

Report Details

Products tested	VCCM600X-ABCD
Products Description	600W conduction cooled power supply.
Design Phase	5 – Production
Product Serials	
Test Goals	Test according to IPC9592B standard.
Stress Goals	LOL & LDL < LSL-20C, UOL & UDL > USL+20C VOL & VDL > 30G _{RMS} LOIVL < V _{IN(MIN)} *0.9, UOIVL & IVDL > V _{IN(MAX)} *1.1 UOOCL & OCDL > I _{RATED} *1.1
Test dates	1 ST to 10 TH December 2020
Report date	15 TH December 2020

Authorisation

Jorge Almendros

Test performed by (Print)

Date

Jorge Almendros

Test report written by (Print)

Date

Brian McDonald

Test report Authorised by (Signed)

Date

Brian McDonald

Test report reviewed by (Signed)

Date

1. Objective

Highly Accelerated Life Testing (HALT) is a requirement of IPC-9592B and is performed throughout the development cycle. HALT consists of applying environmental and electrical stresses beyond specification limits to identify weaknesses that may point to insufficient margin in the design.

To ruggedise the product, the root cause of each failure needs to be determined and the problems corrected until the fundamental limit of the technology used in the product design can be reached. This process will yield the widest possible margin between product capabilities and the environment in which it operates, thus increasing the product's reliability, reducing the number of field returns and realizing long-term savings.

Limits referenced in HALT are listed below:

Abbreviation	Description
LSL/USL	Lower/Upper specification limits. (Defined in the product datasheet)
LOL/UOL	Lower/Upper operational limits. (Product may fail to meet specification but recovers once returned within LSL/USL limits.
LDL/UDL	Lower/Upper destruct limits. (Product fails and does not recover)
VOL/VDL	Vibration Operational Limit/Vibration Destruct Limit.
LOIVL/UOIVL IVDL	Lower/Upper Operational Input Voltage Limits. Input Voltage Destruct Limit.
UOOCLOCDL	Upper Operational Output Current Limit/Output Current Destruct Limit

2. Executive summary

The table below gives a quick reference to the results obtained and any relevant test notes. A more 'in depth' description of the test process and results is given in section 5.

Several test variants were performed to cover the worst-case stress points while adhering to specified mains deratings. The test setup attempts to maintain the product temperature as close as possible to the ambient chamber temperature but there can still be significant differences. It is important to note that temperature test limit results are recorded as the ambient temperature rather than the product temperature.

2.1 Summary of product operating and destructive limits

Test Name	Test Variants	Results	Specification/Requirement	Operating Margin	Notes
Low Temperature Limit (IPC9592B-D.1.1.1)	$V_{AC} = 85V$	LOL = $<-45^{\circ}C$ LDL = $<-45^{\circ}C$	LSL = $-40^{\circ}C$	$>5^{\circ}C$	Unit does not start up under $-45^{\circ}C$
	$V_{AC} = 120V, 220V$	LOL = $<-60^{\circ}C$ LDL = $<-60^{\circ}C$	LSL = $-40^{\circ}C$	$>20^{\circ}C$	Test stopped at $-60^{\circ}C$. No Failures.
High Temperature Limit (IPC9592B-D.1.1.2)	$V_{AC} = 85V, 120V, 220V$	UOL = $95^{\circ}C$ UDL = $>100^{\circ}C$	USL = $50^{\circ}C$	$45^{\circ}C$	Test stopped at $100^{\circ}C$. No Failures. OP_OTP & XFMR_OTP disabled IP_OTP enabled.
Thermal Cycle (IPC9592B-D.1.1.3)	$V_{AC} = 85V$	$-35^{\circ}C$ to $+80^{\circ}C$ 30 cycles	NA	NA	No Failures.
	$V_{AC} = 120V$	$-50^{\circ}C$ to $+85^{\circ}C$ 30 cycles	NA	NA	No Failures.
Random Vibration (IPC9592B-D.1.1.4)	$V_{AC} = 120V$	$VOL = >40G_{RMS}$ $VDL = >40G_{RMS}$	30 G_{RMS}	10 G_{RMS}	No Failures.
Input Voltage Limit (IPC9592B-D.1.1.5)	$V_{AC_NOM} = 85V$	LOI _{VL} $-40^{\circ}C = 78V_{AC}$ LOI _{VL} $95^{\circ}C = 62V_{AC}$ UOI _{VL} = $>300V_{AC}$ IVDL = $>300V_{AC}$	$V_{AC_MIN} * 0.9$ $V_{AC_MAX} * 1.1$	$V_{AC_MIN} * 0.08$ $V_{AC_MAX} * 0.03$	85V Test stopped at 51V. Unit failed at 70V/90°C. IP_OCP enabled.
	$V_{AC_NOM} = 120V$	LOI _{VL} = $99V_{AC}$ UOI _{VL} = $>300V_{AC}$ IVDL = $>300V_{AC}$	$V_{AC_MIN} * 0.9$ $V_{AC_MAX} * 1.1$	$V_{AC_MIN} * 0.09$ $V_{AC_MAX} * 0.03$	120V Test stopped at 60V. No Failures. IP_OCP enabled.
Output Load Limit (IPC9592B-D.1.1.6)	$P_{OUT_NOM} = 665W$	UOOCL = $I_{RATED} * 1.15$ OCDL = $I_{RATED} * 1.3$	$I_{RATED} * 1.1$	$I_{RATED} * 0.05$	$V_{AC_LOW} = 120V$ Test stopped at $I_{RATED} * 1.3$. No Failures. IP_OCP enabled. OP_OCP enabled.
Combined Stress (IPC9592B-D.1.1.7)	$V_{AC} = 120V$	$-50^{\circ}C$ to $+85^{\circ}C$ $109V_{AC}$ to $270V_{AC}$ $I_{RATED} * 1.035$ 5 cycles	NA	NA	OP_OTP & XFMR_OTP disabled. IP_OCP enabled. OP_OCP enabled.

Notes:

1. All temperature values are chamber setpoints unless stated otherwise. See appendix F for product levels.
2. All Vibration values are product mounting plate measurements unless stated otherwise. See appendix F for chamber setpoints.
3. The operating limit is defined as the applied stress below which the product is fully functional.
4. The destruct limit is defined as the applied stress below which the product returns to full operation when the applied stress is decreased to within the operating limit.
5. When the limit is preceded by a ">" or "<" sign it indicates that the test was stopped prior to a failure, either because of a limitation of the chamber, the test setup, or per customer request.
6. The limits shown are the worst-case limits. In other words, the limits for the product that had the lowest limits of all units tested under that stress. These limits reflect the product limits before any modifications.

2.2 Conclusions

The testing carried out has shown that the product meets or exceeds the required margins for all parameters.

3. HALT process description

The test procedure followed is outlined in the IPC9592B standard. Any deviations from this procedure are noted in the relevant report sections.

3.1 Low Temperature Limit Test (IPC9592B-D.1.1.1)

The low temperature limits test involves operating the device under test at 25 °C ambient with no vibration. The device is turned off and the temperature is decreased in defined steps. A functional test is performed after each temperature decrement and dwell and the test continues until the device under test fails or the chamber minimum temperature is reached.

Main's deratings

The test is performed at the minimum input voltage allowed for full power output (e.g., No power derating, 120Vac) and at the minimum input voltage allowed with derating (e.g., Power derated, 85V_{AC}).

Note: Different Lower Operating Limit temperatures may be identified, and the relevant LOL should be used for subsequent tests.

DUT preparation

Any negative temperature protection circuitry shall be disabled during this testing, where possible.

3.2 High Temperature Performance & Limit Test (IPC9592B-D.1.1.2)

The high temperature limits test consists of operating the device under test at 25 °C ambient with no vibration. The device is turned off and the temperature is increased in defined steps. A functional test is performed after each temperature increment and dwell and the test continues until the device under test fails or the chamber maximum temperature is reached.

Main's deratings

The test is performed at the minimum input voltage allowed for full power output (e.g., Full Power, 120V_{AC}) and at the minimum input voltage allowed with derating (e.g., Power derated, 85V_{AC}).

Note: Different Upper Operating Limit temperatures may be identified, and the relevant LOL should be used for subsequent tests.

OTP operation

The test is performed (minimum rated input voltage for maximum output power) with OTP disabled to determine the product stress limits and failure modes (Limit's test. See Appendix F2).

DUT preparation

Any positive temperature protection circuitry shall be disabled during the limits test, where possible.

3.3 Rapid Thermal Cycle Test (IPC9592B-D.1.1.3)

The rapid thermal cycle test consists of operating the device with no vibration between the Thermal LOL+10°C and Thermal UOL-10°C at the maximum possible thermal transition.

A functional test is required following each dwell time of this procedure.

Main's deratings

The test will be performed at the minimum input voltage allowed for full power output (e.g., Full Power, 120V_{AC}) and the relevant LOL from the lower temperature limit test.

DUT preparation

Any negative or positive temperature protection circuitry shall be disabled during the test, where possible.

3.4 Random Vibration Limits Test (IPC9592B-D.1.1.4)

The random vibration limit test consists of operating the device under test at 25°C ambient and no vibration. The vibration is then increased in steps and held for a specific dwell time until the device under test fails or the chamber maximum vibration is reached.

A functional test is required following each increment and dwell time of this procedure.

DUT preparation

Protection circuitry shall **not** be disabled during the test.

3.5 Input Voltage Test (IPC9592B-D.1.1.5)

The objective of the Input Voltage Test is to stress the input section of the DUT to determine the operating and destruct limits of the product. The test consists of decreasing and increasing the input mains voltage to find the minimum and maximum operating and destructive limits.

No functional test is required during the steps of this procedure.

Main's deratings

The test is performed at the minimum mains input voltage allowed for full power output (e.g., Full Power, 120V_{AC}) and at the minimum mains input voltage allowed with derating (e.g., Power derated, 85V_{AC}).

Note: Different Lower Operating Limit temperatures may have been identified in the Low temperature limit test and the relevant LOL should be used for each test.

DUT preparation

Any negative or positive temperature protection circuitry shall be disabled during the test, where possible.

Any under voltage protection (UVP) circuitry shall be disabled during the test, where possible.

Any over-power protection (OPP) circuitry shall be disabled during the test, where possible.

3.6 Output Load Test (IPC9592B-D.1.1.6)

The objective of the Output Load Test is to stress the output section of the DUT to determine the operating and destruct limits of the product. The test will continue until failure, or test equipment limitation, to identify the component(s) or circuits that may be damaged due to excessive current. The test consists of increasing the load current in steps from the maximum specified operating current until the unit's output drops out of regulation, the unit fails catastrophically, or test equipment limitation is reached.

No functional test is required during the steps of this procedure.

DUT preparation

Any negative or positive temperature protection circuitry shall be disabled during the test, if possible.

Any over current protection circuit shall be disabled during this test, if possible.

3.7 Combined Stress Test (IPC9592B-D.1.1.7)

The Combined Stress Test operates the device under test while combining the environmental effects of random vibration and rapid thermal cycling along with Input Voltage and Output Load transients.

No functional test is required during the steps of this procedure.

DUT preparation

Any negative or positive temperature protection circuitry shall be disabled during the test, if possible.

Any over current protection circuit shall be disabled during this test, if possible.

4. HALT setup

4.1 Description of Test Equipment

The test equipment listed in table 2 below was used to carry out the HALT test.

Table 2 – Equipment description			
Description	Manufacturer	Model	S/N
Thermal & Vibration test chamber	Qualmark	OVS 1.5	1512990366 (VOX0017)
Thermal test Chamber	Votsch	VT7010	521/83674 (VOX0015)
AC Source	Chroma	61505	000685 (VOX0097)
Electronic Load	Chroma	6314A+63103Ax4	0003599 (VOX0098)
Oscilloscope	Keysight	DSO2014A	MY53160421 (VOX0095)
Datalogger	Agilent	34970A	MY41025109 (VOX0070)
Power Meter	Chroma	66202	662021001062 (VOX0101)
Vibration Meter (True RMS)	Dytran	4151HL	325 (VOX0110)
Accelerometer (IEPE)	Dytran	3030B5	15101 (VOX0111)

4.2 Data collection

Various environmental, electrical and product performance data is collected and logged at regular intervals throughout the process. Thermocouples are attached to various points on the devices under test using Kapton tape or adhesive. The data to be collected is listed in the table below and the test results are detailed in appendix F.

Table 3 – Data to be collected	
Type	Description
Time	Time stamp
Step	Step number of test sequence
Chamber Temp. (°C)	Chamber air temperature (Read from Chamber)
Chamber Vibration (G_{RMS})	Table accelerometer
Chamber Temp. DL (°C)	Chamber air temperature (Read from Datalogger - thermocouple)
Product Temp. DL (°C)	Product temperature – (Read from Datalogger - thermocouple)
Product Vibration (G_{RMS})	Product vibration (Read from Scope – accelerometer at product mount)
Output Voltage 1 (V_{DC})	Product output voltage slot 1
Output Voltage 2 (V_{DC})	Product output voltage slot 2
Output Voltage 3 (V_{DC})	Product output voltage slot 3
Output Voltage 4 (V_{DC})	Product output voltage slot 4
Output Current 1 (A)	Product output current in slot 1
Output Current 2 (A)	Product output current in slot 2
Output Current 3 (A)	Product output current in slot 3
Output Current 4 (A)	Product output current in slot 4
Input Voltage (V_{RMS})	Product input voltage
Input Power (W)	Product input power
Power Factor	Product input power-factor
Output Power (W)	Product output power
Efficiency	Product efficiency

4.3 Functional Test

The device under test was connected to external equipment and was functionally tested as described in the Functional Test Profile (Appendix C) when called by the HALT Test Profile (Appendix D. Line 48).

4.4 DUT Configuration and Ratings

4.4.1 DUT Ratings

1.4.1.1 Input and output electrical ratings

The product electrical ratings of the datasheet are shown below. Functional test limits are based on the limits given, however at extreme temperatures these limits may not be met. This does not necessarily constitute a failure and each result must be judged individually.

INPUT MODULE SPECIFICATIONS					
Parameter	Details	Min	Typical	Max	Units
AC Input Voltage	Nominal range is 100V _{RMS} to 240V _{RMS}	85		264	V _{RMS}
AC Input Frequency	Contact factory for 400Hz operation.	47	50/60	63	Hz
DC Input Voltage	Not covered by safety approvals. Contact Vox Power.	120		370	V _{DC}
Output Power Rating	De-rate linearly from 600Watts at 120V _{RMS} to 425Watts at 85V _{RMS}			600	Watts
Input Current	600Watts output at 120 V _{RMS} input			6	Amps
Input Current Limit			7		Amps
Inrush Current	265V _{RMS} , 25°C (cold start)			20	Amps
Fusing	Each line fused (5x20 Fast acting)			8	Amps
Efficiency	See graphs			90	%
No load Power consumption	All outputs fitted and disabled/enabled		10/21		Watts
Standby Power	Latched off state, 120V _{RMS}		0.5	1	Watts
Power Factor			0.99		
Holdup	600Watts output at 120V _{RMS} input	17	20	21	mS
UVP	Turn on under voltage protection	78		84	V _{RMS}
Over temperature	Internally monitored.	115		125	°C
Reliability ⁽¹⁾	Input module			1.1	FPMH
	Transformer module			0.4	FPMH
Warranty	Standard terms and conditions apply			5	Years
Size	177.8 (L) x 101.6 (W) x 41.0 (H). See diagram for tolerance details				mm
Weight	650 + 100 per output module				Grams
Note 1. 30°C base & ambient, 100% load, SR332 Issue 2 Method I, Case 3, Ground, Fixed, Controlled To ensure reliability, component temperatures must be maintained below recommended levels in the end application. The "System cooling" section of the user manual should be reviewed in detail and temperatures verified in the end application.					

GLOBAL SIGNALS SPECIFICATIONS					
Parameter	Details	Min	Typical	Max	Units
Bias Voltage		4.8	5	5.2	Volts
Bias Current				1	Amps
AC_OK Voltage	Low output level/High output level	0/4.8	0.03/5	0.1/5.2	Volts
AC_OK Current				10	mA
Power Good Voltage	Open collector output. Low output level. All slots. Absolute maximum = 6V.	0.1		0.3	Volts
Power Good Current	Open collector output. Current sink only. All Slots.			50	mA
Tsns Voltage	Typical at 0°C internal temperature, 19.5mV/°C	0	0.4	5	Volts
Tsns Current				100	uA
Inhibit Voltage	Low input level/High input level. All slots.	0/2.5		0.8/6	Volts
Inhibit Current	10k input impedance. All slots.			1	mA

OUTPUT MODULE SPECIFICATION SUMMARY												
MODEL	Output Voltage			Output Current	Rated Power	Peak Power	Load Reg.	Line Reg.	Cross Reg.	Ripple & Noise	FPMH ⁽¹⁾	Feature Set ⁽²⁾
	Min.	Nom.	Max.									
OPA	1.5V	5V	7.5V	25A	125W	187.5W	±50mV	±5mV	±10mV	50mV _{pp}	0.5	ABCDEFG
OPB	4.5V	12V	15V	15A	150W	225W	±100mV	±12mV	±24mV	120mV _{pp}	0.5	ABCDEFG
OPC	9V	24V	30V	7.5A	150W	225W	±150mV	±24mV	±48mV	240mV _{pp}	0.5	ABCDEFG
OPD	18V	48V	58V	3.75A	150W	217.5W	±300mV	±48mV	±96mV	480mV _{pp}	0.5	ABCDEFG
Note 1. Output module, 30°C base, 100% load, SR332 issue 2 Method I, Case 3, Ground, Fixed, Controlled												
Note 2. A = Remote Sense, B = External Voltage control, C = External constant current control, D = Current output signal, E = Current share, F =Over Voltage protection, G = Over temperature protection												

More detailed specifications for each output module model electrical ratings taken from their respective datasheets are shown below.

OUTPUT MODULE A SPECIFICATIONS					
Parameter	Details	Min	Typical	Max	Units
Output Voltage Range	Manual adjustment	1.5	5	7.5	Volts
Output Current Rating				25	Amps
Output Power Rating				125	Watts
Peak Power Rating	Maximum 5 seconds			187.5	Watts
Initial voltage setting accuracy	Factory set units	-0.5		0.5	%
Load Regulation	Measured at sense terminals	-50		50	mV
Line Regulation	Measured at sense terminals	-0.1		0.1	%V _{NOM}
Cross Regulation	Measured at sense terminals	-0.2		0.2	%V _{NOM}
Minimum load		0			Watts
Temperature coefficient		-0.02		+0.02	%/°C
Ripple and Noise	20MHz BW, pk-pk			1	%V _{NOM}
Transient response	25% to 75% load transient at 1A/uS Recovery to within 10% of V _{SET}			1 100	Volts uS
Turn on rise time	Monotonic 10% to 90%	1.5		3.5	mS
Turn on overshoot				0.1	%V _{SET}
Turn on delay	AC to PG EN to PG		2000 15	3000 20	mS mS
Current share accuracy	Error from ideal sharing current. Valid for loads > 20% of rating.	-5		+5	%
Open Sense offset	Voltage offset between sense lines and output terminals when sense lines unused			2	%V _{NOM}
Holdup voltage				6	Volts
Isolation to ground	Each output terminal			500	Volts
Over current protection		105	115	125	%Rated
Reverse current protection		-6		0	%Rated
Short circuit protection	Period/Duty cycle/Voltage Threshold (Measured at sense terminals)		125/3/1		mS/%/V
Over Voltage Protection			9.5		Volts
Over Temperature Protection	Various locations	115		125	°C
Sense Cable Protection	Positive Negative	-1		2 1	Volts Volts
Power Good Threshold	Low threshold only		90		%V _{SET}
Current Output Signal	$V_{CURRENT} = 4 * I_{OUT}/I_{RATED}$	0		125	%Rated
Current Limit Control	$I_{LIMIT} = I_{RATED} * V_{CONTROL}/4$	0		100	%Rated
Remote Voltage Control	$V_{OUT} = V_{SET} * (5 - V_{CONTROL})/3.8$	0		131.5	%V _{SET}
Bias Supply	10mA Max	4.5		5.2	Volts
Reliability	30°C base, 100% load, SR332 Issue 2 Method I, Case 3, Ground, Fixed, Controlled			0.5	FPMH
Warranty				5	Years
Wire Size		12	10		AWG
Size	77 (L) x 18.8 (W) x 36 (H)				mm
Weight	100				Grams

OUTPUT MODULE B SPECIFICATIONS					
Parameter	Details	Min	Typical	Max	Units
Output Voltage Range	Manual adjustment	4.5	12	15	Volts
Output Current Rating				15	Amps
Output Power Rating				150	Watts
Peak Power Rating	Maximum 5 seconds			225	Watts
Initial voltage setting accuracy	Factory set units	-0.5		0.5	%
Load Regulation	Measured at sense terminals	-100		100	mV
Line Regulation	Measured at sense terminals	-0.1		0.1	%V _{NOM}
Cross Regulation	Measured at sense terminals	-0.2		0.2	%V _{NOM}
Minimum load		0			Watts
Temperature coefficient		-0.02		+0.02	%/°C
Ripple and Noise	20MHz BW, pk-pk			1	%V _{NOM}
Transient response	25% to 75% load transient at 0.5A/uS Recovery to within 10% of V _{SET}			1.5 100	Volts uS
Turn on rise time	Monotonic 10% to 90%	1.5		3.5	mS
Turn on overshoot				0.1	%V _{SET}
Turn on delay	AC to PG EN to PG		2000 15	3000 20	mS mS
Current share accuracy	Error from ideal sharing current. Valid for loads > 20% of rating.	-5		+5	%
Open Sense offset	Voltage offset between sense lines and output terminals when sense lines unused			2	%V _{NOM}
Holdup voltage				12.5	Volts
Isolation to ground	Each output terminal			500	Volts
Over current protection		105	115	125	%Rated
Reverse current protection		-6		0	%Rated
Short circuit protection	Period/Duty cycle/Voltage Threshold (Measured at sense terminals)		125/3/2		mS/%/V
Over Voltage Protection			18		Volts
Over Temperature Protection	Various locations	115		125	°C
Sense Cable Protection	Positive Negative	-1		2 1	Volts Volts
Power Good Threshold	Low threshold only		90		%V _{SET}
Current Output Signal	$V_{CURRENT} = 4 * I_{OUT}/I_{RATED}$	0		125	%Rated
Current Limit Control	$I_{LIMIT} = I_{RATED} * V_{CONTROL}/4$	0		100	%Rated
Remote Voltage Control	$V_{OUT} = V_{SET} * (5 - V_{CONTROL})/3.8$	0		131.5	%V _{SET}
Bias Supply	10mA Max	4.5		5.2	Volts
Reliability	30°C base, 100% load, SR332 Issue 2 Method I, Case 3, Ground, Fixed, Controlled			0.5	FPMH
Warranty				5	Years
Wire Size		16	14	10	AWG
Size	77 (L) x 18.8 (W) x 36 (H)				mm
Weight	100				Grams

OUTPUT MODULE C SPECIFICATIONS					
Parameter	Details	Min	Typical	Max	Units
Output Voltage Range	Manual adjustment	9	24	30	Volts
Output Current Rating				7.5	Amps
Output Power Rating				150	Watts
Peak Power Rating	Maximum 5 seconds			225	Watts
Initial voltage setting accuracy	Factory set units	-0.5		0.5	%
Load Regulation	Measured at sense terminals	-150		150	mV
Line Regulation	Measured at sense terminals	-0.1		0.1	%V _{NOM}
Cross Regulation	Measured at sense terminals	-0.2		0.2	%V _{NOM}
Minimum load		0			Watts
Temperature coefficient		-0.02		+0.02	%/°C
Ripple and Noise	20MHz BW, pk-pk			1	%V _{NOM}
Transient response	25% to 75% load transient at 0.25A/uS Recovery to within 10% of V _{SET}			3 100	Volts uS
Turn on rise time	Monotonic 10% to 90%	1.5		3.5	mS
Turn on overshoot				0.1	%V _{SET}
Turn on delay	AC to PG EN to PG		2000 15	3000 20	mS mS
Current share accuracy	Error from ideal sharing current. Valid for loads > 20% of rating.	-5		+5	%
Open Sense offset	Voltage offset between sense lines and output terminals when sense lines unused			2	%V _{NOM}
Holdup voltage				25	Volts
Isolation to ground	Each output terminal			500	Volts
Over current protection		105	115	125	%Rated
Reverse current protection		-6		0	%Rated
Short circuit protection	Period/Duty cycle/Voltage Threshold (Measured at sense terminals)		125/3/3.5		mS/%/V
Over Voltage Protection			36		Volts
Over Temperature Protection	Various locations	115		125	°C
Sense Cable Protection	Positive Negative	-1		2 1	Volts Volts
Power Good Threshold	Low threshold only		90		%V _{SET}
Current Output Signal	$V_{CURRENT} = 4 * I_{OUT}/I_{RATED}$	0		125	%Rated
Current Limit Control	$I_{LIMIT} = I_{RATED} * V_{CONTROL}/4$	0		100	%Rated
Remote Voltage Control	$V_{OUT} = V_{SET} * (5 - V_{CONTROL})/3.8$	0		131.5	%V _{SET}
Bias Supply	10mA Max	4.5		5.2	Volts
Reliability	30°C base, 100% load, SR332 Issue 2 Method I, Case 3, Ground, Fixed, Controlled			0.5	FPMH
Warranty				5	Years
Wire Size		20	18	10	AWG
Size	77 (L) x 18.8 (W) x 36 (H)				mm
Weight	100				Grams

OUTPUT MODULE D SPECIFICATIONS					
Parameter	Details	Min	Typical	Max	Units
Output Voltage Range	Manual adjustment. *See SELV precautions in remote voltage programming section of user manual.	18	48	58	Volts
Output Current Rating				3.75	Amps
Output Power Rating				150	Watts
Peak Power Rating	Maximum 5 seconds			217.5	Watts
Initial voltage setting accuracy	Factory set units	-0.5		0.5	%
Load Regulation	Measured at sense terminals	-300		300	mV
Line Regulation	Measured at sense terminals	-0.1		0.1	%V _{NOM}
Cross Regulation	Measured at sense terminals	-0.2		0.2	%V _{NOM}
Minimum load		0			Watts
Temperature coefficient		-0.02		+0.02	%/°C
Ripple and Noise	20MHz BW, pk-pk			1	%V _{NOM}
Transient response	25% to 75% load transient at 0.25A/uS Recovery to within 10% of V _{SET}			3 100	Volts uS
Turn on rise time	Monotonic 10% to 90%	1.5		3.5	mS
Turn on overshoot				0.1	%V _{SET}
Turn on delay	AC to PG EN to PG		2000 15	3000 20	mS mS
Current share accuracy	Error from ideal sharing current. Valid for loads > 20% of rating.	-5		+5	%
Open Sense offset	Voltage offset between sense lines and output terminals when sense lines unused			2	%V _{NOM}
Holdup voltage				50	Volts
Isolation to ground	Each output terminal			500	Volts
Over current protection		105	115	125	%Rated
Reverse current protection		-6		0	%Rated
Short circuit protection	Period/Duty cycle/Voltage Threshold (Measured at sense terminals)		125/3/3.5		mS/%/V
Over Voltage Protection			66		Volts
Over Temperature Protection	Various locations	115		125	°C
Sense Cable Protection	Positive Negative	-1		2 1	Volts Volts
Power Good Threshold	Low threshold only		90		%V _{SET}
Current Output Signal	$V_{CURRENT} = 4 * I_{OUT}/I_{RATED}$	0		125	%Rated
Current Limit Control	$I_{LIMIT} = I_{RATED} * V_{CONTROL}/4$	0		100	%Rated
Remote Voltage Control	$V_{OUT} = V_{SET} * (5 - V_{CONTROL})/3.8$	0		131.5	%V _{SET}
Bias Supply	10mA Max	4.5		5.2	Volts
Reliability	30°C base, 100% load, SR332 Issue 2 Method I, Case 3, Ground, Fixed, Controlled			0.5	FPMH
Warranty				5	Years
Wire Size		20	18	10	AWG
Size	77 (L) x 18.8 (W) x 36 (H)				mm
Weight	100				Grams

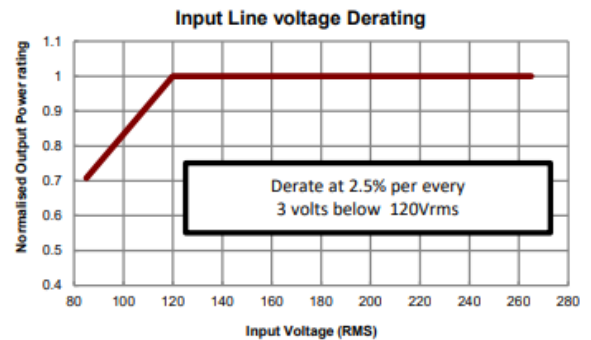
2.4.1.2 Main's voltage deratings

The product has a mains voltage derating as shown below. To cover typical working ranges in the testing some tests will be performed at 85V_{AC} or 120V_{AC} or 220V_{AC} or some combination of these.

3. Input line voltage

Input line voltage de-ratings apply to the rated power and peak power for both the input module and output module. ⁽³⁾

All parameters must be de-rated by 2.5% for every 3 volts below 120Vrms, down to a minimum of 85Vrms.



Where an output power derating applies, it shall be implemented. For example, the Input voltage test may be carried out at a nominal mains voltage of 85V_{AC}. In this case the nominal output power will be set at 425W. The output power will not be adjusted further as the input voltage changes throughout the test.

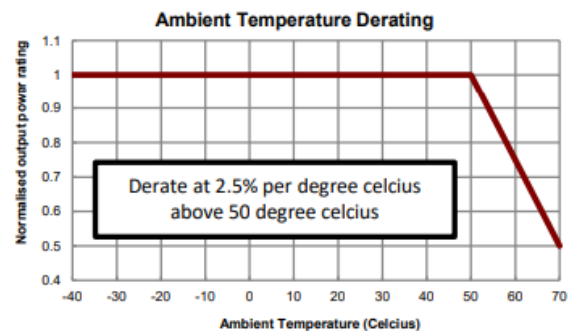
3.4.1.3 Thermal ratings

The VCCM600 PSU is a conduction cooled product that has operational thermal limits on both the ambient environment and the product baseplate as detailed below.

1. Ambient air temperature ⁽¹⁾

Ambient air temperature de-ratings apply to the input module rated and peak power only. ⁽³⁾

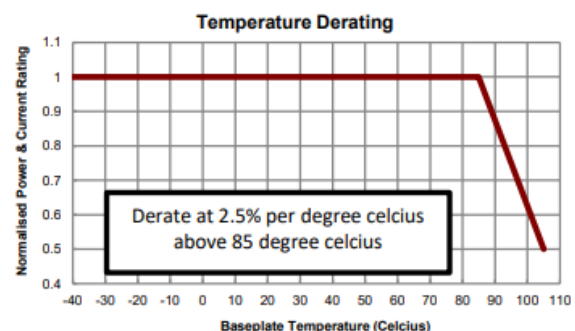
The input module must be de-rated by 2.5% per degree Celsius above 50°C, up to a maximum of 70°C.



2. Baseplate temperature ⁽²⁾

Baseplate temperature de-ratings apply to output module rated power, peak power and rated current, and bias supply power.

The output module parameters must be de-rated by 2.5% per degree Celsius above 85°C, up to a maximum of 105°C.



To carry out the HALT test efficiently, the product will be evaluated for ambient air ratings only. Thermal tests will be setup to minimise the temperature differential between chamber ambient and product.

4.4.2 DUT Configuration

The device under test (DUT) is a VCCM600M-ABCD which has the configuration shown below.

INPUT					
Configuration	Mains_Low	Mains_Mid	Mains_High	PWR_Low	PWR_Mid
VCCM600M-ABCD	85	120	264	425	575

OUTPUTS			
Slot	V_o	I_{RATED}	P_{RATED}
1	5	25	125
2	12	15	150
3	24	7.5	150
4	48	3.75	150

4.4.3 DUT Protections

The DUT has several protection mechanisms to prevent failure of the device under abnormal operating conditions. For certain HALT tests it is required to disable these protections. Details of how the protections were disabled are given below.

Over Temperature Protection (OTP)

The VCCM600 power supply has multiple OTP's i.e., PTC thermistors implemented in the Input primary power board (PCB52B.RT1), transformer assembly (PCB51A.RT1) and output modules A, B, C, D (PCB50.RT1 & RT2).

All the protections mentioned above were disabled by replacing the PTC thermistors with 0R resistors. Except for the transformer assembly which was disabled by shorting the base and emitter of PCB51A.Q5.

The following tests were performed with the OTP disabled,

- High Temperature Limit Test
- Rapid Thermal Cycle Test
- Random Vibration Limit Test
- Input Voltage Test
- Output Load Test

Over Current Protection (OCP)

All outputs have over current protection set at approximately 115% of the rated current which is not possible to disable.

The input module has an overcurrent protection on the PFC stage which is not possible to disable.

Over-Power Protection (OPP)

The input module has an over-power protection which was disabled by replacing the capacitor PCB52A.C11 with a 0R resistor for the following test,

- Output Load Test

Under Voltage Protection (UVP)

The input module has an under-voltage protection which turns the unit off when the input voltage goes below 55V_{RMS}. UVP was not disabled for any of the tests performed.

4.5 Fixturing and Airflow

The products are tested one unit at a time. For vibration testing each product under test was secured to the vibration table using a custom mounting fixture. The vibration mounting fixture was designed to maximize transmission of kinetic energy from the vibration table to the product. The vibration measurement is made on the mounting fixture close to the product and a closed loop system is used to maintain the correct vibration level at that measurement point. For thermal tests, the product temperature should be maintained as closely as possible to the ambient temperature. To achieve this, the unit is mounted on a heatsink which has a fan attached and the chamber airflow is directed onto the product. Pictures illustrating the fixturing and arrangement of test units in the test chamber are presented in appendix A.

5. Detailed HALT results

When interpreting the test results, it is important to note that the thermal operational and destruct limit results are based on the temperature of the given process step where the product ceased operating or was destroyed. The actual product ambient temperature and product temperature may differ from the process step temperature.

5.1 Low Temperature Limits Test (IPC9592B-D.1.1.1)

Three tests were performed as detailed below.

Test #	P _{OUT} (W)	V _{IN_NOM} (V _{RMS})	T _{MIN} (°C)	T _{MAX} (°C)
1	575	220	-60	25
2	575	120	-60	25
3	425	85	-45	25

The DUT was subjected to cold thermal stress beginning at +25°C, with the temperature decreasing (as per the stress profile in appendix B) as far as -60°C.

For the V_{AC} = 85V test, the output load was reduced to 425W split evenly across the 4 output modules in accordance with the mains deratings specified in the product datasheet.

For V_{AC} = 120V and V_{AC} = 220V tests, the DUT operated correctly and passed all functional tests down to a chamber temperature of -60°C.

For V_{AC} = 85V test, the DUT operated correctly and passed all functional tests down to a chamber temperature of -45°C. The unit did not start up for all the remaining steps below -45°C down to -60°C.

For all three tests, testing stopped at a chamber temperature of -60°C. The DUT remained operational when returned to 25°C and no LDL was observed.

The Lower Operating Limit of the product for V_{AC} = 120V and V_{AC} = 220V was -60°C.

The Lower Operating Limit of the product for V_{AC} = 85V was -45°C.

The Lower Destruct Limit of the product was less than -60°C.

5.2 High Temperature Limits Test (IPC9592B-D.1.1.2)

Three tests were performed as detailed below.

Test #	P _{OUT} (W)	V _{IN_NOM} (V _{RMS})	T _{MIN} (°C)	T _{MAX} (°C)
1	575	220	25	100
2	575	120	25	100
3	425	85	25	100

The DUT was subjected to hot thermal stress beginning at +25°C, with the temperature increasing (as per the stress profile in appendix B) as far as 100°C.

For the V_{AC} = 85V test, the output load was reduced to 425W split evenly across the 4 output modules in accordance with the mains deratings specified in the product datasheet.

For V_{AC} = 85V and V_{AC} = 220V tests, the DUT operated correctly and passed all functional tests up to a chamber temperature of 95°C. The unit did not start up in functional test at 100°C.

For V_{AC} = 120V test, the DUT operated correctly and passed all functional tests up to a chamber temperature of 95°C. An abnormal over voltage was observed in OPD at 100°C.

Testing stopped at a chamber temperature of 100°C. The DUT remained operational for all three input voltages when returned to 25°C and no UDL was observed.

The Upper Operating Limit of the product for V_{AC} = 85V and V_{AC} = 220V was 100°C.

The Upper Operating Limit of the product for V_{AC} = 120V was 95°C.

The Upper Destruct Limit of the product was greater than >100°C.

5.3 Rapid Thermal Cycle Test (IPC9592B-D.1.1.3)

Two rapid thermal cycle tests were performed.

Test #	P _{OUT} (W)	V _{IN_NOM} (V _{RMS})	T _{MIN} (°C)	T _{MAX} (°C)
1	575	120	-50	85
2	425	85	-35	80

One of them at 575W with a minimum nominal operating voltage of 120Vac.

The DUT was subjected to cold and hot thermal stresses as per the stress profile in appendix B.

The other one at 425W with a minimum nominal operating voltage of 85Vac.

The DUT was subjected to cold and hot thermal stresses as per the stress profile in appendix B.

The DUT operated correctly and passed all functional tests over 30 cycles in both tests. The unit was disassembled and inspected after the tests. No issues were observed.

5.4 Random Vibration Limits Test (IPC9592B-D.1.1.4)

The random vibration test was performed at 575W with a minimum nominal operating voltage of 120Vac and at an ambient temperature of 25°C.

The DUT was subjected to vibration stresses as per the stress profile in appendix B.

The DUT operated correctly and passed all functional tests up to a vibration level of 40G_{RMS} at which point the test was terminated. The unit was disassembled and inspected after the test. No issues were observed.

The Vibration Operating Limit of the product was >40G_{RMS}.

The Vibration Destruct Limit of the product was >40G_{RMS}.

5.5 Input Voltage Limit Test (IPC9592B-D.1.1.5)

Two tests were performed as detailed below.

Test #	P _{OUT} (W)	V _{MIN_NOM} (V _{RMS})	V _{MAX_NOM} (V _{RMS})	T _{MIN} (°C)	T _{MAX} (°C)	V _{TEST_MIN} (V _{RMS})	V _{TEST_MAX} (V _{RMS})
1	575	120	264	-55	90	60	300
2	425	85	264	-40	95	51	300

The DUT was subjected to input voltage stresses as per the stress profiles in appendix B.

For the V_{AC} = 85V test, the output load was reduced to 425W split evenly across the 4 output modules in accordance with the mains deratings specified in the product datasheet.

Test # 1 results

The DUT operated correctly down to 99V_{AC}. From 98V_{AC} to 60V_{AC}, the unit entered hiccup mode due to input OCP. No failures occurred.

The DUT operated correctly up to 300V_{AC} at which point the test was stopped. No failures occurred.

Above 270V_{AC} the power factor was reduced due to peak input voltage greater than internal 380V bus voltage.

Test # 2 results

The unit had two different Lower Operating Input Voltage Limit for the two temperatures tested.

For -40°C, the DUT operated correctly down to 78V_{AC}. From 77V_{AC} to 51V_{AC}, the unit failed to start after mains cycle. No failures occurred.

For 95°C, the DUT operated correctly down to 62V_{AC}. From 61V_{AC} to 51V_{AC}, the unit entered hiccup mode due to input OCP. No failures occurred.

For both temperatures, the DUT operated correctly up to 300V_{AC} at which point the test was stopped. No failures occurred. It was observed that above 270V_{AC} the power factor was reduced due to peak input voltage greater than internal 380V bus voltage.

The Lower Operating Input Voltage Limit of the product was 99V_{AC} @120V_{ACNOM} & 78V_{AC} @85V_{ACNOM}

The Upper Operating Input Voltage Limit of the product was >300V_{AC}.

The Input Voltage Destruct Limit of the product was >300V_{AC}.

5.6 Output Load Limit Test (IPC9592B-D.1.1.6)

The output load limit test was performed at peak output power 665W, setting all the output modules to their respective maximum rated current and using the results from the input voltage limit test #1. The final test parameters are detailed below.

Test #	P _{OUT_NOM} (W)	T _{MIN} (°C)	T _{MAX} (°C)	V _{TEST_MIN} (V _{RMS})	V _{TEST_MAX} (V _{RMS})
1	665	-55	90	105 (99V*1.06)	285 (300V*0.95)
2	665	-55	90	120	285 (300V*0.95)

The DUT was subjected to output load stresses as per the stress profile in appendix B.

Test # 1 results

The unit operated correctly up to 105% of the rated current.

At 110% of the rated current and low input voltage the unit got damaged due to an overstress of the input stage.

The test was stopped at 130% of rated load. The unit did not turn on after the failure observed as the PFC power MOSFET was damaged (See section 6 for more information of the failure).

This failure was caused by an overstress in the input stage rather than the output stage, so the input voltage was increased to 120V_{AC} for test 2 to achieve a higher stress on the output section.

Test # 2 results

The unit operated correctly up to 110% of the rated current.

At 110% of the rated current the output voltages for all the output modules dropped to approximately between 97% to 99% of nominal.

The test was stopped at 130% of rated load. No failures occurred.

The Upper Operating Limit of the product was 110% of I_{RATED}.

The Upper Destruct Limit of the product was greater than >130% of I_{RATED}.

5.7 Combined Stress Test (IPC9592B-D.1.1.7)

The DUT was subjected to combined stresses as per the stress profile in appendix B. Summary parameters are shown below.

T _{MIN} (°C)	T _{MAX} (°C)	G _{VIB_MAX} (G _{RMS})	V _{IN_MIN} (V _{RMS})	V _{IN_MAX} (V _{RMS})	I _{OUT_MAX} (%I _{RATED})
-50	85	36	109	270	103.5

The DUT operated correctly and passed all functional tests over 5 cycles. The unit was disassembled and inspected after the tests. No issues were observed.

6. HALT Failures

Each failure found during the HALT process needs to be examined and the root cause of the failure determined. Once the root cause of each failure is determined, engineering judgment is used to determine whether corrective action should be taken to fix the problem. The product should then undergo a verification HALT to ensure that the design margins have been increased to the fundamental limit of the technology and that the fixes made did not induce new failure modes. The ruggedisation of the product will not be increased unless each of the failures found during the HALT process are investigated to root cause and corrective action implemented.

6.1 Output Load Limit Test

A failure was observed in Test 1 which caused a short on the PFC transistor MOSFET (PCB52B.Q1) and the live input fuse to open as a consequence (PCB52A.FS1).

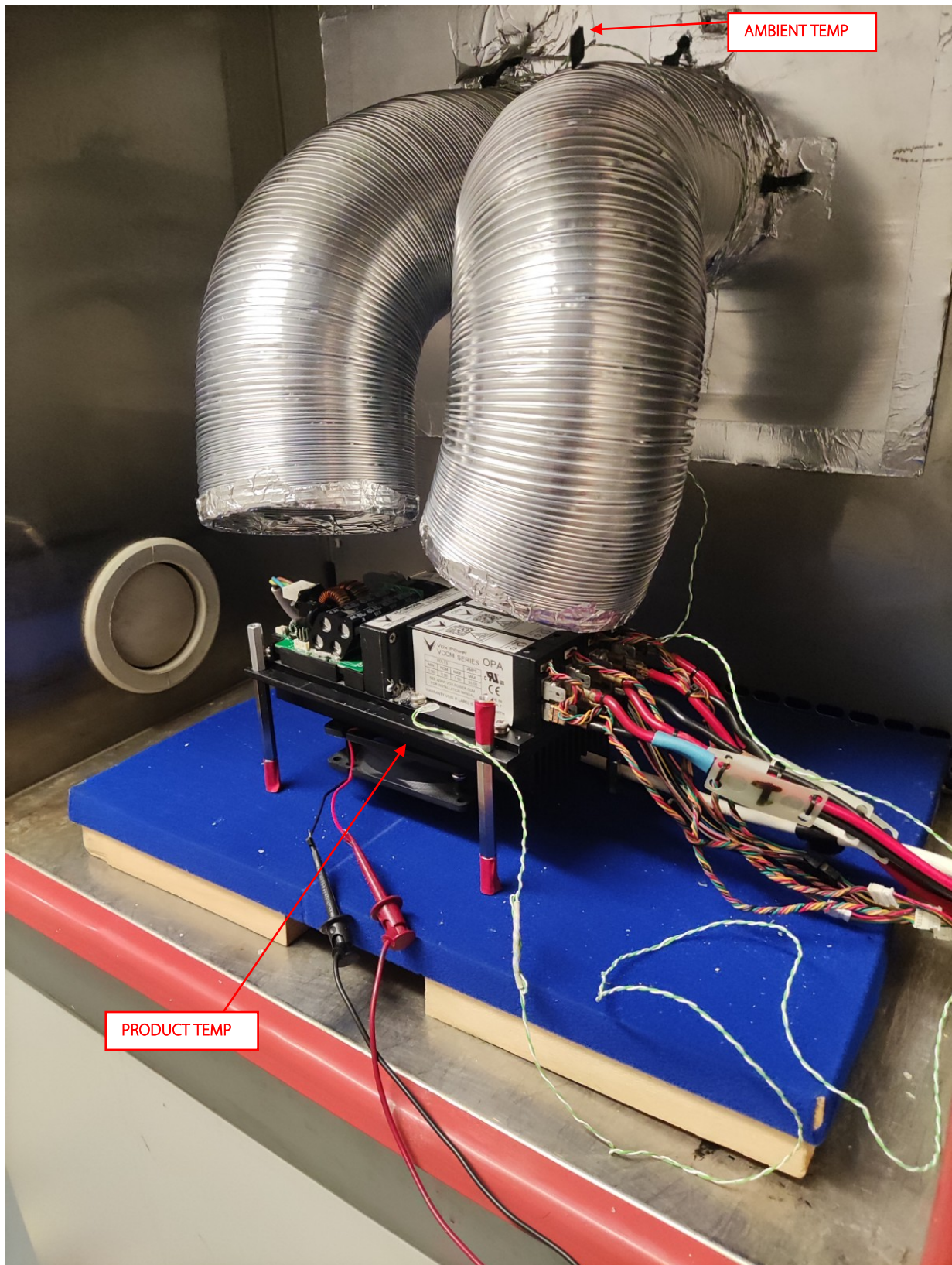
The root cause of the failure was an overstress in the input stage because of a high output overload (720W approximately) at very low input voltage ($105V_{AC}$).

The over-power protection provided by the microcontroller (PCB52A.U4) was disabled for this test.

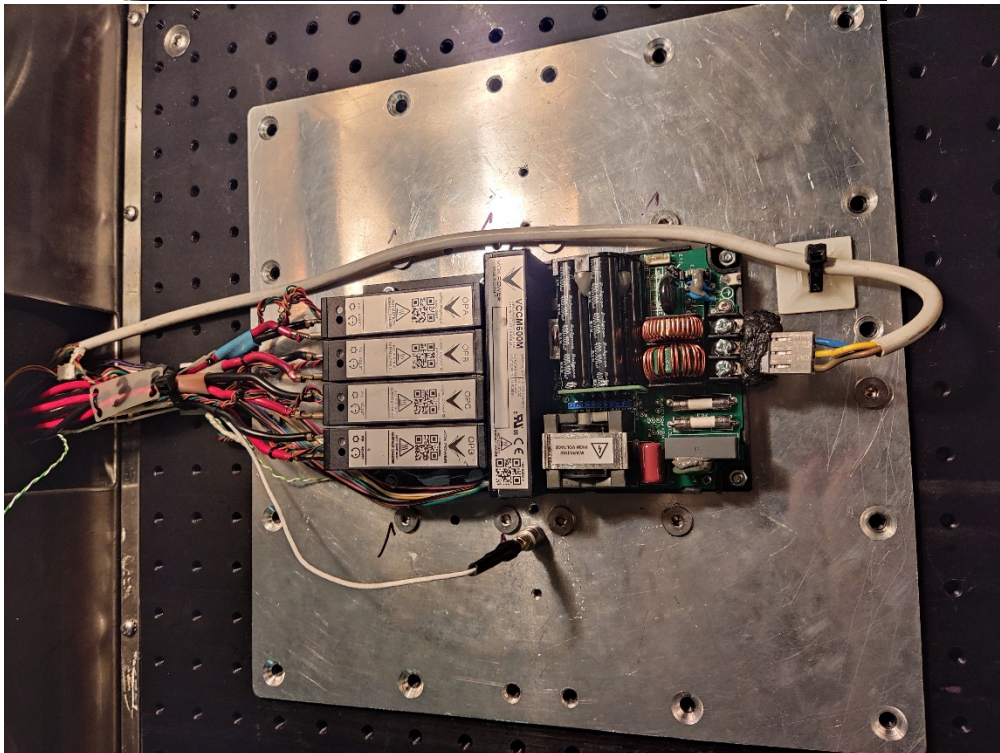
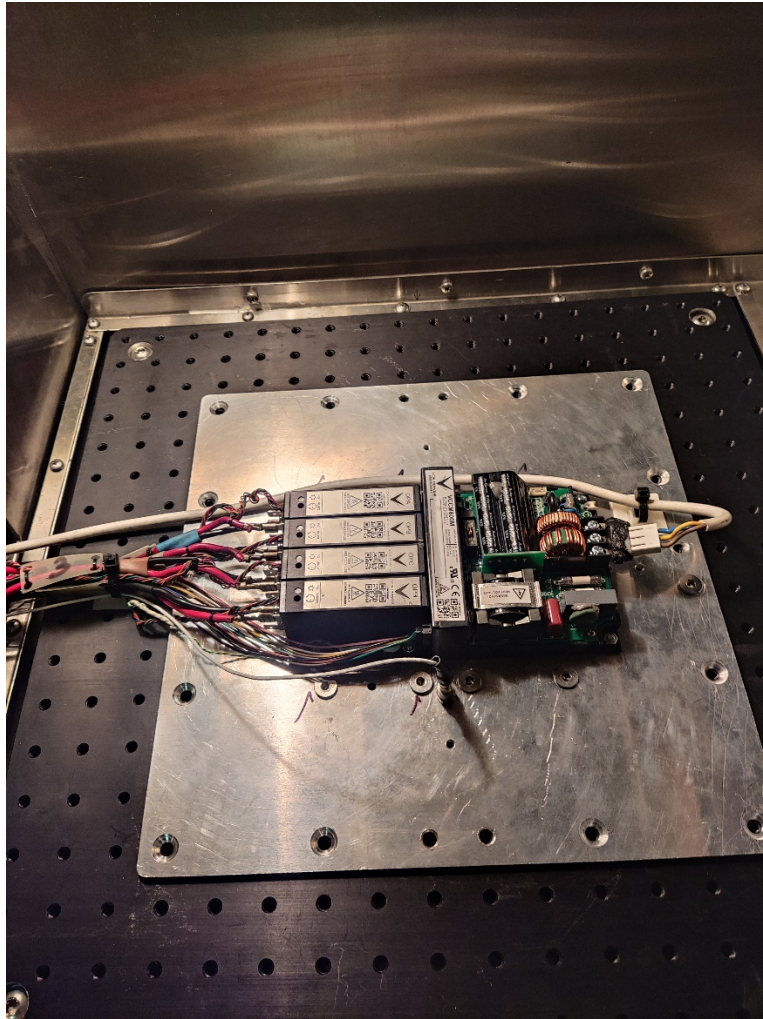
No visual damages were observed.

Appendix A – Setup Photographs

A.1 Temperature Limit, Temperature Cycle, Input Voltage & Output Load test Setup



A.2 Vibration Limit & Combined Stress test Setup



Appendix B – Stress Profiles

B.1 Low Temperature Limit Test

B.1.1 220V_{AC} Stress Profile

TESTLIST	Vac	Tamb	Load1	Load2	Load3	Load4	Vib	Dwell	FCN_TST
0	0	25	0.000	0.000	0.000	0.000	0	240	OFF
1	220	25	25.000	12.500	6.250	3.125	0	600	ON
2	0	15	0.000	0.000	0.000	0.000	0	240	OFF
3	220	15	25.000	12.500	6.250	3.125	0	600	ON
4	0	5	0.000	0.000	0.000	0.000	0	240	OFF
5	220	5	25.000	12.500	6.250	3.125	0	600	ON
6	0	0	0.000	0.000	0.000	0.000	0	240	OFF
7	220	0	25.000	12.500	6.250	3.125	0	600	ON
8	0	-5	0.000	0.000	0.000	0.000	0	240	OFF
9	220	-5	25.000	12.500	6.250	3.125	0	600	ON
10	0	-10	0.000	0.000	0.000	0.000	0	240	OFF
11	220	-10	25.000	12.500	6.250	3.125	0	600	ON
12	0	-15	0.000	0.000	0.000	0.000	0	240	OFF
13	220	-15	25.000	12.500	6.250	3.125	0	600	ON
14	0	-20	0.000	0.000	0.000	0.000	0	240	OFF
15	220	-20	25.000	12.500	6.250	3.125	0	600	ON
16	0	-25	0.000	0.000	0.000	0.000	0	240	OFF
17	220	-25	25.000	12.500	6.250	3.125	0	600	ON
18	0	-30	0.000	0.000	0.000	0.000	0	240	OFF
19	220	-30	25.000	12.500	6.250	3.125	0	600	ON
20	0	-35	0.000	0.000	0.000	0.000	0	240	OFF
21	220	-35	25.000	12.500	6.250	3.125	0	600	ON
22	0	-40	0.000	0.000	0.000	0.000	0	240	OFF
23	220	-40	25.000	12.500	6.250	3.125	0	600	ON
24	0	-45	0.000	0.000	0.000	0.000	0	240	OFF
25	220	-45	25.000	12.500	6.250	3.125	0	600	ON
26	0	-50	0.000	0.000	0.000	0.000	0	240	OFF
27	220	-50	25.000	12.500	6.250	3.125	0	600	ON
28	0	-55	0.000	0.000	0.000	0.000	0	240	OFF
29	220	-55	25.000	12.500	6.250	3.125	0	600	ON
30	0	-60	0.000	0.000	0.000	0.000	0	240	OFF
31	220	-60	25.000	12.500	6.250	3.125	0	600	ON
32	0	25	0.000	0.000	0.000	0.000	0	240	OFF
33	220	25	25.000	12.500	6.250	3.125	0	600	ON

B.1.2 120V_{AC} Stress Profile

TESTLIST	Vac	Tamb	Load1	Load2	Load3	Load4	Vib	Dwell	FCN_TST
0	0	25	0.000	0.000	0.000	0.000	0	240	OFF
1	120	25	25.000	12.500	6.250	3.125	0	600	ON
2	0	15	0.000	0.000	0.000	0.000	0	240	OFF
3	120	15	25.000	12.500	6.250	3.125	0	600	ON
4	0	5	0.000	0.000	0.000	0.000	0	240	OFF
5	120	5	25.000	12.500	6.250	3.125	0	600	ON
6	0	0	0.000	0.000	0.000	0.000	0	240	OFF
7	120	0	25.000	12.500	6.250	3.125	0	600	ON
8	0	-5	0.000	0.000	0.000	0.000	0	240	OFF
9	120	-5	25.000	12.500	6.250	3.125	0	600	ON
10	0	-10	0.000	0.000	0.000	0.000	0	240	OFF
11	120	-10	25.000	12.500	6.250	3.125	0	600	ON
12	0	-15	0.000	0.000	0.000	0.000	0	240	OFF
13	120	-15	25.000	12.500	6.250	3.125	0	600	ON
14	0	-20	0.000	0.000	0.000	0.000	0	240	OFF
15	120	-20	25.000	12.500	6.250	3.125	0	600	ON
16	0	-25	0.000	0.000	0.000	0.000	0	240	OFF
17	120	-25	25.000	12.500	6.250	3.125	0	600	ON
18	0	-30	0.000	0.000	0.000	0.000	0	240	OFF
19	120	-30	25.000	12.500	6.250	3.125	0	600	ON
20	0	-35	0.000	0.000	0.000	0.000	0	240	OFF
21	120	-35	25.000	12.500	6.250	3.125	0	600	ON
22	0	-40	0.000	0.000	0.000	0.000	0	240	OFF
23	120	-40	25.000	12.500	6.250	3.125	0	600	ON
24	0	-45	0.000	0.000	0.000	0.000	0	240	OFF
25	120	-45	25.000	12.500	6.250	3.125	0	600	ON
26	0	-50	0.000	0.000	0.000	0.000	0	240	OFF
27	120	-50	25.000	12.500	6.250	3.125	0	600	ON
28	0	-55	0.000	0.000	0.000	0.000	0	240	OFF
29	120	-55	25.000	12.500	6.250	3.125	0	600	ON
30	0	-60	0.000	0.000	0.000	0.000	0	240	OFF
31	120	-60	25.000	12.500	6.250	3.125	0	600	ON
32	0	25	0.000	0.000	0.000	0.000	0	240	OFF
33	120	25	25.000	12.500	6.250	3.125	0	600	ON

B.1.3 85V_{AC} Stress Profile

TESTLIST	Vac	Tamb	Load1	Load2	Load3	Load4	Vib	Dwell	FCN_TST
0	0	25	0.000	0.000	0.000	0.000	0	240	OFF
1	85	25	21.250	8.854	4.427	2.214	0	600	ON
2	0	15	0.000	0.000	0.000	0.000	0	240	OFF
3	85	15	21.250	8.854	4.427	2.214	0	600	ON
4	0	5	0.000	0.000	0.000	0.000	0	240	OFF
5	85	5	21.250	8.854	4.427	2.214	0	600	ON
6	0	0	0.000	0.000	0.000	0.000	0	240	OFF
7	85	0	21.250	8.854	4.427	2.214	0	600	ON
8	0	-5	0.000	0.000	0.000	0.000	0	240	OFF
9	85	-5	21.250	8.854	4.427	2.214	0	600	ON
10	0	-10	0.000	0.000	0.000	0.000	0	240	OFF
11	85	-10	21.250	8.854	4.427	2.214	0	600	ON
12	0	-15	0.000	0.000	0.000	0.000	0	240	OFF
13	85	-15	21.250	8.854	4.427	2.214	0	600	ON
14	0	-20	0.000	0.000	0.000	0.000	0	240	OFF
15	85	-20	21.250	8.854	4.427	2.214	0	600	ON
16	0	-25	0.000	0.000	0.000	0.000	0	240	OFF
17	85	-25	21.250	8.854	4.427	2.214	0	600	ON
18	0	-30	0.000	0.000	0.000	0.000	0	240	OFF
19	85	-30	21.250	8.854	4.427	2.214	0	600	ON
20	0	-35	0.000	0.000	0.000	0.000	0	240	OFF
21	85	-35	21.250	8.854	4.427	2.214	0	600	ON
22	0	-40	0.000	0.000	0.000	0.000	0	240	OFF
23	85	-40	21.250	8.854	4.427	2.214	0	600	ON
24	0	-45	0.000	0.000	0.000	0.000	0	240	OFF
25	85	-45	21.250	8.854	4.427	2.214	0	600	ON
26	0	-50	0.000	0.000	0.000	0.000	0	240	OFF
27	85	-50	21.250	8.854	4.427	2.214	0	600	ON
28	0	-55	0.000	0.000	0.000	0.000	0	240	OFF
29	85	-55	21.250	8.854	4.427	2.214	0	600	ON
30	0	-60	0.000	0.000	0.000	0.000	0	240	OFF
31	85	-60	21.250	8.854	4.427	2.214	0	600	ON
32	0	25	0.000	0.000	0.000	0.000	0	240	OFF
33	85	25	21.250	8.854	4.427	2.214	0	600	ON

B.2 High Temperature Limit Test

B.2.1 220V_{AC} Stress Profile

TESTLIST	Vac	Tamb	Load1	Load2	Load3	Load4	Vib	Dwell	FCN_TST
0	0	25	0.000	0.000	0.000	0.000	0	120	OFF
1	220	25	25.000	12.500	6.250	3.125	0	600	ON
2	0	30	0.000	0.000	0.000	0.000	0	120	OFF
3	220	30	25.000	12.500	6.250	3.125	0	600	ON
4	0	35	0.000	0.000	0.000	0.000	0	120	OFF
5	220	35	25.000	12.500	6.250	3.125	0	600	ON
6	0	40	0.000	0.000	0.000	0.000	0	120	OFF
7	220	40	25.000	12.500	6.250	3.125	0	600	ON
8	0	45	0.000	0.000	0.000	0.000	0	120	OFF
9	220	45	25.000	12.500	6.250	3.125	0	600	ON
10	0	50	0.000	0.000	0.000	0.000	0	120	OFF
11	220	50	25.000	12.500	6.250	3.125	0	600	ON
12	0	55	0.000	0.000	0.000	0.000	0	120	OFF
13	220	55	25.000	12.500	6.250	3.125	0	600	ON
14	0	60	0.000	0.000	0.000	0.000	0	120	OFF
15	220	60	25.000	12.500	6.250	3.125	0	600	ON
16	0	65	0.000	0.000	0.000	0.000	0	120	OFF
17	220	65	25.000	12.500	6.250	3.125	0	600	ON
18	0	70	0.000	0.000	0.000	0.000	0	120	OFF
19	220	70	25.000	12.500	6.250	3.125	0	600	ON
20	0	75	0.000	0.000	0.000	0.000	0	120	OFF
21	220	75	25.000	12.500	6.250	3.125	0	600	ON
22	0	80	0.000	0.000	0.000	0.000	0	120	OFF
23	220	80	25.000	12.500	6.250	3.125	0	600	ON
24	0	85	0.000	0.000	0.000	0.000	0	120	OFF
25	220	85	25.000	12.500	6.250	3.125	0	600	ON
26	0	90	0.000	0.000	0.000	0.000	0	120	OFF
27	220	90	25.000	12.500	6.250	3.125	0	600	ON
28	0	95	0.000	0.000	0.000	0.000	0	120	OFF
29	220	95	25.000	12.500	6.250	3.125	0	600	ON
30	0	100	0.000	0.000	0.000	0.000	0	120	OFF
31	220	100	25.000	12.500	6.250	3.125	0	600	ON
32	0	25	0.000	0.000	0.000	0.000	0	120	OFF
33	120	25	25.000	12.500	6.250	3.125	0	600	ON

B.2.2 120V_{AC} Stress Profile

TESTLIST	Vac	Tamb	Load1	Load2	Load3	Load4	Vib	Dwell	FCN_TST
0	0	25	0.000	0.000	0.000	0.000	0	120	OFF
1	120	25	25.000	12.500	6.250	3.125	0	600	ON
2	0	30	0.000	0.000	0.000	0.000	0	120	OFF
3	120	30	25.000	12.500	6.250	3.125	0	600	ON
4	0	35	0.000	0.000	0.000	0.000	0	120	OFF
5	120	35	25.000	12.500	6.250	3.125	0	600	ON
6	0	40	0.000	0.000	0.000	0.000	0	120	OFF
7	120	40	25.000	12.500	6.250	3.125	0	600	ON
8	0	45	0.000	0.000	0.000	0.000	0	120	OFF
9	120	45	25.000	12.500	6.250	3.125	0	600	ON
10	0	50	0.000	0.000	0.000	0.000	0	120	OFF
11	120	50	25.000	12.500	6.250	3.125	0	600	ON
12	0	55	0.000	0.000	0.000	0.000	0	120	OFF
13	120	55	25.000	12.500	6.250	3.125	0	600	ON
14	0	60	0.000	0.000	0.000	0.000	0	120	OFF
15	120	60	25.000	12.500	6.250	3.125	0	600	ON
16	0	65	0.000	0.000	0.000	0.000	0	120	OFF
17	120	65	25.000	12.500	6.250	3.125	0	600	ON
18	0	70	0.000	0.000	0.000	0.000	0	120	OFF
19	120	70	25.000	12.500	6.250	3.125	0	600	ON
20	0	75	0.000	0.000	0.000	0.000	0	120	OFF
21	120	75	25.000	12.500	6.250	3.125	0	600	ON
22	0	80	0.000	0.000	0.000	0.000	0	120	OFF
23	120	80	25.000	12.500	6.250	3.125	0	600	ON
24	0	85	0.000	0.000	0.000	0.000	0	120	OFF
25	120	85	25.000	12.500	6.250	3.125	0	600	ON
26	0	90	0.000	0.000	0.000	0.000	0	120	OFF
27	120	90	25.000	12.500	6.250	3.125	0	600	ON
28	0	95	0.000	0.000	0.000	0.000	0	120	OFF
29	120	95	25.000	12.500	6.250	3.125	0	600	ON
30	0	100	0.000	0.000	0.000	0.000	0	120	OFF
31	120	100	25.000	12.500	6.250	3.125	0	600	ON
32	0	25	0.000	0.000	0.000	0.000	0	120	OFF
33	120	25	25.000	12.500	6.250	3.125	0	600	ON

B.2.3 85V_{AC} Stress Profile

TESTLIST	Vac	Tamb	Load1	Load2	Load3	Load4	Vib	Dwell	FCN_TST
0	0	25	0.000	0.000	0.000	0.000	0	120	OFF
1	85	25	21.250	8.854	4.427	2.214	0	600	ON
2	0	30	0.000	0.000	0.000	0.000	0	120	OFF
3	85	30	21.250	8.854	4.427	2.214	0	600	ON
4	0	35	0.000	0.000	0.000	0.000	0	120	OFF
5	85	35	21.250	8.854	4.427	2.214	0	600	ON
6	0	40	0.000	0.000	0.000	0.000	0	120	OFF
7	85	40	21.250	8.854	4.427	2.214	0	600	ON
8	0	45	0.000	0.000	0.000	0.000	0	120	OFF
9	85	45	21.250	8.854	4.427	2.214	0	600	ON
10	0	50	0.000	0.000	0.000	0.000	0	120	OFF
11	85	50	21.250	8.854	4.427	2.214	0	600	ON
12	0	55	0.000	0.000	0.000	0.000	0	120	OFF
13	85	55	21.250	8.854	4.427	2.214	0	600	ON
14	0	60	0.000	0.000	0.000	0.000	0	120	OFF
15	85	60	21.250	8.854	4.427	2.214	0	600	ON
16	0	65	0.000	0.000	0.000	0.000	0	120	OFF
17	85	65	21.250	8.854	4.427	2.214	0	600	ON
18	0	70	0.000	0.000	0.000	0.000	0	120	OFF
19	85	70	21.250	8.854	4.427	2.214	0	600	ON
20	0	75	0.000	0.000	0.000	0.000	0	120	OFF
21	85	75	21.250	8.854	4.427	2.214	0	600	ON
22	0	80	0.000	0.000	0.000	0.000	0	120	OFF
23	85	80	21.250	8.854	4.427	2.214	0	600	ON
24	0	85	0.000	0.000	0.000	0.000	0	120	OFF
25	85	85	21.250	8.854	4.427	2.214	0	600	ON
26	0	90	0.000	0.000	0.000	0.000	0	120	OFF
27	85	90	21.250	8.854	4.427	2.214	0	600	ON
28	0	95	0.000	0.000	0.000	0.000	0	120	OFF
29	85	95	21.250	8.854	4.427	2.214	0	600	ON
30	0	100	0.000	0.000	0.000	0.000	0	120	OFF
31	85	100	21.250	8.854	4.427	2.214	0	600	ON
32	0	25	0.000	0.000	0.000	0.000	0	120	OFF
33	120	25	25.000	12.500	6.250	3.125	0	600	ON

B.3 Rapid Thermal Cycle

B.3.1 120V_{AC} Stress Profile

TESTLIST	Vac	Tamb	Load1	Load2	Load3	Load4	Vib	Dwell	FCN_TST
0	0	25	0.000	0.000	0.000	0.000	0	120	ON
1	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
2	120	85	25.000	12.500	6.250	3.125	0	1800	ON
3	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
4	120	85	25.000	12.500	6.250	3.125	0	1800	ON
5	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
6	120	85	25.000	12.500	6.250	3.125	0	1800	ON
7	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
8	120	85	25.000	12.500	6.250	3.125	0	1800	ON
9	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
10	120	85	25.000	12.500	6.250	3.125	0	1800	ON
11	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
12	120	85	25.000	12.500	6.250	3.125	0	1800	ON
13	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
14	120	85	25.000	12.500	6.250	3.125	0	1800	ON
15	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
16	120	85	25.000	12.500	6.250	3.125	0	1800	ON
17	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
18	120	85	25.000	12.500	6.250	3.125	0	1800	ON
19	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
20	120	85	25.000	12.500	6.250	3.125	0	1800	ON
21	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
22	120	85	25.000	12.500	6.250	3.125	0	1800	ON
23	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
24	120	85	25.000	12.500	6.250	3.125	0	1800	ON
25	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
26	120	85	25.000	12.500	6.250	3.125	0	1800	ON
27	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
28	120	85	25.000	12.500	6.250	3.125	0	1800	ON
29	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
30	120	85	25.000	12.500	6.250	3.125	0	1800	ON
31	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
32	120	85	25.000	12.500	6.250	3.125	0	1800	ON
33	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
34	120	85	25.000	12.500	6.250	3.125	0	1800	ON
35	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
36	120	85	25.000	12.500	6.250	3.125	0	1800	ON
37	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
38	120	85	25.000	12.500	6.250	3.125	0	1800	ON
39	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
40	120	85	25.000	12.500	6.250	3.125	0	1800	ON
41	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
42	120	85	25.000	12.500	6.250	3.125	0	1800	ON
43	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
44	120	85	25.000	12.500	6.250	3.125	0	1800	ON
45	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
46	120	85	25.000	12.500	6.250	3.125	0	1800	ON
47	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
48	120	85	25.000	12.500	6.250	3.125	0	1800	ON
49	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
50	120	85	25.000	12.500	6.250	3.125	0	1800	ON
51	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
52	120	85	25.000	12.500	6.250	3.125	0	1800	ON
53	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
54	120	85	25.000	12.500	6.250	3.125	0	1800	ON
55	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
56	120	85	25.000	12.500	6.250	3.125	0	1800	ON
57	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
58	120	85	25.000	12.500	6.250	3.125	0	1800	ON
59	120	-50	0.000	0.000	0.000	0.000	0	1800	ON
60	120	85	25.000	12.500	6.250	3.125	0	1800	ON
61	0	25	0.000	0.000	0.000	0.000	0	120	OFF

B.3.2 85V_{AC} Stress Profile

TESTLIST	Vac	Tamb	Load1	Load2	Load3	Load4	Vib	Dwell	FCN_TST
0	0	25	0.000	0.000	0.000	0.000	0	120	ON
1	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
2	85	80	21.250	8.854	4.427	2.214	0	1800	ON
3	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
4	85	80	21.250	8.854	4.427	2.214	0	1800	ON
5	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
6	85	80	21.250	8.854	4.427	2.214	0	1800	ON
7	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
8	85	80	21.250	8.854	4.427	2.214	0	1800	ON
9	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
10	85	80	21.250	8.854	4.427	2.214	0	1800	ON
11	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
12	85	80	21.250	8.854	4.427	2.214	0	1800	ON
13	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
14	85	80	21.250	8.854	4.427	2.214	0	1800	ON
15	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
16	85	80	21.250	8.854	4.427	2.214	0	1800	ON
17	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
18	85	80	21.250	8.854	4.427	2.214	0	1800	ON
19	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
20	85	80	21.250	8.854	4.427	2.214	0	1800	ON
21	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
22	85	80	21.250	8.854	4.427	2.214	0	1800	ON
23	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
24	85	80	21.250	8.854	4.427	2.214	0	1800	ON
25	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
26	85	80	21.250	8.854	4.427	2.214	0	1800	ON
27	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
28	85	80	21.250	8.854	4.427	2.214	0	1800	ON
29	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
30	85	80	21.250	8.854	4.427	2.214	0	1800	ON
31	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
32	85	80	21.250	8.854	4.427	2.214	0	1800	ON
33	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
34	85	80	21.250	8.854	4.427	2.214	0	1800	ON
35	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
36	85	80	21.250	8.854	4.427	2.214	0	1800	ON
37	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
38	85	80	21.250	8.854	4.427	2.214	0	1800	ON
39	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
40	85	80	21.250	8.854	4.427	2.214	0	1800	ON
41	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
42	85	80	21.250	8.854	4.427	2.214	0	1800	ON
43	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
44	85	80	21.250	8.854	4.427	2.214	0	1800	ON
45	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
46	85	80	21.250	8.854	4.427	2.214	0	1800	ON
47	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
48	85	80	21.250	8.854	4.427	2.214	0	1800	ON
49	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
50	85	80	21.250	8.854	4.427	2.214	0	1800	ON
51	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
52	85	80	21.250	8.854	4.427	2.214	0	1800	ON
53	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
54	85	80	21.250	8.854	4.427	2.214	0	1800	ON
55	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
56	85	80	21.250	8.854	4.427	2.214	0	1800	ON
57	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
58	85	80	21.250	8.854	4.427	2.214	0	1800	ON
59	85	-35	0.000	0.000	0.000	0.000	0	1800	ON
60	85	80	21.250	8.854	4.427	2.214	0	1800	ON
61	0	25	0.000	0.000	0.000	0.000	0	120	OFF

B.4 Random Vibration

TESTLIST	Vac	Tamb	Load1	Load2	Load3	Load4	Vib	Dwell	FCN_TST
0	0	25	0.000	0.000	0.000	0.000	0	120	OFF
1	120	25	25.000	12.500	6.250	3.125	0	600	ON
2	120	25	25.000	12.500	6.250	3.125	5	600	ON
3	120	25	25.000	12.500	6.250	3.125	10	600	ON
4	120	25	25.000	12.500	6.250	3.125	15	600	ON
5	120	25	25.000	12.500	6.250	3.125	20	600	ON
6	120	25	25.000	12.500	6.250	3.125	25	600	ON
7	120	25	25.000	12.500	6.250	3.125	30	600	ON
8	120	25	25.000	12.500	6.250	3.125	35	600	ON
9	120	25	25.000	12.500	6.250	3.125	40	600	ON
10	0	25	0.000	0.000	0.000	0.000	0	120	OFF

B.5 Input Voltage Limit Test

B.5.1 120V_{AC} Stress Profile

TESTLIST	Vac	Tamb	Load1	Load2	Load3	Load4	Vib	Dwell	FCN_TST
0	0	-55	0.000	0.000	0.000	0.000	0	300	OFF
1	130	-55	25.000	12.500	6.250	3.125	0	60	OFF
2	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
3	129	-55	25.000	12.500	6.250	3.125	0	40	OFF
4	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
5	128	-55	25.000	12.500	6.250	3.125	0	40	OFF
6	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
7	127	-55	25.000	12.500	6.250	3.125	0	40	OFF
8	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
9	126	-55	25.000	12.500	6.250	3.125	0	40	OFF
10	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
11	125	-55	25.000	12.500	6.250	3.125	0	40	OFF
12	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
13	124	-55	25.000	12.500	6.250	3.125	0	40	OFF
14	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
15	123	-55	25.000	12.500	6.250	3.125	0	40	OFF
16	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
17	122	-55	25.000	12.500	6.250	3.125	0	40	OFF
18	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
19	121	-55	25.000	12.500	6.250	3.125	0	40	OFF
20	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
21	120	-55	25.000	12.500	6.250	3.125	0	40	OFF
22	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
23	119	-55	25.000	-126.000	6.250	3.125	0	40	OFF
24	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
25	118	-55	25.000	12.500	6.250	3.125	0	40	OFF
26	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
27	117	-55	25.000	12.500	6.250	3.125	0	40	OFF
28	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
29	116	-55	25.000	12.500	6.250	3.125	0	40	OFF
30	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
31	115	-55	25.000	12.500	6.250	3.125	0	40	OFF
32	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
33	114	-55	25.000	12.500	6.250	3.125	0	40	OFF
34	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
35	113	-55	25.000	12.500	6.250	3.125	0	40	OFF
36	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
37	112	-55	25.000	12.500	6.250	3.125	0	40	OFF
38	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
39	111	-55	25.000	12.500	6.250	3.125	0	40	OFF
40	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
41	110	-55	25.000	12.500	6.250	3.125	0	40	OFF
42	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
43	109	-55	25.000	12.500	6.250	3.125	0	40	OFF
44	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
45	108	-55	25.000	12.500	6.250	3.125	0	40	OFF
46	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
47	107	-55	25.000	12.500	6.250	3.125	0	40	OFF
48	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
49	106	-55	25.000	12.500	6.250	3.125	0	40	OFF
50	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
51	105	-55	25.000	12.500	6.250	3.125	0	40	OFF
52	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
53	104	-55	25.000	12.500	6.250	3.125	0	40	OFF
54	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
55	103	-55	25.000	12.500	6.250	3.125	0	40	OFF
56	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
57	102	-55	25.000	12.500	6.250	3.125	0	40	OFF
58	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
59	101	-55	25.000	12.500	6.250	3.125	0	40	OFF
60	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
61	100	-55	25.000	12.500	6.250	3.125	0	40	OFF
62	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
63	99	-55	25.000	12.500	6.250	3.125	0	40	OFF
64	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
65	98	-55	25.000	12.500	6.250	3.125	0	40	OFF
66	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
67	97	-55	25.000	12.500	6.250	3.125	0	40	OFF
68	0	-55	0.000	0.000	0.000	0.000	0	20	OFF

69	96	-55	25.000	12.500	6.250	3.125	0	40	OFF
70	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
71	95	-55	25.000	12.500	6.250	3.125	0	40	OFF
72	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
73	94	-55	25.000	12.500	6.250	3.125	0	40	OFF
74	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
75	93	-55	25.000	12.500	6.250	3.125	0	40	OFF
76	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
77	92	-55	25.000	12.500	6.250	3.125	0	40	OFF
78	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
79	91	-55	25.000	12.500	6.250	3.125	0	40	OFF
80	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
81	90	-55	25.000	12.500	6.250	3.125	0	40	OFF
82	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
83	89	-55	25.000	12.500	6.250	3.125	0	40	OFF
84	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
85	88	-55	25.000	12.500	6.250	3.125	0	40	OFF
86	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
87	87	-55	25.000	12.500	6.250	3.125	0	40	OFF
88	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
89	86	-55	25.000	12.500	6.250	3.125	0	40	OFF
90	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
91	85	-55	25.000	12.500	6.250	3.125	0	40	OFF
92	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
93	84	-55	25.000	12.500	6.250	3.125	0	40	OFF
94	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
95	83	-55	25.000	12.500	6.250	3.125	0	40	OFF
96	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
97	82	-55	25.000	12.500	6.250	3.125	0	40	OFF
98	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
99	81	-55	25.000	12.500	6.250	3.125	0	40	OFF
100	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
101	80	-55	25.000	12.500	6.250	3.125	0	40	OFF
102	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
103	79	-55	25.000	12.500	6.250	3.125	0	40	OFF
104	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
105	78	-55	25.000	12.500	6.250	3.125	0	40	OFF
106	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
107	77	-55	25.000	12.500	6.250	3.125	0	40	OFF
108	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
109	76	-55	25.000	12.500	6.250	3.125	0	40	OFF
110	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
111	75	-55	25.000	12.500	6.250	3.125	0	40	OFF
112	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
113	74	-55	25.000	12.500	6.250	3.125	0	40	OFF
114	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
115	73	-55	25.000	12.500	6.250	3.125	0	40	OFF
116	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
117	72	-55	25.000	12.500	6.250	3.125	0	40	OFF
118	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
119	71	-55	25.000	12.500	6.250	3.125	0	40	OFF
120	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
121	70	-55	25.000	12.500	6.250	3.125	0	40	OFF
122	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
123	69	-55	25.000	12.500	6.250	3.125	0	40	OFF
124	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
125	68	-55	25.000	12.500	6.250	3.125	0	40	OFF
126	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
127	67	-55	25.000	12.500	6.250	3.125	0	40	OFF
128	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
129	66	-55	25.000	12.500	6.250	3.125	0	40	OFF
130	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
131	65	-55	25.000	12.500	6.250	3.125	0	40	OFF
132	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
133	64	-55	25.000	12.500	6.250	3.125	0	40	OFF
134	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
135	63	-55	25.000	12.500	6.250	3.125	0	40	OFF
136	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
137	62	-55	25.000	12.500	6.250	3.125	0	40	OFF
138	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
139	61	-55	25.000	12.500	6.250	3.125	0	40	OFF
140	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
141	60	-55	25.000	12.500	6.250	3.125	0	40	OFF
142	254	-55	25.000	12.500	6.250	3.125	0	60	OFF

143	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
144	255	-55	25.000	12.500	6.250	3.125	0	60	OFF
145	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
146	256	-55	25.000	12.500	6.250	3.125	0	40	OFF
147	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
148	257	-55	25.000	12.500	6.250	3.125	0	40	OFF
149	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
150	258	-55	25.000	12.500	6.250	3.125	0	40	OFF
151	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
152	259	-55	25.000	12.500	6.250	3.125	0	40	OFF
153	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
154	260	-55	25.000	12.500	6.250	3.125	0	40	OFF
155	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
156	261	-55	25.000	12.500	6.250	3.125	0	40	OFF
157	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
158	262	-55	25.000	12.500	6.250	3.125	0	40	OFF
159	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
160	263	-55	25.000	12.500	6.250	3.125	0	40	OFF
161	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
162	264	-55	25.000	12.500	6.250	3.125	0	40	OFF
163	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
164	265	-55	25.000	12.500	6.250	3.125	0	40	OFF
165	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
166	266	-55	25.000	12.500	6.250	3.125	0	40	OFF
167	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
168	267	-55	25.000	12.500	6.250	3.125	0	40	OFF
169	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
170	268	-55	25.000	12.500	6.250	3.125	0	40	OFF
171	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
172	269	-55	25.000	12.500	6.250	3.125	0	40	OFF
173	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
174	270	-55	25.000	12.500	6.250	3.125	0	40	OFF
175	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
176	271	-55	25.000	12.500	6.250	3.125	0	40	OFF
177	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
178	272	-55	25.000	12.500	6.250	3.125	0	40	OFF
179	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
180	273	-55	25.000	12.500	6.250	3.125	0	40	OFF
181	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
182	274	-55	25.000	12.500	6.250	3.125	0	40	OFF
183	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
184	275	-55	25.000	12.500	6.250	3.125	0	40	OFF
185	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
186	276	-55	25.000	12.500	6.250	3.125	0	40	OFF
187	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
188	277	-55	25.000	12.500	6.250	3.125	0	40	OFF
189	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
190	278	-55	25.000	12.500	6.250	3.125	0	40	OFF
191	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
192	279	-55	25.000	12.500	6.250	3.125	0	40	OFF
193	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
194	280	-55	25.000	12.500	6.250	3.125	0	40	OFF
195	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
196	281	-55	25.000	12.500	6.250	3.125	0	40	OFF
197	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
198	282	-55	25.000	12.500	6.250	3.125	0	40	OFF
199	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
200	283	-55	25.000	12.500	6.250	3.125	0	40	OFF
201	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
202	284	-55	25.000	12.500	6.250	3.125	0	40	OFF
203	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
204	285	-55	25.000	12.500	6.250	3.125	0	40	OFF
205	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
206	286	-55	25.000	12.500	6.250	3.125	0	40	OFF
207	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
208	287	-55	25.000	12.500	6.250	3.125	0	40	OFF
209	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
210	288	-55	25.000	12.500	6.250	3.125	0	40	OFF
211	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
212	289	-55	25.000	12.500	6.250	3.125	0	40	OFF
213	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
214	290	-55	25.000	12.500	6.250	3.125	0	40	OFF
215	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
216	291	-55	25.000	12.500	6.250	3.125	0	40	OFF

217	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
218	292	-55	25.000	12.500	6.250	3.125	0	40	OFF
219	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
220	293	-55	25.000	12.500	6.250	3.125	0	40	OFF
221	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
222	294	-55	25.000	12.500	6.250	3.125	0	40	OFF
223	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
224	295	-55	25.000	12.500	6.250	3.125	0	40	OFF
225	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
226	296	-55	25.000	12.500	6.250	3.125	0	40	OFF
227	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
228	297	-55	25.000	12.500	6.250	3.125	0	40	OFF
229	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
230	298	-55	25.000	12.500	6.250	3.125	0	40	OFF
231	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
232	299	-55	25.000	12.500	6.250	3.125	0	40	OFF
233	0	-55	0.000	0.000	0.000	0.000	0	20	OFF
234	300	-55	25.000	12.500	6.250	3.125	0	40	OFF
235	130	90	25.000	12.500	6.250	3.125	0	60	OFF
236	0	90	0.000	0.000	0.000	0.000	0	20	OFF
237	129	90	25.000	12.500	6.250	3.125	0	40	OFF
238	0	90	0.000	0.000	0.000	0.000	0	20	OFF
239	128	90	25.000	12.500	6.250	3.125	0	40	OFF
240	0	90	0.000	0.000	0.000	0.000	0	20	OFF
241	127	90	25.000	12.500	6.250	3.125	0	40	OFF
242	0	90	0.000	0.000	0.000	0.000	0	20	OFF
243	126	90	25.000	12.500	6.250	3.125	0	40	OFF
244	0	90	0.000	0.000	0.000	0.000	0	20	OFF
245	125	90	25.000	12.500	6.250	3.125	0	40	OFF
246	0	90	0.000	0.000	0.000	0.000	0	20	OFF
247	124	90	25.000	12.500	6.250	3.125	0	40	OFF
248	0	90	0.000	0.000	0.000	0.000	0	20	OFF
249	123	90	25.000	12.500	6.250	3.125	0	40	OFF
250	0	90	0.000	0.000	0.000	0.000	0	20	OFF
251	122	90	25.000	12.500	6.250	3.125	0	40	OFF
252	0	90	0.000	0.000	0.000	0.000	0	20	OFF
253	121	90	25.000	12.500	6.250	3.125	0	40	OFF
254	0	90	0.000	0.000	0.000	0.000	0	20	OFF
255	120	90	25.000	12.500	6.250	3.125	0	40	OFF
256	0	90	0.000	0.000	0.000	0.000	0	20	OFF
257	119	90	25.000	12.500	6.250	3.125	0	40	OFF
258	0	90	0.000	0.000	0.000	0.000	0	20	OFF
259	118	90	25.000	12.500	6.250	3.125	0	40	OFF
260	0	90	0.000	0.000	0.000	0.000	0	20	OFF
261	117	90	25.000	12.500	6.250	3.125	0	40	OFF
262	0	90	0.000	0.000	0.000	0.000	0	20	OFF
263	116	90	25.000	12.500	6.250	3.125	0	40	OFF
264	0	90	0.000	0.000	0.000	0.000	0	20	OFF
265	115	90	25.000	12.500	6.250	3.125	0	40	OFF
266	0	90	0.000	0.000	0.000	0.000	0	20	OFF
267	114	90	25.000	12.500	6.250	3.125	0	40	OFF
268	0	90	0.000	0.000	0.000	0.000	0	20	OFF
269	113	90	25.000	12.500	6.250	3.125	0	40	OFF
270	0	90	0.000	0.000	0.000	0.000	0	20	OFF
271	112	90	25.000	12.500	6.250	3.125	0	40	OFF
272	0	90	0.000	0.000	0.000	0.000	0	20	OFF
273	111	90	25.000	12.500	6.250	3.125	0	40	OFF
274	0	90	0.000	0.000	0.000	0.000	0	20	OFF
275	110	90	25.000	12.500	6.250	3.125	0	40	OFF
276	0	90	0.000	0.000	0.000	0.000	0	20	OFF
277	109	90	25.000	12.500	6.250	3.125	0	40	OFF
278	0	90	0.000	0.000	0.000	0.000	0	20	OFF
279	108	90	25.000	12.500	6.250	3.125	0	40	OFF
280	0	90	0.000	0.000	0.000	0.000	0	20	OFF
281	107	90	25.000	12.500	6.250	3.125	0	40	OFF
282	0	90	0.000	0.000	0.000	0.000	0	20	OFF
283	106	90	25.000	12.500	6.250	3.125	0	40	OFF
284	0	90	0.000	0.000	0.000	0.000	0	20	OFF
285	105	90	25.000	12.500	6.250	3.125	0	40	OFF
286	0	90	0.000	0.000	0.000	0.000	0	20	OFF
287	104	90	25.000	12.500	6.250	3.125	0	40	OFF
288	0	90	0.000	0.000	0.000	0.000	0	20	OFF
289	103	90	25.000	12.500	6.250	3.125	0	40	OFF
290	0	90	0.000	0.000	0.000	0.000	0	20	OFF

291	102	90	25.000	12.500	6.250	3.125	0	40	OFF
292	0	90	0.000	0.000	0.000	0.000	0	20	OFF
293	101	90	25.000	12.500	6.250	3.125	0	40	OFF
294	0	90	0.000	0.000	0.000	0.000	0	20	OFF
295	100	90	25.000	12.500	6.250	3.125	0	40	OFF
296	0	90	0.000	0.000	0.000	0.000	0	20	OFF
297	99	90	25.000	12.500	6.250	3.125	0	40	OFF
298	0	90	0.000	0.000	0.000	0.000	0	20	OFF
299	98	90	25.000	12.500	6.250	3.125	0	40	OFF
300	0	90	0.000	0.000	0.000	0.000	0	20	OFF
301	97	90	25.000	12.500	6.250	3.125	0	40	OFF
302	0	90	0.000	0.000	0.000	0.000	0	20	OFF
303	96	90	25.000	12.500	6.250	3.125	0	40	OFF
304	0	90	0.000	0.000	0.000	0.000	0	20	OFF
305	95	90	25.000	12.500	6.250	3.125	0	40	OFF
306	0	90	0.000	0.000	0.000	0.000	0	20	OFF
307	94	90	25.000	12.500	6.250	3.125	0	40	OFF
308	0	90	0.000	0.000	0.000	0.000	0	20	OFF
309	93	90	25.000	12.500	6.250	3.125	0	40	OFF
310	0	90	0.000	0.000	0.000	0.000	0	20	OFF
311	92	90	25.000	12.500	6.250	3.125	0	40	OFF
312	0	90	0.000	0.000	0.000	0.000	0	20	OFF
313	91	90	25.000	12.500	6.250	3.125	0	40	OFF
314	0	90	0.000	0.000	0.000	0.000	0	20	OFF
315	90	90	25.000	12.500	6.250	3.125	0	40	OFF
316	0	90	0.000	0.000	0.000	0.000	0	20	OFF
317	89	90	25.000	12.500	6.250	3.125	0	40	OFF
318	0	90	0.000	0.000	0.000	0.000	0	20	OFF
319	88	90	25.000	12.500	6.250	3.125	0	40	OFF
320	0	90	0.000	0.000	0.000	0.000	0	20	OFF
321	87	90	25.000	12.500	6.250	3.125	0	40	OFF
322	0	90	0.000	0.000	0.000	0.000	0	20	OFF
323	86	90	25.000	12.500	6.250	3.125	0	40	OFF
324	0	90	0.000	0.000	0.000	0.000	0	20	OFF
325	85	90	25.000	12.500	6.250	3.125	0	40	OFF
326	0	90	0.000	0.000	0.000	0.000	0	20	OFF
327	84	90	25.000	12.500	6.250	3.125	0	40	OFF
328	0	90	0.000	0.000	0.000	0.000	0	20	OFF
329	83	90	25.000	12.500	6.250	3.125	0	40	OFF
330	0	90	0.000	0.000	0.000	0.000	0	20	OFF
331	82	90	25.000	12.500	6.250	3.125	0	40	OFF
332	0	90	0.000	0.000	0.000	0.000	0	20	OFF
333	81	90	25.000	12.500	6.250	3.125	0	40	OFF
334	0	90	0.000	0.000	0.000	0.000	0	20	OFF
335	80	90	25.000	12.500	6.250	3.125	0	40	OFF
336	0	90	0.000	0.000	0.000	0.000	0	20	OFF
337	79	90	25.000	12.500	6.250	3.125	0	40	OFF
338	0	90	0.000	0.000	0.000	0.000	0	20	OFF
339	78	90	25.000	12.500	6.250	3.125	0	40	OFF
340	0	90	0.000	0.000	0.000	0.000	0	20	OFF
341	77	90	25.000	12.500	6.250	3.125	0	40	OFF
342	0	90	0.000	0.000	0.000	0.000	0	20	OFF
343	76	90	25.000	12.500	6.250	3.125	0	40	OFF
344	0	90	0.000	0.000	0.000	0.000	0	20	OFF
345	75	90	25.000	12.500	6.250	3.125	0	40	OFF
346	0	90	0.000	0.000	0.000	0.000	0	20	OFF
347	74	90	25.000	12.500	6.250	3.125	0	40	OFF
348	0	90	0.000	0.000	0.000	0.000	0	20	OFF
349	73	90	25.000	12.500	6.250	3.125	0	40	OFF
350	0	90	0.000	0.000	0.000	0.000	0	20	OFF
351	72	90	25.000	12.500	6.250	3.125	0	40	OFF
352	0	90	0.000	0.000	0.000	0.000	0	20	OFF
353	71	90	25.000	12.500	6.250	3.125	0	40	OFF
354	0	90	0.000	0.000	0.000	0.000	0	20	OFF
355	70	90	25.000	12.500	6.250	3.125	0	40	OFF
356	0	90	0.000	0.000	0.000	0.000	0	20	OFF
357	69	90	25.000	12.500	6.250	3.125	0	40	OFF
358	0	90	0.000	0.000	0.000	0.000	0	20	OFF
359	68	90	25.000	12.500	6.250	3.125	0	40	OFF
360	0	90	0.000	0.000	0.000	0.000	0	20	OFF
361	67	90	25.000	12.500	6.250	3.125	0	40	OFF
362	0	90	0.000	0.000	0.000	0.000	0	20	OFF
363	66	90	25.000	12.500	6.250	3.125	0	40	OFF
364	0	90	0.000	0.000	0.000	0.000	0	20	OFF

365	65	90	25.000	12.500	6.250	3.125	0	40	OFF
366	0	90	0.000	0.000	0.000	0.000	0	20	OFF
367	64	90	25.000	12.500	6.250	3.125	0	40	OFF
368	0	90	0.000	0.000	0.000	0.000	0	20	OFF
369	63	90	25.000	12.500	6.250	3.125	0	40	OFF
370	0	90	0.000	0.000	0.000	0.000	0	20	OFF
371	62	90	25.000	12.500	6.250	3.125	0	40	OFF
372	0	90	0.000	0.000	0.000	0.000	0	20	OFF
373	61	90	25.000	12.500	6.250	3.125	0	40	OFF
374	0	90	0.000	0.000	0.000	0.000	0	20	OFF
375	60	90	25.000	12.500	6.250	3.125	0	40	OFF
376	254	90	25.000	12.500	6.250	3.125	0	60	OFF
377	0	90	0.000	0.000	0.000	0.000	0	20	OFF
378	255	90	25.000	12.500	6.250	3.125	0	40	OFF
379	0	90	0.000	0.000	0.000	0.000	0	20	OFF
380	256	90	25.000	12.500	6.250	3.125	0	40	OFF
381	0	90	0.000	0.000	0.000	0.000	0	20	OFF
382	257	90	25.000	12.500	6.250	3.125	0	40	OFF
383	0	90	0.000	0.000	0.000	0.000	0	20	OFF
384	258	90	25.000	12.500	6.250	3.125	0	40	OFF
385	0	90	0.000	0.000	0.000	0.000	0	20	OFF
386	259	90	25.000	12.500	6.250	3.125	0	40	OFF
387	0	90	0.000	0.000	0.000	0.000	0	20	OFF
388	260	90	25.000	12.500	6.250	3.125	0	40	OFF
389	0	90	0.000	0.000	0.000	0.000	0	20	OFF
390	261	90	25.000	12.500	6.250	3.125	0	40	OFF
391	0	90	0.000	0.000	0.000	0.000	0	20	OFF
392	262	90	25.000	12.500	6.250	3.125	0	40	OFF
393	0	90	0.000	0.000	0.000	0.000	0	20	OFF
394	263	90	25.000	12.500	6.250	3.125	0	40	OFF
395	0	90	0.000	0.000	0.000	0.000	0	20	OFF
396	264	90	25.000	12.500	6.250	3.125	0	40	OFF
397	0	90	0.000	0.000	0.000	0.000	0	20	OFF
398	265	90	25.000	12.500	6.250	3.125	0	40	OFF
399	0	90	0.000	0.000	0.000	0.000	0	20	OFF
400	266	90	25.000	12.500	6.250	3.125	0	40	OFF
401	0	90	0.000	0.000	0.000	0.000	0	20	OFF
402	267	90	25.000	12.500	6.250	3.125	0	40	OFF
403	0	90	0.000	0.000	0.000	0.000	0	20	OFF
404	268	90	25.000	12.500	6.250	3.125	0	40	OFF
405	0	90	0.000	0.000	0.000	0.000	0	20	OFF
406	269	90	25.000	12.500	6.250	3.125	0	40	OFF
407	0	90	0.000	0.000	0.000	0.000	0	20	OFF
408	270	90	25.000	12.500	6.250	3.125	0	40	OFF
409	0	90	0.000	0.000	0.000	0.000	0	20	OFF
410	271	90	25.000	12.500	6.250	3.125	0	40	OFF
411	0	90	0.000	0.000	0.000	0.000	0	20	OFF
412	272	90	25.000	12.500	6.250	3.125	0	40	OFF
413	0	90	0.000	0.000	0.000	0.000	0	20	OFF
414	273	90	25.000	12.500	6.250	3.125	0	40	OFF
415	0	90	0.000	0.000	0.000	0.000	0	20	OFF
416	274	90	25.000	12.500	6.250	3.125	0	40	OFF
417	0	90	0.000	0.000	0.000	0.000	0	20	OFF
418	275	90	25.000	12.500	6.250	3.125	0	40	OFF
419	0	90	0.000	0.000	0.000	0.000	0	20	OFF
420	276	90	25.000	12.500	6.250	3.125	0	40	OFF
421	0	90	0.000	0.000	0.000	0.000	0	20	OFF
422	277	90	25.000	12.500	6.250	3.125	0	40	OFF
423	0	90	0.000	0.000	0.000	0.000	0	20	OFF
424	278	90	25.000	12.500	6.250	3.125	0	40	OFF
425	0	90	0.000	0.000	0.000	0.000	0	20	OFF
426	279	90	25.000	12.500	6.250	3.125	0	40	OFF
427	0	90	0.000	0.000	0.000	0.000	0	20	OFF
428	280	90	25.000	12.500	6.250	3.125	0	40	OFF
429	0	90	0.000	0.000	0.000	0.000	0	20	OFF
430	281	90	25.000	12.500	6.250	3.125	0	40	OFF
431	0	90	0.000	0.000	0.000	0.000	0	20	OFF
432	282	90	25.000	12.500	6.250	3.125	0	40	OFF
433	0	90	0.000	0.000	0.000	0.000	0	20	OFF
434	283	90	25.000	12.500	6.250	3.125	0	40	OFF
435	0	90	0.000	0.000	0.000	0.000	0	20	OFF
436	284	90	25.000	12.500	6.250	3.125	0	40	OFF
437	0	90	0.000	0.000	0.000	0.000	0	20	OFF
438	285	90	25.000	12.500	6.250	3.125	0	40	OFF

439	0	90	0.000	0.000	0.000	0.000	0	20	OFF
440	286	90	25.000	12.500	6.250	3.125	0	40	OFF
441	0	90	0.000	0.000	0.000	0.000	0	20	OFF
442	287	90	25.000	12.500	6.250	3.125	0	40	OFF
443	0	90	0.000	0.000	0.000	0.000	0	20	OFF
444	288	90	25.000	12.500	6.250	3.125	0	40	OFF
445	0	90	0.000	0.000	0.000	0.000	0	20	OFF
446	289	90	25.000	12.500	6.250	3.125	0	40	OFF
447	0	90	0.000	0.000	0.000	0.000	0	20	OFF
448	290	90	25.000	12.500	6.250	3.125	0	40	OFF
449	0	90	0.000	0.000	0.000	0.000	0	20	OFF
450	291	90	25.000	12.500	6.250	3.125	0	40	OFF
451	0	90	0.000	0.000	0.000	0.000	0	20	OFF
452	292	90	25.000	12.500	6.250	3.125	0	40	OFF
453	0	90	0.000	0.000	0.000	0.000	0	20	OFF
454	293	90	25.000	12.500	6.250	3.125	0	40	OFF
455	0	90	0.000	0.000	0.000	0.000	0	20	OFF
456	294	90	25.000	12.500	6.250	3.125	0	40	OFF
457	0	90	0.000	0.000	0.000	0.000	0	20	OFF
458	295	90	25.000	12.500	6.250	3.125	0	40	OFF
459	0	90	0.000	0.000	0.000	0.000	0	20	OFF
460	296	90	25.000	12.500	6.250	3.125	0	40	OFF
461	0	90	0.000	0.000	0.000	0.000	0	20	OFF
462	297	90	25.000	12.500	6.250	3.125	0	40	OFF
463	0	90	0.000	0.000	0.000	0.000	0	20	OFF
464	298	90	25.000	12.500	6.250	3.125	0	40	OFF
465	0	90	0.000	0.000	0.000	0.000	0	20	OFF
466	299	90	25.000	12.500	6.250	3.125	0	40	OFF
467	0	90	0.000	0.000	0.000	0.000	0	20	OFF
468	300	90	25.000	12.500	6.250	3.125	0	40	OFF
469	0	25	0.000	0.000	0.000	0.000	0	120	OFF

B.5.2 85V_{AC} Stress Profile

TESTLIST	Vac	Tamb	Load1	Load2	Load3	Load4	Vib	Dwell	FCN_TST
0	0	-40	0.000	0.000	0.000	0.000	0	300	OFF
1	95	-40	21.250	8.854	4.427	2.214	0	60	OFF
2	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
3	94	-40	21.250	8.854	4.427	2.214	0	40	OFF
4	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
5	93	-40	21.250	8.854	4.427	2.214	0	40	OFF
6	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
7	92	-40	21.250	8.854	4.427	2.214	0	40	OFF
8	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
9	91	-40	21.250	8.854	4.427	2.214	0	40	OFF
10	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
11	90	-40	21.250	8.854	4.427	2.214	0	40	OFF
12	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
13	89	-40	21.250	8.854	4.427	2.214	0	40	OFF
14	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
15	88	-40	21.250	8.854	4.427	2.214	0	40	OFF
16	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
17	87	-40	21.250	8.854	4.427	2.214	0	40	OFF
18	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
19	86	-40	21.250	8.854	4.427	2.214	0	40	OFF
20	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
21	85	-40	21.250	8.854	4.427	2.214	0	40	OFF
22	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
23	84	-40	21.250	8.854	4.427	2.214	0	40	OFF
24	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
25	83	-40	21.250	8.854	4.427	2.214	0	40	OFF
26	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
27	82	-40	21.250	8.854	4.427	2.214	0	40	OFF
28	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
29	81	-40	21.250	8.854	4.427	2.214	0	40	OFF
30	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
31	80	-40	21.250	8.854	4.427	2.214	0	40	OFF
32	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
33	79	-40	21.250	8.854	4.427	2.214	0	40	OFF
34	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
35	78	-40	21.250	8.854	4.427	2.214	0	40	OFF
36	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
37	77	-40	21.250	8.854	4.427	2.214	0	40	OFF
38	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
39	76	-40	21.250	8.854	4.427	2.214	0	40	OFF
40	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
41	75	-40	21.250	8.854	4.427	2.214	0	40	OFF
42	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
43	74	-40	21.250	8.854	4.427	2.214	0	40	OFF
44	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
45	73	-40	21.250	8.854	4.427	2.214	0	40	OFF
46	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
47	72	-40	21.250	8.854	4.427	2.214	0	40	OFF
48	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
49	71	-40	21.250	8.854	4.427	2.214	0	40	OFF
50	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
51	70	-40	21.250	8.854	4.427	2.214	0	40	OFF
52	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
53	69	-40	21.250	8.854	4.427	2.214	0	40	OFF
54	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
55	68	-40	21.250	8.854	4.427	2.214	0	40	OFF
56	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
57	67	-40	21.250	8.854	4.427	2.214	0	40	OFF
58	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
59	66	-40	21.250	8.854	4.427	2.214	0	40	OFF
60	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
61	65	-40	21.250	8.854	4.427	2.214	0	40	OFF
62	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
63	64	-40	21.250	8.854	4.427	2.214	0	40	OFF
64	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
65	63	-40	21.250	8.854	4.427	2.214	0	40	OFF
66	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
67	62	-40	21.250	8.854	4.427	2.214	0	40	OFF
68	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
69	61	-40	21.250	8.854	4.427	2.214	0	40	OFF
70	0	-40	0.000	0.000	0.000	0.000	0	20	OFF

71	60	-40	21.250	8.854	4.427	2.214	0	40	OFF
72	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
73	59	-40	21.250	8.854	4.427	2.214	0	40	OFF
74	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
75	58	-40	21.250	8.854	4.427	2.214	0	40	OFF
76	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
77	57	-40	21.250	8.854	4.427	2.214	0	40	OFF
78	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
79	56	-40	21.250	8.854	4.427	2.214	0	40	OFF
80	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
81	55	-40	21.250	8.854	4.427	2.214	0	40	OFF
82	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
83	54	-40	21.250	8.854	4.427	2.214	0	40	OFF
84	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
85	53	-40	21.250	8.854	4.427	2.214	0	40	OFF
86	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
87	52	-40	21.250	8.854	4.427	2.214	0	40	OFF
88	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
89	51	-40	21.250	8.854	4.427	2.214	0	40	OFF
90	254	-40	21.250	8.854	4.427	2.214	0	60	OFF
91	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
92	255	-40	21.250	8.854	4.427	2.214	0	60	OFF
93	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
94	256	-40	21.250	8.854	4.427	2.214	0	40	OFF
95	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
96	257	-40	21.250	8.854	4.427	2.214	0	40	OFF
97	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
98	258	-40	21.250	8.854	4.427	2.214	0	40	OFF
99	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
100	259	-40	21.250	8.854	4.427	2.214	0	40	OFF
101	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
102	260	-40	21.250	8.854	4.427	2.214	0	40	OFF
103	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
104	261	-40	21.250	8.854	4.427	2.214	0	40	OFF
105	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
106	262	-40	21.250	8.854	4.427	2.214	0	40	OFF
107	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
108	263	-40	21.250	8.854	4.427	2.214	0	40	OFF
109	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
110	264	-40	21.250	8.854	4.427	2.214	0	40	OFF
111	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
112	265	-40	21.250	8.854	4.427	2.214	0	40	OFF
113	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
114	266	-40	21.250	8.854	4.427	2.214	0	40	OFF
115	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
116	267	-40	21.250	8.854	4.427	2.214	0	40	OFF
117	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
118	268	-40	21.250	8.854	4.427	2.214	0	40	OFF
119	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
120	269	-40	21.250	8.854	4.427	2.214	0	40	OFF
121	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
122	270	-40	21.250	8.854	4.427	2.214	0	40	OFF
123	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
124	271	-40	21.250	8.854	4.427	2.214	0	40	OFF
125	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
126	272	-40	21.250	8.854	4.427	2.214	0	40	OFF
127	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
128	273	-40	21.250	8.854	4.427	2.214	0	40	OFF
129	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
130	274	-40	21.250	8.854	4.427	2.214	0	40	OFF
131	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
132	275	-40	21.250	8.854	4.427	2.214	0	40	OFF
133	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
134	276	-40	21.250	8.854	4.427	2.214	0	40	OFF
135	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
136	277	-40	21.250	8.854	4.427	2.214	0	40	OFF
137	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
138	278	-40	21.250	8.854	4.427	2.214	0	40	OFF
139	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
140	279	-40	21.250	8.854	4.427	2.214	0	40	OFF
141	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
142	280	-40	21.250	8.854	4.427	2.214	0	40	OFF
143	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
144	281	-40	21.250	8.854	4.427	2.214	0	40	OFF

145	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
146	282	-40	21.250	8.854	4.427	2.214	0	40	OFF
147	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
148	283	-40	21.250	8.854	4.427	2.214	0	40	OFF
149	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
150	284	-40	21.250	8.854	4.427	2.214	0	40	OFF
151	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
152	285	-40	21.250	8.854	4.427	2.214	0	40	OFF
153	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
154	286	-40	21.250	8.854	4.427	2.214	0	40	OFF
155	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
156	287	-40	21.250	8.854	4.427	2.214	0	40	OFF
157	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
158	288	-40	21.250	8.854	4.427	2.214	0	40	OFF
159	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
160	289	-40	21.250	8.854	4.427	2.214	0	40	OFF
161	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
162	290	-40	21.250	8.854	4.427	2.214	0	40	OFF
163	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
164	291	-40	21.250	8.854	4.427	2.214	0	40	OFF
165	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
166	292	-40	21.250	8.854	4.427	2.214	0	40	OFF
167	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
168	293	-40	21.250	8.854	4.427	2.214	0	40	OFF
169	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
170	294	-40	21.250	8.854	4.427	2.214	0	40	OFF
171	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
172	295	-40	21.250	8.854	4.427	2.214	0	40	OFF
173	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
174	296	-40	21.250	8.854	4.427	2.214	0	40	OFF
175	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
176	297	-40	21.250	8.854	4.427	2.214	0	40	OFF
177	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
178	298	-40	21.250	8.854	4.427	2.214	0	40	OFF
179	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
180	299	-40	21.250	8.854	4.427	2.214	0	40	OFF
181	0	-40	0.000	0.000	0.000	0.000	0	20	OFF
182	300	-40	21.250	8.854	4.427	2.214	0	40	OFF
183	95	95	21.250	8.854	4.427	2.214	0	60	OFF
184	0	95	0.000	0.000	0.000	0.000	0	20	OFF
185	94	95	21.250	8.854	4.427	2.214	0	40	OFF
186	0	95	0.000	0.000	0.000	0.000	0	20	OFF
187	93	95	21.250	8.854	4.427	2.214	0	40	OFF
188	0	95	0.000	0.000	0.000	0.000	0	20	OFF
189	92	95	21.250	8.854	4.427	2.214	0	40	OFF
190	0	95	0.000	0.000	0.000	0.000	0	20	OFF
191	91	95	21.250	8.854	4.427	2.214	0	40	OFF
192	0	95	0.000	0.000	0.000	0.000	0	20	OFF
193	90	95	21.250	8.854	4.427	2.214	0	40	OFF
194	0	95	0.000	0.000	0.000	0.000	0	20	OFF
195	89	95	21.250	8.854	4.427	2.214	0	40	OFF
196	0	95	0.000	0.000	0.000	0.000	0	20	OFF
197	88	95	21.250	8.854	4.427	2.214	0	40	OFF
198	0	95	0.000	0.000	0.000	0.000	0	20	OFF
199	87	95	21.250	8.854	4.427	2.214	0	40	OFF
200	0	95	0.000	0.000	0.000	0.000	0	20	OFF
201	86	95	21.250	8.854	4.427	2.214	0	40	OFF
202	0	95	0.000	0.000	0.000	0.000	0	20	OFF
203	85	95	21.250	8.854	4.427	2.214	0	40	OFF
204	0	95	0.000	0.000	0.000	0.000	0	20	OFF
205	84	95	21.250	8.854	4.427	2.214	0	40	OFF
206	0	95	0.000	0.000	0.000	0.000	0	20	OFF
207	83	95	21.250	8.854	4.427	2.214	0	40	OFF
208	0	95	0.000	0.000	0.000	0.000	0	20	OFF
209	82	95	21.250	8.854	4.427	2.214	0	40	OFF
210	0	95	0.000	0.000	0.000	0.000	0	20	OFF
211	81	95	21.250	8.854	4.427	2.214	0	40	OFF
212	0	95	0.000	0.000	0.000	0.000	0	20	OFF
213	80	95	21.250	8.854	4.427	2.214	0	40	OFF
214	0	95	0.000	0.000	0.000	0.000	0	20	OFF
215	79	95	21.250	8.854	4.427	2.214	0	40	OFF
216	0	95	0.000	0.000	0.000	0.000	0	20	OFF
217	78	95	21.250	8.854	4.427	2.214	0	40	OFF
218	0	95	0.000	0.000	0.000	0.000	0	20	OFF

219	77	95	21.250	8.854	4.427	2.214	0	40	OFF
220	0	95	0.000	0.000	0.000	0.000	0	20	OFF
221	76	95	21.250	8.854	4.427	2.214	0	40	OFF
222	0	95	0.000	0.000	0.000	0.000	0	20	OFF
223	75	95	21.250	8.854	4.427	2.214	0	40	OFF
224	0	95	0.000	0.000	0.000	0.000	0	20	OFF
225	74	95	21.250	8.854	4.427	2.214	0	40	OFF
226	0	95	0.000	0.000	0.000	0.000	0	20	OFF
227	73	95	21.250	8.854	4.427	2.214	0	40	OFF
228	0	95	0.000	0.000	0.000	0.000	0	20	OFF
229	72	95	21.250	8.854	4.427	2.214	0	40	OFF
230	0	95	0.000	0.000	0.000	0.000	0	20	OFF
231	71	95	21.250	8.854	4.427	2.214	0	40	OFF
232	0	95	0.000	0.000	0.000	0.000	0	20	OFF
233	70	95	21.250	8.854	4.427	2.214	0	40	OFF
234	0	95	0.000	0.000	0.000	0.000	0	20	OFF
235	69	95	21.250	8.854	4.427	2.214	0	40	OFF
236	0	95	0.000	0.000	0.000	0.000	0	20	OFF
237	68	95	21.250	8.854	4.427	2.214	0	40	OFF
238	0	95	0.000	0.000	0.000	0.000	0	20	OFF
239	67	95	21.250	8.854	4.427	2.214	0	40	OFF
240	0	95	0.000	0.000	0.000	0.000	0	20	OFF
241	66	95	21.250	8.854	4.427	2.214	0	40	OFF
242	0	95	0.000	0.000	0.000	0.000	0	20	OFF
243	65	95	21.250	8.854	4.427	2.214	0	40	OFF
244	0	95	0.000	0.000	0.000	0.000	0	20	OFF
245	64	95	21.250	8.854	4.427	2.214	0	40	OFF
246	0	95	0.000	0.000	0.000	0.000	0	20	OFF
247	63	95	21.250	8.854	4.427	2.214	0	40	OFF
248	0	95	0.000	0.000	0.000	0.000	0	20	OFF
249	62	95	21.250	8.854	4.427	2.214	0	40	OFF
250	0	95	0.000	0.000	0.000	0.000	0	20	OFF
251	61	95	21.250	8.854	4.427	2.214	0	40	OFF
252	0	95	0.000	0.000	0.000	0.000	0	20	OFF
253	60	95	21.250	8.854	4.427	2.214	0	40	OFF
254	0	95	0.000	0.000	0.000	0.000	0	20	OFF
255	59	95	21.250	8.854	4.427	2.214	0	40	OFF
256	0	95	0.000	0.000	0.000	0.000	0	20	OFF
257	58	95	21.250	8.854	4.427	2.214	0	40	OFF
258	0	95	0.000	0.000	0.000	0.000	0	20	OFF
259	57	95	21.250	8.854	4.427	2.214	0	40	OFF
260	0	95	0.000	0.000	0.000	0.000	0	20	OFF
261	56	95	21.250	8.854	4.427	2.214	0	40	OFF
262	0	95	0.000	0.000	0.000	0.000	0	20	OFF
263	55	95	21.250	8.854	4.427	2.214	0	40	OFF
264	0	95	0.000	0.000	0.000	0.000	0	20	OFF
265	54	95	21.250	8.854	4.427	2.214	0	40	OFF
266	0	95	0.000	0.000	0.000	0.000	0	20	OFF
267	53	95	21.250	8.854	4.427	2.214	0	40	OFF
268	0	95	0.000	0.000	0.000	0.000	0	20	OFF
269	52	95	21.250	8.854	4.427	2.214	0	40	OFF
270	0	95	0.000	0.000	0.000	0.000	0	20	OFF
271	51	95	21.250	8.854	4.427	2.214	0	40	OFF
272	254	95	21.250	8.854	4.427	2.214	0	60	OFF
273	0	95	0.000	0.000	0.000	0.000	0	20	OFF
274	255	95	21.250	8.854	4.427	2.214	0	40	OFF
275	0	95	0.000	0.000	0.000	0.000	0	20	OFF
276	256	95	21.250	8.854	4.427	2.214	0	40	OFF
277	0	95	0.000	0.000	0.000	0.000	0	20	OFF
278	257	95	21.250	8.854	4.427	2.214	0	40	OFF
279	0	95	0.000	0.000	0.000	0.000	0	20	OFF
280	258	95	21.250	8.854	4.427	2.214	0	40	OFF
281	0	95	0.000	0.000	0.000	0.000	0	20	OFF
282	259	95	21.250	8.854	4.427	2.214	0	40	OFF
283	0	95	0.000	0.000	0.000	0.000	0	20	OFF
284	260	95	21.250	8.854	4.427	2.214	0	40	OFF
285	0	95	0.000	0.000	0.000	0.000	0	20	OFF
286	261	95	21.250	8.854	4.427	2.214	0	40	OFF
287	0	95	0.000	0.000	0.000	0.000	0	20	OFF
288	262	95	21.250	8.854	4.427	2.214	0	40	OFF
289	0	95	0.000	0.000	0.000	0.000	0	20	OFF
290	263	95	21.250	8.854	4.427	2.214	0	40	OFF
291	0	95	0.000	0.000	0.000	0.000	0	20	OFF
292	264	95	21.250	8.854	4.427	2.214	0	40	OFF

293	0	95	0.000	0.000	0.000	0.000	0	20	OFF
294	265	95	21.250	8.854	4.427	2.214	0	40	OFF
295	0	95	0.000	0.000	0.000	0.000	0	20	OFF
296	266	95	21.250	8.854	4.427	2.214	0	40	OFF
297	0	95	0.000	0.000	0.000	0.000	0	20	OFF
298	267	95	21.250	8.854	4.427	2.214	0	40	OFF
299	0	95	0.000	0.000	0.000	0.000	0	20	OFF
300	268	95	21.250	8.854	4.427	2.214	0	40	OFF
301	0	95	0.000	0.000	0.000	0.000	0	20	OFF
302	269	95	21.250	8.854	4.427	2.214	0	40	OFF
303	0	95	0.000	0.000	0.000	0.000	0	20	OFF
304	270	95	21.250	8.854	4.427	2.214	0	40	OFF
305	0	95	0.000	0.000	0.000	0.000	0	20	OFF
306	271	95	21.250	8.854	4.427	2.214	0	40	OFF
307	0	95	0.000	0.000	0.000	0.000	0	20	OFF
308	272	95	21.250	8.854	4.427	2.214	0	40	OFF
309	0	95	0.000	0.000	0.000	0.000	0	20	OFF
310	273	95	21.250	8.854	4.427	2.214	0	40	OFF
311	0	95	0.000	0.000	0.000	0.000	0	20	OFF
312	274	95	21.250	8.854	4.427	2.214	0	40	OFF
313	0	95	0.000	0.000	0.000	0.000	0	20	OFF
314	275	95	21.250	8.854	4.427	2.214	0	40	OFF
315	0	95	0.000	0.000	0.000	0.000	0	20	OFF
316	276	95	21.250	8.854	4.427	2.214	0	40	OFF
317	0	95	0.000	0.000	0.000	0.000	0	20	OFF
318	277	95	21.250	8.854	4.427	2.214	0	40	OFF
319	0	95	0.000	0.000	0.000	0.000	0	20	OFF
320	278	95	21.250	8.854	4.427	2.214	0	40	OFF
321	0	95	0.000	0.000	0.000	0.000	0	20	OFF
322	279	95	21.250	8.854	4.427	2.214	0	40	OFF
323	0	95	0.000	0.000	0.000	0.000	0	20	OFF
324	280	95	21.250	8.854	4.427	2.214	0	40	OFF
325	0	95	0.000	0.000	0.000	0.000	0	20	OFF
326	281	95	21.250	8.854	4.427	2.214	0	40	OFF
327	0	95	0.000	0.000	0.000	0.000	0	20	OFF
328	282	95	21.250	8.854	4.427	2.214	0	40	OFF
329	0	95	0.000	0.000	0.000	0.000	0	20	OFF
330	283	95	21.250	8.854	4.427	2.214	0	40	OFF
331	0	95	0.000	0.000	0.000	0.000	0	20	OFF
332	284	95	21.250	8.854	4.427	2.214	0	40	OFF
333	0	95	0.000	0.000	0.000	0.000	0	20	OFF
334	285	95	21.250	8.854	4.427	2.214	0	40	OFF
335	0	95	0.000	0.000	0.000	0.000	0	20	OFF
336	286	95	21.250	8.854	4.427	2.214	0	40	OFF
337	0	95	0.000	0.000	0.000	0.000	0	20	OFF
338	287	95	21.250	8.854	4.427	2.214	0	40	OFF
339	0	95	0.000	0.000	0.000	0.000	0	20	OFF
340	288	95	21.250	8.854	4.427	2.214	0	40	OFF
341	0	95	0.000	0.000	0.000	0.000	0	20	OFF
342	289	95	21.250	8.854	4.427	2.214	0	40	OFF
343	0	95	0.000	0.000	0.000	0.000	0	20	OFF
344	290	95	21.250	8.854	4.427	2.214	0	40	OFF
345	0	95	0.000	0.000	0.000	0.000	0	20	OFF
346	291	95	21.250	8.854	4.427	2.214	0	40	OFF
347	0	95	0.000	0.000	0.000	0.000	0	20	OFF
348	292	95	21.250	8.854	4.427	2.214	0	40	OFF
349	0	95	0.000	0.000	0.000	0.000	0	20	OFF
350	293	95	21.250	8.854	4.427	2.214	0	40	OFF
351	0	95	0.000	0.000	0.000	0.000	0	20	OFF
352	294	95	21.250	8.854	4.427	2.214	0	40	OFF
353	0	95	0.000	0.000	0.000	0.000	0	20	OFF
354	295	95	21.250	8.854	4.427	2.214	0	40	OFF
355	0	95	0.000	0.000	0.000	0.000	0	20	OFF
356	296	95	21.250	8.854	4.427	2.214	0	40	OFF
357	0	95	0.000	0.000	0.000	0.000	0	20	OFF
358	297	95	21.250	8.854	4.427	2.214	0	40	OFF
359	0	95	0.000	0.000	0.000	0.000	0	20	OFF
360	298	95	21.250	8.854	4.427	2.214	0	40	OFF
361	0	95	0.000	0.000	0.000	0.000	0	20	OFF
362	299	95	21.250	8.854	4.427	2.214	0	40	OFF
363	0	95	0.000	0.000	0.000	0.000	0	20	OFF
364	300	95	21.250	8.854	4.427	2.214	0	40	OFF
365	0	25	0.000	0.000	0.000	0.000	0	120	OFF

B.6 Output Load Limit Test

B.6.1 105V_{AC} Stress Profile

TESTLIST	Vac	Tamb	Load1	Load2	Load3	Load4	Vib	Dwell
0	0	90	0.000	0.000	0.000	0.000	0	120
1	105	90	25.000	15.000	7.500	3.750	0	300
2	0	90	0.000	0.000	0.000	0.000	0	30
3	105	90	0.000	0.000	0.000	0.000	0	30
4	105	90	25.000	15.000	7.500	3.750	0	30
5	105	90	26.250	15.750	7.875	3.938	0	600
6	105	90	25.000	15.000	7.500	3.750	0	30
7	285	90	26.250	15.750	7.875	3.938	0	600
8	285	90	0.000	0.000	0.000	0.000	0	30
9	0	90	0.000	0.000	0.000	0.000	0	30
10	105	90	25.000	15.000	7.500	3.750	0	300
11	0	90	0.000	0.000	0.000	0.000	0	30
12	105	90	0.000	0.000	0.000	0.000	0	30
13	105	90	25.000	15.000	7.500	3.750	0	30
14	105	90	27.500	16.500	8.250	4.125	0	600
15	105	90	25.000	15.000	7.500	3.750	0	30
16	285	90	27.500	16.500	8.250	4.125	0	600
17	285	90	0.000	0.000	0.000	0.000	0	30
18	0	90	0.000	0.000	0.000	0.000	0	30
19	105	90	25.000	15.000	7.500	3.750	0	300
20	0	90	0.000	0.000	0.000	0.000	0	30
21	105	90	0.000	0.000	0.000	0.000	0	30
22	105	90	25.000	15.000	7.500	3.750	0	30
23	105	90	28.750	17.250	8.625	4.313	0	600
24	105	90	25.000	15.000	7.500	3.750	0	30
25	285	90	28.750	17.250	8.625	4.313	0	600
26	285	90	0.000	0.000	0.000	0.000	0	30
27	0	90	0.000	0.000	0.000	0.000	0	30
28	105	90	25.000	15.000	7.500	3.750	0	300
29	0	90	0.000	0.000	0.000	0.000	0	30
30	105	90	0.000	0.000	0.000	0.000	0	30
31	105	90	25.000	15.000	7.500	3.750	0	30
32	105	90	30.000	18.000	9.000	4.500	0	600
33	105	90	25.000	15.000	7.500	3.750	0	30
34	285	90	30.000	18.000	9.000	4.500	0	600
35	285	90	0.000	0.000	0.000	0.000	0	30
36	0	90	0.000	0.000	0.000	0.000	0	30
37	105	90	25.000	15.000	7.500	3.750	0	300
38	0	90	0.000	0.000	0.000	0.000	0	30
39	105	90	0.000	0.000	0.000	0.000	0	30
40	105	90	25.000	15.000	7.500	3.750	0	30
41	105	90	31.250	18.750	9.375	4.688	0	600
42	105	90	25.000	15.000	7.500	3.750	0	30
43	285	90	31.250	18.750	9.375	4.688	0	600
44	285	90	0.000	0.000	0.000	0.000	0	30
45	0	90	0.000	0.000	0.000	0.000	0	30
46	105	90	25.000	15.000	7.500	3.750	0	300
47	0	90	0.000	0.000	0.000	0.000	0	30
48	105	90	0.000	0.000	0.000	0.000	0	30
49	105	90	25.000	15.000	7.500	3.750	0	30
50	105	90	32.500	19.500	9.750	4.875	0	600
51	105	90	25.000	15.000	7.500	3.750	0	30
52	285	90	32.500	19.500	9.750	4.875	0	600
53	285	90	0.000	0.000	0.000	0.000	0	30
54	0	90	0.000	0.000	0.000	0.000	0	30

B.6.2 120V_{AC} Stress Profile

TESTLIST	Vac	Tamb	Load1	Load2	Load3	Load4	Vib	Dwell
0	0	90	0.000	0.000	0.000	0.000	0	120
1	120	90	25.000	15.000	7.500	3.750	0	300
2	0	90	0.000	0.000	0.000	0.000	0	30
3	120	90	0.000	0.000	0.000	0.000	0	30
4	120	90	25.000	15.000	7.500	3.750	0	30
5	120	90	26.250	15.750	7.875	3.938	0	600
6	120	90	25.000	15.000	7.500	3.750	0	30
7	285	90	26.250	15.750	7.875	3.938	0	600
8	285	90	0.000	0.000	0.000	0.000	0	30
9	0	90	0.000	0.000	0.000	0.000	0	30
10	120	90	25.000	15.000	7.500	3.750	0	300
11	0	90	0.000	0.000	0.000	0.000	0	30
12	120	90	0.000	0.000	0.000	0.000	0	30
13	120	90	25.000	15.000	7.500	3.750	0	30
14	120	90	27.500	16.500	8.250	4.125	0	600
15	120	90	25.000	15.000	7.500	3.750	0	30
16	285	90	27.500	16.500	8.250	4.125	0	600
17	285	90	0.000	0.000	0.000	0.000	0	30
18	0	90	0.000	0.000	0.000	0.000	0	30
19	120	90	25.000	15.000	7.500	3.750	0	300
20	0	90	0.000	0.000	0.000	0.000	0	30
21	120	90	0.000	0.000	0.000	0.000	0	30
22	120	90	25.000	15.000	7.500	3.750	0	30
23	120	90	28.750	17.250	8.625	4.313	0	600
24	120	90	25.000	15.000	7.500	3.750	0	30
25	285	90	28.750	17.250	8.625	4.313	0	600
26	285	90	0.000	0.000	0.000	0.000	0	30
27	0	90	0.000	0.000	0.000	0.000	0	30
28	120	90	25.000	15.000	7.500	3.750	0	300
29	0	90	0.000	0.000	0.000	0.000	0	30
30	120	90	0.000	0.000	0.000	0.000	0	30
31	120	90	25.000	15.000	7.500	3.750	0	30
32	120	90	30.000	18.000	9.000	4.500	0	600
33	120	90	25.000	15.000	7.500	3.750	0	30
34	285	90	30.000	18.000	9.000	4.500	0	600
35	285	90	0.000	0.000	0.000	0.000	0	30
36	0	90	0.000	0.000	0.000	0.000	0	30
37	120	90	25.000	15.000	7.500	3.750	0	300
38	0	90	0.000	0.000	0.000	0.000	0	30
39	120	90	0.000	0.000	0.000	0.000	0	30
40	120	90	25.000	15.000	7.500	3.750	0	30
41	120	90	31.250	18.750	9.375	4.688	0	600
42	120	90	25.000	15.000	7.500	3.750	0	30
43	285	90	31.250	18.750	9.375	4.688	0	600
44	285	90	0.000	0.000	0.000	0.000	0	30
45	0	90	0.000	0.000	0.000	0.000	0	30
46	120	90	25.000	15.000	7.500	3.750	0	300
47	0	90	0.000	0.000	0.000	0.000	0	30
48	120	90	0.000	0.000	0.000	0.000	0	30
49	120	90	25.000	15.000	7.500	3.750	0	30
50	120	90	32.500	19.500	9.750	4.875	0	600
51	120	90	25.000	15.000	7.500	3.750	0	30
52	285	90	32.500	19.500	9.750	4.875	0	600
53	285	90	0.000	0.000	0.000	0.000	0	30
54	0	90	0.000	0.000	0.000	0.000	0	30

B.7 Combined Stress

TESTLIST	Vac	Tamb	Load1	Load2	Load3	Load4	Vib	Dwell
0	108.9	-50	0.000	0.000	0.000	0.000	7.2	1
1	108.9	-50	25.875	15.525	7.763	3.881	7.2	5
2	0	-50	0.000	0.000	0.000	0.000	7.2	1
3	270	-50	0.000	0.000	0.000	0.000	7.2	1
4	270	-50	25.875	15.525	7.763	3.881	7.2	5
5	108.9	-50	25.875	15.525	7.763	3.881	7.2	6
6	0	-50	0.000	0.000	0.000	0.000	7.2	1
7	270	-50	25.875	15.525	7.763	3.881	7.2	6
8	108.9	-50	25.875	15.525	7.763	3.881	7.2	6
9	0	-50	0.000	0.000	0.000	0.000	7.2	1
10	270	-50	25.875	15.525	7.763	3.881	7.2	6
11	108.9	-50	25.875	15.525	7.763	3.881	7.2	6
12	0	-50	0.000	0.000	0.000	0.000	7.2	1
13	270	-50	25.875	15.525	7.763	3.881	7.2	6
14	108.9	-50	0.000	0.000	0.000	0.000	7.2	1
15	108.9	-50	25.875	15.525	7.763	3.881	7.2	6
16	0	-50	0.000	0.000	0.000	0.000	7.2	1
17	270	-50	0.000	0.000	0.000	0.000	7.2	1
18	270	-50	25.875	15.525	7.763	3.881	7.2	6
19	0	85	0.000	0.000	0.000	0.000	7.2	1
20	108.9	85	0.000	0.000	0.000	0.000	7.2	1
21	108.9	85	25.875	15.525	7.763	3.881	7.2	6
22	0	85	0.000	0.000	0.000	0.000	7.2	1
23	270	85	0.000	0.000	0.000	0.000	7.2	1
24	270	85	25.875	15.525	7.763	3.881	7.2	6
25	108.9	85	25.875	15.525	7.763	3.881	7.2	6
26	0	85	0.000	0.000	0.000	0.000	7.2	1
27	270	85	25.875	15.525	7.763	3.881	7.2	6
28	108.9	85	25.875	15.525	7.763	3.881	7.2	6
29	0	85	0.000	0.000	0.000	0.000	7.2	1
30	270	85	25.875	15.525	7.763	3.881	7.2	6
31	108.9	85	25.875	15.525	7.763	3.881	7.2	6
32	0	85	0.000	0.000	0.000	0.000	7.2	1
33	270	85	25.875	15.525	7.763	3.881	7.2	6
34	108.9	85	0.000	0.000	0.000	0.000	7.2	1
35	108.9	85	25.875	15.525	7.763	3.881	7.2	6
36	0	85	0.000	0.000	0.000	0.000	7.2	1
37	270	85	0.000	0.000	0.000	0.000	7.2	1
38	270	85	25.875	15.525	7.763	3.881	7.2	6
39	108.9	-50	0.000	0.000	0.000	0.000	14.4	1
40	108.9	-50	25.875	15.525	7.763	3.881	14.4	5
41	0	-50	0.000	0.000	0.000	0.000	14.4	1
42	270	-50	0.000	0.000	0.000	0.000	14.4	1
43	270	-50	25.875	15.525	7.763	3.881	14.4	5
44	108.9	-50	25.875	15.525	7.763	3.881	14.4	6
45	0	-50	0.000	0.000	0.000	0.000	14.4	1
46	270	-50	25.875	15.525	7.763	3.881	14.4	6
47	108.9	-50	25.875	15.525	7.763	3.881	14.4	6
48	0	-50	0.000	0.000	0.000	0.000	14.4	1
49	270	-50	25.875	15.525	7.763	3.881	14.4	6
50	108.9	-50	25.875	15.525	7.763	3.881	14.4	6
51	0	-50	0.000	0.000	0.000	0.000	14.4	1
52	270	-50	25.875	15.525	7.763	3.881	14.4	6
53	108.9	-50	0.000	0.000	0.000	0.000	14.4	1
54	108.9	-50	25.875	15.525	7.763	3.881	14.4	6
55	0	-50	0.000	0.000	0.000	0.000	14.4	1
56	270	-50	0.000	0.000	0.000	0.000	14.4	1
57	270	-50	25.875	15.525	7.763	3.881	14.4	6
58	0	85	0.000	0.000	0.000	0.000	14.4	1
59	108.9	85	0.000	0.000	0.000	0.000	14.4	1
60	108.9	85	25.875	15.525	7.763	3.881	14.4	6
61	0	85	0.000	0.000	0.000	0.000	14.4	1
62	270	85	0.000	0.000	0.000	0.000	14.4	1
63	270	85	25.875	15.525	7.763	3.881	14.4	6
64	108.9	85	25.875	15.525	7.763	3.881	14.4	6
65	0	85	0.000	0.000	0.000	0.000	14.4	1
66	270	85	25.875	15.525	7.763	3.881	14.4	6
67	108.9	85	25.875	15.525	7.763	3.881	14.4	6
68	0	85	0.000	0.000	0.000	0.000	14.4	1
69	270	85	25.875	15.525	7.763	3.881	14.4	6

70	108.9	85	25.875	15.525	7.763	3.881	14.4	6
71	0	85	0.000	0.000	0.000	0.000	14.4	1
72	270	85	25.875	15.525	7.763	3.881	14.4	6
73	108.9	85	0.000	0.000	0.000	0.000	14.4	1
74	108.9	85	25.875	15.525	7.763	3.881	14.4	6
75	0	85	0.000	0.000	0.000	0.000	14.4	1
76	270	85	0.000	0.000	0.000	0.000	14.4	1
77	270	85	25.875	15.525	7.763	3.881	14.4	6
78	108.9	-50	0.000	0.000	0.000	0.000	21.6	1
79	108.9	-50	25.875	15.525	7.763	3.881	21.6	5
80	0	-50	0.000	0.000	0.000	0.000	21.6	1
81	270	-50	0.000	0.000	0.000	0.000	21.6	1
82	270	-50	25.875	15.525	7.763	3.881	21.6	5
83	108.9	-50	25.875	15.525	7.763	3.881	21.6	6
84	0	-50	0.000	0.000	0.000	0.000	21.6	1
85	270	-50	25.875	15.525	7.763	3.881	21.6	6
86	108.9	-50	25.875	15.525	7.763	3.881	21.6	6
87	0	-50	0.000	0.000	0.000	0.000	21.6	1
88	270	-50	25.875	15.525	7.763	3.881	21.6	6
89	108.9	-50	25.875	15.525	7.763	3.881	21.6	6
90	0	-50	0.000	0.000	0.000	0.000	21.6	1
91	270	-50	25.875	15.525	7.763	3.881	21.6	6
92	108.9	-50	0.000	0.000	0.000	0.000	21.6	1
93	108.9	-50	25.875	15.525	7.763	3.881	21.6	6
94	0	-50	0.000	0.000	0.000	0.000	21.6	1
95	270	-50	0.000	0.000	0.000	0.000	21.6	1
96	270	-50	25.875	15.525	7.763	3.881	21.6	6
97	0	85	0.000	0.000	0.000	0.000	21.6	1
98	108.9	85	0.000	0.000	0.000	0.000	21.6	1
99	108.9	85	25.875	15.525	7.763	3.881	21.6	6
100	0	85	0.000	0.000	0.000	0.000	21.6	1
101	270	85	0.000	0.000	0.000	0.000	21.6	1
102	270	85	25.875	15.525	7.763	3.881	21.6	6
103	108.9	85	25.875	15.525	7.763	3.881	21.6	6
104	0	85	0.000	0.000	0.000	0.000	21.6	1
105	270	85	25.875	15.525	7.763	3.881	21.6	6
106	108.9	85	25.875	15.525	7.763	3.881	21.6	6
107	0	85	0.000	0.000	0.000	0.000	21.6	1
108	270	85	25.875	15.525	7.763	3.881	21.6	6
109	108.9	85	25.875	15.525	7.763	3.881	21.6	6
110	0	85	0.000	0.000	0.000	0.000	21.6	1
111	270	85	25.875	15.525	7.763	3.881	21.6	6
112	108.9	85	0.000	0.000	0.000	0.000	21.6	1
113	108.9	85	25.875	15.525	7.763	3.881	21.6	6
114	0	85	0.000	0.000	0.000	0.000	21.6	1
115	270	85	0.000	0.000	0.000	0.000	21.6	1
116	270	85	25.875	15.525	7.763	3.881	21.6	6
117	108.9	-50	0.000	0.000	0.000	0.000	28.8	1
118	108.9	-50	25.875	15.525	7.763	3.881	28.8	5
119	0	-50	0.000	0.000	0.000	0.000	28.8	1
120	270	-50	0.000	0.000	0.000	0.000	28.8	1
121	270	-50	25.875	15.525	7.763	3.881	28.8	5
122	108.9	-50	25.875	15.525	7.763	3.881	28.8	6
123	0	-50	0.000	0.000	0.000	0.000	28.8	1
124	270	-50	25.875	15.525	7.763	3.881	28.8	6
125	108.9	-50	25.875	15.525	7.763	3.881	28.8	6
126	0	-50	0.000	0.000	0.000	0.000	28.8	1
127	270	-50	25.875	15.525	7.763	3.881	28.8	6
128	108.9	-50	25.875	15.525	7.763	3.881	28.8	6
129	0	-50	0.000	0.000	0.000	0.000	28.8	1
130	270	-50	25.875	15.525	7.763	3.881	28.8	6
131	108.9	-50	0.000	0.000	0.000	0.000	28.8	1
132	108.9	-50	25.875	15.525	7.763	3.881	28.8	6
133	0	-50	0.000	0.000	0.000	0.000	28.8	1
134	270	-50	0.000	0.000	0.000	0.000	28.8	1
135	270	-50	25.875	15.525	7.763	3.881	28.8	6
136	0	85	0.000	0.000	0.000	0.000	28.8	1
137	108.9	85	0.000	0.000	0.000	0.000	28.8	1
138	108.9	85	25.875	15.525	7.763	3.881	28.8	6
139	0	85	0.000	0.000	0.000	0.000	28.8	1
140	270	85	0.000	0.000	0.000	0.000	28.8	1
141	270	85	25.875	15.525	7.763	3.881	28.8	6
142	108.9	85	25.875	15.525	7.763	3.881	28.8	6
143	0	85	0.000	0.000	0.000	0.000	28.8	1

144	270	85	25.875	15.525	7.763	3.881	28.8	6
145	108.9	85	25.875	15.525	7.763	3.881	28.8	6
146	0	85	0.000	0.000	0.000	0.000	28.8	1
147	270	85	25.875	15.525	7.763	3.881	28.8	6
148	108.9	85	25.875	15.525	7.763	3.881	28.8	6
149	0	85	0.000	0.000	0.000	0.000	28.8	1
150	270	85	25.875	15.525	7.763	3.881	28.8	6
151	108.9	85	0.000	0.000	0.000	0.000	28.8	1
152	108.9	85	25.875	15.525	7.763	3.881	28.8	6
153	0	85	0.000	0.000	0.000	0.000	28.8	1
154	270	85	0.000	0.000	0.000	0.000	28.8	1
155	270	85	25.875	15.525	7.763	3.881	28.8	6
156	108.9	-50	0.000	0.000	0.000	0.000	36	1
157	108.9	-50	25.875	15.525	7.763	3.881	36	5
158	0	-50	0.000	0.000	0.000	0.000	36	1
159	270	-50	0.000	0.000	0.000	0.000	36	1
160	270	-50	25.875	15.525	7.763	3.881	36	5
161	108.9	-50	25.875	15.525	7.763	3.881	36	6
162	0	-50	0.000	0.000	0.000	0.000	36	1
163	270	-50	25.875	15.525	7.763	3.881	36	6
164	108.9	-50	25.875	15.525	7.763	3.881	36	6
165	0	-50	0.000	0.000	0.000	0.000	36	1
166	270	-50	25.875	15.525	7.763	3.881	36	6
167	108.9	-50	25.875	15.525	7.763	3.881	36	6
168	0	-50	0.000	0.000	0.000	0.000	36	1
169	270	-50	25.875	15.525	7.763	3.881	36	6
170	108.9	-50	0.000	0.000	0.000	0.000	36	1
171	108.9	-50	25.875	15.525	7.763	3.881	36	6
172	0	-50	0.000	0.000	0.000	0.000	36	1
173	270	-50	0.000	0.000	0.000	0.000	36	1
174	270	-50	25.875	15.525	7.763	3.881	36	6
175	0	85	0.000	0.000	0.000	0.000	36	1
176	108.9	85	0.000	0.000	0.000	0.000	36	1
177	108.9	85	25.875	15.525	7.763	3.881	36	6
178	0	85	0.000	0.000	0.000	0.000	36	1
179	270	85	0.000	0.000	0.000	0.000	36	1
180	270	85	25.875	15.525	7.763	3.881	36	6
181	108.9	85	25.875	15.525	7.763	3.881	36	6
182	0	85	0.000	0.000	0.000	0.000	36	1
183	270	85	25.875	15.525	7.763	3.881	36	6
184	108.9	85	25.875	15.525	7.763	3.881	36	6
185	0	85	0.000	0.000	0.000	0.000	36	1
186	270	85	25.875	15.525	7.763	3.881	36	6
187	108.9	85	25.875	15.525	7.763	3.881	36	6
188	0	85	0.000	0.000	0.000	0.000	36	1
189	270	85	25.875	15.525	7.763	3.881	36	6
190	108.9	85	0.000	0.000	0.000	0.000	36	1
191	108.9	85	25.875	15.525	7.763	3.881	36	6
192	0	85	0.000	0.000	0.000	0.000	36	1
193	270	85	0.000	0.000	0.000	0.000	36	1
194	270	85	25.875	15.525	7.763	3.881	36	6

Appendix C – Functional Test Profile

Line	CMD	Param1	Notes
1	BLANK	Connection	
2	BLANK	120	Source: input voltage
3	BLANK	50	Source: input frequency
4	BLANK	16	Source: current limit
5	BLANK	ON	Turn on AC Source
6	StoreResult	2_HighTemp,7,5	Sheet
7	StoreResult	0,8,5	Step
8	Time		
9	DL_MeasTemp	301,K	Chamber Temp DL
10	DL_MeasTemp	302,K	Product Temp
11	DL_MeasVoltDC	109,111,112,113,114,209	ACOK1,PG1,PG2,PG3,PG4,5VB1
12	DL_MeasVoltDC	101,102,103,104	Vo1,Vo2,Vo3,Vo4
13	PF	220,25,12.5,6.25,3.125	Param1 = (Vac,I1,I2,I3,I4)
14	NL_PWR	120,LOW,A04,10	Param1 = (Vac,Shunt,Range,Avg_time)
15	EFF	120,25,12.5,6.25,3.125	Param1 = (Vac,I1,I2,I3,I4)
16	EFF	220,25,12.5,6.25,3.125	Param1 = (Vac,I1,I2,I3,I4)
17	TACOK_PG(OFF)	120,25,12.5,6.25,3.125	Param1 = (Vac,I1,I2,I3,I4)
18	HOLDUP	0.02,120,25,12.5,6.25,3.125	Param1 = (Thold,Vac,I1,I2,I3,I4)
19	Loadreg	0:25,0:15,0:7.5,0:3.75	Param1 = (I1a:I1b,I2a:I2b,I3a:I3b,I4a:I4b)
20	Linereg	120:220,0:25,0:12.5,0:6.25,0:3.125	(Vac1:Vac2,I1a:I1b,I2a:I2b,I3a:I3b,I4a:I4b)
21	Crossreg	0:25,0:15,0:7.5,0:3.75	Param1 = (I1a:I1b,I2a:I2b,I3a:I3b,I4a:I4b)
22	Ripple	0,0,0,0,5e-6	Param1 = (I1,I2,I3,I4,timescale)
23	Ripple	25,15,7.5,3.75,5e-6	Param1 = (I1,I2,I3,I4,timescale)
24	Vtrans	7.5:22.5,3.125:9.375,1.5625:4.6875,0.78125:2.34375	Param1 = (I1a:I1b,I2a:I2b,I3a:I3b,I4a:I4b)
25	Ttrans	7.5:22.5,3.125:9.375,1.5625:4.6875,0.78125:2.34375	Param1 = (I1a:I1b,I2a:I2b,I3a:I3b,I4a:I4b)
26	Trise	25,12.5,6.25,3.125:3.5,3.5,3.5,3.5:INH	Param1 = (I1,I2,I3,I4:V1,V2,V3,V4:Mode)
27	OCP	2,4,8,9,6,19.2	Param1 = (Vnom*0.4)
28	StoreResult2	2_HighTemp,15,1,TestResults	
29	Repeat	21,-1	
30	End		

Appendix D – HALT Test Profile

Line	CMD	Param1	Notes
1	StoreResult	8,50,5	Set Start Point
2	Call	Connection	Connect Equipment
3	SetVac	0	Initialise
4	SetIac	16	
5	SetLoad	0,0,0,0	
6	SetTemp	25	
7	SetGRMS	0	
8	SetOutp	ON	Turn on AC Source
9	OVSSTAT	ON	Turn on Chamber
10	SetVac	0	Control
11	SetIac	16	
12	SetLoad	0,0,0,0	
13	SetTemp	25	
14	SetGRMS	0	
15	ReadTemp		Chamber Temp
16	DL_MeasTemp	301,K	Ambient Temp
17	DL_MeasTemp	302,K	Product Temp
18	ReadGRMS		
19	Call	LogProcess	Logging
20	Skipto	21	Manual skip
21	Skipto	22	Wait for Temp
22	Time		Record start time
23	Time		Current Time
24	Blank	00:10:04	Time elapsed
25	Blank	LogProcess	Logging
26	Blank		Product Temp PI control
27	DL_MeasTemp	302,K	Product Temp
28	Blank	-6.671	ProdT-Tambset
29	Blank	0	Propotional
30	Accumulate	0	Integral
31	BLANK	25	Product Temp Control
32	BLANK		Setup Scope CH4
33	ScopeChan	4,DC,ON,5,10,30	Scope: channel settings (Vout)
34	ScopeCmd	CHAN4:LAB "GRMS";:DISP:LAB ON	Scope: set labels (Vout)
35	ScopeCmd	TIMEBASE:MODE ROLL	
36	ScopeCmd	TIM:SCAL 1	Scope: timescale settings
37	ScopeCmd	MEAS:VRMS DISP, DC, CHAN4	Scope: add Vrms meas
38	Delay	12	Delay 10 seconds
39	BLANK		Product Vib PI control
40	ScopeCmd	MEAS:VRMS? DISP, DC, CHAN4	Measure GRMS
41	Blank	0	ProdG-Gset
42	Blank	0	Propotional
43	Accumulate	0	Integral
44	BLANK	0	Product Vib Control
45	Blank	0,46,5	Record last GRMS setting
46	Call	LogProcess	Logging
47	Blank	23	Log until dwell expired
48	Skipto	49	Functional Test
49	Repeat	33,-39	Main count
50	SetVac	0	Finalise
51	SetIac	0	
52	SetLoad	0,0,0,0	
53	SetTemp	25	
54	SetGRMS	0	
55	SetOutp	OFF	Turn off AC Source
56	OVSSTAT	OFF	Turn off Chamber
57	End		

Appendix E – Data Collection Profile

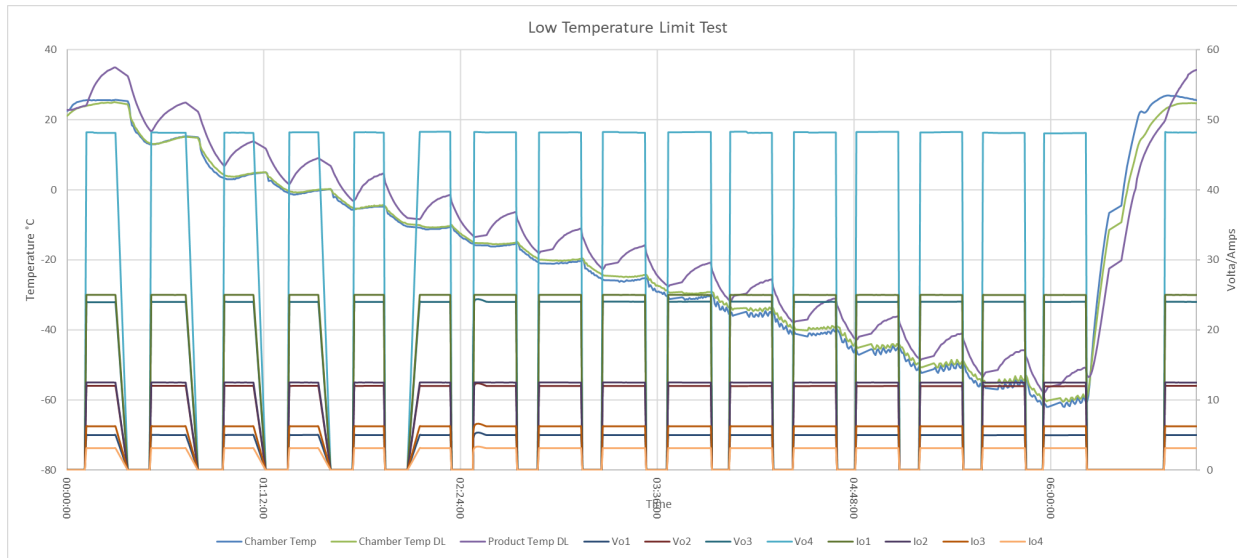
Line	CMD	Param1	Notes
1	Time		Time
2	StoreResult	0,3,5	Step #
3	ReadTemp		Chamber Temp
4	ReadGRMS		Chamber Vibration
5	DL_MeasTemp	301,K	Chamber Temp DL
6	DL_MeasTemp	302,K	Product Temp DL
7	StoreResult	,8,5	Product Vibration
8	DL_MeasVoltDC	101	Vo1
9	DL_MeasVoltDC	102	Vo2
10	DL_MeasVoltDC	103	Vo3
11	DL_MeasVoltDC	104	Vo4
12	ReadLoad	1	Io1
13	ReadLoad	3	Io2
14	ReadLoad	5	Io3
15	ReadLoad	7	Io4
16	DM_Read	V	Vin (V)
17	DM_Read	W	Pin (W)
18	DM_Read	PF	PF
19	StoreResult	424.828168424062,20,5	Pout
20	StoreResult	0.869373733115176,21,5	Eff
21	StoreResult2	0.629293981481481,488,3,Log	
22	Repeat	19,-1	
23	Delay	10	
24	End		

Appendix F – Collected Test Data

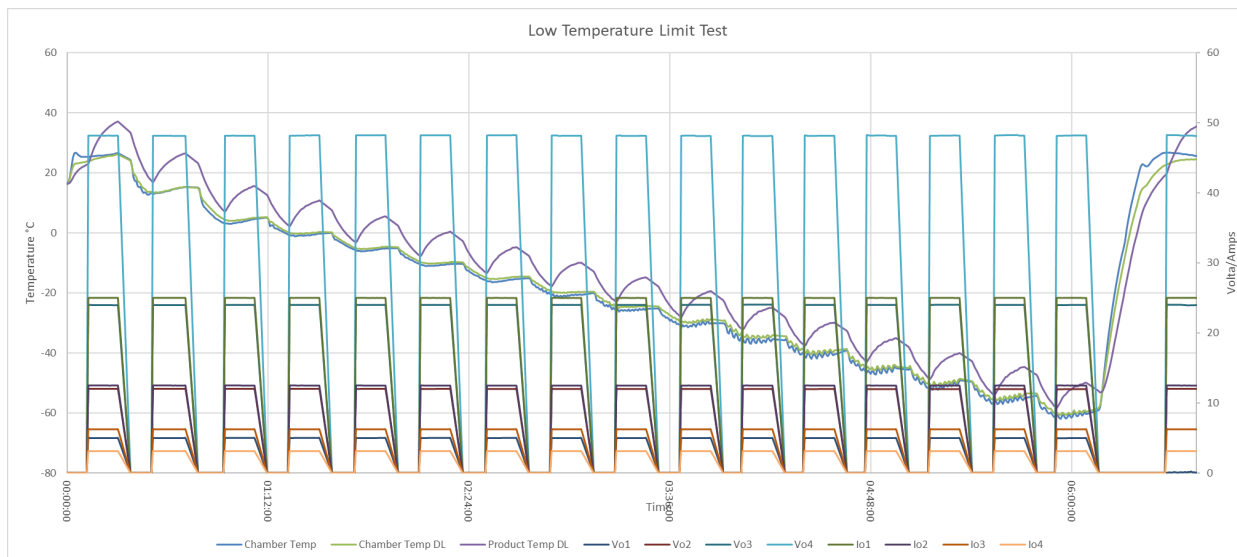
F.1 Low Temperature Limits Test

F.1.1 Output Voltage and current

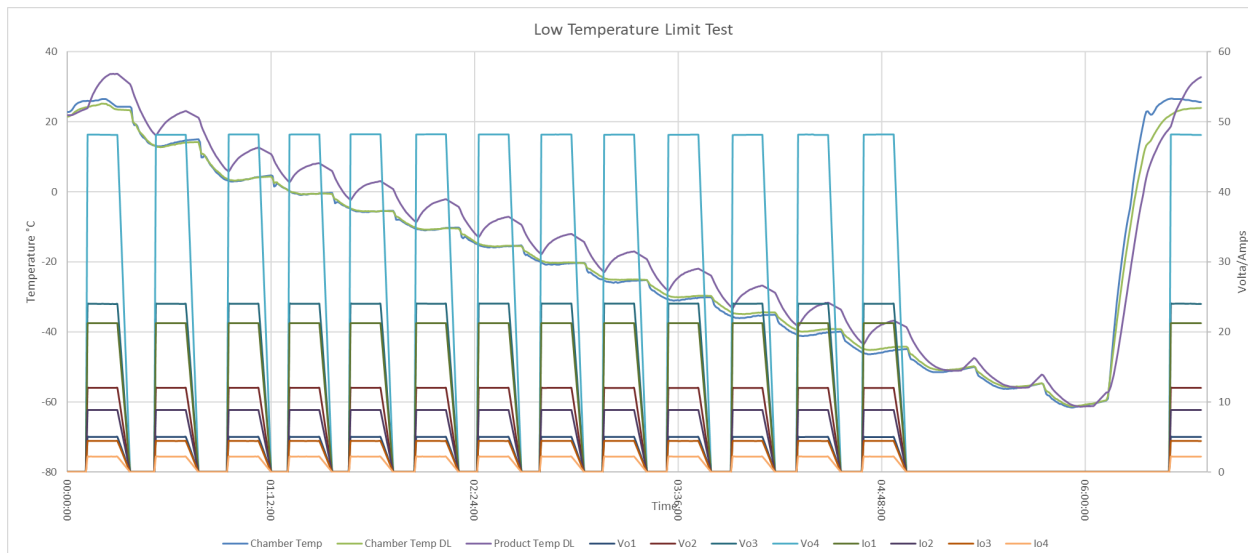
F.1.1.a 220V



F.1.1.b 120V

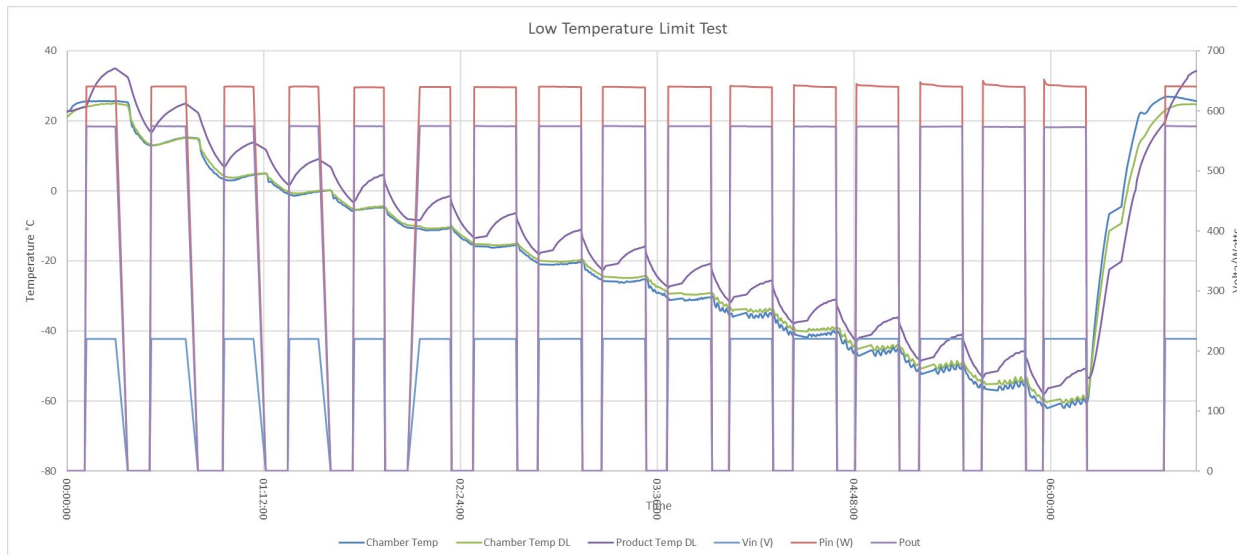


F.1.1.c 85V

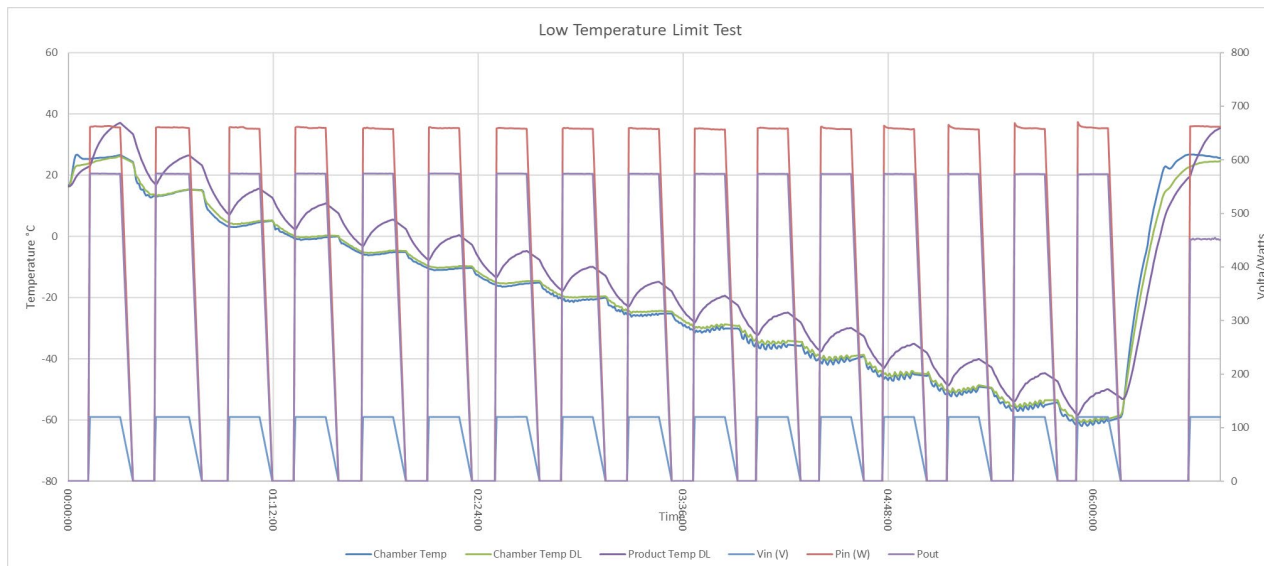


F.1.2 Input Voltage, Input Power, Output Power

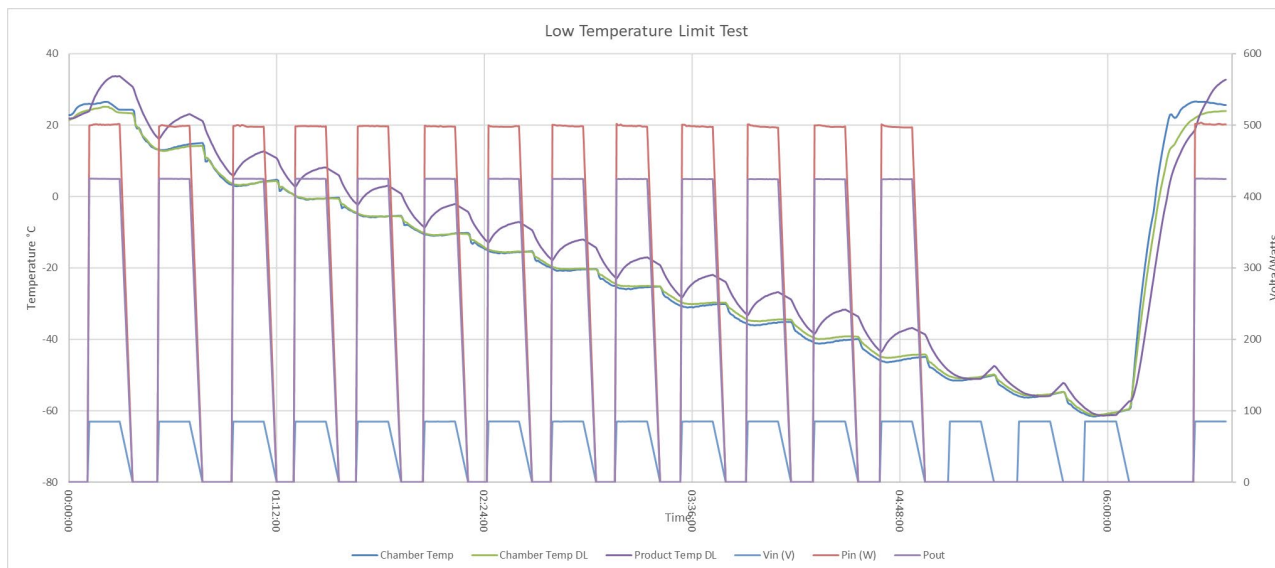
F.1.2.a 220V



F.1.2.b 120V

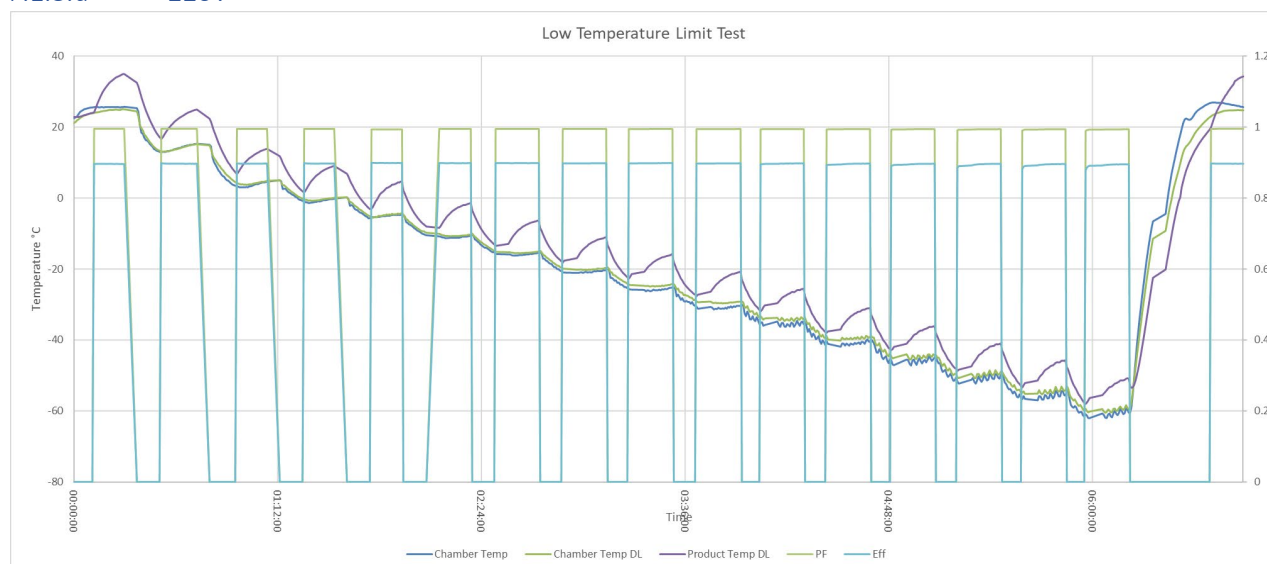


F.1.2.c 85V

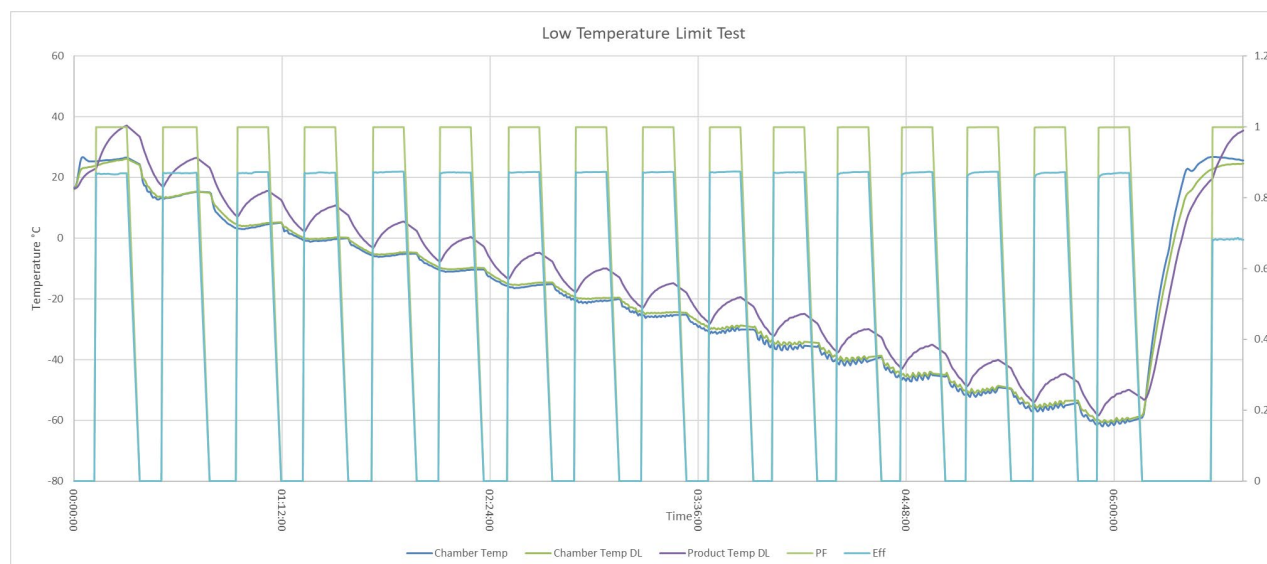


F.1.3 Power Factor & Efficiency

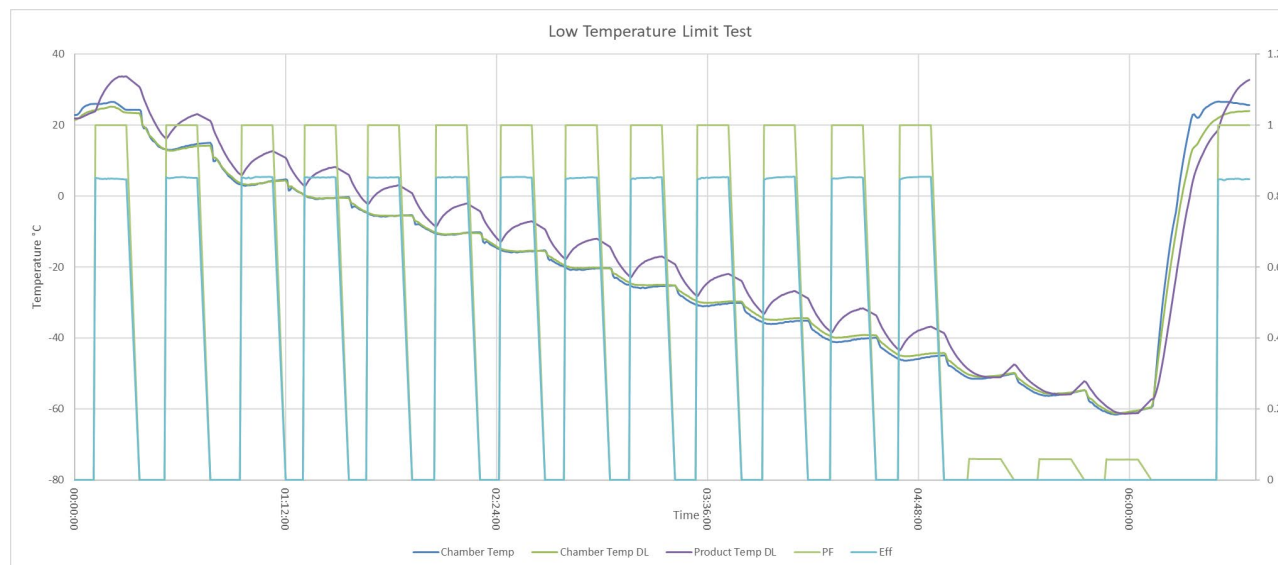
F.1.3.a 220V



F.1.3.b 120V



F.1.3.c 85V



F.1.4 Functional Test Results

F.1.4.a 220V

Sheet	Step	Time	Chamber Temp DL	Product Temp	ACOK,PG1,PG2,PG3,PG4,5VB1	Vo1,V02,V03,V04	PF	NL_PWR	EFF120	EFF220	TACOK	HOLDUP	Loadreg	Linerreg	Crossreg	Ripple_NL	Ripple	Vtrans	Ttrans	Trise	OCF
1_LowTemp	1	17:51:29	25.02	35.10	5.009256 4.997145 4.997002 4.996881 4.996859 5.011280	4.990721 12.004973 23.944524 48.117589	0.9950	12.978	0.870	0.898	0.0052 0.0052 0.0052 0.0052	-0.025 -0.110 -0.190 -0.390	0.014916 0.048323 0.120493 0.064771	0.000044 -0.000110 0.001435 0.000773	-0.001067 0.005291 0.016662 -0.010042	0.020000 0.010000 0.150000 0.290000	0.025000 0.088000 0.130000 0.260000	0.830 1.120 1.140 1.66	0.000035 0.000035 0.000051 0.000080	0.002338 0.002307 0.002366 0.002378	27.40 16.40 8.25 4.34
1_LowTemp	3	18:17:10	15.14	25.00	5.007980 4.995671 4.995517 4.995440 4.995451 5.009828	4.992316 12.006849 23.983365 48.148816	0.9950	13.295	0.872	0.899	0.0051 0.0051 0.0051 0.0051	-0.019 -0.110 -0.240 -0.390	0.013167 0.043864 0.117734 0.060026	0.000165 -0.000111 0.000883 -0.000552	-0.002222 0.004885 0.016772 -0.010706	0.025000 0.105000 0.140000 0.300000	0.024000 0.092000 0.130000 0.260000	0.830 1.180 1.14 1.64	0.000034 0.000046 0.000051 0.000080	0.002379 0.002267 0.002304 0.002382	27.42 16.40 8.25 4.35
1_LowTemp	5	18:41:59	4.83	14.05	5.005604 4.993229 4.993031 4.993020 4.992987 5.007375	4.993867 12.006629 23.995282 48.113286	0.9950	13.881	0.873	0.899	0.0051 0.0051 0.0051 0.0051	-0.025 -0.110 -0.240 -0.390	0.013013 0.041391 0.118066 0.056826	0.000011 -0.000221 -0.000662 0.000662	-0.002640 0.003300 0.017544 -0.009269	0.025000 0.105000 0.160000 0.310000	0.029000 0.088000 0.150000 0.270000	0.830 1.160 1.140 1.66	0.000035 0.000047 0.000052 0.000080	0.002295 0.002282 0.002299 0.002378	27.42 16.39 8.25 4.35
1_LowTemp	7	19:05:44	0.14	9.12	5.004295 4.991909 4.991711 4.991579 4.991546 5.006022	4.993768 12.006408 23.995502 48.210056	0.9950	14.026	0.873	0.899	0.0051 0.0051 0.0051 0.0051	-0.024 -0.110 -0.240 -0.390	0.012188 0.041193 0.116852 0.056054	0.000022 -0.000311 0.000110 0.000110	-0.001694 0.003311 0.170000 -0.011258	0.027000 0.109000 0.140000 0.310000	0.025000 0.088000 0.140000 0.280000	0.840 1.210 1.150 1.64	0.000034 0.000045 0.000050 0.000080	0.002302 0.002274 0.002375 0.002383	27.42 16.39 8.25 4.35
1_LowTemp	9	09:17:17	-4.49	4.72	5.003767 4.991293 4.991117 4.990963 4.990930 5.005406	4.992305 12.004973 23.993295 48.162609	0.9950	14.210	0.873	0.900	0.0051 0.0051 0.0051 0.0051	-0.026 -0.130 -0.240 -0.390	0.011594 0.036813 0.116962 0.054953	0.000088 -0.000221 0.000552 -0.000882	-0.000968 0.004719 0.019310 -0.010262	0.025000 0.117000 0.160000 0.330000	0.022000 0.101000 0.140000 0.300000	0.850 1.210 1.22 1.66	0.000034 0.000047 0.000048 0.000077	0.002279 0.002264 0.002377 0.002378	27.43 16.40 8.26 4.35
1_LowTemp	11	09:41:45	-10.28	-1.26	5.001138 4.988598 4.988411 4.988367 4.988356 5.002722	4.992547 12.003539 23.996606 48.289505	0.9950	14.168	0.872	0.899	0.0051 0.0051 0.0051 0.0051	-0.026 -0.130 -0.240 -0.390	0.010703 0.034841 0.110452 0.055612	-0.000033 -0.000110 0.000220 -0.000441	-0.000121 0.004532 0.024717 -0.008497	0.032000 0.121000 0.170000 0.340000	0.029000 0.096000 0.160000 0.310000	0.850 1.210 1.18 1.66	0.000034 0.000044 0.000050 0.000080	0.002289 0.002258 0.002300 0.002375	27.42 16.38 8.26 4.35
1_LowTemp	13	10:05:56	-15.08	-6.24	4.998916 4.986310 4.986024 4.986035 4.986013 5.000434	4.992602 12.001001 23.998481 48.220759	0.9950	14.731	0.873	0.900	0.0051 0.0050 0.0050 0.0050	-0.027 -0.110 -0.240 -0.390	0.008899 0.034153 0.109238 0.051422	0.000044 -0.000221 0.000331 -0.002979	-0.000418 0.003751 0.022400 -0.008938	0.025000 0.121000 0.170000 0.340000	0.029000 0.101000 0.160000 0.310000	0.850 1.210 1.210 1.68	0.000034 0.000045 0.000047 0.000079	0.002282 0.002255 0.002379 0.002373	27.41 16.38 8.25 4.35
1_LowTemp	15	10:29:48	-19.70	-10.99	4.999103 4.986277 4.986134 4.985991 4.986079 5.000456	4.991997 11.998790 24.019888 48.197808	0.9950	15.094	0.873	0.900	0.0050 0.0050 0.0050 0.0050	-0.026 -0.110 -0.240 -0.390	0.007216 0.032615 0.107583 0.048440	0.000022 -0.000077 -0.000442 0.003531	-0.000440 0.004158 0.020855 -0.008496	0.027000 0.121000 0.160000 0.360000	0.030000 0.121000 0.180000 0.330000	0.850 1.210 1.240 1.66	0.000034 0.000030 0.000046 0.000079	0.002281 0.002261 0.002299 0.002374	27.42 16.37 8.24 4.36
1_LowTemp	17	10:53:14	-24.46	-15.85	4.995979 4.983197 4.982999 4.982900 4.982911 4.997387	4.990886 11.996579 24.023308 48.147823	0.9940	15.547	0.873	0.900	0.0050 0.0050 0.0050 0.0050	-0.026 -0.110 -0.240 -0.390	0.007172 0.031801 0.105928 0.048771	0.000066 0.000099 0.000441 0.000551	0.000330 0.003234 0.013130 -0.010152	0.024000 0.125000 0.170000 0.370000	0.032000 0.113000 0.140000 0.340000	0.850 1.220 1.24 1.64	0.000035 0.000045 0.000048 0.000081	0.002283 0.002242 0.002309 0.002367	27.40 16.36 8.25 4.35
1_LowTemp	19	11:16:49	-29.08	-20.82	4.994593 4.981569 4.981481 4.981294 4.981283 4.995781	4.988840 11.994016 24.030701 48.247134	0.9940	15.844	0.873	0.900	0.0050 0.0050 0.0050 0.0050	-0.026 -0.110 -0.240 -0.390	0.007161 0.032714 0.109238 0.047229	0.000088 0.000077 0.000331 0.001434	0.000473 0.003092 0.003421 -0.008937	0.029000 0.129000 0.170000 0.360000	0.027000 0.113000 0.180000 0.310000	0.850 1.220 1.240 1.64	0.000034 0.000047 0.000047 0.000079	0.002274 0.002234 0.002288 0.002355	27.39 16.35 8.24 4.36
1_LowTemp	21	11:39:12	-33.84	-25.46	4.992041 4.979105 4.978863 4.978797 4.978819 4.993295	4.986530 11.987119 24.034674 48.138665	0.9940	15.612	0.873	0.899	0.0050 0.0050 0.0050 0.0050	-0.026 -0.110 -0.240 -0.390	0.007469 0.032649 0.109900 0.046564	-0.000143 0.000066 0.000441 -0.006511	-0.001991 0.004169 0.003090 -0.009269	0.025000 0.129000 0.180000 0.370000	0.042000 0.109000 0.170000 0.320000	0.850 1.290 1.23 1.64	0.000034 0.000045 0.000047 0.000079	0.002274 0.002239 0.002290 0.002358	27.38 16.35 8.24 4.36
1_LowTemp	23	12:02:32	-38.29	-30.74	4.988697 4.975541 4.975431 4.975299 4.975299 4.989808	4.984044 11.983698 24.003557 48.188650	0.9940	16.442	0.872	0.899	0.0050 0.0050 0.0050 0.0050	-0.025 -0.130 -0.240 -0.390	0.011165 0.032231 0.111997 0.046564	0.000066 0.000121 0.000331 -0.000882	-0.002079 0.003850 0.004524 -0.009158	0.029000 0.133000 0.180000 0.390000	0.030000 0.117000 0.150000 0.310000	0.850 1.260 1.260 1.66	0.000033 0.000024 0.000047 0.000078	0.002268 0.002231 0.002288 0.002336	27.37 16.33 8.24 4.36
1_LowTemp	25	12:25:26	-44.50	-35.93	4.986552 4.973253 4.973011	4.981525 11.984006	0.9940	16.582	0.871	0.898	0.0050 0.0050	-0.026 -0.130	0.010967 0.034035	-0.000099 0.000187	-0.001672 0.005951	0.032000 0.133000	0.027000 0.113000	0.860 1.29	0.000034 0.000024	0.002260 0.002226	27.34 16.31

					4.972835 4.972857 4.987355	24.002343 48.277809					0.0050 0.0050	-0.240 -0.390	0.114203 0.048881	-0.000221 -0.001875	0.010372 -0.008386	0.180000 0.390000	0.170000 0.340000	1.26 1.66	0.000045 0.000080	0.002289 0.002352	8.24 4.35
1_LowTemp	27	12:48:50	-49.28	-40.81	4.984539 4.970975 4.970755 4.970689 4.970678 4.985210	4.979083 11.978858 24.025074 48.247796	0.9940	17.059	0.871	0.898	0.0049 0.0049 0.0049 0.0049	-0.025 -0.130 -0.240 -0.390	0.010670 0.031780 0.118286 0.048664	0.000077 0.000132 0.000441 -0.001986	-0.001914 0.005027 0.009489 -0.005628	0.030000 0.129000 0.180000 0.390000	0.041000 0.117000 0.180000 0.340000	0.860 1.280 1.31 1.64	0.000034 0.000023 0.000045 0.000082	0.002267 0.002223 0.002288 0.002339	27.36 16.30 8.23 4.36
1_LowTemp	29	13:11:42	-53.02	-45.45	4.979380 4.965596 4.965420 4.965310 4.965354 4.979831	4.976487 11.973534 24.019888 48.124762	0.9940	17.177	0.871	0.897	0.0049 0.0049 0.0049 0.0049	-0.026 -0.130 -0.240 -0.390	0.010439 0.034277 0.121486 0.048881	-0.000077 -0.000143 0.000221 -0.001765	-0.001815 0.002893 0.012358 -0.009048	0.030000 0.137000 0.180000 0.390000	0.035000 0.133000 0.170000 0.350000	0.880 1.31 1.32 1.64	0.000033 0.000024 0.000045 0.000078	0.002254 0.002229 0.002285 0.002283	27.30 16.28 8.23 4.35
1_LowTemp	31	13:34:04	-59.20	-50.88	4.976135 4.962263 4.962098 4.962021 4.962065 4.976531	4.973495 11.967341 24.008192 48.118803	0.9940	17.513	0.871	0.896	0.0049 0.0049 0.0049 0.0049	-0.026 -0.130 -0.240 -0.390	0.010494 0.037467 0.119941 0.050868	0.000077 0.000187 0.000441 0.000331	-0.001529 0.002465 0.008607 -0.008937	0.029000 0.141000 0.180000 0.390000	0.042000 0.129000 0.180000 0.350000	0.870 1.28 1.290 1.62	0.000033 0.000022 0.000046 0.000080	0.002248 0.002226 0.002285 0.002283	27.26 16.25 8.23 4.35
1_LowTemp	33	14:14:34	24.70	34.41	5.013282 5.001138 5.000984 5.000841 5.000852 5.015307	4.990028 12.006849 23.978068 48.178277	0.9950	12.726	0.869	0.898	0.0051 0.0051 0.0051 0.0051	-0.032 -0.110 -0.240 -0.390	0.014850 0.046725 0.117624 0.064439	-0.000055 -0.000220 -0.002648 0.002538	-0.001023 0.005391 0.016000 -0.012251	0.024000 0.109000 0.180000 0.300000	0.027000 0.092000 0.140000 0.260000	0.850 1.150 1.150 1.64	0.000035 0.000047 0.000051 0.000079	0.002418 0.002289 0.002314 0.002377	27.41 16.41 8.25 4.34

Sheet	Step	Time	Chamber Temp DL	Product Temp	ACOK,PG1,PG2,PG3,PG4,5VB1	Vo1,Vo2,Vo3,Vo4	PF	NL_PWR	EFF120	EFF220	TACOK	HOLDUP	Loadreg	Linereg	Crossreg	Ripple_NL	Ripple	Vtrans	Ttrans	Trise	OCF
1_LowTemp	1	0.449050926	26.26	37.28	5.007078 4.995022 4.994846 4.994769 4.994681 5.009102	4.989390 12.003649 23.948166 48.150030	0.995	12.912	0.867	0.897	0.0052 0.0052 0.0052 0.0052	-0.024 -0.110 -0.190 -0.390	0.014971 0.050348 0.001766 0.066316	0.000044 0.000066 0.001766 -0.001324	-0.001122 0.005148 0.120000 -0.010813	0.020000 0.080000 0.140000 0.260000	0.022000 0.080000 0.120000 0.260000	0.820 1.150 1.15 1.66	0.000036 0.000034 0.000050 0.000080	0.002382 0.002297 0.002359 0.002373	27.39 16.41 8.24 4.34
1_LowTemp	3	0.465856481	15.335	26.67	5.004878 4.992657 4.992470 4.992360 4.992360 5.006825	4.991766 12.007511 23.966482 48.120789	0.995	13.208	0.87	0.899	0.0052 0.0051 0.0052 0.0052	-0.024 -0.110 -0.240 -0.390	0.013321 0.045494 0.117956 0.062012	0.000143 0.000331 0.000662 0.002648	-0.002288 0.004753 0.017103 -0.010372	0.027000 0.092000 0.130000 0.270000	0.025000 0.084000 0.130000 0.260000	0.820 1.150 1.14 1.64	0.000037 0.000047 0.000049 0.000080	0.002386 0.002290 0.002371 0.002378	27.40 16.40 8.26 4.34
1_LowTemp	5	0.483043981	5.072	15.726	5.005802 4.993449 4.993284 4.993163 4.993152 5.007562	4.994043 12.008063 23.981820 48.146720	0.995	13.644	0.871	0.899	0.0051 0.0051 0.0051 0.0051	-0.023 -0.110 -0.240 -0.390	0.012848 0.043220 0.117293 0.057157	0.000033 0.000000 0.000551 -0.000993	-0.002585 0.003443 0.018207 -0.010483	0.025000 0.105000 0.130000 0.290000	0.025000 0.084000 0.130000 0.270000	0.830 1.180 1.15 1.64	0.000038 0.000046 0.000049 0.000080	0.002298 0.002272 0.002313 0.002379	27.39 16.39 8.25 4.35
1_LowTemp	7	0.499166667	0.271	10.804	5.004471 4.991898 4.991777 4.991634 4.991623 5.006132	4.994021 12.007511 23.985571 48.219876	0.995	13.866	0.872	0.9	0.0051 0.0051 0.0051 0.0051	-0.023 -0.110 -0.240 -0.390	0.012243 0.042494 0.116300 0.056057	0.000044 0.000221 0.000221 -0.000882	-0.002211 0.002970 0.017434 -0.009931	0.025000 0.109000 0.140000 0.310000	0.024000 0.092000 0.130000 0.280000	0.830 1.210 1.17 1.61	0.000036 0.000045 0.000050 0.000079	0.002292 0.002296 0.002321 0.002380	27.42 16.40 8.25 4.35
1_LowTemp	9	0.515625	-4.636	5.629	5.003866 4.991260 4.991073 4.990996 4.991029 5.005527	4.993548 12.006187 23.987889 48.220318	0.995	14.127	0.872	0.9	0.0051 0.0051 0.0051 0.0051	-0.023 -0.110 -0.240 -0.390	0.011352 0.041568 0.113541 0.055064	-0.000022 -0.000221 0.000221 -0.000441	-0.000803 0.003751 0.018868 -0.010041	0.024000 0.109000 0.140000 0.310000	0.025000 0.088000 0.140000 0.280000	0.818 1.200 1.18 1.64	0.000037 0.000045 0.000050 0.000078	0.002352 0.002272 0.002319 0.002378	27.42 16.39 8.25 4.35
1_LowTemp	11	0.531724537	-9.734	0.432	5.001402 4.988741 4.988521 4.988477 4.988466 5.002876	4.993768 12.004422 23.991971 48.219435	0.995	14.388	0.871	0.9	0.0051 0.0051 0.0051 0.0051	-0.023 -0.110 -0.240 -0.390	0.007964 0.038001 0.109349 0.053850	-0.000055 -0.000331 0.000442 -0.000551	-0.000715 0.005445 0.023392 -0.009268	0.027000 0.109000 0.140000 0.330000	0.022000 0.088000 0.140000 0.300000	0.820 1.200 1.180 1.64	0.000036 0.000045 0.000049 0.000080	0.002290 0.002273 0.002309 0.002378	27.42 16.39 8.26 4.36
1_LowTemp	13	0.548206019	-14.52	-4.668	4.999433 4.986816 4.986574 4.986475 4.986431 5.000951	4.993867 12.002436 23.994178 48.220318	0.995	14.682	0.872	0.9	0.0051 0.0051 0.0051 0.0051	-0.024 -0.110 -0.190 -0.390	0.007568 0.034334 0.106590 0.051971	0.000044 -0.000331 -0.000331 -0.001324	-0.001045 0.008855 0.020745 -0.007283	0.025000 0.109000 0.140000 0.340000	0.020000 0.096000 0.150000 0.310000	0.820 1.210 1.180 1.64	0.000036 0.000046 0.000049 0.000081	0.002290 0.002270 0.002332 0.002370	27.42 16.38 8.25 4.36
1_LowTemp	15	0.564328704	-19.52	-9.725	4.998399 4.985672 4.985496 4.985375 4.985364 4.999895	4.993086 11.999781 23.995502 48.144402	0.995	14.962	0.871	0.899	0.0051 0.0051 0.0051 0.0051	-0.024 -0.110 -0.190 -0.390	0.007513 0.033067 0.105708 0.050095	0.000033 0.000055 0.000552 -0.001545	-0.000792 0.009076 0.019752 -0.011034	0.029000 0.109000 0.170000 0.340000	0.027000 0.101000 0.150000 0.310000	0.820 1.210 1.180 1.64	0.000034 0.000030 0.000049 0.000080	0.002293 0.002262 0.002319 0.002366	27.41 16.37 8.25 4.35
1_LowTemp	17	0.580451389	-24.336	-14.694	4.996507 4.983681 4.983417 4.983362 4.983428 4.997860	4.991678 11.997646 24.000468 48.131603	0.995	15.248	0.873	0.9	0.0051 0.0051 0.0051 0.0051	-0.025 -0.110 -0.240 -0.390	0.007557 0.032362 0.105376 0.048991	0.000044 -0.000121 0.000331 -0.006620	0.000209 0.007976 0.011144 -0.008496	0.025000 0.113000 0.160000 0.350000	0.022000 0.101000 0.130000 0.320000	0.830 1.200 1.210 1.66	0.000034 0.000045 0.000048 0.000079	0.002286 0.002257 0.002303 0.002367	27.41 16.36 8.25 4.35
1_LowTemp	19	0.596539352	-28.261	-19.199	4.994164 4.981129 4.981008 4.980920 4.980854 4.995440	4.989533 11.993818 24.004109 48.116486	0.995	15.831	0.874	0.9	0.0051 0.0050 0.0050 0.0050	-0.026 -0.130 -0.190 -0.390	0.007447 0.032648 0.108907 0.047999	0.000077 0.000143 0.000552 0.004965	0.000605 0.007217 0.003641 -0.010372	0.024000 0.121000 0.160000 0.340000	0.029000 0.101000 1.200 0.340000	0.830 1.210 1.200 1.62	0.000034 0.000045 0.000048 0.000080	0.002274 0.002245 0.002303 0.002364	27.39 16.36 8.24 4.36
1_LowTemp	21	0.6111886574	-34.399	-24.78	4.991590 4.978643 4.978412 4.978291 4.978291 4.992789	4.986464 11.989515 24.035556 48.114058	0.994	15.844	0.873	0.899	0.0050 0.0050 0.0050 0.0050	-0.025 -0.130 -0.240 -0.390	0.007018 0.033749 0.111224 0.046344	0.000341 0.000297 -0.000441 0.004966	-0.001639 0.005709 0.001876 -0.009821	0.029000 0.121000 0.170000 0.370000	0.037000 0.117000 0.140000 0.320000	0.840 1.220 1.220 1.64	0.000034 0.000044 0.000048 0.000079	0.002273 0.002237 0.002299 0.002357	27.38 16.35 8.24 4.36
1_LowTemp	23	0.627326389	-38.571	-29.6	4.988884 4.975695 4.975541 4.975486 4.975464 4.989841	4.984528 11.984963 24.001350 48.146499	0.994	16.124	0.874	0.899	0.0050 0.0050 0.0050 0.0050	-0.025 -0.110 -0.240 -0.390	0.010307 0.033958 0.111555 0.046564	0.000044 0.000187 -0.000111 0.001544	-0.001331 0.005060 0.004524 -0.009159	0.025000 0.129000 0.170000 0.370000	0.025000 0.113000 0.170000 0.320000	0.830 1.250 1.2 1.66	0.000034 0.000025 0.000047 0.000078	0.002273 0.002223 0.002286 0.002348	27.36 16.33 8.24 4.36
1_LowTemp	25	0.642673611	-44.956	-35.017	4.986750 4.973374 4.973165 4.973055 4.973077 4.987531	4.982317 11.979540 23.994730 48.136899	0.994	16.591	0.873	0.899	0.0050 0.0050 0.0050 0.0050	-0.026 -0.130 -0.240 -0.390	0.010296 0.034299 0.113762 0.047226	-0.000088 0.000110 0.000441 0.008827	-0.001089 0.006179 0.006179 -0.008166	0.025000 0.129000 0.160000 0.390000	0.025000 0.117000 0.170000 0.320000	0.830 1.240 1.23 1.66	0.000034 0.000043 0.000047 0.000080	0.002270 0.002221 0.002291 0.002351	27.34 16.31 8.24 4.35

1_LowTemp	27	0.658472222	-49.382	-39.94	4.984781 4.971228 4.971019 4.970986 4.970931 4.985397	4.979886 11.979650 24.013267 48.181036	0.994	16.663	0.874	0.899	0.0050 0.0050 0.0050 0.0050	-0.025 -0.130 -0.240 -0.390	0.009922 0.033144 0.120714 0.051088	-0.000088 0.000099 0.000441 -0.001986	-0.001067 0.007711 0.011917 -0.008607	0.025000 0.129000 0.180000 0.390000	0.029000 0.109000 0.180000 0.320000	0.840 1.29 1.220 1.64	0.000034 0.000024 0.000047 0.000082	0.002264 0.002221 0.002290 0.002331	27.32 16.30 8.23 4.36
1_LowTemp	29	0.674583333	-53.193	-44.527	4.980205 4.966377 4.966157 4.966113 4.966080 4.980546	4.977246 11.974898 23.994619 48.158416	0.994	17.16	0.872	0.898	0.0050 0.0050 0.0050 0.0050	-0.025 -0.130 -0.240 -0.390	0.009845 0.033826 0.125348 0.049102	0.000110 -0.000154 0.000441 -0.002427	-0.001034 0.007645 0.009158 -0.006620	0.027000 0.137000 0.180000 0.390000	0.029000 0.121000 0.180000 0.340000	0.840 1.260 1.220 1.64	0.000035 0.000024 0.000049 0.000079	0.002254 0.002218 0.002284 0.002334	27.29 16.28 8.23 4.35
1_LowTemp	31	0.689988426	-59.507	-49.938	4.976971 4.962912 4.962714 4.962637 4.962626 4.977070	4.974100 11.969739 23.983034 48.193063	0.994	17.231	0.872	0.898	0.0050 0.0050 0.0050 0.0050	-0.026 -0.130 -0.240 -0.390	0.009856 0.035795 0.123141 0.051530	0.000154 -0.000143 0.000331 0.002538	-0.000902 0.006149 0.007945 -0.008386	0.029000 0.137000 0.170000 0.390000	0.037000 0.113000 0.180000 0.340000	0.850 1.31 1.24 1.64	0.000034 0.000023 0.000048 0.000080	0.002240 0.002208 0.002284 0.002323	27.26 16.25 8.22 4.34
1_LowTemp	33	0.71744213	24.46	35.584	5.008200 4.996034 4.995891 4.995792 4.995781 5.010235	4.973481 12.003098 23.961407 48.093425	0.995	12.948	0.872	0.898	0.0052 0.0051 0.0051 0.0051	-0.025 -0.110 -0.240 -0.390	-0.010384 0.048324 0.118838 0.065322	0.000191 -0.000111 -0.001103 0.003641	0.000909 0.005467 0.016772 -0.011365	0.029000 0.105000 0.140000 0.290000	0.040000 0.088000 0.140000 0.270000	0.850 1.140 1.15 1.66	0.000035 0.000048 0.000051 0.000078	0.002253 0.002285 0.002359 0.002349	27.42 16.40 8.25 4.34

F.1.4.c 85V

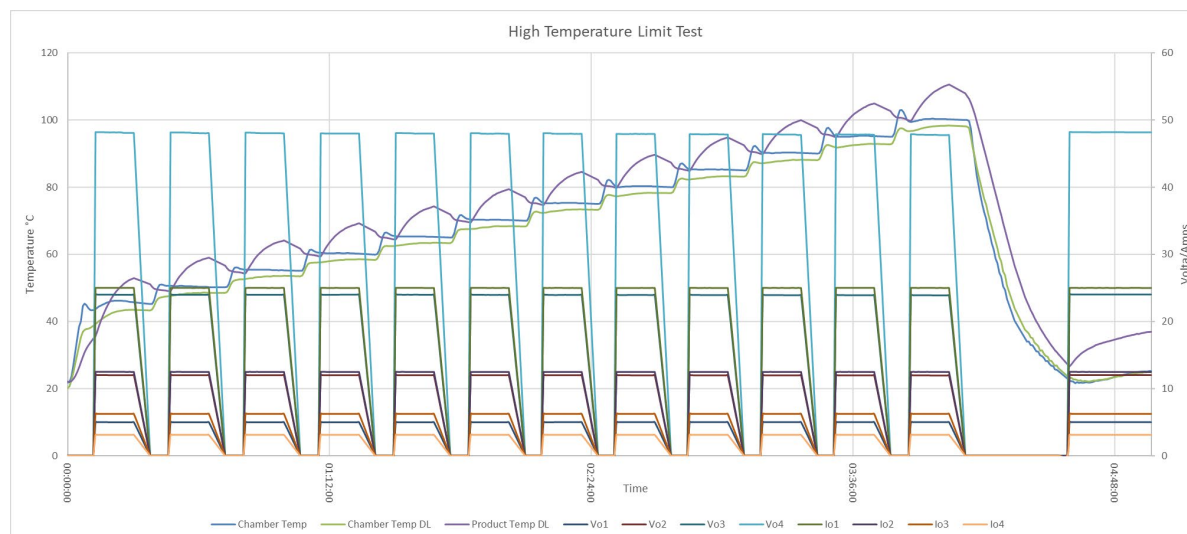
Sheet	Step	Time	Chamber Temp DL	Product Temp	ACOK,PG1,PG2,PG3,PG4,5VB1	Vo1,Vo2,Vo3,Vo4	PF	NL_PWR	EFF120	EFF220	TACOK	HOLDUP	Loadreg	Linereg	Crossreg	Ripple_NL	Ripple	Vtrans	Ttrans	Trise	OCF
1_LowTemp	BASE	16:06:05	22.16	27.90	5.002568 4.988455 4.988356 4.988301 4.988224 5.002832	5.004163 12.001663 23.999144 48.084156	0.9950	13.879	0.870	0.897	0.0052 0.0052 0.0052 0.0052	-0.021 -0.110 -0.190 -0.390	0.014091 0.047931 0.117624 0.061902	0.000022 -0.000221 0.000442 0.000552	-0.002112 0.004323 0.016772 -0.010372	0.022000 0.101000 0.130000 0.260000	0.029000 0.084000 0.120000 0.260000	0.818 1.15 1.150 1.62	0.000039 0.000045 0.000050 0.000080	0.002380 0.002329 0.002310 0.002380	27.32 16.38 8.25 4.34
1_LowTemp	1	12:15:48	23.47	33.56	5.002370 4.989489 4.989324 4.989148 4.989225 5.003789	5.009025 12.011594 23.982592 48.123989	0.9950	13.091	0.871	0.898	0.0052 0.0052 0.0052 0.0052	-0.022 -0.110 -0.190 -0.390	0.014113 0.049145 0.117955 0.063667	0.000077 0.000110 0.001655 -0.000441	-0.001144 0.004852 0.016110 -0.009599	0.022000 0.084000 0.130000 0.260000	0.024000 0.088000 0.110000 0.260000	0.820 1.150 1.140 1.64	0.000037 0.000035 0.000050 0.000080	0.002385 0.002294 0.002336 0.002379	27.37 16.40 8.25 4.34
1_LowTemp	3	12:40:01	14.20	23.26	5.001787 4.988873 4.988598 4.988532 4.988521 5.003041	5.008464 12.013470 23.999475 48.135796	0.9950	13.457	0.871	0.899	0.0052 0.0052 0.0052 0.0052	-0.022 -0.110 -0.190 -0.390	0.013585 0.045765 0.118176 0.058701	0.000055 0.000110 0.000511 0.000110	-0.002255 0.004631 0.017103 -0.010042	0.024000 0.088000 0.130000 0.270000	0.022000 0.088000 0.110000 0.260000	0.820 1.140 1.150 1.64	0.000038 0.000033 0.000049 0.000079	0.002434 0.002282 0.002311 0.002380	27.38 16.39 8.25 4.35
1_LowTemp	5	13:05:43	4.16	12.77	5.003294 4.990138 4.989918 4.989830 4.989808 5.004383	5.007507 12.012808 24.012385 48.184015	0.9950	14.068	0.873	0.899	0.0051 0.0051 0.0051 0.0051	-0.023 -0.110 -0.190 -0.390	0.012331 0.044139 0.117072 0.056274	0.000044 -0.000442 0.000331 -0.000883	-0.002486 0.002904 0.017765 -0.010151	0.025000 0.101000 0.130000 0.290000	0.024000 0.084000 0.110000 0.260000	0.820 1.200 1.15 1.62	0.000037 0.000047 0.000050 0.000080	0.002361 0.002278 0.002325 0.002378	27.40 16.39 8.25 4.35
1_LowTemp	7	13:27:16	-0.39	8.23	5.001215 4.987949 4.987817 4.987696 4.987751 5.002227	5.006352 12.012256 24.013157 48.194939	0.9950	14.140	0.871	0.899	0.0051 0.0051 0.0051 0.0051	-0.022 -0.110 -0.190 -0.390	0.011693 0.043180 0.114976 0.054288	0.000011 -0.000111 0.000331 0.000993	-0.002112 0.002860 0.018427 -0.009931	0.025000 0.105000 0.140000 0.300000	0.027000 0.084000 0.130000 0.260000	0.827 1.210 1.15 1.62	0.000037 0.000046 0.000049 0.000080	0.002297 0.002270 0.002302 0.002366	27.42 16.39 8.25 4.35
1_LowTemp	9	13:48:53	-5.49	3.07	4.999411 4.986167 4.986002 4.985903 4.985914 5.000423	5.005560 12.010932 24.019336 48.203987	0.9950	14.410	0.871	0.899	0.0051 0.0051 0.0051 0.0051	-0.024 -0.110 -0.190 -0.390	0.008492 0.041990 0.111555 0.053736	0.000044 -0.000331 0.000441 -0.000662	-0.000385 0.004807 0.020965 -0.010151	0.025000 0.113000 0.140000 0.310000	0.025000 0.084000 0.130000 0.300000	0.818 1.180 1.18 1.64	0.000037 0.000047 0.000050 0.000081	0.002317 0.002260 0.002310 0.002376	27.42 16.39 8.25 4.35
1_LowTemp	11	14:12:03	-10.35	-2.04	4.999356 4.986090 4.985925 4.985815 4.985826 5.000291	5.004702 12.009718 24.022205 48.203546	0.9950	14.730	0.873	0.900	0.0051 0.0051 0.0051 0.0051	-0.023 -0.110 -0.240 -0.390	0.007821 0.038170 0.108466 0.053184	-0.000055 -0.000221 0.000220 0.000221	-0.001144 0.009119 0.022400 -0.009710	0.025000 0.109000 0.150000 0.310000	0.022000 0.105000 0.140000 0.280000	0.820 1.180 1.18 1.62	0.000037 0.000046 0.000049 0.000081	0.002349 0.002261 0.002316 0.002378	27.41 16.38 8.25 4.35
1_LowTemp	13	14:34:13	-15.34	-7.03	4.998036 4.984616 4.984440 4.984440 4.984418 4.998938	5.003052 12.007953 24.023970 48.188539	0.9950	14.875	0.872	0.900	0.0051 0.0051 0.0051 0.0051	-0.024 -0.110 -0.240 -0.390	0.007689 0.034810 0.108135 0.050757	0.000055 -0.000111 0.000442 -0.000772	-0.001320 0.007942 0.021186 -0.010924	0.025000 0.113000 0.150000 0.330000	0.024000 0.096000 0.140000 0.300000	0.820 1.230 1.190 1.64	0.000037 0.000047 0.000050 0.000079	0.002333 0.002258 0.002317 0.002370	27.41 16.38 8.25 4.36
1_LowTemp	15	14:56:25	-20.15	-12.02	4.995231 4.981855 4.981635 4.981514 4.981514 4.996023	5.001633 12.005746 24.025405 48.177174	0.9950	15.232	0.873	0.900	0.0051 0.0051 0.0051 0.0051	-0.023 -0.110 -0.190 -0.390	0.007656 0.034110 0.107142 0.050316	0.000022 0.000221 0.000111 0.000221	-0.000891 0.009317 0.015337 -0.010151	0.027000 0.113000 0.140000 0.340000	0.024000 0.101000 0.130000 0.310000	0.820 1.180 1.180 1.64	0.000037 0.000046 0.000049 0.000079	0.002290 0.002260 0.002308 0.002364	27.40 16.37 8.25 4.35
1_LowTemp	17	15:18:37	-25.03	-16.94	4.991271 4.977774 4.977620 4.977499 4.977576 4.992030	5.000027 12.002325 24.026729 48.168236	0.9950	15.213	0.873	0.900	0.0051 0.0050 0.0050 0.0050	-0.025 -0.110 -0.240 -0.390	0.007568 0.033717 0.109679 0.049323	-0.000066 0.000221 0.000221 0.000110	0.000385 0.007942 0.005738 -0.009048	0.024000 0.117000 0.150000 0.350000	0.024000 0.101000 0.140000 0.320000	0.820 1.220 1.18 1.64	0.000037 0.000031 0.000050 0.000079	0.002283 0.002261 0.002305 0.002364	27.38 16.36 8.24 4.35
1_LowTemp	19	15:41:21	-29.70	-21.89	4.987751 4.974155 4.973968 4.973858 4.973869 4.988411	4.998168 11.996634 24.025405 48.156540	0.9950	15.821	0.871	0.899	0.0050 0.0050 0.0050 0.0050	-0.024 -0.110 -0.190 -0.390	0.007062 0.034342 0.113321 0.047778	-0.000121 0.000198 0.000331 -0.003310	0.000583 0.007151 0.000662 -0.009600	0.025000 0.113000 0.160000 0.350000	0.037000 0.109000 0.170000 0.320000	0.830 1.230 1.200 1.64	0.000036 0.000044 0.000049 0.000079	0.002275 0.002243 0.002303 0.002363	27.36 16.35 8.24 4.35
1_LowTemp	21	16:03:59	-34.40	-26.66	4.986827 4.973187 4.972989 4.972912 4.972956 4.987531	4.996507 11.993510 24.023198 48.133479	0.9940	16.447	0.875	0.900	0.0050 0.0050 0.0050 0.0050	-0.024 -0.110 -0.240 -0.390	0.008712 0.034529 0.112548 0.047668	0.000066 0.000044 0.000331 0.000552	-0.001353 0.005885 0.002869 -0.009379	0.025000 0.125000 0.160000 0.350000	0.027000 0.117000 0.150000 0.340000	0.830 1.220 1.230 1.64	0.000037 0.000044 0.000048 0.000079	0.002275 0.002235 0.002301 0.002356	27.36 16.34 8.23 4.36
1_LowTemp	23	16:27:14	-39.05	-31.59	4.982911 4.969083 4.968918 4.968841 4.968775 4.983362	4.994505 11.990100 24.016577 48.117589	0.9940	16.631	0.873	0.899	0.0050 0.0050 0.0050 0.0050	-0.024 -0.110 -0.240 -0.390	0.010043 0.035025 0.112328 0.047116	-0.000077 0.000066 0.000221 0.001435	-0.000913 0.005709 0.009268 -0.009269	0.025000 0.125000 0.160000 0.350000	0.022000 0.113000 0.150000 0.320000	0.830 1.230 1.21 1.64	0.000036 0.000045 0.000048 0.000077	0.002278 0.002228 0.002295 0.002340	27.34 16.32 8.24 4.36
1_LowTemp	25	16:50:26	-44.24	-36.72	4.979512 4.965618	4.991942 11.991541	0.9940	16.520	0.874	0.899	0.0050 0.0050	-0.024 -0.130	0.010032 0.035344	-0.000077 0.000330	-0.000858 0.006677	0.025000 0.125000	0.029000 0.101000	0.840 1.27	0.000037 0.000024	0.002277 0.002207	27.32 16.31

					4.965475 4.965365 4.965398 4.979930	24.016026 48.183132					0.0050 0.0050	-0.240 -0.390	0.120382 0.050205	0.000331 0.001766	0.007613 -0.007834	0.160000 0.350000	0.170000 0.340000	1.200 1.64	0.000046 0.000081	0.002290 0.002342	8.23 4.36
1_LowTemp	27	17:14:16	-50.39	-51.03	0.000002 0.000001 0.000000 0.000000 0.000000 0.000015	0.000001 0.000000 0.000004 0.000001	0.9460	20.096	0.847	0.885	0.0047 0.0047 0.0047 0.0048	-0.59075 -2.1845 -0.280 -0.480	0.009603 0.037390 0.127997 0.049654	0.000022 0.000110 0.000552 0.002538	-0.000902 0.007161 0.006290 -0.007945	0.025000 0.129000 0.160000 0.390000	0.039000 0.133000 0.170000 0.350000	0.840 1.32 1.250 1.62	0.000036 0.000023 0.000046 0.000080	0.002271 0.002221 0.002288 0.002331	27.27 16.26 8.22 4.35
1_LowTemp	29	17:38:16	-55.24	-55.83	-0.000001 0.000001 0.000000 0.000001 0.000000 0.000013	0.000000 0.000000 0.000002 -0.000001	0.8190	20.994	0.835	0.881	0.0047 0.0047 0.0047 0.0047	-0.5905 -2.19575 -4.7205 -9.6095	0.009889 0.040790 0.127555 0.051309	-0.000022 0.000099 0.000552 0.000662	-0.000913 0.004213 0.008496 -0.009048	0.030000 0.133000 0.160000 0.390000	0.042000 0.113000 0.180000 0.340000	0.840 1.33 1.230 1.620	0.000036 0.000024 0.000048 0.000080	0.002243 0.002220 0.002282 0.002324	27.24 16.24 8.22 4.34
1_LowTemp	31	18:01:08	-60.38	-61.13	0.000000 0.000000 0.000001 0.000000 0.000000 0.000014	-0.000001 0.000002 0.000003 0.000000	0.5770	22.524	2.990	0.858	0.0044 0.0045 0.0045 0.0046	-0.59775 -2.18525 -4.71775 -9.60125	0.009834 0.044199 0.133072 0.053405	0.000110 -0.000132 0.000551 0.002207	0.000341 0.003564 0.006290 -0.008607	0.027000 0.141000 0.160000 0.390000	0.042000 0.129000 0.180000 0.350000	0.850 1.320 1.31 1.64	0.000036 0.000042 0.000046 0.000079	0.002245 0.002207 0.002286 0.002317	27.21 16.22 8.21 4.33
1_LowTemp	33	18:39:08	23.90	32.85	4.999378 4.986750 4.986629 4.986519 4.986475 5.001050	5.007584 12.005967 23.982151 48.105121	0.9950	13.240	0.869	0.897	0.0052 0.0051 0.0052 0.0052	-0.018 -0.110 -0.190 -0.290	0.014311 0.047579 0.119832 0.062895	0.000055 0.000331 0.000442 -0.001986	-0.001089 0.005247 0.013903 -0.009821	0.025000 0.092000 0.130000 0.270000	0.020000 0.084000 0.110000 0.260000	0.830 1.140 1.140 1.64	0.000038 0.000033 0.000049 0.000080	0.002442 0.002288 0.002369 0.002386	27.37 16.40 8.25 4.34

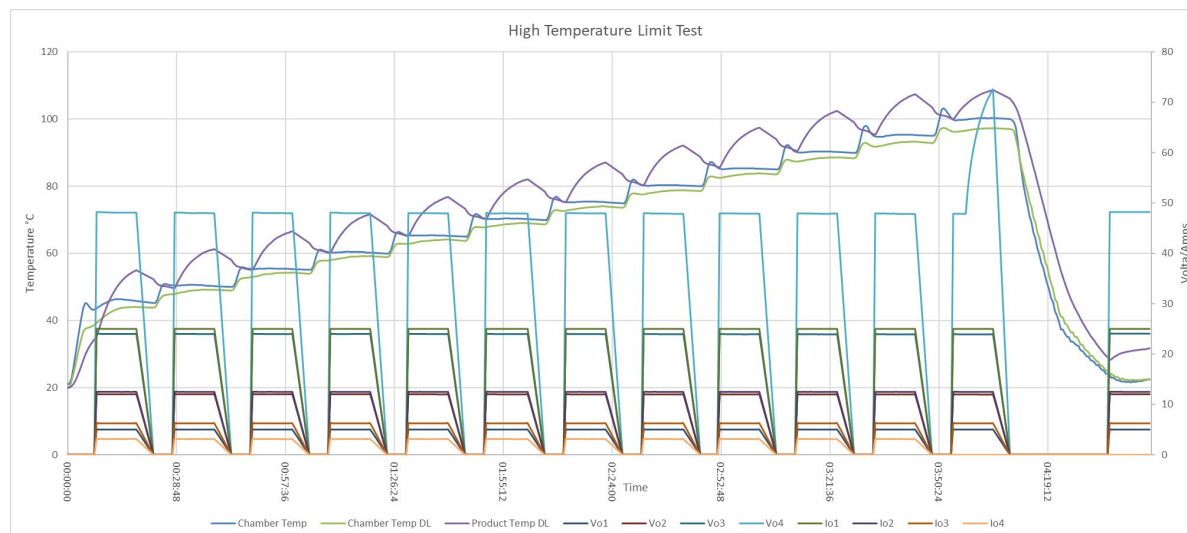
F.2 High Temperature Performance Test

F.2.1 Output Voltage and current

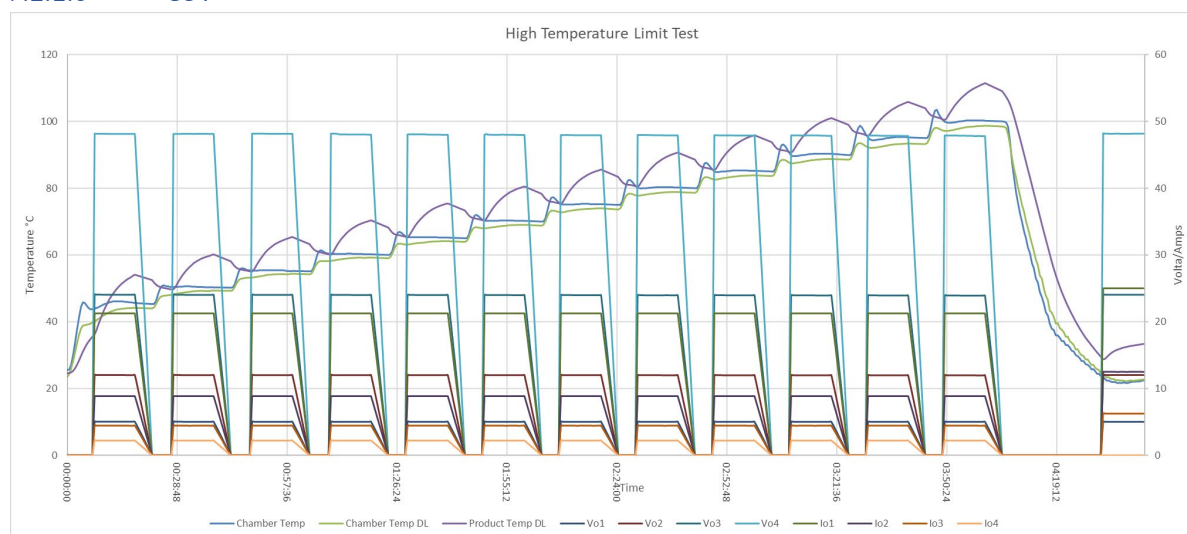
F.2.1.a 220V



F.2.1.b 120V

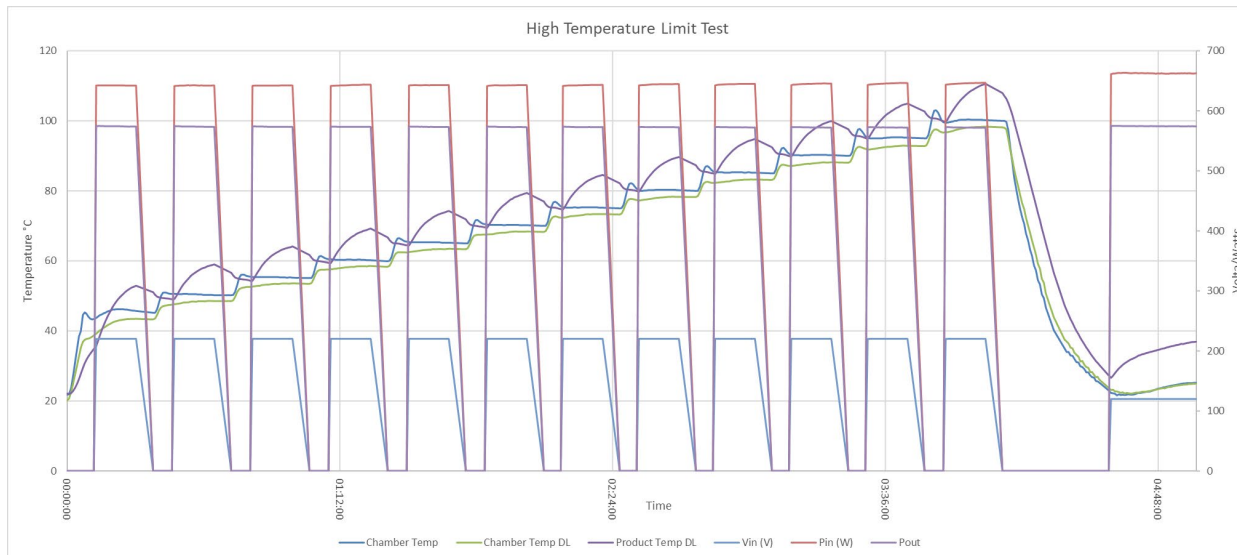


F.2.1.c 85V

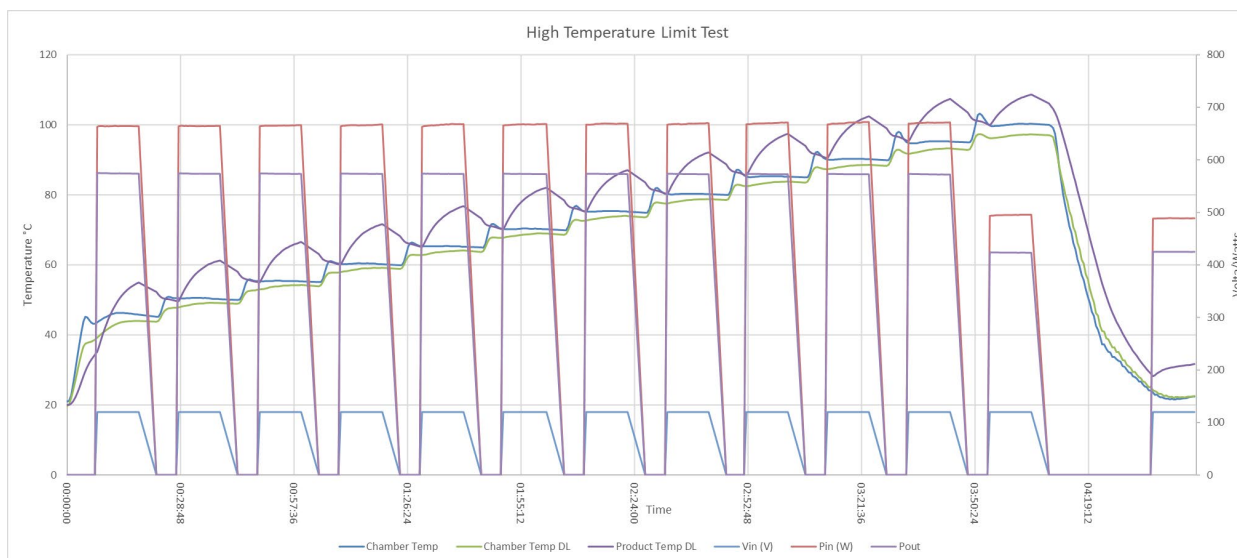


F.2.2 Input Voltage, Input Power, Output Power

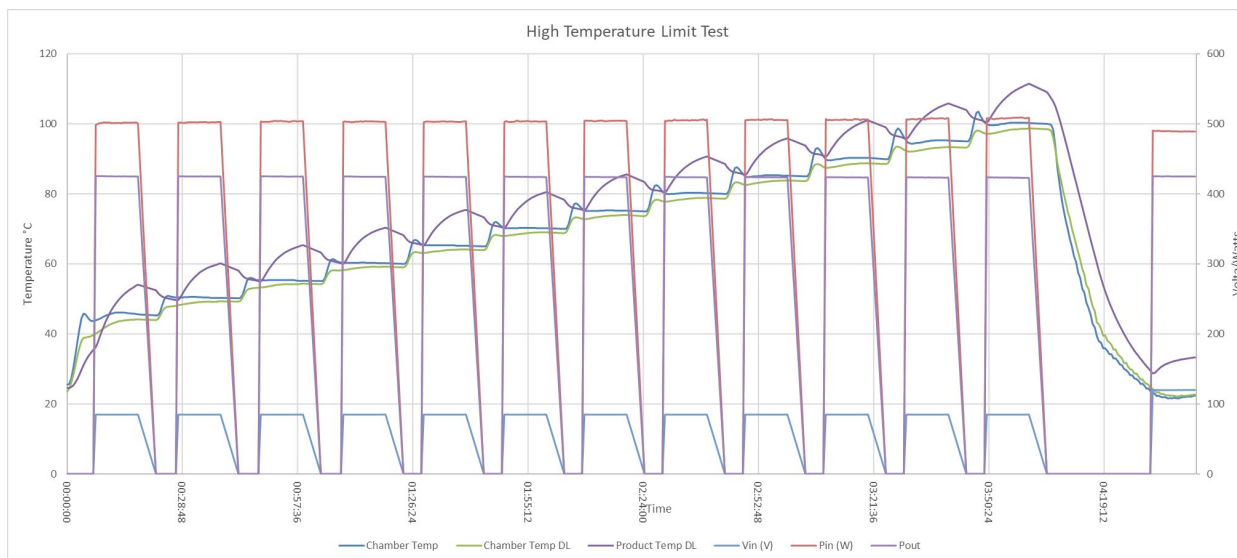
F.2.2.a 220V



F.2.2.b 120V

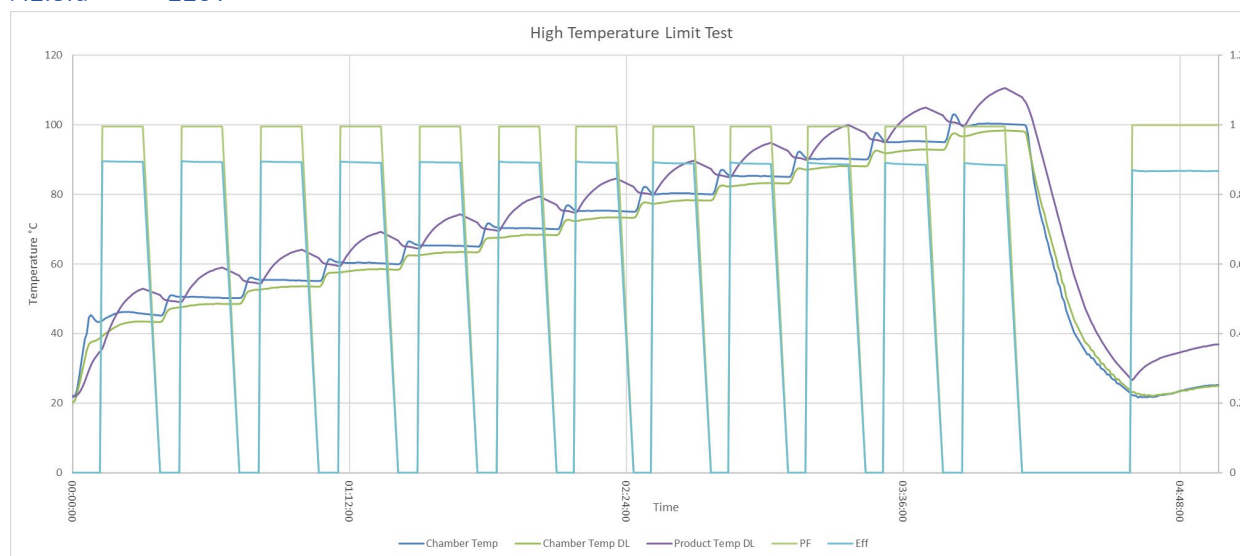


F.2.2.c 85V

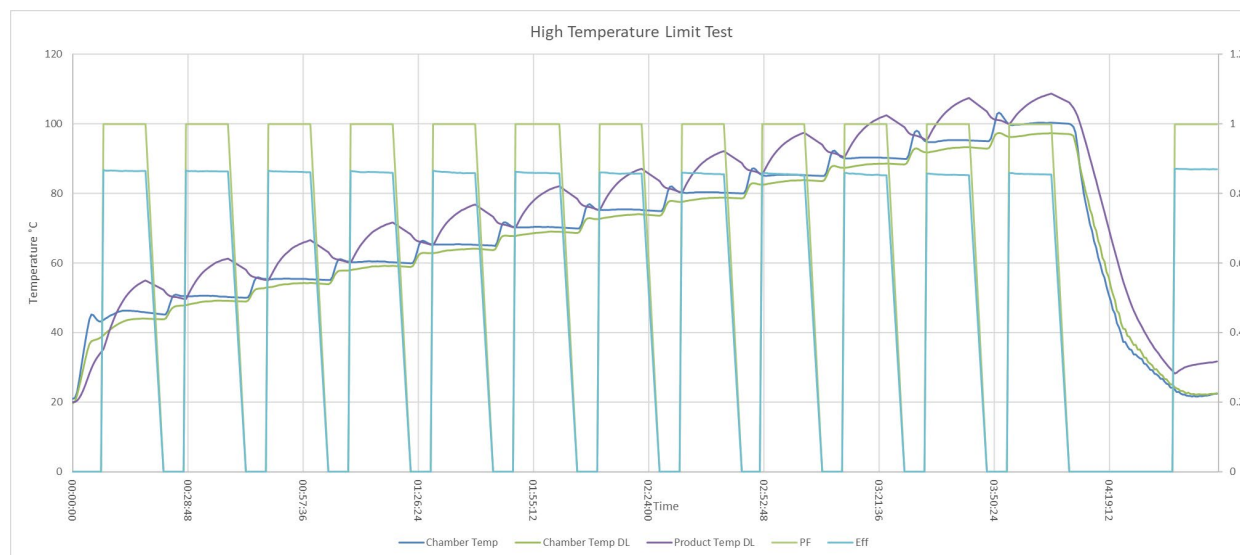


F.2.3 Power Factor & Efficiency

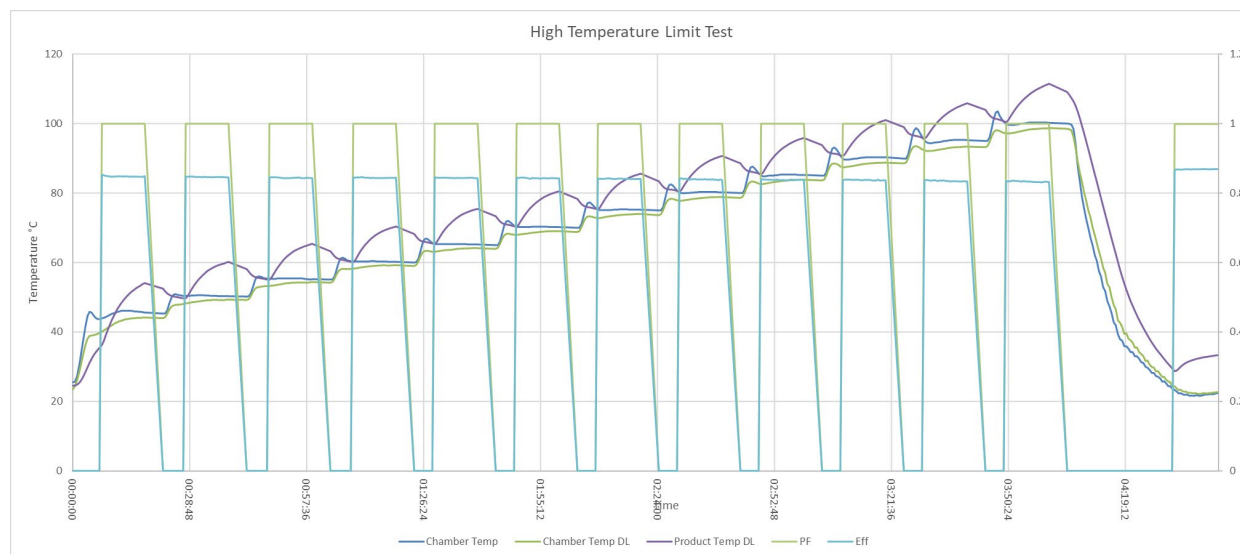
F.2.3.a 220V



F.2.3.b 120V



F.2.3.c 85V



F.2.4 Functional Test Results

F.2.4.a 220V

Sheet	Step	Time	Chamber Temp DL	Product Temp	ACOK,PG1,PG2,PG3,PG4,5VB1	Vo1,Vo2,Vo3,Vo4	PF	NL_PWR	EFF120	EFF220	TACOK	HOLDUP	Loadreg	Linereg	Crossreg	Ripple_NL	Ripple	Vtrans	Ttrans	Trise	OCP
2_HighTemp	9	12:02:00	43.58	53.14	5.013480	4.991018	0.9950	12.705	0.863	0.896	0.0052	-0.026	0.016214	-0.000044	0.000044	0.022000	0.029000	0.820	0.000034	0.002441	27.38
					4.999576	12.000670					0.0052	-0.110	0.060798	-0.000110	0.004026	0.084000	0.072000	1.120	0.000048	0.002287	16.41
					4.999378	23.973655					0.0052	-0.190	0.124576	-0.000221	0.031447	0.120000	0.110000	1.15	0.000050	0.002322	8.25
					4.999312	48.071467					0.0052	-0.390	0.066315	0.000552	-0.010593	0.240000	0.240000	1.68	0.000079	0.002379	4.35
					5.013733																
2_HighTemp	11	12:22:37	48.52	59.13	5.018750	4.989874	0.9950	12.872	0.863	0.895	0.0052	-0.025	0.016390	-0.000077	0.000165	0.020000	0.020000	0.830	0.000034	0.002432	27.39
					5.004999	11.997778					0.0052	-0.110	0.062536	0.000121	0.003223	0.080000	0.072000	1.150	0.000046	0.002371	16.41
					5.004823	23.966482					0.0052	-0.190	0.128217	0.000552	0.040164	0.120000	0.110000	1.150	0.000049	0.002322	8.25
					5.004669	48.013206					0.0052	-0.390	0.061570	-0.002427	-0.012689	0.270000	0.240000	1.66	0.000078	0.002371	4.36
					5.019080																
2_HighTemp	13	12:43:16	53.57	64.21	5.018882	4.989720	0.9950	12.700	0.862	0.894	0.0053	-0.026	0.015774	-0.000044	0.000418	0.024000	0.025000	0.840	0.000033	0.002432	27.43
					5.005263	11.994709					0.0052	-0.110	0.062349	0.000033	0.002453	0.084000	0.068000	1.120	0.000035	0.002339	16.43
					5.004999	23.970786					0.0053	-0.190	0.130093	-0.000220	0.046675	0.120000	0.120000	1.170	0.000049	0.002319	8.25
					5.004977	48.007910					0.0052	-0.390	0.061350	-0.003090	-0.010814	0.260000	0.240000	1.66	0.000078	0.002381	4.37
					5.005010																
2_HighTemp	15	13:03:55	58.53	69.35	5.019498	4.989742	0.9950	12.774	0.863	0.894	0.0053	-0.026	0.014586	-0.000099	0.000308	0.024000	0.024000	0.830	0.000033	0.002443	27.49
					5.006000	11.992168					0.0053	-0.110	0.059907	0.000198	0.002531	0.084000	0.068000	1.120	0.000035	0.002335	16.44
					5.005780	23.985351					0.0053	-0.190	0.134397	0.000442	0.047668	0.130000	0.110000	1.170	0.000049	0.002319	8.26
					5.005769	47.984738					0.0053	-0.390	0.058481	0.000773	-0.009379	0.270000	0.240000	1.66	0.000078	0.002384	4.39
					5.020202																
2_HighTemp	17	13:24:32	63.47	74.38	5.019102	4.990930	0.9950	12.901	0.862	0.893	0.0053	-0.025	0.012408	-0.000154	0.000264	0.024000	0.025000	0.830	0.000034	0.002442	27.60
					5.005714	11.988758					0.0053	-0.110	0.055672	0.000066	0.001991	0.088000	0.068000	1.120	0.000037	0.002355	16.49
					5.005593	23.973655					0.0053	-0.190	0.139362	0.011807	0.041378	0.130000	0.120000	1.150	0.000049	0.002317	8.29
					5.005439	47.987165					0.0053	-0.390	0.054950	0.001876	-0.009930	0.270000	0.260000	1.66	0.000078	0.002387	4.42
					5.005472																
2_HighTemp	19	13:45:08	68.48	79.59	5.019927	4.992602	0.9950	12.804	0.864	0.893	0.0053	-0.026	0.009834	-0.000077	0.000286	0.027000	0.024000	0.830	0.000034	0.002443	27.74
					5.018508	11.985183					0.0053	-0.110	0.049039	-0.000088	0.001804	0.092000	0.088000	1.120	0.000046	0.002279	16.56
					5.005230	23.949931					0.0053	-0.240	0.138810	-0.004745	0.032661	0.140000	0.130000	1.170	0.000050	0.002315	8.31
					5.004900	47.981097					0.0053	-0.390	0.051198	-0.001324	-0.005296	0.290000	0.260000	1.68	0.000078	0.002394	4.45
					5.004900																
2_HighTemp	21	14:05:09	73.39	84.69	5.019410	4.997750	0.9950	13.485	0.861	0.891	0.0053	-0.051	0.007106	-0.000044	0.000242	0.025000	0.025000	0.830	0.000034	0.002429	27.92
					5.017628	11.981465					0.0053	-0.150	0.041240	0.000099	0.001386	0.088000	0.084000	1.120	0.000036	0.002293	16.66
					5.004504	23.947283					0.0053	-0.190	0.130755	-0.003531	0.015889	0.140000	0.130000	1.18	0.000048	0.002315	8.36
					5.004339	47.913016					0.0053	-0.390	0.047778	0.004082	-0.007723	0.290000	0.270000	1.68	0.000078	0.002376	4.49
					5.004240																
2_HighTemp	23	14:25:16	78.28	89.77	5.018651	4.999895	0.9950	13.970	0.858	0.891	0.0054	-0.026	0.004818	0.000055	-0.000220	0.027000	0.025000	0.820	0.000033	0.002420	28.17
					5.016418	11.976878					0.0053	-0.090	0.033716	0.000121	0.000979	0.092000	0.084000	1.120	0.000038	0.002324	16.78
					5.003448	23.933601					0.0053	-0.140	0.120052	0.000772	0.009710	0.140000	0.120000	1.180	0.000049	0.002314	8.42
					5.003250	47.923388					0.0053	-0.380	0.049102	-0.002317	-0.020082	0.290000	0.290000	1.66	0.000077	0.002384	4.53
					5.003162																
2_HighTemp	25	14:45:20	83.23	94.91	5.017683	5.000258	0.9950	14.327	0.859	0.889	0.0054	-0.026	0.002838	-0.000099	-0.000286	0.027000	0.024000	0.810	0.000033	0.002439	28.42
					5.014801	11.972302					0.0053	-0.110	0.026203	0.000121	0.000737	0.092000	0.084000	1.110	0.000037	0.002305	16.91
					5.001919	23.918815					0.0053	-0.140	0.106590	0.000772	0.003641	0.130000	0.130000	1.160	0.000049	0.002311	8.49
					5.001743	47.827722					0.0053	-0.380	0.040495	0.000773	-0.008497	0.270000	0.290000	1.68	0.000080	0.002380	4.57
					5.001710																
2_HighTemp	27	15:05:29	88.15	100.12	5.016176	5.000192	0.9950	15.528	0.857	0.888	0.0054	-0.027	0.001111	0.000088	-0.000297	0.027000	0.025000	0.800	0.000033	0.002441	28.69
					5.013282	11.969677					0.0053	-0.110	0.019713	0.000077	-0.000319	0.096000	0.088000	1.080	0.000037	0.002285	17.07
					5.000588	23.905794					0.0053	-0.140	0.093239	0.000221	-0.003641	0.130000	0.120000	1.180	0.000050	0.002318	8.56
					5.000456	47.763834					0.0053	-0.380	0.039833	-0.000773	-0.008827	0.310000	0.290000	1.68	0.000078	0.002397	4.61
					5.000357																
2_HighTemp	29	15:25:37	92.86	105.08	5.014735	5.000907	0.9950	15.920	0.855	0.886	0.0053	-0.026	-0.000209	-0.000044	-0.000341	0.027000	0.025000	0.800	0.000033	0.002427	28.98
					4.998916	11.961357					0.0053	-0.110	0.014234	-0.000110	-0.000430	0.092000	0.084000	1.040	0.000039	0.002370	17.23
					4.998696	23.896857					0.0053	-0.190	0.079888	0.000552	-0.003531	0.140000	0.120000	1.180	0.000048	0.002318	8.64
					4.998575	47.784909					0.0053	-0.380	23.631960	0.427464	-6.633765	0.380000	0.300000	1.68	0.000077	0.002277	4.66
					5.013051																
2_HighTemp	31	15:46:11	98.36	110.72	5.009366	5.000753	0.9950	16.754	0.858	0.880	0.0070	-0.026	-0.001320	0.000088	-0.000495	0.029000	0.029000	0.790	0.000033	0.002440	29.32
					4.997046	11.954767					0.0070	-0.110	0.009955	0.000099	-0.000418	0.092000	0.084000	1.070	0.000039	0.002370	17.43
					4.996870	23.858458					0.0070	-0.140	0.066536	-0.000111	-0.001214	0.130000	0.130000	1.18	0.000050	0.002315	8.73
					4.996738	47.775640					X	-7.700	-1.795153	2.442202	-6.775336	0.450000	0.420000	0.225	0.000006	0.005128	0.00
					5.011313																

2_HighTemp	33	16:41:44	24.89	36.97	5.017628	4.998091	0.9950	12.897	0.869	0.898	0.0052	-0.019	0.013101	0.000000	-0.000363	0.020000	0.025000	0.820	0.000034	0.002366	27.41
					5.003646						0.0052	-0.090	0.051288	-0.000331	0.004070	0.088000	0.080000	1.150	0.000034	0.002368	16.41
					5.003437						0.0052	-0.190	0.113100	0.000442	0.015116	0.130000	0.120000	1.140	0.000051	0.002336	8.26
					5.003360						0.0052	-0.390	0.062894	0.000883	-0.009379	0.260000	0.260000	1.64	0.000079	0.002376	4.34
					5.017782																

F.2.4.b 120V

Sheet	Step	Time	Chamber Temp DL	Product Temp	ACOK,PG1,PG2,PG3,PG4,5VB1	Vo1,Vo2,Vo3,Vo4	PF	NL_PWR	EFF120	EFF220	TACOK	HOLDUP	Loadreg	Linereg	Crossreg	Ripple_NL	Ripple	Vtrans	Ttrans	Trise	OCF
2_HighTemp	9	10:38:45	44.00	55.15	5.018376 5.004911 5.004680 5.004614 5.004625 5.019014	4.993152 12.000781 23.978510 48.002503	0.9950	12.672	0.865	0.896	0.0052 0.0052 0.0052 0.0052	-0.025 -0.110 -0.190 -0.390	0.016467 0.062250 0.127224 0.065654	0.000000 -0.000099 0.000442 0.000662	0.000121 0.003828 0.034206 -0.010924	0.020000 0.084000 0.130000 0.260000	0.024000 0.068000 0.110000 0.240000	0.830 1.140 1.140 1.66	0.000034 0.000036 0.000049 0.000078	0.002408 0.002340 0.002326 0.002376	27.38 16.41 8.24 4.35
2_HighTemp	11	10:59:21	49.20	61.40	5.020136 5.006737 5.006517 5.006451 5.006440 5.020873	4.992470 11.998152 23.971448 47.967525	0.9950	12.679	0.863	0.895	0.0053 0.0052 0.0052 0.0052	-0.026 -0.110 -0.190 -0.390	0.016423 0.063647 0.131086 0.060799	-0.000044 -0.000132 0.000772 0.003752	0.000176 0.002992 0.042812 -0.010483	0.022000 0.084000 0.130000 0.270000	0.025000 0.076000 0.110000 0.240000	0.830 1.150 1.180 1.68	0.000035 0.000035 0.000050 0.000078	0.002421 0.002264 0.002320 0.002377	27.40 16.41 8.25 4.37
2_HighTemp	13	11:19:58	54.29	66.65	5.020070 5.006825 5.006572 5.006473 5.006495 5.020928	4.993119 11.995193 23.970344 47.963221	0.9950	12.557	0.863	0.895	0.0053 0.0053 0.0053 0.0053	-0.026 -0.110 -0.190 -0.390	0.015576 0.062327 0.132190 0.062564	-0.000099 -0.000077 -0.000662 0.001214	0.000473 0.002585 0.048440 -0.010703	0.022000 0.088000 0.140000 0.260000	0.027000 0.072000 0.110000 0.240000	0.830 1.130 1.170 1.68	0.000036 0.000047 0.000049 0.000078	0.002415 0.002289 0.002319 0.002380	27.44 16.43 8.25 4.38
2_HighTemp	15	11:40:34	59.20	71.77	5.020004 5.006836 5.006682 5.006506 5.006528 5.020950	4.994373 11.992410 23.975199 47.952298	0.9950	12.828	0.861	0.892	0.0053 0.0053 0.0053 0.0053	-0.025 -0.110 -0.240 -0.390	0.013794 0.059093 0.139031 0.055943	-0.000044 0.000165 -0.000441 0.003421	0.000220 0.002475 0.045130 -0.010704	0.025000 0.084000 0.140000 0.270000	0.025000 0.072000 0.120000 0.240000	0.830 1.140 1.160 1.7	0.000036 0.000048 0.000049 0.000078	0.002415 0.002282 0.002319 0.002387	27.51 16.46 8.27 4.40
2_HighTemp	17	12:01:09	64.12	76.94	5.019641 5.006528 5.006385 5.006253 5.006220 5.020565	4.996111 11.988835 23.966262 47.933429	0.9950	12.993	0.861	0.891	0.0053 0.0053 0.0053 0.0053	-0.025 -0.110 -0.190 -0.390	0.011495 0.053714 0.140907 0.054288	-0.000088 0.000143 0.000331 0.002759	0.000242 0.002046 0.035530 -0.011366	0.027000 0.088000 0.140000 0.270000	0.027000 0.084000 0.120000 0.260000	0.830 1.150 1.160 1.7	0.000035 0.000045 0.000048 0.000078	0.002416 0.002289 0.002320 0.002386	27.62 16.51 8.29 4.43
2_HighTemp	19	12:22:12	69.00	82.10	5.018871 5.005945 5.005769 5.005604 5.005692 5.020037	4.998135 11.985062 23.955779 47.878700	0.9950	13.109	0.860	0.890	0.0053 0.0053 0.0053 0.0053	-0.026 -0.110 -0.240 -0.390	0.008800 0.046223 0.137045 0.049543	-0.000132 0.000132 0.000111 -0.001875	0.000231 0.001881 0.000111 -0.009821	0.025000 0.088000 0.140000 0.270000	0.027000 0.080000 0.130000 0.270000	0.830 1.120 1.180 1.7	0.000035 0.000036 0.000049 0.000079	0.002444 0.002261 0.002320 0.002387	27.78 16.59 8.34 4.46
2_HighTemp	21	12:42:47	73.97	87.17	5.017749 5.004922 5.004768 5.004614 5.004636 5.019014	4.999895 11.981245 23.931945 47.909375	0.9950	13.672	0.858	0.889	0.0054 0.0053 0.0053 0.0053	-0.025 -0.110 -0.190 -0.390	0.006314 0.038600 0.128327 0.047888	-0.000121 0.000187 -0.000331 0.001214	0.000154 0.001606 0.009159 -0.010372	0.025000 0.092000 0.140000 0.270000	0.022000 0.084000 0.130000 0.270000	0.820 1.110 1.160 1.68	0.000034 0.000036 0.000049 0.000079	0.002442 0.002257 0.002312 0.002393	27.98 16.69 8.38 4.49
2_HighTemp	23	13:03:21	78.82	92.31	5.016495 5.003899 5.003723 5.003547 5.003624 5.018002	5.001292 11.976240 23.927642 47.841845	0.9950	14.148	0.855	0.888	0.0054 0.0053 0.0053 0.0053	-0.026 -0.110 -0.140 -0.380	0.004136 0.030845 0.115969 0.044026	-0.000033 0.000209 0.000552 -0.000662	-0.000209 0.001474 0.000268 -0.007614	0.032000 0.088000 0.140000 0.290000	0.024000 0.088000 0.130000 0.270000	0.810 1.110 1.180 1.68	0.000035 0.000038 0.000049 0.000078	0.002440 0.002266 0.002317 0.002394	28.22 16.82 8.43 4.54
2_HighTemp	25	13:23:27	83.79	97.62	5.014955 5.002414 5.002238 5.002084 5.002073 5.016517	5.001787 11.971048 23.921022 47.870976	0.9950	14.787	0.854	0.886	0.0054 0.0053 0.0053 0.0053	-0.026 -0.110 -0.140 -0.390	0.002134 0.023464 0.102066 0.041158	0.000022 -0.000275 -0.000441 -0.002097	-0.000308 -0.000154 -0.004083 -0.008607	0.029000 0.092000 0.140000 0.310000	0.027000 0.076000 0.120000 0.270000	0.808 1.080 1.18 1.7	0.000035 0.000037 0.000049 0.000077	0.002412 0.002281 0.002311 0.002399	28.46 16.96 8.51 4.58
2_HighTemp	27	13:44:01	88.55	102.63	5.013238 5.000863 5.000643 5.000632 5.000522 5.014955	5.001644 11.965999 23.908112 47.859610	0.9950	15.522	0.852	0.886	0.0053 0.0053 0.0053 0.0053	-0.032 -0.110 -0.140 -0.390	0.000550 0.017282 0.087942 11.862873	0.000055 0.000121 0.000331 0.953244	-0.000220 -0.000440 -0.007724 -8.841600	0.032000 0.092000 0.130000 0.310000	0.024000 0.088000 0.130000 0.310000	0.800 1.080 1.180 1.7	0.000034 0.000039 0.000049 0.000079	0.002430 0.002351 0.002315 0.002408	28.18 17.12 8.58 4.62
2_HighTemp	29	14:04:37	93.23	107.52	5.011390 4.999081 4.998916 4.998828 4.998751 5.013139	5.001116 11.960191 23.895312 47.766923	0.9950	16.323	0.855	0.880	0.0071 0.0071 0.0071 X	-0.026 -0.110 -0.140 -6.600	-0.000649 0.012441 0.075805 0.067971	-0.000077 0.000165 0.000551 0.288764	-0.000253 -0.000484 -0.001986 -7.175435	0.029000 0.092000 0.130000 0.380000	0.024000 0.088000 0.140000 0.390000	0.790 1.080 1.180 0.213	0.000035 0.000038 0.000050 0.000004	0.002430 0.002364 0.002318 0.002637	29.03 17.26 8.65 0.00
2_HighTemp	31	14:25:13	97.29	108.75	5.012710 5.000291 5.000137 5.000016 5.000071 5.014482	5.000918 11.958464 23.894319 73.316404	0.9940	15.665	0.855	0.880	0.0071 0.0071 0.0071 X	-0.025 -0.110 -0.240 -6.600	-0.000957 0.011814 0.072715 0.014235	0.000022 -0.000077 0.000331 0.138258	-0.000407 -0.000385 -0.001765 -7.891555	0.027000 0.088000 0.140000 0.380000	0.025000 0.088000 0.130000 0.410000	0.798 1.060 1.16 0.224	0.000034 0.000037 0.000049 0.000004	0.002431 0.002372 0.002315 0.004110	29.17 17.34 8.69 0.00
2_HighTemp	33	15:06:38	22.68	31.83	5.018178 5.004196 5.004009 5.003910 5.003877 5.018431	4.999675 12.010822 24.035005 48.189312	0.9930	13.301	0.869	0.893	0.0070 0.0070 0.0070 X	-0.020 -0.110 -0.190 -0.390	0.012298 0.051135 0.114756 0.000000	-0.000022 -0.000221 0.000662 -0.001986	-0.000671 0.002167 0.010814 -0.011585	0.020000 0.088000 0.130000 0.260000	0.024000 0.084000 0.120000 0.270000	0.820 1.150 1.140 0.128	Error	Error	23.41 16.40 8.25 0.00

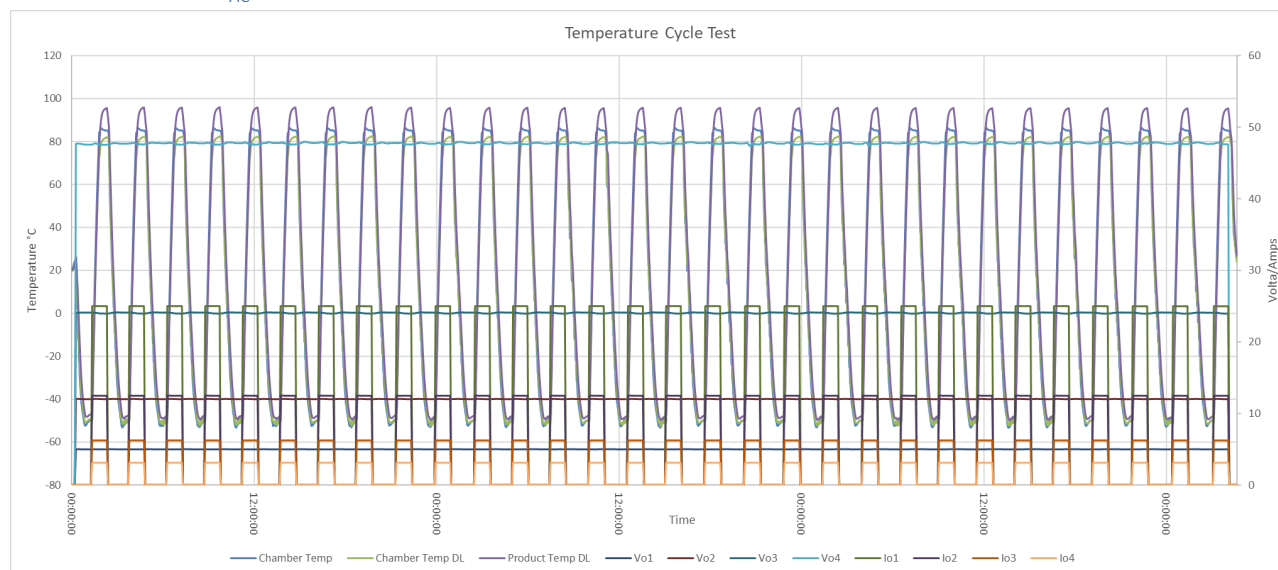
F.2.4.c

Sheet	Step	Time	Chamber Temp DL	Product Temp	ACOK,PG1,PG2,PG3,PG4,SVB1	Vo1,Vo2,Vo3,Vo4	PF	NL_PWR	EFF120	EFF220	TACOK	HOLDUP	Loadreg	Linereg	Crossreg	Ripple_NL	Ripple	Vtrans	Ttrans	Trise	OCP
2_HighTemp	9	17:21:08	44.26	54.23	4.999741 4.984330 4.984176 4.984099 4.984099 4.998630	5.015197 12.002877 24.024522 48.112514	0.9950	12.708	0.866	0.895	0.0052 0.0052 0.0052 0.0052	-0.025 -0.110 -0.190 -0.390	0.016148 0.061007 0.126562 0.063998	0.000033 -0.000110 0.000993 -0.002869	0.000110 0.003872 0.031558 -0.012910	0.025000 0.092000 0.130000 0.270000	0.024000 0.084000 0.120000 0.240000	0.818 1.150 1.150 1.66	0.000037 0.000035 0.000050 0.000078	0.002408 0.002312 0.002271 0.002378	27.38 16.40 8.25 4.35
2_HighTemp	11	17:41:46	49.30	60.29	5.014328 4.999323 4.999114 4.999026 4.998971 5.013491	5.014559 11.999341 24.015033 48.131051	0.9950	13.498	0.866	0.895	0.0053 0.0052 0.0052 0.0052	-0.024 -0.110 -0.190 -0.390	0.016489 0.063185 0.130975 0.061681	-0.000033 -0.000044 0.000662 0.000993	0.000198 0.003322 0.039502 -0.010592	0.025000 0.092000 0.140000 0.260000	0.024000 0.076000 0.130000 0.240000	0.820 1.100 1.180 1.66	0.000038 0.000034 0.000049 0.000078	0.002411 0.002275 0.002262 0.002381	27.40 16.41 8.24 4.36
2_HighTemp	13	18:02:23	54.42	65.47	5.019300 5.004339 5.004141 5.004086 5.004064 5.018497	5.014053 11.996964 24.005654 48.135244	0.9950	13.240	0.864	0.894	0.0053 0.0053 0.0053 0.0052	-0.025 -0.110 -0.190 -0.390	0.016049 0.063658 0.133183 0.062343	-0.000044 -0.000066 0.000441 0.000772	0.000462 0.002629 0.047006 -0.010041	0.029000 0.084000 0.140000 0.270000	0.022000 0.076000 0.120000 0.240000	0.830 1.110 1.190 1.68	0.000036 0.000034 0.000049 0.000079	0.002419 0.002282 0.002260 0.002374	27.42 16.42 8.25 4.37
2_HighTemp	15	18:23:01	59.25	70.55	5.020147 5.005461 5.005230 5.005131 5.005142 5.019575	5.013403 11.994049 23.996937 48.008020	0.9950	12.641	0.865	0.894	0.0053 0.0053 0.0053 0.0053	-0.025 -0.110 -0.240 -0.390	0.014905 0.061799 0.137817 0.059364	-0.000055 0.000143 0.000552 -0.003752	0.000374 0.002420 0.048400 -0.011255	0.030000 0.088000 0.140000 0.270000	0.027000 0.080000 0.130000 0.260000	0.830 1.140 1.190 1.66	0.000036 0.000048 0.000050 0.000079	0.002396 0.002255 0.002269 0.002383	27.47 16.44 8.27 4.39
2_HighTemp	17	18:43:06	64.15	75.52	5.020081 5.005494 5.005340 5.005252 5.005197 5.019674	5.012886 11.990595 23.987447 47.993124	0.9950	12.698	0.864	0.892	0.0053 0.0053 0.0053 0.0053	-0.024 -0.110 -0.240 -0.390	0.012870 0.058048 0.142341 0.057598	-0.000055 0.000176 -0.000662 0.001545	0.000407 0.001947 0.040054 -0.009269	0.027000 0.092000 0.140000 0.290000	0.025000 0.076000 0.130000 0.270000	0.820 1.120 1.190 1.7	0.000036 0.000035 0.000049 0.000078	0.002427 0.002316 0.002318 0.002391	27.56 16.49 8.27 4.42
2_HighTemp	19	19:03:12	69.03	80.59	5.019707 5.005395 5.005208 5.005120 5.005065 5.019531	5.012061 11.987823 23.977627 47.960132	0.9950	13.363	0.862	0.892	0.0053 0.0053 0.0053 0.0053	-0.024 -0.110 -0.190 -0.390	0.010406 0.052053 0.142782 0.052853	-0.000099 -0.000088 0.000221 -0.002537	0.000220 0.001958 0.020193 -0.010482	0.030000 0.096000 0.140000 0.290000	0.027000 0.084000 0.130000 0.260000	0.820 1.110 1.190 1.7	0.000036 0.000036 0.000049 0.000078	0.002445 0.002375 0.002318 0.002388	27.50 16.40 8.31 4.45
2_HighTemp	21	19:23:16	73.93	85.67	5.019234 5.005043 5.004757 5.004691 5.004680 5.019157	5.010939 11.983676 23.967144 47.922395	0.9950	12.993	0.861	0.891	0.0053 0.0053 0.0053 0.0053	-0.024 -0.110 -0.240 -0.390	0.007788 0.044287 0.136714 0.050868	-0.000066 0.000172 0.000331 0.001324	0.000220 0.001727 0.012468 -0.008165	0.030000 0.092000 0.140000 0.310000	0.027000 0.088000 0.130000 0.290000	0.808 1.120 1.200 1.68	0.000036 0.000037 0.000049 0.000077	0.002443 0.002282 0.002317 0.002395	27.88 16.64 8.35 4.48
2_HighTemp	23	19:43:21	78.87	90.82	5.018442 5.004493 5.004229 5.004185 5.004141 5.018640	5.010367 11.979540 23.955890 47.899554	0.9950	13.102	0.858	0.890	0.0054 0.0053 0.0053 0.0053	-0.025 -0.110 -0.190 -0.390	0.005357 0.036554 0.125348 0.046013	-0.000088 0.000172 0.000111 0.003310	0.000220 0.001727 0.004855 -0.010262	0.030000 0.092000 0.140000 0.290000	0.029000 0.088000 0.140000 0.290000	0.808 1.110 1.180 1.68	0.000036 0.000037 0.000048 0.000076	0.002432 0.002279 0.002318 0.002395	28.09 16.76 8.40 4.52
2_HighTemp	25	20:03:27	83.87	96.01	5.017221 5.003338 5.003129 5.003096 5.003019 5.017474	5.009058 11.974876 23.943311 47.887527	0.9950	13.703	0.858	0.889	0.0054 0.0054 0.0054 0.0054	-0.031 -0.110 -0.190 -0.390	0.003333 0.028920 0.111776 0.040606	0.000011 0.000231 0.000221 0.001435	-0.000231 0.001089 -0.001214 -0.009711	0.034000 0.096000 0.140000 0.310000	0.024000 0.088000 0.140000 0.310000	0.800 1.080 1.200 1.68	0.000035 0.000037 0.000050 0.000078	0.002438 0.002268 0.002319 0.002398	28.37 16.90 8.48 4.56
2_HighTemp	27	20:23:35	88.76	101.15	5.015967 5.002315 5.002150 5.001963 5.002018 5.016451	5.007771 11.969541 23.929628 47.844935	0.9950	15.224	0.855	0.887	0.0054 0.0054 0.0054 0.0054	-0.024 -0.110 -0.140 -0.380	0.001551 0.022089 0.098315 0.038951	-0.000176 -0.000132 -0.000331 0.000883	-0.000176 -0.000231 -0.005186 -0.008717	0.030000 0.096000 0.140000 0.310000	0.027000 0.084000 0.140000 0.310000	0.798 1.070 1.180 1.68	0.000036 0.000038 0.000049 0.000079	0.002436 0.002348 0.002313 0.002408	28.64 17.04 8.55 4.61
2_HighTemp	29	20:43:41	93.34	105.98	5.014592 5.000940 5.000731 5.000610 5.000555 5.015065	5.006594 11.964107 23.915173 47.822867	0.9950	14.476	0.854	0.886	0.0054 0.0053 0.0053 0.0053	-0.025 -0.110 -0.190 -0.380	0.000154 0.016171 0.085294 18.326934	0.000099 -0.000055 0.000221 0.450860	-0.000308 -0.000440 -0.005517 -8.216291	0.032000 0.096000 0.140000 0.350000	0.032000 0.088000 0.130000 0.320000	0.790 1.080 1.180 1.72	0.000035 0.000039 0.000050 0.000078	0.002442 0.002368 0.002315 0.002399	28.92 17.20 8.63 4.65
2_HighTemp	31	21:03:49	98.70	111.60	5.012721 4.999235 4.999037 4.998905 4.998938 5.013370	5.005296 11.957506 23.898622 47.813488	0.9950	15.423	0.854	0.880	0.0072 0.0071 0.0071 X	-0.031 -0.110 -0.190 -6.700	-0.001122 0.011275 0.071832 0.052854	-0.000033 0.000143 0.000441 0.214394	-0.000418 -0.000429 -0.001986 -8.004326	0.035000 0.105000 0.140000 0.390000	0.030000 0.084000 0.120000 0.420000	0.790 1.050 1.180 0.224	0.000035 0.000039 0.000050 0.000006	0.002441 0.002368 0.002318 0.004962	29.21 17.39 8.71 0.00
2_HighTemp	33	21:45:20	22.74	33.42	5.017056 5.002414 5.002194 5.002117 5.002150 5.016561	4.999719 12.009608 24.037101 48.167354	0.9930	13.284	0.868	0.893	0.0070 0.0070 0.0070 X	-0.026 -0.110 -0.190 -0.390	0.012419 0.051207 0.116300 -0.004524	0.000022 -0.000221 0.000331 -0.000772	-0.000627 0.002255 0.010593 -0.010924	0.029000 0.092000 0.140000 0.290000	0.020000 0.084000 0.130000 0.290000	0.820 1.150 1.140 0.134	0.000035 0.000047 0.000050 0.000006	0.002416 0.002291 0.002311 0.002429	27.39 16.40 8.26 0.00

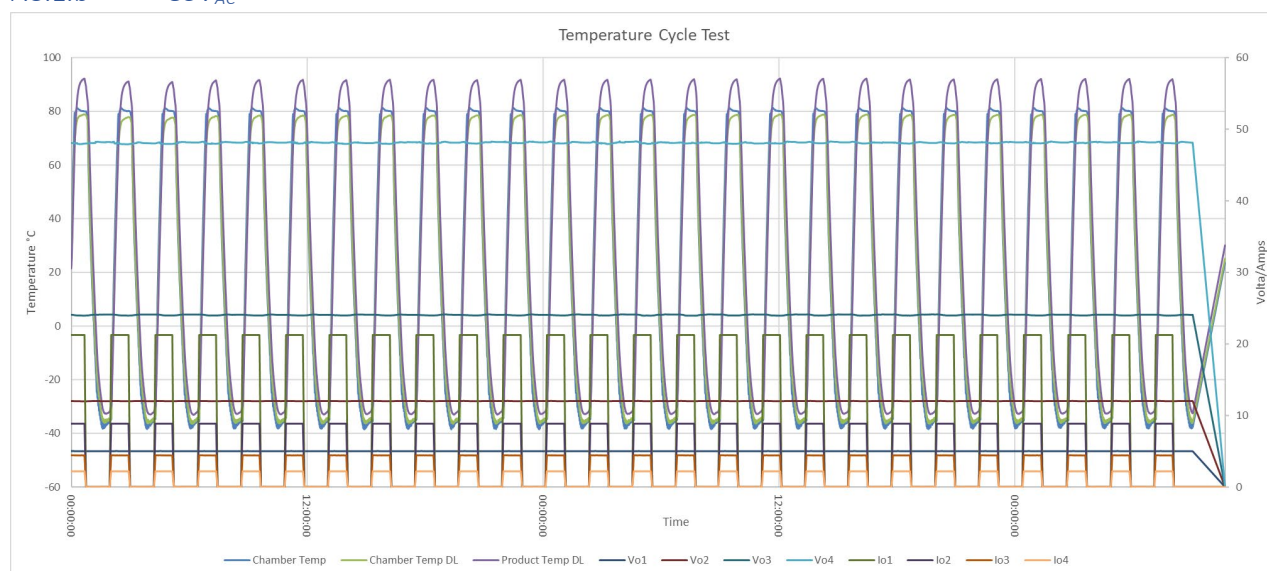
F.3 Rapid Thermal Cycle Test

F.3.1 Output Voltage and current

F.3.1.a 120V_{AC}

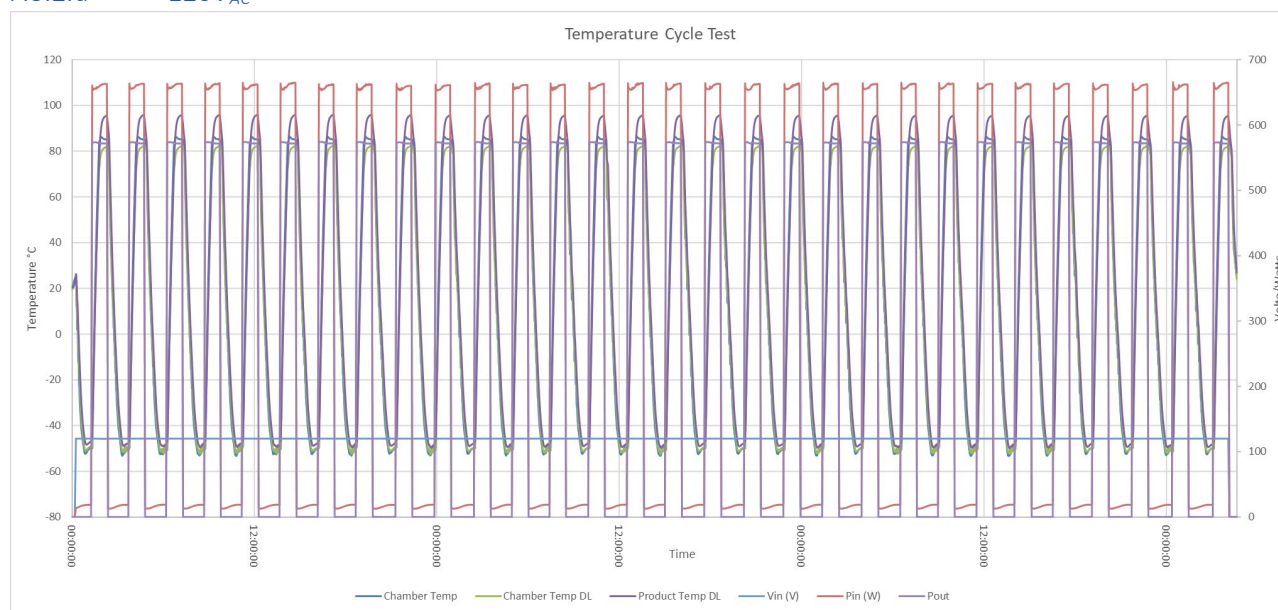


F.3.1.b 85V_{AC}

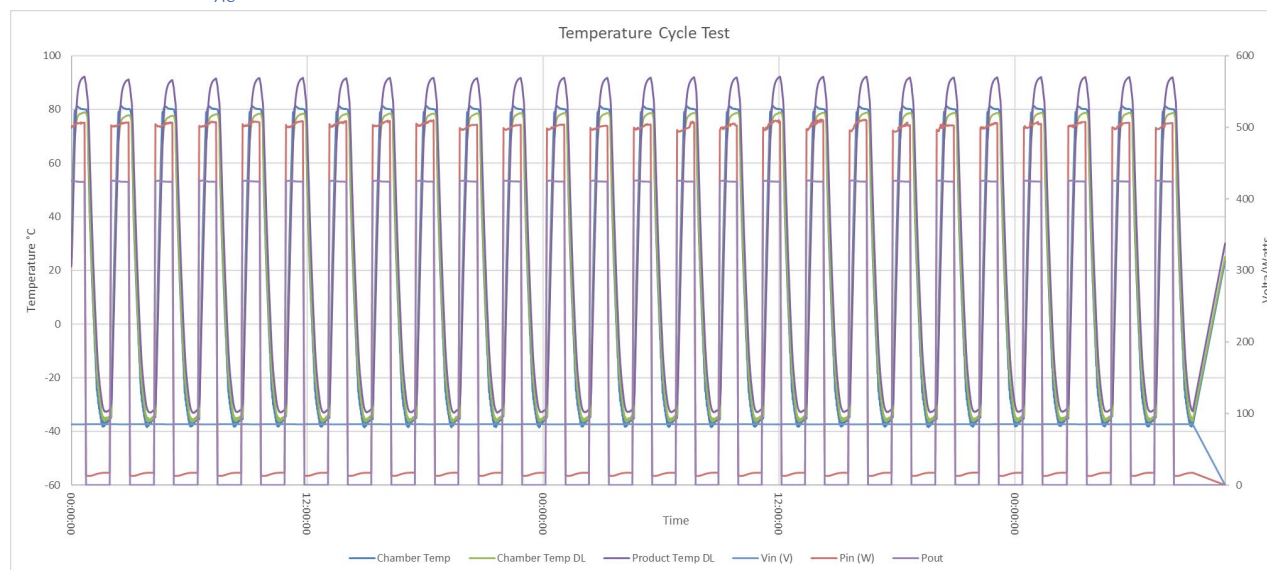


F.3.2 Input Voltage, Input Power, Output Power

F.3.2.a 120V_{AC}

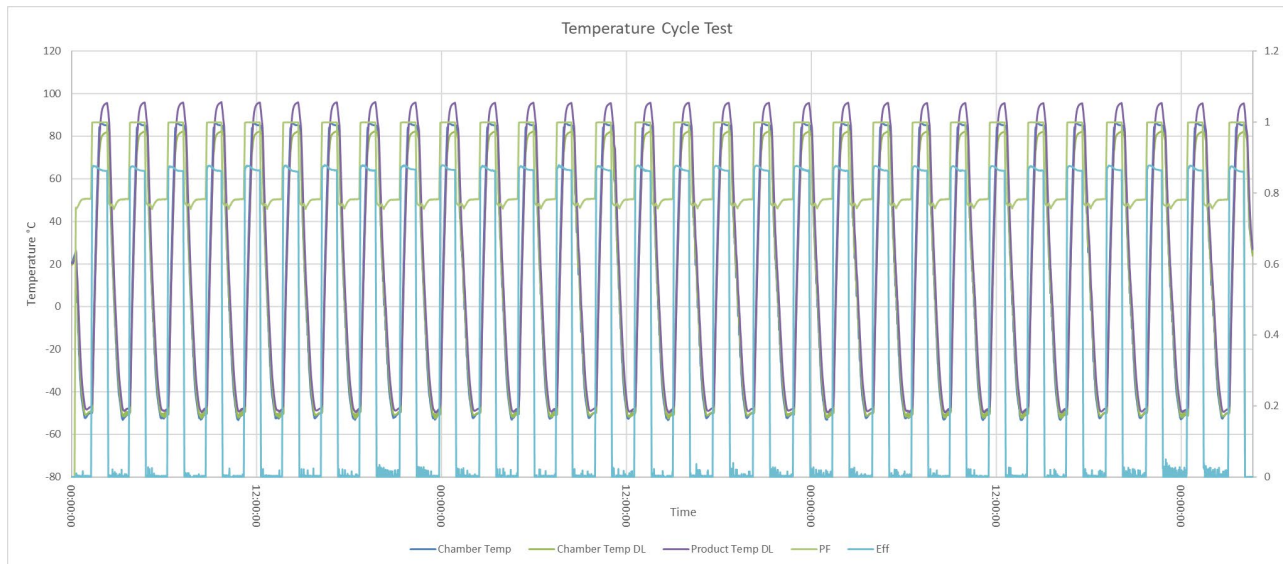


F.3.2.b 85V_{AC}

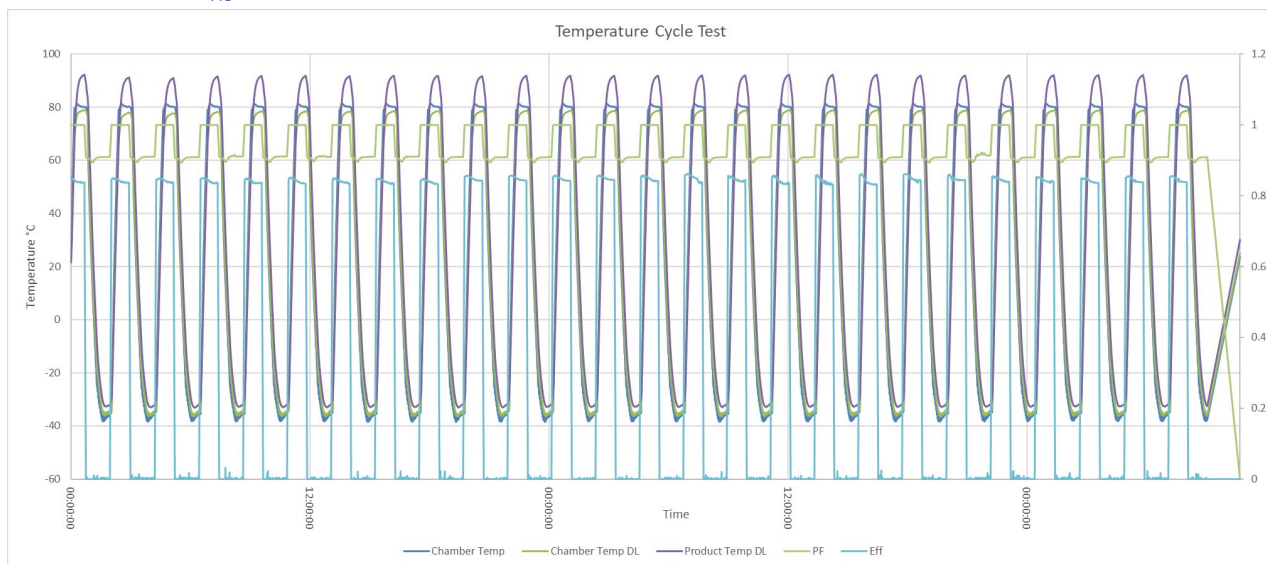


F.3.3 Power Factor & Efficiency

F.3.3.a 120V_{AC}



F.3.3.b 85V_{AC}



F.3.4 Functional Test Results

F.3.4.a 120V_{AC}

Sheet	Step	Time	Chamber Temp DL	Product Temp	ACOK,PG1,PG2,PG3,PG4,5VB1	Vo1,V02,V03,V04	PF	NL_PWR	EFF120	EFF220	TACOK	HOLDUP	Loadreg	Linereg	Crossreg	Ripple_NL	Ripple	Vtrans	Ttrans	Trise	OCF
3_TempCyc	0	19:02:14	22.66	22.25	0.000005 0.000001 0.000000 0.000000 0.000001 0.000045	-0.000002 -0.000001 -0.000002 -0.000005	0.9950	14.238	0.877	0.898	0.0051 0.0051 0.0051 0.0051	-0.019 -0.110 -0.190 -0.380	0.010219 0.053637 0.112769 0.109459	-0.000033 -0.000220 -0.002980 0.001765	0.000066 0.0001639 0.016772 -0.009600	0.022000 0.084000 0.120000 0.260000	0.022000 0.121000 0.110000 0.240000	0.830 1.160 1.120 1.64	0.000035 0.000034 0.000052 0.000079	0.002381 0.002264 0.002299 0.002288	27.45 16.40 8.25 4.26
3_TempCyc	1	20:06:21	-49.33	-47.05	4.978643 4.947413 4.947226 4.947160 4.947127 4.961845	4.980095 11.987350 24.098561 47.573715	0.9680	18.129	0.855	0.885	0.0047 0.0047 0.0047 0.0047	-0.64475 -2.17925 -4.723 -9.51425	0.008822 0.040140 0.126452 0.060909	0.000022 -0.000033 0.000441 -0.001875	-0.000066 0.007502 0.006621 -0.007283	0.022000 0.129000 0.160000 0.370000	0.024000 0.121000 0.150000 0.320000	0.860 1.31 1.2 1.620	0.000035 0.000045 0.000049 0.000077	0.002328 0.002221 0.002282 0.002251	27.30 16.26 8.23 4.28
3_TempCyc	2	21:09:01	82.01	95.63	5.012171 4.978533 4.978258 4.977532 4.978291 4.992723	4.989863 11.998856 23.954014 47.543702	0.9950	14.044	0.864	0.890	0.0053 0.0053 0.0053 0.0053	-0.026 -0.110 -0.140 -0.380	0.002970 0.027302 0.104052 0.064991	-0.000055 -0.000077 0.000331 0.008055	0.000165 -0.000352 0.007503 -0.009931	0.029000 0.096000 0.140000 0.270000	0.029000 0.084000 0.140000 0.270000	0.830 1.060 1.190 1.72	0.000034 0.000039 0.000048 0.000078	0.002408 0.002364 0.002318 0.002314	28.37 16.88 8.47 4.43
3_TempCyc	3	22:33:23	-49.90	-47.88	4.967620 4.925269 4.925016 4.924807 4.924939 4.939625	4.973891 11.988351 24.104078 47.717490	0.9450	18.272	0.851	0.884	0.0046 0.0047 0.0047 0.0047	-0.66775 -2.184 -4.725 -9.543	0.009097 0.039593 0.119279 0.066536	-0.000066 0.000187 0.000662 -0.001544	-0.000132 0.004576 0.009820 -0.007945	0.027000 0.137000 0.160000 0.370000	0.044000 0.117000 0.180000 0.340000	0.830 1.31 1.26 1.62	0.000034 0.000022 0.000047 0.000077	0.002331 0.002209 0.002286 0.002250	27.29 16.27 8.24 4.28
3_TempCyc	4	23:35:19	82.25	95.90	5.013194 4.967191 4.966982 4.966927 4.966971 4.981569	4.988565 11.998141 23.954455 47.602845	0.9950	13.843	0.863	0.889	0.0053 0.0053 0.0053 0.0053	-0.032 -0.110 -0.140 -0.380	0.002838 0.027115 0.104273 0.070508	0.000077 0.000188 0.000552 -0.000110	0.000176 -0.000572 0.007613 -0.010262	0.029000 0.092000 0.140000 0.270000	0.022000 0.084000 0.130000 0.260000	0.820 1.070 1.180 1.7	0.000035 0.000039 0.000049 0.000078	0.002421 0.002365 0.002322 0.002330	28.35 16.88 8.47 4.43
3_TempCyc	5	01:02:45	-50.60	-48.07	4.970183 4.948150 4.947787 4.947919 4.947864 4.962450	4.972934 11.988087 24.105292 47.758427	0.9410	18.337	0.851	0.885	0.0046 0.0046 0.0047 0.0047	-0.65975 -2.17525 -4.71675 -9.55525	0.008866 0.035817 0.118396 0.066646	-0.000044 0.000165 0.000662 -0.002096	0.000066 0.004488 0.011144 -0.007724	0.027000 0.133000 0.160000 0.350000	0.044000 0.121000 0.160000 0.340000	0.870 1.33 1.32 1.64	0.000034 0.000048 0.000045 0.000076	0.002329 0.002222 0.002286 0.002251	27.28 16.27 8.24 4.28
3_TempCyc	6	02:05:12	82.18	95.87	5.014625 4.986750 4.986530 4.986310 4.986398 5.000885	4.987135 11.998317 23.954234 47.545136	0.9950	14.056	0.862	0.888	0.0053 0.0053 0.0053 0.0053	-0.026 -0.110 -0.140 -0.380	0.002860 0.027302 0.105156 0.063887	-0.000154 0.000066 0.000221 0.001876	0.000110 -0.000539 0.008275 0.024716	0.030000 0.096000 0.140000 0.270000	0.025000 0.080000 0.130000 0.270000	0.820 1.090 1.2 1.7	0.000034 0.000037 0.000049 0.000077	0.002409 0.002372 0.002316 0.002323	28.38 16.89 8.47 4.43
3_TempCyc	7	03:32:38	-49.77	-47.90	4.970623 4.935984 4.935786 4.935753 4.935775 4.950361	4.975156 11.988692 24.105072 47.750813	0.9450	18.275	0.851	0.885	0.0046 0.0047 0.0047 0.0047	-0.67325 -2.188 -4.7215 -9.551	0.009196 0.036004 0.118618 0.066537	-0.000154 0.000099 0.000882 -0.001103	-0.000099 0.004422 0.010924 -0.007724	0.029000 0.137000 0.170000 0.370000	0.041000 0.125000 0.170000 0.340000	0.880 1.33 1.31 1.62	0.000034 0.000024 0.000045 0.000079	0.002332 0.002222 0.002280 0.002256	27.29 16.27 8.24 4.28
3_TempCyc	8	04:34:06	82.39	96.03	5.015626 5.003492 5.003283 5.003195 5.003162 5.017606	4.987322 11.997305 23.954234 47.561357	0.9950	14.046	0.860	0.888	0.0053 0.0053 0.0053 0.0053	-0.026 -0.110 -0.140 -0.380	0.002794 0.027434 0.105156 0.065102	-0.000077 0.000363 -0.000220 0.001766	0.000066 -0.000440 0.007613 -0.010262	0.032000 0.092000 0.130000 0.270000	0.025000 0.076000 0.130000 0.260000	0.820 1.080 1.160 1.72	0.000035 0.000037 0.000049 0.000078	0.002406 0.002369 0.002320 0.002290	28.39 16.89 8.47 4.43
3_TempCyc	9	06:01:07	-49.62	-47.78	4.972879 4.956521 4.956246 4.956279 4.956191 4.970689	4.976927 11.988186 24.104741 47.774427	0.9440	18.109	0.849	0.884	0.0046 0.0046 0.0047 0.0047	-0.69075 -2.18825 -4.71925 -9.5555	0.008833 0.036048 0.117956 0.066537	-0.000176 0.000110 0.000441 -0.001655	0.000077 0.133000 0.101814 -0.007834	0.030000 0.133000 0.180000 0.350000	0.044000 0.133000 0.160000 0.320000	0.870 1.31 1.260 1.62	0.000033 0.000022 0.000045 0.000079	0.002332 0.002223 0.002325 0.002251	27.29 16.27 8.24 4.28
3_TempCyc	10	07:03:36	82.28	95.92	5.015032 5.003030 5.002788 5.002700 5.002744 5.017199	4.988763 11.997415 23.953903 47.583315	0.9950	14.027	0.863	0.890	0.0053 0.0053 0.0053 0.0053	-0.027 -0.110 -0.140 -0.380	0.002816 0.027863 0.105818 0.063888	-0.000011 0.000363 0.000662 0.000773	0.000154 -0.000550 0.008386 -0.010151	0.027000 0.076000 0.140000 0.290000	0.022000 0.076000 0.130000 0.270000	0.820 1.080 1.200 1.72	0.000034 0.000039 0.000049 0.000076	0.002414 0.002374 0.002251 0.002331	28.40 16.89 8.47 4.43
3_TempCyc	11	08:30:03	-50.65	-48.11	4.977158 4.961735 4.961449 4.961581 4.961548 4.976069	4.975838 11.988131 24.103858 47.784578	0.9360	18.336	0.851	0.885	0.0046 0.0046 0.0047 0.0047	-0.69425 -2.187 -4.71675 -9.5575	0.009009 0.036191 0.118507 0.066425	-0.000077 0.000088 0.000441 -0.001766	-0.000187 0.004444 0.010373 -0.008276	0.030000 0.133000 0.170000 0.390000	0.051000 0.113000 0.180000 0.340000	0.870 1.33 1.290 1.64	0.000033 0.000044 0.000045 0.000079	0.002339 0.002219 0.002279 0.002251	27.29 16.27 8.24 4.28
3_TempCyc	12	09:33:08	82.29	95.94	5.016253 5.004009	4.986211 11.997646	0.9950	13.805	0.862	0.889	0.0053 0.0053	-0.027 -0.110	0.002750 0.027863	-0.000033 -0.000176	0.000022 -0.001298	0.037000 0.092000	0.025000 0.076000	0.820 1.090	0.000033 0.000039	0.002470 0.002362	28.40 16.89

					5.003767 5.003690 5.003712 5.018244	23.953241 47.595011					0.0053 0.0053	-0.140 -0.380	0.105707 0.062564	-0.000111 0.000883	0.008496 -0.008717	0.140000 0.270000	0.130000 0.270000	1.200 1.7	0.000050 0.000080	0.002320 0.002316	8.47 4.44
3_TempCyc	13	11:01:02	-49.90	-47.82	4.980744 4.965706 4.965519 4.965497 4.965519 4.980062	4.975332 11.988802 24.103968 47.803778	0.9450	18.302	0.852	0.885	0.0046 0.0047 0.0047	-0.683 -2.17625 -4.7165 -9.5605	0.008789 0.036103 0.118948 0.066094	-0.000143 0.000066 0.000662 -0.001986	0.000275 0.004620 0.011035 -0.007724	0.025000 0.133000 0.160000 0.370000	0.041000 0.133000 0.160000 0.340000	0.860 1.290 1.310 1.64	0.000032 0.000023 0.000046 0.000081	0.002331 0.002221 0.002281 0.002254	27.30 16.27 8.24 4.28
3_TempCyc	14	12:03:23	82.44	95.96	5.016594 5.004515 5.004306 5.004207 5.004207 5.018651	4.990446 11.996238 23.953793 47.575149	0.9950	14.007	0.864	0.889	0.0053 0.0053 0.0053 0.0053	-0.033 -0.110 -0.140 -0.380	0.002893 0.027533 0.105266 0.064881	0.000176 -0.000506 0.000662 0.000552	0.000099 -0.000418 0.009159 -0.011696	0.027000 0.092000 0.140000 0.270000	0.024000 0.076000 0.130000 0.260000	0.820 1.060 1.190 1.72	0.000034 0.000037 0.000048 0.000078	0.002429 0.002305 0.002318 0.002317	28.40 16.89 8.47 4.43
3_TempCyc	15	13:30:47	-49.66	-47.83	4.978775 4.964078 4.963891 4.963869 4.963880 4.978467	4.975068 11.989363 24.088189 47.792523	0.9400	18.326	0.851	0.884	0.0046 0.0046 0.0047 0.0047	-0.68775 -2.1725 -4.7125 -9.558	0.009306 0.036026 0.117734 0.066315	0.000066 0.000165 0.000000 -0.001324	-0.000033 0.004675 0.010703 -0.007393	0.027000 0.133000 0.160000 0.370000	0.046000 0.113000 0.170000 0.340000	0.880 1.31 1.26 1.64	0.000032 0.000044 0.000046 0.000077	0.002346 0.002223 0.002283 0.002259	27.29 16.27 8.24 4.28
3_TempCyc	16	14:33:40	82.40	96.02	5.016880 5.004757 5.004537 5.004482 5.004471 5.018970	4.990842 11.994786 23.954234 47.577246	0.9950	13.997	0.864	0.889	0.0053 0.0053 0.0053 0.0053	-0.034 -0.090 -0.140 -0.380	0.002915 0.027082 0.104715 0.063226	-0.000055 -0.001540 0.000442 0.001324	0.000308 -0.000968 0.009159 -0.008827	0.029000 0.088000 0.140000 0.270000	0.027000 0.076000 0.120000 0.260000	0.820 1.080 1.180 1.7	0.000033 0.000039 0.000049 0.000079	0.002402 0.002382 0.002319 0.002314	28.40 16.88 8.47 4.43
3_TempCyc	17	16:07:34	-49.58	-47.55	4.979501 4.965167 4.964991 4.964870 4.964881 4.979534	4.975607 11.990144 24.102203 47.788771	0.9470	18.297	0.851	0.885	0.0046 0.0047 0.0047 0.0047	-0.68475 -2.173 -4.7155 -9.56375	0.008921 0.035761 0.116742 0.065764	-0.000220 0.000121 0.000552 -0.001324	0.000143 0.004499 0.011034 -0.008386	0.027000 0.141000 0.180000 0.350000	0.041000 0.117000 0.150000 0.320000	0.880 1.32 1.270 1.62	0.000033 0.000024 0.000047 0.000078	0.002338 0.002215 0.002282 0.002231	27.30 16.27 8.24 4.28
3_TempCyc	18	17:09:56	82.38	95.88	5.016506 5.004372 5.004141 5.004075 5.004064 5.018596	4.992140 11.996557 23.954565 47.571287	0.9950	13.993	0.865	0.888	0.0053 0.0053 0.0053 0.0053	-0.026 -0.110 -0.140 -0.380	0.002530 0.026917 0.104273 0.062564	-0.000077 0.000121 -0.000552 0.002538	0.000220 -0.000583 0.008828 -0.012910	0.032000 0.092000 0.140000 0.290000	0.029000 0.076000 0.130000 0.260000	0.820 1.090 1.210 1.68	0.000034 0.000037 0.000050 0.000078	0.002492 0.002380 0.002321 0.002306	28.40 16.89 8.47 4.44
3_TempCyc	19	18:41:46	-50.90	-48.17	4.981778 4.967345 4.967180 4.967103 4.967081 4.981613	4.973495 11.988582 24.101651 47.680857	0.9370	18.344	0.850	0.884	0.0046 0.0047 0.0047 0.0047	-0.6855 -2.179 -4.718 -9.537	0.009196 0.036026 0.117514 0.065984	-0.000165 0.000165 0.000442 -0.001655	0.000099 0.004301 0.010041 -0.007945	0.029000 0.133000 0.170000 0.370000	0.044000 0.125000 0.190000 0.340000	0.860 1.290 1.31 1.600	0.000032 0.000024 0.000046 0.000076	0.002344 0.002209 0.002275 0.002257	27.29 16.27 8.24 4.29
3_TempCyc	20	19:43:39	82.23	95.73	5.016506 5.004405 5.004273 5.004229 5.004141 5.018717	4.993724 11.998196 23.953572 47.614210	0.9950	13.970	0.865	0.891	0.0053 0.0053 0.0053 0.0053	-0.028 -0.090 -0.140 -0.380	0.002750 0.027621 0.105597 0.062123	-0.000132 -0.000451 0.000331 -0.046564	0.000110 -0.000594 0.009158 -0.008497	0.029000 0.092000 0.140000 0.270000	0.024000 0.076000 0.130000 0.270000	0.830 1.100 1.200 1.7	0.000033 0.000038 0.000049 0.000077	0.002423 0.002385 0.002322 0.002311	28.39 16.88 8.23 4.44
3_TempCyc	21	21:17:33	-49.99	-47.88	4.982680 4.968434 4.968159 4.968137 4.968148 4.982658	4.973781 11.988714 24.101651 47.773544	0.9450	18.308	0.851	0.885	0.0046 0.0047 0.0047 0.0047	-0.68475 -2.18375 -4.72975 -9.55475	0.009009 0.036279 0.116300 0.066426	-0.000187 0.000176 0.000331 -0.001986	0.000121 0.004655 0.010483 -0.007614	0.029000 0.133000 0.170000 0.350000	0.037000 0.133000 0.170000 0.320000	0.870 1.32 1.270 1.62	0.000033 0.000044 0.000046 0.000078	0.002342 0.002222 0.002280 0.002257	27.29 16.27 8.23 4.28
3_TempCyc	22	22:19:28	82.20	95.76	5.017166 5.005131 5.004966 5.004790 5.004911 5.019344	4.991018 11.997547 23.954014 47.606266	0.9950	13.962	0.864	0.891	0.0053 0.0053 0.0053 0.0053	-0.026 -0.090 -0.140 -0.380	0.002904 0.027753 0.105928 0.062784	0.000176 -0.001189 0.000772 0.001655	-0.000165 -0.001650 0.009379 -0.009269	0.030000 0.096000 0.140000 0.270000	0.022000 0.076000 0.140000 0.260000	0.830 1.090 1.200 1.7	0.000033 0.000038 0.000049 0.000078	0.002413 0.002362 0.002321 0.002310	28.39 16.88 8.47 4.44
3_TempCyc	23	23:47:25	-50.17	-48.03	4.981283 4.967114 4.966894 4.966872 4.966839 4.981393	4.975915 11.989495 24.101430 47.734152	0.9390	18.297	0.850	0.883	0.0046 0.0047 0.0047 0.0047	-0.68075 -2.178 -4.716 -9.54875	0.009020 0.036202 0.116079 0.066095	-0.000099 0.000066 0.000552 -0.001434	0.000143 0.004752 0.010924 -0.007835	0.030000 0.133000 0.170000 0.370000	0.042000 0.129000 0.180000 0.340000	0.870 1.310 1.260 1.64	0.000032 0.000023 0.000045 0.000079	0.002330 0.002209 0.002283 0.002244	27.29 16.27 8.24 4.28
3_TempCyc	24	00:48:46	82.31	95.79	5.017958 5.005967 5.005824 5.005758 5.005714 5.020202	4.992393 11.995886 23.953241 47.611562	0.9950	13.964	0.864	0.889	0.0053 0.0053 0.0053 0.0053	-0.028 -0.110 -0.140 -0.380	0.002904 0.027533 0.105818 0.064219	-0.000176 -0.000275 -0.000441 0.001655	-0.000044 -0.000792 0.009158 -0.008938	0.030000 0.092000 0.140000 0.270000	0.024000 0.076000 0.130000 0.270000	0.820 1.090 1.200 1.7	0.000033 0.000045 0.000049 0.000078	0.002412 0.002377 0.002319 0.002321	28.39 16.88 8.48 4.44
3_TempCyc	25	02:15:39	-50.75	-48.16	4.983439 4.969402 4.969182 4.969160 4.969105 4.983692	4.977774 11.988615 24.100437 47.709766	0.9390	18.334	0.849	0.882	0.0046 0.0047 0.0047 0.0047	-0.69075 -2.172 -4.71425 -9.5435	0.009152 0.036290 0.116521 0.066205	-0.000099 -0.000088 0.000331 -0.001986	0.000066 0.004631 0.011034 -0.007945	0.025000 0.129000 0.170000 0.370000	0.046000 0.133000 0.190000 0.340000	0.880 1.33 1.27 1.64	0.000033 0.000046 0.000047 0.000079	0.002339 0.002207 0.002276 0.002250	27.29 16.27 8.24 4.28

3_TempCyc	26	03:16:38	82.19	95.68	5.018420 5.006462 5.006231 5.006209 5.006209 5.020664	4.994450 11.997690 23.953462 47.640913	0.9950	13.951	0.864	0.888	0.0053 0.0053 0.0053	-0.028 -0.110 -0.140 -0.380	0.002860 0.028094 0.106038 0.063556	0.000044 0.000341 -0.000221 -0.000442	0.000044 -0.000352 0.009490 -0.018427	0.029000 0.092000 0.140000 0.270000	0.027000 0.076000 0.120000 0.260000	0.820 1.110 1.2 1.72	0.000033 0.000039 0.000048 0.000078	0.002407 0.002378 0.002323 0.002321	28.39 16.88 8.47 4.44
3_TempCyc	27	04:48:41	-49.86	-47.79	4.981437 4.967334 4.967103 4.967059 4.967037 4.981580	4.976410 11.989110 24.100879 47.666071	0.9440	18.301	0.852	0.883	0.0046 0.0047 0.0047 0.0047	-0.67725 -2.171 -4.71425 -9.53425	0.008932 0.036257 0.117514 0.067088	-0.000220 0.000033 0.000773 -0.001766	0.000264 0.004022 0.011145 -0.007724	0.029000 0.137000 0.170000 0.350000	0.044000 0.133000 0.180000 0.320000	0.870 1.31 1.29 1.64	0.000032 0.000023 0.000047 0.000080	0.002335 0.002224 0.002281 0.002254	27.29 16.27 8.24 4.28
3_TempCyc	28	05:50:07	82.11	95.59	5.015901 5.003998 5.003745 5.003756 5.003668 5.018123	4.994186 11.998053 23.954786 47.643782	0.9950	13.936	0.862	0.889	0.0053 0.0053 0.0053 0.0053	-0.027 -0.110 -0.140 -0.380	0.002849 0.028127 0.106590 0.087501	0.000044 -0.000297 -0.000663 -0.000772	0.000176 -0.000671 0.009489 -0.009048	0.029000 0.088000 0.140000 0.270000	0.024000 0.072000 0.140000 0.270000	0.820 1.090 1.180 1.72	0.000034 0.000037 0.000049 0.000078	0.002417 0.002363 0.002322 0.002318	28.38 16.87 8.46 4.44
3_TempCyc	29	07:17:25	-50.76	-48.20	4.982240 4.968225 4.968060 4.967939 4.967950 4.982460	4.976091 11.988560 24.101099 47.765048	0.9360	18.310	0.851	0.884	0.0046 0.0046 0.0047 0.0047	-0.6995 -2.18575 -4.7115 -9.5635	0.009097 0.036345 0.113983 0.066646	-0.000308 0.000088 0.000993 -0.001213	0.000231 0.004169 0.010703 -0.007945	0.025000 0.133000 0.170000 0.390000	0.037000 0.125000 0.160000 0.320000	0.870 1.34 1.32 1.62	0.000032 0.000023 0.000046 0.000078	0.002344 0.002215 0.002283 0.002251	27.28 16.27 8.24 4.28
3_TempCyc	30	08:20:51	82.30	95.76	5.018222 5.006319 5.006110 5.006022 5.006033 5.020576	4.992305 11.998482 23.952910 47.596556	0.9950	13.941	0.864	0.888	0.0053 0.0053 0.0053 0.0053	-0.034 -0.110 -0.140 -0.380	0.002882 0.027907 0.106149 0.051198	-0.000132 -0.000220 -0.000772 -0.009158	0.000099 -0.000715 0.009158 -0.010372	0.029000 0.092000 0.140000 0.270000	0.027000 0.080000 0.130000 0.270000	0.830 1.110 1.180 1.7	0.000033 0.000040 0.000049 0.000076	0.002417 0.002307 0.002319 0.002317	28.39 16.88 8.46 4.43
3_TempCyc	31	09:47:46	-49.73	-47.90	4.981734 4.967675 4.967466 4.967378 4.967433 4.981965	4.976432 11.988846 24.102423 47.721352	0.9390	18.316	0.849	0.883	0.0046 0.0046 0.0047 0.0047	-0.68025 -2.1815 -4.6935 -9.546	0.009284 0.036114 0.116521 0.066537	-0.000088 0.000099 0.000772 -0.001214	0.000055 0.004873 0.010593 -0.007614	0.030000 0.137000 0.170000 0.370000	0.041000 0.113000 0.170000 0.320000	0.870 1.290 1.29 1.66	0.000032 0.000024 0.000045 0.000079	0.002343 0.002217 0.002270 0.002250	27.28 16.27 8.24 4.28
3_TempCyc	32	10:50:30	82.27	95.77	5.018585 5.006737 5.006517 5.006484 5.006451 5.020972	4.993086 11.998669 23.952910 47.672471	0.9950	13.943	0.863	0.888	0.0053 0.0053 0.0053 0.0053	-0.034 -0.110 -0.140 -0.380	0.002761 0.027610 0.105929 0.063778	-0.000099 -0.000099 0.000442 0.000331	0.000077 -0.000506 0.008717 -0.010813	0.029000 0.092000 0.140000 0.290000	0.025000 0.076000 0.130000 0.260000	0.830 1.090 1.180 1.72	0.000034 0.000038 0.000049 0.000078	0.002412 0.002367 0.002319 0.002314	28.40 16.88 8.46 4.44
3_TempCyc	33	12:22:38	-49.81	-47.80	4.982713 4.968665 4.968511 4.968434 4.968379 4.982977	4.973946 11.989198 24.101541 47.767916	0.9420	18.127	0.850	0.883	0.0046 0.0046 0.0047 0.0047	-0.6785 -2.1935 -4.70475 -9.55475	0.009163 0.036202 0.116963 0.066536	-0.000110 -0.000099 0.000551 -0.001655	0.000176 0.004697 0.011145 -0.008276	0.025000 0.137000 0.170000 0.350000	0.044000 0.137000 0.180000 0.340000	0.870 1.310 1.32 1.64	0.000033 0.000024 0.000046 0.000077	0.002338 0.002209 0.002277 0.002257	27.28 16.27 8.24 4.28
3_TempCyc	34	13:25:53	82.32	95.72	5.018640 5.006770 5.006627 5.006550 5.006506 5.021016	4.991667 11.998405 23.952138 47.648416	0.9950	13.936	0.864	0.889	0.0053 0.0053 0.0053 0.0053	-0.027 -0.110 -0.140 -0.380	0.002805 0.027676 0.105928 0.063005	0.000011 -0.000122 0.000773 0.001324	-0.000187 -0.000671 0.009269 -0.011145	0.030000 0.092000 0.140000 0.290000	0.029000 0.076000 0.120000 0.290000	0.830 1.110 1.200 1.7	0.000034 0.000039 0.000049 0.000077	0.002474 0.002373 0.002321 0.002324	28.41 16.88 8.47 4.44
3_TempCyc	35	14:59:28	-49.99	-47.97	4.980689 4.966817 4.966630 4.966498 4.966498 4.981118	4.974309 11.990100 24.100217 47.731614	0.9400	18.288	0.849	0.884	0.0046 0.0047 0.0047 0.0047	-0.675 -2.1735 -4.721 -9.54875	0.009152 0.036102 0.117514 0.066315	-0.000198 0.000154 0.000883 -0.001876	0.000198 0.004290 0.010041 -0.007945	0.027000 0.133000 0.170000 0.370000	0.044000 0.125000 0.160000 0.320000	0.880 1.32 1.260 1.64	0.000032 0.000048 0.000047 0.000080	0.002343 0.002225 0.002276 0.002249	27.29 16.27 8.24 4.28
3_TempCyc	36	16:02:04	82.33	95.73	5.018981 5.007155 5.006924 5.006825 5.006814 5.021291	4.993064 11.998603 23.952469 47.595673	0.9950	13.934	0.863	0.888	0.0053 0.0053 0.0053 0.0053	-0.027 -0.110 -0.140 -0.380	0.002805 0.028424 0.105266 0.087390	0.000044 0.000330 -0.000772 0.001103	-0.000121 -0.000825 0.008828 -0.009820	0.029000 0.092000 0.140000 0.270000	0.029000 0.076000 0.130000 0.270000	0.820 1.080 1.180 1.72	0.000033 0.000038 0.000048 0.000078	0.002424 0.002375 0.002319 0.002286	28.39 16.88 8.46 4.44
3_TempCyc	37	17:35:10	-50.33	-48.04	4.984110 4.970029 4.969831 4.969776 4.969754 4.984341	4.975607 11.989484 24.100989 47.698622	0.9380	18.353	0.851	0.885	0.0046 0.0047 0.0047 0.0047	-0.6845 -2.178 -4.721 -9.542	0.009262 0.036059 0.116190 0.066205	-0.000198 0.000110 0.000441 -0.001766	-0.000132 -0.004356 0.010703 -0.008276	0.027000 0.137000 0.170000 0.370000	0.041000 0.117000 0.180000 0.320000	0.880 1.33 1.260 1.62	0.000032 0.000046 0.000046 0.000078	0.002334 0.002210 0.002283 0.002256	27.29 16.27 8.24 4.28
3_TempCyc	38	18:38:17	82.27	95.65	5.018739 5.006913 5.006682 5.006616 5.006638 5.021159	4.992800 11.999583 23.951366 47.550874	0.9950	13.927	0.863	0.889	0.0053 0.0053 0.0053 0.0053	-0.026 -0.110 -0.140 -0.380	0.002937 0.027522 0.105818 0.062564	-0.000143 -0.000154 0.000552 0.000993	0.000066 -0.000539 0.009820 -0.009048	0.029000 0.096000 0.140000 0.270000	0.027000 0.072000 0.130000 0.260000	0.810 1.110 1.200 1.72	0.000033 0.000038 0.000048 0.000078	0.002423 0.002375 0.002322 0.002312	28.39 16.88 8.46 4.44
3_TempCyc	39	20:08:23	-49.89	-47.97	4.977983 4.964232 4.964001 4.963869	4.975057 11.989528 24.100658 47.615755	0.9370	18.302	0.848	0.883	0.0046 0.0046 0.0047 0.0047	-0.708 -2.19425 -4.72725 -9.525	0.009053 0.036103 0.115086 0.065433	0.000231 0.000055 0.000551 -0.000882	0.000385 0.004301 0.011145 -0.007835	0.030000 0.137000 0.170000 0.370000	0.039000 0.137000 0.180000 0.320000	0.880 1.31 1.27 1.62	0.000032 0.000045 0.000046 0.000079	0.002334 0.002223 0.002281 0.002251	27.29 16.27 8.24 4.29

					4.963891 4.978456																	
3_TempCyc	40	21:10:54	82.37	95.78	5.018838 5.007034 5.006836 5.006726 5.006770 5.021214	4.994241 11.998196 23.951476 47.573825	0.9950	13.926	0.863	0.890	0.0053 0.0053 0.0053 0.0053	-0.027 -0.110 -0.240 -0.380	0.002860 0.027478 0.105928 0.062674	-0.000165 -0.000198 -0.000331 0.002869	0.000154 -0.000440 0.009820 0.003642	0.029000 0.092000 0.140000 0.270000	0.025000 0.072000 0.130000 0.270000	0.820 1.090 1.180 1.7	0.000033 0.000038 0.000048 0.000077	0.002414 0.002382 0.002320 0.002328	28.39 16.88 8.46 4.43	
3_TempCyc	41	22:43:59	-49.94	-48.00	4.984099 4.970271 4.970073 4.969996 4.969985 4.984528	4.975772 11.989715 24.100658 47.661326	0.9400	18.304	0.849	0.884	0.0046 0.0047 0.0047 0.0047	-0.69225 -2.16725 -4.7205 -9.54175	0.008976 0.035992 0.116079 0.065984	-0.000154 0.000220 0.000331 -0.001325	-0.000055 0.004037 0.011476 -0.007393	0.025000 0.137000 0.180000 0.370000	0.037000 0.125000 0.230000 0.340000	0.880 1.31 1.34 1.62	0.000032 0.000024 0.000046 0.000079	0.002330 0.002212 0.002281 0.002256	27.29 16.27 8.24 4.28	
3_TempCyc	42	23:45:56	82.35	95.73	5.018178 5.006308 5.006143 5.006022 5.005967 5.020532	4.993592 11.996128 23.950262 47.627341	0.9950	13.921	0.862	0.891	0.0053 0.0053 0.0053 0.0053	-0.027 -0.110 -0.240 -0.380	0.002827 0.028402 0.105597 0.063998	-0.000121 0.000088 -0.000552 0.000993	0.000198 0.000594 0.009820 -0.009931	0.030000 0.092000 0.140000 0.270000	0.025000 0.076000 0.130000 0.290000	0.820 1.090 1.160 1.7	0.000033 0.000045 0.000048 0.000077	0.002412 NOTRG NOTRG NOTRG	28.38 16.88 8.47 4.43	
3_TempCyc	43	01:16:29	-50.89	-48.72	4.980315 4.966531 4.966289 4.966190 4.966223 4.980722	4.976344 11.987768 24.098782 47.726428	0.9280	18.383	0.850	0.884	0.0046 0.0046 0.0047 0.0047	-0.6925 -2.17775 -4.71975 -9.54725	0.009372 0.036499 0.117182 0.066868	-0.000198 -0.000555 0.000331 -0.001987	-0.000132 0.004224 0.011255 -0.008055	0.034000 0.141000 0.170000 0.370000	0.047000 0.125000 0.180000 0.340000	0.880 1.35 1.270 1.61	0.000032 0.000046 0.000046 0.000078	0.002326 0.002207 0.002279 0.002245	27.29 16.27 8.24 4.28	
3_TempCyc	44	02:17:52	82.23	95.63	5.018453 5.006693 5.006506 5.006407 5.006396 5.020829	4.994362 11.996975 23.949490 47.641244	0.9950	13.892	0.863	0.891	0.0053 0.0053 0.0053 0.0053	-0.026 -0.110 -0.140 -0.380	0.003036 0.028435 0.106480 0.064660	-0.000066 0.000418 -0.000551 0.000773	0.000154 -0.001210 0.009490 0.034537	0.029000 0.088000 0.140000 0.270000	0.027000 0.076000 0.140000 0.270000	0.820 1.110 1.190 1.7	0.000034 0.000037 0.000049 0.000078	0.002417 0.002361 0.002320 0.002328	28.38 16.88 8.47 4.44	
3_TempCyc	45	03:45:20	-49.48	-48.12	4.981943 4.967939 4.967774 4.967708 4.967653 4.982273	4.976575 11.988296 24.098782 47.726759	0.9340	18.354	0.848	0.883	0.0046 0.0046 0.0047 0.0047	-0.6935 -2.18825 -4.7195 -9.54625	0.008932 0.036565 0.117514 0.065764	-0.000132 0.000077 0.000442 -0.001766	0.000209 0.004213 0.011034 -0.008166	0.025000 0.129000 0.180000 0.370000	0.035000 0.157000 0.170000 0.340000	0.870 1.290 1.32 1.64	0.000032 0.000023 0.000046 0.000078	0.002340 0.002208 0.002283 0.002245	27.29 16.27 8.24 4.29	
3_TempCyc	46	04:46:47	82.25	95.64	5.018464 5.006627 5.006396 5.006319 5.006286 5.020807	4.993768 11.998603 23.949159 47.662209	0.9950	13.764	0.864	0.889	0.0053 0.0053 0.0053 0.0053	-0.027 -0.110 -0.140 -0.380	0.002904 0.028017 0.106590 0.063667	-0.000033 0.000308 -0.000552 -0.001986	0.000077 -0.000550 0.009489 -0.009600	0.029000 0.088000 0.140000 0.270000	0.025000 0.076000 0.140000 0.270000	0.820 1.090 1.180 1.7	0.000033 0.000037 0.000049 0.000079	0.002412 0.002379 0.002319 0.002327	28.38 16.87 8.46 4.44	
3_TempCyc	47	06:17:23	-50.29	-48.06	4.983527 4.969369 4.969193 4.969072 4.969061 4.983626	4.975849 11.988219 24.099334 47.727311	0.9350	18.356	0.850	0.884	0.0046 0.0046 0.0047 0.0047	-0.68175 -2.19275 -4.72025 -9.54775	0.009119 0.036466 0.116962 0.066205	-0.000209 0.000066 0.000662 -0.001324	0.000088 0.004290 0.011035 -0.008386	0.027000 0.133000 0.160000 0.370000	0.039000 0.133000 0.160000 0.340000	0.870 1.31 1.270 1.62	0.000032 0.000046 0.000046 0.000079	0.002337 0.002208 0.002288 0.002242	27.28 16.27 8.24 4.28	
3_TempCyc	48	07:19:30	82.19	95.57	5.018651 5.006814 5.006638 5.006517 5.006495 5.020961	4.993691 11.996623 23.948607 47.637934	0.9950	13.898	0.863	0.890	0.0053 0.0053 0.0053 0.0053	-0.026 -0.110 -0.140 -0.380	0.002937 0.028226 0.105707 0.062563	-0.000022 -0.000099 -0.000331 -0.001544	-0.000165 -0.000946 0.009710 -0.009820	0.029000 0.101000 0.140000 0.290000	0.027000 0.076000 0.140000 0.270000	0.830 1.080 1.180 1.72	0.000033 0.000037 0.000048 0.000078	0.002419 0.002379 0.002321 0.002303	28.38 16.88 8.46 4.43	
3_TempCyc	49	08:47:04	-50.32	-48.09	4.982372 4.968192 4.968038 4.967917 4.967873 4.982416	4.974661 11.989566 24.099665 47.725435	0.9340	18.427	0.850	0.884	0.0046 0.0046 0.0047 0.0047	-0.69975 -2.168 -4.71925 -9.54575	0.009064 0.036675 0.117073 0.066757	0.000121 0.000176 0.000773 -0.002096	-0.000088 0.004158 0.011365 -0.008165	0.025000 0.141000 0.180000 0.390000	0.037000 0.137000 0.170000 0.320000	0.880 1.31 1.32 1.64	0.000032 0.000023 0.000045 0.000080	0.002340 0.002211 0.002279 0.002250	27.28 16.27 8.24 4.28	
3_TempCyc	50	09:50:41	82.19	95.61	5.018893 5.006990 5.006836 5.006792 5.006704 5.021225	4.992745 11.997800 23.948055 47.645327	0.9950	13.900	0.863	0.888	0.0053 0.0053 0.0053 0.0053	-0.027 -0.110 -0.140 -0.380	0.002805 0.028149 0.106260 0.064771	-0.000033 -0.000253 -0.000552 0.001876	0.000110 -0.000814 0.009710 -0.010592	0.029000 0.092000 0.140000 0.270000	0.027000 0.076000 0.120000 0.270000	0.820 1.120 1.180 1.72	0.000033 0.000038 0.000050 0.000078	0.002416 0.002369 0.002319 0.002315	28.38 16.87 8.46 4.43	
3_TempCyc	51	11:18:42	-50.30	-48.33	4.981756 4.967554 4.967400 4.967345 4.967279 4.981899	4.975882 11.989022 24.098341 47.734593	0.9350	18.349	0.848	0.882	0.0046 0.0046 0.0047 0.0047	-0.6915 -2.169 -4.7175 -9.547	0.009372 0.036499 0.117403 0.066095	-0.000220 0.000165 0.000993 -0.001655	-0.000418 0.004103 0.010151 -0.007503	0.027000 0.137000 0.180000 0.390000	0.032000 0.121000 0.180000 0.320000	0.870 1.290 1.29 1.620	0.000032 0.000024 0.000046 0.000078	0.002330 0.002224 0.002280 0.002245	27.29 16.27 8.24 4.28	
3_TempCyc	52	12:21:46	82.22	95.53	5.018948 5.007023 5.006825 5.006748 5.006715 5.021225	4.992514 11.996788 23.947945 47.648196	0.9950	13.892	0.862	0.888	0.0053 0.0053 0.0053 0.0053	-0.027 -0.110 -0.140 -0.380	0.002882 0.028710 0.106039 0.062012	0.000066 -0.000726 0.000111 0.000552	-0.000209 -0.000748 0.009821 -0.010151	0.032000 0.080000 0.140000 0.290000	0.024000 0.080000 0.120000 0.270000	0.810 1.090 1.180 1.72	0.000033 0.000036 0.000049 0.000078	0.002416 0.002373 0.002320 0.002321	28.38 16.88 8.46 4.43	
3_TempCyc	53	13:53:04	-50.01	-47.97	4.980062 4.965827 4.965640	4.975123 11.988571	0.9390	18.420	0.850	0.884	0.0046 0.0047	-0.69775 -2.1685	0.009339 0.036323	0.000055 0.000132	-0.000374 -0.003927	0.027000 0.137000	0.042000 0.130000	0.870 1.33	0.000032 0.000046	0.002343 0.002224	27.24 16.27	

					4.965530 4.965497 4.980084	24.097899 47.737352					0.0047 0.0047	-4.725 -9.54925	0.115528 0.066205	0.000552 -0.001435	0.011586 -0.007945	0.180000 0.370000	0.170000 0.320000	1.260 1.64	0.000045 0.000078	0.002286 0.002247	8.24 4.28
3_TempCyc	54	14:55:16	82.27	95.62	5.017859 5.005923 5.005725 5.005615 5.005648 5.020125	4.994527 11.998207 23.947724 47.685933	0.9950	13.889	0.864	0.888	0.0053 0.0053 0.0053 0.0053	-0.026 -0.110 -0.140 -0.380	0.002849 0.027742 0.105598 0.066094	-0.000077 0.000066 0.000662 -0.001545	0.000066 -0.000528 0.010041 -0.009931	0.030000 0.096000 0.140000 0.270000	0.025000 0.076000 0.120000 0.260000	0.820 1.080 1.180 1.7	0.000034 0.000038 0.000047 0.000077	0.002404 0.002382 0.002320 0.002317	28.37 16.88 8.46 4.43
3_TempCyc	55	16:29:42	-49.54	-47.78	4.979622 4.963770 4.963517 4.963440 4.963418 4.978027	4.975783 11.988868 24.097679 47.697077	0.9390	18.356	0.850	0.884	0.0046 0.0047 0.0047 0.0047	-0.679 -2.1855 -4.702 -9.5395	0.009020 0.036125 0.115418 0.064218	0.000121 0.000077 0.000662 -0.000772	-0.000110 0.003949 0.010703 -0.007504	0.030000 0.137000 0.170000 0.370000	0.039000 0.137000 0.180000 0.340000	0.870 1.290 1.270 1.600	0.000032 0.000043 0.000045 0.000080	0.002331 0.002210 0.002276 0.002252	27.27 16.27 8.24 4.29
3_TempCyc	56	17:31:23	82.29	95.61	5.017144 5.005021 5.004900 5.004790 5.004768 5.019333	4.994560 11.996667 23.947614 47.689463	0.9950	13.897	0.864	0.888	0.0053 0.0053 0.0053 0.0053	-0.027 -0.090 -0.140 -0.380	0.002838 0.027159 0.104824 0.062233	0.000077 -0.000220 0.000552 0.001545	0.000066 -0.000682 0.009268 -0.010704	0.030000 0.092000 0.140000 0.290000	0.025000 0.080000 0.130000 0.270000	0.820 1.080 1.180 1.7	0.000034 0.000037 0.000049 0.000078	0.002401 0.002315 0.002321 0.002289	28.39 16.88 8.46 4.44
3_TempCyc	57	19:08:44	-51.34	-48.56	4.979347 4.964914 4.964672 4.964584 4.964595 4.979259	4.974012 11.988076 24.096244 47.668609	0.9290	18.351	0.848	0.883	0.0046 0.0046 0.0047 0.0047	-0.6915 -2.186 -4.715 -9.53375	0.008954 0.036499 0.114204 0.064992	0.000088 0.000198 0.000552 -0.002096	0.000055 0.004026 0.011586 -0.008165	0.027000 0.137000 0.180000 0.350000	0.037000 0.113000 0.160000 0.340000	0.880 1.31 1.31 1.590	0.000033 0.000024 0.000046 0.000079	0.002335 0.002231 0.002280 0.002236	27.29 16.27 8.24 4.29
3_TempCyc	58	20:10:20	82.19	95.48	5.017485 5.005494 5.005318 5.005142 5.005230 5.019806	4.991986 11.996238 23.939228 47.627120	0.9950	13.879	0.864	0.889	0.0053 0.0053 0.0053 0.0053	-0.027 -0.090 -0.140 -0.380	0.002816 0.027720 0.106479 0.063667	0.000242 -0.000308 -0.001986 -0.000552	-0.000165 -0.000803 0.009821 -0.010482	0.029000 0.092000 0.140000 0.270000	0.027000 0.080000 0.140000 0.260000	0.810 1.080 1.180 1.7	0.000034 0.000038 0.000048 0.000077	0.002483 0.002414 0.002323 0.002298	28.38 16.88 8.46 4.44
3_TempCyc	59	21:49:57	-50.20	-48.17	4.982515 4.968115 4.967884 4.967829 4.967840 4.982427	4.972262 11.989143 24.082010 47.672581	0.9360	18.373	0.850	0.884	0.0046 0.0047 0.0047 0.0047	-0.67775 -2.18075 -4.7085 -9.5345	0.008580 0.036169 0.109128 0.064991	0.000561 0.000121 0.000993 -0.001545	0.000308 0.004092 0.011034 -0.007945	0.027000 0.137000 0.170000 0.370000	0.034000 0.129000 0.170000 0.340000	0.870 1.290 1.27 1.62	0.000033 0.000024 0.000045 0.000079	0.002329 0.002207 0.002286 0.002239	27.29 16.27 8.24 4.29
3_TempCyc	60	22:51:07	82.16	95.50	5.016187 5.004240 5.004031 5.003954 5.003954 5.018530	4.992426 11.994500 23.949379 47.603176	0.9950	13.879	0.862	0.890	0.0053 0.0053 0.0053 0.0053	-0.026 -0.090 -0.140 -0.380	0.002882 0.027863 0.105155 0.062343	-0.000165 0.000858 0.000663 0.000442	0.000165 -0.000649 0.009821 -0.010372	0.032000 0.088000 0.140000 0.270000	0.029000 0.072000 0.130000 0.260000	0.830 1.080 1.180 1.7	0.000033 0.000038 0.000048 0.000075	0.002424 0.002285 0.002322 0.002307	28.37 16.87 8.46 4.44

F.3.4.b 85V_{AC}

Sheet	Step	Time	Chamber Temp DL	Product Temp	ACOK,PG1,PG2,PG3,PG4,5V81	Vo1,V02,V03,V04	PF	NL_PWR	EFF120	EFF220	TACOK	HOLDUP	Loadreg	Linereg	Crossreg	Ripple_NL	Ripple	Vtrans	Ttrans	Trise	OCP
3_TempCyc	8	16:31:47	78.88	92.26	5.017606 5.004119 5.003965 23.956110 5.003899 5.018354	5.010301 11.979936 23.956110 47.980214	0.9950	13.416	0.858	0.889	0.0054 0.0053 0.0053 0.0053	-0.024 -0.110 -0.140 -0.390	0.004950 0.034882 0.121707 0.045350	-0.000077 0.000066 0.000331 -0.000772	0.000143 0.001881 0.001214 -0.009489	0.030000 0.088000 0.130000 0.290000	0.029000 0.088000 0.130000 0.290000	0.808 1.110 1.200 1.7	0.000036 0.000045 0.000049 0.000078	0.002437 0.002285 0.002316 0.002394	28.14 16.78 8.43 4.52
3_TempCyc	9	17:48:41	-34.34	-31.96	4.989269 4.973330 4.973132 4.973011 4.973022 4.987542	4.996804 11.994258 24.091389 48.216125	0.9920	16.747	0.861	0.892	0.0048 0.0048 0.0049 0.0049	-0.025 -0.130 -0.240 -0.390	0.010494 0.033539 0.000331 0.049212	0.000055 0.000110 0.000331 -0.001104	-0.001177 0.006271 0.011476 -0.008386	0.029000 0.129000 0.170000 0.350000	0.042000 0.113000 0.160000 0.340000	0.840 1.250 1.23 1.64	0.000035 0.000024 0.000046 0.000078	0.002276 0.002225 0.002286 0.002348	27.34 16.32 8.23 4.36
3_TempCyc	10	18:46:10	77.93	91.18	5.017265 5.003514 5.003283 5.003250 5.003250 5.017760	5.010026 11.992674 23.957324 47.895030	0.9950	13.331	0.859	0.888	0.0054 0.0053 0.0053 0.0053	-0.024 -0.110 -0.190 -0.390	0.005269 0.036642 0.126783 0.046012	-0.000055 0.000044 -0.000442 0.000773	0.000154 0.001980 0.003089 -0.009269	0.030000 0.088000 0.140000 0.270000	0.027000 0.088000 0.140000 0.290000	0.810 1.110 1.180 1.7	0.000036 0.000037 0.000049 0.000077	0.002441 0.002286 0.002310 0.002393	28.08 16.75 8.41 4.52
3_TempCyc	11	20:03:40	-34.98	-31.94	4.989203 4.973132 4.972945 4.972890 4.972857 4.987311	4.996925 11.995072 24.098892 48.017289	0.9920	16.687	0.862	0.891	0.0049 0.0048 0.0049 0.0049	-0.025 -0.130 -0.240 -0.390	0.010494 0.034727 0.115086 0.048881	0.000066 0.000022 0.000110 -0.000221	-0.001023 0.005930 0.007944 -0.008606	0.025000 0.133000 0.160000 0.370000	0.041000 0.105000 0.170000 0.340000	0.850 1.270 1.22 1.64	0.000035 0.000043 0.000049 0.000075	0.002274 0.002233 0.002286 0.002349	27.34 16.32 8.23 4.36
3_TempCyc	12	20:59:43	77.68	91.01	5.017419 5.003679 5.003481 5.003382 5.003371 5.017859	5.008618 11.993048 23.965820 47.938615	0.9950	13.078	0.858	0.887	0.0054 0.0053 0.0053 0.0053	-0.031 -0.110 -0.190 -0.390	0.005467 0.036774 0.127114 0.044798	-0.000033 0.000044 -0.000331 -0.001876	0.000143 0.001683 0.003531 -0.009600	0.030000 0.096000 0.140000 0.310000	0.025000 0.080000 0.130000 0.290000	0.820 1.120 1.180 1.66	0.000035 0.000036 0.000047 0.000077	0.002444 0.002307 0.002314 0.002399	25.33 16.75 8.40 4.52
3_TempCyc	13	22:17:14	-34.76	-31.97	4.990138 4.974188 4.974056 4.974012 4.973968 4.988499	4.996782 12.003318 24.100658 48.148706	0.9920	16.725	0.861	0.893	0.0048 0.0048 0.0048 0.0049	-0.025 -0.130 -0.240 -0.390	0.010527 0.034503 0.115638 0.049764	0.000077 0.006292 -0.000220 -0.000773	-0.000968 0.006292 0.010703 -0.008938	0.029000 0.133000 0.180000 0.350000	0.041000 0.117000 0.170000 0.320000	0.840 1.260 1.230 1.64	0.000035 0.000024 0.000048 0.000079	0.002272 0.002233 0.002367 0.002348	27.34 16.32 8.23 4.36
3_TempCyc	14	23:13:15	78.30	91.61	5.017122 5.003470 5.003217 5.003096 5.003173 5.017628	5.006539 11.992806 23.96482 47.975138	0.9950	13.363	0.858	0.888	0.0054 0.0053 0.0053 0.0053	-0.024 -0.110 -0.140 -0.390	0.005005 0.035861 0.126121 0.045351	-0.000088 -0.000110 -0.000221 -0.000662	0.000110 0.001793 0.002207 -0.010262	0.030000 0.096000 0.140000 0.310000	0.027000 0.088000 0.130000 0.290000	0.810 1.090 1.210 1.68	0.000037 0.000039 0.000049 0.000078	0.002432 0.002287 0.002316 0.002393	28.07 16.77 8.41 4.52
3_TempCyc	15	00:29:47	-34.32	-31.90	4.991590 4.975816 4.975651 4.975541 4.975552 4.990028	4.996958 12.003760 24.076934 48.124210	0.9920	16.693	0.861	0.892	0.0048 0.0048 0.0049 0.0049	-0.025 -0.130 -0.240 -0.390	0.010604 0.034701 0.115087 0.049212	0.000165 0.000221 0.000662 0.003090	-0.000902 0.006204 0.009930 -0.009710	0.025000 0.137000 0.180000 0.350000	0.024000 0.121000 0.160000 0.310000	0.850 1.260 1.230 1.66	0.000035 0.000025 0.000047 0.000078	0.002270 0.002234 0.002285 0.002344	26.50 16.32 8.23 4.36
3_TempCyc	16	01:25:47	78.41	91.72	5.017144 5.003569 5.003426 5.003338 5.003338 5.017771	5.009421 11.993136 23.968137 48.001289	0.9950	13.349	0.858	0.888	0.0054 0.0053 0.0053 0.0053	-0.025 -0.110 -0.140 -0.390	0.005016 0.035685 0.125789 0.045240	-0.000110 0.000121 0.000221 0.001104	0.000110 0.001617 -0.001104 -0.009268	0.030000 0.092000 0.140000 0.310000	0.025000 0.084000 0.140000 0.290000	0.808 1.110 1.200 1.68	0.000035 0.000039 0.000048 0.000077	0.002442 0.002266 0.002317 0.002394	28.12 16.77 8.41 4.52
3_TempCyc	17	02:42:20	-34.99	-32.06	4.990754 4.975024 4.974826 4.974771 4.974749 4.989203	4.997343 12.004422 24.059721 48.113727	0.9920	16.706	0.861	0.892	0.0048 0.0048 0.0049 0.0049	-0.026 -0.130 -0.240 -0.390	0.010758 0.034891 0.114645 0.049322	0.000066 0.000662 0.000442 -0.001103	-0.001375 0.005995 0.008496 -0.009931	0.027000 0.125000 0.170000 0.370000	0.035000 0.121000 0.150000 0.340000	0.840 1.270 1.250 1.66	0.000034 0.000023 0.000047 0.000078	0.002272 0.002235 0.002326 0.002352	27.34 16.32 8.23 4.36
3_TempCyc	18	03:38:23	78.47	91.81	5.017353 5.003756 5.003547 5.003415 5.003426 5.017892	5.009751 11.993609 23.968137 48.005924	0.9950	13.271	0.860	0.890	0.0054 0.0053 0.0053 0.0053	-0.023 -0.110 -0.190 -0.390	0.004994 0.035608 0.125790 0.099087	-0.000088 -0.000055 0.000331 0.003090	0.000154 0.001584 0.002427 -0.012359	0.032000 0.092000 0.130000 0.310000	0.025000 0.088000 0.130000 0.290000	0.808 1.080 1.180 1.7	0.000036 0.000035 0.000049 0.000077	0.002444 0.002300 0.002318 0.002391	28.11 16.78 8.42 4.52
3_TempCyc	19	04:54:50	-34.85	-31.85	4.990798 4.975266 4.975013 4.974958 4.974892 4.989368	4.997013 12.005525 24.060494 48.100266	0.9920	16.769	0.862	0.891	0.0048 0.0048 0.0049 0.0049	-0.025 -0.130 -0.240 -0.390	0.010780 0.034983 0.114976 0.049433	0.000088 -0.000220 0.000662 -0.000772	-0.001320 0.005973 0.009048 -0.009380	0.030000 0.133000 0.160000 0.350000	0.035000 0.133000 0.170000 0.320000	0.840 1.280 1.240 1.66	0.000035 0.000044 0.000047 0.000078	0.002278 0.002237 0.002314 0.002355	27.34 16.32 8.23 4.36
3_TempCyc	20	05:50:48	78.36	91.70	5.017254 5.003734 5.003514 5.003349 5.003404 5.017914	5.009740 11.994467 23.972110 47.932657	0.9950	13.339	0.856	0.887	0.0054 0.0053 0.0053 0.0053	-0.024 -0.110 -0.140 -0.390	0.005005 0.035850 0.126562 0.040937	-0.000044 -0.000099 -0.000221 -0.000772	0.000132 0.001452 0.002318 -0.010703	0.032000 0.092000 0.140000 0.310000	0.025000 0.088000 0.130000 0.310000	0.810 1.090 1.180 1.68	0.000036 0.000038 0.000048 0.000079	0.002371 0.002278 0.002316 0.002395	28.10 16.77 8.41 4.53

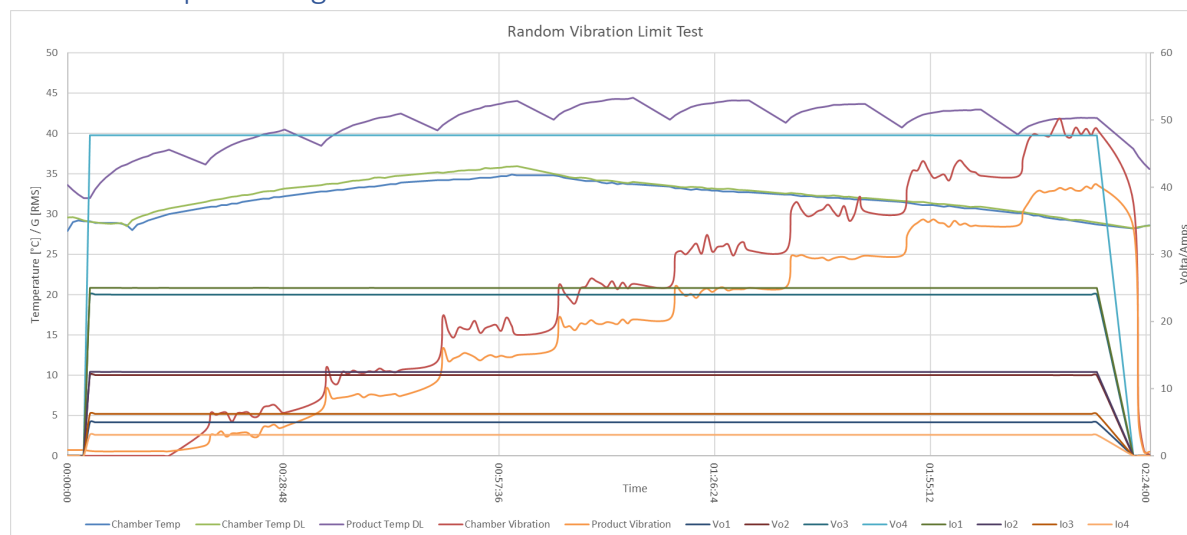
3_TempCyc	21	07:06:56	-34.41	-31.72	4.990622 4.975178 4.975057 4.974914 4.974925 4.989445	4.997629 12.006960 24.088520 48.062198	0.9920	16.760	0.859	0.890	0.0048 0.0048 0.0049 0.0049	-0.025 -0.130 -0.240 -0.390	0.010879 0.035207 0.114865 0.049764	0.000066 0.000111 -0.000552 -0.000993	-0.000968 0.006083 0.170000 -0.010152	0.025000 0.129000 0.170000 0.370000	0.039000 0.117000 0.170000 0.340000	0.840 1.27 1.220 1.64	0.000035 0.000044 0.000046 0.000078	0.002272 0.002242 0.002288 0.002347	27.33 16.33 8.23 4.36
3_TempCyc	22	08:03:57	78.55	91.89	5.017397 5.003844 5.003679 5.003569 5.003536 5.018068	5.008431 11.994302 23.973765 47.944243	0.9950	13.352	0.856	0.887	0.0054 0.0053 0.0053 0.0053	-0.024 -0.110 -0.240 -0.390	0.004939 0.035751 0.125900 0.055943	-0.000044 -0.000176 -0.000220 0.005406	0.000187 0.001507 0.001765 -0.008055	0.034000 0.105000 0.140000 0.310000	0.029000 0.088000 0.130000 0.310000	0.810 1.120 1.180 1.7	0.000036 0.000036 0.000049 0.000077	0.002414 0.002283 0.002313 0.002394	28.10 16.77 8.41 4.52
3_TempCyc	23	09:20:03	-34.87	-31.81	4.990787 4.975442 4.975244 4.975189 4.975200 4.989643	4.997244 12.007291 24.058176 48.182029	0.9920	16.701	0.859	0.889	0.0048 0.0048 0.0048 0.0049	-0.025 -0.130 -0.240 -0.390	0.010879 0.035285 0.114424 0.050536	0.000044 0.000221 0.000662 -0.001324	-0.001177 0.006270 0.007503 -0.007062	0.027000 0.133000 0.160000 0.350000	0.027000 0.105000 0.170000 0.330000	0.830 1.29 1.23 1.66	0.000035 0.000024 0.000047 0.000078	0.002270 0.002230 0.002342 0.002345	27.33 16.32 8.23 4.35
3_TempCyc	24	10:17:05	78.43	91.83	5.017287 5.003855 5.003613 5.003503 5.003547 5.018090	5.010037 11.994907 23.974758 47.992683	0.9950	13.353	0.854	0.886	0.0053 0.0053 0.0053 0.0053	-0.024 -0.110 -0.240 -0.390	0.004917 0.035685 0.125569 0.045020	-0.000011 -0.000110 0.000662 0.000220	0.000165 0.001408 0.002758 -0.009600	0.029000 0.092000 0.140000 0.310000	0.029000 0.088000 0.130000 0.290000	0.810 1.110 1.210 1.72	0.000037 0.000044 0.000049 0.000076	0.002375 0.002278 0.002308 0.002396	28.10 16.77 8.41 4.52
3_TempCyc	25	11:32:36	-34.42	-31.81	4.991150 4.975871 4.975662 4.975629 4.975585 4.990039	4.997211 12.007732 24.061928 48.121562	0.9920	16.848	0.865	0.893	0.0048 0.0048 0.0049 0.0049	-0.025 -0.130 -0.240 -0.390	0.010923 0.035341 0.114535 0.049874	0.000077 0.000110 0.000441 -0.000993	-0.001386 0.006149 0.009269 -0.008607	0.025000 0.137000 0.170000 0.350000	0.044000 0.101000 0.170000 0.320000	0.840 1.250 1.240 1.66	0.000035 0.000024 0.000046 0.000078	0.002271 0.002232 0.002363 0.002348	27.33 16.32 8.23 4.35
3_TempCyc	26	12:30:11	78.54	91.70	5.017551 5.004141 5.003987 5.003844 5.003833 5.018310	5.009498 11.994995 23.975199 47.996986	0.9950	13.340	0.861	0.890	0.0054 0.0053 0.0053 0.0053	-0.024 -0.110 -0.240 -0.390	0.005005 0.035894 0.126672 0.045130	-0.000066 0.000099 -0.000331 0.001545	0.000121 0.001133 0.003421 -0.013683	0.032000 0.088000 0.150000 0.310000	0.024000 0.080000 0.140000 0.310000	0.810 1.110 1.180 1.7	0.000036 0.000046 0.000049 0.000078	0.002440 0.002284 0.002315 0.002395	28.11 16.77 8.41 4.53
3_TempCyc	27	13:46:12	-34.83	-31.78	4.991271 4.976025 4.975860 4.975750 4.975772 4.990248	4.996793 12.007622 24.066342 48.213918	0.9920	16.897	0.864	0.893	0.0048 0.0048 0.0048 0.0049	-0.024 -0.130 -0.240 -0.390	0.011055 0.035220 0.114315 0.049984	0.000044 0.000110 0.000552 0.000551	-0.001408 0.005819 0.009159 -0.008720	0.029000 0.129000 0.170000 0.360000	0.039000 0.117000 0.160000 0.340000	0.840 1.270 1.220 1.66	0.000035 0.000030 0.000048 0.000076	0.002275 0.002226 0.002288 0.002349	27.33 16.32 8.23 4.36
3_TempCyc	28	14:43:17	78.64	91.80	5.017661 5.004339 5.004130 5.004108 5.004064 5.018574	5.009179 11.994863 23.974868 48.052267	0.9950	13.302	0.863	0.892	0.0053 0.0053 0.0053 0.0053	-0.024 -0.110 -0.240 -0.390	0.004928 0.035817 0.125900 0.044468	-0.000055 0.000099 -0.000220 -0.003972	0.000088 0.001045 0.004304 -0.007834	0.030000 0.092000 0.130000 0.310000	0.024000 0.088000 0.130000 0.290000	0.810 1.110 1.180 1.72	0.000036 0.000037 0.000049 0.000077	0.002441 0.002269 0.002307 0.002394	28.10 16.77 8.41 4.52
3_TempCyc	29	15:58:46	-34.47	-31.87	4.991018 4.975948 4.975750 4.975651 4.975629 4.990105	4.996782 12.008173 24.058397 48.170553	0.9920	16.762	0.866	0.892	0.0048 0.0048 0.0048 0.0049	-0.026 -0.130 -0.240 -0.390	0.010978 0.034483 0.114425 0.049764	0.000066 0.000111 0.000662 0.000773	-0.001298 0.006193 0.007944 -0.008717	0.029000 0.133000 0.170000 0.350000	0.041000 0.129000 0.170000 0.320000	0.840 1.250 1.240 1.66	0.000035 0.000044 0.000046 0.000077	0.002274 0.002220 0.002304 0.002351	27.33 16.33 8.23 4.35
3_TempCyc	30	16:55:52	78.66	91.87	5.017793 5.004570 5.004295 5.004207 5.004240 5.018728	5.007760 11.995006 23.974537 48.010227	0.9950	13.308	0.861	0.890	0.0054 0.0053 0.0053 0.0053	-0.025 -0.110 -0.190 -0.390	0.004840 0.035740 0.125679 0.044909	-0.000055 -0.000121 0.000220 -0.001214	-0.000077 0.001188 0.003420 -0.010703	0.032000 0.096000 0.140000 0.310000	0.029000 0.084000 0.140000 0.290000	0.800 1.120 1.200 1.7	0.000036 0.000038 0.000049 0.000078	0.002421 0.002274 0.002317 0.002389	28.11 16.77 8.41 4.53
3_TempCyc	31	18:11:26	-34.93	-31.91	4.991381 4.976300 4.976146 4.976047 4.976003 4.990490	4.996584 12.007842 24.075831 48.130830	0.9920	16.848	0.863	0.892	0.0048 0.0048 0.0048 0.0049	-0.025 -0.130 -0.240 -0.390	0.010989 0.034924 0.114534 0.050205	0.000099 0.000221 0.000552 -0.000441	-0.001199 0.006325 0.007283 -0.008827	0.029000 0.137000 0.170000 0.350000	0.029000 0.125000 0.160000 0.320000	0.840 1.270 1.250 1.66	0.000035 0.000044 0.000048 0.000078	0.002276 0.002235 0.002302 0.002355	27.33 16.32 8.23 4.36
3_TempCyc	32	19:07:59	78.62	91.80	5.017903 5.004691 5.004471 5.004350 5.004405 5.018882	5.008321 11.995072 23.967917 47.919195	0.9950	13.296	0.866	0.890	0.0053 0.0053 0.0053 0.0053	-0.030 -0.110 -0.190 -0.390	0.004807 0.035751 0.124907 0.044468	-0.000132 0.000110 -0.002097 -0.001655	0.000198 0.001089 0.003972 -0.009600	0.029000 0.101000 0.140000 0.310000	0.027000 0.088000 0.120000 0.290000	0.798 1.110 1.180 1.68	0.000035 0.000038 0.000047 0.000078	0.002432 0.002291 0.002316 0.002397	28.11 16.77 8.41 4.52
3_TempCyc	33	20:24:00	-34.17	-31.84	4.991524 4.976575 4.976366 4.976223 4.976212 4.990721	4.996023 12.007842 24.106506 48.242499	0.9920	16.770	0.865	0.893	0.0048 0.0048 0.0048 0.0048	-0.025 -0.150 -0.240 -0.390	0.010659 0.034714 0.114866 0.049988	0.000066 0.000110 0.000221 0.000331	-0.000825 0.006028 0.008165 -0.008717	0.030000 0.129000 0.170000 0.360000	0.024000 0.105000 0.180000 0.330000	0.830 1.27 1.200 1.66	0.000035 0.000044 0.000047 0.000075	0.002270 0.002233 0.002342 0.002354	27.33 16.33 8.23 4.35
3_TempCyc	34	21:19:59	78.72	91.87	5.017936 5.004746 5.004548 5.004460	5.009113 11.994984 23.954455 47.969400	0.9950	13.226	0.862	0.890	0.0053 0.0053 0.0053 0.0053	-0.025 -0.110 -0.140 -0.390	0.004851 0.035740 0.125790 0.042481	-0.000165 -0.000187 0.000442 -0.004193	0.000220 0.000968 0.004855 -0.009158	0.037000 0.088000 0.140000 0.310000	0.025000 0.088000 0.140000 0.290000	0.808 1.090 1.180 1.7	0.000036 0.000037 0.000048 0.000077	0.002439 0.002279 0.002317 0.002395	25.02 16.77 8.41 4.53

						5.004460 5.018970																
3_TempCyc	35	22:36:03	-34.89	-31.83		4.991612 4.976630 4.976443 4.976377 4.976366 4.990820	4.996881 12.007842 24.108271 48.087576	0.9920	16.768	0.868	0.894	0.0048 0.0048 0.0048 0.0049	-0.025 -0.130 -0.240 -0.390	0.010934 0.034989 0.115086 0.049654	0.000066 0.000220 -0.000331 0.000331	-0.001320 0.006358 0.008055 -0.008717	0.032000 0.133000 0.180000 0.320000	0.039000 0.121000 0.180000 0.320000	0.840 1.240 1.230 1.68	0.000035 0.000046 0.000047 0.000077	0.002275 0.002231 0.002366 0.002352	27.34 16.32 8.23 4.36
3_TempCyc	36	23:32:36	78.70	91.99		5.017815 5.004614 5.004504 5.004383 5.004361 5.018860	5.010697 11.994720 23.937793 47.999524	0.9950	13.330	0.859	0.889	0.0053 0.0053 0.0053 0.0053	-0.024 -0.110 -0.240 -0.390	0.004829 0.035487 0.125569 0.048220	0.000055 0.000143 -0.000331 -0.003421	0.000088 0.001023 0.003862 -0.008828	0.029000 0.101000 0.140000 0.310000	0.025000 0.084000 0.140000 0.310000	0.808 1.100 1.180 1.7	0.000035 0.000038 0.000048 0.000077	0.002443 0.002297 0.002313 0.002398	28.09 16.78 8.41 4.52
3_TempCyc	37	00:46:39	-34.80	-31.90		4.991601 4.976619 4.976443 4.976366 4.976399 4.990930	4.996804 12.007732 24.111692 48.041123	0.9920	16.782	0.868	0.894	0.0048 0.0048 0.0048 0.0049	-0.025 -0.150 -0.240 -0.480	0.010890 0.034900 0.114645 0.050867	0.000088 0.000000 0.000442 0.000111	-0.001265 0.006182 0.008607 -0.008828	0.027000 0.133000 0.170000 0.350000	0.024000 0.121000 0.160000 0.310000	0.830 1.270 1.220 1.66	0.000035 0.000023 0.000047 0.000078	0.002276 0.002224 0.002368 0.002349	27.34 16.32 8.23 4.35
3_TempCyc	38	01:42:43	78.70	91.95		5.017980 5.004856 5.004625 5.004603 5.004603 5.019069	5.010334 11.994874 23.963944 47.961897	0.9950	13.306	0.859	0.888	0.0053 0.0053 0.0053 0.0053	-0.024 -0.110 -0.240 -0.390	0.004862 0.035597 0.125789 0.044027	-0.000055 0.000055 0.000111 0.000110	-0.000176 0.001122 0.003641 -0.010483	0.027000 0.101000 0.140000 0.310000	0.025000 0.080000 0.140000 0.310000	0.798 1.110 1.210 1.7	0.000036 0.000036 0.000049 0.000078	0.002444 0.002271 0.002315 0.002401	28.12 16.77 8.41 4.53
3_TempCyc	39	02:58:44	-34.21	-31.68		4.991821 4.976938 4.976718 4.976597 4.976619 4.991073	4.996947 12.007511 24.108382 48.000075	0.9920	16.739	0.868	0.894	0.0048 0.0048 0.0049 0.0049	-0.032 -0.130 -0.240 -0.390	0.010978 0.035109 0.115196 0.050205	0.000033 -0.000111 0.000110 0.000772	-0.001375 0.006413 0.009930 -0.008717	0.030000 0.137000 0.170000 0.370000	0.039000 0.109000 0.180000 0.340000	0.840 1.270 1.22 1.66	0.000035 0.000046 0.000047 0.000078	0.002270 0.002233 0.002362 0.002352	27.34 16.33 8.23 4.35
3_TempCyc	40	03:54:54	78.82	92.19		5.018068 5.004955 5.004768 5.004724 5.004636 5.019124	5.010191 11.994192 23.948607 47.994558	0.9950	13.352	0.860	0.891	0.0054 0.0053 0.0053 0.0053	-0.024 -0.110 -0.190 -0.390	0.004675 0.035267 0.125127 0.047226	0.000033 -0.000077 -0.000773 0.001986	0.000165 0.001122 0.002097 -0.014234	0.032000 0.092000 0.130000 0.320000	0.029000 0.088000 0.130000 0.290000	0.810 1.090 1.200 1.7	0.000036 0.000036 0.000049 0.000077	0.002413 0.002319 0.002310 0.002395	28.12 16.78 8.42 4.53
3_TempCyc	41	05:10:58	-34.54	-31.81		4.993295 4.978412 4.978247 4.978148 4.978148 4.992525	4.996826 12.007953 24.110809 48.153671	0.9920	16.757	0.868	0.894	0.0048 0.0048 0.0048 0.0049	-0.026 -0.130 -0.240 -0.390	0.010714 0.034857 0.115528 0.049764	0.000077 0.000110 0.000442 0.001655	-0.001199 0.006094 0.008386 -0.009269	0.030000 0.133000 0.180000 0.370000	0.037000 0.117000 0.170000 0.320000	0.840 1.260 1.250 1.64	0.000035 0.000024 0.000046 0.000079	0.002282 0.002243 0.002368 0.002355	27.34 16.33 8.23 4.35
3_TempCyc	42	06:06:35	78.81	92.23		5.018024 5.004966 5.004790 5.004713 5.004746 5.019201	5.008013 11.994071 23.963393 48.033068	0.9950	13.494	0.857	0.887	0.0054 0.0053 0.0053 0.0053	-0.024 -0.110 -0.140 -0.390	0.004697 0.035234 0.125348 0.045351	0.000022 0.000176 0.000221 0.002538	0.000099 0.001210 0.001875 -0.008055	0.034000 0.096000 0.140000 0.290000	0.024000 0.088000 0.140000 0.310000	0.798 1.110 1.200 1.72	0.000036 0.000039 0.000049 0.000078	0.002443 0.002254 0.002312 0.002363	28.13 16.78 8.42 4.53
3_TempCyc	43	07:22:41	-34.40	-31.87		4.991799 4.977059 4.976817 4.976806 4.976762 4.991194	4.997211 12.007291 24.111582 48.161616	0.9920	16.746	0.870	0.895	0.0048 0.0048 0.0048 0.0049	-0.025 -0.130 -0.240 -0.390	0.010956 0.035318 0.114534 0.052302	0.000077 0.000221 0.000441 -0.000110	-0.001452 0.006083 0.007834 -0.008827	0.029000 0.133000 0.170000 0.350000	0.041000 0.129000 0.160000 0.320000	0.840 1.270 1.25 1.64	0.000035 0.000044 0.000047 0.000079	0.002269 0.002232 0.002372 0.002351	27.34 16.33 8.23 4.36
3_TempCyc	44	08:18:45	78.85	92.27		5.018211 5.005175 5.004966 5.004944 5.004944 5.019355	5.009740 11.993884 23.963172 48.017178	0.9950	13.327	0.858	0.889	0.0053 0.0053 0.0053 0.0053	-0.023 -0.110 -0.140 -0.390	0.004664 0.035102 0.124686 0.045240	-0.000176 0.000099 0.000662 -0.001655	0.000176 0.001166 0.002317 -0.009931	0.029000 0.096000 0.140000 0.320000	0.030000 0.088000 0.140000 0.290000	0.800 1.110 1.180 1.68	0.000036 0.000037 0.000047 0.000078	0.002436 0.002291 0.002319 0.002392	28.12 16.78 8.42 4.53
3_TempCyc	45	09:34:53	-34.87	-31.86		4.991865 4.977070 4.976883 4.976806 4.976795 4.991293	4.996518 12.007511 24.110478 48.142637	0.9920	16.515	0.869	0.895	0.0048 0.0048 0.0048 0.0049	-0.026 -0.130 -0.240 -0.390	0.011110 0.035450 0.114424 0.050096	0.000121 0.000000 0.000221 -0.000883	-0.001606 0.005863 0.007282 -0.008827	0.029000 0.137000 0.170000 0.370000	0.027000 0.113000 0.180000 0.320000	0.840 1.270 1.260 1.64	0.000035 0.000023 0.000047 0.000079	0.002275 0.002229 0.002309 0.002352	27.34 16.32 8.23 4.35
3_TempCyc	46	10:31:28	78.71	91.89		5.018365 5.005340 5.005186 5.005054 5.005032 5.019520	5.010268 11.994093 23.955559 48.000406	0.9950	13.784	0.862	0.890	0.0053 0.0053 0.0053 0.0053	-0.030 -0.110 -0.140 -0.390	0.004862 0.035663 0.125569 0.043695	-0.000055 0.000011 0.000331 0.001544	0.000121 0.000979 0.004303 -0.010814	0.030000 0.092000 0.140000 0.310000	0.029000 0.084000 0.120000 0.290000	0.800 1.120 1.210 1.7	0.000036 0.000036 0.000047 0.000078	0.002441 0.002288 0.002313 0.002398	28.13 16.78 8.41 4.53
3_TempCyc	47	11:48:37	-34.29	-31.62		4.992019 4.977235 4.977048 4.976916 4.976938 4.991370	4.996826 12.007511 24.112354 48.086583	0.9920	16.568	0.869	0.895	0.0048 0.0048 0.0048 0.0049	-0.025 -0.130 -0.240 -0.390	0.011253 0.035307 0.114204 0.049323	0.000143 0.000331 0.000220 0.001103	-0.001628 0.006215 0.005849 -0.008606	0.024000 0.133000 0.180000 0.370000	0.034000 0.129000 0.180000 0.340000	0.830 1.270 1.230 1.66	0.000035 0.000044 0.000046 0.000078	0.002274 0.002230 0.002360 0.002352	27.34 16.33 8.23 4.36
3_TempCyc	48	12:45:13	78.74	91.96		5.018321 5.005450 5.005285	5.010378 11.994192	0.9950	13.395	0.862	0.890	0.0053 0.0053	-0.024 -0.110	0.004752 0.035575	-0.000077 0.000033	0.000154 0.001023	0.027000 0.096000	0.029000 0.084000	0.810 1.080	0.000036 0.000039	0.002440 0.002294	28.11 16.77

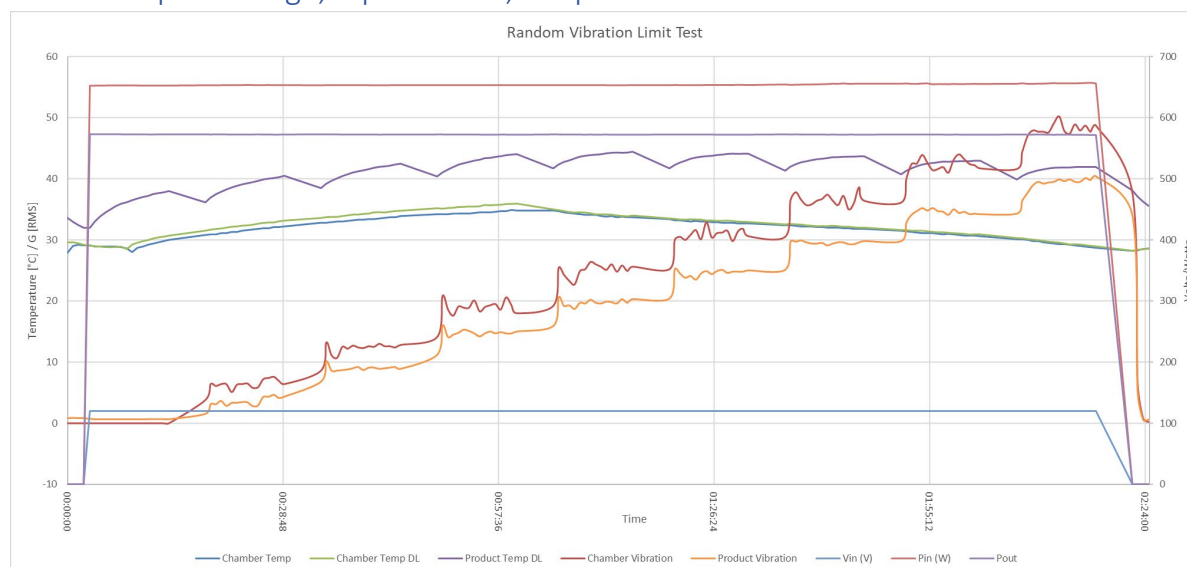
						5.005098 5.005109 5.019663	23.965489 48.012323					0.0053 0.0053	-0.140 -0.390	0.125459 0.047446	-0.000773 0.000221	0.002648 -0.009269	0.140000 0.310000	0.130000 0.290000	1.190 1.72	0.000048 0.000077	0.002316 0.002390	8.41 4.53
3_TempCyc	49	14:01:48	-34.66	-31.75		4.992129 4.977345 4.977125 4.977070 4.977070 4.991546	4.996573 12.007511 24.096134 48.155326	0.9920	16.738	0.866	0.891	0.0048 0.0048 0.0048 0.0049	-0.031 -0.130 -0.240 -0.390	0.011066 0.035407 0.114645 0.049543	0.000154 0.000111 -0.000331 0.001655	-0.001254 0.006204 0.006620 -0.008828	0.027000 0.101000 0.180000 0.350000	0.029000 0.101000 0.180000 0.320000	0.830 1.27 1.220 1.66	0.000034 0.000043 0.000046 0.000076	0.002274 0.002239 0.002369 0.002350	27.34 16.33 8.23 4.36
3_TempCyc	50	14:57:53	78.77	92.01		5.018442 5.005516 5.005362 5.005307 5.005241 5.019729	5.010587 11.994324 23.969572 48.030640	0.9950	14.108	0.857	0.889	0.0053 0.0053 0.0053 0.0053	-0.024 -0.110 -0.190 -0.390	0.004752 0.035498 0.124796 0.045240	0.000077 0.000044 -0.000552 -0.002096	0.000176 0.000957 0.004083 -0.009930	0.027000 0.092000 0.140000 0.310000	0.027000 0.084000 0.140000 0.290000	0.810 1.110 1.18 1.68	0.000036 0.000036 0.000049 0.000078	0.002443 0.002263 0.002315 0.002394	28.12 16.78 8.42 4.53
3_TempCyc	51	16:14:32	-34.21	-31.93		4.992151 4.977400 4.977268 4.977213 4.977147 4.991634	4.996474 12.007401 24.083224 48.169781	0.9920	16.919	0.867	0.894	0.0048 0.0048 0.0048 0.0049	-0.026 -0.130 -0.240 -0.390	0.011242 0.035087 0.114314 0.049985	0.000088 0.000220 0.000552 0.000110	-0.001716 0.006017 0.007945 -0.008606	0.025000 0.129000 0.170000 0.370000	0.027000 0.109000 0.170000 0.320000	0.830 1.27 1.22 1.66	0.000035 0.000044 0.000047 0.000079	0.002275 0.002233 0.002291 0.002352	27.34 16.32 8.23 4.35
3_TempCyc	52	17:11:37	78.81	92.09		5.018222 5.005285 5.005131 5.004977 5.004988 5.019487	5.010455 11.994379 23.967806 48.021371	0.9950	13.279	0.863	0.889	0.0053 0.0053 0.0053 0.0053	-0.023 -0.110 -0.190 -0.390	0.004763 0.035509 0.124686 0.045019	-0.000044 0.000132 0.000110 0.000883	0.000187 0.000957 0.002538 -0.010924	0.029000 0.101000 0.140000 0.310000	0.025000 0.084000 0.130000 0.290000	0.810 1.110 1.200 1.7	0.000036 0.000037 0.000049 0.000079	0.002437 0.002299 0.002314 0.002390	28.12 16.78 8.43 4.52
3_TempCyc	53	18:30:13	-34.53	-31.73		4.992844 4.978181 4.978005 4.977884 4.977917 4.992404	4.996419 12.007732 24.076162 48.152016	0.9920	16.730	0.862	0.889	0.0048 0.0048 0.0049 0.0049	-0.025 -0.130 -0.240 -0.390	0.011286 0.034933 0.113431 0.049875	0.000088 0.000000 0.000331 0.000552	-0.001628 0.006138 0.007834 -0.009048	0.029000 0.137000 0.170000 0.370000	0.024000 0.121000 0.170000 0.320000	0.840 1.260 1.270 1.64	0.000035 0.000045 0.000047 0.000078	0.002270 0.002236 0.002295 0.002353	27.34 16.32 8.23 4.36
3_TempCyc	54	19:26:51	78.75	92.12		5.018189 5.005296 5.005109 5.005021 5.005065 5.019575	5.010642 11.994313 23.969793 48.029978	0.9950	13.448	0.856	0.889	0.0053 0.0053 0.0053 0.0053	-0.029 -0.110 -0.240 -0.390	0.004851 0.035267 0.124686 0.044578	-0.000033 -0.000088 -0.000552 0.000993	0.000132 0.001023 0.002317 -0.009931	0.032000 0.096000 0.140000 0.310000	0.024000 0.088000 0.130000 0.290000	0.810 1.110 1.2 1.67	0.000036 0.000036 0.000048 0.000079	0.002441 0.002274 0.002313 0.002401	27.95 16.78 8.42 4.53
3_TempCyc	55	20:44:30	-35.01	-31.82		4.991832 4.977158 4.976960 4.976927 4.976883 4.991381	4.996771 12.006960 24.070314 48.153782	0.9920	16.775	0.865	0.893	0.0048 0.0048 0.0048 0.0049	-0.025 -0.130 -0.240 -0.390	0.011022 0.035074 0.114094 0.050315	0.000110 0.000111 0.000441 0.000662	-0.001342 0.006226 0.007393 -0.009379	0.029000 0.129000 0.170000 0.370000	0.025000 0.096000 0.180000 0.340000	0.840 1.260 1.220 1.68	0.000035 0.000024 0.000046 0.000078	0.002271 0.002235 0.002292 0.002349	27.34 16.33 8.23 4.36
3_TempCyc	56	21:41:04	78.75	92.05		5.018068 5.005307 5.005087 5.005065 5.005032 5.019509	5.009751 11.994610 23.970455 48.060874	0.9950	13.293	0.858	0.890	0.0053 0.0053 0.0053 0.0053	-0.029 -0.110 -0.240 -0.390	0.004697 0.035399 0.125128 0.042702	0.000099 0.000209 0.000331 0.004855	0.000209 0.001243 0.002428 -0.009820	0.030000 0.092000 0.140000 0.310000	0.027000 0.088000 0.140000 0.310000	0.810 1.080 1.200 1.7	0.000036 0.000036 0.000050 0.000076	0.002444 0.002282 0.002313 0.002397	28.12 16.78 8.41 4.53
3_TempCyc	57	22:57:10	-34.52	-31.93		4.991766 4.977125 4.976894 4.976773 4.976806 4.991260	4.996331 12.007291 24.073072 48.171657	0.9920	16.431	0.866	0.893	0.0048 0.0048 0.0048 0.0049	-0.025 -0.130 -0.240 -0.390	0.011176 0.035395 0.114203 0.049984	0.000077 0.000221 0.000221 0.000662	-0.001606 0.005995 0.006731 -0.009048	0.029000 0.125000 0.170000 0.350000	0.032000 0.117000 0.160000 0.320000	0.840 1.300 1.23 1.64	0.000035 0.000046 0.000047 0.000078	0.002272 0.002224 0.002284 0.002355	27.34 16.32 8.23 4.36
3_TempCyc	58	23:52:42	78.71	92.02		5.018189 5.005296 5.005142 5.005010 5.005065 5.019520	5.009960 11.994610 23.967917 48.022585	0.9950	13.265	0.860	0.890	0.0053 0.0053 0.0053 0.0053	-0.023 -0.110 -0.190 -0.390	0.004785 0.035443 0.125237 0.044136	-0.000033 0.000187 -0.000552 0.027695	0.000154 0.001067 0.003641 -0.009489	0.030000 0.088000 0.140000 0.310000	0.027000 0.076000 0.130000 0.310000	0.808 1.110 1.200 1.7	0.000035 0.000037 0.000049 0.000077	0.002441 0.002285 0.002320 0.002394	28.11 16.78 8.41 4.53
3_TempCyc	59	01:09:21	-34.37	-31.87		4.991546 4.976949 4.976718 4.976707 4.991172	4.997002 12.007732 24.067335 48.124872	0.9920	16.775	0.864	0.894	0.0048 0.0048 0.0048 0.0049	-0.024 -0.130 -0.240 -0.390	0.010989 0.034857 0.114094 0.048992	0.000110 -0.000331 0.000331 -0.000882	-0.001210 0.006391 0.006842 -0.008717	0.025000 0.133000 0.170000 0.370000	0.039000 0.129000 0.170000 0.320000	0.830 1.220 1.240 1.66	0.000035 0.000023 0.000047 0.000079	0.002277 0.002232 0.002285 0.002352	27.34 16.32 8.23 4.35
3_TempCyc	60	02:05:29	78.85	92.07		5.018090 5.005274 5.005087 5.005010 5.004999 5.019443	5.009553 11.994808 23.959752 48.009123	0.9950	13.182	0.863	0.891	0.0053 0.0053 0.0053 0.0053	-0.023 -0.130 -0.140 -0.390	0.004796 0.035410 0.125900 0.043033	-0.000022 0.000176 -0.000552 0.002538	0.000165 0.000737 0.003751 -0.009269	0.032000 0.092000 0.140000 0.310000	0.025000 0.088000 0.130000 0.290000	0.810 1.110 1.180 1.7	0.000036 0.000035 0.000050 0.000076	0.002441 0.002289 0.002318 0.002396	28.12 16.78 8.42 4.52

F.4 Random Vibration Limits Test

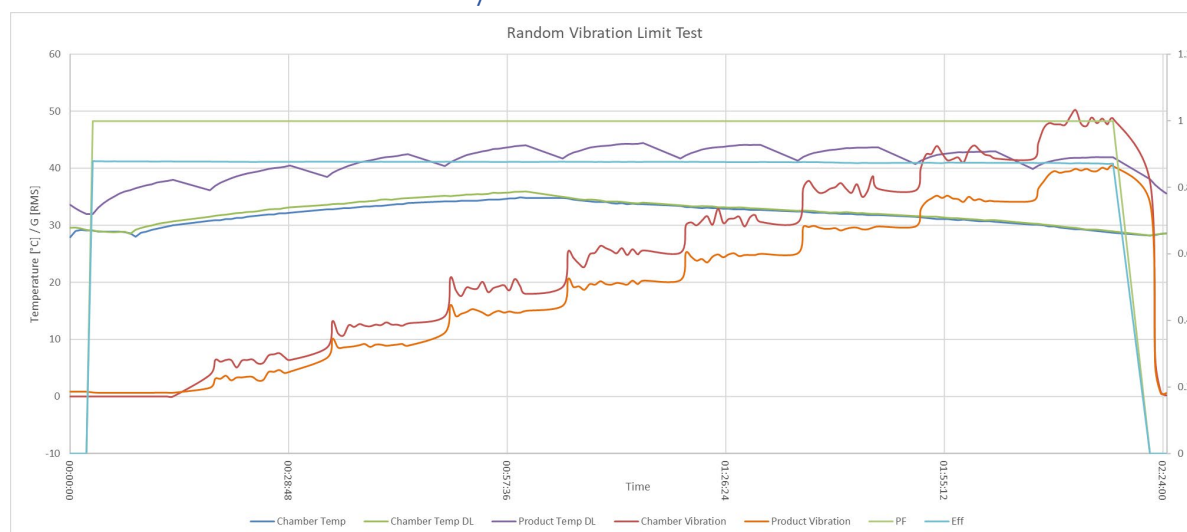
F.4.1 Output Voltage and current



F.4.2 Input Voltage, Input Power, Output Power



F.4.3 Power Factor & Efficiency



F.4.4 Functional Test Results

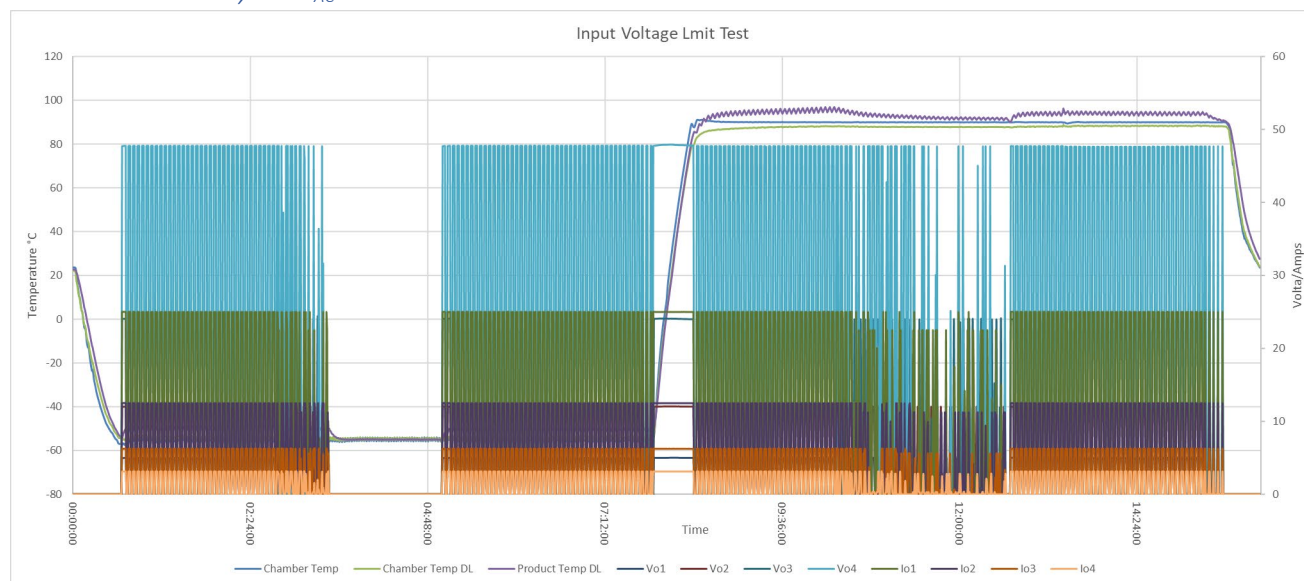
Sheet	Step	Time	Chamber Temp DL	Product Temp	ACOK,PG1,PG2,PG3,PG4,SVB1	Vo1,V02,V03,V04	PF	NL_PWR	EFF120	EFF220	TACOK	HOLDUP	Loadreg	Linerreg	Crossreg	Ripple_NL	Ripple	Vtrans	Ttrans	Trise	OCP
4_Vibration	1	11:42:16	44.04	59.38	4.998432 4.986387 4.986167 4.986134 4.986178 5.000720	4.980425 12.002987 23.986675 47.764827	0.9940	12.682	0.876	0.898	0.0052 0.0052 0.0052 0.0052	-0.025 -0.110 -0.140 -0.380	0.015543 0.062358 0.129431 0.108797	0.000122 -0.000110 0.000442 0.000883	0.000506 0.005049 0.041930 -0.011365	0.024000 0.092000 0.140000 0.270000	0.024000 0.076000 0.120000 0.240000	0.860 1.170 1.180 1.66	0.000035 0.000047 0.000048 0.000077	0.002360 0.002377 0.002322 0.002287	27.44 16.41 8.25 4.26
4_Vibration	2	11:57:55	44.18	58.29	5.001677 4.990589 4.990424 4.990325 4.990490 5.003888	4.977895 12.003429 23.988220 47.766261	0.9940	13.211	0.877	0.891	0.0052 0.0052 0.0052 0.0052	-0.026 -0.110 -0.140 -0.380	0.014116 0.060335 0.127665 0.108907	0.000050 -0.000221 0.005251 0.001104	0.000944 0.006149 0.037406 -0.010814	0.028000 0.092000 0.140000 0.270000	0.023000 0.072000 0.120000 0.240000	0.780 1.230 1.200 1.66	0.000036 0.000042 0.000049 0.000078	0.002371 0.002418 0.002319 0.002290	27.43 16.40 8.25 4.26
4_Vibration	3	12:13:33	43.84	57.47	4.999609 4.987564 4.987443 4.988433 4.988653 5.001919	4.973781 12.004091 23.989764 47.768579	0.9940	12.638	0.877	0.898	0.0052 0.0052 0.0052 0.0052	-0.025 -0.110 -0.140 -0.380	0.015059 0.059941 0.127003 0.106811	0.000424 0.000111 0.000221 -0.001103	0.000119 0.006545 0.033764 -0.010813	0.020000 0.092000 0.140000 0.270000	0.019000 0.080000 0.120000 0.240000	0.850 1.180 1.210 1.66	0.000044 0.000044 0.000049 0.000078	0.002382 0.002402 0.002343 0.002280	27.37 16.41 8.25 4.26
4_Vibration	4	12:29:14	42.90	56.37	4.998432 4.986387 4.986167 4.986134 4.986178 5.000720	4.759583 12.004201 23.991751 47.766482	0.9940	12.717	0.878	0.892	0.0052 0.0052 0.0052 0.0052	-0.025 -0.110 -0.140 -0.380	0.015353 0.059248 0.126452 0.105707	0.000339 -0.000111 0.000551 0.000441	0.000396 0.005643 0.033434 -0.010703	0.028000 0.088000 0.140000 0.260000	0.023000 0.084000 0.140000 0.240000	0.879 1.190 1.200 1.66	0.000044 0.000047 0.000048 0.000080	0.002417 0.002431 0.002334 0.002283	27.06 16.40 8.25 4.26
4_Vibration	5	12:44:51	41.26	52.88	4.995649 4.983593 4.983439 4.983439 4.983494 4.998058	4.820051 12.007070 23.988261 47.763392	0.9930	12.734	0.888	0.906	0.0052 0.0052 0.0052 0.0052	-0.025 -0.110 -0.140 -0.380	0.013989 0.058388 0.124024 0.105487	0.000090 -0.000221 0.001876 0.000772	0.000230 0.002002 0.019200 -0.010703	0.031000 0.088000 0.140000 0.270000	0.025000 0.072000 0.120000 0.240000	0.863 1.190 1.180 1.64	0.000044 0.000047 0.000048 0.000080	0.002382 0.002402 0.002343 0.002280	27.11 16.40 8.26 4.26
4_Vibration	6	13:00:29	39.06	50.21	4.999609 4.987564 4.987443 4.988433 4.988653 5.001919	4.726318 12.008173 24.004109 47.762730	0.9930	12.907	0.888	0.907	0.0052 0.0052 0.0052 0.0052	-0.026 -0.110 -0.140 -0.380	0.014704 0.056807 0.122921 0.105597	0.000503 -0.000221 0.000331 -0.001214	0.000504 0.003850 0.017654 -0.011034	0.032000 0.088000 0.140000 0.270000	0.030000 0.088000 0.120000 0.260000	0.895 1.390 1.21 1.66	0.000043 0.000046 0.000048 0.000080	0.002380 0.002320 0.002342 0.002283	27.23 16.41 8.25 4.26
4_Vibration	1	17:30:35	30.76	38.10	4.988268 4.976003 4.975970 4.976608 4.976674 4.991029	4.980238 12.017552 23.997709 47.725545	0.9940	13.000	0.877	0.899	0.0052 0.0052 0.0052 0.0052	-0.025 -0.110 -0.140 -0.380	0.013585 0.051014 0.116521 0.108576	0.000044 -0.000220 0.000552 0.001324	-0.000968 0.007679 0.014234 -0.009821	0.024000 0.088000 0.140000 0.240000	0.024000 0.088000 0.130000 0.230000	0.900 1.31 1.210 1.64	0.000032 0.000027 0.000048 0.000075	0.002377 0.002393 0.002345 0.002296	27.45 16.41 8.25 4.26
4_Vibration	2	17:46:00	33.24	40.58	5.001677 4.990589 4.990424 4.990325 4.990490 5.003888	4.980524 12.016780 23.994840 47.723890	0.9940	12.939	0.876	0.899	0.0052 0.0052 0.0052 0.0052	-0.026 -0.110 -0.140 -0.380	0.013948 0.050814 0.117183 0.107915	0.000121 0.000111 0.000331 0.000662	-0.000770 0.007833 0.014013 -0.009820	0.027000 0.092000 0.140000 0.260000	0.025000 0.088000 0.150000 0.240000	0.880 1.260 1.21 1.64	0.000032 0.000020 0.000049 0.000076	0.002382 0.002402 0.002343 0.002280	27.45 16.41 8.25 4.26
4_Vibration	3	18:01:32	34.85	42.52	4.995649 4.983593 4.983439 4.983439 4.983494 4.998058	4.980117 12.016670 23.991640 47.722566	0.9940	12.693	0.877	0.899	0.0052 0.0052 0.0052 0.0052	-0.025 -0.110 -0.140 -0.380	0.014311 0.052946 0.117735 0.105707	0.000121 0.000111 -0.000442 0.000883	-0.000935 0.004775 0.016110 -0.010593	0.025000 0.088000 0.140000 0.260000	0.019000 0.088000 0.140000 0.240000	0.890 1.41 1.210 1.64	0.000032 0.000046 0.000048 0.000076	0.002345 0.002422 0.002344 0.002296	27.45 16.41 8.25 4.26
4_Vibration	4	18:17:05	35.94	44.12	4.999609 4.987564 4.987443 4.988433 4.988653 5.001919	4.977114 12.016780 23.989102 47.720911	0.9940	12.586	0.876	0.899	0.0052 0.0052 0.0052 0.0052	-0.026 -0.080 -0.140 -0.380	0.014641 0.054562 0.117514 0.105928	-0.000121 0.000110 -0.000221 0.000993	-0.000759 0.005226 0.017876 -0.009820	0.025000 0.092000 0.140000 0.240000	0.022000 0.096000 0.130000 0.230000	0.890 1.430 1.200 1.64	0.000033 0.000020 0.000047 0.000076	0.002376 0.002384 0.002334 0.002282	27.44 16.41 8.25 4.26
4_Vibration	5	18:32:32	33.95	44.44	5.001677 4.990589 4.990424 4.990325 4.990490 5.003888	4.976509 12.017221 23.989102 47.724662	0.9940	12.873	0.876	0.899	0.0052 0.0052 0.0052 0.0052	-0.026 -0.110 -0.140 -0.380	0.017963 0.054817 0.118507 0.105045	0.003245 -0.000441 0.001214 0.001986	-0.002970 0.006359 0.015448 -0.009710	0.029000 0.084000 0.140000 0.240000	0.025000 0.092000 0.150000 0.230000	0.900 1.410 1.210 1.64	0.000033 0.000020 0.000048 0.000076	0.002380 0.002361 0.002344 0.002285	27.43 16.41 8.25 4.26
4_Vibration	6	18:48:00	32.94	44.11	5.001831 4.989863 4.989731 4.989478 4.989533 5.004130	4.978632 12.016449 23.988992 47.722345	0.9940	12.859	0.876	0.899	0.0052 0.0052 0.0052 0.0052	-0.025 -0.110 -0.140 -0.380	0.015235 0.054739 0.117845 0.102287	0.000209 0.000220 0.000993 0.001324	-0.000737 0.006392 0.017545 -0.010152	0.027000 0.088000 0.140000 0.260000	0.032000 0.084000 0.140000 0.240000	0.890 1.410 1.200 1.64	0.000035 0.000019 0.000049 0.000076	0.002376 0.002430 0.002344 0.002285	27.41 16.41 8.25 4.26
4_Vibration	7	19:03:30	32.01	43.66	5.005318 4.993482 4.993163 4.993064 4.993141 5.007595	4.978610 12.016780 23.989875 47.719256	0.9940	12.884	0.874	0.898	0.0052 0.0052 0.0052 0.0052	-0.026 -0.110 -0.140 -0.380	0.014377 0.054157 0.117625 0.104824	0.000055 0.000111 -0.000220 0.000994	-0.000946 0.006227 0.017103 -0.010261	0.025000 0.088000 0.140000 0.240000	0.025000 0.088000 0.140000 0.230000	0.890 1.410 1.2 1.64	0.000034 0.000032 0.000048 0.000076	0.002382 0.002384 0.002338 0.002282	27.43 16.41 8.25 4.26

4_Vibration	8	19:18:58	30.85	42.94	5.004845 4.992877 4.992635 4.992547 4.992569 5.007155	4.978951 12.017111 23.990427 47.709435	0.9940	12.699	0.875	0.898	0.0052 0.0052 0.0052 0.0052	-0.025 -0.110 -0.140 -0.380	0.014454 0.053309 0.117734 0.111776	-0.000154 -0.000221 0.000552 -0.000662	-0.000715 0.005930 0.016221 -0.011144	0.025000 0.088000 0.130000 0.260000	0.025000 0.084000 0.130000 0.240000	0.890 1.41 1.210 1.64	0.000034 0.000022 0.000048 0.000074	0.002377 0.002431 0.002341 0.002279	27.42 16.40 8.25 4.26
4_Vibration	9	19:34:26	28.88	41.91	4.984847 4.972967 4.972868 4.972791 4.973000 4.988136	4.978775 11.979749 23.991640 47.703367	0.9940	12.916	0.872	0.895	0.0052 0.0051 0.0051 0.0052	-0.026 -0.080 -0.140 -0.380	0.014157 0.052075 0.116962 0.106921	-0.000077 0.035874 0.000662 -0.004966	-0.001067 0.006765 0.013572 -0.012689	0.027000 0.084000 0.170000 0.260000	0.022000 0.072000 0.130000 0.240000	0.880 0.920 1.18 1.62	0.000032 0.000030 0.000048 0.000075	0.002380 0.002320 0.002342 0.002283	27.46 16.40 8.25 4.26

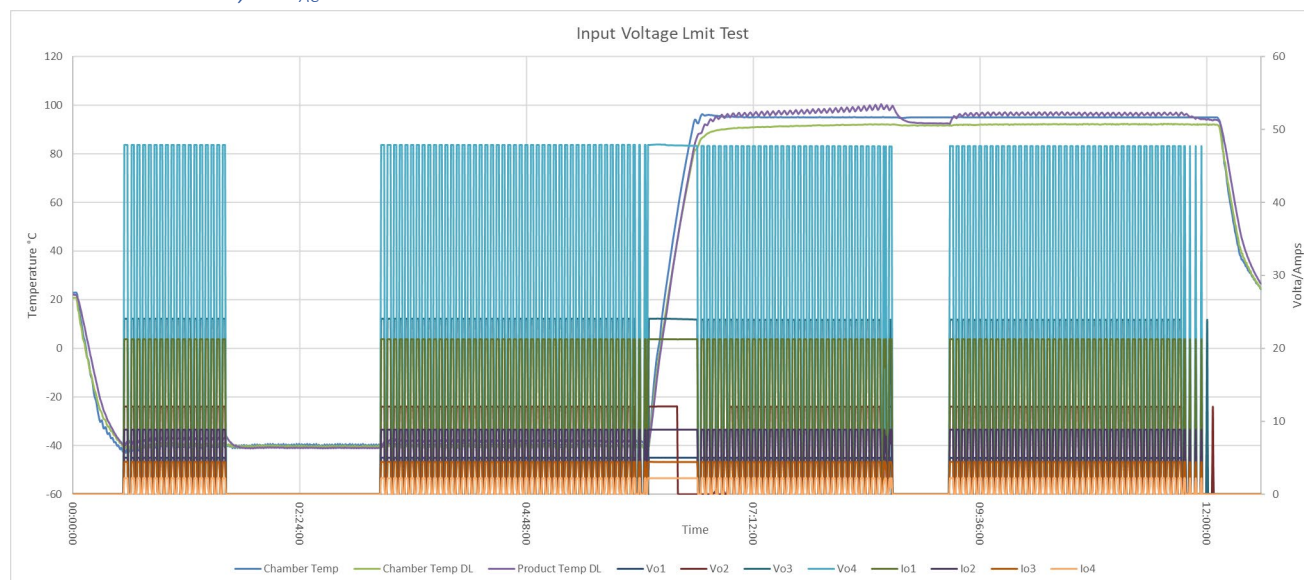
F.5 Input Voltage Limit Test

F.5.1 Output Voltage and current

F.5.1.a 575W, 120V_{AC}

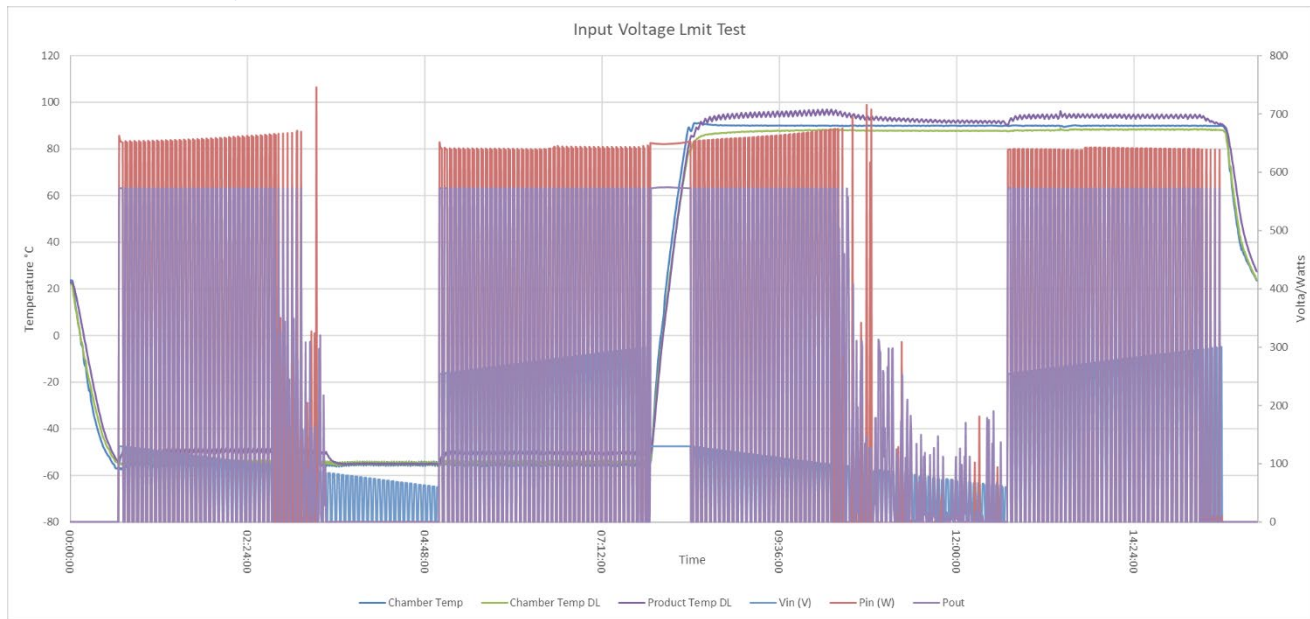


F.5.1.b 425W, 85V_{AC}

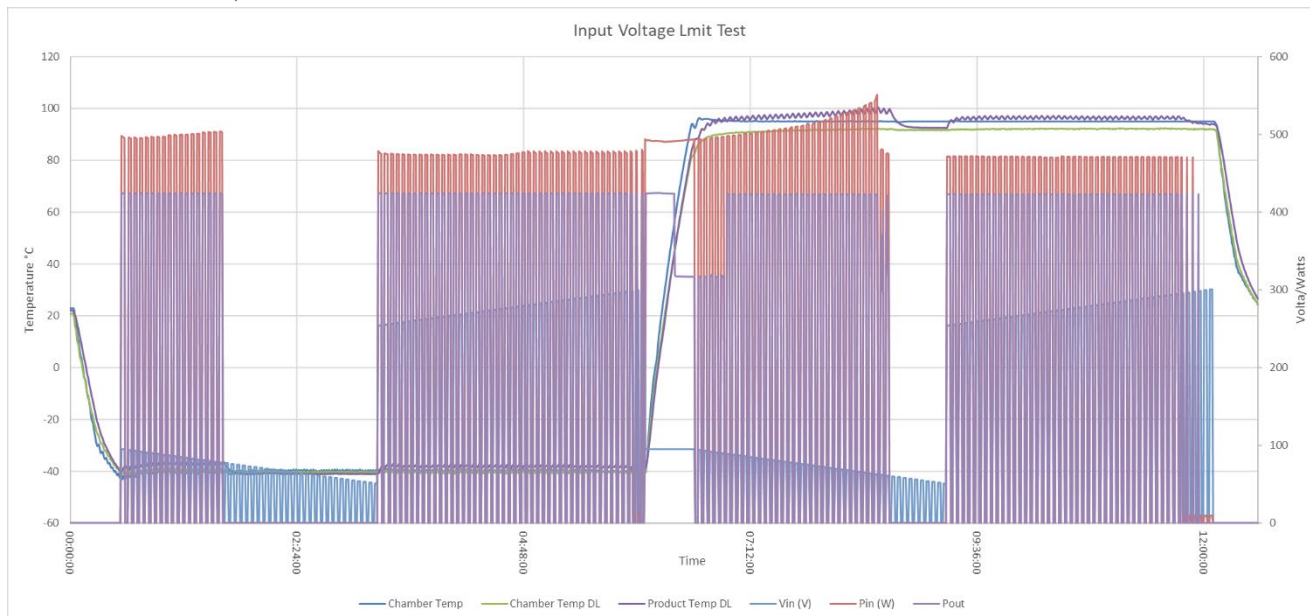


F.5.2 Input Voltage, Input Power, Output Power

F.5.2.a 575W, 120V_{AC}

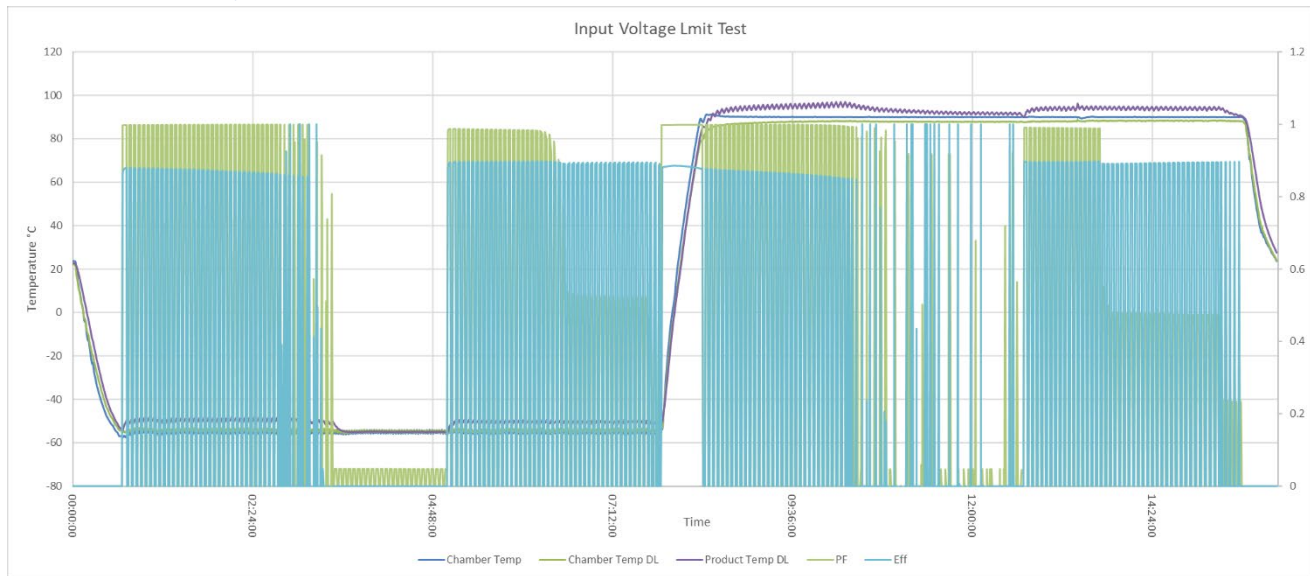


F.5.2.b 425W, 85V_{AC}

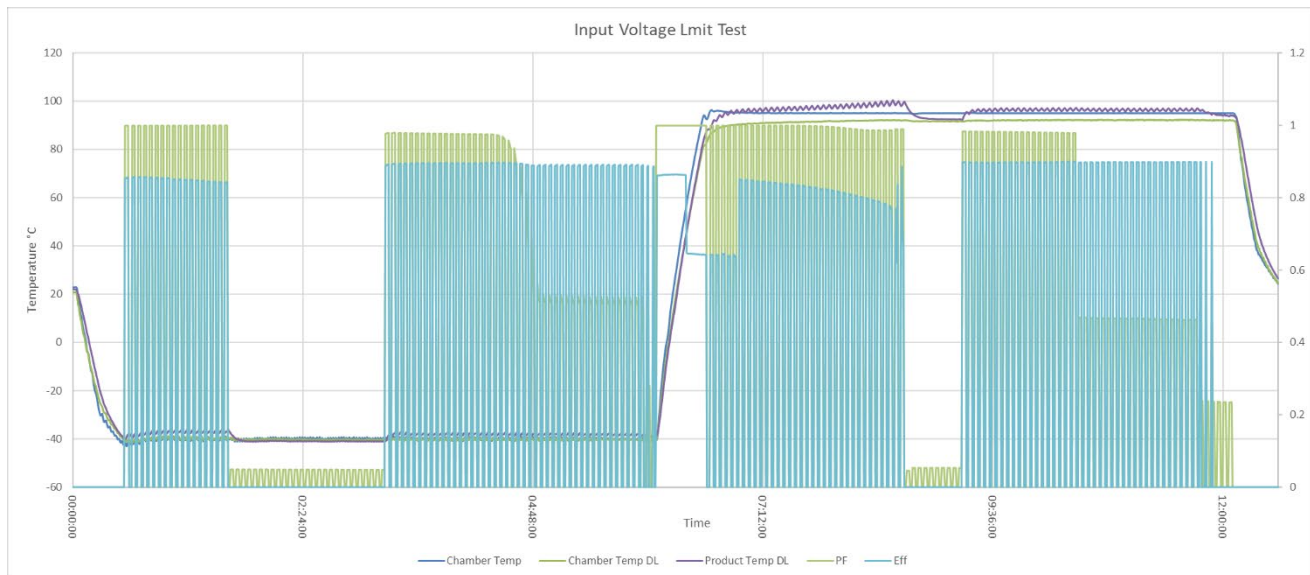


F.5.3 Power Factor & Efficiency

F.5.3.a 575W, 120V_{AC}



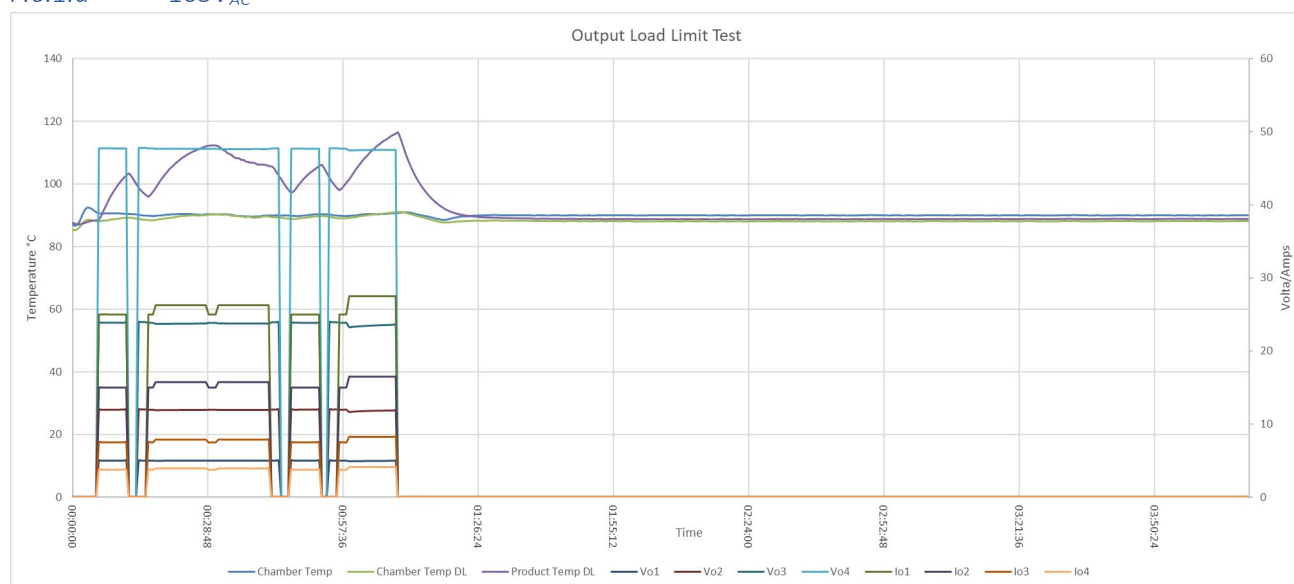
F.5.3.b 425W, 85V_{AC}



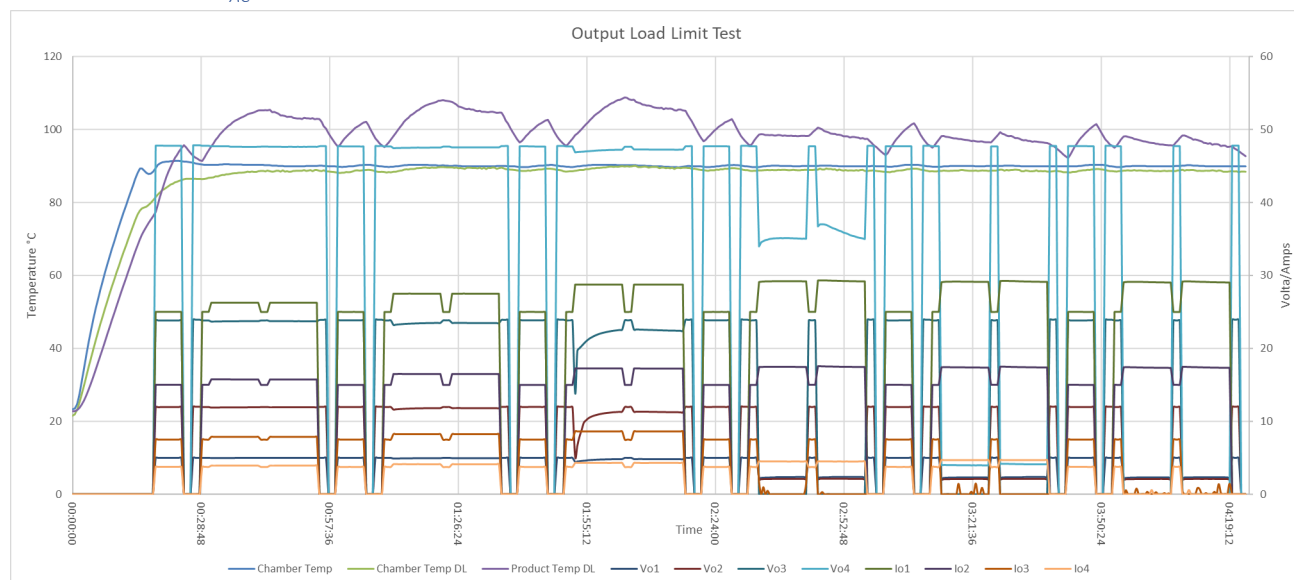
F.6 Output Load Test

F.6.1 Output Voltage and current

F.6.1.a 105V_{AC}

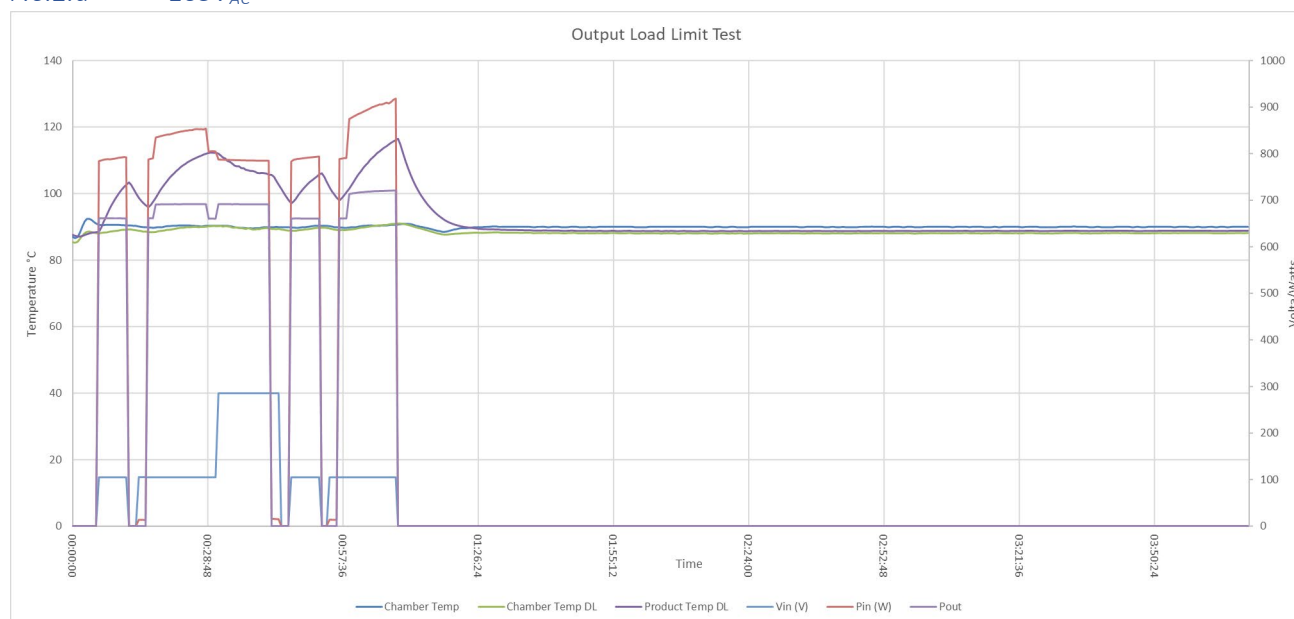


F.6.1.b 120V_{AC}

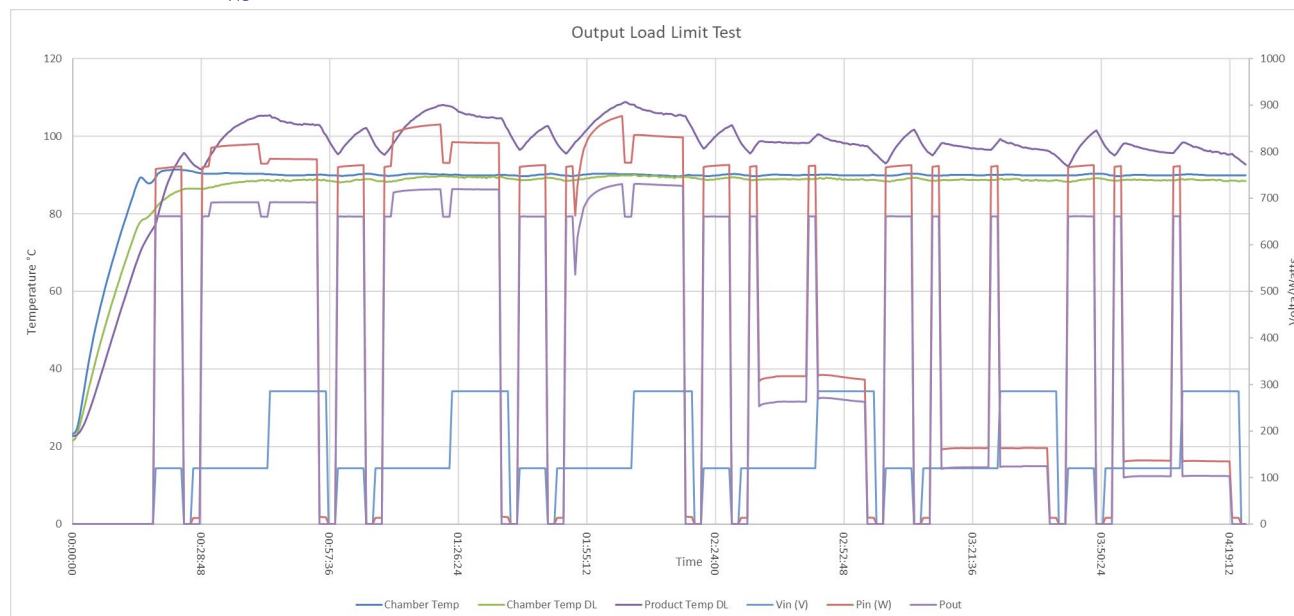


F.6.2 Input Voltage, Input Power, Output Power

F.6.2.a 105V_{AC}

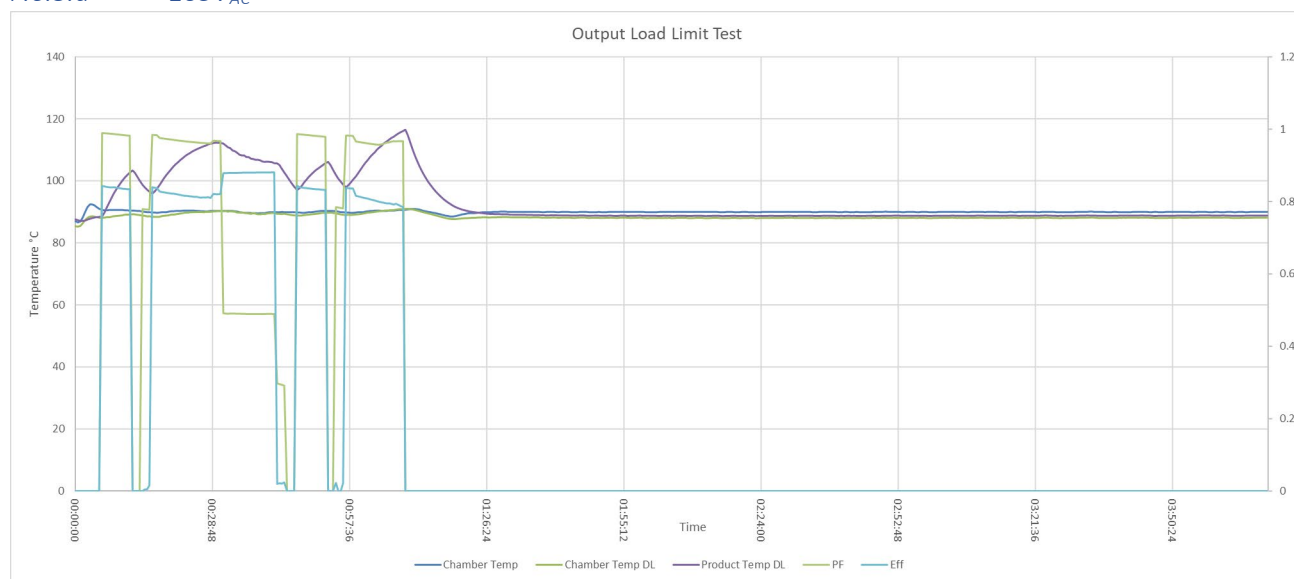


F.6.2.b 120V_{AC}

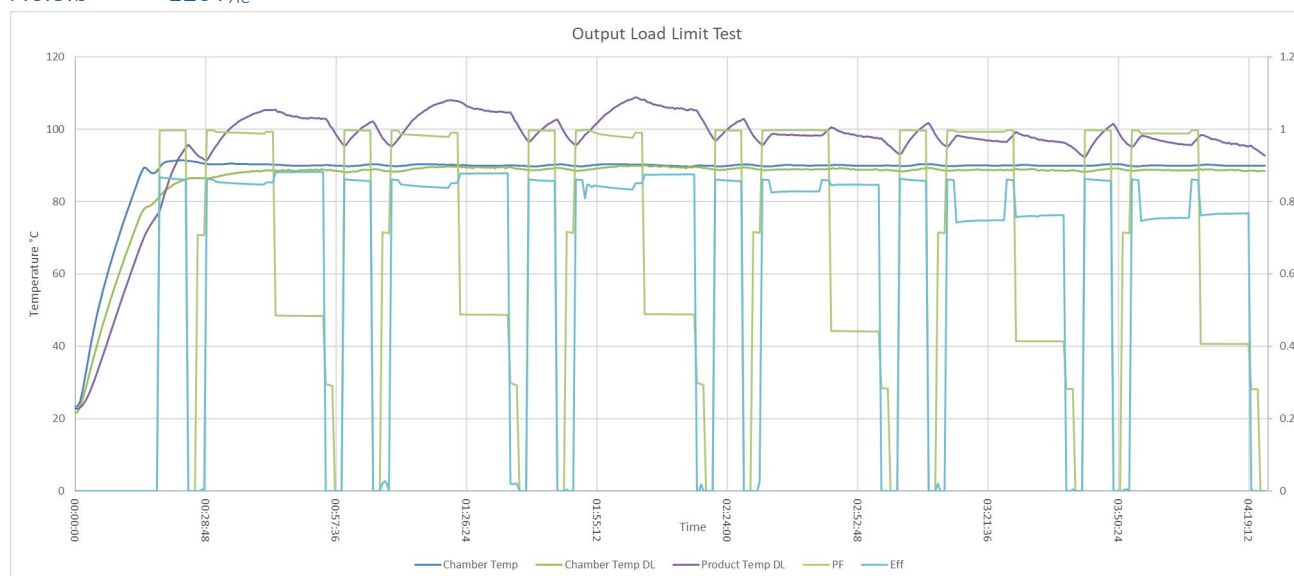


F.6.3 Power Factor & Efficiency

F.6.3.a 105V_{AC}

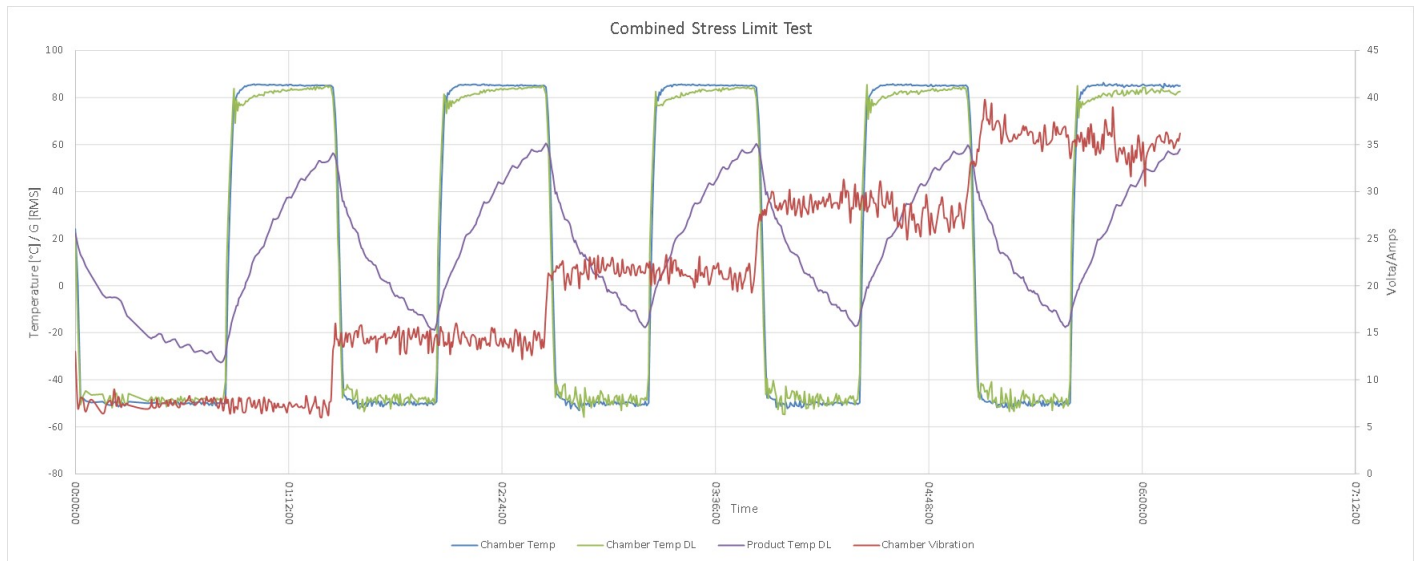


F.6.3.b 120V_{AC}

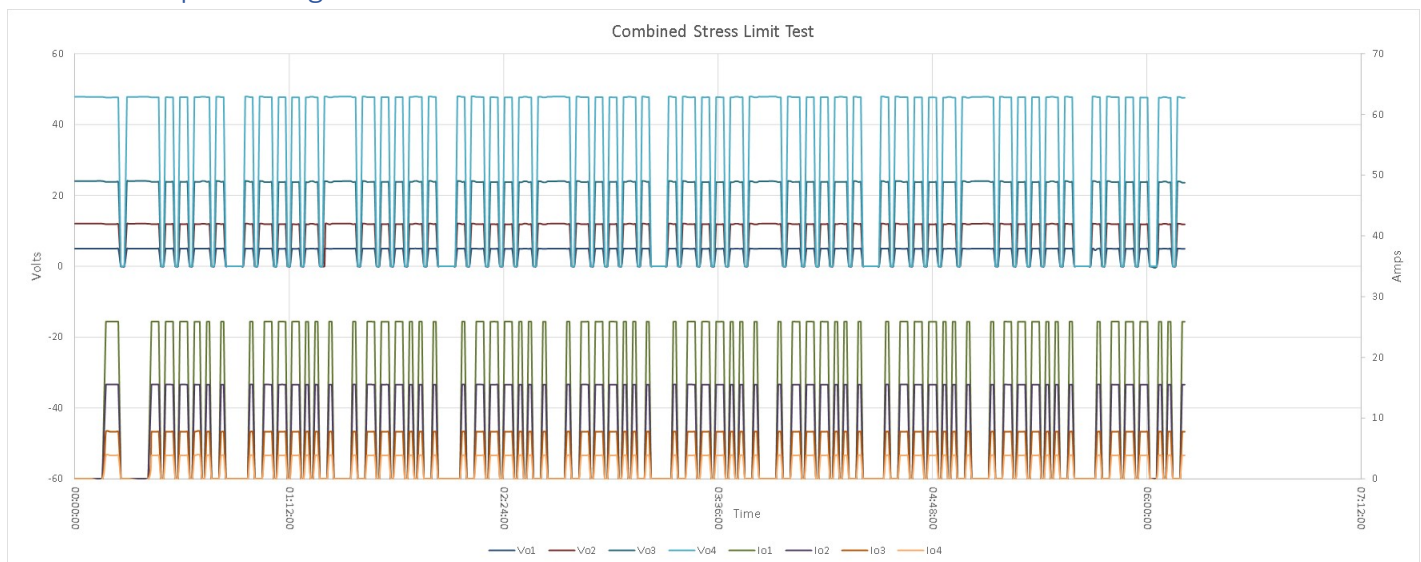


F.7 Combined Stress Test

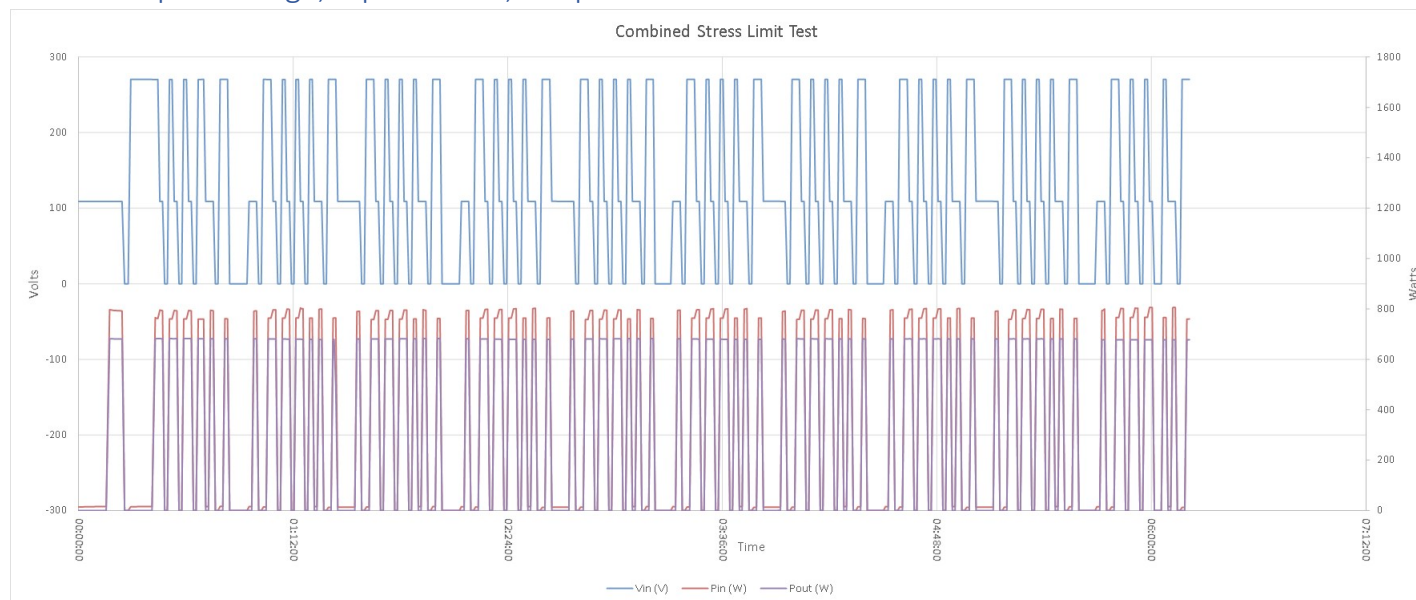
F.7.1 Thermal & Vibration



F.7.2 Output Voltage and current



F.7.3 Input Voltage, Input Power, Output Power



F.7.4 Power Factor & Efficiency

