



Engine Serial #:

PRH

## Generator Set Specifications

Engine	Generator	System
Engine Sales Model: C32 DITA	Package Serial No. JSJ	Test Date. Dec-2010 4:35
Engine Size: C32	Serial Number: G1E	
Fuel Type: DI	Genset Arr: Genset Model: Frame	Run No.: 1
Engine Arr.: 3431709	Size: AA341	Data ID:
	Rated	Test Type: OPERATIONS
Rated Speed: 1800 RPM	Electrical Rating: 1000 KW	Pass/Fail: PASSED
Cooling system: JWAC	Frequency: 60 HZ	Test Cell: 2
Aspiration Type: TA	Rated Voltage: 480 Volts	Facility: GRIFFIN
	Rated P.F.: 0.80	P.L. Setting:
	Tested: With Fan	Test Spec: 3L0438-02

### Load Steps

Test			Transient Test			Load Reject Test						
Step No	Load	Step Time (Min)	Step No	Initial	Final	Units	PF	Step No	Initial	Final	Units	PF
1000	KW		1	0		KW	0.80					
			2	348		KW	0.80					
			3	648		KW	0.80					
			4	864		KW	0.80					
			5	1000		KW	1.00					



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## 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	(%)	20.0
Recovery Band	(+ %)	1.50
Recovery Time	(sec)	5.0
Steady State Band	(+ %)	1.50
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 Point

Min Speed	(rpm)	1,790
Max Speed	(rpm)	1,810
Comment:		



# Test Report

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Generator Serial #:	G1E	Fuel Type:	DI	Test Date:	Dec-2010 4:35
Engine Arr.:	3431709	Cooling System:	J W A C	Pass/Fail:	PASSED
		Test Cell:	2		
		Test Run No.:	1		
		Tested:	w/ Fan	ECM Codes:	No

No Load	Amount from Nominal	Measured	Specification
High Idle Speed	-1 RPM	1799 RPM	1800 RPM
Phase A volts	0.0 %	480 V	480 V
Phase B volts	0.0 %	480 V	480 V
Phase C volts	1.3 %	486 V	480 V
Test Voltage	0.5 %	482 V	480 V

Full Load	Amount from Nominal	Measured	Specification
Rated Engine Speed	-1 RPM	1799 RPM	1800 RPM
Power	0.0 %	999.6 kW	1000 kW
Corrected Power	-0.7 %	992.6 kW	1000 kW
Correction Factor	0.9931	0.9931	none
Frequency	-0.1 %	60.0 Hz	60 Hz
Phase A volts	-0.8 %	476 V	480 V
Phase B volts	-0.9 %	475 V	480 V
Phase C volts	0.3 %	481 V	480 V
Test Voltage	-0.5 %	478 V	480 V
Phase A Current	0.6 %	1512 Amp	1504 Amp
Phase B Current	1.0 %	1518 Amp	1504 Amp
Phase C Current	1.0 %	1519 Amp	1504 Amp
Test Current	0.9 %	1517 Amp	none Amp
Power Factor	0.0 %	0.795	0.800

	Load		Voltage Response				Frequency Response			
	Nom	From	Volt ST State		Volt	Volt	Freq	ST State	Freq	Freq
	kW	%	Nom	Rcvry	Peak	Valley	Rcvry	Rcvry	Peak	Valley
			s	s	%	%	s	s	%	%
1	348	-1.1	0.3	0.3	3.5	9.6	0.4	0.4	0.7	3.7
2	648	-0.4	1.0	1.0	0.2	5.8	0.8	0.8	0.2	3.2
3	864	-1.2	0.9	0.9	1.9	5.0	0.5	0.5	0.0	2.8
4	1000	-0.3	0.5	0.5	-0.2	3.3	0.4	0.4	0.0	1.7
5	0	0.0	1.3	1.3	32.1	2.7	1.3	1.3	8.0	1.8



ESO Number: PRH

# Transient Report

Engine Serial #:

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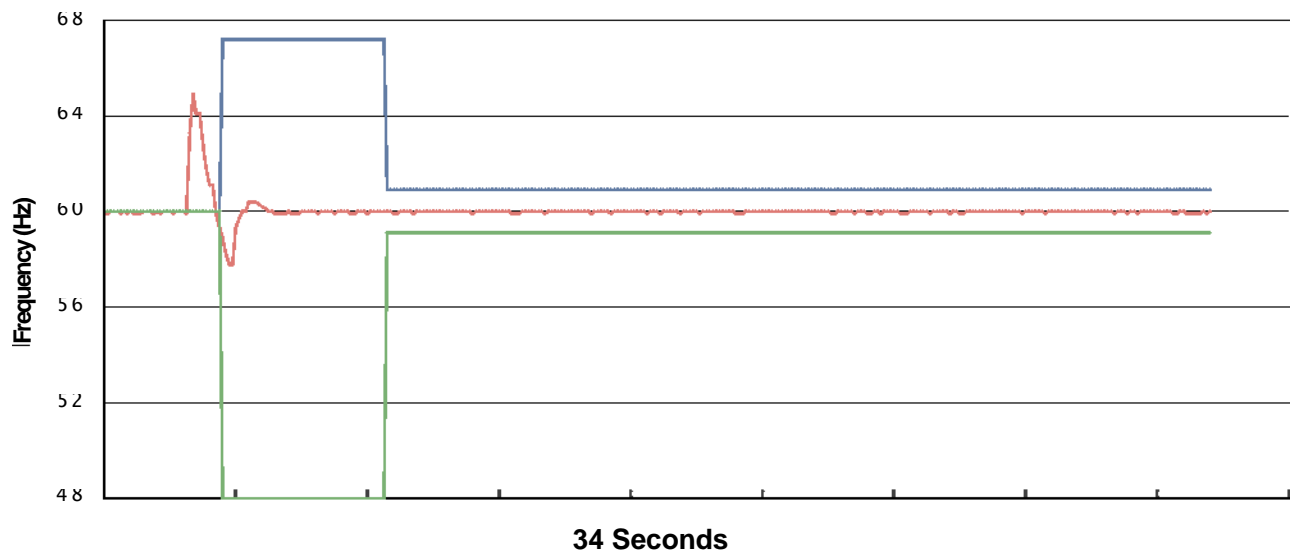
Generator Serial #:	G1E	Fuel Type:	DI	Sample Time:	Dec-2010 4:51
Engine Serial #:	PRH	Cooling System:	JWAC	Load Setting:	348.0 KW
Engine Arr.:	3431709	Test Cell:	2	Test State:	Trnsnt Step # 1
		Test Run No.:	1	Step	PASSED

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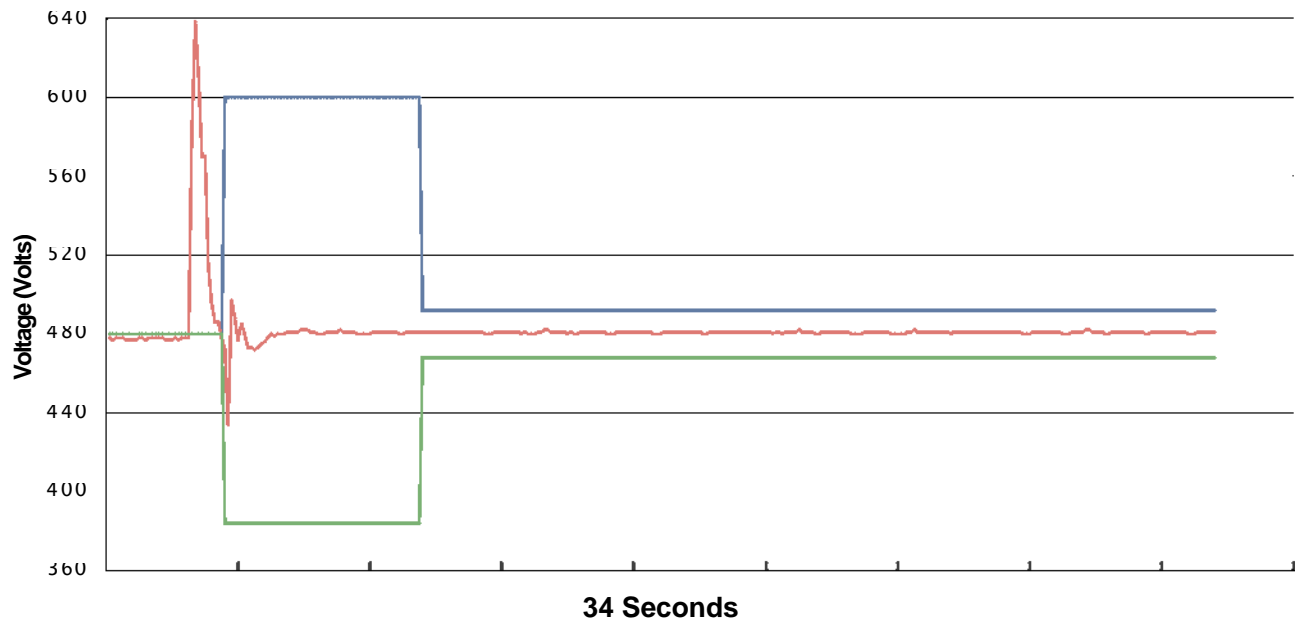
Frequency Recovery:	0.4 Sec	Voltage Recovery:	0.3 Sec
Frequency Minimum:	57.80 Hz	Voltage Minimum:	434.00 volts
Frequency Maximum:	60.40 Hz	Voltage Maximum:	497.00 volts
Initial Load Percentage:	0.00 %	Transitional Load Pct.:	34.80 %

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## Frequency Response



## Voltage Response





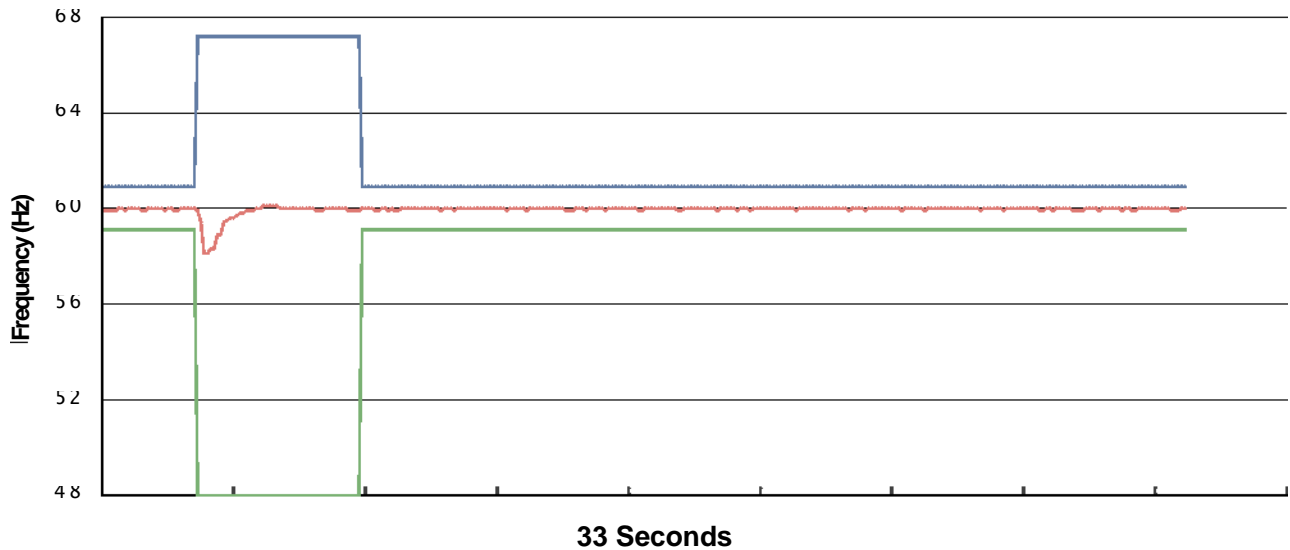
Engine Serial #: PRH

# Transient Report

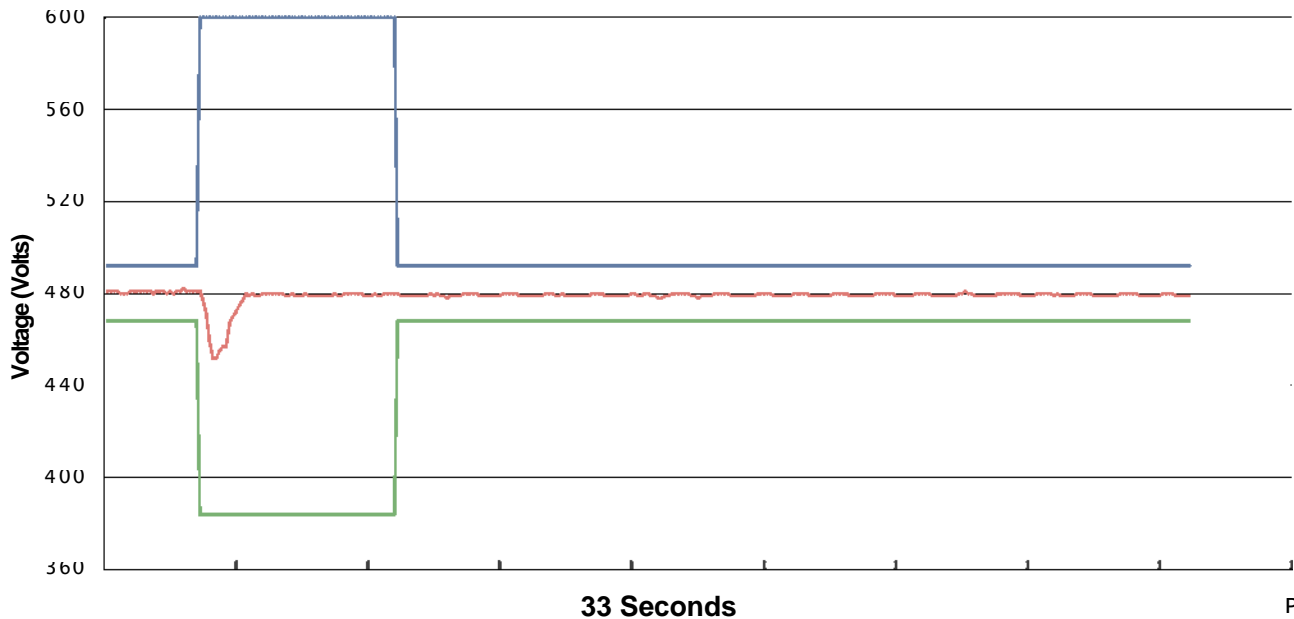
Generator Serial #: GLE      Fuel Type: DI  
Engine Serial #: PRH      Cooling System: JWAC      Sample Time: Dec-2010 4:51  
KW      Test Cell: 2      Load Setting: 648.0  
Engine Arr.: 3431709      Test Run No.: 1      Test State: Trnsnt Step # 2  
Step PASSED

Frequency Recovery: 0.8 Sec      Voltage Recovery: 10 %  
Frequency Minimum: 58.10 Hz      Voltage Minimum: 452.00 volts  
Frequency Maximum: 60.10 Hz      Voltage Maximum: 481.00 volts  
Initial Load Percentage: 34.80 %      Transitional Load Pct.: 64.80 %

## Frequency Response



## Voltage Response





Engine Serial #: PRH

# Transient Report

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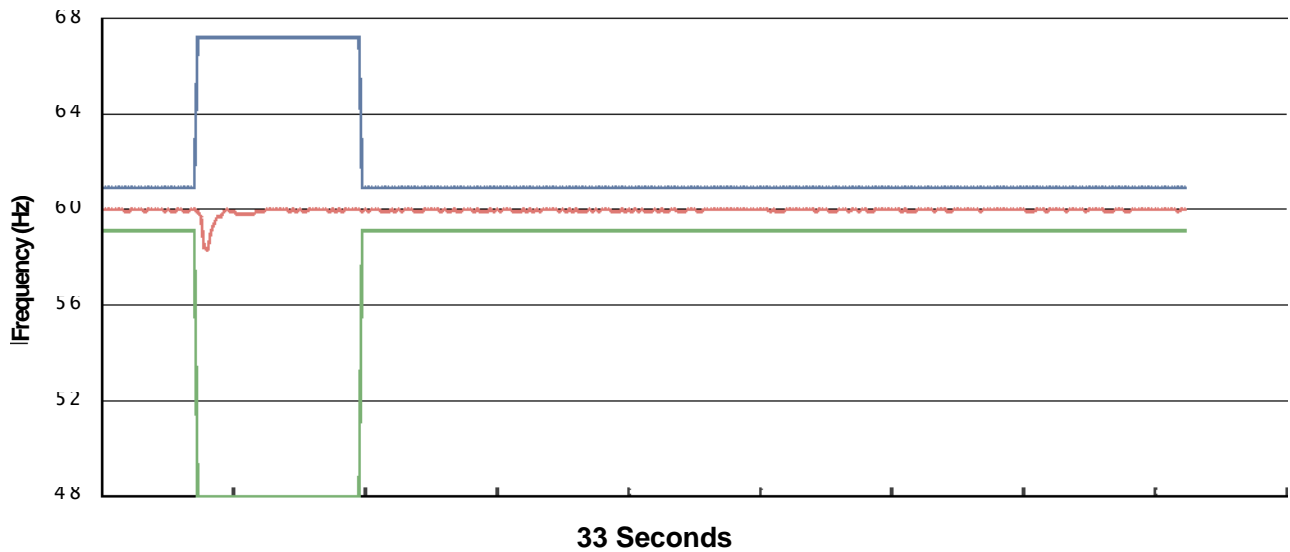
Generator Serial #:	G1E	Fuel Type:	DI	Sample Time:	Dec-2010 4:52
Engine Serial #:	PRH	Cooling System:	JWAC	Load Setting:	864.0 KW
Engine Arr.:	3431709	Test Cell:	2	Test State:	Trnsnt Step # 3
		Test Run No.:	1	Step:	PASSED

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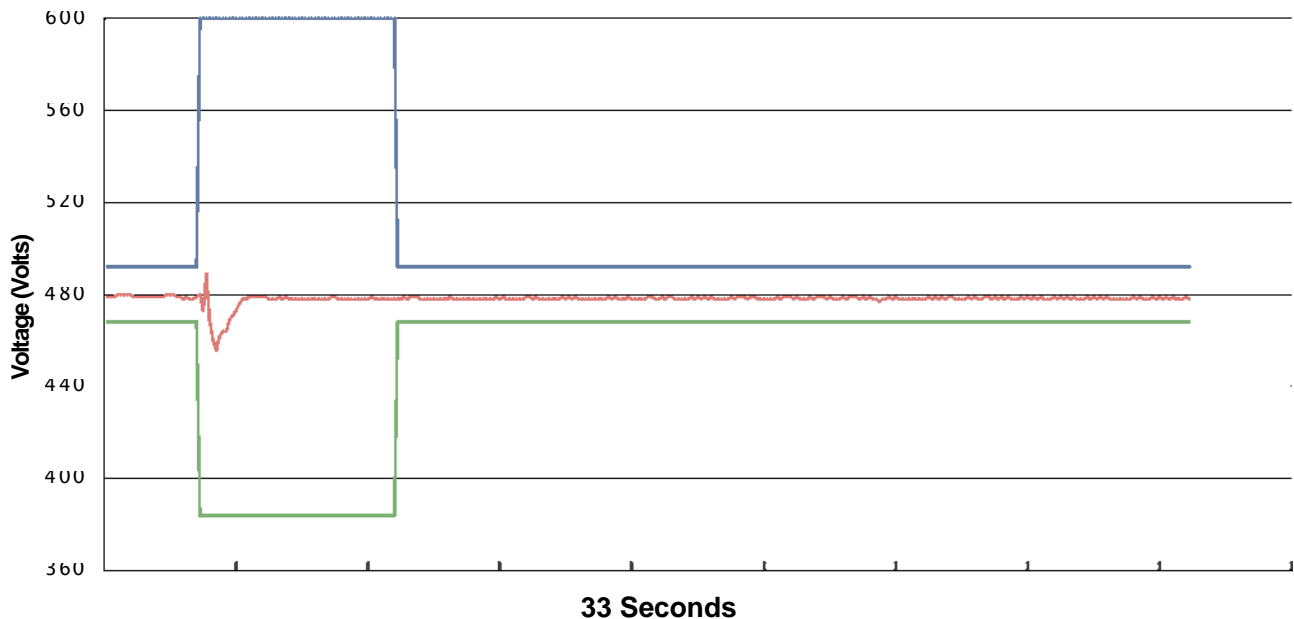
Frequency Recovery:	0.5 Sec	Voltage Recovery:	0.9 Sec
Frequency Minimum:	58.30 Hz	Voltage Minimum:	456.00 volts
Frequency Maximum:	60.00 Hz	Voltage Maximum:	489.00 volts
Initial Load Percentage:	64.80 %	Transitional Load Pct.:	86.40 %

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## Frequency Response



## Voltage Response





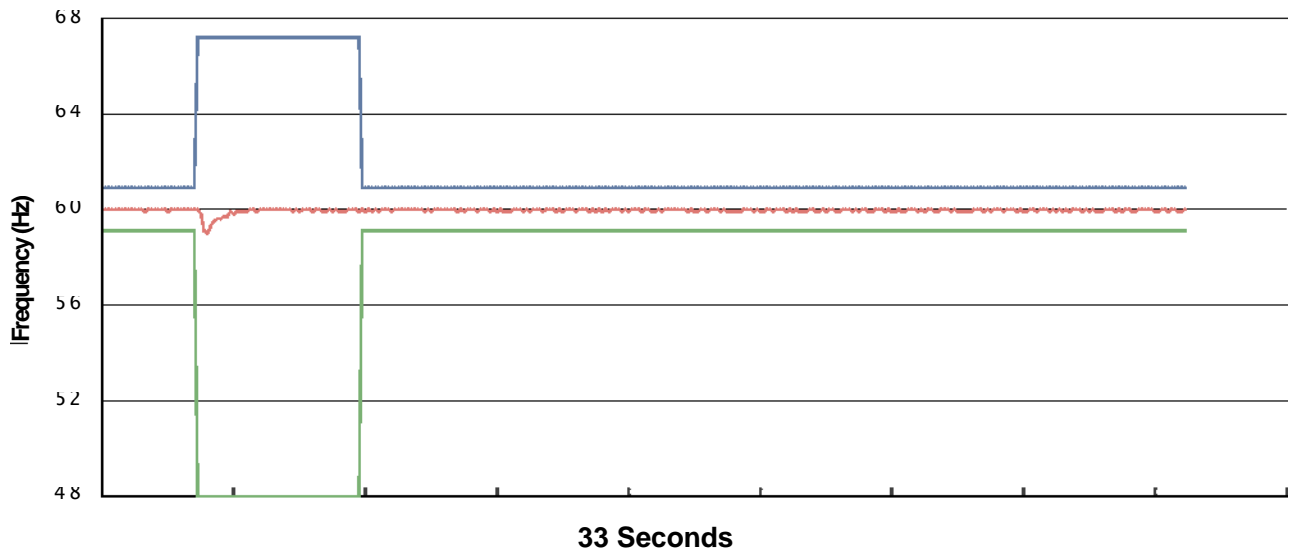
Engine Serial #: PRH

# Transient Report

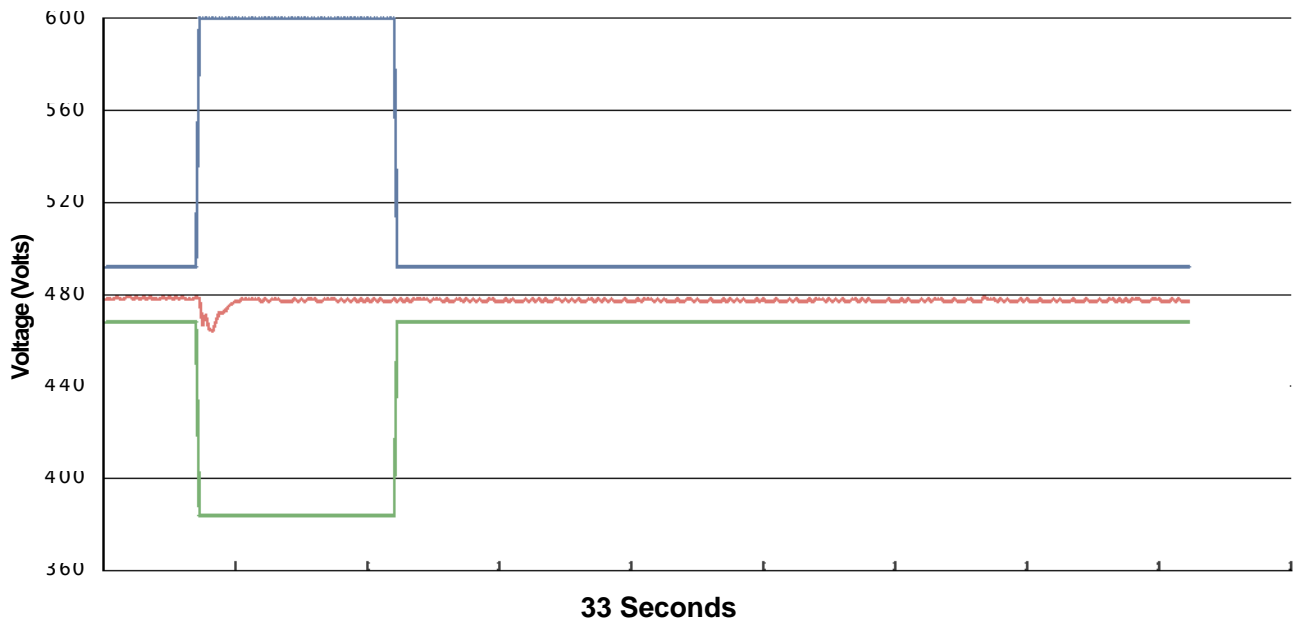
Generator Serial #:	G1E	Fuel Type:	DI	Sample Time:	Dec-2010 4:52
Engine Serial #:	PRH	Cooling System:	JWAC	Load Setting:	1000.0 KW
Engine Arr.:	3431709	Test Cell:	2	Test State:	Trnsnt Step # 4
		Test Run No.:	1	Step	PASSED

Frequency Recovery:	0.4 Sec	Voltage Recovery:	0.5 Sec
Frequency Minimum:	59.00 HZ	Voltage Minimum:	464.00 volts
Frequency Maximum:	60.00 HZ	Voltage Maximum:	479.00 volts
Initial Load Percentage:	86.40 %	Transitional Load Pct.:	100.00 %

## Frequency Response



## Voltage Response





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# Transient Report

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Generator Serial #:	GIE	Fuel Type:	DI	Sample Time:	Dec-2010 4:53
Engine Serial #:	PRH	Cooling System:	JWAC	Load Setting:	0.0 KW
Engine Arr.:	3431709	Test Cell:	2	Test State:	Trnsnt Step # 5
	Step	Test Run No.:	1		

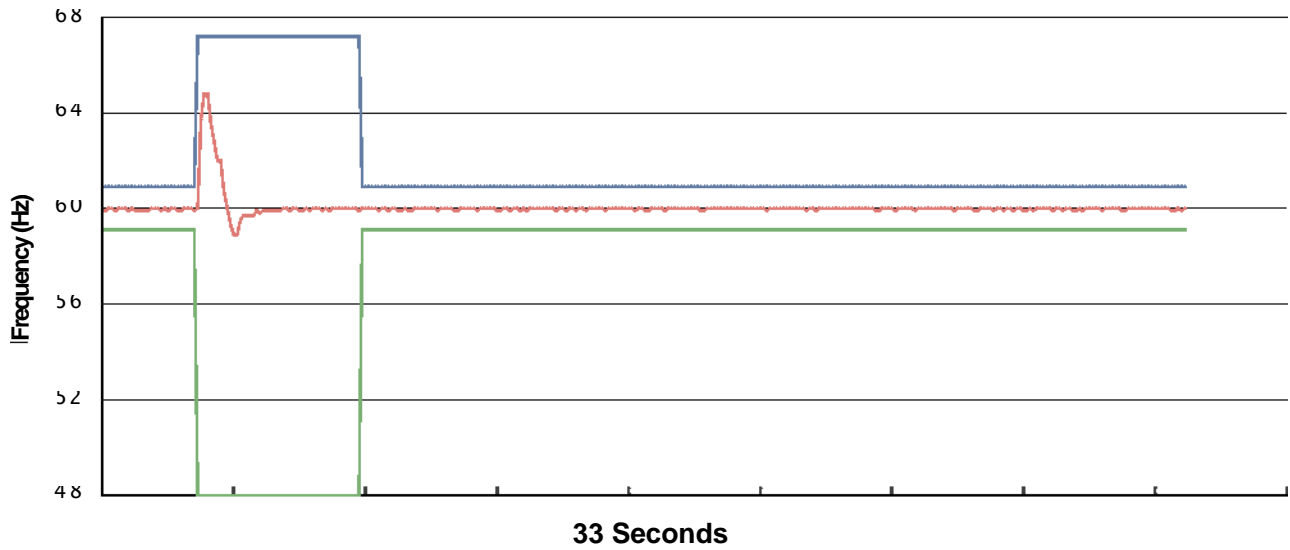
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PASSED

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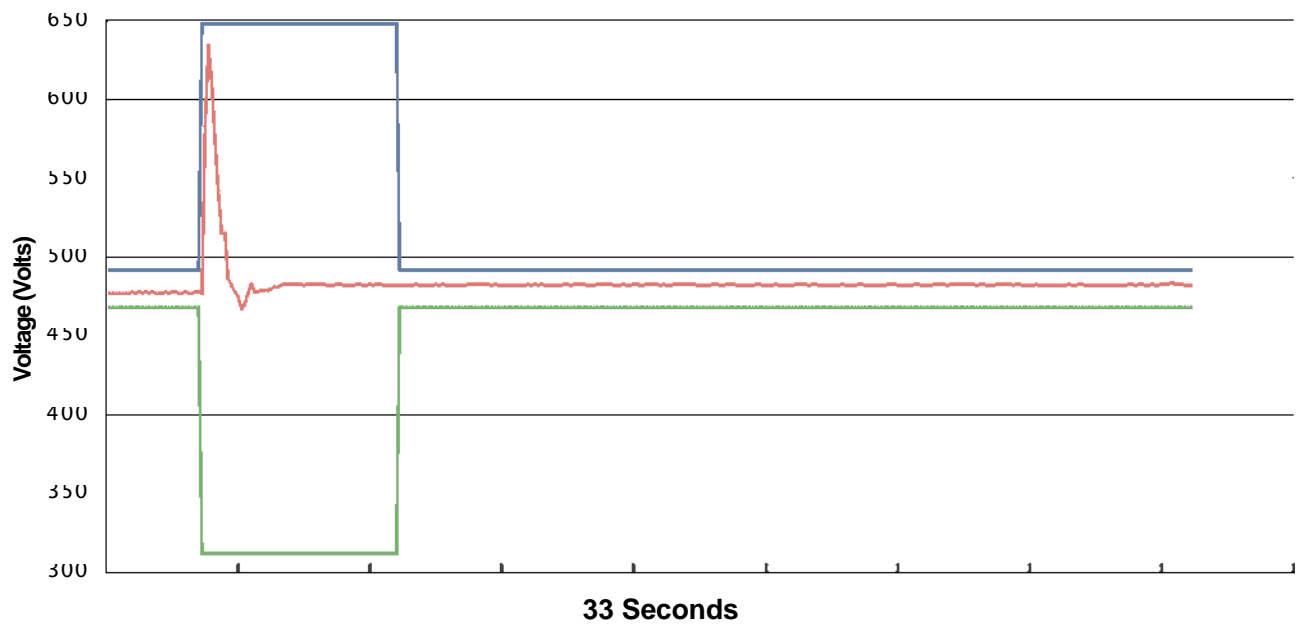
Frequency Recovery:				Voltage Recovery:	1.3 Sec
Frequency Minimum:	1.3	Sec		Voltage Minimum:	467.00 volts
Frequency Maximum:	58.90	Hz		Voltage Maximum:	634.00 volts
Initial Load Percentage:	64.80	Hz		Voltage Maximum:	634.00 volts
	100.00	%		Transitional Load Pct.:	0.00 %

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## Frequency Response

## Voltage Response





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