Winnipeg	**INSPECTION FORM** **MOLDED CASE CIRCUIT BREAKER, < 1000V**	Page 1 of 2 ID:

Project		
	Facility:	Project Name:
	Area :	Bid Opportunity:

Breaker Data			
	Location:	Panelboard/MCC:	Cell #:
	Manufacturer:	Type:	Serial #:
	Rated Voltage: V	Frame Size: A	Trip Unit:
	Interrupting Rating: kA	Comments:	

Visual Inspection / Cleaning		
	Breaker Identification Tag Installed: ☐ Yes ☐ No	Visual Signs of Overheating: ☐ Yes ☐ No
	Cleanliness (As Found): ☐ Good ☐ Acceptable ☐ Poor	Cables Supported Appropriately: ☐ Yes ☐ No
	Connections: ☐ Good ☐ Acceptable ☐ Poor	Electro/Mechanical Interlock: ☐ N/A ☐ Good ☐ Acceptable ☐ Poor
	Ground Connection: ☐ Good ☐ Acceptable ☐ Poor	Exercise Circuit Breaker: ☐ Yes
	Door Mechanical: ☐ Good ☐ Acceptable ☐ Poor	Other:
	Comments:	

Breaker Settings	Trip Unit Rating: A	Trip Unit Type: ☐ None ☐ Thermal Magnetic ☐ Electronic ☐ LI ☐ LSI ☐ LSIG				
	Breaker Setting (As Left)		**Range**	**Setpoint**	**Delay**	**I^2T**
	Long Time	☐ Fixed ☐ Adj.	-	X A = A	sec	☐ On ☐ Off
	Short Time	☐ Fixed ☐ Adj.	-	X A = A	sec	☐ On ☐ Off
	Instantaneous	☐ Fixed ☐ Adj.	-	X A = A	N/A	
	Ground Fault	☐ Fixed ☐ Adj.	-	A	sec	☐ On ☐ Off

Insulation Resistance Test										
	Perform insulation resistance measurements for breakers >= 250A, or as specified.									
	Temperature: °C	Source: ☐ Disconnected ☐ Connected (Source Isolated)						*Approval is required, prior to leaving cables connected during the test.*		
		Load: ☐ Disconnected ☐ Connected (Load Isolated)								
	Test Voltage (VDC)	**Insulation Resistance (MΩ)**								
		Phase To GND (Breaker Closed)			**Phase To Phase (Breaker Closed)**			**Line to Load (Breaker Open)**		
		A	**B**	**C**	**A – B**	**B – C**	**A - C**	**A**	**B**	**C**
	Test Summary ☐ Test Passed ☐ Test Inconclusive. Further Investigation Required. ☐ Test Failed									
	Comments:									

Contact Resistance					
	Perform contact measurements for breakers >= 250A, or as specified.				
	Resistance (μΩ)	**A**	**B**	**C**	**Test Summary** ☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed
	Comments:				

Final Analysis				
	Returned to Service:	☐ Yes	☐ No	Comments:
	Monitoring / Further Inspection Required:	☐ Yes	☐ No	
	Repair / Replacement Required:	☐ Yes	☐ No	

	Company	**Name**	**Signature**	**Date** (yyyy/mm/dd)
Performed By				
Checked By				

Note: The person(s) performing the check is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that the analysis results are correct.

Winnipeg	**INSPECTION FORM** **CAPACITOR BANK, 600V**	Page 1 of 1 ID:

Project		
	Facility:	Project Name:
	Area :	Bid Opportunity:

Capacitor Bank Data			
	Location:	Switchgear/MCC:	Cell #:
	Manufacturer:	Model:	Serial #:
	Size: VAR	Rated Voltage: V	Capacitance: µF
	Configuration: ☐ Delta ☐ Wye-Ungrounded ☐ Wye-Grounded		

Visual Inspection/ Cleaning		
	Capacitor Identification Tag Installed: ☐ Yes ☐ No	Cables Supported Appropriately: ☐ Yes ☐ No
	Cleanliness (As Found): ☐ Good ☐ Acceptable ☐ Poor	Anchorage, alignment: ☐ Good ☐ Acceptable ☐ Poor
	Connections: ☐ Good ☐ Acceptable ☐ Poor	Required Clearances: ☐ Good ☐ Acceptable ☐ Poor
	Ground Connection: ☐ Good ☐ Acceptable ☐ Poor	Unit Cleaned: ☐ Yes / Photograph Taken: ☐ Yes

Insulation Resistance Test

Test Preparation:
Source Cables:
☐ Disconnected
☐ Connected with Source Isolated

Note: Approval of City's Representative is required, prior to leaving cables connected during the test.

Test Voltage	**Insulation Resistance (MΩ) Phase To GND**			**Test Summary**
	A (A-B)	**B (B-C)**	**C (C-A)**	☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed
1000 V				

Comments:

Capacitance

Capacitance (µF)			**Test Summary**
A (A-B)	**B (B-C)**	**C (C-A)**	☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed

Comments:

Discharge Resistance

Resistance (Ω)			**Test Summary**
A (A-B)	**B (B-C)**	**C (C-A)**	☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed

Comments:

Final Analysis

Returned to Service:	☐ Yes	☐ No	Comments:
Monitoring / Further Inspection Required:	☐ Yes	☐ No	
Repair / Replacement Required:	☐ Yes	☐ No	

	Company	**Name**	**Signature**	**Date** (yyyy/mm/dd)
Performed By				
Checked By				

Note: The person performing the check is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that the analysis results are correct.

Winnipeg	**INSPECTION FORM** **POWER CABLE < 1000V**	Page 1 of 1 Cable ID:

Project		
	Facility:	Project Name:
	Area :	Bid Opportunity:

Cable Data				
	Source:		Dest. / Load:	
	Manufacturer:	Type:	Conductor: ☐ Copper ☐ Aluminum	
	No. of Conductors:	Size: ☐ AWG ☐ MCM	Length: m ☐ Measured ☐ Jacket Markings	☐ Previous Data ☐ TDR
	Rated Voltage: V	Operating Voltage: V	Date Installed:	
	Installation: ☐ Cable Tray ☐ Strapped	☐ EMT ☐ Steel Conduit	☐ Alum. Conduit ☐ PVC Conduit	☐ Direct Buried ☐ Underground Duct Other:

Visual Inspection				
	Physical Damage on Exposed Ends:	☐ Yes ☐ No	Cable Identification Tag Installed:	☐ Yes ☐ No
	Visual Signs of Overheating:	☐ Yes ☐ No	Cable Supported Appropriately:	☐ Yes ☐ No
	Bend Radius Acceptable:	☐ Yes ☐ No	Comments:	

Insulation Resistance Test

Test Preparation:
Source: ☐ Disconnected ☐ Connected with Source Isolated
Cable Dest. / Load: ☐ Disconnected ☐ Connected with Load Isolated
Note: Approval of City's Representative is required, prior to leaving cables connected during the test.

Cable Temperature: °C Temperature Correction Factor for 20°C:
Ground all conductors not under test for each reading.

Test Voltage		**Insulation Resistance (MΩ)**				**Test Summary**
		A-GND	**B-GND**	**C-GND**	**N-GND**	
V	Reading					☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed
	Corrected to 20°C					

Utilize 1000VDC Test Voltage for 600V rated cables, 500VDC for cables rated <= 300V.

Comments:

Connection Resistance

Note: Torque check required for all cables. Connection Resistance Test required for cables 4/0 AWG or larger.

Termination	**Connection Resistance (μΩ) - As Left**				**Torque Check**
	A	**B**	**C**	**N**	
Source					☐ OK
Dest. / Load					☐ OK

Comments:

Final Analysis			
	Cable Returned to Service:	☐ Yes ☐ No	Comments:
	Monitoring / Further Inspection Required:	☐ Yes ☐ No	
	Repair / Replacement Required:	☐ Yes ☐ No	

	Company	**Name**	**Signature**	**Date** (yyyy/mm/dd)
Performed By				
Checked By				

Winnipeg	**INSPECTION FORM DIGITAL METER**	Page 1 of 2 ID:

Project	Facility:	Project Name:
	Area :	Bid Opportunity:

Meter Data	Location:	Cell #:
	Manufacturer:	Model:

Visual Inspection / Cleaning	Cover Gasket:	☐ Good ☐ Acceptable ☐ Poor	Cover Glass:	☐ Good ☐ Acceptable ☐ Poor
	General Condition:	☐ Good ☐ Acceptable ☐ Poor		
	Cleanliness (as found)	☐ Good ☐ Acceptable ☐ Poor	Unit Cleaned:	☐ Yes
	Connections (as found)	☐ Good ☐ Acceptable ☐ Poor	Connections Torqued:	☐ Yes

Test Meter	Manufacturer:	Model:
	Calibration Date:	Meter calibration must be within one year, unless otherwise specified.

		Nominal Test Value (V)	**Phase**	**Calibrated Meter Measurement (V)**	**Meter Under Test (V)**	**Difference (V)**	**Error (%)**	**Acceptable** (See Specs)
Accuracy	**Voltage**	0						☐ Yes ☐ No
								☐ Yes ☐ No
								☐ Yes ☐ No
								☐ Yes ☐ No
								☐ Yes ☐ No
								☐ Yes ☐ No
	Current	**Nominal Test Value (V)**	**Phase**	**Calibrated Meter Measurement (A)**	**Meter Under Test (A)**	**Difference (A)**	**Error (%)**	**Acceptable** (See Specs)
		0	A					☐ Yes ☐ No
			B					☐ Yes ☐ No
			C					☐ Yes ☐ No
			A					☐ Yes ☐ No
			B					☐ Yes ☐ No
			C					☐ Yes ☐ No
	Measurements Applicable To:	☐ As-Found ☐ As-Left		May check both boxes if applicable.				
	Unit Calibration Adjusted:	☐ Yes ☐ No		If calibration was adjusted, complete two forms, one for as-found, the other for as-left after calibration.				

Final Analysis	Returned to Service:	☐ Yes	☐ No	Comments:
	Monitoring / Further Inspection Required:	☐ Yes	☐ No	
	Repair / Replacement Required:	☐ Yes	☐ No	

	Company	**Name**	**Signature**	**Date** (yyyy/mm/dd)
Performed By				
Checked By				

Note: The person performing the check is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that the analysis results are correct.

Winnipeg	**INSPECTION FORM** **EMERGENCY LIGHTING**	Page 1 of 1 ID:

Project		
	Facility:	Project Name:
	Area :	Bid Opportunity:

Battery Unit Data				
Location:		Fed From:		Circuit #:
Manufacturer:		Model:		Serial No:
Input Voltage: V AC	Input Current: A	Output Voltage: V DC		Wattage: W
Qty of Internal Lamps:	Internal Lamp Wattage: W	Type of Internal Lamps:		

Remote Fixtures			
Quantity:	Manufacturer:	Model:	
Input Voltage: V DC	Input Current: A	Qty of Lamps per Fixture:	
Lamp Wattage: W	Type of Lamps:	Wire Size: AWG	

Visual Inspection / Cleaning		
Identification Tag Installed: ☐ Yes ☐ No	Lamps Properly Aimed: ☐ Yes ☐ No	
Visual signs of Moisture: ☐ Yes ☐ No	Connections: ☐ Good ☐ Acceptable ☐ Poor	
Cleanliness (As Found): ☐ Good ☐ Acceptable ☐ Poor	Ground Connection: ☐ Good ☐ Acceptable ☐ Poor	
Comments:		

Battery Testing		
Equipment Temperature: ℃	**Test Summary**	
Test Results Stated Design Time (From Drawings): Min Time Until Lamps Turn Off: Min	☐ Test Passed ☐ Test Inconclusive ☐ Further Investigation Required. ☐ Test Failed	
Comments:		

Final Analysis		
Returned to Service: ☐ Yes ☐ No	Comments:	
Monitoring / Inspection Required: ☐ Yes ☐ No		
Repair / Replacement Required: ☐ Yes ☐ No		

	Company	**Name**	**Signature**	**Date** (yyyy/mm/dd)
Performed By				
Checked By				

Note: The person performing the check is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that the analysis results are correct.

Winnipeg	**INSPECTION FORM** **GROUNDING/BONDING CONNECTION RESISTANCE**	Page 1 of 1 Area:

Project		
	Facility:	Project Name:
	Area :	Bid Opportunity:

Resistance Checks (Ductor Test)	**Point A**	**Point B**	**Resistance (mΩ)**	**Acceptable**
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
	Comments:			

Final Analysis		
	Monitoring / Inspection Required: ☐ Yes ☐ No	Comments:
	Repair / Replacement Required: ☐ Yes ☐ No	

	Company	**Name**	**Signature**	**Date** (yyyy/mm/dd)
Performed By				
Checked By				

Note: The person performing the check is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that the analysis results are correct.

Winnipeg	**INSPECTION FORM** **GROUNDING SYSTEM**	Page 1 of 3 ID:

Project		
	Facility:	Project Name:
	Area :	Bid Opportunity:

Visual Inspection					
	Connection to Ground Electrode is Visible:	☐ Yes ☐ No	Facility Contains a Main Ground Bus:	☐ Yes	☐ No
	Connecting Conductor: Size:	Qty:	Torque Ground Connections:	☐ Yes	☐ No
	Visual signs of Corrosion:	☐ Yes ☐ No			
	Soil Type:		Soil Condition: ☐ Dry ☐ Damp ☐ Wet		
	Comments:				

Fall Of Potential Test #1							
	Date of Test:			Time of Test:			
	Weather and Temperature:			Terrain:			
	Grounding System Connection Point:	UTM GPS Coordinate:	E	N			
	Current Probe Injection Point:	UTM GPS Coordinate:	E	N			
	Test Conditions:			Test Layout:			
	Voltage Probe Distance (meters)	**UTM GPS Coordinate:**		**Test Current (mA)**	**Test Voltage (mV)**	**Resistance @ Hz (Ω)**	**Resistance @ Hz (Ω)**
		E	N				
		E	N				
		E	N				
		E	N				
		E	N				
		E	N				
		E	N				
		E	N				
		E	N				
		E	N				
		E	N				
		E	N				
		E	N				
	Comments:						

Fall Of Potential Test #2

Date of Test:				Time of Test:		
Weather and Temperature:				Terrain:		
Grounding System Connection Point:	UTM GPS Coordinate:	E	N			
Current Probe Injection Point:	UTM GPS Coordinate:	E	N			
Test Conditions:				Test Layout:		

Voltage Probe Distance (meters)	UTM GPS Coordinate:		Test Current (mA)	Test Voltage (mV)	Resistance @ Hz (Ω)	Resistance @ Hz (Ω)
	E	N				
	E	N				
	E	N				
	E	N				
	E	N				
	E	N				
	E	N				
	E	N				
	E	N				
	E	N				
	E	N				
	E	N				
Comments:						

Resistance Checks (Ductor Test)

Point A	Point B	Resistance (mΩ)	Test Summary
Facility Ground Electrode	Main Ground Bus		☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed
Facility Ground Electrode	4160V Switchgear GND Bus		
Facility Ground Electrode	System Neutral		
Facility Ground Electrode	600V Switchgear GND Bus		
Facility Ground Electrode	MCC : GND Bus		
Facility Ground Electrode	MCC : GND Bus		
Facility Ground Electrode	Other :		
Facility Ground Electrode	Other :		
Facility Ground Electrode	Other :		

Comments:

Final Analysis

Monitoring / Inspection Required: ☐ Yes ☐ No	Comments:	
Repair / Replacement Required: ☐ Yes ☐ No		

	Company	Name	Signature	Date (yyyy/mm/dd)
Performed By				
Checked By				

Note: The person performing the check is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that the analysis results are correct.

Winnipeg	**INSPECTION FORM** **MOTOR STARTER, FVNR, 600V**	Page 1 of 2 ID:

Project		
	Facility:	Project Name:
	Area :	Bid Opportunity:

Starter Data						
	Load:		Starter Location:			Cell #:
	Manufacturer:	Type:			Serial #:	
	Size:	Rated Voltage: V		Current Rating: A		Control Voltage: V
	Circuit Protection:	☐ Fused Disc.	Rating: A	Fuse Size: A	Fuse Mfg.	
					Model:	
		☐ Breaker ☐ MCP	Rating: A	Inst. Setting: A	Manufacturer:	
					Model:	
	Overload Protection:	☐ Thermal ☐ Electronic	Class: ☐ 10 ☐ 20 ☐ 30 ☐ Unknown	Setting / Rating: A	Manufacturer:	
					Model:	
	Control Power Transformer:	Size: VA	Sec. Voltage: V	Primary Fuse: A	Secondary Fuse: A	
	Current Transformer:	Ratio:	Type:			

Motor Data				
	ID:	Size: kW / HP		Voltage: V
	Full Load Amps: A	Service Factor: ☐ 1.00 ☐ 1.15	Other:	

Visual Inspection / Cleaning				
	Starter Identification Tag Installed: ☐ Yes ☐ No		Visual Signs of Overheating: ☐ Yes ☐ No	
	Cleanliness (As Found): ☐ Good ☐ Acceptable ☐ Poor		Support Insulators: ☐ Good ☐ Acceptable ☐ Poor	
	Connections ☐ Good ☐ Acceptable ☐ Poor		Electro/Mechanical Interlock: ☐ Good ☐ Acceptable ☐ Poor	
	Ground Connection: ☐ Good ☐ Acceptable ☐ Poor		Contactor Condition: ☐ Good ☐ Acceptable ☐ Poor	
	Door Mechanical ☐ Good ☐ Acceptable ☐ Poor		Contact Alignment: ☐ Good ☐ Acceptable ☐ Poor	
	Verify O/L element is correctly sized for the load: ☐ Yes ☐ No		Exercise Circuit Breaker/MCP/Disconnect ☐ Yes	
	Cables Supported Appropriately: ☐ Yes ☐ No		Unit Cleaned: ☐ Yes	Photograph Taken: ☐ Yes
	Comments:			

Contact/Pole Measurements	**Test**	**A**	**B**	**C**	**Test Summary**
	Contact Resistance (μΩ)				☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed
	Disconnect / Breaker / MCP Resistance (μΩ)				
	Fuse Resistance (μΩ)				
	Comments:				

Winnipeg	**INSPECTION FORM** **MOTOR STARTER, FVNR, 600V**	Page 2 of 2 ID:

Insulation Resistance Test

Test Preparation: Source: ☐ Isolated Contactor: ☐ Open Cable Dest. / Load: ☐ Disconnected ☐ Connected with Load Isolated

Note: Approval of City's Representative is required, prior to leaving cables connected during the test.

Test	Voltage	Insulation Resistance (MΩ)			Ground all phases not under test!
		A	B	C	
Contactor Line To GND	1000 VDC				**Test Summary** ☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed
Contactor Load To GND	1000 VDC				
Contactor Line to Load	1000 VDC				

Comments:

Final Analysis

Returned to Service:	☐ Yes	☐ No	Comments:
Monitoring / Further Inspection Required:	☐ Yes	☐ No	
Repair / Replacement Required:	☐ Yes	☐ No	

	Company	**Name**	**Signature**	**Date** (yyyy/mm/dd)
Performed By				
Checked By				

Note: The person performing the check is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that the analysis results are correct.

Winnipeg	**INSPECTION FORM** **MOTOR SOFT STARTER, 600V**	Page 1 of 3 ID:

Project		
	Facility:	Project Name:
	Area :	Bid Opportunity:

Starter Data						
	Load:		Starter Location:			Cell #:
	Soft Starter:	Manufacturer:		Model:		Serial #:
		Size:	Rated Voltage: V	Current Rating: A		Control Voltage: V
	Circuit Protection:	☐ Fused Disc.	Rating: A	Fuse Size: A		Fuse Mfg. Model:
		☐ Breaker ☐ MCP	Rating: A	Inst. Setting: A		Manufacturer: Model:
	Bypass Contactor:	Type: ☐ NEMA ☐ IEC ☐ N/A	Manufacturer:			Model:
			NEMA Size:	IEC Rating: A ☐ AC-3 ☐ AC-4		
	Bypass Overload Protection:	☐ Thermal ☐ Electronic ☐ Not Applicable	Class: ☐ 10 ☐ 20 ☐ 30 ☐ Unknown	Setting / Rating: A		Manufacturer: Model:
	Capacitor Contactor:	Type: ☐ NEMA ☐ IEC ☐ N/A	Manufacturer:			Model:
			NEMA Size:	IEC Rating: A ☐ AC-3 ☐ AC-4		
	Control Power Transformer:	Size: VA	Sec. Voltage: V	Primary Fuse: A		Secondary Fuse: A
	Current Transformer:	Ratio:	Type:			

Motor Data				
	ID:	Size: kW / HP		Voltage: V
	Full Load Amps: A	Service Factor: ☐ 1.00 ☐ 1.15	Other:	

Visual Inspection / Cleaning			
	Starter Identification Tag Installed: ☐ Yes ☐ No	Visual Signs of Overheating: ☐ Yes ☐ No	
	Cleanliness (As Found): ☐ Good ☐ Acceptable ☐ Poor	Support Insulators: ☐ Good ☐ Acceptable ☐ Poor	
	Connections ☐ Good ☐ Acceptable ☐ Poor	Electro/Mechanical Interlock: ☐ Good ☐ Acceptable ☐ Poor	
	Ground Connection ☐ Good ☐ Acceptable ☐ Poor	Contactor Condition: ☐ Good ☐ Acceptable ☐ Poor	
	Door Mechanical ☐ Good ☐ Acceptable ☐ Poor	Contact Alignment: ☐ Good ☐ Acceptable ☐ Poor	
	Verify O/L element is correctly sized for the load: ☐ Yes ☐ No	Exercise Circuit Breaker/MCP/Disconnect ☐ Yes	
	Cables Supported Appropriately: ☐ Yes ☐ No	Unit Cleaned: ☐ Yes	Photograph Taken: ☐ Yes
	Comments:		

Contact / Pole Measurements

Test	A	B	C	Test Summary
Bypass Contactor Contact Resistance (μΩ)				☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed
Capacitor Contactor Contact Resistance (μΩ)				
Disconnect Resistance (μΩ)				
Main Fuse Resistance (μΩ)				
Capacitor Fuse Resistance (μΩ)				

Comments:

Insulation Resistance Test

Test Preparation: Source: ☐ Isolated Contactor: ☐ Open Cable Dest. / Load: ☐ Disconnected ☐ Connected with Load Isolated

Note: Approval of City's Representative is required, prior to leaving cables connected during the test.

WARNING: DISCONNECT ALL POWER CABLES FROM SOFT STARTER MODULE AND ALL CONTROL POWER FUSES PRIOR TO TEST.

Test	Voltage	Insulation Resistance (MΩ)			Ground all phases not under test!
		A	B	C	
Disconnect Line to GND	1000 VDC				**Test Summary** ☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed
Disconnect Load to GND	1000 VDC				
Disconnect Line to Load	1000 VDC				
Bypass Contactor Line To GND	1000 VDC				
Bypass Contactor Load To GND	1000 VDC				
Bypass Contactor Line to Load	1000 VDC				
Capacitor Contactor Line To GND	1000 VDC				
Capacitor Contactor Load To GND	1000 VDC				
Capacitor Contactor Line to Load	1000 VDC				

Comments:

Operational Inspection	Test Preparation: Run motor at normal load.						
	Ramp Up Time	Specified:	sec	Actual:	sec	Comments:	
	Measured Motor Current	ØA	A	ØB	A	ØC	A
	Soft Start Motor Current	ØA	A	ØB	A	ØC	A
	Ammeter Displayed Motor Current:	A					
	Remote (RTU/PLC/DCS) Displayed Motor Current:	A					
	Ramp Down Time	Specified:	sec	Actual:	sec		

Final Analysis	Returned to Service:	☐ Yes	☐ No	Comments:
	Monitoring / Further Inspection Required:	☐ Yes	☐ No	
	Repair / Replacement Required:	☐ Yes	☐ No	

	Company	**Name**	**Signature**	**Date** (yyyy/mm/dd)
Performed By				
Checked By				

Note: The person performing the check is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that the analysis results are correct.

Winnipeg	**INSPECTION FORM** **AC MOTOR, LOW VOLTAGE**	Page: 1 of 2 ID:

Project		
	Facility:	Project Name:
	Area :	Bid Opportunity:

Motor Data					
	Size: kW / HP		Voltage: V		R.P.M:
	Manufacturer:		Model:		Serial Number:
	Frame Type:		Service Factor:		Other:
	Cooling:	☐ Air ☐ Fan	# Cooling Fans:	Winding Material:	

Visual Inspection / Cleaning				
	Motor Identification Tag Installed: ☐ Yes ☐ No		Visual Signs of Overheating: ☐ Yes ☐ No	
	Connections: ☐ Good ☐ Acceptable ☐ Poor		Air Baffles: ☐ Good ☐ Acceptable ☐ Poor	
	Paint: ☐ Good ☐ Acceptable ☐ Poor		Filter Media: ☐ N/A ☐ Good ☐ Acceptable ☐ Poor	
	Cooling Fans: ☐ N/A ☐ Good ☐ Acceptable ☐ Poor		Fan Controls: ☐ N/A ☐ Good ☐ Acceptable ☐ Poor	
	Anchorage/Alignment: ☐ Good ☐ Acceptable ☐ Poor			
	Ground Connection: ☐ Good ☐ Acceptable ☐ Poor			
	Mechanical/Electrical Noise During Operation: ☐ Yes ☐ No		Lubrication Required: ☐ Yes ☐ No	
	Cleanliness (As Found): ☐ Good ☐ Acceptable ☐ Poor		Unit Cleaned: ☐ Yes	Photograph Taken: ☐ Yes

Winding Insulation Resistance	**Stator Winding**	**Test Voltage (Vdc)**	**Winding Temperature (°C)**	**Resistance (MΩ)**			**Dielectric Absorption Ratio**	**Polarization Index (a)**
				30 Sec	**1 min.**	**10 min. (a)**		
		500					-	-
			40					
		500					-	-
			40					
		500					-	-
			40					
	Notes: (a) Testing to 10 minutes and calculation of Polarization Index is only required for motors > 150 kW (200 HP)							
	Test Summary ☐ Test Passed ☐ Test Inconclusive. Further Investigation Required. ☐ Test Failed							

Winding Resistance	**Resistance (μΩ)**			**Test Summary**
	A - B	**B – C**	**A - C**	☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed
	Comments:			

Winnipeg	**INSPECTION FORM** **AC MOTOR, LOW VOLTAGE**	Page: 2 of 2 ID:

Bearing Insulation Resistance

☐ Not Applicable

Bearing	Test Voltage (Vdc)	Bearing Temperature (°C)	Resistance (MΩ)	
			1 min.	Corrected to 40°C
	500			
	500			

Test Summary ☐ Test Passed ☐ Test Inconclusive. Further Investigation Required. ☐ Test Failed

RTD Resistance

☐ Not Applicable

Actual Winding Temperature: °C

Actual Bearing Temperature °C

RTD	Resistance (Ω)	Calculated Temperature (°C)	RTD	Resistance (Ω)	Calculated Temperature (°C)

Test Summary ☐ Test Passed ☐ Test Inconclusive. Further Investigation Required. ☐ Test Failed

Note: Test connection resistance of bolted connections. Report on cable inspection sheet.

Final Analysis

Returned to Service:	☐ Yes	☐ No	Comments:
Monitoring / Further Inspection Required:	☐ Yes	☐ No	
Repair / Replacement Required:	☐ Yes	☐ No	

	Company	**Name**	**Signature**	**Date** (yyyy/mm/dd)
Performed By				
Checked By				

Note: The person(s) performing the check is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that the analysis results are correct.

Winnipeg	**INSPECTION FORM** **VOLTAGE MONITOR, SSAC-WVM**	Page 1 of 2 ID:

Project		
	Facility:	Project Name:
	Area :	Bid Opportunity:

Relay Data		
	Location:	Cell #:
	Manufacturer:	Model:
	Type:	Serial No.:
	Comments:	

Visual Inspection		**A**	**B**	**C**		**A**	**B**	**C**
	Moisture/Rust:				Relay Cleaned:			
	Over-heating:				Screws Tightened:			
	Cover/Case:							
	Legend: A-Acceptable C-Corrected N-Needs Repair NA-Not Applicable							
	Comments:							

Relay Settings	**Parameter**	**Setting (As Found)**	**Setting (As Left)**
	Line Voltage		
	Unbalance		
	Trip Delay		
	Restart Delay		
	Mode Switch		

Basic Voltage Tests	**Desired Phase Voltage**			**Actual Voltage**			**Relay State**	**Time to Change**	**OK**
	A	**B**	**C**	**A**	**B**	**C**			
	600	600	600						
	0	600	600						
	600	600	600						
	600	0	600						
	600	600	600						
	600	600	0						
	600	600	600						
	Comments:								

Final Analysis	Returned to Service:	☐ Yes	☐ No	Comments:
	Monitoring / Further Inspection Required:	☐ Yes	☐ No	
	Repair / Replacement Required:	☐ Yes	☐ No	

	Company	**Name**	**Signature**	**Date** (yyyy/mm/dd)
Performed By				
Checked By				

Note: The person(s) performing the check is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that the analysis results are correct.