INSPECTION FORM MOLDED CASE CIRCUIT BREAKER, < 1000V

Winnipeg

Page 1 of 2

ID:

ject	Facility:	Project Name:	
Pro	Area :	Bid Opportunity:	

a	Location:			Panelboard/MCC:		Cell #:
er Dat	Manufacturer:			Туре:	Serial #:	
reake	Rated Voltage:	V	Frame Size:	А	Trip Unit:	
8	Interrupting Rating:	k	A	Comments:		

	Breaker Identification Tag Instal	lled:	☐ Yes	🗌 No	Visual Signs of Overhe	ating:	🗌 Yes	🗌 No
/ uo	Cleanliness (As Found):	Good	Acceptable	Poor	Cables Supported App	opriately:	🗌 Yes	🗌 No
spection	Connections:	Good Good	Acceptable	Poor	Electro/Mechanical Interlock:	□ N/A □ Good	Acceptable	Poor
ual In Clea	Ground Connection:	Good	Acceptable	Poor	Exercise Circuit Breake	er:	🗌 Yes	
Visu	Door Mechanical:	Good	Acceptable	Poor	Other:			
	Comments:							

	Trip Unit Rating: A	Trip Unit Ty	/pe: 🗌 None 🗌] Thermal Magnetic 🔲 Elec	ctronic		LSIG
sbu	Breaker Setting (As Left)		Range	Setpoint		Delay	I ² T
Settin	Long Time	🗌 Fixed 🔲 Adj.	-	X A =	А	sec	🗌 On 🔲 Off
aker	Short Time	☐ Fixed ☐ Adj.	-	X A =	А	sec	🗌 On 🔲 Off
Bre	Instantaneous	☐ Fixed ☐ Adj.	-	X A =	А	N/A	
	Ground Fault	☐ Fixed ☐ Adj.	-	A		sec	🗌 On 🔲 Off

	Perform ins	sulation resi	istance measu	rements for brea	kers >= 250A	A, or as specif	fied.			
est	Temperatu	Iro.	°C Source:	Disconnec	ted 🗌 Co	nnected (Sou	rce Isolated)	Approval is	required, prior	to leaving
e To	Temperatur	16.	Load:	Disconnec	ted 🗌 Co	nnected (Loa	d Isolated)	cables conn	nected during t	he test.
tanc	Test				Insulati	ion Resistan	ce (MΩ)			
sist	Voltage	Voltage Phase To GND (Breaker Closed) Phase To Phase (Breaker Closed) Line to Load (B							Load (Breake	er Open)
٦Re	(VDC)	Α	В	С	A – B	B – C	A - C	A	В	С
atio										
Insul	Test Sumr	mary	Test Pass	ed 🗌 Test Ir	nconclusive. I	Further Invest	tigation Require	id.] Test Failed	
	Comments	:								

	Perform contact measurements	for breakers >= 25	OA, or as specified	d.	
act		А	В	С	Test Summary
Conta	Resistance ($\mu\Omega$)				Test Passed Test Inconclusive
Re	Comments:				Further Investigation Required.

INSPECTION FORM MOLDED CASE CIRCUIT BREAKER, < 1000V

Page 2 of 2

ID:

<u>.s</u>	Returned to Service:	🗌 Yes	🗌 No	Comments:
Final	Monitoring / Further Inspection Required:	🗌 Yes	🗌 No	
A	Repair / Replacement Required:	🗌 Yes	🗌 No	

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

					INSPE	ECTIC	DN F	OR	M			Page 1 c	of 1
	winnipeg			C	APACI	TOR	BAN	IK, 6	500V			ID:	
oject	Facility:				Pi	roject N	lame	:					
Pro	Area :				Bi	id Oppo	ortuni	ity:					
ž	Location:				5	Switchg	gear/N	MCC:				Cell #:	
or Bai ta	Manufactu	rer:				Model:					Serial #:	.I	
pacito	Size:		VAR F	Rated Voltag	le:			V		Capacita	nce:	μF	
Cal	Configurat	ion:	Delta	Wye-Ungrou	unded [] Wye	e-Gro	unde	d				
	Capacito	- Identifica	ation Tag Insta	alled:	Yes	🗌 No		Cabl	es Su	pported App	ropriately:		Yes 🗌 No
ual ction/	Cleanline	ss (As Fo	und):	Good	Acceptab	ole 🗌 F	oor	Anch	norage	, alignment:		Good 🗌 Acc	eptable 🗌 Poor
Visu	Connecti	ons:	C	Good	Acceptab	ole 🗌 F	Poor	Requ	uired C	Clearances:	G	ood 🗌 Acce	eptable 🗌 Poor
_	Ground C	connectior	ו: 🗌] Good 🔲 /	Acceptabl	le 🗌 F	Poor	Unit	Clean	ed: 🗌 Yes	s Photogr	aph Taken:	☐ Yes
nce Test	Test Prepa	ration:	Source Cab	les: ected ed with Sour	ce Isolate	ed				Note: Appr prior to leav	oval of City's R ving cables con	epresentative nected during	e is required, 3 the test.
sistaı	Test		Ins	sulation Res Phase 1	sistance (To GND	(ΜΩ)				Test Sumn	nary		
on Re	Voltage	-C)		C (0	C-A)		Test Pas	ssed onclusive					
sulatio	1000 V									Further	Investigation R	equired.	
lus	Comments	:								L			
			Capacit	tance (µF)				-	Test S	Summary			
ance	A (A	-В)	B (E	3-C)		C (C-A))			st Passed			
Ipacit									Fu Fu	irther Investi st Failed	gation Required	ł.	
Ca	Comments	:											
			Resist	tance (Ω)				-	Test S	Summary			
nce	A (A	-В)	B (E	B-C)		C (C-A))			st Passed			
ischal									L Tes Fu Fu	st Inconclusiv Irther Investi St Failed	ve gation Requirec	l.	
	Comments	:											
L	Peturned t	o Service			es [Con	nmen	its:				
lal ysis	Monitoring	/ Further	Inspection				-						
Fii Anal	Required:	placomo	nt Poquirod:				-						
		spiaceme	ni noquileu.			1 140							
<u> </u>		Compan	y	Name					Signa	ature		Date (y	yyy/mm/dd)
Perfo	rmed By												
Chec	ked By												
Mate	The		the state of the state	1	1 . 6	and the set of	In a 4 71		to to t	and a suble suble	ence Ale e le ence d'	to a famore	an attain and the f

W	Vinnipeg			INSP POWEF		FORM E < 100	٥v			Page	1 of 1
5	Facility:				Project	Name:				Cable ID	:
Projec	Area :				Bid Opp	ortunity:					
		1									
	Source:					Dest. / L	oad:				
в	Manufact	urer:		Туре):				Conductor	Co	pper 🔲 Aluminum
ole Dat	No. of Conducto	irs:	Size:		AWG MCM	Leng	h:		m ☐ Me	easured cket Markings	Previous Data
Cat	Rated Vo	ltage: V	Operatino Voltage:	9	V	Date	Installe	ed:			
	Installatio	n: Cable Tra	ay [] EMT] Steel Conc	luit [] Alum. (] PVC C	Condui Onduit	t [] Direct Bur] Undergrou	ied C und Duct	Other:
u	Physical I	Damage on Expos	ed Ends:	🗌 Yes	🗌 No	Cable I	dentifi	cation T	ag Installed	:	🗌 Yes 🗌 No
isual oectio	Visual Sig	ons of Overheating	:	🗌 Yes	🗌 No	Cable	Suppor	rted App	propriately:		🗌 Yes 🗌 No
> Isul	Bend Rad	lius Acceptable:		🗌 Yes	🗌 No	Comme	ents:				
		Source:			Cabla D	oot / Loc	d		No	to: Approval	of Citu's Roproportative
	Test Preparation	on: Disconnecte	cted d with So	urce Isolated		onnected nected wi	th Loa	d Isolate	is r ed cor	required, prior	to leaving cables g the test.
Test	Cable Ter	mperature:	°C Te	mperature C	orrection F	actor for	20°C:		Ground	d all conducto g.	rs not under test for each
Test Insulation Resistance (MΩ) Test Summary											
Solution Voltage A-GND B-GND C-GND N-GND Test Passed											
ation	V	Reading								Test Inconclu Further Inve	isive stigation Required.
Corrected to 20°C								Test Failed			
-	Utilize 10	00VDC Test Voltag	ge for 600	V rated cabl	es, 500VD	C for cab	les rat	ed <= 3	00V.		
	Comment	ts:									
[Note: Tor	aue check required	d for all ca	ables Conn	ection Resi	istance T	est rec	ouired fo	or cables 4/(AWG or larg	er
ince	11010. 101	que enconreguner		Connecti	on Resista	ince (uΩ) - As	Left			
esista	Τe	ermination	A		В		, 	1	N	То	rque Check
ion R		Source						-			ОК
nect	D	est. / Load						1			□ ок
ů	Comment	ts:		I					I		
	Oable D					Comr	nents:				
lal ysis	Cable Re										
Fin Anal	Repair / F	g / Further Inspect	ired:			_					
		Company		Name			Sigr	nature			Date (yyyy/mm/dd)
Perfor	med By										
Check	ed By										

Form CBL-LV Rev 00, Created by SNC-Lavalin Inc. M:\113099\4ENG\47ELE\RA - Misc Reports & Forms\Forms\F-CBL-LV.doc

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,	vinnij	peg			DIGI	TAI	L METE	R			ID:	
oject	Faci	lity:				Proje	ect Name					
Pro	Area	a :				Bid (Opportuni	ty:				
_		ation:				Cel	II #·]
Mete Data	Man	ufacturer.				Model:						
	Co	over Gaske	et:	🗌 Go	ood 🗌 Acceptabl	e 🗆] Poor	Cover G	lass:		Good	Acceptable Door
ual	Ge	eneral Con	dition:	🗌 Go	ood 🗌 Acceptabl	e 🗆] Poor					
Vis		eanliness	(as found	d) 🗌 Go	ood 🗌 Acceptabl	e 🗆] Poor	Unit Clea	aned: 🗌 Y	es		
_	Co	onnections	(as four	nd) 🗌 Go	ood 🗌 Acceptabl	e 🗆] Poor	Connect Torqued	ions 🗌 Y	es		
	Man	ufacturer:					Model:					
Test	Calil	bration Da	te:				Meter c	alibration	must be within one	year,	unless othe	rwise specified.
		Nominal Test Calibrated Meter Motor Linder Test Difference Error Acceptable										
		Nomina Valu (V	ul Test ue)	Phase	Calibrated Met Measuremen (V)	t I	Meter Un (V	der Test)	Difference (V)		Error (%)	Acceptable (See Specs)
			(V)									
	Volt											🗌 Yes 🗌 No
												🗌 Yes 🗌 No
												□ Yes □ No
												☐ Yes ☐ No
ccuracy		Nomina Valı (V	nl Test ue)	Phase	Calibrated Met Measuremen (A)	t I	Meter Un (A	der Test .)	Difference (A)		Error (%)	Acceptable (See Specs)
Ă				А								🗌 Yes 🗌 No
	ent	0		В								🗌 Yes 🗌 No
	Curr			С								🗌 Yes 🗌 No
				A								□ Yes □ No
				В								□ Yes □ No
				С								🗌 Yes 🗌 No
	Meas	surements	Applica	ble To:	As-Found	As-L	eft	May	check both boxes	if appl	icable.	
	Unit	Calibratio	n Adjuste	ed:]Yes □ No If	f calil eft af	bration wa ter calibra	as adjuste ation.	ed, complete two for	rms, o	ne for as-fou	nd, the other for as-

INSPECTION FORM DIGITAL METER

ID:

S	Returned to Service:	🗌 Yes	🗌 No	Comments:
Final nalysi	Monitoring / Further Inspection Required:	☐ Yes	🗌 No	
٨	Repair / Replacement Required:	🗌 Yes	🗌 No	

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

				INSPE	CTION	FO	RM				Page	1 of 1	
	winnip	leg		EMERGE		-IGH	ITIN	G			ID:		
ject	Facil	ity:			Project	Name	e:						
Pro	Area	:			Bid Opportunity:								
		tion								Oirse it th			
Jnit	Loca				Fed From:					Circuit #.			
tery L Data	Manu	Ifacturer			Mode	el:				Sei	rial No:		
Batt	Input	Voltage	· VAC	Input Current:		A	C	Output V	oltage:	VI	DC W	/attage:	W
	Qty c	of Interna	I Lamps:	Internal Lamp Wa	attage:		W		Type of Ir	nternal Lar	mps:		
e s	Quar	ntity:		Manufacturer:					Model:				
emot ixture	Input	Voltage	Input Current:		A		Qty of	Lamps per	Fixture:				
ι α π	Lamp	Type of Lamps:				Wire S	ize:		AWG				
	Ide	ontificativ	on Tag Installed:			No	Lan	ane Pro		d.			
/isual oection / eaning	6					No	Lan						5 [] 110
	eanir	sual sign					Cor	inection	S:				
v Insp	σ ^Ω	eanlines			Poor	Gro	und Co	nnection:			eptable 🗌 Po	or	
	Co	omments											
	Equipn	nent Ten	nperature:	C						Test Sur	nmary		
sting	Test R	esults								Test F	Passed		
Ty Te	Stated	Design -	Time (From Drawing	s): M	in					Furthe	er Invest Failed	igation Require	ed.
Batte	Time L	Intil Lam	ps Turn Off:	М	in								
	Comm	ents:											
	Returr	ned to Se	ervice:	☐ Yes	🗌 No	Con	nmer	nts:					
inal alysis	Monito	oring / In	spection Required:	☐ Yes	🗌 No								
Ana	Repair / Replacement Required:				🗌 No	-							
	[1							
		Col	mpany	Name				Signat	ure			Date (yyyy/	mm/dd)
Perfo	rmed E	Зу										_	
Checl	ked By	,											

)	INSPE	CTION FORM	Page 1 of 1
Winnipèg		GROUNDING/BONDING	Area:	
ject	Facility:		Project Name:	
Pro	Area :		Bid Opportunity:	

	Point A	Point B	Resistance (mΩ)	Acc	eptable
				🗌 Yes 🗌 No	Inconclusive
				🗌 Yes 🗌 No	Inconclusive
				🗌 Yes 🗌 No	Inconclusive
				🗌 Yes 🗌 No	Inconclusive
cks				🗌 Yes 🗌 No	Inconclusive
Che Test)				🗌 Yes 🗌 No	Inconclusive
tance uctor				🗌 Yes 🗌 No	Inconclusive
Resist (Du				🗌 Yes 🗌 No	Inconclusive
"				🗌 Yes 🗌 No	Inconclusive
				🗌 Yes 🗌 No	Inconclusive
				🗌 Yes 🗌 No	Inconclusive
				🗌 Yes 🗌 No	Inconclusive
	Comments:				
	Menitoring (Increation Deputies 4	Diver Die Commente			

<u>.s</u>	Monitoring / Inspection Required:	🗌 Yes	🗌 No	Comments:
Final	Repair / Replacement Required:	🗌 Yes	🗌 No	
Ā				

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

			INSPE		ORM			Page	1 of 3	
N N	Vinnipeg		GROUN	DING S	YSTEM			ID:		
ect	Facility:		Pro	ject Name	:			I		
Proj	Area :		Bid	Bid Opportunity:						
	Connection to Gro	ound Electrode is								
ion	Visible:		∐ Yes ∟	No	Facility C	contains a Main Gr	ound Bus:		∐ Yes	
spect	Connecting Cond	uctor: Size:	Qty:		Torque G	Ground Connection	IS:		☐ Yes	🗌 No
al Ins	Visual signs of Co	prrosion:	□ Yes □] No						
Visu	Soil Type:				Soil Cond	dition: 🗌 Dry 🗌	Damp 🗌	Wet		
	Comments:									
	Date of Test:				Time of T	Fest:				
	Weather and Tem	nperature:			Terrain:					
	Grounding Syster	n	UTM G	PS ate [:]	E	Ν				
	Current Probe Injection Point:		UTM GI Coordina	PS ate:	Е	Ν				
	Test Conditions:				Test La	yout:				
	Voltage Probe Distance (meters)	UTM GPS Coor	rdinate:	Test C (n	Current nA)	Test Voltage (mV)	Resistand H (Ω)	ce @ Iz	Resista (Ω	nce @ Hz !)
st #1		E	Ν							
ial Te		E	Ν							
otent		E	Ν							
Of P		E	Ν							
Fall		E	Ν							
		E	Ν							
		E	Ν							
		E	Ν							
		E	Ν							
		E	Ν							
		E	Ν							
		E	Ν							
	Comments:									

	Date of Test:				Time of Test:					
	Weather and Tempe	erature:			Terrain:					
	Grounding System Connection Point:		UTM GP Coordinat	S te:	E N					
	Current Probe Injection Point:		UTM GP Coordinat	S te:	E	Ν				
	Test Conditions:				Test Layout:					
	Voltage Probe Distance (meters)	UTM GPS Coordinate:		Test C (m	urrent A)	Test Voltage (mV)	Resistance @ Hz (Ω)	Resistance @ Hz (Ω)		
st #2		E	N							
ial Te		E	N							
otenti		E	N							
of P		E	N							
Fall		E	N							
		E	N							
		E	N							
		E	N							
		E	N							
		E	N							
		E	N							
		E	N							
	Comments:		·							

INSPECTION FORM GROUNDING SYSTEM

ID:

	Point A	Point B	Resistance (mΩ)	Test Summary	
	Facility Ground Electrode	Main Ground Bus		Further Investigati	on Required.
	Facility Ground Electrode	4160V Switchgear GND Bus			
	Facility Ground Electrode	System Neutral			
s	Facility Ground Electrode	600V Switchgear GND Bus			
Check est)	Facility Ground Electrode	MCC : GND Bus			
nce C	Facility Ground Electrode	MCC : GND Bus			
sista (Duc	Facility Ground Electrode	Other :			
Re	Facility Ground Electrode	Other :			
	Facility Ground Electrode	Other :			
]	
	Comments:				
	Monitoring / Inspection Required		ments:		
ıal ysis	Banain / Banka area at Damined				
Fin	Repair / Replacement Required				
	Company	Name		Signature	Date

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

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V	Vinnipèg			MO	FOR	START	ER, FVNR,	600V				ID:		
ect	Facility:					Proje	ect Name:					•		
Proj	Area :					Bid C	Opportunity:							
	Load:					Starter L	ocation:						Cell #:	
	Manufacturer	:	Ту	pe:		1				Serial #	<u>:</u>			
	Size: Ra		Rated V	d Voltage: V		V	Current Ratir	g:	А	1	Con	trol Voltage:		V
ter Data	Circuit	Fused	l Disc.	Rating:		А	Fuse Size:	А	Fuse Mode	Mfg.				
	Protection:	Break	er	Rating:		А	Inst. Setting:	А	Manu	ifacturer:				
Star	Overload			Class:	□ 10 Class: □ 20		Setting /	A	Manu	ifacturer:	1			
	Protection:		onic		□ 30 □ Ur		Rating:		Model:					
	Control Pow Transformer	er	Size:	_	VA	Sec. Vol	tage:	/ Prima	ry Fus	e:	А	Secondary	Fuse:	А
	Current Trar	sformer:	Ratio	:		Type:								
a c	ID:					Size:	kW /		HF	>	V	oltage:		V
Mote	Full Load Amps: A S			Service Fa	ctor:	□ 1.00 □ 1.15	Other:							
	Starter Identi	fication Ta	a Install	ed:		Yes □	No Visu	Il Sians a	of Ove	heating:			□ Yes	

	Starter Identification Tag Insta	lled:	🗌 Yes	🗌 No	Visual Signs of C	Overheating	g:	🗌 Yes	🗌 No
bu	Cleanliness (As Found):	Good		able 🗌 Poor	Support Insulato	irs:	🗌 Good 🗌	Acceptable	e 🗌 Poor
Cleani	Connections	Good	Acceptable Deor		Electro/Mechani Interlock:	cal	Good	Acceptable	e 🗌 Poor
ion /	Ground Connection:	Good 🗌	Accepta	Acceptable 🗌 Poor Contactor Condition:			🗌 Good 🔲	Acceptable	e 🗌 Poor
spect	Door Mechanical	Good 🗌	Accepta	ble 🗌 Poor	Contact Alignme	ent:	Good	Acceptable	e 🗌 Poor
sual Ins	Verify O/L element is correctly the load:	sized for		Yes 🗌 No	Exercise Circuit	Breaker/M	CP/Disconnect		□ Yes
Vis	Cables Supported Appropriate	ely:		Yes 🗌 No	Unit Cleaned:	🗌 Yes	Photograph Taken	n: 🗆 N	/es
	Comments:								

	Test	А	В	С	Test Summary		
Pole	Contact Resistance ($\mu\Omega$)				Test Passed Test Inconclusive		
ntact/l isurem	Disconnect / Breaker / MCP Resistance (μΩ)				Further Investigation Required.		
Mea Mea	Fuse Resistance ($\mu\Omega$)						
	Comments:						

INSPECTION FORM MOTOR STARTER, FVNR, 600V

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ID:

est	Test Prepa	Preparation: Source: Isolated Contactor: Open Cable Dest. / Load: Disconnected Disconnected Connected with Load Isolated Connected during the test.								
nce T	Test		V	oltago		Insu	lation Resistanc	:e (MΩ)	Ground all phases not	
on Resistar		1631	v	Voltage		Α	В	С	under test!	
	Contacto	r Line To GND	10	00 VDC					Test Summary	
ulatic	Contactor	Load To GND	10	00 VDC					Test Inconclusive Further Investigation	
lns	Contacto	r Line to Load	10	00 VDC					Required.	
	Comments	3:								
	Returned	turned to Service:		🗌 Yes	🗌 No	Comme	nts:			
Final nalysis	Monitorin Required	nitoring / Further Inspection guired:		☐ Yes	🗌 No					
۷	Repair / I	Replacement Re	quired:	🗌 Yes	🗌 No					
						•				
		Company		Name			Signature		Date (yyyy/mm/dd)	
Perfor	rmed By									
Check	ked By	1								

INSPECTION FORM MOTOR SOFT STARTER, 600V

Page 1 of 3

ID:

ject	Facility:		
Pro	Area :		

Project Name:

Bid Opportunity:

	Load:					Star	ter Lo	ocation:						Cell #:	
	Soft	Manufactu	urer:				Мо	del:				Serial #:		I	
	Starter:	Size:			Ra Vo	Rated Voltage:			V	Currer Rating	nt g:	A	Control Voltage:		V
		E Fused	Disc.	Rating	g:	A Fuse Si		Size:	A	Fuse Mfg					
	Circuit Protection:										Model:	uror			
		☐ Breaker ☐ MCP		Rating	Rating: A		Inst. Setting:		1:	А	Model:	urer.			
ata	Bypass] NEMA	Ма	nufact	turer:					Model:				
ter D	Contactor:	Туре:] IEC] N/A	NE	MA Si	ize:	2:		IEC Rati	ing:	<u> </u>	A 🗆 AG	C-3 🗆 AC	-4	
Stai	Bypass Overload	/pass ☐ Thermal ☐ /erload ☐ Electronic Class: ☐ otection: ☐ Not Applicable ☐] 10] 20		Setting	/	Δ	Manufact	urer:			
	Protection:] 30] Unkno	30 Rating: Unknown		:	A -		Model:			
	Capacitor			Ма	nufact	turer:					Model:				
	Contactor:	Libbe.] N/A	NE	MA Si	ize:			IEC Rati	ing:	•	A 🗆 A	.C-3 □ A	C-4	
	Control Power Transformer: Size: VA			Sec.	Sec. Voltage: V P		Prima	y Fuse:	А	Secondary	Fuse:	А			
	Current Tra	nsformer:	Ratio:						Тур	e:					
						Siz	0.				ЦD	,	/oltago:		V
lotor Data									I IF		ollage.		V		
20	Full Load An	nps:	AS	Service	Facto		1.15	Othe	r:						
	Starter Ident	ification Ta	ig Installe	ed:] Yes		No	Visual	l Signs	of Overhea	ating:		🗌 Yes	🗌 No
Ð	Cleanliness	(As Found)):	Go	od 🗌	Accept	able	Poo	r Suppo	ort Insu	lators:		Good C	Acceptat	ole 🗌 Poor
Cleanin	Connections	6		Go	od 🗌	Accept	able	Poo	r Electro	o/Mech ock:	anical		Good	Acceptab	le 🗌 Poor
o / uo	Ground Con	nection	[Goo	d 🗌 /	Accepta	able	🗌 Poo	r Conta	ctor Co	ondition:		Good	Acceptab	le 🗌 Poor
pecti	Door Mecha	nical	[Goo	d 🗌 /	Accepta	able	🗌 Poo	r Conta	ct Aligr	nment:		Good	Acceptat	ole 🗌 Poor
ual Ins	Verify O/L el the load:	lement is c	orrectly s	sized fo	r] Yes	s 🗌 No	Exerc	Exercise Circuit Breaker/MCP/Disconnect			🗌 Yes		
Vis	Cables Supp	ported App	ropriately	/:] Yes	s 🗌 No	D Unit C	leaned	: 🗌 Ye	es Photo	graph Take	n: 🗆	Yes
	Comments:														

٩	
Winnipe	g

INSPECTION FORM MOTOR SOFT STARTER, 600V

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ID:

S	Test	А	В	с	Test Summary			
ement	Bypass Contactor Contact Resistance ($\mu\Omega$)				☐ Test Passed ☐ Test Inconclusiv	e		
leasur	Capacitor Contactor Contact Resistance (μΩ)				Further Investigation Required.			
ole N	Disconnect Resistance (μΩ	2)						
act / F	Main Fuse Resistance (μΩ)						
Conta	Capacitor Fuse Resistance ((Ωι						
•	Comments:							
	Test Preparation: Source: Isolated Contactor: Cable Dest. / Load: Note: Approval of City's Representative is required, prior to leaving cables connected during the test.							
	WARNING: DISCONNECT TO TEST.	DL POWER FUSES PRIOR						
	Test	Voltage	In	sulation Resistar	nce (MΩ)	Ground all phases not		
		0	Α	В	С	under test!		
Fest	Disconnect Line to GND	1000 VDC						
ance -	Disconnect Load to GND	1000 VDC						
Resist	Disconnect Line to Load	1000 VDC				T		
ation	Bypass Contactor Line To GND	1000 VDC				Test Summary Test Passed		
Insul	Bypass Contactor Load To GND	1000 VDC				Further Investigation Required.		
	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:							



INSPECTION FORM MOTOR SOFT STARTER, 600V

ID:

	Test Preparation: Run moto							
uo	Ramp Up Time	Specified:		sec	Actual: s		sec	Comments:
pecti	Measured Motor Current	ØA	А	ØB	А	ØC	А	
al Ins	Soft Start Motor Current	ØA	А	ØB	А	ØC	А	
ration	Ammeter Displayed Motor Current:							
Ope	Remote (RTU/PLC/DCS) Displayed Motor Current:		А					
	Ramp Down Time	Specified:		sec	Actual:		sec	
Ś	Returned to Service:		🗌 Yes	🗌 No	Comments:			
Final nalysis	Monitoring / Further Inspec Required:	tion	🗌 Yes	🗌 No				
A	Repair / Replacement Requ	uired:	🗌 Yes	🗌 No				

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

INSPECTION FORM AC MOTOR, LOW VOLTAGE

Page: 1 of 2

ID:

ject	Facility:				Project Name:					
Pro	Area :			Bi	id Opportuni	y:				
	Cinc. Idd		LID	Valta						
, ra	Size: KV	v /	HP	voltaç	ge:	V	R.P.M:			
r Dat	Manufacturer:			Mode	Serial Number:					
Moto	Frame Type:			Facto	or:		Other:			
	Cooling:	☐ Air ☐ Fan	# Cooling Fans:		W Ma	nding iterial:				
	Motor Identification	n Tag Install	ed:	/es	🗌 No	Visual Signs of Over	heating:		Yes 🗌 No	
ing	Connections:		Good A	ceptab	ble 🗌 Poor	Air Baffles:		Good Acc	ceptable 🗌 Poor	
Clean	Paint: Good Acce			cceptab	ble 🗌 Poor	Filter Media:	🗌 N/A	A 🗌 Good 🗌 Acc	ceptable 🗌 Poor	
o / uo	Cooling Fans: N/A Good Acceptable			ble 🗌 Poor	Fan Controls:	🗆 N/A	A 🗌 Good 🗌 Acc	ceptable 🗌 Poor		
pecti	Anchorage/Alignment: Good Acce			cceptab	ble 🗌 Poor					
al Ins	Ground Connection: Good Acceptable Poor									
Visua	Mechanical/Electrical Noise During Operation:				🗌 No	Lubrication Required	1:	□ Ye	es 🗌 No	
	Cleanliness (As Found): Good Acce			ccepta	able 🗌 Poor	Unit Cleaned:	Yes Phot	ograph Taken:	☐ Yes	
		Test Winding								
	States Winding	Test	Winding			Resistance (MΩ)		Dielectric	Polarization	
	Stator Winding	Test Voltage (Vdc)	Winding Temperature (°	C)	30 Sec	Resistance (MΩ) 1 min.	10 min. (a)	Dielectric Absorption Ratio	Polarization Index (a)	
Ince	Stator Winding	Test Voltage (Vdc)	Winding Temperature (°(C)	30 Sec	Resistance (MΩ) 1 min.	10 min. (a)	Dielectric Absorption Ratio	Polarization Index (a) -	
esistance	Stator Winding	Test Voltage (Vdc) 500	Winding Temperature (°0 40	C)	30 Sec	Resistance (MΩ) 1 min.	10 min. (a)	Dielectric Absorption Ratio	Polarization Index (a) -	
on Resistance	Stator Winding	Test Voltage (Vdc) 500	Winding Temperature (°0 40		30 Sec	Resistance (MΩ) 1 min.	10 min. (a)	Dielectric Absorption Ratio -	Polarization Index (a) - -	
sulation Resistance	Stator Winding	Test Voltage (Vdc) 500 500	Winding Temperature (° 40 40		30 Sec	Resistance (MΩ) 1 min.	10 min. (a)	Dielectric Absorption Ratio -	Polarization Index (a) - -	
ng Insulation Resistance	Stator Winding	Test Voltage (Vdc) 500 500	Winding Temperature (°(40 40	C)	30 Sec	Resistance (MΩ) 1 min.	10 min. (a)	Dielectric Absorption Ratio - -	Polarization Index (a) - - -	
/inding Insulation Resistance	Stator Winding	Test Voltage (Vdc) 500 500 500	Winding Temperature (° 40 40 40 40		30 Sec	Resistance (MΩ) 1 min.	10 min. (a)	Dielectric Absorption Ratio - -	Polarization Index (a) - - -	
Winding Insulation Resistance	Stator Winding	Test Voltage (Vdc) 500 500 500	Winding Temperature (° 40 40 40		30 Sec	Resistance (MΩ) 1 min.	10 min. (a)	Dielectric Absorption Ratio - -	Polarization Index (a) - - -	
Winding Insulation Resistance	Stator Winding Stator Winding Notes: (a) Testing to Test Summary	Test Voltage (Vdc) 500 500 500	Winding Temperature (° 40 40 40 40 and calculation of Test Passed	f Polari:	30 Sec	Resistance (MΩ) 1 min. 1 is only required for mean for the second secon	10 min. (a)	Dielectric Absorption Ratio - - - - kW (200 HP) □ Test Fai	Polarization Index (a) - - -	
Winding Insulation Resistance	Stator Winding Stator Winding Notes: (a) Testing to Test Summary	Test Voltage (Vdc) 500 500 500 0 10 minutes	Winding Temperature (° 40 40 40 40 and calculation of Test Passed	f Polariz	30 Sec	Resistance (MΩ) 1 min. 1 is only required for meta. Further Investigation	10 min. (a)	Dielectric Absorption Ratio - - - - - - - - - - - - - - - - - - -	Polarization Index (a) - - -	
Winding Insulation Resistance	Stator Winding Notes: (a) Testing to Test Summary	Test Voltage (Vdc) 500 500 500 0 10 minutes 0 10 minutes	Winding Temperature (° 40 40 40 40 and calculation of Test Passed [istance (μΩ)	f Polariz	30 Sec	Resistance (MΩ) 1 min. 1 min. is only required for meters Further Investigation Test Summary Test Passed	10 min. (a)		Polarization Index (a) - - -	
nding Winding Insulation Resistance	Stator Winding Stator Winding Notes: (a) Testing to Test Summary A - B	Test Voltage (Vdc) 500 500 500 0 10 minutes 0 10 minutes Res	Winding Temperature (° 40 40 40 40 40 and calculation of Test Passed istance (μΩ) B – C	f Polariz	30 Sec ization Index Inconclusive	Resistance (MΩ) 1 min. 1 min. is only required for me. Further Investigation Test Summary Test Passed Test Inconclus Further Investigation	10 min. (a) 10 min. (a) otors > 150 n Required. sive tigation Reg		Polarization Index (a) -	
Winding Winding Insulation Resistance	Stator Winding Stator Winding Notes: (a) Testing to Test Summary A - B	Test Voltage (Vdc) 500 500 500 0 10 minutes Res	Winding Temperature (° 40 40 40 40 40 and calculation of Test Passed istance (μΩ) B – C	f Polariz	30 Sec ization Index Inconclusive A - C	Resistance (MΩ) 1 min. 1 min. is only required for m is only required for m Further Investigation Test Summary Test Passed Test Inconclus Further Investigated Test Passed Test Failed	10 min. (a) 10 min. (a) otors > 150 l n Required. sive tigation Req	Dielectric Absorption Ratio - - - - - - - - - - - - - - - - - - -	Polarization Index (a)	

INSPECTION FORM AC MOTOR, LOW VOLTAGE

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ID:

_	Not Applicable] Not Applicable									
tior	Bearing	Test Voltage	Bearing	Resistance (MΩ)							
sula ance	Dearing	(Vdc)	Temperature (°C)	1 min.	Corrected to 40°C						
ng In: esista		500									
3earii R(500									
	Test Summary	Test Passed	Test Inconclusiv	e. Further Investigation Requi	red.						

	□ Not Applicable						
	Actual Winding Ter	nperature:	°C	Actual Bearing Temperature		°C	
	RTD	Resistance (Ω)	Calculated Temperature (°C)	RTD	Resistance (Ω)	Calculated Temperature (°C)	
ince							
sista							
TD R							
<u>ک</u>							
	Test Summary	Test Passed	Test Inconclusiv	e. Further Investigation Requi	red. 🗌 Test	Failed	

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

s	Returned to Service:	☐ Yes	🗌 No	Comments:
Final nalysi	Monitoring / Further Inspection Required:	☐ Yes	□ No	
A	Repair / Replacement Required:	☐ Yes	□ No	

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

	Ĩ		I	INSPECTION FORM				Page 1 of 2		
Ň	Winnipeg	V	OLTA	GE MONITOR, SSAC-WVM						
ject	Facility:		Pro	oject Nar	me:					
Pro	Area : Bid Oppo					ortunity:				
	-									
	Location:			Cell #:						
Data	Manufacturer:					Model:				
Relay	Type:					Serial No.:				
	Comments:									
		1								
				_	-			_	_	_

		Α	В	С		Α	в	С	
ion	Moisture/Rust:				Relay Cleaned:				
spect	Over-heating:				Screws Tightened:				
Visual In	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		

	Desired Phase Voltage			Actual Voltage			Polay State	Time to Change	OK	
	Α	В	С	Α	В	С	Relay State	Time to Change	ŬŔ	
	600	600	600							
Fests	0	600	600							
: Voltage 1	600	600	600							
	600	0	600							
Basic	600	600	600							
	600	600	0							
	600	600	600							
	Comments:									

INSPECTION FORM VOLTAGE MONITOR, SSAC-WVM

ID:

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

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