	-					
ine: Cummins ; Alte	rnator: Cummins ; Radia	ator: IEA ; Co	ontroller: Cur	nmins ; Fue	I Tank: GPC			
			CODE					
		EOR	CODE	60.				
	4			- M				
	S		UT Propertie	es				
Weight			ons [in]		Z		st Nat. Freq	
[lbs]	Length	()	dth		ight	F-B	S-S	V
70760	308	A CONTRACTOR ACCOUNTS	25 -007		78 m	2.2	2.5	2.8
		Highest Pas		/				_
Building Code	Test Criteria	SY S _{ds} oh	am _{z/h} ad	karım	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG}
CBC 2022	ICC-E <mark>S AC</mark> 156	2.1	0	1.5	2.1	0.84	1.41	0.5
			ILDIN	<u><u></u></u>		T		
200					X	Par Par		





Summary Sheet

UUT-38a

DCL 31260-2001

Model Line			М	odel Numb	er		N	Manufacture	r
Coolant Heater Subco	omponent			A041A149				Cummins	
			Product C	onstruction	Summary				
arbon Steel Mounting I					-				
ote: Component is sur	face mounted	d on the eq	luipment or d	irectly to ski	d frame.				
			Options / Su	-		у			
oolant Heater A041A1	49: Cummins	; Brackets	s A055J936 /	A055X195:	Cummins				
			2	CODE					
			FOR	CODE	COA				
				UT Propertie	M/				
Weight				ons [in]	5	4	Lowe	st Nat. Freq	[Hz]
[lbs]	Leng	ath		dth	He	ight	F-B	S-S	V
92	14			SP-067	P	21	15.0	15.0	15.0
		UUT	Highest Pase	sed Seismic	Run Infor	mation			
Building Code	Test Cr	riteria	δΎ s poh	amphad	Karim	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG}
CBC 2022	ICC-E <mark>S</mark>	AC156	2.1	1	1.5	3.36	2.52	1.41	0.57
مودوم م	NT WATCH COLONING COL		A BU	ILCIN	GO	A			
	4/2					1	-	8	
	and a		-				C		
		-			j)	54		1	
		27			100		70		
		12	•	: /			U.L.	2-5	

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

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Summary Sheet

UUT-38b

DCL 31260-2001

Model Line		N	lodel Numb	er		N	lanufacture	r
Coolant Heater Subcor	mponent		A041A149				Cummins	
		Product C	onstructior	Summary				
rbon Steel Mounting B	Brackets							
te: Component is surfa	ace mounted on the	equipment or c	lirectly to ski	d frame.				
		Options / S			у			
olant Heater A041A14	9: Cummins ; Brack	ets A055J936 /	A055X195:	Cummins				
		- 0	CODE					
		FOR		CONA				
	1	U	UT Properti	es				
Weight	L.	Dimensi	ions [in]		E	Lowe	st Nat. Freq	[Hz]
[lbs]	Length		dth		eight	F-B	S-S	v
92	14	4	30 - 007	A CHACKACKACKOCK	21	9.0	7.5	12.5
		T Highest Pas						
Building Code CBC 2022	Test Criteria	DY S _{DS}	amphad	Karım	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG}
CBC 2022	ICC-ES AC 150	2.1	1 Mounting D	1.5	3.36	2.52	1.41	0.57
ويمبرويوم. م	at which the state of the state	AABI	THE	GCOT	A		~~~~	
0			22		D	-		
				1-			S.	
100		-				C		
	and the		4	NS	A			
							10.00	
							1	
	1	XL (V V			15	
1	* / /			and				
						5	-	
	×			APR POL		1 Star		

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

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Summary Sheet

UUT-39a

DCL 31260-2001

Model Line		Model Numbe	er	N	Manufacture	r
CCV Filter Subcom	ponent	A045A444			Cummins	
		Product Construction	Summary			
arbon Steel Mounting I	Bracket		Caninary			
		uipment or directly to skic	I frame.			
CV Filter A045A444: C		Options / Subcomponer	nt Summary			
7V Filler A045A444: C	ummins					
		OR CODE	Ca			
		O FOIL MAN WAR	ONI			
	AL	UUT Propertie	IS	•		
Weight		Dimensions [in]	E CONTRACTOR	Lowes	st Nat. Freq	[Hz]
[lbs]	Length	Width	Height	F-B	S-S	V
32	12	19 -007	23	23.0	11.5	11.5
		Highest Passed Seismic		1.		
Building Code	Test Criteria	S S _{DS} onamz/had	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG} .
CBC 2022	ICC-E <mark>S AC</mark> 156	2.1 1	1.5 3.36	2.52	1.41	0.57



Summary Sheet

UUT-39b

DCL 31260-2001

Madal I.		Ma dal Neverla					
Model Line		Model Number	er		N	lanufacture	r
CCV Filter Subcom	ponent	A045A444				Cummins	
		Product Construction	Summary				
arbon Steel Mounting E ote: Component is surf		uipment or directly to skie	d frame.				
		Options / Subcompone	nt Summary	,			
CV Filter A045A444: C	ummins						
		FOR CODE	Con				
		0	Mp				
I	- S'	UUT Propertie	es		•		
Weight [lbs]		Dimensions [in]		7		st Nat. Freq.	
	Length	Width 19-067	Heig		F-B	S-S	V
32	122	Highest Passed Seismic	23 Bun Inform		9.0	7.5	12.5
Building Code	Test Criteria	Sponamz/had	Karim	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-\}
		2005 200	-P	- FLA-H	- RIG-H	FLX-V	- KIG-
		2.1 1 Test Mounting D 20 class 8.8 bolts, washe e mounted to shake table	ers and nuts.		2.52 beam rigidly	1.41 mounted to	
UT mounted to the inte	erface I beam with (2) M	Test Mounting D 20 class 8.8 bolts, washe	etails ers and nuts.	Interface I t	beam rigidly		0.57 shake



Summary Sheet

UUT-40a

Model Line		м	odel Numb	er		I	DCL: Manufacture	er.
elta 2 Control Box Sub	ocomponent		AU60U263				Cummins	
	L		onstruction	Summary		1		
Carbon Steel Enclosure lote: Component is sur			irectly to alki	frama				
iote. Component is sur			-					
		Options / Su	-		ry			
Pelta 2 Control Box AU6	300263: Cummins ; S	Spacer Bracket	A063E104: (Jummins				
		- 0	CODE					
		FOR		CON				
			UT Propertie	NC V				
Weight	L.		ons [in]		4	Lowe	st Nat. Freq	[H⁊]
[lbs]	Length		dth	He	eight	F-B	S-S	V
240	17		7P-067	1	65	6.0	12.0	>33.3
		Level and any arrangements	NANAN NANANA					
	UU	T Highest Pase	sed Seismic	Run Infor	mation			
Building Code	UU Test <mark>Crite</mark> ria	T Highest Pass	sed Seismic am _{z/h} ad	Run Infor Karip	mation A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
	Test Criteria ICC-ES AC156 erface channel with w	2.1 DATEST	1 1 Mounting D le 5 bolts, wa	1.5 etails ashers and	А _{FLX-Н} 3.36	2.52	1.41	0.57



Summary Sheet

UUT-40b

Delta 2 Control Box Sub	Model Line Mode					DCL 31260-2 Manufacturer		
Carbon Steel Enclosure		IVIC		/1		N		,1
	component		AU60U263			Cummins		
		Product Co	nstruction	Summary				
lote: Component is surf	ace mounted on the e	equipment or dir	ectly to skic	frame.				
		Options / Sul	bcomponei	nt Summar	у			
Delta 2 Control Box AU6	0U263: Cummins ; Sp	oacer Bracket A	.063E104: C	Cummins				
		FOR	LODE	CON				
	, s		T Propertie)S				
Weight		Dimensio	ns [in]		Z		st Nat. Freq	[Hz]
[lbs]	Length	Wid	$D \cap G /$		ight	F-B	S-S	V
240	172	37	x x x x x	ALXALXALXALXALA	55 m	5.0	7.5	22.0
		Highest Pass		/				
Building Code	Test Criteria	BY s _{ds} ona	am _{z/h} ad	karım	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-}
CBC 2022	ICC-E <mark>S AC</mark> 156	2.1	1	1.5	3.36	2.52	1.41	0.57
	-	PNIA BU	ILDIN					
			·					