CATERPILLAR

ESO Number: TRHCJ00
Engine Serial #: DB402155

Generator Set Specifications

Engine

Engine Sales Model:	3516DITASCAC	
Engine Size:	3516	
Fuel Type:	DI	
Engine Arr.:	5271635	
Dyno Test Spec:	4182985	
Rated Speed:	1500	RPM
Cooling System:	SCAC	
Aspiration Type:	TA	

Generator

Package Serial No.	JCN02255	
Generator Serial No.	9Y901948	
Genset Arr:	5236580	
Genset Model:	Y5060H4	
Frame Size:		
Electrical Rating:	1875	KW
Rated Frequency:	50	Hz
Rated Voltage:	10500	Volts
Rated P.F.:	0.80	
Tested:	Without Fan	

System

Test Date.	24-Mar-2022 16:11
Run No.:	1
Test Type:	3L0438
Pass/Fail:	PASSED
Test Cell:	5
Facility:	CTL
P.L. Setting:	GG0708
Test Spec:	456-5743

Load Steps

Static Test					Transient Test					Load Reject Test				
Step No	Load	Units	PF	Step Time (Min)	Step No	Initial	Final	Units	PF	Step No	Initial	Final	Units	PF
1	1875	KW	0.80	1.00	1	0	742	KW	0.80					
2	2050	KW	0.80	1.00	2	742	1252	KW	0.80					
					3	1252	1669	KW	0.80					
					4	1669	1875	KW	0.80					
					5	1875	0	KW	1.00					

Test Tolerances

Static Steps			
	Line Voltage	(+- %)	4.0
	Avg Voltage	(+- %)	1.0
	Current	(+- %)	3.0
	Power Factor	(+-)	0.01
	Comment:		
Full Load Point			
	Power	(+ %)	3.0
	Power	(- %)	3.0
	Speed	(+- rpm)	10
	Frequency	(+- Hz)	0.300
	Comment:		
Transient Frequency			
	Overshoot	(%)	12.0
	Undershoot	(%)	10.0
	Recovery Band	(+- %)	1.00
	Recovery Time	(sec)	5.0
	Steady State Band	(+- %)	0.75
	Steady State Time	(sec)	25.0
	Comment:		
Transient Voltage			
	Overshoot	(%)	25.0
	Undershoot	(%)	20.0
	Oshoot (100-0)	(%)	35.0
	Ushoot (100-0)	(%)	35.0
	Recovery Band	(+- %)	2.50
	Recovery Time	(sec)	6.0
	Steady State Band	(+- %)	2.50
	Steady State Time	(sec)	26.0
	Comment:		
High Idle Stability and No-Load Poin			
	Min Speed	(rpm)	1,490
	Max Speed	(rpm)	1,510
	Comment:		

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ESO Number: TRHCJ00
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Test Report

Generator Serial #:	9Y901948	Fuel Type:	DI	Test Date:	24-Mar-2022 16:11
Dyno Test Spec:	4182985	Cooling System:	SCAC	Pass/Fail:	PASSED
Engine Arr.:	5271635	Test Cell:	5	ECM Codes:	No
		Test Run No.:	1		
		Tested:	W/O Fan		

No Load	Amount from Nominal		Measured		Specification	
High Idle Speed	0	RPM	1500	RPM	1500	RPM
Phase A Volts	0.1	%	10505	V	10500	V
Phase B Volts	0.0	%	10503	V	10500	V
Phase C Volts	0.0	%	10502	V	10500	V
Test Voltage	0.0	%	10503	V	10500	V

Full Load	Amount from Nominal		Measured		Specification	
Rated Engine Speed	0	RPM	1500	RPM	1500	RPM
Power	-3.0	%	1819.1	kW	1875	kW
Corrected Power	-0.2	%	1871.8	kW	1875	kW
Correction Factor	1.0290		1.0290		none	
Frequency	0.0	%	50.0	Hz	50	Hz
Phase A Volts	0.1	%	10506	V	10500	V
Phase B Volts	0.0	%	10501	V	10500	V
Phase C Volts	0.0	%	10499	V	10500	V
Test Voltage	0.0	%	10502	V	10500	V
Phase A Current	0.6	%	125	Amp	129	Amp
Phase B Current	-0.7	%	124	Amp	129	Amp
Phase C Current	0.2	%	125	Amp	129	Amp
Test Current	-3.4	%	125	Amp	none	Amp
Power Factor	0.0	%	0.803		0.800	

1	742	0.1	1.7	1.7	6.7	2.6	3.0	3.3	2.5	4.5

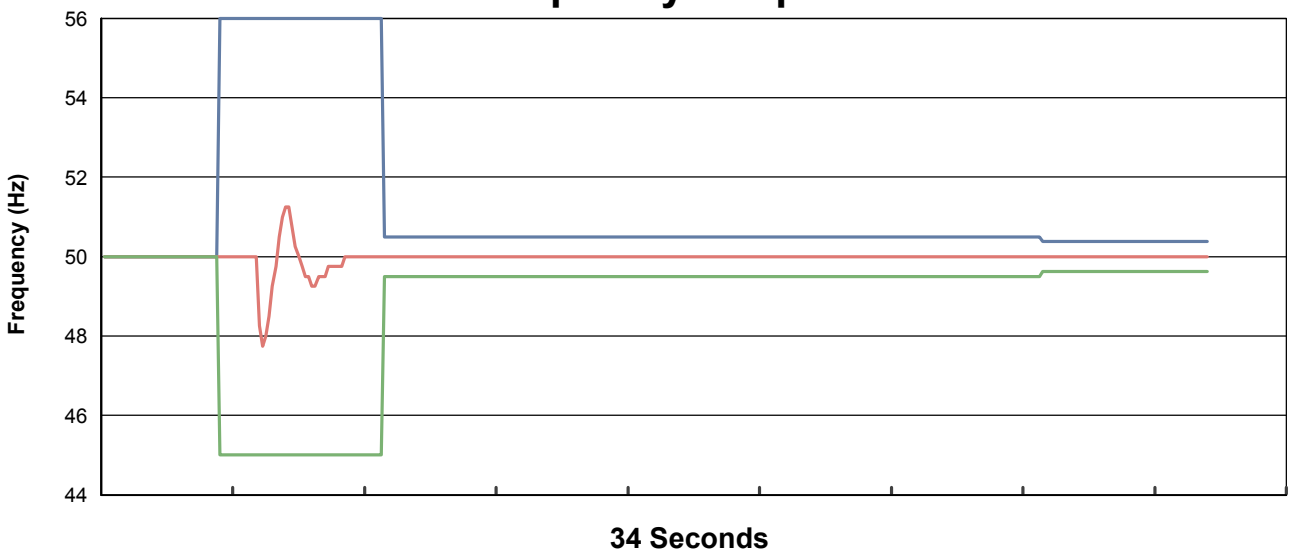
	Load		Voltage Response				Frequency Response			
	Nom	From Nom	Volt Rcvry	ST State Rcvry	Volt Peak	Volt Valley	Freq Rcvry	ST State Rcvry	Freq Peak	Freq Valley
	kW	%	s	s	%	%	s	s	%	%
2	1252	0.0	1.0	1.0	1.9	5.2	1.5	2.5	1.5	3.5
3	1669	0.0	1.2	1.2	0.3	4.3	1.1	2.4	1.0	2.5
4	1875	-0.2	0.0	0.0	0.1	2.1	1.4	1.6	0.5	1.5
5	0	0.0	1.2	1.2	27.3	2.5	2.4	2.4	8.5	1.5

Transient Report

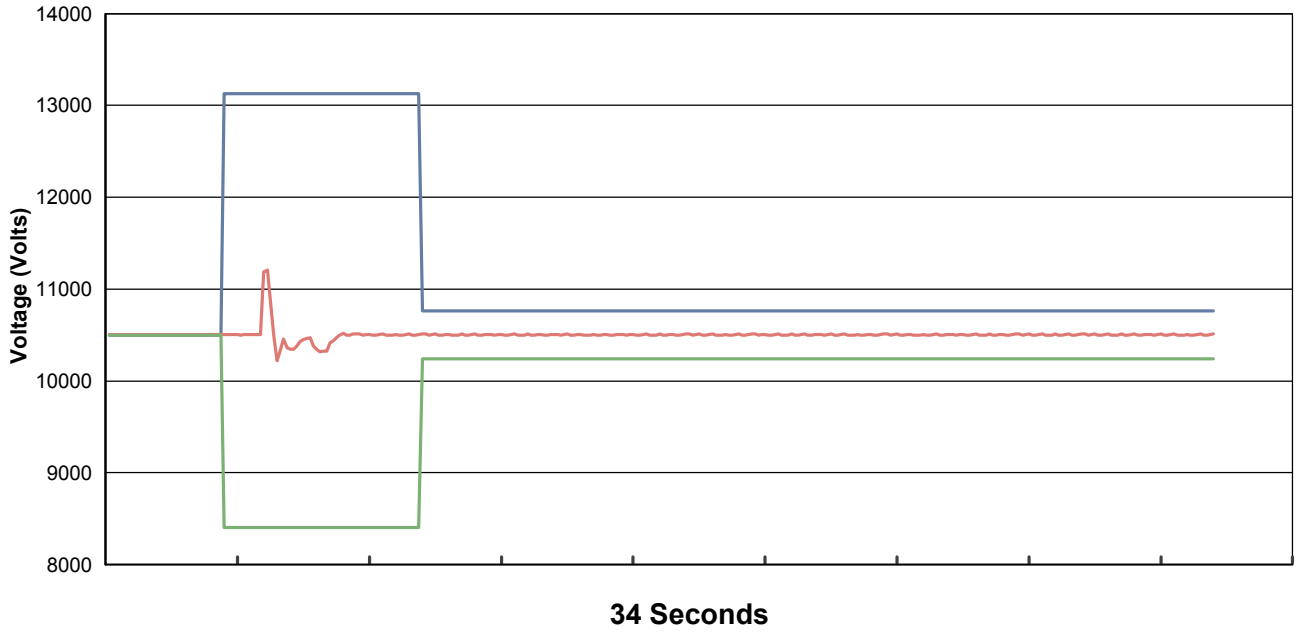
Generator Serial #:	9Y901948	Fuel Type:	DI	Sample Time:	24-Mar-2022 16:36
Engine Serial #:	DB402155	Cooling System:	SCAC	Load Setting:	742.0 KW
Dyno Test Spec:	4182985	Test Cell:	5	Test State:	Trnsnt Step # 1
Engine Arr.:	5271635	Test Run No.:	1	Step	PASSED

Frequency Recovery:	3.0	Sec	Voltage Recovery:	1.7	Sec
Frequency Minimum:	47.75	Hz	Voltage Minimum:	10222.50	Volts
Frequency Maximum:	51.25	Hz	Voltage Maximum:	11206.75	Volts
Initial Load Percentage:	0.00	%	Transitional Load Pct.:	39.57	%

Frequency Response



Voltage Response



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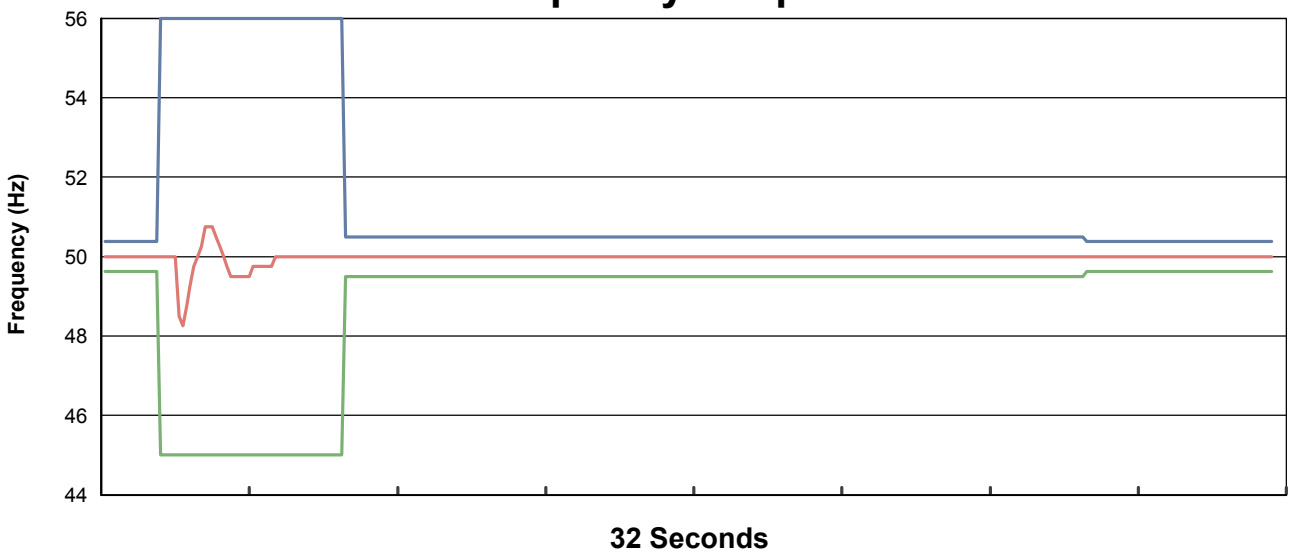
ESO Number: TRHCJ00
Engine Serial #: DB402155

Transient Report

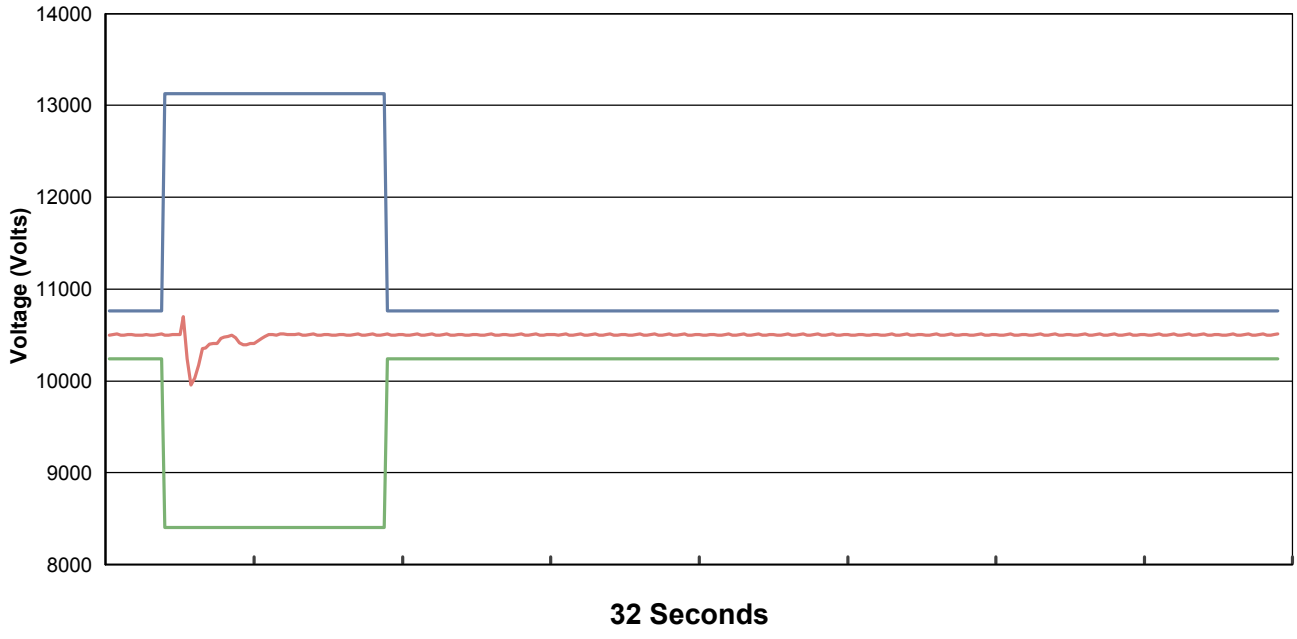
Generator Serial #:	9Y901948	Fuel Type:	DI	Sample Time:	24-Mar-2022 16:37
Engine Serial #:	DB402155	Cooling System:	SCAC	Load Setting:	1252.0 KW
Dyno Test Spec:	4182985	Test Cell:	5	Test State:	Trnsnt Step # 2
Engine Arr.:	5271635	Test Run No.:	1	Step	PASSED

Frequency Recovery:	1.5	Sec	Voltage Recovery:	1.0	Sec
Frequency Minimum:	48.25	Hz	Voltage Minimum:	9953.25	Volts
Frequency Maximum:	50.75	Hz	Voltage Maximum:	10698.75	Volts
Initial Load Percentage:	39.57	%	Transitional Load Pct.:	66.77	%

Frequency Response



Voltage Response

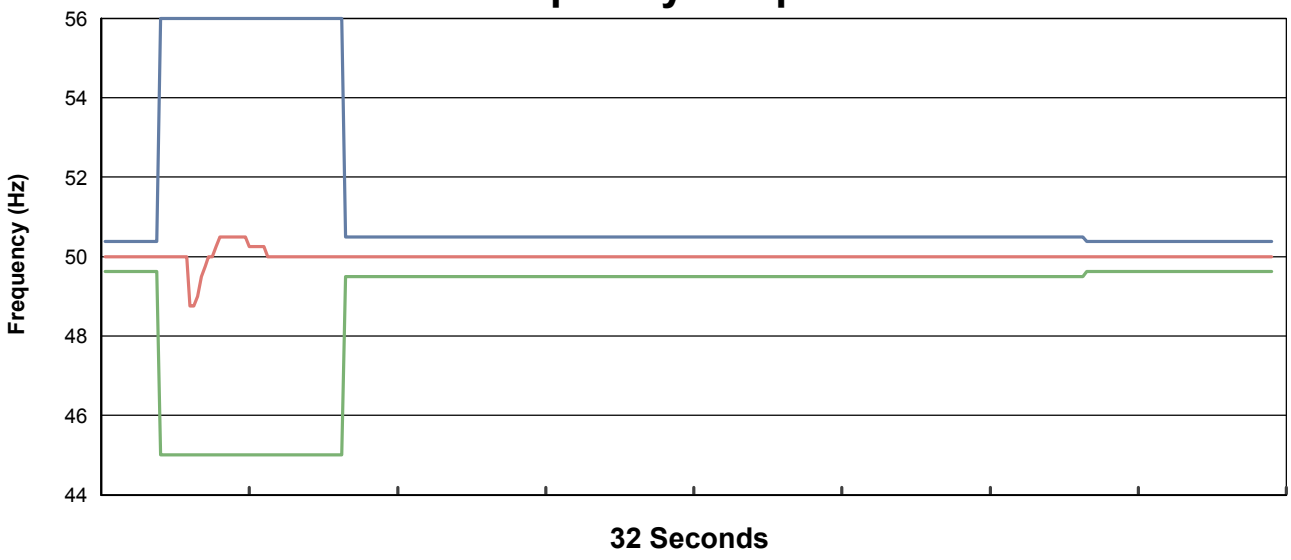


Transient Report

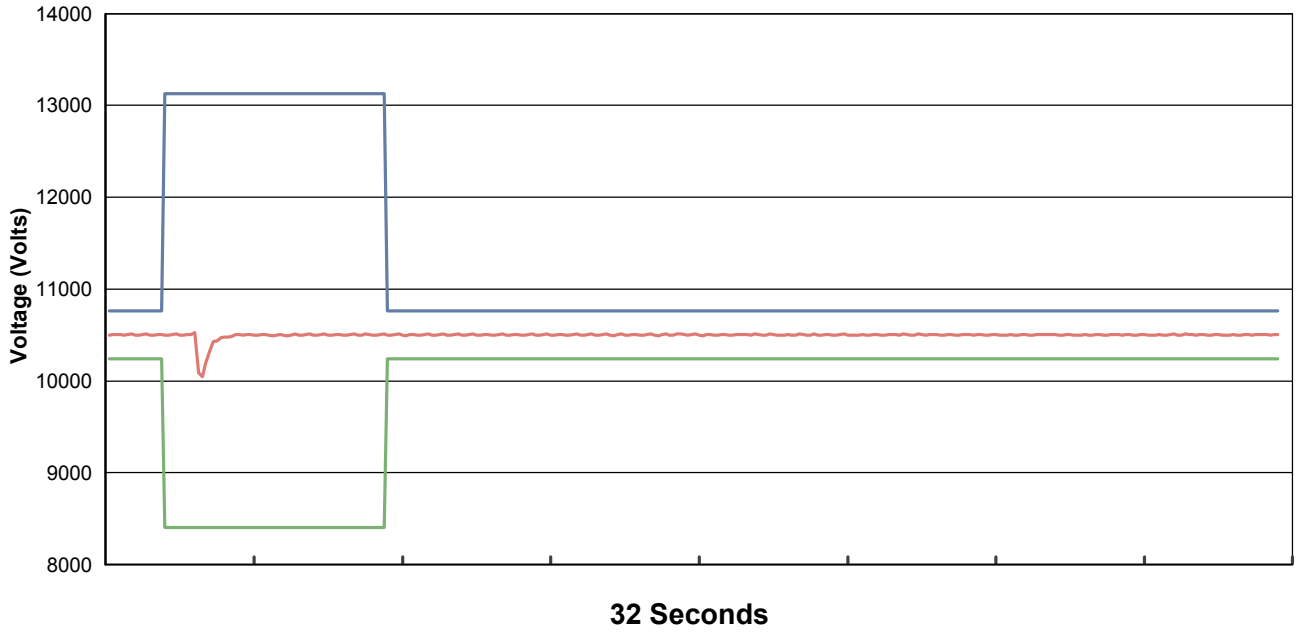
Generator Serial #:	9Y901948	Fuel Type:	DI	Sample Time:	24-Mar-2022 16:37
Engine Serial #:	DB402155	Cooling System:	SCAC	Load Setting:	1669.0 KW
Dyno Test Spec:	4182985	Test Cell:	5	Test State:	Trnsnt Step # 3
Engine Arr.:	5271635	Test Run No.:	1	Step	PASSED

Frequency Recovery:	1.1	Sec	Voltage Recovery:	1.2	Sec
Frequency Minimum:	48.75	Hz	Voltage Minimum:	10048.25	Volts
Frequency Maximum:	50.50	Hz	Voltage Maximum:	10526.25	Volts
Initial Load Percentage:	66.77	%	Transitional Load Pct.:	89.01	%

Frequency Response



Voltage Response

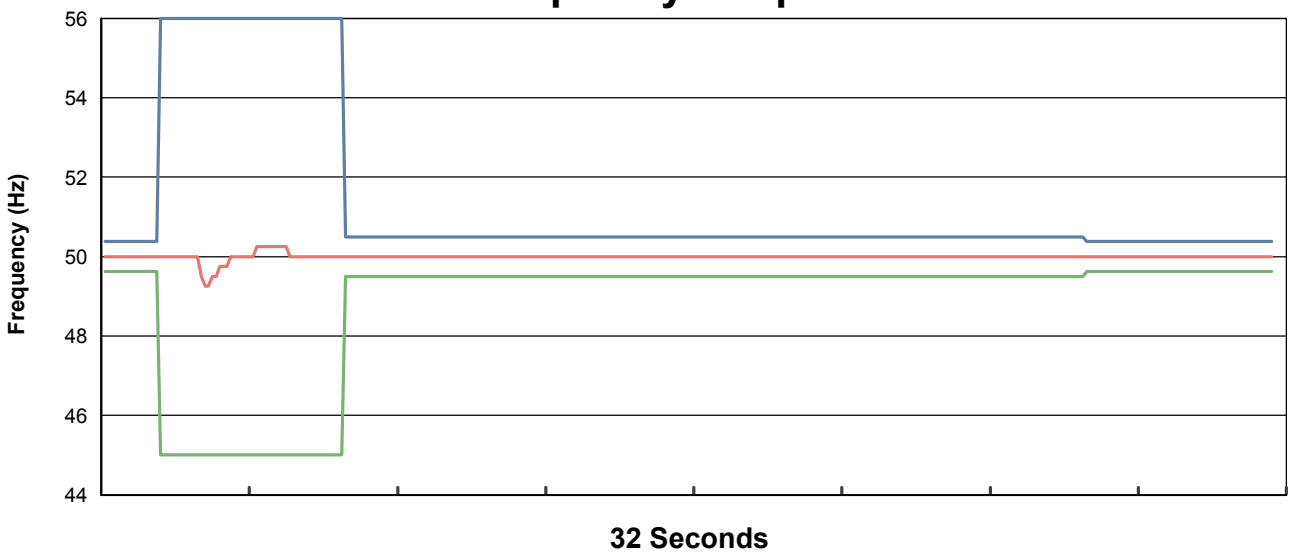


Transient Report

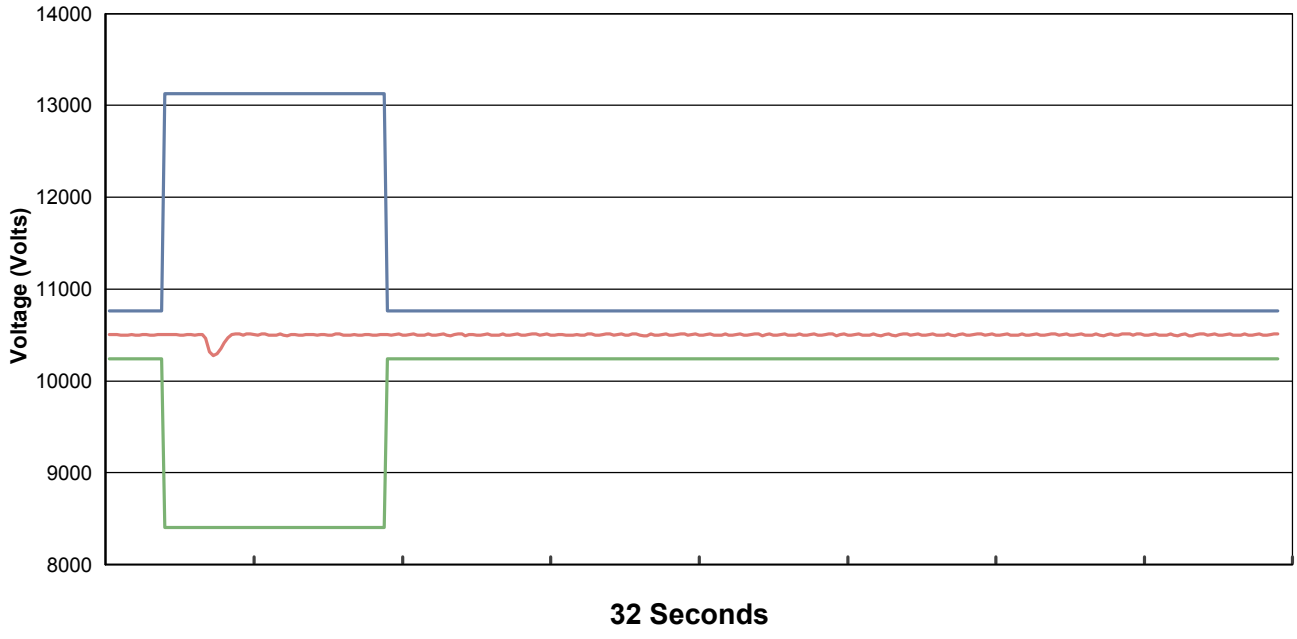
Generator Serial #:	9Y901948	Fuel Type:	DI	Sample Time:	24-Mar-2022 16:38
Engine Serial #:	DB402155	Cooling System:	SCAC	Load Setting:	1875.0 KW
Dyno Test Spec:	4182985	Test Cell:	5	Test State:	Trnsnt Step # 4
Engine Arr.:	5271635	Test Run No.:	1	Step	PASSED

Frequency Recovery:	1.4	Sec	Voltage Recovery:	0.0	Sec
Frequency Minimum:	49.25	Hz	Voltage Minimum:	10277.00	Volts
Frequency Maximum:	50.25	Hz	Voltage Maximum:	10513.75	Volts
Initial Load Percentage:	89.01	%	Transitional Load Pct.:	100.00	%

Frequency Response



Voltage Response



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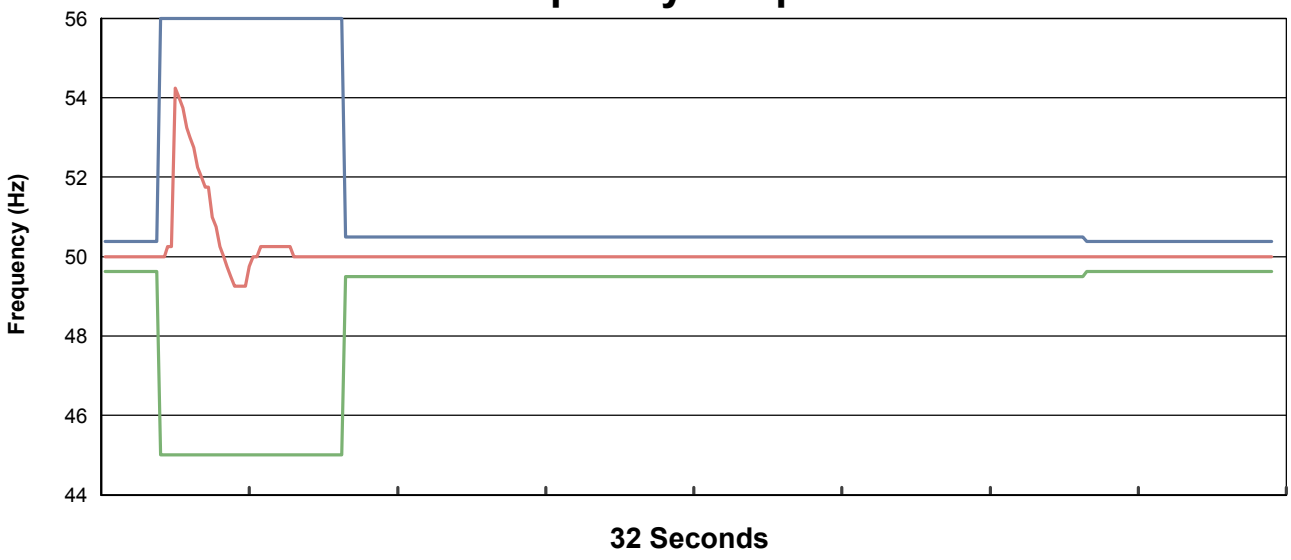
ESO Number: TRHCJ00
Engine Serial #: DB402155

Transient Report

Generator Serial #:	9Y901948	Fuel Type:	DI	Sample Time:	24-Mar-2022 16:38
Engine Serial #:	DB402155	Cooling System:	SCAC	Load Setting:	0.0 KW
Dyno Test Spec:	4182985	Test Cell:	5	Test State:	Trnsnt Step # 5
Engine Arr.:	5271635	Test Run No.:	1	Step	PASSED

Frequency Recovery:	2.4	Sec	Voltage Recovery:	1.2	Sec
Frequency Minimum:	49.25	Hz	Voltage Minimum:	10241.25	Volts
Frequency Maximum:	54.25	Hz	Voltage Maximum:	13366.00	Volts
Initial Load Percentage:	100.00	%	Transitional Load Pct.:	0.00	%

Frequency Response



Voltage Response