



Certificate of Compliance

Certificate: 80189452 **Master Contract:** 303537
Project: 80189452 **Date Issued:** 2024-08-26
Issued to: **Vicor Corporation**
25 Frontage Rd
Andover, Massachusetts 01810
United States
Attention: Dan Clarkson

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Issued by: *Wei Sheng Wu*
Wei Sheng Wu, Mr.

PRODUCTS

Class 5311 67 POWER SUPPLIES - Component Type (CSA 62368-1)
Class 5311 97 POWER SUPPLIES - Component Type (UL 62368-1) - Certified to US Stds

DC-DC converter

Model(s)	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (A)	Output Power (W)
DCM3717S60x13yyTNz (where x = D or E, yy = G5 or K0, z = any alphanumeric character)	54V (40V to 60V)	12.2V (10V to 12.5V)	61.5A max. (yy = G5) or 82A max. (yy = K0)	750W max. (yy = G5) or 1000W max. (yy = K0)

See Product Description and Attachment 2 "Derating Chart" for additional model information and electrical ratings.

APPLICABLE REQUIREMENTS

CSA C22.2 No. 62368-1:19+Upd.1 (Third Edition) - Audio/video, information and communication technology equipment — Part 1:



Certificate: 80189452

Master Contract: 303537

Project: 80189452

Date Issued: 2024-08-26

Safety requirements - Third Edition; Update No. 1: October 2021

ANSI/UL 62368-1 (Third Edition; Reprint with revisions through and including October 22, 2021) - UL Standard for Safety Audio/video, information and communication technology equipment – Part 1: Safety requirements



Certificate: 80189452

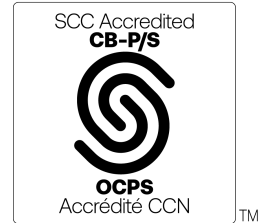
Master Contract: 303537

Project: 80189452

Date Issued: 2024-08-26

Notes:

Products certified under Class(es) C531167, C531197 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca





Supplement to Certificate of Compliance

Certificate: 80189452

Master Contract: 303537

*The products listed, including the latest revision described below,
are eligible to be marked in accordance with the referenced Certificate.*

Product Certification History

Project	Date	Description
80189452	2024-08-26	Original certification for model DCM3717S60x13yyTNz



Descriptive Report

MASTER CONTRACT: 0000303537
REPORT: 80189452
PROJECT: 80189452

EDITION

Edition	Issued On	Project	Location	Prepared By	Authorized By
Edition 1	August 26, 2024	80189452	Canada Toronto	Wei Sheng Wu	Wei Sheng Wu

CONTENTS

Certificate of Compliance + Supplement - Page 1 to 4
Description and Tests - Page 1 to 6
Attachment 1 – Photo - Page 1 to 2
Attachment 2 – Derating Chart - Page 1 to 13

PRODUCTS

Class 5311 67 POWER SUPPLIES - Component Type (CSA 62368-1)
Class 5311 97 POWER SUPPLIES - Component Type (UL 62368-1) - Certified to US Stds

DC-DC converter – Model DCM3717S60x13yyTNz (where x = D or E, yy = G5 or K0, z = any alphanumeric character)

- Input: DC 54V (40V to 60V).
- Output Voltage: DC 12.2V (10V to 12.5V)
- Output Current: 61.5A max. (yy = G5) or 82A max. (yy = K0)
- Output Power: 750W max. (yy = G5) or 1000W max. (yy = K0)

See Product Description and Attachment 2 “Derating Chart” for additional model information and electrical ratings.

APPLICABLE REQUIREMENTS

Standards Used	Description
CSA C22.2 No. 62368-1:19+Upd.1 (Third Edition)	Audio/video, information and communication technology equipment — Part 1: Safety requirements - Third Edition; Update No. 1: October 2021
ANSI/UL 62368-1 (Third Edition; Reprint with revisions through and including October 22, 2021)	UL Standard for Safety Audio/video, information and communication technology equipment – Part 1: Safety requirements

This report shall not be reproduced, except in full, without the approval of CSA Group.

178 Rexdale Boulevard, Toronto, ON M9W 1R3
Telephone: 416-747-4000 Fax: 416-747-4149

CONDITIONS OF ACCEPTABILITY

1. Maximum output power and case temperature. See attached Derating Chart for maximum operating conditions for each voltage rating.
2. The Input is considered to be a non-MAINS ES1 and separated from MAINS by double or reinforced insulation.
3. The external "+ INV" node is considered ES2, Vpk may exceed ES1 limit during single fault conditions (hiccup mode). Basic insulation, or the equivalent protection determined through an evaluation of single fault conditions per clause 5.3.1, is to be provided between +INV node (ES2) and output circuits (ES1) in the end use application.
4. Nominal Output voltages ranging from 10V to 12.5V are considered ES1.
5. The DCM3717 is to be mounted on minimum V-1 flame rated printed wiring board in the end use application.
6. The DCM3717 was evaluated with fuse Littelfuse 487 series rated 125V 30A.
7. Max. external case temperature does not exceed 100°C.

MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

PART 1: Minimum Markings:

Marking Method: (For Minimum Markings)

By Laser - Trademark, model number are marked on the body of DCM by laser.

Required Information: (For Minimum Markings)

- The submitter's name and/or trademark and/or Master Contract Number "303537";
Note: If the Master Contract number is used as the submitter's identification, they shall be located adjacent to the CSA Mark.
- Model or identifying designation;
- Date of manufacture, serial number or date code traceable to month and year of manufacture;
- The CSA Monogram and an appropriate indicator as applicable;

- [X] For Use in Canada and the U.S.: CSA Monogram with "C/US".
- [X] CSA Monogram with "C/US" is provided on the bag/packaging.

ALTERATIONS

1. Markings as above appear on each unit.

FACTORY TESTS

N/A

SPECIAL INSTRUCTIONS FOR FIELD SERVICES

1. Component descriptions marked with either the "(INT)" or "(INT*)" identifiers may be substituted with other components providing the requirements specified under the notes in the "Description" are complied with.

COMPONENT SPECIAL PICKUP

1. Component descriptions marked with the identifier "(CT)" are subject to annual pickup and Conformity Testing.

DESCRIPTION

Notes:

1. Component Substitution
 - a) Critical components (those identified by mfr name, cat no), which are NOT identified with either "INT" or "INT*" are not eligible for substitution without evaluation and report updating
 - b) The term "INT" means a "Certified" and/or "Listed" (or a "Recognized" and/or "Accepted") component may be replaced by one "Certified" and/or "Listed" by another certification organization accredited by the appropriate accreditation body or scheme requirements to the correct standard, for the same application; providing the applicable country identifiers are included and requirements in item "d" below are complied with.
 - c) The Term "(INT*)" means a "Recognized" and/or "Accepted" component may be replaced by a component that is CSA Certified. The applicable country identifiers shall be included, the requirements in item "d" below as well as any "conditions of suitability" for the component (as recorded in this descriptive report) shall be complied with;
 - d) Components which have been substituted, must be of an equivalent rating, configuration (size, orientation, mounting) and the applicable minimum creepage and clearance distances are to be maintained from live parts to bonded metal parts and secondary parts.
 - e) Substitution of a "Certified" and/or "Listed" component with a component that is "Recognized" or "Accepted" is not permitted without evaluation and report updating.
 - f) Substitution of a "Recognized" and/or "Accepted" component by one that is not CSA Certified is not permitted without a proper evaluation as well as a report update because the Conditions of

Acceptance of the original component may be different than the Conditions of Acceptance of the substitute component.

TEST ITEM PARTICULARS:	
Classification of use by..... :	Instructed person
Supply Connection..... :	External Circuit - not Mains connected - <input checked="" type="checkbox"/> ES1
Considered current rating of protective device..... :	30A (external fuse)
Supply % Tolerance :	Not mains connected
Pollution degree (PD) :	PD 2
Manufacturer’s specified maxium operating ambient :	Refer to Derating Chart
IP protection class :	IPX0
Altitude during operation (m) :	5000 m
Mass of equipment (kg) :	0.0195 kg

General product information

Product Description:

The subject equipment is a component power supply for use in AV and ITE.

The subject Component is a DC-DC converter with ES1 outputs.

In the model designation DCM3717S60x13yyTNz:

- “DCM” stands for DC-DC Converter Module.
- “3717” stands for package size 37 x 17 (mm).
- “S” stands for Surface Mount package type.
- The x character stands for nominal input voltage:
 - When x = D, denoting input voltage 54Vdc;
 - When x = E, denoting input voltage 54Vdc.
- The yy characters stand for max. output current & power.
 - yy = G5 (61.5A max., 750W max.)
 - yy = K0 (82A max., 1000W max.)
- “T” stands for max. case temperature (-40°C to 100°C).
- “N” stands for Non-isolated.
- The z character stands for option/features not affecting ratings or safety.

Model Differences:

See “Product Description” above.

Ratings and principal characteristics

See “Attachment 2” for Output Power Derating

**Table of critical components removed
due to confidential information**

TEST HISTORY

The subject equipment was found to be in compliance with the following tests during the evaluation of the referenced report edition(s).

Project 80189452 (Edition 1):

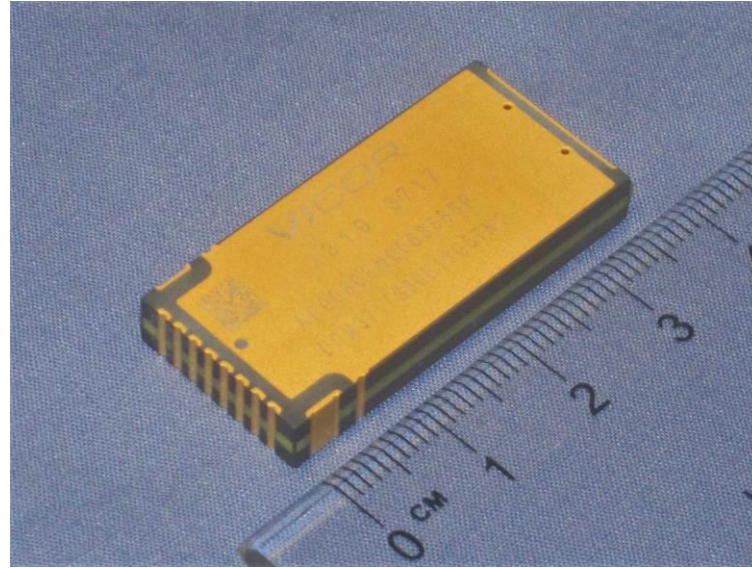
See TUV CB Report # 72192409-100 (CB Certificate # DE 3 ITAV1893 dated 2024-01-30) for all test results.

Construction Review:

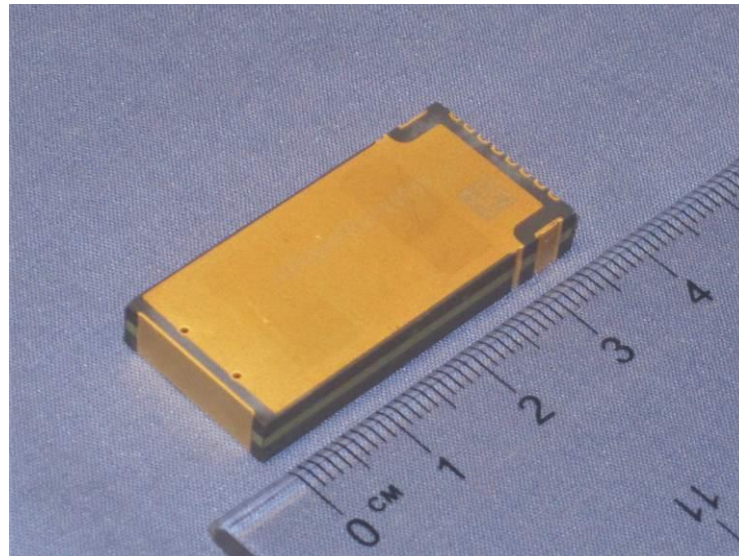
Construction review performed with satisfactory results in IEC 62368-1: 2018 TUV CB Report # 72192409-100 (CB Certificate # DE 3 ITAV1893 dated 2024-01-30).

---End of Report---

DCM3717 Top



DCM3717 Bottom



Marking Label



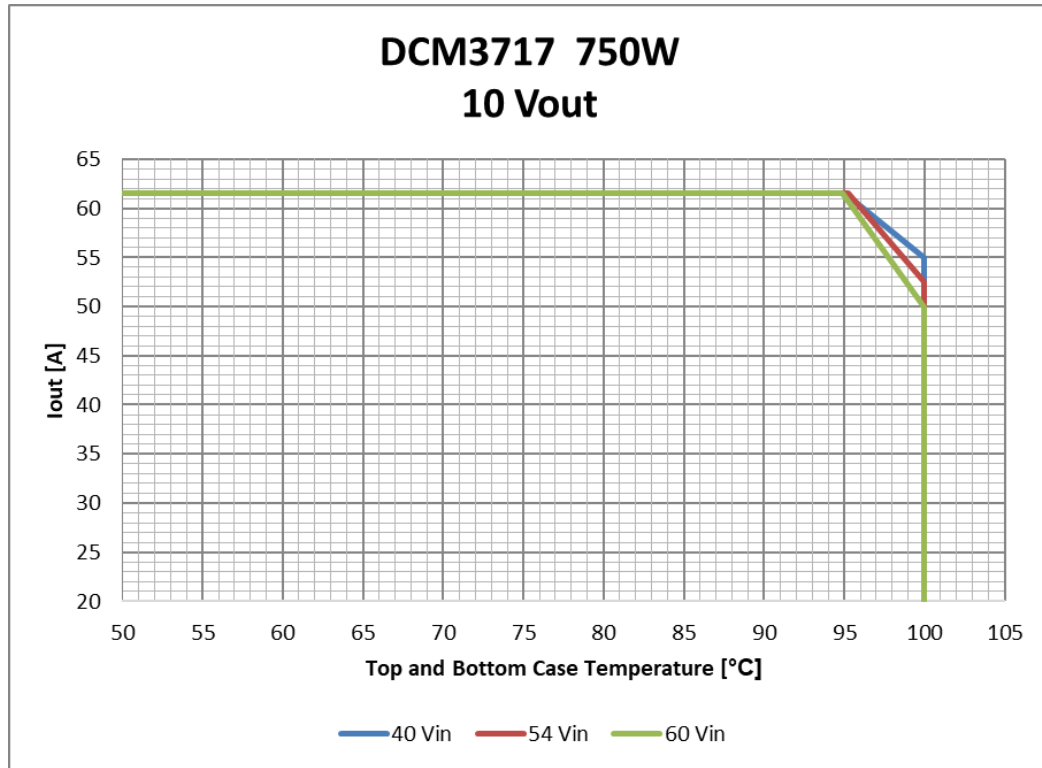
Note:

The label appears on the bag/packaging. Agency markings are only on the label and not on the product.

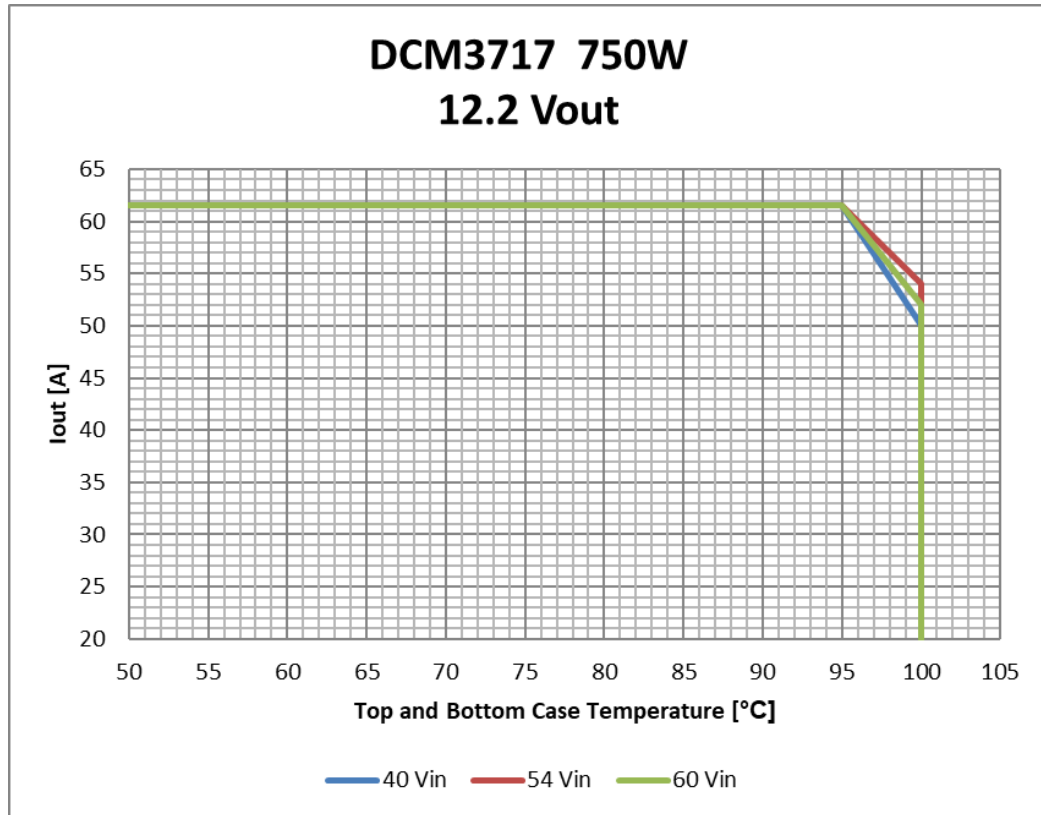
Thermal Derating Curves

Attachment contains

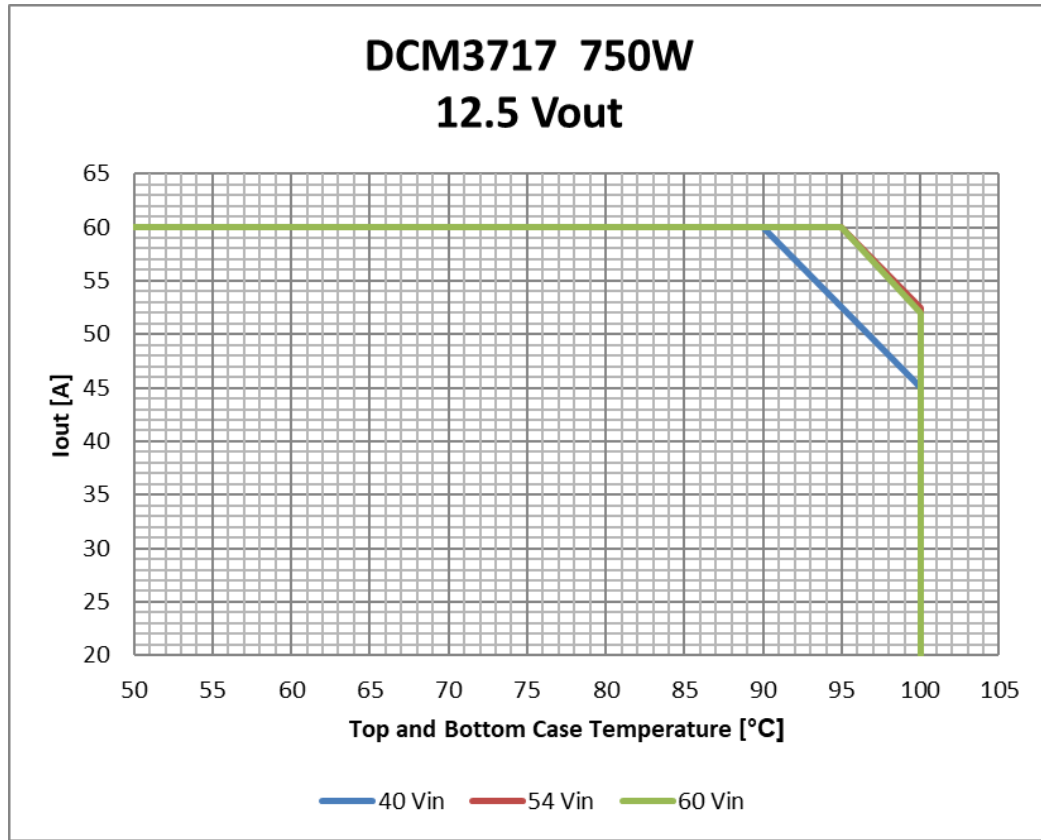
Total:	13 pages
Cover page:	1 page
750W Derating Curves:	6 pages
1000W Derating Curves:	6 pages



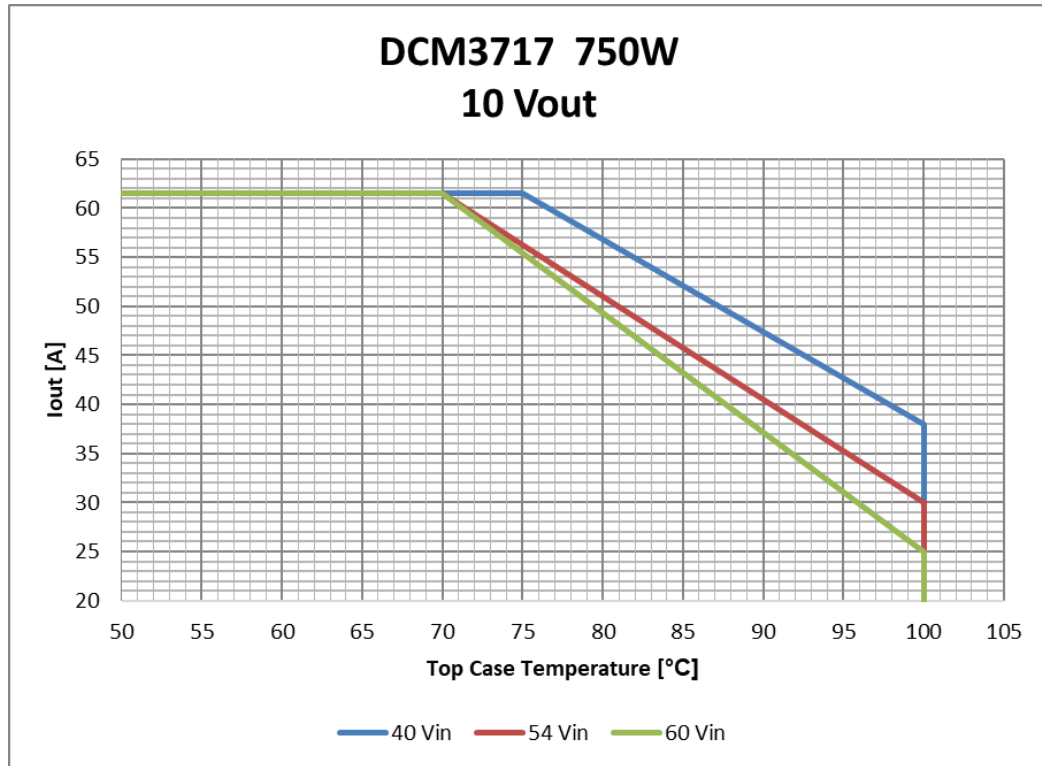
Double Sided Cooling Test Points						
Test#	Vin (V)	Vout (V)	Iout (A)	Pout (W)	Top (°C)	Bot (°C)
1	40	10	61.5	615	95	95
2	54	10	61.5	615	95	95
3	60	10	61.5	615	95	95
10	40	10	55.0	550	100	100
11	54	10	52.5	525	100	100
12	60	10	50.0	500	100	100



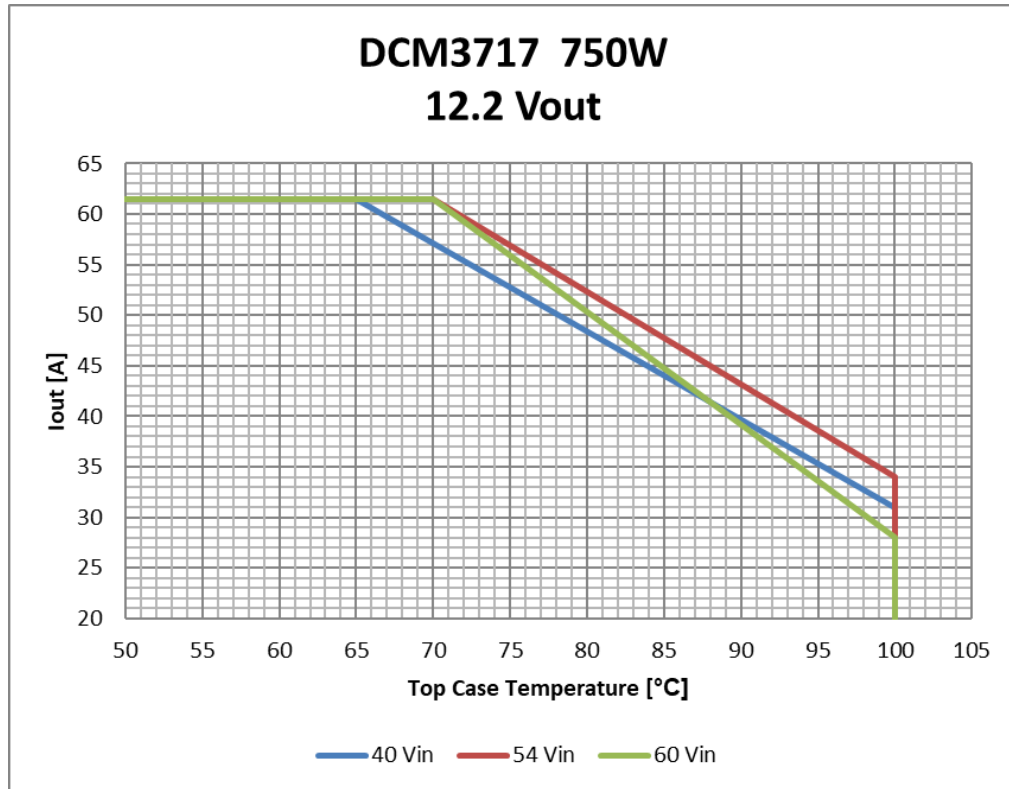
Double Sided Cooling Test Points						
Test#	Vin (V)	Vout (V)	Iout (A)	Pout (W)	Top (°C)	Bot (°C)
4	40	12.2	61.5	750	95	95
5	54	12.2	61.5	750	95	95
6	60	12.2	61.5	750	95	95
13	40	12.2	50.0	610	100	100
14	54	12.2	54.0	658	100	100
15	60	12.2	52.0	634	100	100



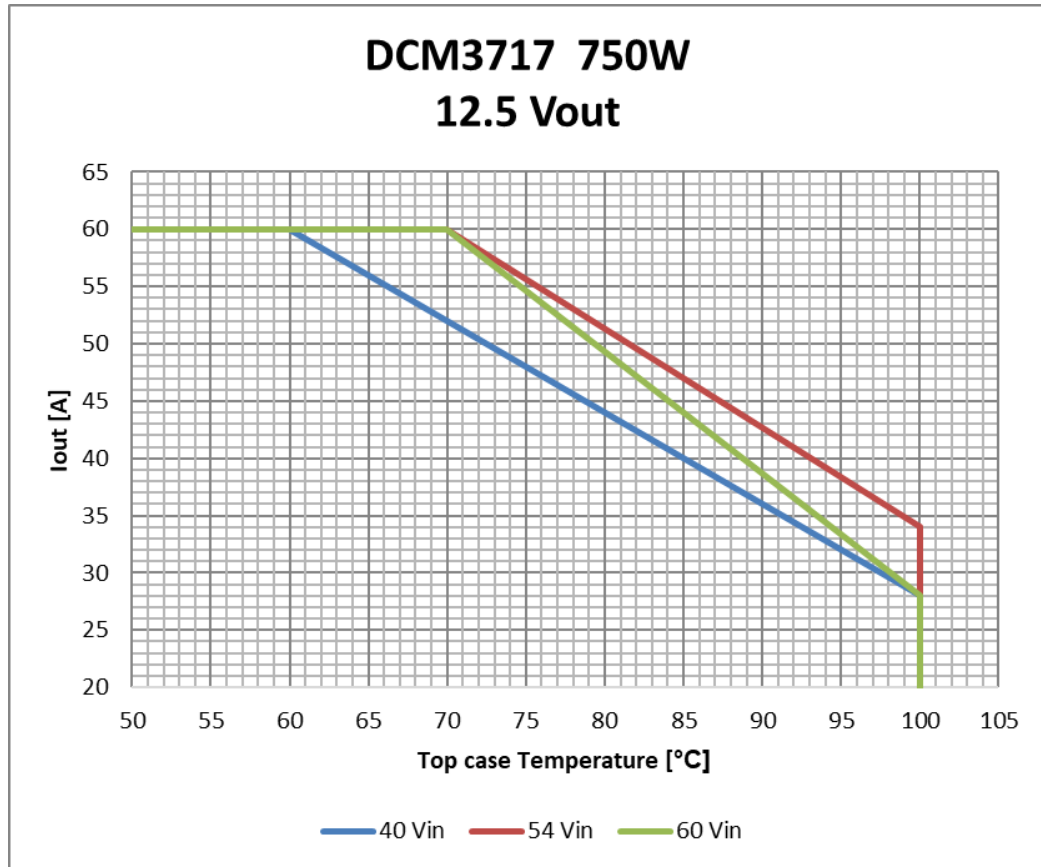
Double Sided Cooling Test Points						
Test#	Vin (V)	Vout (V)	Iout (A)	Pout (W)	Top (°C)	Bot (°C)
7	40	12.5	60.0	750	90	90
8	54	12.5	60.0	750	95	95
9	60	12.5	60.0	750	95	95
16	40	12.5	45.0	562	100	100
17	54	12.5	52.5	656	100	100
18	60	12.5	52.0	650	100	100



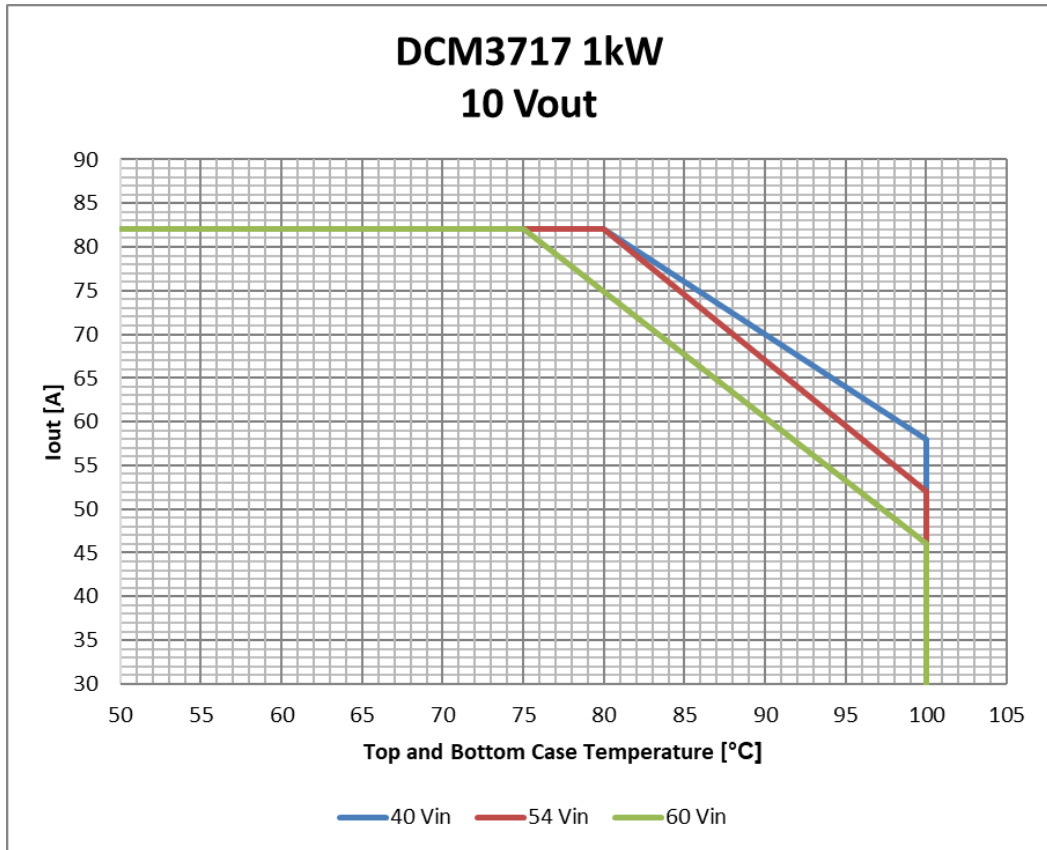
Single Sided Cooling Test Points						
Test#	Vin (V)	Vout (V)	Iout (A)	Pout (W)	Top (°C)	Bot (°C)
19	40	10	61.5	615	75	N/A
20	54	10	61.5	615	70	N/A
21	60	10	61.5	615	70	N/A
28	40	10	38.0	380	100	N/A
29	54	10	30.0	300	100	N/A
30	60	10	25.0	250	100	N/A



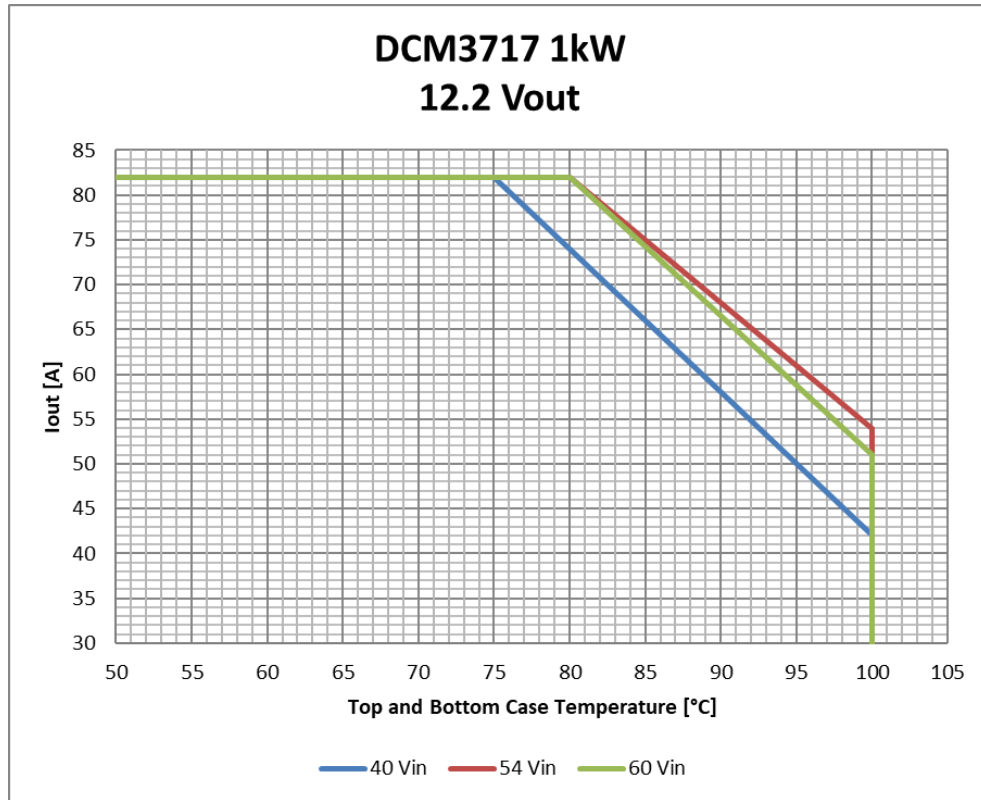
Single Sided Cooling Test Points						
Test#	Vin (V)	Vout (V)	Iout (A)	Pout (W)	Top (°C)	Bot (°C)
22	40	12.2	61.5	750	65	N/A
23	54	12.2	61.5	750	70	N/A
24	60	12.2	61.5	750	70	N/A
31	40	12.2	31.0	378	100	N/A
32	54	12.2	34.0	414	100	N/A
33	60	12.2	28.0	341	100	N/A



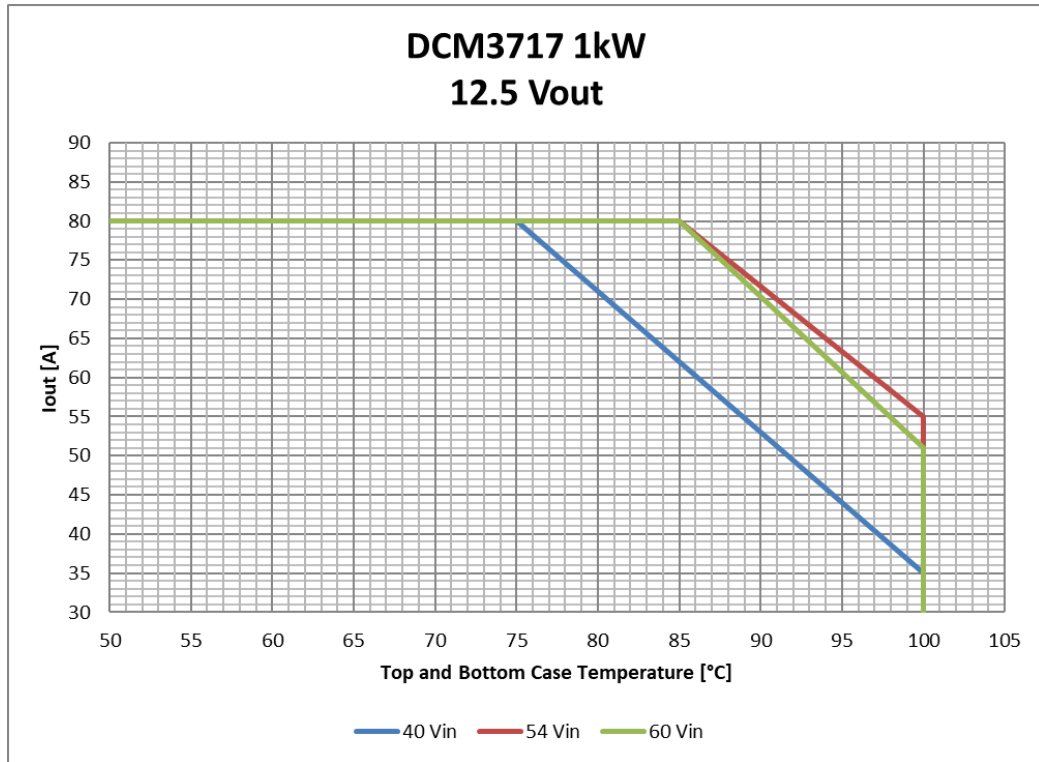
Single Sided Cooling Test Points						
Test#	Vin (V)	Vout (V)	Iout (A)	Pout (W)	Top (°C)	Bot (°C)
25	40	12.5	60	750	60	N/A
26	54	12.5	60	750	70	N/A
27	60	12.5	60	750	70	N/A
34	40	12.5	28	350	100	N/A
35	54	12.5	34	425	100	N/A
36	60	12.5	28	350	100	N/A



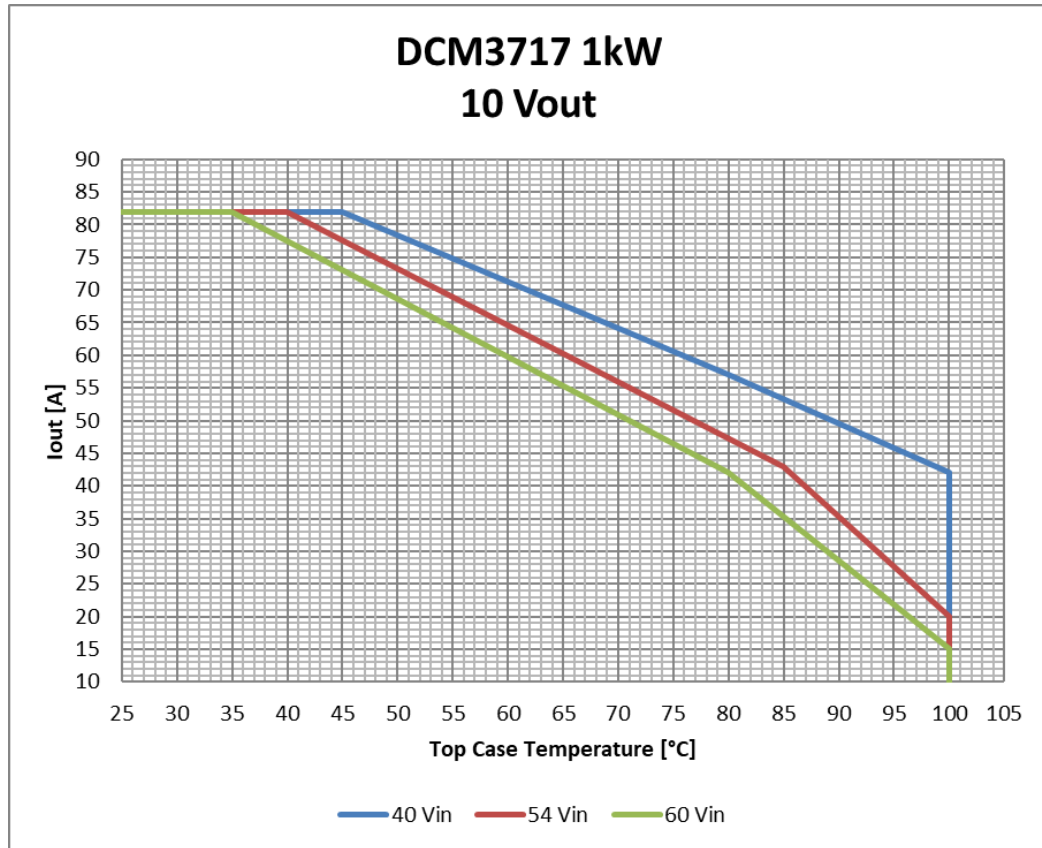
Double Sided Cooling Test Points						
Test#	Vin (V)	Vout (V)	Iout (A)	Pout (W)	Top (°C)	Bot (°C)
1	40	10	82	820	80	80
2	54	10	82	820	80	80
3	60	10	82	820	75	75
10	40	10	58	580	100	100
11	54	10	52	520	100	100
12	60	10	46	460	100	100



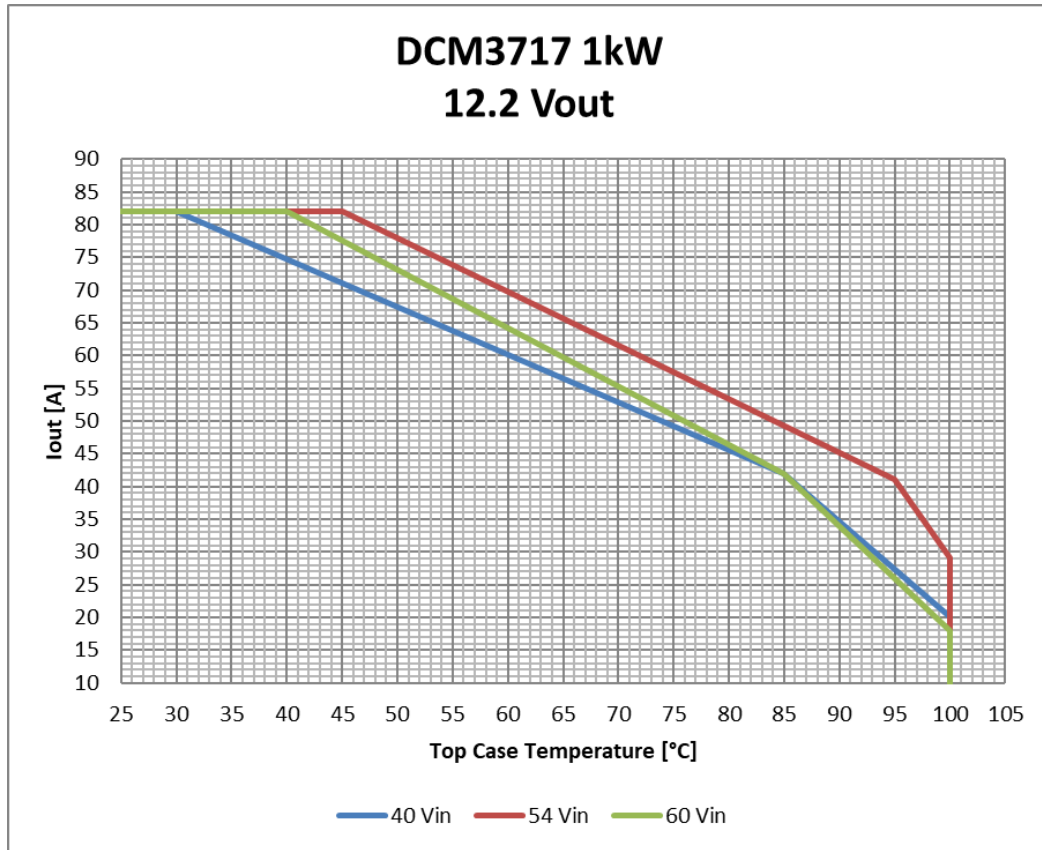
Double Sided Cooling Test Points						
Test#	Vin (V)	Vout (V)	Iout (A)	Pout (W)	Top (°C)	Bot (°C)
4	40	12.2	82	1000	75	75
5	54	12.2	82	1000	80	80
6	60	12.2	82	1000	80	80
13	40	12.2	42	512	100	100
14	54	12.2	54	659	100	100
15	60	12.2	51	622	100	100



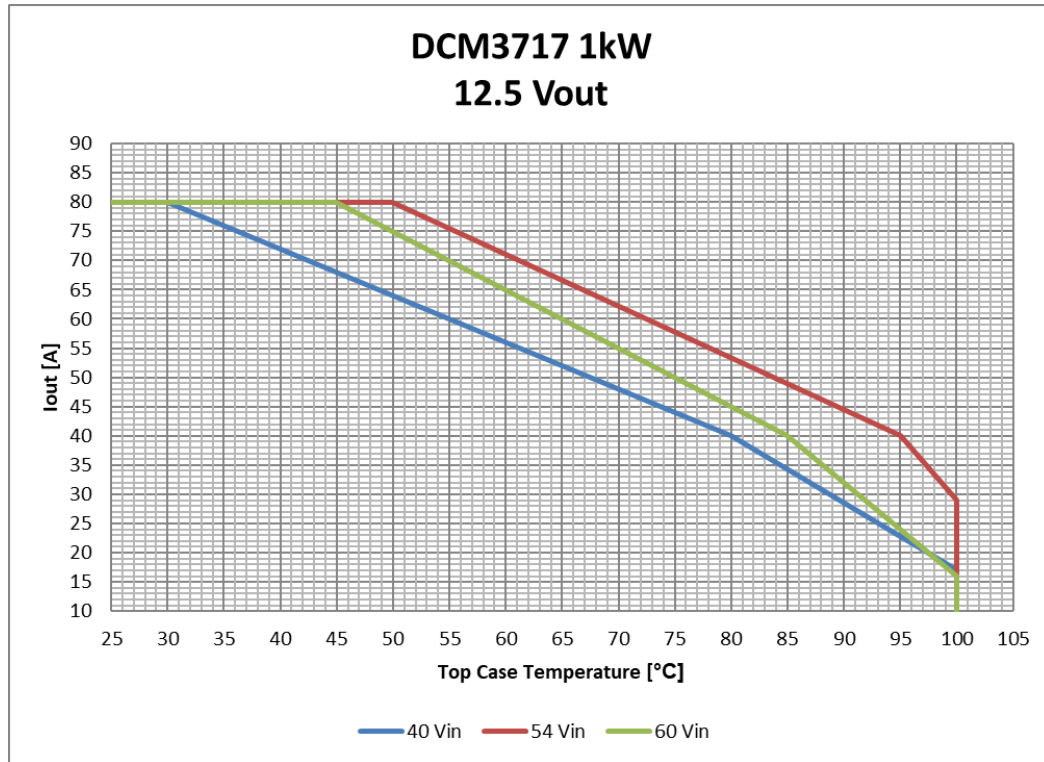
Double Sided Cooling Test Points						
Test#	Vin (V)	Vout (V)	Iout (A)	Pout (W)	Top (°C)	Bot (°C)
7	40	12.5	80	1000	75	75
8	54	12.5	80	1000	85	85
9	60	12.5	80	1000	85	85
16	40	12.5	35	438	100	100
17	54	12.5	55	687	100	100
18	60	12.5	51	638	100	100



Single Sided Cooling Test Points						
Test#	Vin (V)	Vout (V)	Iout (A)	Pout (W)	Top (°C)	Bot (°C)
19	40	10	82	820	45	N/A
20	54	10	82	820	40	N/A
21	60	10	82	820	35	N/A
28	40	10	57	570	80	N/A
29	54	10	43	430	85	N/A
30	60	10	42	420	80	N/A
37	40	10	42	420	100	N/A
38	54	10	20	200	100	N/A
39	60	10	15	150	100	N/A



Single Sided Cooling Test Points						
Test#	Vin (V)	Vout (V)	Iout (A)	Pout (W)	Top (°C)	Bot (°C)
22	40	12.2	82	1000	30	N/A
23	54	12.2	82	1000	45	N/A
24	60	12.2	82	1000	40	N/A
31	40	12.2	42	512	85	N/A
32	54	12.2	41	500	95	N/A
33	60	12.2	42	512	85	N/A
40	40	12.2	20	244	100	N/A
41	54	12.2	29	354	100	N/A
42	60	12.2	18	220	100	N/A



Single Sided Cooling Test Points						
Test#	Vin (V)	Vout (V)	Iout (A)	Pout (W)	Top (°C)	Bot (°C)
25	40	12.5	80	1000	30	N/A
26	54	12.5	80	1000	50	N/A
27	60	12.5	80	1000	45	N/A
34	40	12.5	40	500	80	N/A
35	54	12.5	40	500	95	N/A
36	60	12.5	40	500	85	N/A
43	40	12.5	17	213	100	N/A
44	54	12.5	29	363	100	N/A
45	60	12.5	16	200	100	N/A