		_											_		
	<u> </u>								ORM				Page 1	of 3	
V	Vinnipèg		VAF	RIABLE	FRE	EQU	ENC	Y DR	RIVE, 6	00V,	<37 kW		ID:		
Project	Facility:						Proje	ect Nan	ne:						
Pro	Area :						Bid C	Opportu	ınity:						
	•														
	Load:					VFC	Loca	ation:				1		Cell #:	
	VED	Manufactu	ırer:				Mod	del:				Serial #:			
	VFD:	Size:			Rate Volta	ed age:			V	Curre Rating		Α	Control Voltage	:	V
		☐ Fused	Disc.	Rating:	ing: A			Fuse S	Size:	Α	Fuse Mfg	J.	•		
	Circuit Protection:										Model:				
	i rotection.	☐ Breake	r	Rating:	: A			I 10 A ⊢		Manufacturer: Model:					
	Line	☐ Preser	nt							Manufact	urer:				
ata	Reactor:	□ N/A	i.	Ratir	ıg:		<u> </u>			Model:					
VFD Data	Load	Preser	nt	Ratir	Rating:				Manufacturer:						
>	Reactor:	□ IV/A				Model:									
	Bypass	_] NEMA] IEC	Manı	ufactur	er:					Model:				
	Contactor:		N/A	NEM	A Size	:			IEC Ra	ting:		A 🗆 A	C-3 🗆 A0	C-4	
-	Bypass			☐ 10 ☐ 20				Cotting	· /		Manufact	urer:			
	Overload			Class:	Class: 30			Setting Rating		Α	Model:				
	Control Pov					Unknown									
	Transforme		Size:		VA Sec.			c. Voltage:		Prima	ry Fuse:	A	Secondary	Fuse:	Α
	Current Tra	nsformer:	Ratio:						Тур	e:					
	I.D.					0:-			1387 /		LID		\		
Motor Data	ID:					Siz			kW /		HP		Voltage:		V
ğ	Full Load Ar	nps:	AS	Service F	actor:		1.00 1.15	Inve	rter Duty	/ =	☐ Yes ☐ No	Ot	her:		
						.,	_		1,,,						
	Starter Ident					Yes					of Overhe	ating:		☐ Yes	□ No
ing	Cleanliness	(As Found)):	☐ Good	I 🗌 A	ccept	table	☐ Poo		ort Insu			☐ Good [Accepta	ble 🗌 Poor
Clear	Connections	3		☐ Good	I 🗆 A	ccept	table	☐ Poo	r Elect Interl	ro/Mech ock:	nanical		☐ Good ☐] Acceptab	ole 🗌 Poor
on /	Ground Con	nection	ſ	☐ Good	☐ Ac	cepta	able	☐ Poo	Conta	actor Co	ondition:		☐ Good ☐] Acceptab	ole 🗌 Poor
pect	Door Mecha	nical		☐ Good	☐ Ac	cepta	able	☐ Poo	r Conta	act Aligi	nment:		☐ Good [Accepta	ble 🗌 Poor
Visual Inspection / Cleaning	Verify Bypas sized for the		nent is co	orrectly		res [□ No	□ N/A	A Exerc	cise Circ	cuit Breake	er/MCP/Di	sconnect		☐ Yes
Vis	Cables Supp	oorted Appi	ropriately	y:] Yes	s □ No	o Unit (Cleaned	d: 🗆 Ye	es Phot	ograph Take	n:	Yes
	Comments:								1			ı			



INSPECTION FORM VARIABLE FREQUENCY DRIVE, 600V, <37 kW

Page	2 of 3	
ID:		

	Test	А	В	С	Test Summary					
Pole nents	Bypass Contactor Contact Resistance (μΩ)				☐ Test Passed☐ Test Inconclusiv					
Contact / Pole Measurements	Breaker/Disconnect Resistance (μΩ)				Further Investion Test Failed	gation Required.				
S Me	Main Fuse Resistance (μΩ)									
	Comments:									
	Test Preparation: Source: Sou									
	WARNING: DISCONNECT ALL POWER CABLES FROM VFD MODULE AND ALL CONTROL POWER FUSES PRIOR TO TEST.									
st	Test	Voltage	In	sulation Resista	nce (MΩ)	Ground all phases not				
e Te	rest	Voltage	Α	В	С	under test!				
Insulation Resistance Test	Disconnect Line to GND	1000 VDC								
on Res	Disconnect Load to GND	1000 VDC								
sulatio	Disconnect Line to Load	1000 VDC								
u	Bypass Contactor Line To GND	1000 VDC				Test Summary ☐ Test Passed ☐ Test Inconclusive				
	Bypass Contactor Load To GND	1000 VDC				Further Investigation Required.				
	Bypass Contactor Line to Load	1000 VDC				Test Failed				
	Comments:									



INSPECTION FORM VARIABLE FREQUENCY DRIVE, 600V, <37 kW

Page	3 of 3	
ID:		

	Test Prepa	aration: Run moto	r at full loa	ad.					
ction	Ramp Up	Time	Specified	d:	sec	Actual:		sec	Comments:
lnspe	Measured	Motor Current	ØA	А	ØB	А	øс	А	
onal	VFD Moto	r Current	ØA	А	ØB	А	øс	А	
Operational Inspection	Remote (F Displayed	RTU/PLC/DCS) Motor Current:		А			•		
	Ramp Dov	vn Time	Specified	d:	Actual:		sec		
	1				1				
Settings	Record F	Record Parameters and Settings on			et.	Comments	S:		
	Complete	ed:		☐ Yes	□No				
					<u> </u>				
s	Returned	to Service:		☐ Yes	☐ No	Comments	3:		
Final Analysis	Monitorin Required	ng / Further Inspec l:	tion	☐ Yes	□No				
•	Repair /	Replacement Requ	uired:	☐ Yes	□No				
		Company		Name		10	ignature		Data (unus/mm/dd)
		Company		INAILIE		3	ignature	7	Date (yyyy/mm/dd)
Perfo	rmed By								
Chec	ked 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.

V	Vinnipeg						PECT								Page 1 of	2	
v	viiinpeg				MO	OR S	STAR	TER	R, FV	NR, 6	500V				ID:		
Project	Facility:						Pro	ject N	Name:	:							
Ŗ	Area:						Bid	Opp	ortuni	ty:							
	Load:					,	Starter	Loca	ation:							Cell #:	
	Manufacturer	r:		Тур	e:								Serial #	:			
	Size:		Rate	ed Vo	oltage:	V	,	Cı	urrent	Rating	:	Α		Con	trol Voltage:		V
		□ Fue	ed Dis	20	Rating:		A	Fı	use Si	70.	A	Fuse	Mfg.				
ī g	Circuit Protection:				rtating.			-		20.		Mode					
Starter Data		☐ Bre			Rating:		Α		st. etting:		Α	Mode	ufacturer: el:				
Start	Overload	rorload				☐ 10 ☐ 20			-44'	,		Manı	ufacturer:				
	Protection:	_	ctronic Iligent		Class:	☐ 20 ☐ 30		Ra	etting ating:	/	Α	Mode	======================================				
	Control Power Transformer: Size:								•	V	Primar			Λ	Casandani		Δ.
	Transformer:			ПА	VA ,	Sec. Volt		Itage:		Pilillai				Secondary	ruse.	Α	
	Current Transformers:		Phase	s:	B C	[☐ None	е	Ratio):			round ault CT:		Present Not Present	Ratio:	
5 5	ID:					;	Size:		ŀ	«W /		HI)	V	/oltage:		V
Motor Data	Full Load Am	nps:		A S	ervice Fac	ctor:		0	ther:								
									1								
	Starter Identi	fication	Tag In	stalle	ed:	☐ Ye	es 🗆	_			rheating:			☐ Yes	□No		
jing	Cleanliness (As Four	nd):		Good [Acce	eptable	able Poor Support Insulators:				☐ Good ☐	Acceptable	Poor			
ion / Cleaning	Connections				Good [Acce	eptable	☐ F		Electro Interlo	o/Mecha ck:	anical	□ N	N/A	☐ Good ☐ /	Acceptable	Poor
tion /	Ground Conr	nection:			Good [☐ Acce	eptable	□F	Poor	Contac	ctor Cor	ndition	:		☐ Good ☐	Acceptable	Poor
spec	Door Mechan	nical			Good [Acce	eptable	☐ F	Poor	Contac	ct Alignr	ment:			☐ Good ☐	Acceptable	Poor
Visual Inspect	Verify O/L ele the load:	ement is	corre	ctly si	ized for		☐ Ye	es 🗆] No	Exercis	se Circu	uit Bre	aker/MCF	P/Disc	connect		☐ Yes
Vis	Cables Supp	orted Ap	opropr	iately	:		☐ Ye	es 🗆] No	Unit Cl	leaned:		Yes P	hoto	graph Taken:	: 🗆 `	⁄es
	Comments:																
		Test			A			В			С		<u> </u>				
e its			oo (C	.	^								Test Sun ☐ Test F				
Contact/Pole Measurements	Contact R Disconnect												Test In	ncond		equired.	
Sonta	Resis	tance (µ	ιΩ)										☐ Test Failed				
ĎŠ	Fuse Re	sistance	e (μΩ)														

Comments:



INSPECTION FORM MOTOR STARTER, FVNR, 600V

Page	2 of 2	
ID:		

Test	Test Prepa		rce:	ated Disc	Dest. / Loa connected nected wit		prior to lo		epresentative is required, nected during the test.	
nce T		Test	V	-14		Insu	lation Resistanc	e (MΩ)	Ground all phases not	
Insulation Resistance		rest	V	oltage	Α		В	С	under test!	
on Re	Contacto	r Line To GND	100	00 VDC					Test Summary ☐ Test Passed	
ulatic	Contactor	Load To GND	100	00 VDC					Test Inconclusive Further Investigation	
lus	Contacto	or Line to Load 100		00 VDC					Required. Test Failed	
	Comments	S:								
s		to Service:		☐ Yes	☐ No	Comme	nts:			
Final Analysis	Monitorir Required	ng / Further Inspe l:	ection	☐ Yes	☐ No					
•		Replacement Re	quired:	☐ Yes	☐ No					
		1		T			Ī			
		Company		Name			Signature		Date (yyyy/mm/dd)	
Perfo	rmed By									
Chec	ked By									

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INSPECTION FORM AC MOTOR, LOW VOLTAGE

Page:	1 of 2		
ID:			

Project	Facility:				Project	Name:						
Pr	Area :				Bid Opp	oortunit	y:					
	Size:	kW /	HF	P Vo	oltage:		V		R.P.M:			
ata	Manufacturer:				lodel:				Serial Nu	mher		
Motor Data	Frame Type:		FLA:	1		Service	Factor:		Other:			
Mo		☐ Air					nding	[
	Cooling:	☐ Fan	# Cooling Fans	:			terial:					
	Motor Identification	Tag Installe	ed:	Yes		No	Visual Signs of Ov	erhea	iting:		Yes 🗌 No	
bu	Connections:		☐ Good ☐ /	Accep	otable [able Poor Air Baffles: Good Accepta						
leani	Paint:		☐ Good ☐ /	Accep	otable [table Poor Filter Media: N/A Good Acceptable Po						
Visual Inspection / Cleaning	Cooling Fans:	□ N/A	A Good A	Accep	otable [able Poor Fan Controls: N/A Good Acceptable Po					ceptable Poor	
pecti	Anchorage/Alignm	Accep	otable [ble Poor								
al Ins	Ground Connection	n:	☐ Good ☐ A	Accep	otable [] Poor						
-	Mechanical/Electric	cal Noise Du	uring \square	Yes] No	Lubrication Requir	ed:		☐ Ye	s 🔲 No	
	Cleanliness (As Fo	ound):	☐ Good ☐	Acce	ptable [] Poor	Unit Cleaned:	☐ Ye	s Photo	graph Taken:	☐ Yes	
	Test						Resistance (MΩ)			Dielectric		
	Stator Winding	Voltage (Vdc)	Winding Temperature ((℃) 30		Sec	1 min.	10	min. (a)	Absorption Ratio	Polarization Index (a)	
nce		F00								-	-	
sista		500	40									
on Re		500								-	-	
ig Insulation Resistance		500	40									
		500								-	-	
Windir		300	40									
8	Notes:									, - .		
	(a) Testing to						is only required for Further Investiga			W (200 HP) ☐ Test Fail	ed	
						.0.00.0						
•		Res	istance (μΩ)				Test Summary					
Winding Resistance	A - B		B – C		A - C	<u> </u>	Test Inconc	☐ Test Passed ☐ Test Inconclusive Further Investigation Required.				
v Re	Comments:						☐ Test Failed					



INSPECTION FORM AC MOTOR, LOW VOLTAGE

Page:	2 of 2	
ID:		

	☐ Not Ap	plicable							
tion		Bearing	Test Voltage		Resi	istance (MΩ)			
sula		Searing	(Vdc)	Temperature (℃)	1 min.	Correcte	ed to 40°C		
Bearing Insulation Resistance			500						
Beari R			500						
	Test Sum	mary [Test Passed	☐ Test Inconclusiv	e. Further Investigation Requi	ired.	: Failed		
	□ Nat Ass	- P I-I -					1		
	□ Not Ap								
	Actual W	/inding Temperatu	ire:	℃	Actual Bearing Temperature	1	€		
	RT	.D I	Resistance (Ω)	Calculated Temperature (℃)	RTD	Resistance (Ω)	Calculated Temperature (℃)		
RTD Resistance									
	Test Sum	mary [Test Passed	☐ Test Inconclusiv	e. Further Investigation Requi	ired.	t Failed		
Note:	Test co	nnection resistant	ce of bolted cor	nections. Report on ca	able inspection sheet.				
ø	Returned	to Service:		☐ Yes ☐ No	Comments:				
Final Analysis	Monitorin Required	g / Further Inspec	tion	☐ Yes ☐ No					
٩	Repair / I	Replacement Req	uired:	☐ Yes ☐ No					
		Company	Nar	ne	Signature	Date	(yyyy/mm/dd)		
Perfo	rmed By	, ,					,		
Checl	ked 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.

V	Vinnipeg		INSPECTION							Page 1 of 1			
	vininpeg	POWE			R CABLE < 1000V				Cable ID:				
Project	Facility:				Project N	Project Name:							
Pr	Area :				Bid Opp	Bid Opportunity:							
	Source:					Dest. / Load:							
Cable Data	Manufacturer:			Тур	e:			С	Conductor: ☐ Copper ☐ Aluminum				
	No. of Conductors:		Size:		☐ AWG ☐ MCM	Length: m			☐ Measured ☐ Previous Data ☐ Jacket Markings ☐ TDR				
			Operatino Voltage:	9	V	Date Installed:							
	Installatio	n: Cable Tra] EMT] Steel Con	☐ Alum. C Conduit ☐ PVC Co			- Other						
Visual Inspection	Physical Damage on Exposed Ends: Yes				□No	Cable Id	ole Identification Tag Installed:					□No	
	Visual Signs of Overheating:			☐ Yes	☐ No	Cable S	Cable Supported Appropriate			☐ Yes ☐ No			
\ Ins	Bend Radius Acceptable:			☐ Yes		Comme	nts:						
Insulation Resistance Test	Test Source: Cable Dest. / Load: Note: Approval of City's Representation: Disconnected is required, prior to leaving cables												
	Cable Temperature: C Temperature Correction Factor for 20°C: Ground all conductors not under test for reading.									est for each			
	Cable 16	ilperature.		reading. Iation Resistance (M Ω)									
	Test Voltage		A-G				C-GND N-GN			est Summary			
		Reading				0 0.0		11 011	L Tes	☐ Test Passed ☐ Test Inconclusive			
	V	Corrected to 20°	С							Further Investigation Required. Test Failed			
드	Utilize 1000VDC Test Voltage for 600V rated cables, 500VDC for cables rated <= 300V.												
	Comments:												
	Note: Torque check required for all cables. Connection Resistance Test required for cables 4/0 AWG or larger.												
Connection Resistance		<u>· </u>	Connection Resistance (μΩ) - As Left										
	Termination		Α		В	С		N		Torque Check			
	Source										□ ок		
	Dest. / Load									□ ок			
ŭ	Comments:												
Final Analysis	Cable Returned to Service: Yes No Comments:												
	Monitoring / Further Inspection Required:												
	Repair / Replacement Required:					No							
Company Name						Signature					Date (yyyy/mm/dd)		
Perfor	med By	- -											
Check	ed By												