Certificate of Compliance

Certificate: 70031776 **Master Contract:** 163595

Project: 70031776 **Date Issued:** May 5, 2015

Issued to: **GE Power Electronics, Imc.**
601 Shiloh Road,
Plano, TX 75074
USA
Attention: James Brown

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

C US

Issued by: A. Yeung, P. Eng.

PRODUCTS

CLASS 5311 07 – POWER SUPPLIES – Component Type (CSA 60950-1-07, 2nd Edition)
CLASS 5311 87 – POWER SUPPLIES – Component Type (CSA 60950-1-07, 2nd Edition/UL 60950-1, 2nd Edition) Certified To U.S. Standard

Power Distribution Panels:

Model		Input		Output	
		Volts	Amps	Volts	Amps (max)
J2012001– 11-inch deep					
1a)	L011y (y = P or E only)	42-58Vdc	400	42-58Vdc	400
1b)	L011y (y = contains B and/or L suffix)	42-58Vdc	300	42-58Vdc	300
1c)	L111, supplemental 30-position panel used with any other 11-inch deep panel	42-58Vdc	400	42-58Vdc	400

Model		Input		Output	
		Volts	Amps	Volts	Amps (max)
J2012001– 17-inch deep					
2a)	L017y (y = P or E only)	42-58Vdc	400	42-58Vdc	400
2b)	L017y (y = contains B and/or L suffix)	42-58Vdc	300	42-58Vdc	300
2c)	L117, supplemental 30-position panel used with any other 17-inch deep panel	42-58Vdc	400	42-58Vdc	400
2d)	L014y	42-58Vdc	250	42-58Vdc	250
2e)	Lx16y	42-58Vdc	250	42-58Vdc	250
Note: y = May be followed by suffix(es) denoting model options, B (Low Voltage Battery Disconnect, LVBD), and/or L (Low Voltage Load Disconnect, LVD), and P (Pulsar Plus Controller) or E (Pulsar Edge Controller)					

Certificate: 70031776 **Master Contract: 163595**

Project: 70031776 **Date Issued: May 5, 2015**

APPLICABLE REQUIREMENTS

CAN/CSA C22.2 No. 0-M - General Requirements - Canadian Electrical Code, Part II

CAN/CSA-C22.2 No. 60950-1-07, 2nd Ed. - Information Technology Equipment - Safety - Part 1: General Requirements (Bi-national Standard, with UL 60950-1-2011, 2nd Ed.)
Amendment 1: 2011 (MOD)

ANSI/UL Std No. 60950-1-2011, 2nd Ed. - Information Technology Equipment - Safety - Part 1: General Requirements

Supplement to Certificate of Compliance

Certificate: 70031776 **Master Contract: 163595**

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
70031776	May 5, 2015	Original Certification.

Descriptive Report and Test Results

MASTER CONTRACT: 163595
REPORT: 70031776
PROJECT: 70031776

Edition 1: May 5, 2015; Project 70031776 – Toronto
Issued by A. Yeung P. Eng

Contents:
Certificate of Compliance - Pages 1 to 2
Supplement to Certificate of Compliance – Page 1
Descriptive Report and Test Results – Pages 1 to 15
Photographs – Att. 1-1 to 1-8
Label Drawing – Att. 2-1
Insulators – Att. 3-1 to 3-8

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

PRODUCTS

CLASS 5311 07 - Power supplies - Component Type (CSA 60950-1-07, 2nd Edition)
CLASS 5311 87 - Power supplies - Component Type (UL 60950-1, 2nd Edition) (Certified to U.S. Standards, NRTL Program

Power Distribution Panels:

Model		Input		Output	
		Volts	Amps	Volts	Amps (max)
J2012001– 11-inch deep					
1a)	L011y (y = P or E only)	42-58Vdc	400	42-58Vdc	400
1b)	L011y (y = contains B and/or L suffix)	42-58Vdc	300	42-58Vdc	300
1c)	L111, supplemental 30-position panel used with any other 11-inch deep panel	42-58Vdc	400	42-58Vdc	400
J2012001– 17-inch deep					
2a)	L017y (y = P or E only)	42-58Vdc	400	42-58Vdc	400
2b)	L017y (y = contains B and/or L suffix)	42-58Vdc	300	42-58Vdc	300
2c)	L117, supplemental 30-position panel used with any other 17-inch deep panel	42-58Vdc	400	42-58Vdc	400
2d)	L014y	42-58Vdc	250	42-58Vdc	250
2e)	Lx16y	42-58Vdc	250	42-58Vdc	250
Note: y = May be followed by suffix(es) denoting model options, B (Low Voltage Battery Disconnect, LVBD), and/or L (Low Voltage Load Disconnect, LVD), and P (Pulsar Plus Controller) or E (Pulsar Edge Controller)					

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 60950-1-07, Amendment 1:2011 (MOD) - Information Technology Equipment - Safety - Part 1:General Requirements
ANSL/UL 60950-1-2011, 2nd Edition - Information Technology Equipment - Safety - Part 1: General Requirements

ENGINEERING CONSIDERATIONS

Special Considerations - The following items are considerations that were used for evaluating these products.

1. cCSAus indicates the subject power supply shelves have been investigated to the U.S. and Canadian (Bi-National) Standard for Information Technology Equipment - Safety - Part 1: General Requirements, CAN/CSA C22.2 No. 60950-1-07, Amendment 1:2011 (MOD) and ANSI/UL60950-1-2011, Second Edition, dated December 19, 2011.
2. The subject product has been judged on the basis of the required spacings in the U.S. and Canadian (Bi-National) Standard for Information Technology Equipment – Safety – Part 1: General Requirements, CAN/CSA C22.2 No. 60950-1-07, Amendment 1:2011 (MOD) and ANSI/UL60950-1-2011, Second Edition, dated December 19, 2011, Sub-Clause 2.10, which would cover the component itself, if submitted for Listing.
3. The subject product shall be installed in compliance with the enclosure, mounting, spacing, casualty and segregation requirements of the end-use application.
4. The Lx11 and Lx17 distribution panels, without any LVD contactors, have been evaluated for use at the maximum ambient temperature of 45°C, indischarge mode, at 400Amax, linear de-rating to 300Amax at 65°C and 200Amax at 75°C (for models without “B” or “L” suffix).
5. The Lx11 and Lx17 distribution panels, with LVD contactors, have been evaluated for use at a maximum ambient temperature of 45°C, in discharge mode, at 300Amax , linear de-rating to 250Amax at 65°C and 200Amax at 75°C (for models with “B” or “L” suffix)
6. The subject product has been evaluated for use in a Pollution Degree 2 environment.
7. The subject product is: for building-in, Class I (earthed), Hazardous energy SELV output field wired by qualified service personnel, intended for use on a TN-S power system.
8. Disconnect device is building branch circuit breaker or end-use equipment disconnect means.
9. The output circuit is SELV and available power exceeds 240VA. Consideration should be taken at the end product to restrict the hazardous energy of the output from operator access.
10. The subject product shall be located within an overall enclosure so that non-insulated current-carrying parts are suitably enclosed.
11. Consideration should be given to performing a temperature test in the end-use application.
12. The isolation between DC (SELV circuits) uninsulated bus bars and chassis have been investigated as Functional insulation, but at a clearance and creepage spacing of 12.7 mm. The spacing from V+ to V- is Clearance 0.57* mm and Creepage 1.25 mm with Function insulation. The spacing from V+ to Chassis (EGND) is Clearance 0.57* mm and Creepage 1.25 mm with Function insulation.

13. The Lx14 and Lx16 distribution panels have been evaluated for use at a maximum ambient temperature of 45°C, in discharge mode, at 250Amax, linear de-rating to 200A at 65°C and150A at 75°C (for models with or without “B” or “L” suffix).
14. The secondary output of the distribution panels is SELV at hazardous energy levels. The controller output is SELV not at hazardous energy levels. Consideration shall be taken in the end product to restrict the hazardous energy from operator access.
15. The maximum allowed rating, per slot, for single-poled DIN-style DC circuit breakers shall be 63A. Multi-poled breakers up to the 200A four-poled breaker may be used. All breakers shall be derated to a maximum loading of 60% charge (L1 drain) and 80% discharge (L2 drain).
16. Evaluated to the clearance requirements of 3000m altitude in accordance with IEC 60664-1.
17. The equipment is intended for installation in restricted access areas (dedicated equipment room, closets, or the like) in accordance with paragraphs 110.18, 110.26, and 110.27 of the U.S. National Electric Code (NEC), NFPA 70, and pursuant to applicable local codes

The following appear on an adhesive name plate:

(a) Submitter's name, registered trade name or trademark, or File Number "LR54761", or Master Contract Number 163595 adjacent to the CSA Monogram, with the C-US (or NRTL/C) designation;

(b) Model designation;

(c) Electrical input rating in volts, hertz and amperes for products provided with an AC or DC Mains;

(d) Date of Manufacture, Serial number or date code traceable to month and year of manufacture;

(e) The CSA Monogram and an appropriate indicator as applicable;
For Use in Canada and the U.S.: CSA Monogram, "NRTL/C" or "C US" indicator and the optional indicators "CSA 60950-1" and "ANSI/UL 60950-1";

(f) MULTIPLE SOURCES OF AC MAY BE PRESENT REMOVE ALL INPUTS AND OUTPUTS PRIOR TO SERVICING or sentence with similar meaning is provided (required only for models with an AC input rating).

(g) Warning – High Leakage Current Earth Connection Essential Before Connecting Supply (required only for models with an AC input rating).

ALTERATIONS

Markings as described above.

FACTORY TESTS

Production-Line Dielectric Voltage-Withstand Test:

Only ac values are specified. As an alternative, the equivalent dc voltage (1.414 times the ac voltage) may be used.

The factory test may be done at existing room temperature.

Warning:
The factory test(s) specified may present a hazard of injury to personnel and/or property and should only be performed by persons knowledgeable of such hazards and under conditions designed to minimize the possibility of injury.

For Grounded Units (Class I) Rated Above 130V and Up To 250V:
The equipment at the conclusion of manufacture, before shipment, shall withstand for one to four seconds, without breakdown, the application of 1500V ac between live parts and exposed non-current-carrying metal part.

For Grounded Units (Class I) Rated Up To 60Vdc:
The equipment at the conclusion of manufacture, before shipment, shall withstand for one to four seconds, without breakdown, the application of 500V ac between input live parts and exposed non-current-carrying metal part.

Production-Line Earthing-Continuity Test / Protective Earthing Connection:

Each unit that has a power supply cord with earthing conductor shall be tested, as a routine production-line test, to determine that earthing continuity is provided between the earthing blade or pin of the attachment plug and the accessible dead metal parts of the unit that are likely to become energized.

Any indicating device (an ohmmeter, a battery and buzzer combination or the like) can be used to determine compliance. Only a single test need be made if the accessible metal selected is conductively connected to all other accessible metal.

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 [N/A]

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

DESCRIPTION

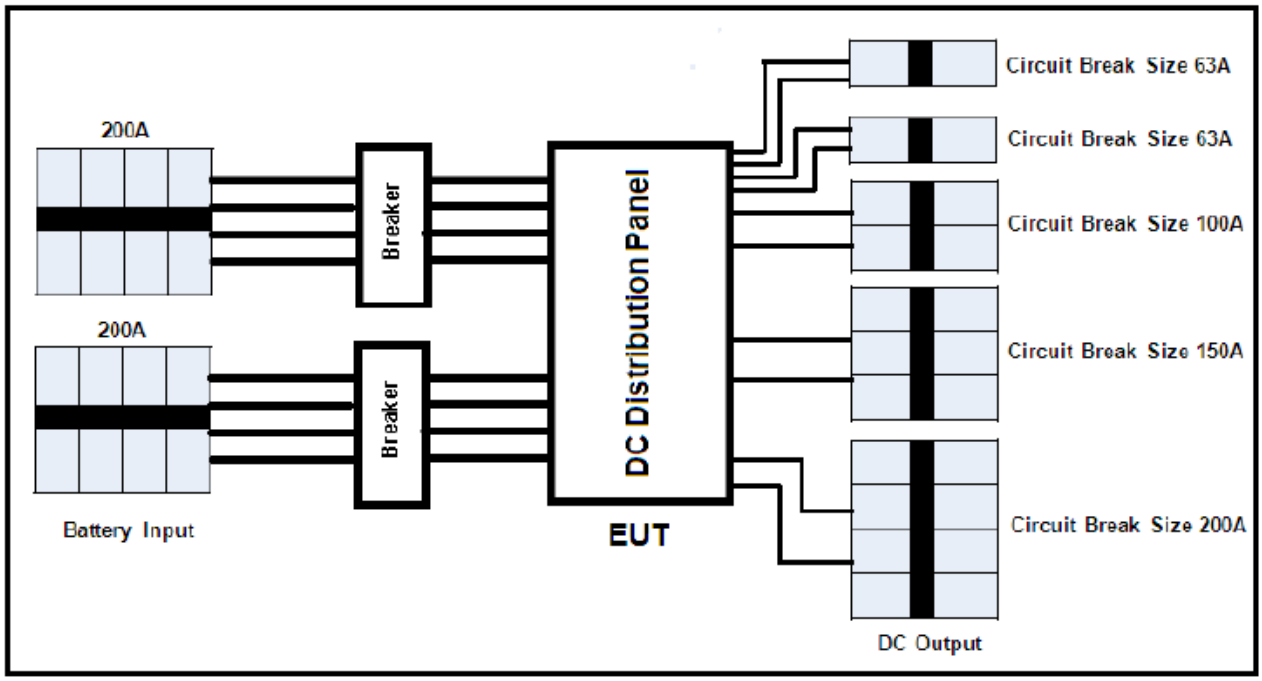
Notes:

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 an organization (accredited by OSHA/SCC), 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 one "Recognized" and/or "Accepted" by an organization (accredited by OSHA/SCC), for the same application, providing the applicable country identifiers are included, the component is **also** CSA Certified, the requirements in item "d" below are complied with and any "conditions of suitability" for the component (as recorded in this descriptive report) are 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.

The subject models covered by this report have been evaluated to the spacing requirements for basic insulation between input and output circuits/earth, per the requirements of ANSI/UL 60950-1-2011, CAN/CSA C22.2 No. 60950-1-07, Amendment 1:2011 (MOD), EN 60950-1:2006 / A11:2009 / A1:2010 / A12:2011 and IEC 60950-1:2005 +A1:2009. They are rack-mounted DC distribution panels for use in telecommunications centralized DC power distribution systems, as illustrated by the block diagram below. The panels may be located in cabinets or racks in restricted access locations. All the panels are 3U in height and may be stacked together to provide more output channels. All panels have rear input connections to interface with rectifier shelves that may be mounted within the same cabinets or racks. Only the J2012001 L011y and L111 panels are 11 inches deep. All other panel models are 17 inches deep. All the panels are similar in construction, using up to three set of breaker positions - Battery, Priority Load, and Non-priority Load. If the panel has the L (LVLD) option, the non-priority load outputs are deactivated in the event that the battery input is employed, to conserve power. If the panel has the B (LVBD) option, the battery inputs are deactivated in the event that the battery voltage drops below 44V. The main differences between the panel models are the number of breaker channels available for each breaker position, the controller model within panel, and if the LVBD, LVLD, both, or none are included.

Panel characteristics are shown in the table as below:

Block Diagram:



Model Difference:

J2012001	Battery Breaker Positions	Priority Load Breaker Positions	Non-priority Load Breaker Positions	LVBD	LVLD	Ratings Input / Output
11" Deep 3U Distribution Panels						
L011	8	0	20	No	No	42~58Vdc, 400Amax at 45°C
L011B	8	0	20	Yes	No	42~58Vdc, 300Amax at 45°C
L011L	8	8	12	No	Yes	42~58Vdc, 300Amax at 45°C
L011BL	8	8	12	Yes	Yes	42~58Vdc, 300Amax at 45°C
L111	0	0	30	No	No	42~58Vdc, 400Amax at 45°C
17" Deep 3U Distribution Panels						
L014E	4	0	24	No	No	42~58Vdc, 250Amax at 45°C
L014BE	4	0	24	Yes	No	42~58Vdc, 250Amax at 45°C
L014LE	4	4	20	No	Yes	42~58Vdc, 250Amax at 45°C
L014BLE	4	4	20	Yes	Yes	42~58Vdc, 250Amax at 45°C
L016E	8	0	20	No	No	42~58Vdc, 250Amax at 45°C
L016BE	8	0	20	Yes	No	42~58Vdc, 250Amax at 45°C
L016LE	8	8	12	No	Yes	42~58Vdc, 250Amax at 45°C
L016BLE	8	8	12	Yes	Yes	42~58Vdc, 250Amax at 45°C
L017E	8	0	20	No	No	42~58Vdc, 400Amax at 45°C
L017BE	8	0	20	Yes	No	42~58Vdc, 300Amax at 45°C
L017LE	8	8	12	No	Yes	42~58Vdc, 300Amax at 45°C
L017BLE	8	8	12	Yes	Yes	42~58Vdc, 300Amax at 45°C
L017P	8	0	20	No	No	42~58Vdc, 400Amax at 45°C
L017BP	8	0	20	Yes	No	42~58Vdc, 300Amax at 45°C
L017LP	8	8	12	No	Yes	42~58Vdc, 300Amax at 45°C
L017BLP	8	8	12	Yes	Yes	42~58Vdc, 300Amax at 45°C
L117	0	0	30	No	No	42~58Vdc, 400Amax at 45°C

TEST

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

Note:
The following clauses reference CSA standard CAN/CSA-C22.2 No. 60950-1-03 and UL standard ANSI/UL 60950-1 1st edition.

Project No. 70031776 (Edition 1)

LIST OF TESTS to CSA 60950-1-03 ed 1 and UL 60950-1 ed 1

Clause	Description Tests	C=conducted and Pass W=waived N=not applicable	comments
2.2.2	Voltages under normal conditions (V)	Outputs do not exceed SELV limit.	Pass
2.2.3	Voltages under fault conditions (V)	The output voltage did not exceed 60Vdc	Pass
2.2.4	Connection of SELV circuits to other circuits	SELV circuits are to be connected only to other SELV circuits or safety earth.	Pass
2.10.2	Determination of working voltage	Input / Output voltages are less than 60 Vdc and classified as SELV. See appeneded table 2.10.3 and 2.10.4	Pass
2.10.2.3	Peak working voltage	42.4Vpk. See appended table 2.10.3 and 2.10.4	Pass
2.10.3 & 2.10.4	Clearances / Creepage Distances Measurements	See results below	Pass
4.5.1	Heating Test	See results below	Pass
5.2	Electric Strength Test, Impulse tests and surge tests	See results below	Pass

Note: The above tests are in reference to TUV CB report 3140661.002

2.10.3 and 2.10.4	**TABLE: Clearance and creepage distance measurements**					P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
Field Wiring terminals, V+ to V-: Basic insulation	42.4	60	12.7*	>12.7	12.7	>12.7
Field Wiring terminals, V+ and V- to Chassis (EGND): Basic insulation	42.4	60	12.7*	>12.7	12.7	>12.7
V+ terminals to V- terminals: Functional insulation	42.4	60	0.57*		1.25	
V+ terminals to Chassis: Functional insulation	42.4	60	0.57*		1.25	
V- terminals to Chassis (EGND): Functional insulation	42.4	60	0.57*		1.25	
Supplementary information: The clearance distance is based on Table 2M of the IEC60950-1 at 1500V transient and Pollution Degree 2 for minimum clearances. The creepage distances are based on Table 2N of the IEC60950-1 for minimum creepage distances and Pollution Degree 2 and IIIb for equipment subjected to long-term stresses. *Evaluated to the clearance requirements of 3000m altitude application in accordance with IEC60664-1.						

2.10.5	**TABLE: Distance through insulation measurements**				N/A
Distance through insulation (DTI) at/of:	U peak (V)	U rms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
Secondary to Secondary / Secondary to Earth, Functional	42.4	707Vdc	Not required	N/A	N/A
Supplementary information:					

4.5	TABLE: Thermal requirements for **J2012001 L016BLE**							P
Supply voltage (V)	54.5 V	54.5 V	54.5 V	54.5 V	54.5 V	54.5 V	—	
Ambient T_{min} (°C)	45.4	64.6	73.9	45.0	64.0	73.3	—	
Ambient T_{max} (°C)	47.0	66.1	75.2	45.5	65.9	75.3	—	
Maximum measured temperature T of part/at:	T (°C)						Allowed T_{max} (°C)	Insulation Class / Max Rated Temp.
	Test A	Test B	Test C	Test D	Test E	Test F		
	Charge	Charge	Charge	Discharge	Discharge	Discharge	Charge / Discharge	
1. Ambient	47.0	66.1	75.2	45.5	65.9	75.2	----	
2. Batt Breaker 1 Load	58.0	74.9	82.6	91.5	83.7	86.0	90/105	
3. Batt Breaker 1 Body	54.1	72.7	80.8	71.5	76.1	81.5	125/125	
4. Batt Breaker 1 Line	53.1	70.5	78.9	74.7	77.9	82.1	90/105	
5. Batt Breaker 1 RTN	57.8	73.5	81.4	79.8	83.9	85.8	90/105	
6. Pri CB3 Load	70.6	80.3	87.7	87.8	81.2	85.2	90/105	
7. Pri CB3 Body	70.2	81.0	93.2	105.7	89.7	92.4	125/125	
8. Pri CB3 Line	77.9	84.0	87.9	102.6	96.1	101.4	90/105	
9. Pri CB3 RTN	63.3	75.0	82.1	67.6	80.4	84.1	90/105	
10. NonPri CB3 Load	78.6	86.1	89.8	52.3	74.3	81.9	90/105	
11. NonPri CB3 Body	85.6	100.9	105.3	51.2	87.3	95.6	125/125	
12. NonPri CB3 Line	68.6	82.9	89.8	50.0	93.2	101.7	90/105	
13. NonPri CB3 RTN	60.7	73.6	81.2	58.8	78.0	82.3	90/105	
14. Load Con Output	82.1	86.8	89.1	55.8	75.4	82.3	90/105	
15. Load Con Coil	65.9	75.9	82.8	53.5	74.2	80.6	130/130	
16. Load Con Input	75.0	82.2	86.9	73.9	79.9	84.2	90/105	
17. Batt Con Output	67.2	78.1	84.4	97.9	86.2	87.6	90/105	
18. Batt Con Coil	63.2	77.2	84.2	66.5	73.6	80.2	130/130	
19. Batt Con Input	60.7	75.8	83.1	104.1	87.9	88.7	90/105	
20. Batt Shunt Line	58.3	73.7	81.2	82.7	85.2	86.3	90/105	
21. Batt Shunt Load	63.5	75.2	82.0	71.2	82.9	85.4	90/105	
22. RTN Bus/Bolt	64.0	75.3	82.2	66.7	80.1	83.6	90/105	
23. -48V Bus/Bolt	69.7	79.2	86.1	82.6	80.9	85.0	90/105	
24. RTN Bus /Shelf	67.8	77.8	84.7	54.3	72.4	78.8	90/105	

4.5	TABLE: Thermal requirements for **J2012001 L016BLE**							P
Supply voltage (V)	54.5 V	54.5 V	54.5 V	54.5 V	54.5 V	54.5 V	—	
Ambient T_{min} (°C)	45.4	64.6	73.9	45.0	64.0	73.3	—	
Ambient T_{max} (°C)	47.0	66.1	75.2	45.5	65.9	75.3	—	
Maximum measured temperature T of part/at:	T (°C)						Allowed T_{max} (°C)	Insulation Class / Max Rated Temp.
	Test A	Test B	Test C	Test D	Test E	Test F		
	Charge	Charge	Charge	Discharge	Discharge	Discharge	Charge / Discharge	
25. -48V Bus/Bolt	69.7	79.2	86.1	82.6	80.9	85.0	90/105	
26. RTN Bus /Shelf	67.8	77.8	84.7	54.3	72.4	78.8	90/105	
27. Controller T2	100.9	116.5	125.0	96.9	109.7	118.7	130/130	Class F
26. Rec1 T300	62.5	76.8	84.4	49.4	68.6	76.1	130/130	Class F
27. Rec1 T350	68.0	79.6	86.8	50.8	69.7	76.3	130/130	Class F
28. Vin/Vout	54.4 V	54.3 V	54.2 V	53.8 V	54.0 V	54.1 V	----	
29. Battery Breaker 1	n/a	n/a	n/a	125A	100A	75A	----	
30. Battery Breaker 2	n/a	n/a	n/a	125A	100A	75A	----	
31. Primary Load Breaker 1	0A	0A	0A	50A	50A	0A	----	
32. Primary Load Breaker 2	0A	0A	0A	50A	50A	50A	----	
33. Primary Load Breaker 3	50A	40A	40A	50A	50A	50A	----	
34. Primary Load Breaker 4	0A	0A	0A	50A	0A	0A	----	
35. Primary Load Breaker 5	0A	0A	0A	50A	0A	0A	----	
36. Non-Priority Load Breaker 1	40A	40A	40A	0A	0A	0A	----	
37. Non-Priority Load Breaker 2	40A	40A	40A	0A	0A	0A	----	
38. Non-Priority Load Breaker 3	40A	40A	40A	0A	50A	50A	----	
39. Non-Priority Load Breaker 4	40A	40A	0A	0A	0A	0A	----	
40. Non-Priority Load Breaker 5	40A	0A	0A	0A	0A	0A	----	
41. Iin/Iout Total	250 A	200 A	160 A	250 A	200 A	150 A	----	

Supplementary information:

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)		T (°C)	Allowed T_{max} (°C)	Insulation class
N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A

Supplementary information:

5.2	**TABLE: Electric strength tests, impulse tests and voltage surge tests for J2012001 L016BLE .**		P
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
SELV secondary to earthed chassis (functional)	DC	707 V	No

Supplementary information:

- The spacing and insulation withstood the applied potential for a period of one minute without flashover or breakdown.
- Sample was preheated to 75°C for two hours prior to testing.
- Cutoff Current - 10 mA; Scale – 5KV, 1.5KV.

The details of the test results were on file of Project No. 70031776 at CSA Group, Toronto