

Report Summary

| | |
|-----------------------------|--|
| Products tested | VCCR300-xx |
| Products Description | 300W DC/DC Single Output Power Supply |
| Design Phase | 3 – Verification |
| Tested Products and Serials | VCCR300-12 (S/N 10111311001100003) VCCR300-24 (S/N 10111312001100002) VCCR300-36 (S/N 10111313001100001) VCCR300-48 (S/N 10111314001100006) |
| Test Goals | Test according to EN50155:2021 cl. 13.4.4 |
| Test dates | 13 TH March to 29 TH April 2023 |
| Report date | 2 ND May 2023 |

Authorisation

Jorge Almendros

2ND May 2023

Test performed by (Print)

Date

Jorge Almendros

2ND May 2023

Test report written by (Print)

Date

Brian McDonald

2ND May 2023

Test report Authorised by (Signed)

Date

Brian McDonald

2ND May 2023

Test report reviewed by (Signed)

Date

1 Objective

Low Temperature Test is a mandatory test required to comply with EN50155 standard. The objective of this report is to show compliance with the requirements of EN50155 clause 13.4.4 for Low temperature test.

2 Executive Summary

The low temperature test verifies the correct operation of the power supply under low temperature conditions bringing the product to the minimum thermal ratings for prolonged times and ensuring of correct operation under these conditions. The test was carried out in accordance with EN50155 clause 13.4.4 on all VCCR300 series models.

The test temperature for the product as per defined in the referred standard is: $T_{TEST} = -40^{\circ}\text{C}$ (OT4 temperature class)

The converter start-up condition was tested at 48V and 110V input voltage by undergoing multiple ON/OFF cycles for each voltage.

The test profiles for 48V and 110V input voltages were sequenced in a single cycle, providing that the stabilisation time and that the continuous operational checks time were respected at the specified test temperature for both test voltages.

All models of VCCR300 series operated correctly on the low temperature profile as shown in the continuous operational checks and functional test results in Appendix A. The definition of continuous operational checks and functional test can be found in the sections 3.2 and 3.3 of this report respectively.

It can be concluded that the low temperature test was passed successfully.

3 Test Equipment and Setup

3.1 Description of Test Equipment

The test equipment listed in Table 1 below was used to conduct the continuous operational checks and functional testing for the Low Temperature test.

| Description | Manufacturer | Model | S/N | Calibration Certificate |
|----------------------|--------------|----------------|------------------------|-------------------------|
| Thermal test Chamber | Votsch | VT7010 | 521/83674 (VOX0015) | Not required |
| AC Source | Chroma | 61505 | 000685 (VOX0097) | VOX0097-0522 |
| Electronic Load | Chroma | 6314A+63103Ax4 | 0003599 (VOX0098) | VOX0098-0522 |
| Oscilloscope | Keysight | DSO2014A | MY53160421 (VOX0095) | VOX0095-0522 |
| Datalogger | Agilent | 34970A | MY41025109 (VOX0070) | VOX0070-0522 |
| Power Meter | Chroma | 66202 | 662021001062 (VOX0101) | VOX0101-0522 |

3.2 Continuous Operational Checks Data Collection

Various environmental, electrical and product performance data were collected and logged at regular intervals throughout the process. Thermocouples were attached to various points on the devices.

The data collected is listed in Table 3 and the test results are detailed in appendix A.

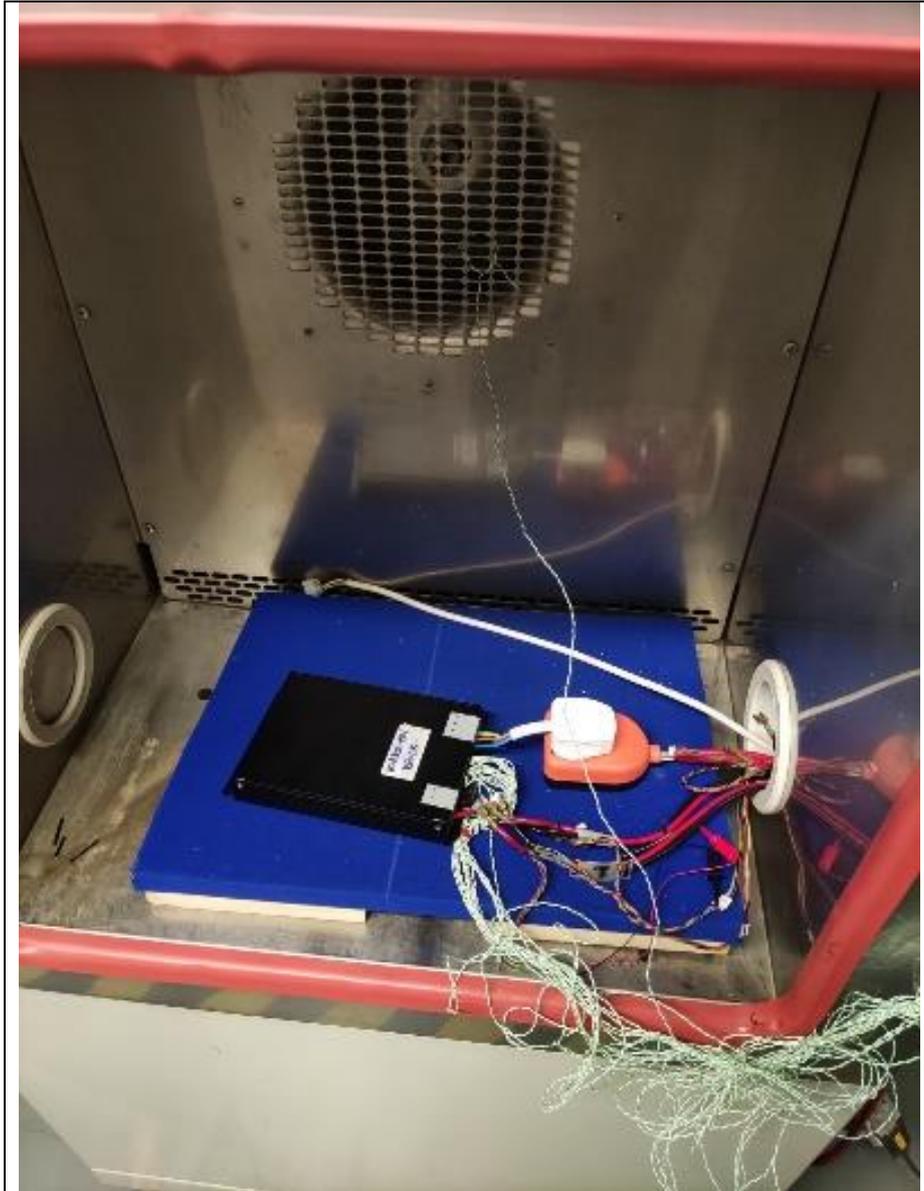
| Type | Description |
|-----------------|--|
| Time | Time stamp |
| Step # | Step number of test sequence |
| Chamber Temp | Chamber air temperature (Read from Chamber) |
| Chamber Temp DL | Chamber air temperature (Read from calibrated Datalogger - thermocouple) |
| Product Temp DL | Product temperature – (Read from calibrated Datalogger - thermocouple) |
| Vo1 | Product output voltage |
| Io1 | Product output current in load channel 1 |
| Io2 | Product output current in load channel 2 |
| Iout | Product output current total |
| Vin | Product input voltage |
| Pin | Product input power |
| Pout | Product output power |
| Eff | Product efficiency |

3.3 Functional Test Description

The device under test was connected to external equipment and was functionally tested when required. The set of functional tests are listed in Table 4.

| Table 4 – Functional Test List | |
|--------------------------------|---|
| Type | Description |
| Unit_Trim_TestOption | Output voltage model, Output voltage trim and test option |
| Sheet | Current test cycle |
| Step | Step number of test sequence |
| Time | Time stamp |
| Chamber Temp | Chamber air temperature |
| Product Temp | Product temperature |
| Vout | Output voltage reading. $V_{IN} = 110V_{DC}$, $P_{OUT} = 0W$ |
| EFF_48V | Efficiency. $V_{IN} = 48V_{DC}$ |
| EFF_110V | Efficiency. $V_{IN} = 110V_{DC}$ |
| HOLDUP_300W | Holdup test for 300W output power. $V_{IN} = 48V_{DC}$, $P_{OUT} = 300W$, $T_{DROP} = 12.5mS$ |
| HOLDUP_180W | Holdup test for 180W output power. $V_{IN} = 48V_{DC}$, $P_{OUT} = 180W$, $T_{DROP} = 22mS$ |
| Loadreg | Load regulation test. $V_{IN} = 110V_{DC}$, $P_{OUT} = 0W$ to 300W. |
| Linereg | Line regulation test. $V_{IN} = 48V_{DC}$ to $110V_{DC}$, $P_{OUT} = 0W$ & 300W. |
| Ripple_0%Load | Ripple test. $V_{IN} = 110V_{DC}$, $P_{OUT} = 0W$ |
| Ripple_100%Load | Ripple test. $V_{IN} = 110V_{DC}$, $P_{OUT} = 300W$ |
| Vtrans | Transient peak voltage. $V_{IN} = 110V_{DC}$, $P_{OUT} = 75W$ to 225W, 1A/uS |
| Ttrans | Transient recovery time. $V_{IN} = 110V_{DC}$, $P_{OUT} = 75W$ to 225W, 1A/uS |
| Trise_0%Load | Rise time. $V_{IN} = 110V_{DC}$, $P_{OUT} = 0W$ |
| Trise_100%Load | Rise time. $V_{IN} = 110V_{DC}$, $P_{OUT} = 300W$ |
| OCP | Over current protection tripping point. $V_{IN} = 110V_{DC}$, Load = $CV_{MODE} V_{NOM} * 0.9$ |

3.4 Test Setup Pictures

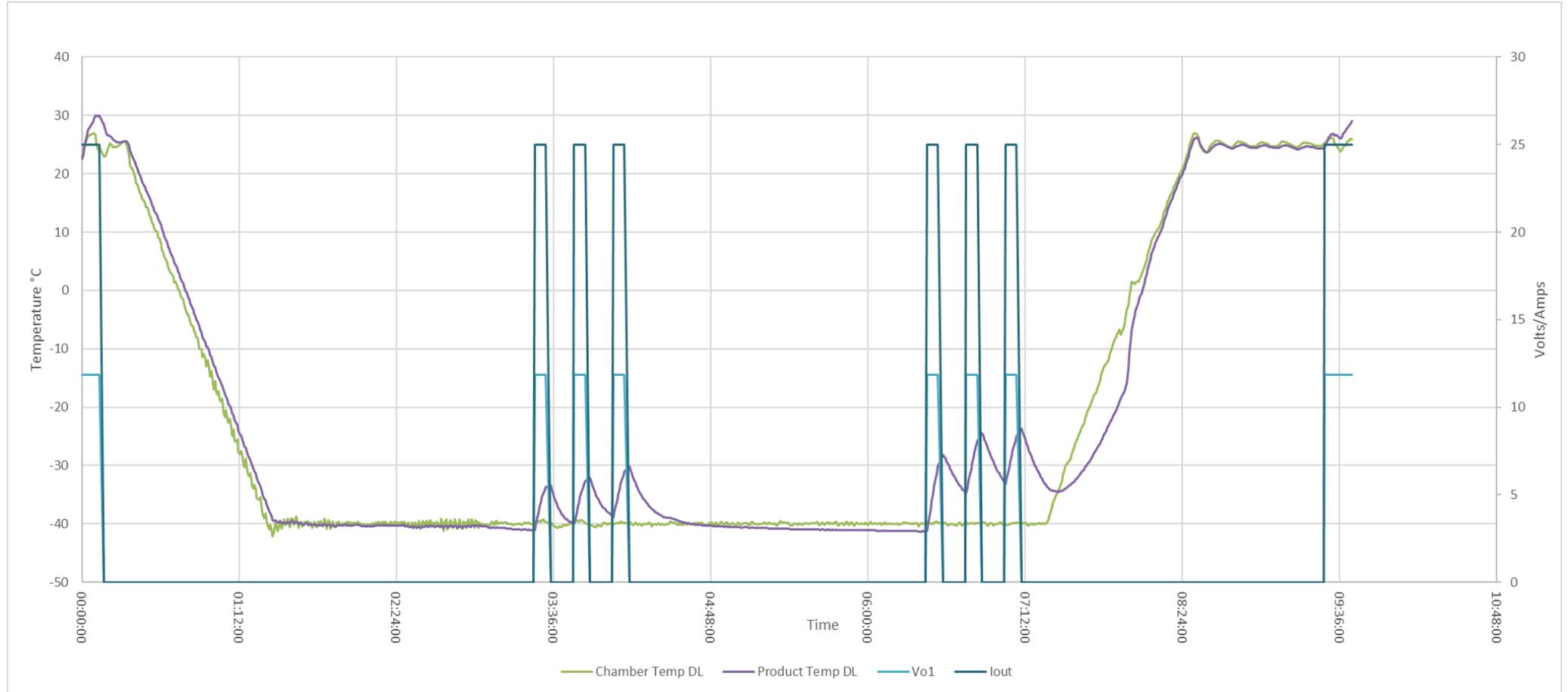


4 Appendix A: Test Results

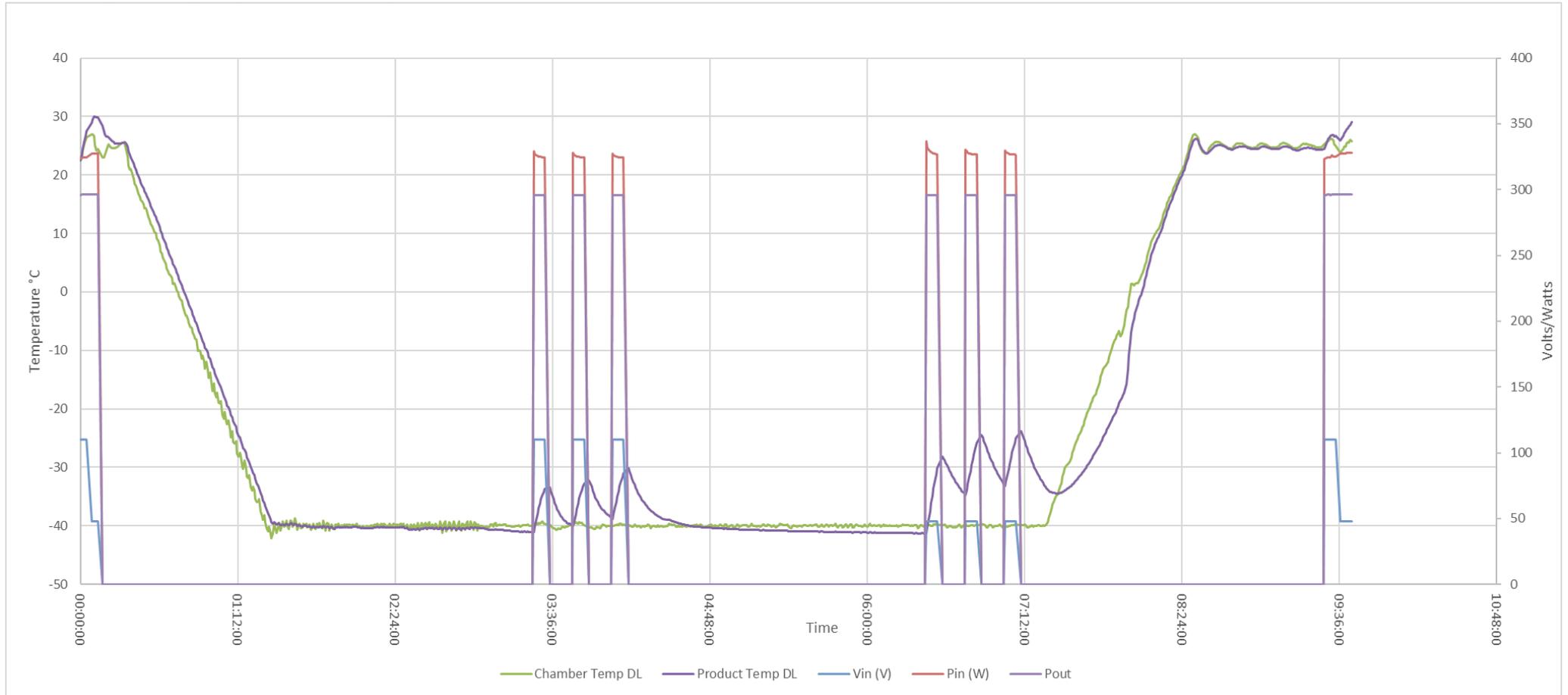
4.1 VCCR300-12

4.1.1 Operational Check Graphs

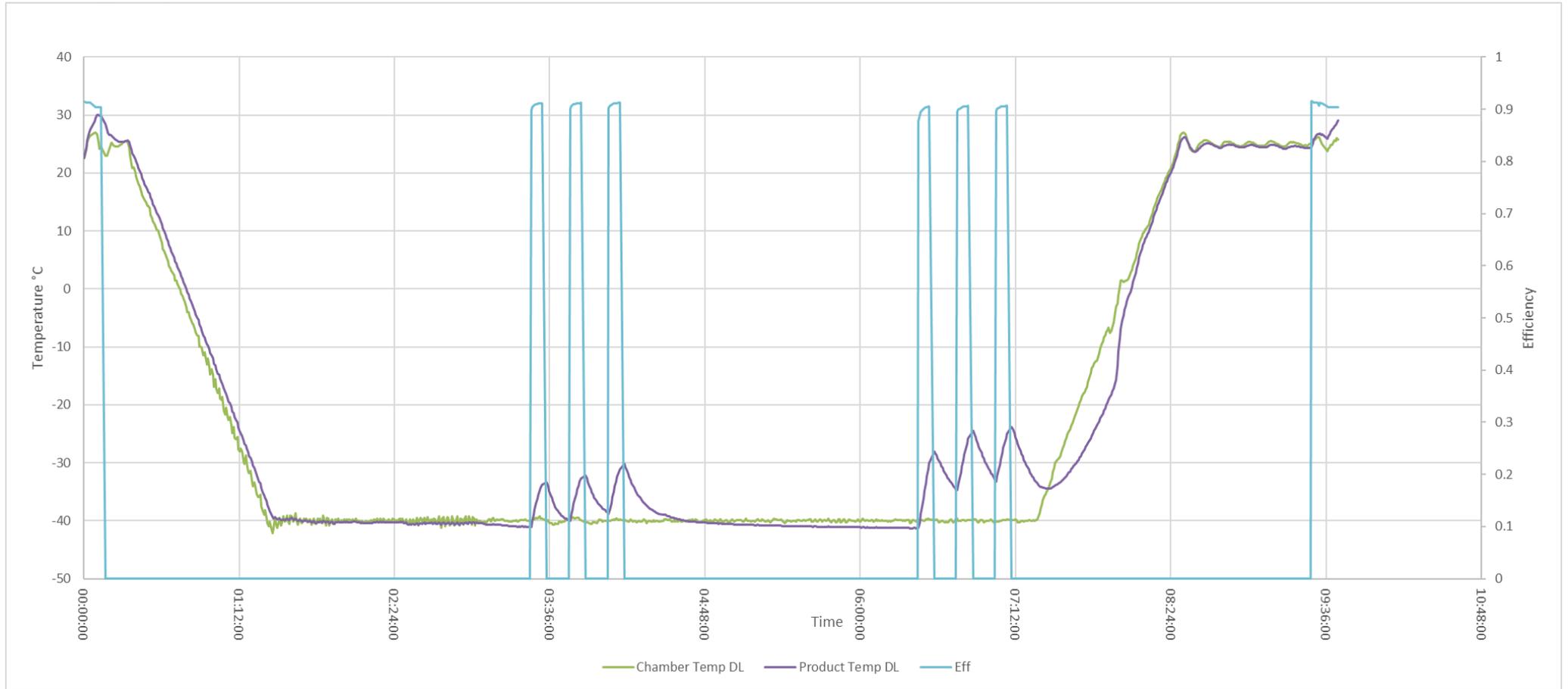
4.1.1.1 Output Voltage & Output Current



4.1.1.2 Input Voltage, Input Power & Output Power



4.1.1.3 Efficiency



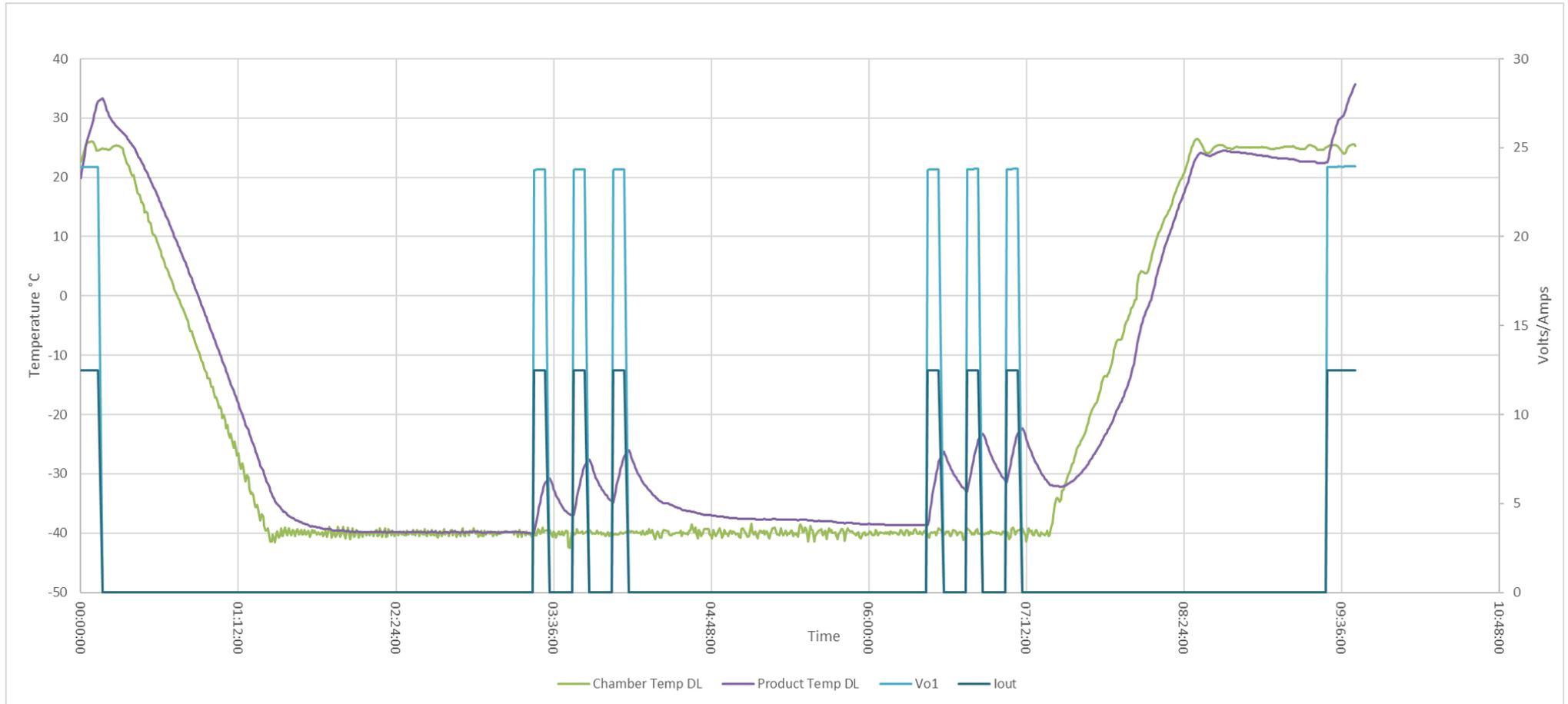
4.1.2 Functional Test Results

| Unit_Trim _TestOption | Sheet | Step | Time | Chamber Temp (°C) | Product Temp (°C) | Vout (V) | EFF 48V (%) | EFF 110V (%) | HOLDUP 300W (ΔV) | HOLDUP 180W (ΔV) | Loadreg (ΔV) | Linereg (ΔV) | Ripple 0%Load (V) | Ripple 100%Load (V) | Vtrans (V) | Ttrans (S) | Trise 0%Load (S) | Trise 100%Load (S) | OCP (A) |
|------------------------------|------------------|------|----------|-------------------------|-------------------------|-------------|-------------------|--------------------|------------------------|------------------------|-----------------|-----------------|-------------------------|---------------------------|---------------|---------------|------------------------|--------------------------|------------|
| VCCR300- 12V_NOMINAL_Norm | LowTemp Cycle | 0 | 00:03:19 | 26.444 | 28.23 | 11.85 | 0.905 | 0.913 | -0.1700 | -0.1000 | 0.0432410 | 0.0050380 | 0.1390 | 0.0990 | 0.521 | 0.0003410 | 0.035318 | 0.035746 | 27.53 |
| VCCR300- 12V_NOMINAL_Norm | LowTemp Cycle | 1 | 00:08:24 | 25.15 | 30.12 | 11.85 | 0.905 | 0.913 | -0.1700 | -0.1000 | 0.0473630 | -0.0007590 | 0.1390 | 0.0830 | 0.557 | 0.0003430 | 0.035414 | 0.035200 | 27.52 |
| VCCR300- 12V_NOMINAL_Norm | LowTemp Cycle | 5 | 03:32:57 | -39.58 | -33.35 | 11.84 | 0.899 | 0.912 | -0.6000 | -0.3100 | 0.0416250 | 0.0088220 | 0.1070 | 0.3280 | 0.521 | 0.0003600 | 0.033476 | 0.032516 | 27.47 |
| VCCR300- 12V_NOMINAL_Norm | LowTemp Cycle | 7 | 03:50:59 | -39.71 | -32.28 | 11.84 | 0.900 | 0.913 | -0.5500 | -0.2900 | 0.0290740 | 0.0113080 | 0.1150 | 0.3080 | 0.513 | 0.0003670 | 0.032496 | 0.032610 | 27.53 |
| VCCR300- 12V_NOMINAL_Norm | LowTemp Cycle | 9 | 04:08:55 | -39.94 | -30.54 | 11.84 | 0.901 | 0.913 | -0.5100 | -0.2900 | 0.0413900 | 0.0070840 | 0.1150 | 0.2630 | 0.506 | 0.0003810 | 0.032828 | 0.032814 | 27.55 |
| VCCR300- 12V_NOMINAL_Norm | LowTemp Cycle | 12 | 06:27:51 | -39.88 | -29.19 | 11.84 | 0.906 | 0.915 | -0.4300 | -0.2400 | 0.0377530 | 0.0004180 | 0.1230 | 0.2310 | 0.502 | 0.0003770 | 0.032916 | 0.033160 | 27.58 |
| VCCR300- 12V_NOMINAL_Norm | LowTemp Cycle | 14 | 06:45:50 | -39.95 | -25.08 | 11.84 | 0.907 | 0.915 | -0.3900 | -0.2200 | 0.0365870 | 0.0057200 | 0.1190 | 0.1990 | 0.495 | 0.0003880 | 0.033520 | 0.033308 | 27.59 |
| VCCR300- 12V_NOMINAL_Norm | LowTemp Cycle | 16 | 07:03:51 | -39.72 | -24.25 | 11.84 | 0.907 | 0.915 | -0.3600 | -0.1900 | 0.0374230 | 0.0008030 | 0.1270 | 0.1990 | 0.495 | 0.0003800 | 0.033168 | 0.033174 | 27.60 |
| VCCR300- 12V_NOMINAL_Norm | LowTemp Cycle | 20 | 09:30:06 | 25.12 | 26.73 | 11.85 | 0.905 | 0.913 | -0.1700 | -0.1000 | 0.0400260 | -0.0014520 | 0.1390 | 0.0830 | 0.526 | 0.0003470 | 0.034964 | 0.035628 | 27.54 |
| VCCR300- 12V_NOMINAL_Norm | LowTemp Cycle | 21 | 09:37:23 | 25.36 | 30.77 | 11.85 | 0.905 | 0.912 | -0.1700 | -0.1000 | 0.0476400 | -0.0022880 | 0.1310 | 0.0910 | 0.531 | 0.0003480 | 0.034972 | 0.035914 | 27.54 |

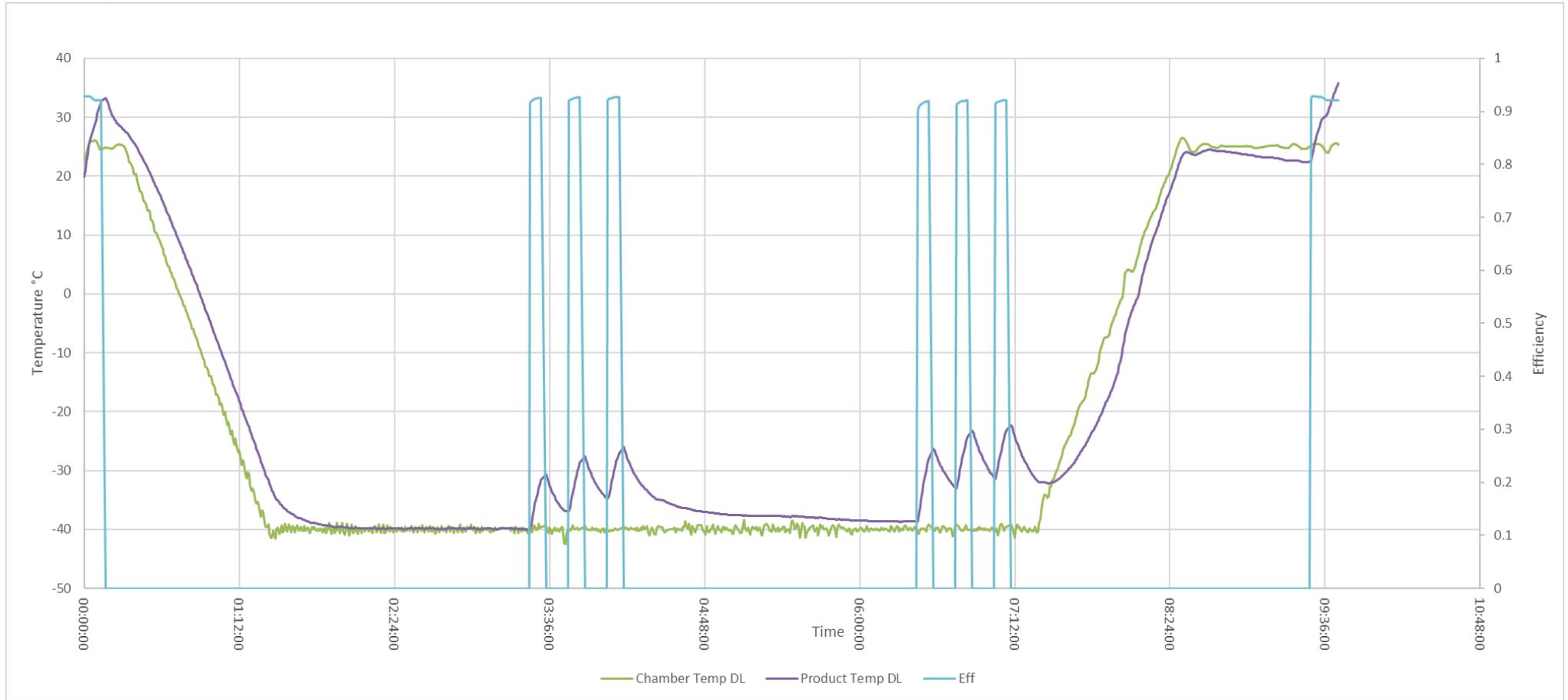
4.2 VCCR300-24

4.2.1 Operational Check Graphs

4.2.1.1 Output Voltage & Output Current



4.2.1.3 Efficiency



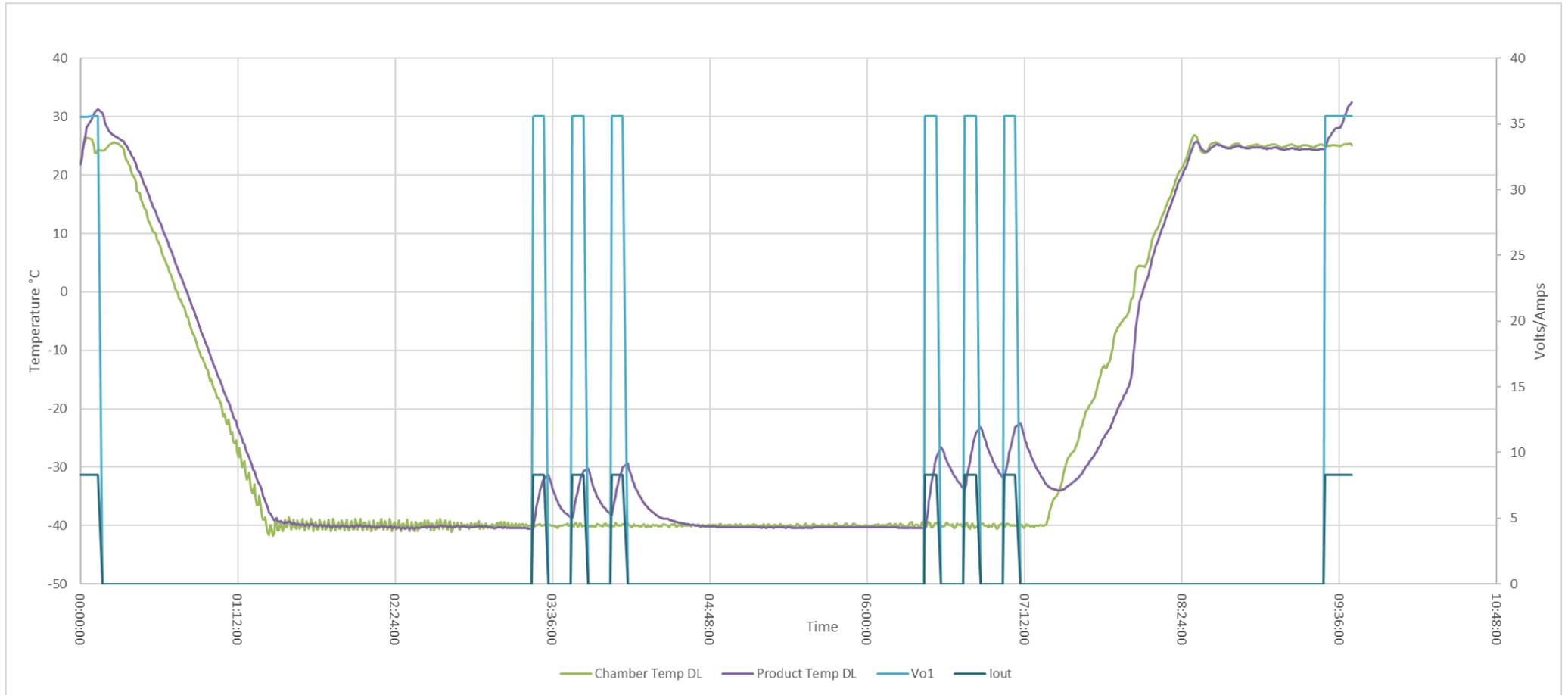
4.2.2 Functional Test Results

| Unit_Trim _TestOption | Sheet | Step | Time | Chamber Temp (°C) | Product Temp (°C) | Vout (V) | EFF 48V (%) | EFF 110V (%) | HOLDUP 300W (ΔV) | HOLDUP 180W (ΔV) | Loadreg (ΔV) | Linereg (ΔV) | Ripple 0%Load (V) | Ripple 100%Load (V) | Vtrans (V) | Ttrans (S) | Trise 0%Load (S) | Trise 100%Load (S) | OCF (A) |
|-----------------------------|------------------|------|----------|-------------------------|-------------------------|-------------|-------------------|--------------------|------------------------|------------------------|-----------------|-----------------|-------------------------|---------------------------|---------------|---------------|------------------------|--------------------------|------------|
| VCCR300-24V NOMINAL_Norm | LowTemp Cycle | 0 | 00:03:18 | 26.04 | 27.15 | 23.92 | 0.921 | 0.928 | -0.1900 | -0.1500 | 0.0371850 | 0.0022070 | 0.1900 | 0.1250 | 0.646 | 0.0004110 | 0.036252 | 0.036596 | 13.75 |
| VCCR300-24V NOMINAL_Norm | LowTemp Cycle | 1 | 00:08:23 | 24.66 | 33.31 | 23.94 | 0.921 | 0.928 | -0.1900 | -0.1500 | 0.0324400 | 0.0044140 | 0.1800 | 0.1250 | 0.654 | 0.0004050 | 0.036506 | 0.036808 | 13.74 |
| VCCR300-24V NOMINAL_Norm | LowTemp Cycle | 5 | 03:32:35 | -39.37 | -30.95 | 23.79 | 0.913 | 0.926 | -0.6300 | -0.3400 | 0.0278060 | 0.0059590 | 0.1000 | 0.4850 | 0.860 | 0.0003560 | 0.033810 | 0.033520 | 13.74 |
| VCCR300-24V NOMINAL_Norm | LowTemp Cycle | 7 | 03:50:38 | -39.57 | -28.09 | 23.80 | 0.916 | 0.927 | -0.5800 | -0.3400 | 0.0280270 | 0.0032000 | 0.1300 | 0.4650 | 0.730 | 0.0003930 | 0.033694 | 0.033360 | 13.76 |
| VCCR300-24V NOMINAL_Norm | LowTemp Cycle | 9 | 04:08:41 | -39.54 | -26.33 | 23.81 | 0.917 | 0.927 | -0.5800 | -0.2900 | 0.0317790 | 0.0038620 | 0.1200 | 0.3750 | 0.647 | 0.0004300 | 0.033672 | 0.033230 | 13.77 |
| VCCR300-24V NOMINAL_Norm | LowTemp Cycle | 12 | 06:27:45 | -39.48 | -27.16 | 23.80 | 0.920 | 0.929 | -0.5300 | -0.3400 | 0.0311170 | 0.0034200 | 0.1200 | 0.3750 | 0.749 | 0.0004340 | 0.033542 | 0.033152 | 13.78 |
| VCCR300-24V NOMINAL_Norm | LowTemp Cycle | 14 | 06:45:47 | -40.23 | -23.64 | 23.81 | 0.921 | 0.929 | -0.5300 | -0.2900 | 0.0295720 | 0.0050760 | 0.1200 | 0.3250 | 0.646 | 0.0004860 | 0.033586 | 0.033566 | 13.79 |
| VCCR300-24V NOMINAL_Norm | LowTemp Cycle | 16 | 07:03:49 | -39.84 | -22.56 | 23.82 | 0.921 | 0.929 | -0.4300 | -0.2900 | 0.0294610 | 0.0033110 | 0.1300 | 0.3050 | 0.616 | 0.0004740 | 0.033634 | 0.033400 | 13.81 |
| VCCR300-24V NOMINAL_Norm | LowTemp Cycle | 20 | 09:30:20 | 24.96 | 30.11 | 23.93 | 0.921 | 0.928 | -0.1900 | -0.1500 | 0.0389510 | -0.0022060 | 0.2000 | 0.1250 | 0.646 | 0.0004030 | 0.036686 | 0.036746 | 13.74 |
| VCCR300-24V NOMINAL_Norm | LowTemp Cycle | 21 | 09:38:10 | 25.19 | 36.15 | 23.95 | 0.921 | 0.928 | -0.1900 | -0.1500 | 0.0421920 | -0.0039730 | 0.1800 | 0.1250 | 0.663 | 0.0004030 | 0.036750 | 0.036808 | 13.74 |

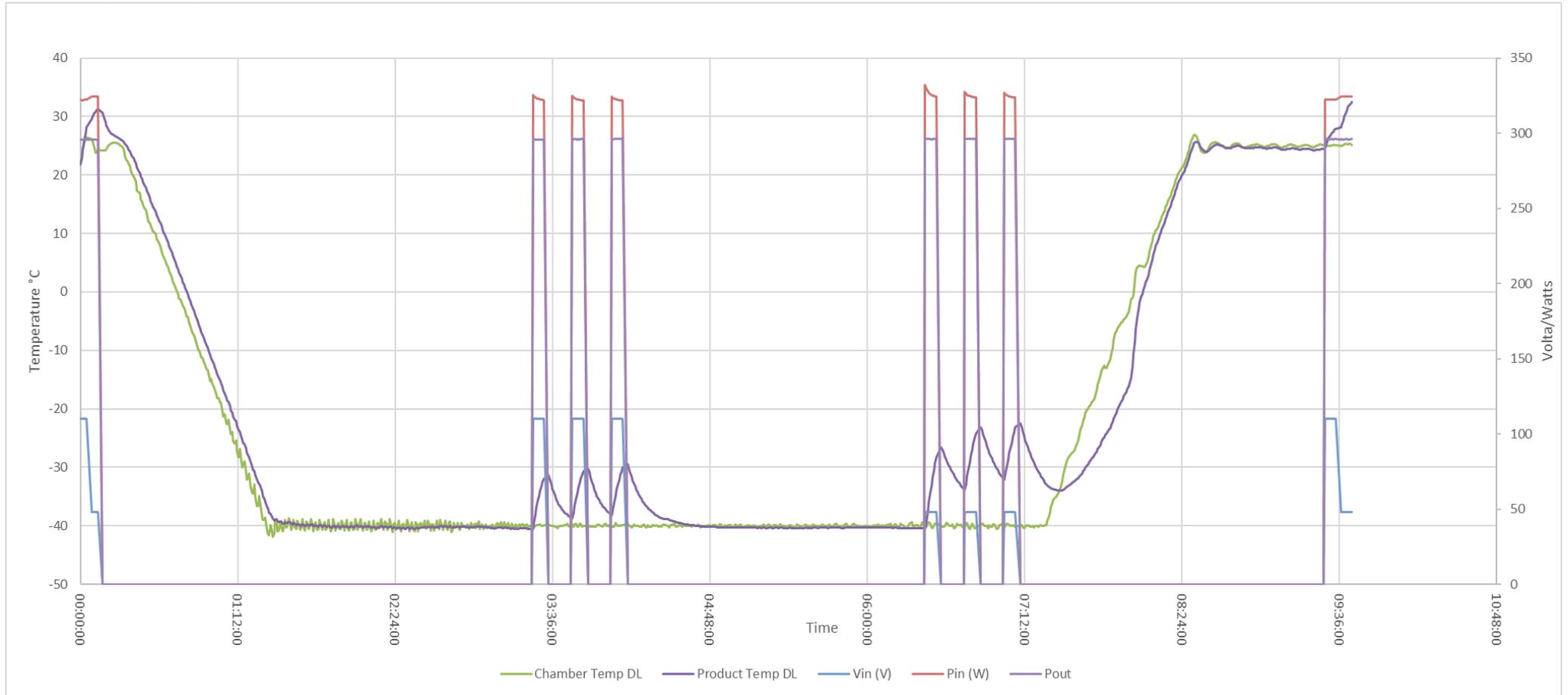
4.3 VCCR300-36

4.3.1 Operational Check Graphs

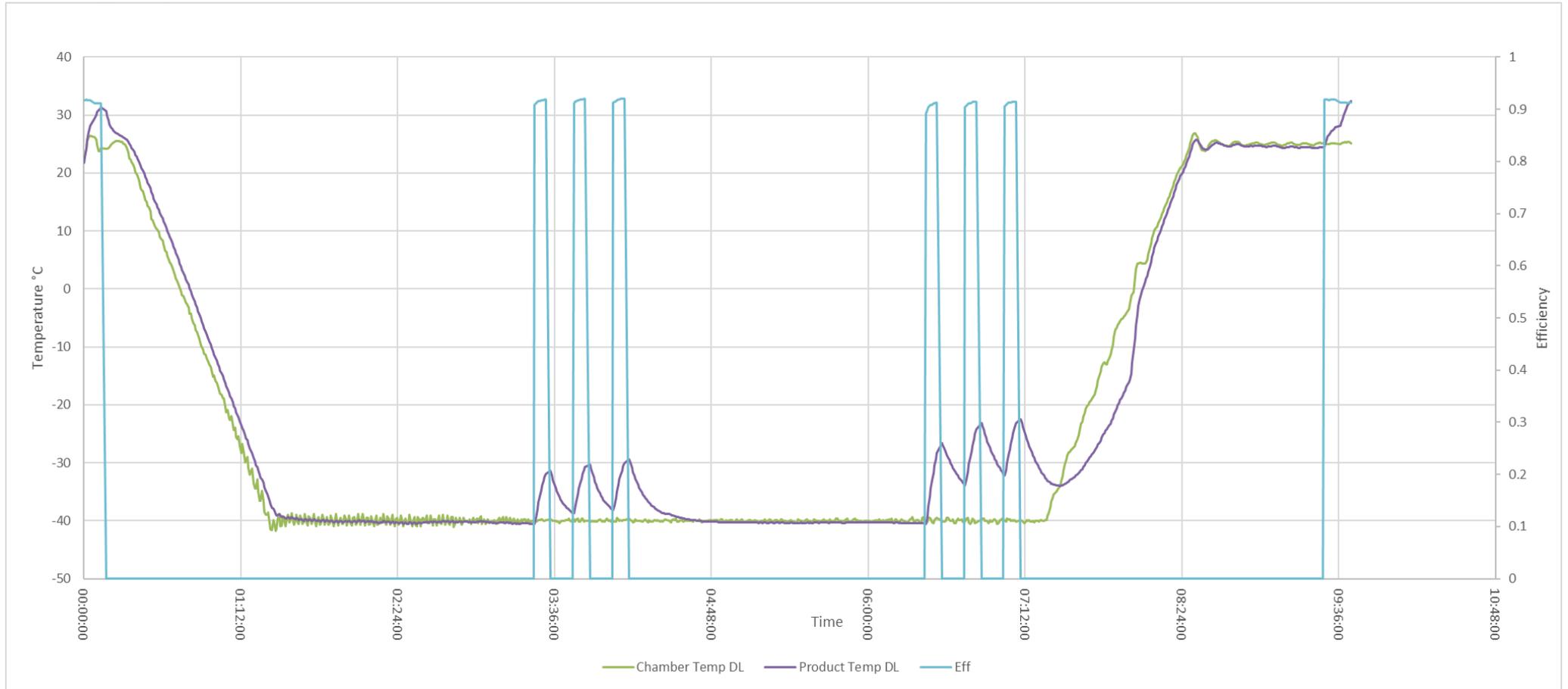
4.3.1.1 Output Voltage & Output Current



4.3.1.2 Input Voltage, Input Power & Output Power



4.3.1.3 Efficiency



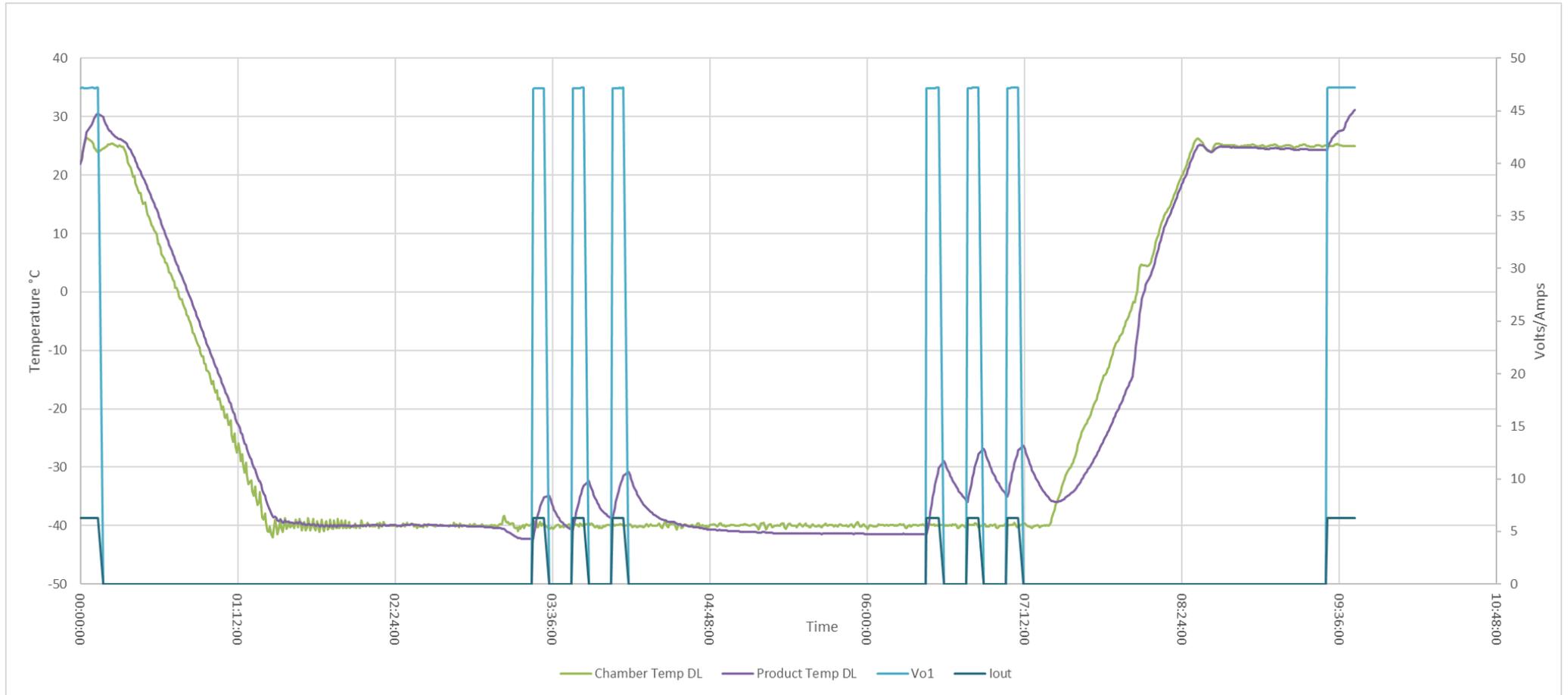
4.3.2 Functional Test Results

| Unit_Trim _TestOption | Sheet | Step | Time | Chamber Temp (°C) | Product Temp (°C) | Vout (V) | EFF 48V (%) | EFF 110V (%) | HOLDUP 300W (ΔV) | HOLDUP 180W (ΔV) | Loadreg (ΔV) | Linereg (ΔV) | Ripple 0%Load (V) | Ripple 100%Load (V) | Vtrans (V) | Ttrans (S) | Trise 0%Load (S) | Trise 100%Load (S) | OCp (A) |
|-----------------------------|------------------|------|----------|-------------------------|-------------------------|-------------|-------------------|--------------------|------------------------|------------------------|-----------------|-----------------|-------------------------|---------------------------|---------------|---------------|------------------------|--------------------------|------------|
| VCCR300-36V NOMINAL_Norm | LowTemp Cycle | 0 | 00:03:20 | 26.36 | 28.87 | 35.57 | 0.912 | 0.919 | -0.0700 | -0.0700 | 0.0483300 | 0.0016550 | 0.1700 | 0.0700 | 0.840 | 0.0003760 | 0.035768 | 0.035644 | 9.12 |
| VCCR300-36V NOMINAL_Norm | LowTemp Cycle | 1 | 00:08:25 | 24.49 | 31.69 | 35.57 | 0.912 | 0.919 | -0.1400 | -0.0700 | 0.0405780 | -0.0057380 | 0.1700 | 0.0600 | 0.840 | 0.0003660 | 0.035672 | 0.035782 | 9.12 |
| VCCR300-36V NOMINAL_Norm | LowTemp Cycle | 5 | 03:32:30 | -39.55 | -31.36 | 35.61 | 0.906 | 0.920 | -0.5100 | -0.2200 | 0.0386240 | 0.0030900 | 0.1500 | 0.3400 | 0.740 | 0.0004140 | 0.033192 | 0.032722 | 9.04 |
| VCCR300-36V NOMINAL_Norm | LowTemp Cycle | 7 | 03:50:34 | -40.09 | -30.21 | 35.62 | 0.907 | 0.921 | -0.4300 | -0.2200 | 0.0370790 | 0.0044130 | 0.1500 | 0.3000 | 0.730 | 0.0004110 | 0.033102 | 0.032714 | 9.06 |
| VCCR300-36V NOMINAL_Norm | LowTemp Cycle | 9 | 04:08:38 | -39.92 | -29.49 | 35.62 | 0.908 | 0.921 | -0.4300 | -0.2200 | 0.0374090 | -0.0088270 | 0.1500 | 0.2900 | 0.720 | 0.0004060 | 0.033178 | 0.032666 | 9.04 |
| VCCR300-36V NOMINAL_Norm | LowTemp Cycle | 12 | 06:27:27 | -39.78 | -27.40 | 35.62 | 0.913 | 0.923 | -0.3600 | -0.2200 | 0.0390650 | 0.0040830 | 0.1400 | 0.2700 | 0.714 | 0.0003930 | 0.033146 | 0.032748 | 9.07 |
| VCCR300-36V NOMINAL_Norm | LowTemp Cycle | 14 | 06:45:31 | -39.88 | -23.41 | 35.63 | 0.915 | 0.923 | -0.3600 | -0.1400 | 0.0380720 | -0.0069510 | 0.1400 | 0.2200 | 0.730 | 0.0003890 | 0.033334 | 0.032898 | 9.09 |
| VCCR300-36V NOMINAL_Norm | LowTemp Cycle | 16 | 07:03:35 | -40.09 | -22.54 | 35.63 | 0.915 | 0.924 | -0.2900 | -0.1400 | 0.0418230 | 0.0049650 | 0.1500 | 0.1800 | 0.724 | 0.0003550 | 0.033332 | 0.033048 | 9.12 |
| VCCR300-36V NOMINAL_Norm | LowTemp Cycle | 20 | 09:30:11 | 25.11 | 28.20 | 35.60 | 0.912 | 0.921 | -0.1400 | -0.0700 | 0.0415340 | 0.0121380 | 0.1800 | 0.0700 | 0.840 | 0.0003750 | 0.036284 | 0.035642 | 9.12 |
| VCCR300-36V NOMINAL_Norm | LowTemp Cycle | 21 | 09:37:33 | 24.90 | 32.61 | 35.63 | 0.913 | 0.920 | -0.1500 | -0.0700 | 0.0290240 | -0.0156690 | 0.1800 | 0.0600 | 0.840 | 0.0003670 | 0.036038 | 0.035952 | 9.13 |

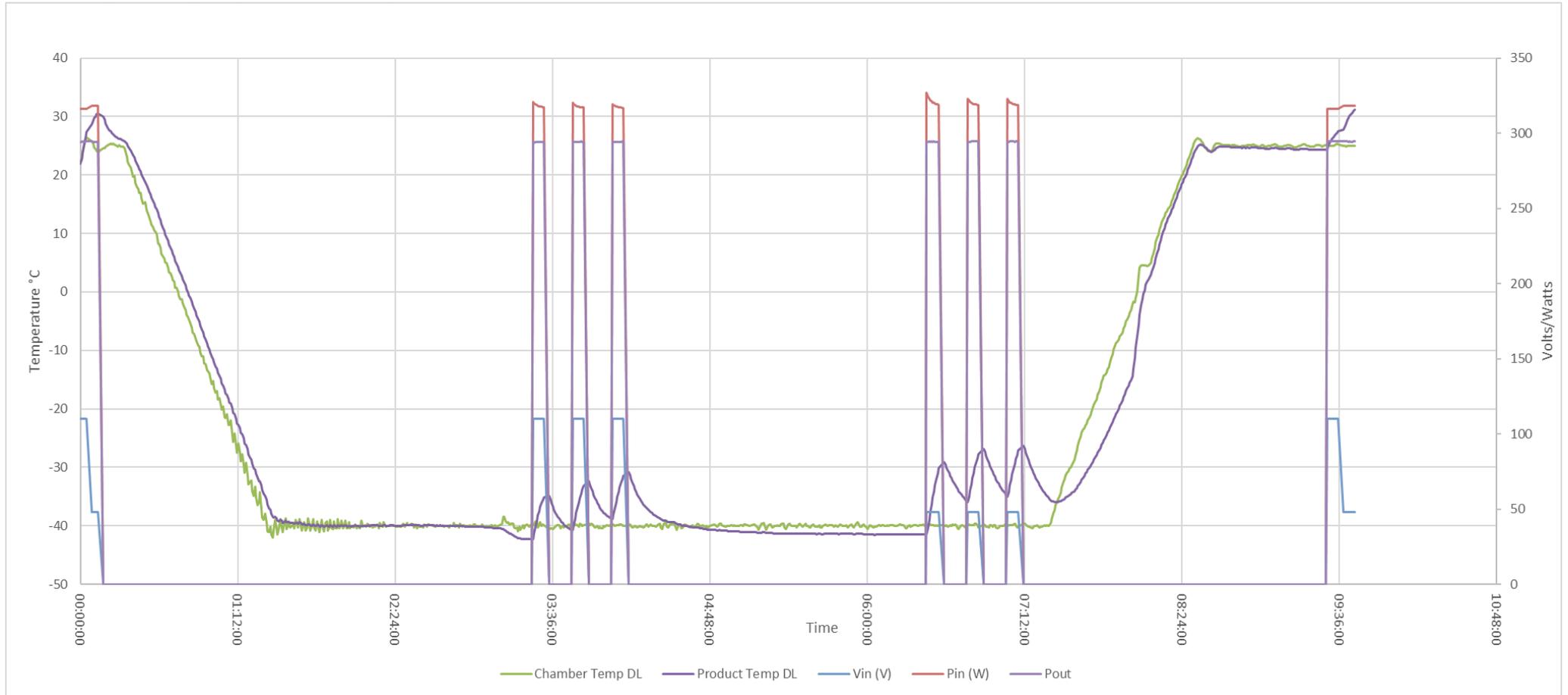
4.4 VCCR300-48

4.4.1 Operational Check Graphs

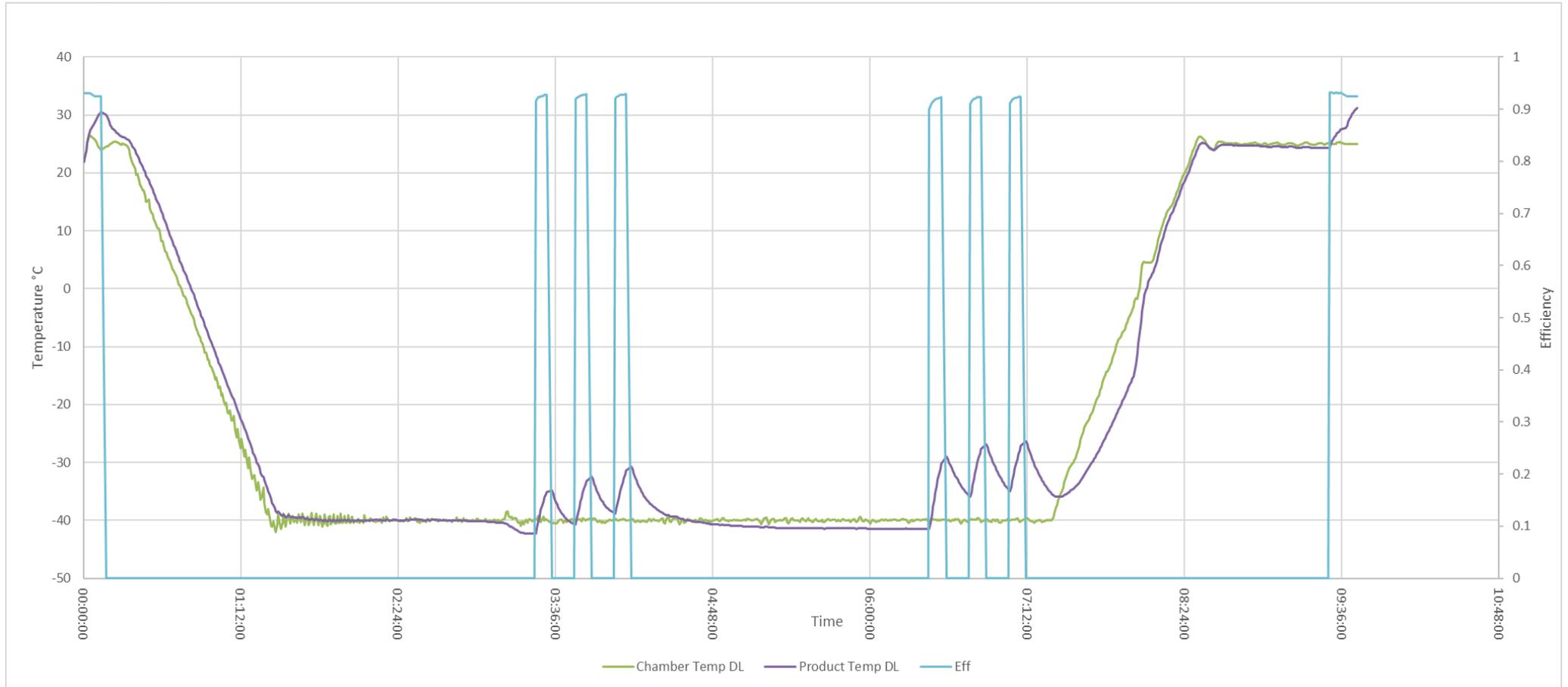
4.4.1.1 Output Voltage & Output Current



4.4.1.2 Input Voltage, Input Power & Output Power



4.4.1.3 Efficiency



4.4.2 Functional Test Results

| Unit_Trim _TestOption | Sheet | Step | Time | Chamber Temp (°C) | Product Temp (°C) | Vout (V) | EFF 48V (%) | EFF 110V (%) | HOLDUP 300W (ΔV) | HOLDUP 180W (ΔV) | Loadreg (ΔV) | Linereg (ΔV) | Ripple 0%Load (V) | Ripple 100%Load (V) | Vtrans (V) | Ttrans (S) | Trise 0%Load (S) | Trise 100%Load (S) | OCP (A) |
|-----------------------------|------------------|------|----------|-------------------------|-------------------------|----------|-------------------|--------------------|------------------------|------------------------|-----------------|-----------------|-------------------------|---------------------------|---------------|---------------|------------------------|--------------------------|------------|
| VCCR300-48V NOMINAL_Norm | LowTemp Cycle | 0 | 00:03:20 | 26.244 | 28.03 | 47.18 | 0.924 | 0.931 | -0.4800 | -0.3800 | 0.0388420 | 0.0078340 | 0.3900 | 0.1400 | 1.120 | 0.0005200 | 0.036212 | 0.035598 | 6.89 |
| VCCR300-48V NOMINAL_Norm | LowTemp Cycle | 1 | 00:08:31 | 23.92 | 30.66 | 47.18 | 0.925 | 0.932 | -0.5700 | -0.3800 | 0.0489940 | -0.0032000 | 0.4000 | 0.1300 | 1.160 | 0.0006050 | 0.036232 | 0.035940 | 6.89 |
| VCCR300-48V NOMINAL_Norm | LowTemp Cycle | 5 | 03:32:34 | -40.57 | -34.75 | 47.17 | 0.914 | 0.928 | -2.0100 | -1.0500 | 0.0403870 | 0.0030890 | 0.3100 | 1.4500 | 1.330 | 0.0006130 | 0.033442 | 0.032906 | 6.71 |
| VCCR300-48V NOMINAL_Norm | LowTemp Cycle | 7 | 03:50:42 | -39.62 | -32.68 | 47.18 | 0.916 | 0.930 | -1.8200 | -0.9600 | 0.0473360 | -0.0037520 | 0.3200 | 1.1600 | 1.210 | 0.0005890 | 0.033512 | 0.032898 | 6.74 |
| VCCR300-48V NOMINAL_Norm | LowTemp Cycle | 9 | 04:08:57 | -39.93 | -30.94 | 47.18 | 0.918 | 0.930 | -1.7200 | -0.9600 | 0.0471180 | 0.0045260 | 0.3200 | 1.0900 | 1.130 | 0.0005780 | 0.033474 | 0.032648 | 6.76 |
| VCCR300-48V NOMINAL_Norm | LowTemp Cycle | 12 | 06:28:35 | -39.69 | -29.50 | 47.19 | 0.923 | 0.932 | -1.5400 | -0.9600 | 0.0437360 | -0.0046350 | 0.3200 | 0.9500 | 1.105 | 0.0006020 | 0.033476 | 0.032898 | 6.75 |
| VCCR300-48V NOMINAL_Norm | LowTemp Cycle | 14 | 06:46:45 | -40.16 | -27.12 | 47.20 | 0.924 | 0.932 | -1.4400 | -0.8600 | 0.0346470 | -0.0024270 | 0.3200 | 0.8200 | 1.060 | 0.0006050 | 0.033628 | 0.033150 | 6.77 |
| VCCR300-48V NOMINAL_Norm | LowTemp Cycle | 16 | 07:04:57 | -40.01 | -26.57 | 47.20 | 0.924 | 0.932 | -1.4400 | -0.8600 | 0.0483300 | -0.0008820 | 0.3200 | 0.8000 | 1.100 | 0.0005820 | 0.033640 | 0.032898 | 6.79 |
| VCCR300-48V NOMINAL_Norm | LowTemp Cycle | 20 | 09:31:21 | 25.07 | 27.67 | 47.20 | 0.925 | 0.932 | -0.4800 | -0.3800 | 0.0485500 | -0.0043030 | 0.4700 | 0.1400 | 1.120 | 0.0005610 | 0.036232 | 0.035746 | 6.89 |
| VCCR300-48V NOMINAL_Norm | LowTemp Cycle | 21 | 09:38:46 | 25.02 | 31.35 | 47.20 | 0.925 | 0.932 | -0.4800 | -0.3800 | 0.0499980 | -0.0349790 | 0.4000 | 0.1300 | 1.150 | 0.0005420 | 0.036215 | 0.035956 | 6.89 |