

**CANADIAN SPACE AGENCY  
ELECTRICAL TEST SHEET**

**BUS BAR - UP TO 750V**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**GENERAL INFORMATION**

Equipment ID:		Manufacturer:	
Rated Current:		Bus Type	
Rated Voltage:		Bus Plating:	
No. of bars per phase			
Non-Ventilated <input type="checkbox"/> Ventilated <input type="checkbox"/> Outdoor <input type="checkbox"/> Indoor <input type="checkbox"/>			

**ELECTRICAL TEST DATA**

**Test Conditions**

Ambient Temperature:	20	Relative humidity:	
Correction Factor	1.00		

**Insulation Resistance Test (Megohms)**  
Tolerance: 100 Megohms minimum (Table 100.1)

Test Voltage at kVDC	Phase A to Ground		Phase B to Ground		Phase C to Ground		Neutral to Ground	
	Measured	Corrected	Measured	Corrected	Measured	Corrected	Measured	Corrected
30 seconds		0		0		0		0
1 minute		0		0		0		0
2 minutes		0		0		0		0
3 minutes		0		0		0		0
4 minutes		0		0		0		0
5 minutes		0		0		0		0
6 minutes		0		0		0		0
7 minutes		0		0		0		0
8 minutes		0		0		0		0
9 minutes		0		0		0		0
10 minutes		0		0		0		0
<b>Dielectric Absorption</b> (1 min/30 sec)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Tolerance: Megohms minimum								
<b>Polarization Index</b> (10 min/1 min)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Tolerance: Megohms minimum								

**BUS BAR - UP TO 750V**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**VISUAL INSPECTION DATA**Legend: **G** = good **F**= fair **P** = poor **C** = corrected **N** = needs repair **NA** = not applicable **NS** = not in scope

<b>INSPECTIONS</b>	<b>STATUS</b>	<b>COMMENTS</b>
Physical Condition		
Bolted connection resistance		
Torqued Bolted Connections		
Installation		
Supports		
Identification of phasing		
Insulation		

ADDITIONAL INFO:

**CANADIAN SPACE AGENCY  
ELECTRICAL TEST SHEET**

**CIRCUIT BREAKER - LOW VOLTAGE, AIR**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**GENERAL INFORMATION**

Equipment ID:			
Manufacturer:		Trip Rating:	
Type:		Frame Rating:	
Model/Catalog#:		System Voltage:	
Serial #:		Rated Voltage:	
Year:		Interrupting Capacity	
Breaker rating:	80% <input type="checkbox"/> 100% <input type="checkbox"/>		
Mounting:	Fixed mount <input type="checkbox"/> Draw-out <input type="checkbox"/>		
Trip Type:	Thermomagnetic <input type="checkbox"/> Solid State Relay <input type="checkbox"/>		

**Limiter Information**

Manufacturer:		Catalogue#:	
Rated Amps:		Breaker Interrupt capacity equipped with limiter:	

**Thermomagnetic Trip Unit Information**

Instantaneous trip range:	
Instantaneous trip setting:	
Breaker tripped by mechanical trip test button:	yes <input type="checkbox"/> no <input type="checkbox"/>
Breaker reset ok:	yes <input type="checkbox"/> no <input type="checkbox"/>

**Solid State Relay Trip Information**

Sensor Tap Ranges:		Rating Plug:	
TCC Curve #:		Sensor Tap Used:	

Manufacturer test set used:

Settings:	As set			As found			As left			Tolerance
	A	B	C	A	B	C	A	B	C	
Long delay pickup(A):										
Long delay time (s):										
Short delay pickup(A):										
Short delay time(s):										
Instantaneous (s):										
Ground fault pickup(A):										
Ground fault time(s):										

**CIRCUIT BREAKER - LOW VOLTAGE, AIR**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**VISUAL INSPECTION DATA**

Legend: **G** = good **F**= fair **P** = poor **C** = corrected **N** = needs repair **NA** = not applicable **NS** = not in scope

<b>INSPECTIONS</b>	<b>STATUS</b>	<b>COMMENTS</b>
Physical/mechanical condition		
Anchorage		
Alignment		
Cleanliness		
Circuit Breaker Operation		
Torque Bolted Connections		
Bolted Connection Resistance		
Shunt Trip		
Undervoltage Trip		
Drawout/Racking Mechanism		
Cell Condition		
Frame Condition		
Cell Alignment		
Main Contacts		
Drawout Contacts		
Contact Pressure & Alignment		
Primary Contact Lubrication		
Control Contacts		
Control Wiring		
Arcing Contacts		
Arcing Horns		
Arc Chutes		
Puffer Assembly		
Bonding Connection		
Key Interlocks		
Electrical Interlocks		
Manual Operation		
Insulators/Barriers		
Overall Condition		
Shutter Mechanism		
Status Indicators		
Limiters		
Cable Connections		
Reset trip logs/indicators		

**CIRCUIT BREAKER - LOW VOLTAGE, AIR**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**ELECTRICAL TEST DATA**

**Test Conditions**

Ambient Temperature:	20	Relative humidity:	
Correction Factor	1.00		

**Control Wiring Insulation Resistance**

Control wiring insulation resistance test results:	Acceptable <input type="checkbox"/>	Not Acceptable <input type="checkbox"/>
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**Contact Resistance (microOhms)**

	Phase A	Phase B	Phase C
Contacts			

**Insulation Resistance Test (Megohms)**

Tolerance: Megohms minimum (Table 100.1)

<b>Insulation Resistance Test: Across Open Contacts (Breaker open)</b>	Phase A		Phase B		Phase C	
	at VDC		at VDC		at VDC	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
30 seconds		0		0		0
1 minute		0		0		0
<b>Dielectric Absorption</b> (1 min/30 sec)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Tolerance: Minimum						

<b>Insulation Resistance Test: Load-side to Ground (Breaker open)*</b>	Phase A to Ground		Phase B to Ground		Phase C to Ground	
	at VDC		at VDC		at VDC	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
30 seconds		0		0		0
1 minute		0		0		0
<b>Dielectric Absorption</b> (1 min/30 sec)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Tolerance: Minimum						

<b>Insulation Resistance Test: Line-side Phase to ground (Breaker Closed)**</b>	Phase A to Ground		Phase B to Ground		Phase C to Ground	
	at VDC		at VDC		at VDC	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
30 seconds		0		0		0
1 minute		0		0		0
<b>Dielectric Absorption</b> (1 min/30 sec)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Tolerance: Minimum						

\* Not applicable for Draw-out type circuit breakers

\*\* Not applicable for fixed-mount type circuit breakers

**CIRCUIT BREAKER - LOW VOLTAGE, AIR**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**Interlocks**

Key Interlocks: <input type="checkbox"/> N/A <input type="checkbox"/> Yes (list associated breakers):	Electrical Interlocks: <input type="checkbox"/> N/A <input type="checkbox"/> Yes (list associated breakers):
Operating Sequence:	Operating Sequence:

ADDITIONAL INFO:

**CANADIAN SPACE AGENCY  
ELECTRICAL TEST SHEET**

**CIRCUIT BREAKER - LOW VOLTAGE, MOLDED/INSULATED CASE**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

GENERAL INFORMATION			
Equipment ID:			
Manufacturer:		Trip Rating:	
Type:		Frame Rating:	
Model/Catalog#:		System Voltage:	
Serial #:		Rated Voltage:	
Year:		Interrupting Capacity	
Breaker rating:	80% <input type="checkbox"/> 100% <input type="checkbox"/>		
Mounting:	Fixed mount <input type="checkbox"/> Draw-out <input type="checkbox"/>		
Trip Type:	Thermomagnetic <input type="checkbox"/> Solid State Relay <input type="checkbox"/>		

LIMITER INFORMATION			
Manufacturer:		Catalogue#:	
Rated Amps:		Breaker Interrupt capacity equipped with limiter:	

TRIP UNIT INFORMATION			
Thermomagnetic Trip Unit Information			
Instantaneous trip range:			
Instantaneous trip setting:			
Breaker tripped by mechanical trip test button:	yes <input type="checkbox"/>	no <input type="checkbox"/>	
Breaker reset ok:	yes <input type="checkbox"/>	no <input type="checkbox"/>	
Solid State Relay trip information			
Sensor Tap Ranges:		Rating Plug:	
TCC Curve #:		Sensor Tap Used:	
Manufacturer test set used:			

Settings:	As set			As found			As left			Tolerance
	A	B	C	A	B	C	A	B	C	
Long delay pickup(A):										
Long delay time (s):										
Short delay pickup(A):										
Short delay time(s):										
Instantaneous (s):										
Ground fault pickup(A):										
Ground fault time(s):										

**CIRCUIT BREAKER - LOW VOLTAGE, MOLDED/INSULATED CASE**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**VISUAL INSPECTION DATA**

Legend: **G** = good **F**= fair **P** = poor **C** = corrected **N** = needs repair **NA** = not applicable **NS** = not in scope

<b>INSPECTIONS</b>	<b>STATUS</b>	<b>COMMENTS</b>
Physical/mechanical condition		
Anchorage		
Alignment		
Cleanliness		
Circuit Breaker Operation		
Torque Bolted Connections		
Bolted Connection Resistance		
Shunt Trip		
Undervoltage Trip		
Drawout/Racking Mechanism		
Cell Condition		
Frame Condition		
Cell Alignment		
Drawout Contacts		
Control Contacts		
Control Wiring		
Bonding Connection		
Key Interlocks		
Electrical Interlocks		
Manual Operation		
Overall Condition		
Shutter Mechanism		
Status Indicators		
Limiters		
Cable Connections		
Reset trip logs/indicators		

ADDITIONAL INFO:



**CIRCUIT BREAKER - LOW VOLTAGE, MOLDED/INSULATED CASE**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**ELECTRICAL TEST DATA**

**Test Conditions**

Ambient Temperature:	20	Relative humidity:	
Correction Factor	1.00		

**Control Wiring Insulation Resistance**

Control wiring insulation resistance test results:	Acceptable <input type="checkbox"/>	Not Acceptable <input type="checkbox"/>
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**Contact Resistance (microOhms)**

	Phase A	Phase B	Phase C
Contacts			

**Insulation Resistance Test (Megohms)**

Tolerance: Megohms minimum (Table 100.1)

<b>Insulation Resistance Test: Across Open Contacts (Breaker open)</b>	Phase A		Phase B		Phase C	
	at VDC		at VDC		at VDC	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
30 seconds		0		0		0
1 minute		0		0		0
<b>Dielectric Absorption (1 min/30 sec)</b>	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Tolerance: Megohms minimum						

<b>Insulation Resistance Test: Load-side to Ground (Breaker open)*</b>	Phase A to Ground		Phase B to Ground		Phase C to Ground	
	at VDC		at VDC		at VDC	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
30 seconds		0		0		0
1 minute		0		0		0
<b>Dielectric Absorption (1 min/30 sec)</b>	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Tolerance: Megohms minimum						

<b>Insulation Resistance Test: Line-side Phase to ground (Breaker Closed)**</b>	Phase A to Ground		Phase B to Ground		Phase C to Ground	
	at VDC		at VDC		at VDC	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
30 seconds		0		0		0
1 minute		0		0		0
<b>Dielectric Absorption (1 min/30 sec)</b>	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Tolerance: Megohms minimum						

\* Not applicable for Draw-out type circuit breakers

\*\* Not applicable for fixed-mount type circuit breakers

**CIRCUIT BREAKER - LOW VOLTAGE, MOLDED/INSULATED CASE**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**Interlocks**

<b>Key Interlocks:</b> <input type="checkbox"/> N/A <input type="checkbox"/> Yes (list associated breakers):	<b>Electrical Interlocks:</b> <input type="checkbox"/> N/A <input type="checkbox"/> Yes (list associated breakers):
Operating Sequence:	Operating Sequence:

ADDITIONAL INFO:

**CANADIAN SPACE AGENCY  
ELECTRICAL TEST SHEET**

**CIRCUIT BREAKER - MEDIUM VOLTAGE, AIR**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**GENERAL INFORMATION**

Equipment ID:		Year:	
Manufacturer:		Trip Rating:	
Type:		Rated Current:	
Model/Catalog#:		System Voltage:	
Serial #:		Rated Voltage:	
Style:		Rated trip coil voltage:	
Insulating medium:		Rated close coil voltage:	
BIL (kV):		Interrupting Capacity	
Operating mech. type:		MOM Rating:	
Rated charging motor V:		Close & latch rating:	

**VISUAL INSPECTION DATA**

Legend: <b>G</b> = good <b>F</b> = fair <b>P</b> = poor <b>C</b> = corrected <b>N</b> = needs repair <b>NA</b> = not applicable <b>NS</b> = not in scope		
<b>INSPECTIONS</b>	<b>STATUS</b>	<b>COMMENTS</b>
Physical/mechanical condition		
Anchorage		
Alignment		
Grounding		
Maintenance devices avail.		
Lubrication		
Auxiliary drawout contacts		
Contact gap/wear indicators		Reading:
Primary drawout Disconnects		
Secondary drawout Disconnects		
Cleanliness		
Circuit Breaker Operation		
Torque Bolted Connections		
Bolted Connection Resistance		
Shunt Trip		
Undervoltage Trip		
Drawout/Racking Mechanism		
Cell Condition		





**CIRCUIT BREAKER - MEDIUM VOLTAGE, AIR**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**DC Overpotential Test (microAmperes)**

<b>DC Overpotential Test: Across Open Contacts (Breaker open)</b>		Phase A	Phase B	Phase C
Time	Test Voltage			
0 min.	0			
1 min.	Increment 1			
2 min.	Increment 2			
3 min.	Increment 3			
4 min.	Increment 4			
5 min.	Increment 4			
<b>DC Overpotential Test: Line-side Phase to ground (Breaker Closed)**</b>		Phase A	Phase B	Phase C
Time	Test Voltage			
0 min.	0			
1 min.	Increment 1			
2 min.	Increment 2			
3 min.	Increment 3			
4 min.	Increment 4			
5 min.	Increment 4			

**Minimum Pickup Voltage Tests**

	Coil#1	Coil#2	Coil#3
<b>Minimum trip voltage:</b>			

**Breaker Trip Tests**

Breaker trip/close control switch operation:	Acceptable	<input type="checkbox"/>	Not acceptable	<input type="checkbox"/>
Breaker protective relay(s) trip operation*:	Acceptable	<input type="checkbox"/>	Not acceptable	<input type="checkbox"/>
Mechanism charge operation	Acceptable	<input type="checkbox"/>	Not acceptable	<input type="checkbox"/>
Trip-free operation:	Acceptable	<input type="checkbox"/>	Not acceptable	<input type="checkbox"/>
Antipump operation:	Acceptable	<input type="checkbox"/>	Not acceptable	<input type="checkbox"/>

\* Refer to Protective Relay test sheets for details

**Control Wiring Insulation Resistance**

Control wiring insulation resistance test results:	Acceptable	<input type="checkbox"/>	Not Acceptable	<input type="checkbox"/>
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**Contact Resistance (microOhms)**

	Phase A	Phase B	Phase C
Contacts			

**CIRCUIT BREAKER - MEDIUM VOLTAGE, AIR**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**Interlocks**

<b>Key Interlocks:</b> <input type="checkbox"/> N/A <input type="checkbox"/> Yes (list associated breakers):	<b>Electrical Interlocks:</b> <input type="checkbox"/> N/A <input type="checkbox"/> Yes (list associated breakers):
Operating Sequence:	Operating Sequence:

ADDITIONAL INFO:

**CANADIAN SPACE AGENCY  
ELECTRICAL TEST SHEET**

DISTRIBUTION TRANSFORMER - DRY TYPE															
FACILITY:				EQUIP.#											
EQUIP. LOCATION:				Contract No.:											
TESTED BY:				DATE: (dd/mm/yy)											
GENERAL INFORMATION															
Equipment ID:				Manufacturer:				Year:							
				Type :											
kVA Rating:				Impedance:				%		@		°C			
Primary Volt. (kV):				Secondary Voltage:				Grounding :							
Phases:				Frequency:				HZ		Winding Temp:		°C			
Primary B.I.L.:				Secondary B.I.L.:				Temp Rise:		°C		<input type="checkbox"/>			
Tap Position:		As found:		As left:		Aluminum Windings		<input type="checkbox"/>		Copper Windings		<input type="checkbox"/>			
ELECTRICAL TEST DATA															
Test Conditions															
Ambient Temperature:				30				Relative humidity:							
Correction Factor				1.58											
Turns-Ratio Test															
Tolerance: 0.50% Maximum deviation from adjacent coils or calculated ratio															
Tap Position	Primary Voltage	Calculated Ratio	X0-X2 / H1-H2				X0-X3 / H2-H3				X0-X1 / H3-H1				
			Measured Ratio	Excitation current		Measured Ratio	Excitation current		Measured Ratio	Excitation current					
				Found	Previous		Found	Previous		Found	Previous				
1		#DIV/0!													
2		#DIV/0!													
3		#DIV/0!													
4		#DIV/0!													
5		#DIV/0!													
Winding Resistance Test (Ohms)															
Tolerance: 1.00% maximum deviation from previous results															
Tap	H1-H2			H2-H3			H3-H1			Correction Coefficient* to 75 °C (aluminum or copper windings): 235  *Correction Coefficient Corr_C (Aluminum windings)= 228 (Copper windings) = 234.5					
	Found	Corrected	Previous	Found	Corrected	Previous	Found	Corrected	Previous						
1-2		0.00			0.00			0.00							
2-3		0.00			0.00			0.00							
3-4		0.00			0.00			0.00							
4-5		0.00			0.00			0.00							
5-6		0.00			0.00			0.00							
Secondary Windings	X0-X1			X0-X2			X0-X3								
		0.00			0.00			0.00							
Insulation Resistance Test (Megohms)															
Tolerance: Megohms minimum (Table 100.5)															
	Hight to Low		Low to Ground		High to Ground		Core to Ground*		*Tolerance: 1 Megohm minimum at 500 Vdc						
	at VDC		at VDC		at VDC		at VDC								
	Measured	Corrected	Measured	Corrected	Measured	Corrected	Measured	Corrected							
30 seconds		0		0		0		1							
1 minute		0		0		0		0							
2 minutes		0		0		0		0							
3 minutes		0		0		0		0							
4 minutes		0		0		0		0							
5 minutes		0		0		0		0							
6 minutes		0		0		0		0							
7 minutes		0		0		0		0							
8 minutes		0		0		0		0							
9 minutes		0		0		0		0							
10 minutes		0		0		0		0							
<b>Polarization Index</b> (10 min/1 min)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!				
	Tolerance: 1		Minimum												



**DISTRIBUTION TRANSFORMER - DRY TYPE**

FACILITY:		EQUIP.#	
EQUIP. LOCATION:		Contract No.:	
TESTED BY:		DATE: (dd/mm/yy)	

**Insulation Power Factor Test**

Test Settings					Measurements			Power Factor		Capacitance	
Line	Test	Grd	Gar	UST	Test kV	mA	Watt	Measured	Corrected	pico-farads	Measured
1	High	Low			10						CH + CHL
2	High		Low		10						CH
3	High			Low	10						CHL(UST)
4	Test 1 minus Test 2										
5	Low	High			1						CL+CHL
6	Low		High		1						CL
7	Low			High	1						CHL(UST)
8	Test 5 minus Test 6										
Excitation Test											
1	H1: A UST B										
2	H2: A UST B										
3	H3: A UST B										

\*\*\*\*Test surge protective devices as per specification. \*\*\*\*

**VISUAL INSPECTION DATA**

Legend: **G**=good **F**=fair **P**=poor **C**=corrected **N**=needs repair **NA**=not applicable **NS**=not in scope

INSPECTIONS	STATUS	COMMENTS
Physical and mechanical condition		
Torque Bolted Connections		
Connection resistance measured and corrected		
Anchorage		
Alignment		
Grounding		
Cleanliness		
Pad		
Paint Condition		
Winding Temp. Gauge (test&record in add. Info):		
As found winding Temp. And reset max Temp.		/ °C
Cooling fan function		
Fan condition		
Tap Links		
Control Compartment Door Gasket		
Control Compartment Heaters		
Secondary Voltage (prior to energizing)		

ADDITIONAL INFO:

**CANADIAN SPACE AGENCY  
ELECTRICAL TEST SHEET**

**FUSE - CUTOUT**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**GENERAL INFORMATION**

Equipment ID:			
Manufacturer:		Fuseholder Style/CAT#:	
Fuseholder model:		Cutout Style/CAT#:	
Cutout type:		Cutout serial #:	
System voltage:		Rated voltage:	
Current:		Size:	

**VISUAL INSPECTION DATA**

Legend: **G** = good **F** = fair **P** = poor **C** = corrected **N** = needs repair **NA** = not applicable **NS** = not in scope

<b>INSPECTIONS</b>	<b>STATUS</b>	<b>COMMENTS</b>
Physical/mechanical condition		
Anchorage		
Alignment		
Grounding		
Cleanliness		
Fuse ratings		
Latching mechanism		
Mechanical operation		
Torque Bolted connections		
Bolted Connection Resistance		
Control device operation		
Lubrication		
Cleanliness:		

ADDITIONAL INFO:

**FUSE - CUTOUT**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**ELECTRICAL TEST DATA**

**Test Conditions**

Ambient Temperature:	20	Relative humidity:	
Correction Factor	1.00		

**Contact Resistance (microOhms)**

	Phase A	Phase B	Phase C
Fuse Resistance and Clip Assembly			

**Insulation Resistance Test (Megohms)**

Tolerance: Megohms minimum (Table 100.1)

Open Cutout Insulation Resistance Test	Phase A		Phase B		Phase C	
	at VDC		at VDC		at VDC	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
30 seconds		0		0		0
1 minute		0		0		0

<b>Dielectric Absorption</b> (1 min/30 sec)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Tolerance: Minimum					

Phase to ground Insulation Resistance Test (Cutout closed)	Phase A to Ground		Phase B to Ground		Phase C to Ground	
	at VDC		at VDC		at VDC	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
30 seconds		0		0		0
1 minute		0		0		0

<b>Dielectric Absorption</b> (1 min/30 sec)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Tolerance: Minimum					

**DC Overpotential Test (microAmperes)**

at Time	VDC Test Voltage	Phase to Ground (Cutout Closed)			Cutout Open		
		Phase A	Phase B	Phase C	Phase A	Phase B	Phase C
0 min.	0						
1 min.	Increment 1						
2 min.	Increment 2						
3 min.	Increment 3						
4 min.	Increment 4						
5 min.	Increment 4						

**CANADIAN SPACE AGENCY  
ELECTRICAL TEST SHEET**

**SURGE ARRESTER - MEDIUM AND HIGH VOLTAGE**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**GENERAL INFORMATION**

Equipment ID:			
Associated Equipment:		Units per phase:	
Manufacturer:		Phase A serial#:	
Model Catalogue #:		Phase B serial#:	
Class:		Phase C serial#:	
Type:		Circuit configuration:	
Housing/Enclosure:		Arrester connection:	
System Voltage:		System Grounding:	
Current:		MCOV rating:	

**VISUAL INSPECTION DATA**

Legend: **G** = good **F**= fair **P** = poor **C** = corrected **N** = needs repair **NA** = not applicable **NS** = not in scope

<b>INSPECTIONS</b>	<b>STATUS</b>	<b>COMMENTS</b>
Physical/mechanical condition		
Anchorage		
Alignment		
Grounding		
Cleanliness		
Clearances		
Torque Bolted connections		
Bolted Connection Resistance		
Arrestor Ground leads		
Stroke counter installation		
Stroke counter reading		Reading:

ADDITIONAL INFO:

**SURGE ARRESTER - MEDIUM AND HIGH VOLTAGE**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**ELECTRICAL TEST DATA**

**Test Conditions**

Ambient Temperature:	20	Relative humidity:	
Correction Factor	1.00		

**Insulation Resistance Test (Megohms)**

Tolerance: 20000 Megohms minimum (Table 100.1)

	LA1		LA2		LA3	
	at VDC		at VDC		at VDC	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
30 seconds		0.0		0.0		0.0
1 minute		0.0		0.0		0.0
<b>Dielectric Absorption</b> (1 min/30 sec)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Tolerance:		Megohms minimum			

**Grounding connection test (Ohms):**

ADDITIONAL INFO:

**CANADIAN SPACE AGENCY  
ELECTRICAL TEST SHEET**

**SWITCHGEAR AND SWITCHBOARD**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**GENERAL INFORMATION**

Equipment ID:		Model/Catalogue#:	
Manufacturer:		Rated Voltage:	
Ground Ball tested/verified (Equipment ID's):			
Kirk Key Interlocks tested/verified (Equipment ID's):			

**VISUAL INSPECTION DATA**

Legend: **G** = good **F** = fair **P** = poor **C** = corrected **N** = needs repair **NA** = not applicable **NS** = not in scope

<b>INSPECTIONS</b>	<b>STATUS</b>	<b>COMMENTS</b>
Physical/mechanical condition		
Anchorage		
Alignment		
Grounding		
Clearances (Working space)		
Cleanliness		
Torque Bolted Connections		
Bolted Connection Resistance		
Electrical Interlock		
Mechanical Interlock		
Key Interlock		
Lubrication		
Insulator physical condition		
Barrier installation/operation		
Shutter installation/operation		
Active component operation		
Mechanical indicating devices		
Filters and vents		
Identification signs		
Warning signs		

ADDITIONAL INFO:

**CANADIAN SPACE AGENCY  
ELECTRICAL TEST SHEET**

**SWITCH - MEDIUM AND HIGH VOLTAGE, METAL ENCLOSED**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**GENERAL INFORMATION**

Equipment ID:		Manufacturer:	Year:
Serial Number:		Style/CAT#:	
Model:		Circuit ID:	
System voltage:		Rated Voltage	
Current:		B.I.L	
FC:		MA	

**VISUAL INSPECTION DATA**

Legend: **G** = good **F**= fair **P** = poor **C** = corrected **N** = needs repair **NA** = not applicable **NS** = not in scope

<b>INSPECTIONS</b>	<b>STATUS</b>	<b>COMMENTS</b>
Physical/mechanical condition		
Anchorage		
Alignment		
Grounding		
Clearances (Working space)		
Cleanliness		
Window		
Blade alignment		
Blade penetration		
Travel stops		
Mechanical operation		
Torque Bolted connections		
Bolted Connection Resistance		
Electrical Interlocks		
Mechanical Interlocks		
Phase barrier		
Control device operation		
Heaters		
Lubrication		
Arc interrupter operation		

ADDITIONAL INFO:

**SWITCH - MEDIUM AND HIGH VOLTAGE, METAL ENCLOSED**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**ELECTRICAL TEST DATA**

**Test Conditions**

Ambient Temperature:	20	Relative humidity:	
Correction Factor	1.00		

**Contact Resistance (microOhms)**

	Phase A	Phase B	Phase C
Fuse to Clips			
Fuse Resistance			
Switchblade Resistance			
Arc interrupter resistance			

**Insulation Resistance Test (Megohms)**

Tolerance: 100000 Megohms minimum (Table 100.1)

Open Switchblade to Bus Insulation Resistance Test*	Phase A		Phase B		Phase C	
	at VDC		at VDC		at VDC	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
30 seconds		0		0		0
1 minute		0		0		0
<b>Dielectric Absorption</b> (1 min/30 sec)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Tolerance: Megohms minimum						

\*Phase-to-phase and phase-to-ground with switch closed insulation resistance and DC overpotential tests to be performed during bus bar tests.

**DC Overpotential Test (microAmperes)**

Open Switchblade to Bus DC Overpotential Test*		Phase A	Phase B	Phase C
Time	Test Voltage			
0 min.	0			
1 min.	Increment 1			
2 min.	Increment 2			
3 min.	Increment 3			
4 min.	Increment 4			
5 min.	Increment 4			



**SWITCH - MEDIUM AND HIGH VOLTAGE, METAL ENCLOSED**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**Interlocks**

<b>Key Interlocks:</b> <input type="checkbox"/> N/A <input type="checkbox"/> Yes (list associated switches):	<b>Electrical Interlocks:</b> <input type="checkbox"/> N/A <input type="checkbox"/> Yes (list associated switches):
Operating Sequence:	Operating Sequence:

ADDITIONAL INFO:

**CANADIAN SPACE AGENCY  
ELECTRICAL TEST SHEET**

**SWITCH - MEDIUM AND HIGH VOLTAGE, OPEN**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**GENERAL INFORMATION**

Equipment ID:		Manufacturer:	Year:
Serial Number:		Style/CAT#:	
Model:		Circuit ID:	
System voltage:		Rated Voltage	
Current:		B.I.L	
FC:		MA	

**VISUAL INSPECTION DATA**

Legend: **G** = good **F**= fair **P** = poor **C** = corrected **N** = needs repair **NA** = not applicable **NS** = not in scope

<b>INSPECTIONS</b>	<b>STATUS</b>	<b>COMMENTS</b>
Physical/mechanical condition		
Anchorage		
Alignment		
Grounding		
Clearances (Working space)		
Cleanliness		
Blade alignment		
Blade penetration		
Travel stops		
Expulsion limiting devices		
Mechanical operation		
Fuseholder support/contact		
Torque Bolted connections		
Bolted Connection Resistance		
Electrical Interlocks		
Mechanical Interlocks		
Control device operation		
Lubrication		
Arc interrupter operation		

ADDITIONAL INFO:

**SWITCH - MEDIUM AND HIGH VOLTAGE, OPEN**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**ELECTRICAL TEST DATA**

**Test Conditions**

Ambient Temperature:	20	Relative humidity:	
Correction Factor	1.00		

**Contact Resistance (microOhms)**

	Phase A	Phase B	Phase C
Fuse to Clips			
Fuse Resistance			
Switchblade Resistance			
Arc interrupter resistance			

**Insulation Resistance Test (Megohms)**

Tolerance: Megohms minimum (Table 100.1)

Open Switchblade Insulation Resistance Test	Phase A		Phase B		Phase C	
	at VDC		at VDC		at VDC	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
30 seconds		0		0		0
1 minute		0		0		0
<b>Dielectric Absorption</b> (1 min/30 sec)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Tolerance: Megohms minimum

Phase to ground Insulation Resistance Test (Switchblade closed)	Phase A to Ground		Phase B to Ground		Phase C to Ground	
	at VDC		at VDC		at VDC	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
30 seconds		0		0		0
1 minute		0		0		0

<b>Dielectric Absorption</b> (1 min/30 sec)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
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Tolerance: Megohms minimum

Perform insulation-resistance tests on control wiring if applicable. Record results in notes.

**DC Overpotential Test (microAmperes)**

at VDC		Phase to Ground (Switch Closed)			Switchblade Open		
		Phase A	Phase B	Phase C	Phase A	Phase B	Phase C
Time	Test Voltage						
0 min.	0						
1 min.	Increment 1						
2 min.	Increment 2						
3 min.	Increment 3						
4 min.	Increment 4						
5 min.	Increment 4						

**SWITCH - MEDIUM AND HIGH VOLTAGE, OPEN**

FACILITY:		Equip No:	
EQUIP LOCATION:		Contract No:	
TESTED BY:		Date: (dd/mm/yy)	

**Interlocks**

Key Interlocks: <input type="checkbox"/> N/A <input type="checkbox"/> Yes (list associated switches):	Electrical Interlocks: <input type="checkbox"/> N/A <input type="checkbox"/> Yes (list associated switches):
Operating Sequence:	Operating Sequence:

ADDITIONAL INFO: