



Powering Business Worldwide

POW-R-LINE **C**
PRL3000
Switchboard/Sous-Station

CUSTOMER DATA

DISTRIBUTOR : WESCO CALGARY
CUSTOMER : MURPHY OIL
ORDER No. : 2550-041228
PROJECT TITLE : CADOTTE CSS PILOT

SWBD. TAG : MCC-100

NOTES

- BUILT TO : CSA STANDARD C22.2 No. 31.
- C.S.A. FILE LL47168
- ALL DOORS, HINGED AT LEFT HAND SIDE.
- LIFTING LUGS ARE SUPPLIED AS STANDARD.

- METERING LOCATED IN MCC, METERING CTS IN SWITCHBOARD
- STARTCO SE-330 NGR RELAY MONITOR LOCATED IN MCC
- NGR IN SEPARATE CABINET
- STARTCO EFCT-26, ER-600VC LOCATED IN MCC
- D65 VOLTAGE MONITOR, LIGHTNING ARRESTOR, SURGE CAP

IMPORTANT: IT IS THE PURCHASERS RESPONSIBILITY TO OBTAIN ANY NECESSARY LOCAL UTILITY AND/OR PROVINCIAL INSPECTION AUTHORITY APPROVAL. WHEN RETURNING APPROVED DRAWINGS THE PURCHASER SHOULD CONFIRM THAT SUCH APPROVAL HAS BEEN OBTAINED OR IS NOT REQUIRED.

SPECIFICATIONS

MAIN BUS RATING : 1200 AMP. 480 VOLTS 60 HZ.
SYSTEM : 3 PHASE 3 WIRE RESISTIVE GROUND 5 AMP
SWBD SHORT CCT. RATING : 65 KA SYM.
BUS BAR : TIN PLATED COPPER
BUS BRACING : 65 KA SYM.
ACCESS REQUIRED FOR SWITCHBOARD INSTALLATION TO BE FROM :
FRONT ONLY

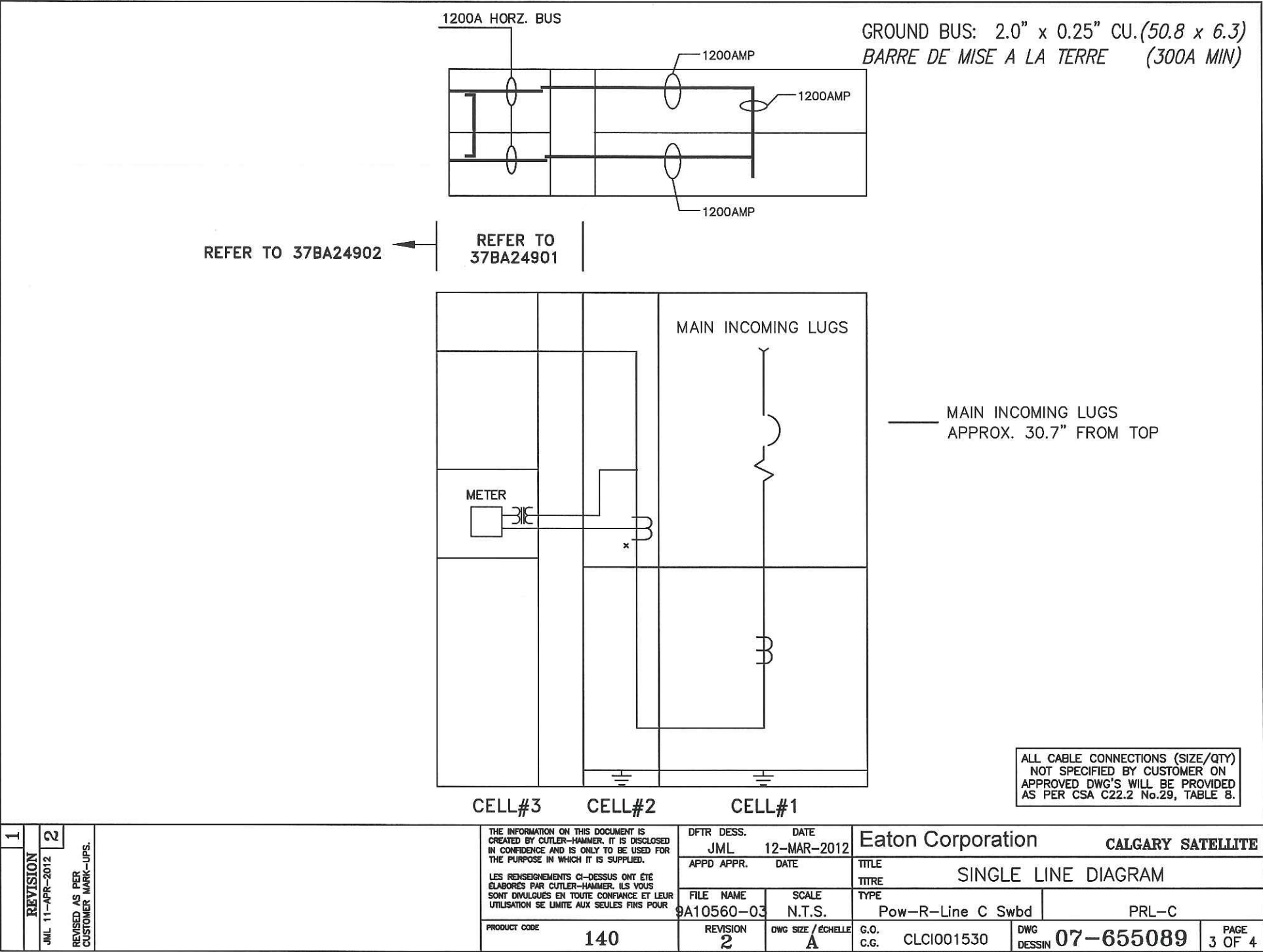
ENCLOSURE TYPE : CSA TYPE 1 - GASKETTED
PAINT FINISH - INTERIOR : ASA 61 LIGHT GREY
EXTERIOR : ASA 61 LIGHT GREY
SUITABLE FOR SERVICE USE : YES
BASE CHANNELS : YES

MAIN DEVICE : Cutler-Hammer Type "CND" 100% Rated
FRAME : 1200A CND FUSE PROVISION : N/A
TRIP UNIT : DIGITRIP RMS-310 LSI RATING PLUG : 1000
GROUND FAULT PROTECTION : LOCATED IN MCC, REFER TO MCC DRAWINGS
GROUND FAULT SENSING : LOCATED IN MCC, REFER TO MCC DRAWINGS

MAIN INCOMING
ENTRY BY : TOP, RIGHT
ENTRY WITH : (5) X 4/0 - 500 KCMIL / PHASE

1	2	THE INFORMATION ON THIS DOCUMENT IS CREATED BY CUTLER-HAMMER. IT IS DISCLOSED IN CONFIDENCE AND IS ONLY TO BE USED FOR THE PURPOSE IN WHICH IT IS SUPPLIED. LES RENSEIGNEMENTS CI-DESSUS ONT ÉTÉ ELABORÉS PAR CUTLER-HAMMER. ILS VOUS SONT DIVULGUÉS EN TOUTE CONFIANCE ET LEUR UTILISATION SE LIMITE AUX SEULES FINS POUR		DFTR DESS. DATE JML 12-MAR-2012	Eaton Corporation CALGARY SATELLITE	
REVISION	REVISED AS PER CUSTOMER MARK-UPS.			APPD APPR. DATE	TITLE SPECIFICATION	
		PRODUCT CODE 140		FILE NAME	SCALE N.T.S.	TYPE Pow-R-Line C Swbd PRL-C
				REVISION 2	DWG SIZE / ÉCHELLE A	G.O. C.G. CLCI001530
					DWG DESSIN 07-655089	PAGE 1 OF 4

VISTA Projects Limited VENDOR DRAWING/DOCUMENT SQUAD CHECK			
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DE 14C-100 PALLA 17 APR 2012

ALL CIRCUIT BREAKERS ARE SUITABLE FOR CONTINUOUS LOAD CURRENT AT 80% OF TRIP UNIT RATING, UNLESS MARKED AS BEING SUITABLE FOR 100% CONTINUOUS LOAD CURRENT												
FRAME TYPE & RATING	TRIP TYPE	NON ADJUSTABLE RATING PLUG	ADJUSTABLE RATING PLUG	AC INTERRUPTING RATINGS RMS SYMMETRICAL AMPS								
<input type="checkbox"/> ND <input type="checkbox"/> HND <input type="checkbox"/> NDC * <input type="checkbox"/> CND * <input type="checkbox"/> CHND * <input type="checkbox"/> CNDG * 100% RATED	<input type="checkbox"/> LS (T33) <input checked="" type="checkbox"/> LSI (T32) <input type="checkbox"/> LSG (T35) <input type="checkbox"/> LSG (T36)	<input type="checkbox"/> 600 <input type="checkbox"/> 700 <input type="checkbox"/> 800 <input type="checkbox"/> 900 <input checked="" type="checkbox"/> 1000 <input type="checkbox"/> 1200	600, 800 1000, 1200A <input type="checkbox"/> One plug with 4 settings. SET @ _____	TYPE 240V 600V ND CND 65000 25000 HND CHND 100000 35000 NDC CNDG 200000 50000								
<p>NOTES :</p> <p>1. Additional grounding points must not be down stream from Neutral current transformer.</p> <p>2. For 3 ph 3 wire application, Neutral current sensor & assoc. wiring is omitted.</p> <p>3. Auxiliary switch and Ground Alarm Terminals are supplied on Type T35 and T36 Trip Unit.</p>												
<p>Neutral current transformer - Residual Connection Terminals to be marked grey and white as shown.</p> <p>Connections between breaker and neutral CT to be wire marked both ends grey and white. Ground lead to be marked white at sensor end.</p>												
<p>GROUND LINK IF LINE FEED</p> <p>POLARITY MARK</p> <p>NEUTRAL CURRENT SENSOR (RESIDUAL GND)</p> <p>GREY</p> <p>WHITE</p> <p>N-FRAME</p> <p>LINE</p> <p>A B C</p> <p>A B C</p>												
<p>TRIP UNIT OPTIONS</p> <table><tr><td>LS</td><td>LSI</td><td>LSG</td><td>LSIG</td></tr><tr><td>T33</td><td>T32</td><td>T35</td><td>T36</td></tr></table> <p>* * * * *</p> <p>- Adjustable Short Time Pick-up with Short Time Delay 1st Ramp.</p> <p>- Adjustable Short Time Delay with Adjustable Short Time Pick-up</p> <p>- Adjustable Ground Fault Pick-up with Adjustable Ground Fault Time. (Pick-up at 200, 400, 600, 800, 1000, 1200A)</p>					LS	LSI	LSG	LSIG	T33	T32	T35	T36
LS	LSI	LSG	LSIG									
T33	T32	T35	T36									
<p>OPTIONAL ACCESSORIES (One per Frame)</p> <p><input checked="" type="checkbox"/> Provision for Padlocks</p> <p><input checked="" type="checkbox"/> 120v AC Shunt Trip.</p> <p><input type="checkbox"/> Alarm (Signal) / Lockout Switch (Form C).</p> <p><input checked="" type="checkbox"/> 2A-2B Aux. Switch (Form C) (or 4A-4B).</p> <p><input type="checkbox"/> Undervoltage Release: Trip @ 44-77v Pick-up @ 93v</p>												
<p>CONNECTION DIAGRAM</p> <p>SHUNT TRIP</p> <p>ALARM/LOCKOUT SWITCH</p> <p>AUXILIARY SWITCH 1</p> <p>AUXILIARY SWITCH 2</p>												

10	2	REVISION		JML 11-APR-2011		REVISED AS PER CUSTOMER MARK-UPS.		
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DATE		12-MAR-2012		DATE		12-MAR-2012		
APPD		C.KRUGER		DATE		12-MAR-2012		
FILE NAME		Nd310_12		TYPE		Pow-R-Line C SMD		
G.O.		CLCI001530		DWG		07-655089		
SHEET		4		OF		4		

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EQUIPMENT TAG

REVIEWED BY

DATE

MC-110

PVALA

MAR 26, 2002

ITEM	TAG	QUANTITY	Description	Part Number
1	D65	1	D65 Voltage Phase Monitor Relay	D65VMLS480-B2
2	CTD	1	Capacitor Trip Unit	1283C62G01
3	CPT	1	Control Power Transformer 100 VA 480-120V	5699A85H19
4	FH1	1	Fuse Holder	USCC3
5	F1-F3	3	Fuse	ATQR1
6	FH2	1	Primary Fuse Holders	USCC2
7	F4,F5	2	Primary Fuse	ATQR1/2
8	FH3	1	Secondary Fuse Holder	101400000
9	F6	1	Secondary Fuse	GDL1-4/10
10	ST	1	Shunt Trip 120 VAC	SNT
11		1	End Plate	105000000
12		2	End Stop	0383560000
13		1	Ground Block	101000000
14		0.2	Din Rail	051450000

NOTES : - MAIN DISCONNECT WILL TRIP ON LOSS OF HYDRO POWER SUPPLY
- CONTROL WIRING WILL BE No.14 SIS.
- GROUND WIRING TO BE No.12 SIS

ADD MANUFACTURER NAME OF ALL PARTS

1

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DFTR DESS. DATE

G. BRIGGS 02/23/05

APPD APPR. DATE

FILE NAME

3A15217

SCALE

N.T.S.

REVISION

1

DWG SIZE / ÉCHELLE

A

PRODUCT CODE

140

EATON

CALGARY SATELLITE

TITLE

MAIN BREAKER PHASE RELAY

TYPE

Pow-R-Line C Swbd

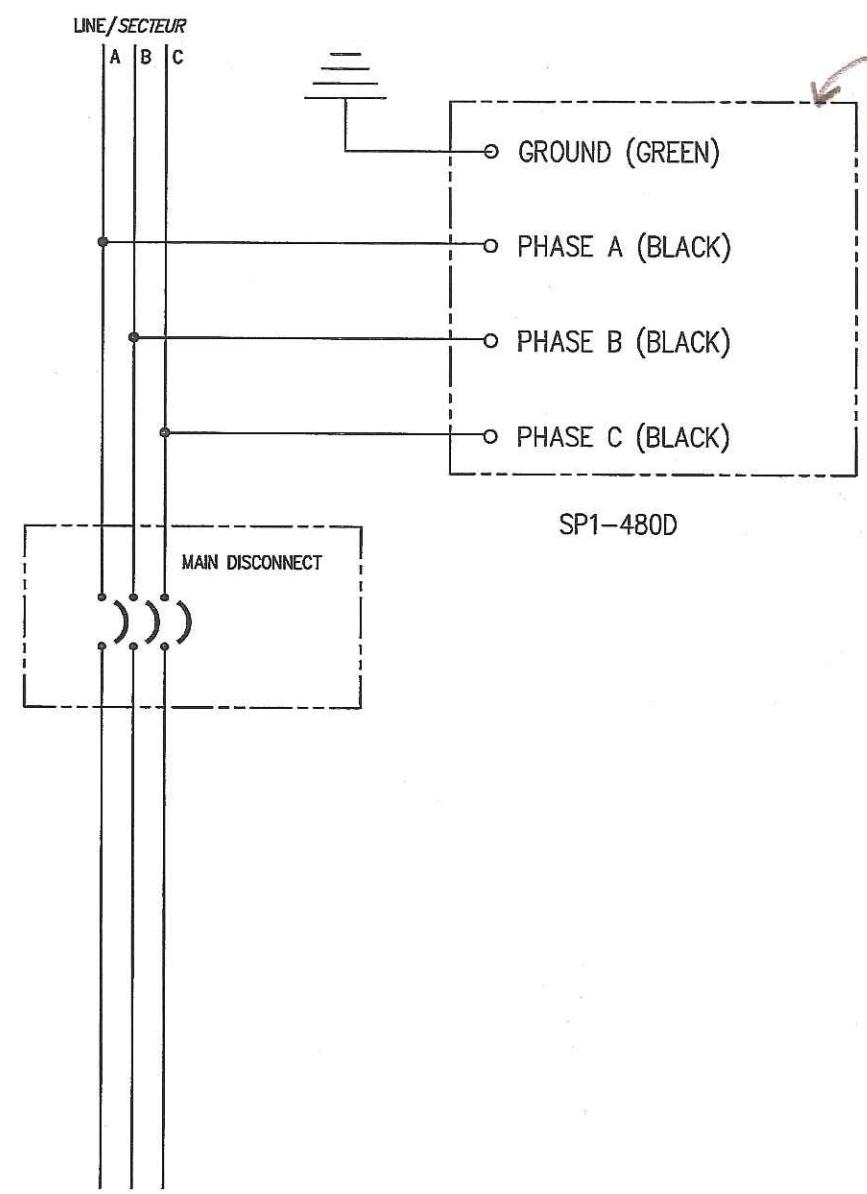
D65VMLS 480

DWG DESSIN

3A15217G04

PAGE

1 OF 1



PROVIDE PART NUMBER
& MANUFACTURER OF PART
ON DWG.

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SDR CODE	EQUIPMENT TAG	REVIEWED BY	DATE
	MCC-100	P. VALLA	MAR. 26, 2012

- NOTES : — KEEP WIRES AS SHORT AS POSSIBLE
— TWIST AND BIND WIRES TOGETHER
— CONTROL WIRING WILL BE No.14 SIS.
— GROUND WIRING TO BE No.12 SIS

1 REVISION	THE INFORMATION ON THIS DOCUMENT IS CREATED BY CUTLER-HAMMER. IT IS DISCLOSED IN CONFIDENCE AND IS ONLY TO BE USED FOR THE PURPOSE IN WHICH IT IS SUPPLIED.		DFTR DESS. JML	DATE 22-NOV-2011	Cutler-Hammer CALGARY SATELLITE	
	LES RENSEIGNEMENTS CI-DESSUS ONT ÉTÉ ELABORÉS PAR CUTLER-HAMMER. ILS VOUS SONT DIVULGUÉS EN TOUTE CONFIANCE ET LEUR UTILISATION SE LIMITE AUX SEULES FINS POUR		APPD APPR.	DATE	TITLE SP1 SURGE PROTECTION DEVICE	
	PRODUCT CODE 140		FILE NAME	SCALE N.T.S.	TYPE Pow-R-Line C Swbd	DELTA 3P 3W
	REVISION 1		DWG SIZE / ÉCHELLE A	G.O. C.G.	DWG DESSIN	PAGE 1 OF 1

LINE/SECTEUR

A B C

WHITE

BLACK

BLACK

BLACK

CHAS03

MAIN DISCONNECT

PROVIDE PART NUMBER
& MANUFACTURER NAME OF PART

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DATE

MCC-140

P. VALLA

MAR. 26, 2012

WHICH IS IT?

NOTES : - KEEP WIRES AS SHORT AS POSSIBLE

- TWIST AND BIND WIRES TOGETHER

- CONTROL WIRING WILL BE No.14 SIS.

- GROUND WIRING TO BE No.12 SIS

1

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DFTR DESS. JML

DATE 12-MAR-2012

APPD APPR.

DATE

FILE NAME

SCALE N.T.S.

REVISION 1

DWG SIZE / ECHELLE A

PRODUCT CODE 140

Cutler-Hammer

CALGARY SATELLITE

CHSA03 LIGHTNING ARRESTOR

Pow-R-Line C Swbd

DELTA 3P 3W

G.O.

C.G.

DWG DESSIN

PAGE 1 OF 1

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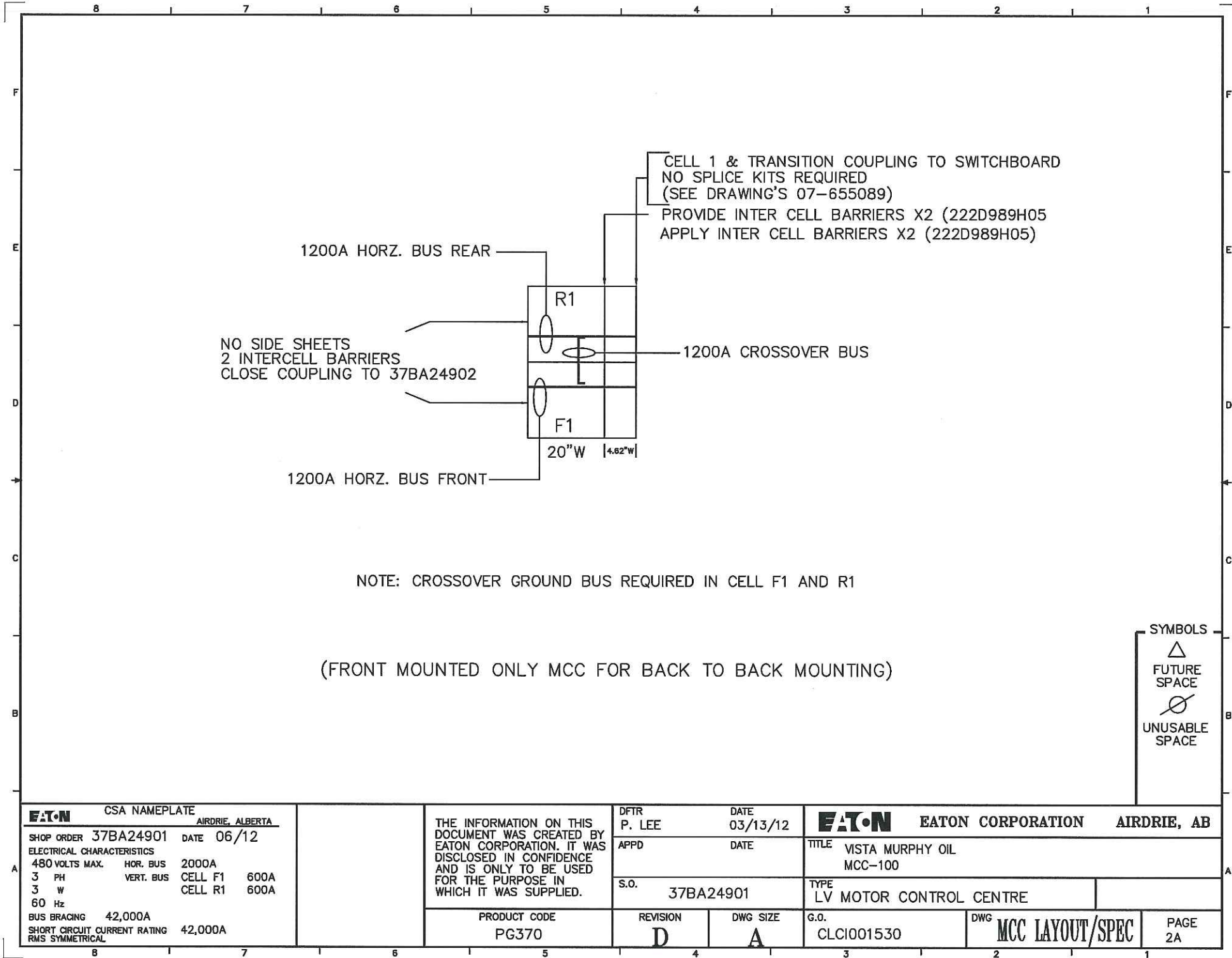
MCC-100

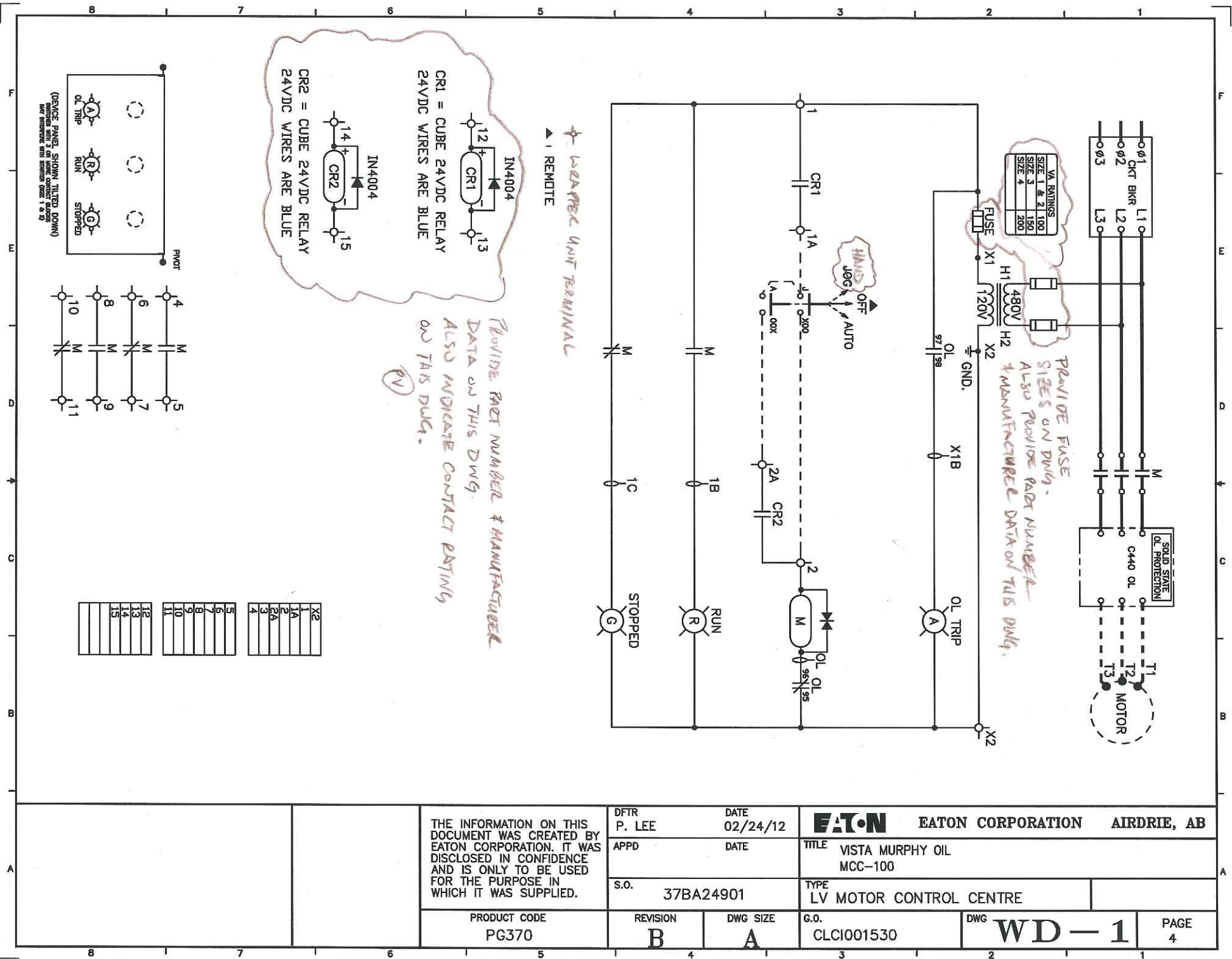
PAPALLA

13 JUL 2012

EATON EATON CORPORATION		DRAWING CHANGES								INDEX	PAGES	REVISION REMARKS	37BA24901
		04/12/12	04/20/12	05/15/12	06/08/12	06/14/12	06/20/12	06/22/12	06/26/12	07/04/12	A	ALL	ISSUED FOR APPROVAL
											B	ALL	ISSUED FOR RE-APPROVAL
											C	ALL	ISSUED FOR RE-APPROVAL
											D	ALL	ISSUED FOR CONSTRUCTION
PAGE DESCRIPTION											E	1,5	ADDED TERMINAL BLOCK ON #13 GND FOR VFD PL/EC CHANGED OL LIGHT TO PUSH TO TEST
1	MCC MASTER DRAWING INDEX	C	D	E	F	G	H	I	J	K	F	1,3	UNIT F1M1 AND F1M2 NAMEPLATES CHANGED PL/EC
2	MCC STRUCTURE LAYOUT / SPEC.	C	D	D	D	D	D	D	D	D		5	REMOVED ALL RELAYS AND LIGHTS. TERMINAL BLOCK CHANGED
2A	MCC STRUCTURE LAYOUT / SPEC.	B	D	D	D	D	D	D	D	D	G	1,7	UNIT F1A TO F1F,F3M AND R1A TO R1M, R3M, R5M, R6M ETHERNET PL/P CABLE LONGER
3	MCC UNIT SPEC. / NAME PLATES	C	D	D	E	E	F	F	F	F	H	1,3,7	REVISED UNIT F1F IS IN WD-4 AS WELL PL/EY INDICATED GROUND WIRE TO BE GREEN & T.B. LOCATION
4	WIRING DIAGRAM WD-1	A	B	REMOVED							I	1,5	50HP VFD DRIVE WIRING DRAWING CHANGED TO WD-2 PL/EC
5	WIRING DIAGRAM WD-2	C	D	E	F	F	F	G	G	H	J	1,7	ETHERNET CABLE F1A TO R1A CHANGED TO 6METER LONG PL/EY
6	WIRING DIAGRAM WD-3	B	B	B	B	B	B	B	B	B	K	1,5	REVISED PORT 18 AND 19 WITH SHIELD CONNECTION PL/EY
7	WIRING DIAGRAM WD-4	C	D	D	D	E	F	F	G	G			
99	ADDITIONAL MFG INFO.	A	A	A	A	A	A	A	A	A			
INFORMATION PAGES ONLY											SPECIAL NOTES		
STARTER DEFINITION 3A15041											MCC STRUCTURE TYPE		
OUTLINE AND FLOOR PLAN (20") 5710A31											<input type="checkbox"/> ADVANTAGE MCC <input checked="" type="checkbox"/> FREEDOM 2100 MCC <input type="checkbox"/> IT MCC		
CUSTOMER ORDER # 2550-041228											TL NUMBER: TP27947		
IMPORTANT													
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				DATE		TITLE VISTA MURPHY OIL MCC-100							
				S.O. 37BA24901		TYPE LV MOTOR CONTROL CENTRE							
		PRODUCT CODE PG370		REVISION K		DWG SIZE A		G.O. CLC1001530		DWG INDEX		PAGE 1	

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DE-02	MCC-100	P. BALLA	30 MAY 2012

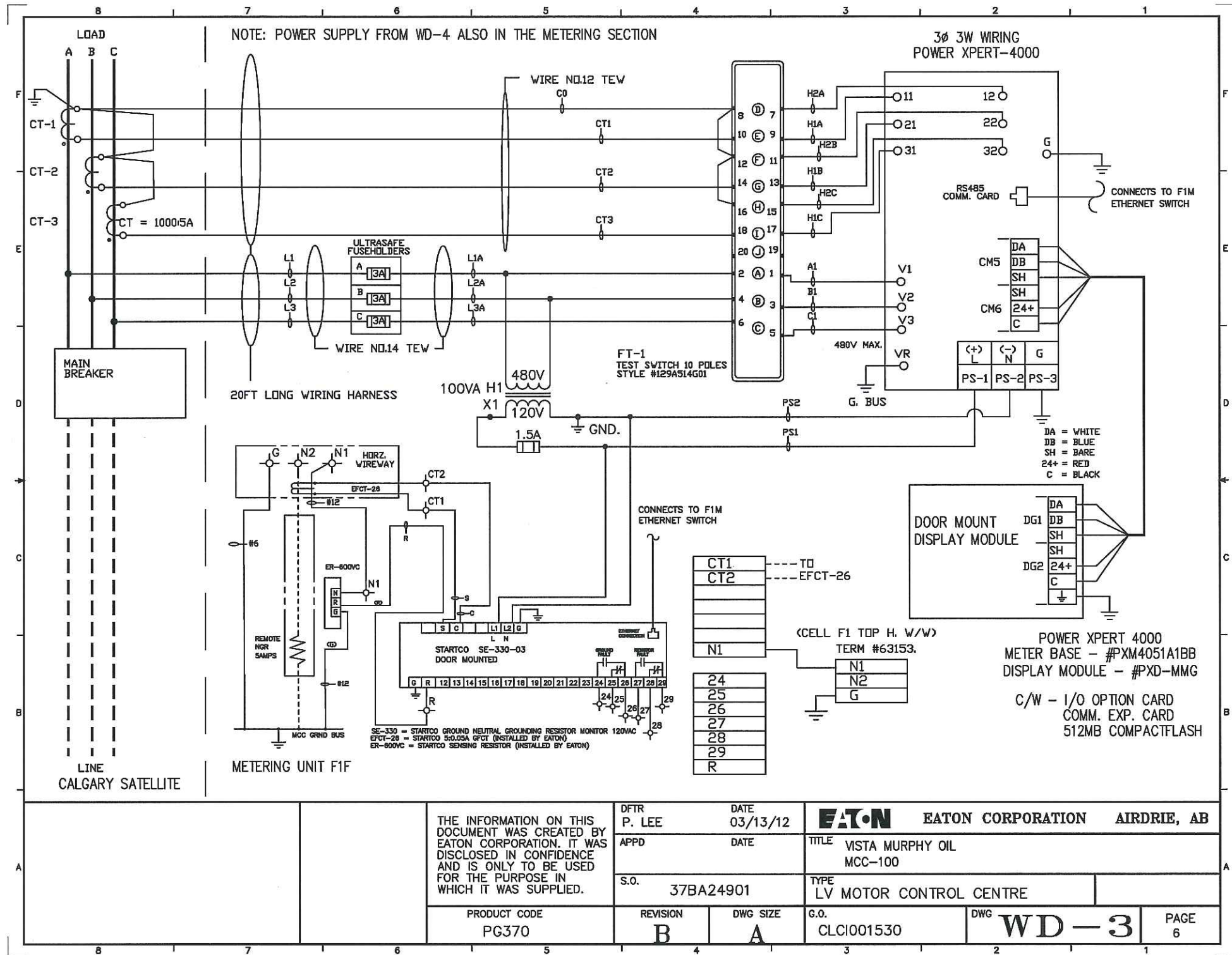




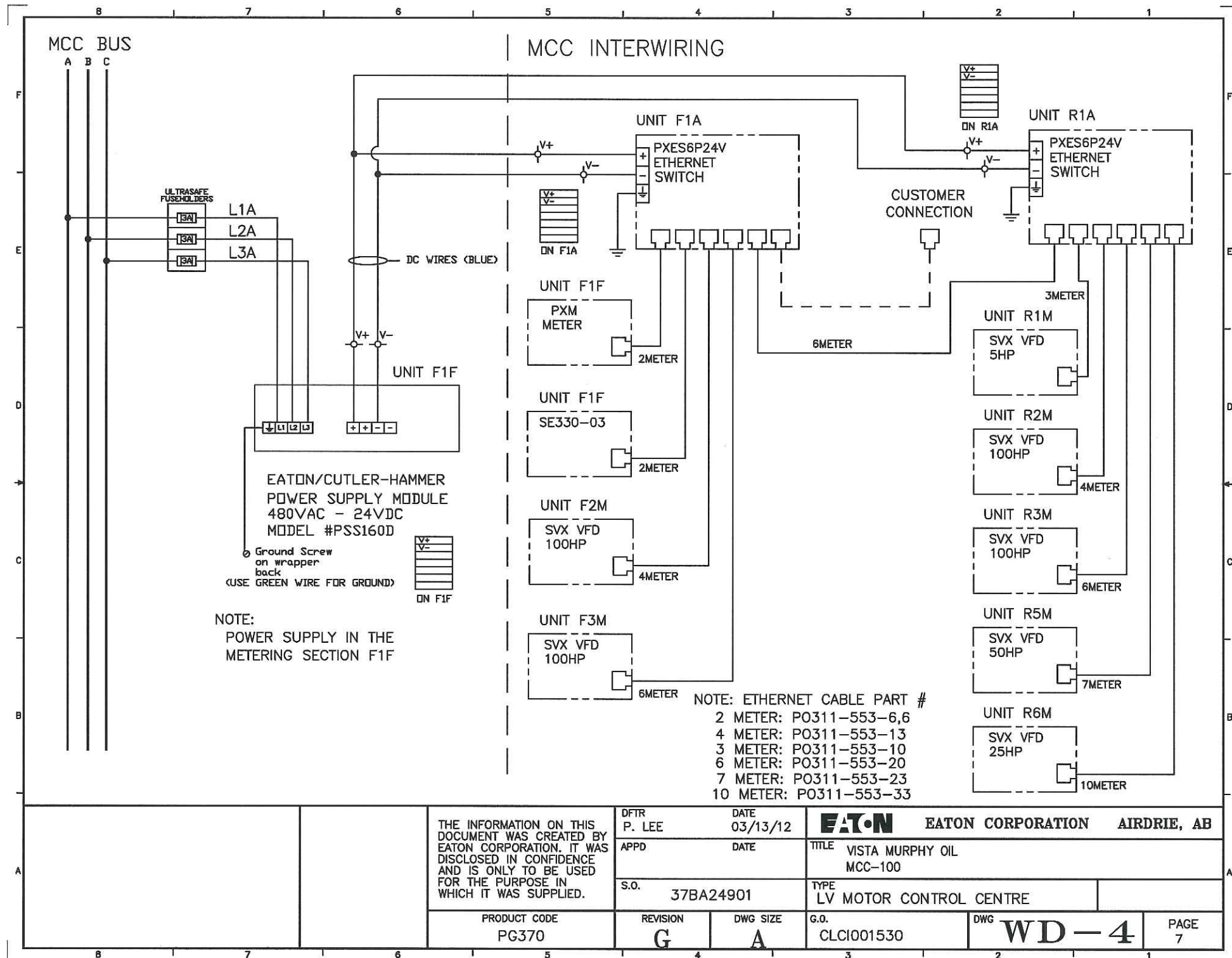
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		DATE		TITLE VISTA MURPHY OIL MCC-100	
PRODUCT CODE PG370		S.O. 37BA24901		TYPE LV MOTOR CONTROL CENTRE	
REVISION B		DWG SIZE A		G.O. CLCI001530	
		DWG WD-1		PAGE 4	

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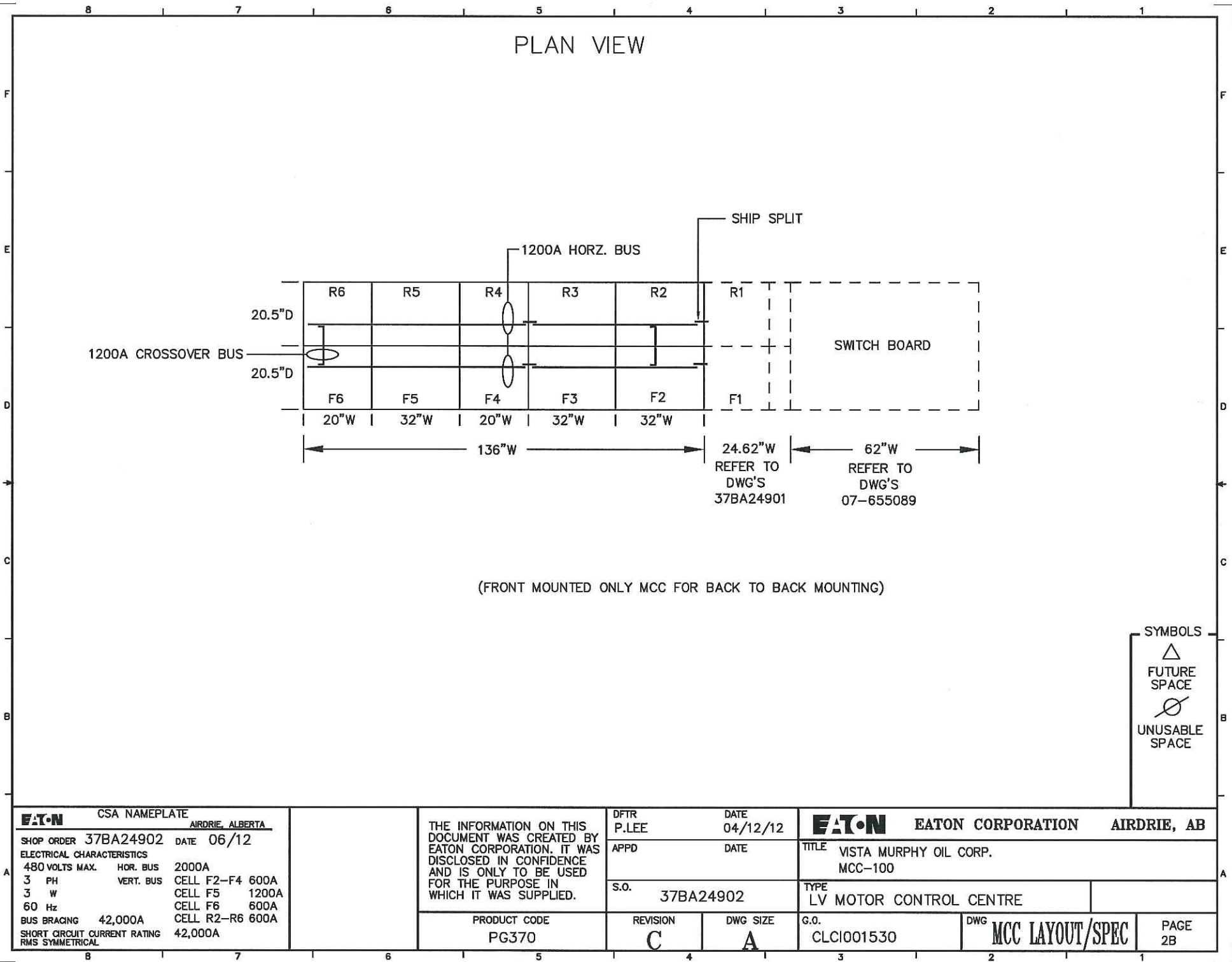
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DEP5	MCC-100	7. VALD	12/14/2017



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<input type="checkbox"/> C	Not accepted. Revise as marked and resubmit drawing/document for review. Shipment will not be released, if any drawings/documents requiring approval, as per purchase order conditions, are at this code.		
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SDR CODE	EQUIPMENT TAG	REVIEWED BY	DATE
D942	MCC-100	P. VALLA	30 MAY 2012

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SPLICE KITS, SHIP SPLITS																																																																																																																																															
NOTE: 1. CLOSE COUPLE TO R1 FROM 37BA24901 2. SIDE SHEET REQUIRED ON STRUCTURE R6																																																																																																																																															
<table><tr><td colspan="4">MAIN</td><td colspan="4">BUS</td><td colspan="4">ENCLOSURE</td><td colspan="4">SYMBOLS</td></tr><tr><td colspan="4">DEVICE <input type="checkbox"/> LUGS <input type="checkbox"/> BREAKER <input type="checkbox"/> FUSIBLE SW</td><td colspan="4">HORIZONTAL/VERTICAL <input type="checkbox"/> SILVER PL Cu <input type="checkbox"/> TIN PL Cu</td><td colspan="4">EEMAC 1A (GASKETED) <input type="checkbox"/> EEMAC 2 (GASKETED) c/w DRIPHOOD</td><td colspan="4" rowspan="2"> FUTURE SPACE UNUSABLE SPACE</td></tr><tr><td colspan="4">CABLE ENTRY <input type="checkbox"/> N/A <input type="checkbox"/> XXX AMP</td><td colspan="4">V-BUS ISOLATION <input type="checkbox"/> YES <input type="checkbox"/> NO</td><td colspan="4"><input type="checkbox"/> EEMAC 12 (DUSTTIGHT) <input type="checkbox"/> EEMAC 12 c/w DRIPHOOD</td></tr><tr><td colspan="4">CABLE SIZE <input type="checkbox"/> TOP <input type="checkbox"/> BOTTOM</td><td colspan="4">LABYRINTH <input type="checkbox"/> SHUTTERS <input type="checkbox"/> POLYESTER BARRIER</td><td colspan="4">MOUNTING <input type="checkbox"/> FRONT <input type="checkbox"/> BACK/BACK</td></tr><tr><td colspan="4">CABLES PER PHASE <input type="checkbox"/> CRIMP <input type="checkbox"/> SCREW</td><td colspan="4">GROUND - HORZ COPPER <input type="checkbox"/> 600 AMP <input type="checkbox"/> 300 AMP</td><td colspan="4">DEPTH <input type="checkbox"/> 16" <input type="checkbox"/> 21" <input type="checkbox"/> 41"</td></tr><tr><td colspan="4">LUG TYPE <input type="checkbox"/> YES <input type="checkbox"/> NONE</td><td colspan="4">GROUND LOCATION <input type="checkbox"/> TOP <input type="checkbox"/> YES <input type="checkbox"/> NO</td><td colspan="4">BOTTOM PLATES <input type="checkbox"/> YES <input type="checkbox"/> NO</td></tr><tr><td colspan="4">12" PULL BOX <input type="checkbox"/> BOTTOM <input type="checkbox"/> TOP</td><td colspan="4">GROUND BUS (TIN PLATED) <input type="checkbox"/> YES <input type="checkbox"/> NONE</td><td colspan="4">CHANNEL SILLS <input type="checkbox"/> YES <input type="checkbox"/> NO</td></tr><tr><td colspan="4">OUTGOING LOAD CABLES <input type="checkbox"/> YES <input type="checkbox"/> NO</td><td colspan="4">GROUND - VERT (1/4 X 1") <input type="checkbox"/> XXX AMP <input type="checkbox"/> NONE</td><td colspan="4">EXT. PAINT FINISH ASA 61</td></tr><tr><td colspan="4">INTERCELL BARRIERS <input type="checkbox"/> YES <input type="checkbox"/> NO</td><td colspan="4">NEUTRAL (TIN PLATED) <input type="checkbox"/> YES <input type="checkbox"/> NO</td><td colspan="4">INT. PAINT FINISH WHITE</td></tr><tr><td colspan="4"></td><td colspan="4">PHASE ID <input type="checkbox"/> YES <input type="checkbox"/> NO</td><td colspan="4">SPACE HEATER <input type="checkbox"/> YES <input type="checkbox"/> NO</td></tr></table>																MAIN				BUS				ENCLOSURE				SYMBOLS				DEVICE <input type="checkbox"/> LUGS <input type="checkbox"/> BREAKER <input type="checkbox"/> FUSIBLE SW				HORIZONTAL/VERTICAL <input type="checkbox"/> SILVER PL Cu <input type="checkbox"/> TIN PL Cu				EEMAC 1A (GASKETED) <input type="checkbox"/> EEMAC 2 (GASKETED) c/w DRIPHOOD				FUTURE SPACE UNUSABLE SPACE				CABLE ENTRY <input type="checkbox"/> N/A <input type="checkbox"/> XXX AMP				V-BUS ISOLATION <input type="checkbox"/> YES <input type="checkbox"/> NO				<input type="checkbox"/> EEMAC 12 (DUSTTIGHT) <input type="checkbox"/> EEMAC 12 c/w DRIPHOOD				CABLE SIZE <input type="checkbox"/> TOP <input type="checkbox"/> BOTTOM				LABYRINTH <input type="checkbox"/> SHUTTERS <input type="checkbox"/> POLYESTER BARRIER				MOUNTING <input type="checkbox"/> FRONT <input type="checkbox"/> BACK/BACK				CABLES PER PHASE <input type="checkbox"/> CRIMP <input type="checkbox"/> SCREW				GROUND - HORZ COPPER <input type="checkbox"/> 600 AMP <input type="checkbox"/> 300 AMP				DEPTH <input type="checkbox"/> 16" <input type="checkbox"/> 21" <input type="checkbox"/> 41"				LUG TYPE <input type="checkbox"/> YES <input type="checkbox"/> NONE				GROUND LOCATION <input type="checkbox"/> TOP <input type="checkbox"/> YES <input type="checkbox"/> NO				BOTTOM PLATES <input type="checkbox"/> YES <input type="checkbox"/> NO				12" PULL BOX <input type="checkbox"/> BOTTOM <input type="checkbox"/> TOP				GROUND BUS (TIN PLATED) <input type="checkbox"/> YES <input type="checkbox"/> NONE				CHANNEL SILLS <input type="checkbox"/> YES <input type="checkbox"/> NO				OUTGOING LOAD CABLES <input type="checkbox"/> YES <input type="checkbox"/> NO				GROUND - VERT (1/4 X 1") <input type="checkbox"/> XXX AMP <input type="checkbox"/> NONE				EXT. PAINT FINISH ASA 61				INTERCELL BARRIERS <input type="checkbox"/> YES <input type="checkbox"/> NO				NEUTRAL (TIN PLATED) <input type="checkbox"/> YES <input type="checkbox"/> NO				INT. PAINT FINISH WHITE								PHASE ID <input type="checkbox"/> YES <input type="checkbox"/> NO				SPACE HEATER <input type="checkbox"/> YES <input type="checkbox"/> NO			
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SEE CSA NAMEPLATE ON PAGE 2B				THE INFORMATION ON THIS DOCUMENT WAS CREATED BY EATON CORPORATION. IT WAS DISCLOSED IN CONFIDENCE AND IS ONLY TO BE USED FOR THE PURPOSE IN WHICH IT WAS SUPPLIED.				EATON EATON CORPORATION AIRDRIE, AB																																																																																																																																							
				PRODUCT CODE PG370				TITLE VISTA MURPHY OIL CORP. MCC-100																																																																																																																																							
				REVISION B				DWG SIZE A				PAGE 2A																																																																																																																																			

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SDR CODE	EQUIPMENT TAG		
DG 02	MCC-100		



SECT NO		UNIT NO.	UNIT PART # SEE DWG 3A15041 FOR DEFINITION	HP	OL RELAY C440 S/S	DISCONNECT TYPE TYPE	<input type="checkbox"/> VSI <input type="checkbox"/> SUPPLIED TRIP / FUSE CLIP	I.C. (KA)	DWG. NO.	NOTES	NAME PLATES LAMICOID <input type="checkbox"/> BLACK LETTERS/WHITE <input type="checkbox"/> WHITE LETTERS/BLACK 1.0" x 2.5" 2.0" x 2.5" LETTER SIZE (.125" HI)			
											LINE 1	LINE 2	LINE 3	LINE 4
F2		M	SRAFR8-672	100		HFD3150	150A	65	WD-2A	S#SVX100A1-4A1N1	PM-4010	PUMP JACK	MOTOR	WELL 16-8
F3		M	SRAFR8-672	100		HFD3150	150A	65	WD-2A	S#SVX100A1-4A1N1	PM-4020	PUMP JACK	MOTOR	WELL 13-9
F4		B	G2A20612	20	9.0-45A	HMCP5050K2C	LOW	100	WD-1		SPARE	SIZE 2 FVNR		
F4		D	BFAHFD12			HFD3150	150A	65			B-6000	WATER TREATMENT	BLDG. POWER	(PKG-6000)
F4		FL	BDAHFD12			HFD3015	15A	65			SPARE	15A BREAKER		
F4		FR				HFD3070	70A	65			SPARE	70A BREAKER		
F4		HL	BDAHFD12			HFD3015	15A	65			HTR-B-7001A	STEAM GENERATOR	UNIT HEATER A	
F4		HR				HFD3015	15A	65			HTR-B-7001B	STEAM GENERATOR	UNIT HEATER B	
F5		B	G1A20612	1	1.0-5.0A	HMCP5003A0C	LOW	100	WD-1		PM-8010	HP FKOD	PUMP MOTOR	
F5		D	G1A20612	1	1.0-5.0A	HMCP5003A0C	LOW	100	WD-1		PM-8020	HP FKOD	PUMP MOTOR	
F5		F	G2A20612	20	9.0-45A	HMCP5050K2C	LOW	100	WD-1		SPARE	SIZE 2 FVNR		
F5		H	G2A20612	15	9.0-45A	HMCP5050K2C	LOW	100	WD-1		PM-7000A	LOW PRESSURE BFW	CHARGE PUMP MOTOR	
F5		K	G2A20612	15	9.0-45A	HMCP5050K2C	LOW	100	WD-1		PM-7000B	LOW PRESSURE BFW	CHARGE PUMP MOTOR	
F5		ML	BDAHFD12			HFD3030	30A	65			HVAC-100	MCC ROOM HVAC		
F5		MR				HFD3070	70A	65			B-1000	OFFICE	CONTROL ROOM	TRAILER POWER
F6		C	G3A20618	30	20-100A	HMCP100R3C	LOW	100	WD-1		BL-7040	COMBUSTION	BLOWER	
F6		G	G4A20624	100	30-150A	HMCP150U4	LOW	100	WD-1A		PM-7010	BOILER FEED	WATER PUMP	
CONTROL WIRING <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> SLEEVE TYPE TAGS AT BOTH ENDS <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> #14 RED TEW <input type="checkbox"/> HEATSHRINK TAGS AT BOTH ENDS <input type="checkbox"/> #16 RED TEW														
TERMINAL BLOCKS <input type="checkbox"/> PULL APART <input type="checkbox"/> OTHER														
PILOT LIGHTS <input type="checkbox"/> C-H 10250T <input type="checkbox"/> LED <input type="checkbox"/> TRANSFORMER <input type="checkbox"/> PUSH TO TEST <input type="checkbox"/> FULL VOLTAGE														
MAIN MCC NAMEPLATE (3.0 X 7.0") LETTER SIZE (1.00" HI) MCC-100														
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TITLE VISTA MURPHY OIL CORP. MCC-100														
TYPE LV MOTOR CONTROL CENTRE														
G.O. CLC1001530														
DWG UNIT SPEC/NAMEPLATES														
PAGE 3														

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SDR CODE	EQUIPMENT TAG	REVIEWED BY	DATE
DEP2	MCC-100	RWALLS	JUN 27/12

SECT NO		UNIT NO.	UNIT PART # SEE DWG 3A15041 FOR DEFINITION	HP	OL RELAY <input type="checkbox"/> C440 S/S	DISCONNECT TYPE <input type="checkbox"/> VISI <input type="checkbox"/> RUSES <input type="checkbox"/> SUPPLIED	TRIP / FUSE CLIP	I.C. (KA)	DWG. NO.	NOTES	NAME PLATES LAMICOID <input type="checkbox"/> BLACK LETTERS/WHITE <input type="checkbox"/> WHITE LETTERS/BLACK 1.0" x 2.5" 2.0" x 2.5" LETTER SIZE (.125" HI)			
											LINE 1	LINE 2	LINE 3	LINE 4
R2	M		SRAFR8-672	100		HFD3150	150A	65	WD-2A	S#SVX100A1-4A1N1	PM-4030	PUMP JACK	MOTOR	WELL 12-9
R3	M		SRAFR8-672	100		HFD3150	150A	65	WD-2A	S#SVX100A1-4A1N1	SPARE	100HP VFD		
R4	BL		BDAHFD12			HFD3030	30A	65			TNS-UPS-100	5KVA UPS	BYPASS	TRANSFORMER
R4	BR		BDAHFD12			HFD3040	40A	65			SPARE	40AT BREAKER		
R4	DL		BDAHFD12			HFD3030	30A	65			SPARE	30AT BREAKER		
R4	DR		BDAHFD12			HFD3100	100A	65			TNS-100	UTILITY	TRANSFORMER	
R4	FL		BDAHFD12			HFD3030	30A	65			UPS-100	5KVA UPS		
R4	FR		BDAHFD12			HFD3030	30A	65			HTR-B-1101A	INSTRUMENT	AIR ROOM	UNIT HEATER
R4	H		BFAHFD12			HFD3150	150A	65			TNS-EHT-300	EHT	TRANSFORMER	
R4	K		G1A20612	5	4.0-20A	HMCPS015E0C	LOW	100	WD-1		SPARE	SIZE 1 FVNR		
R4	M		E1A26C12			HFD3015	15A	65	WD-5		HTR-TK-6270	TK-6270	HEATER	
R5	M		SOAFR7-672	50		HFD3100	100A	65	WD-2	S#SVX050A1-4A1N1	PM-6000	SOURCE WATER	WELL PUMP	MOTOR
R6	BL		BDAHFD12			HFD3070	70A	65			SPARE	70A BREAKER		
R6	BR					HFD3050	50A	65			SPARE	50A BREAKER		
R6	M		SLAFR6-660	25		HFD3050	50A	65	WD-2	S#SVX025A1-4A1B1	ACM-5020	BOILER FEED	WATER COOLER	FAN MOTOR
CONTROL WIRING <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> SLEEVE TYPE TAGS AT BOTH ENDS <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> #14 RED TEW <input type="checkbox"/> HEATSHRINK TAGS AT BOTH ENDS <input type="checkbox"/> #16 RED TEW														
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EATON EATON CORPORATION AIRDRIE, AB														
DATE 05/16/12														
P.LEE														
DATE														
APPD														
S.O. 37BA24902														
TITLE VISTA MURPHY OIL CORP. MCC-100														
TYPE LV MOTOR CONTROL CENTRE														
G.O. CLC1001530														
DWG UNIT SPEC/NAMEPLATES														
PAGE 3A														
REVISION E DWG SIZE A														
PRODUCT CODE PG370														

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DEP2	MCC-100	P.L.S.A.	JUN 27/12

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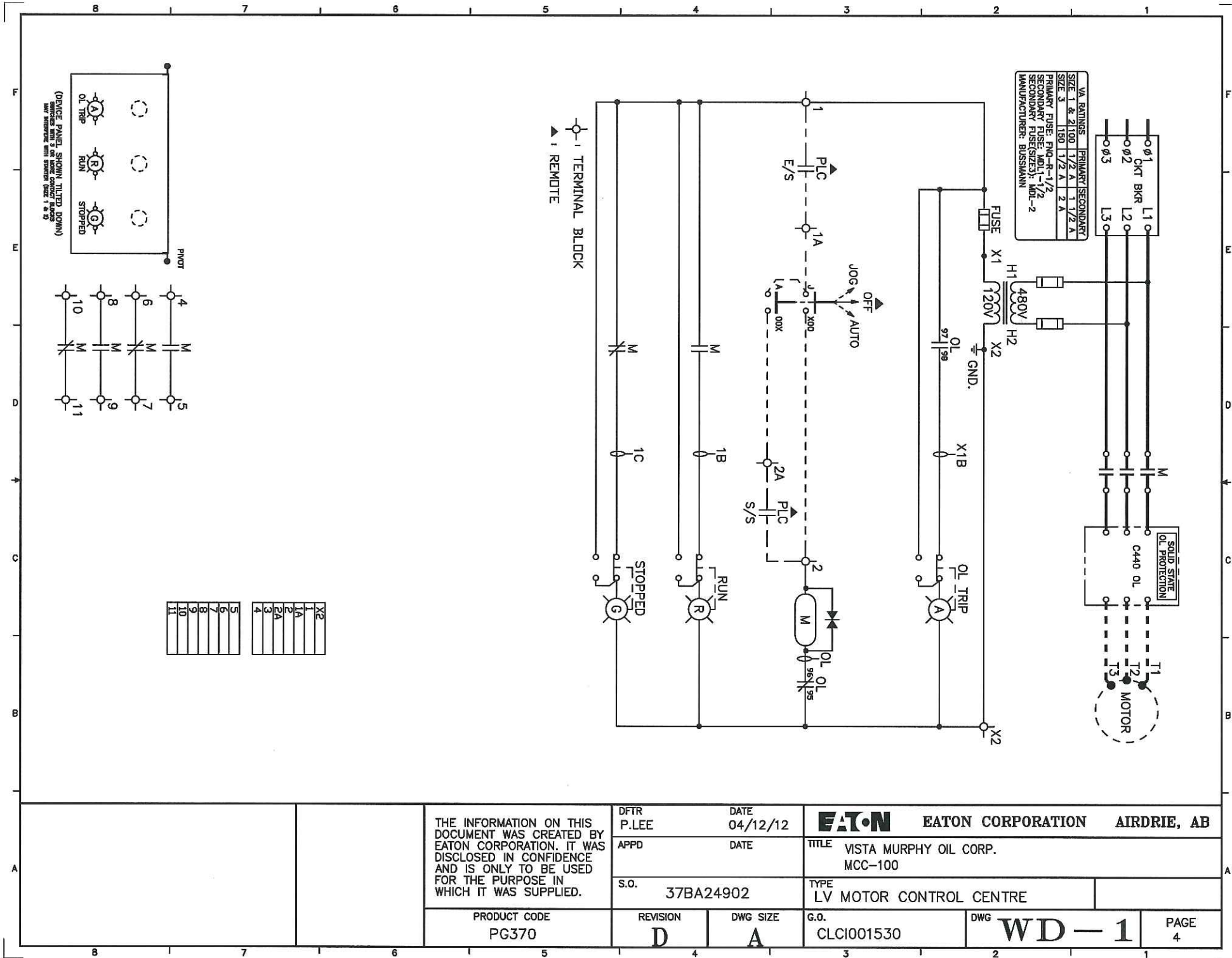
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1-05	MCC-100	P. VALLA	30 MAY 2012



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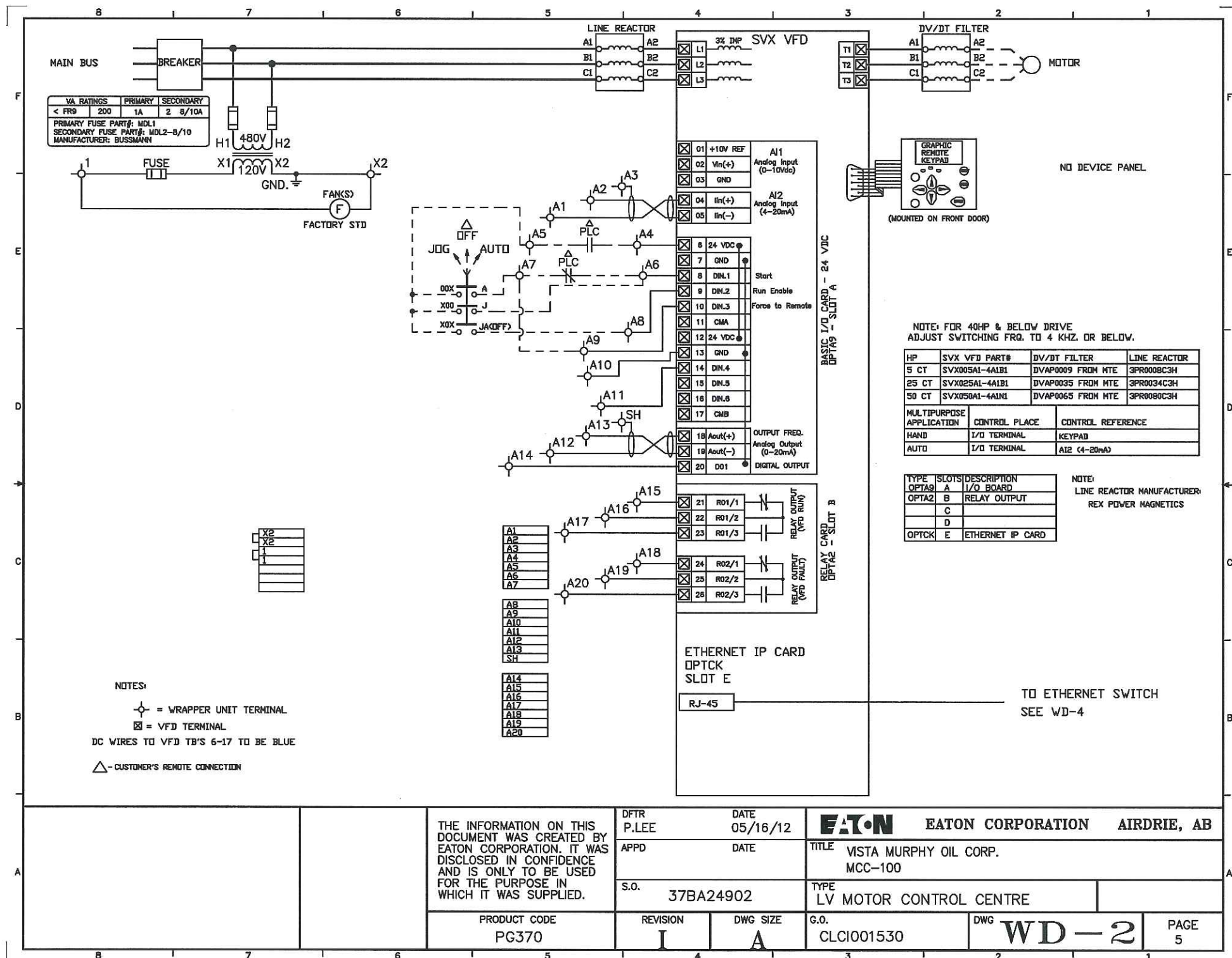
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DATE
17 JUL 2017

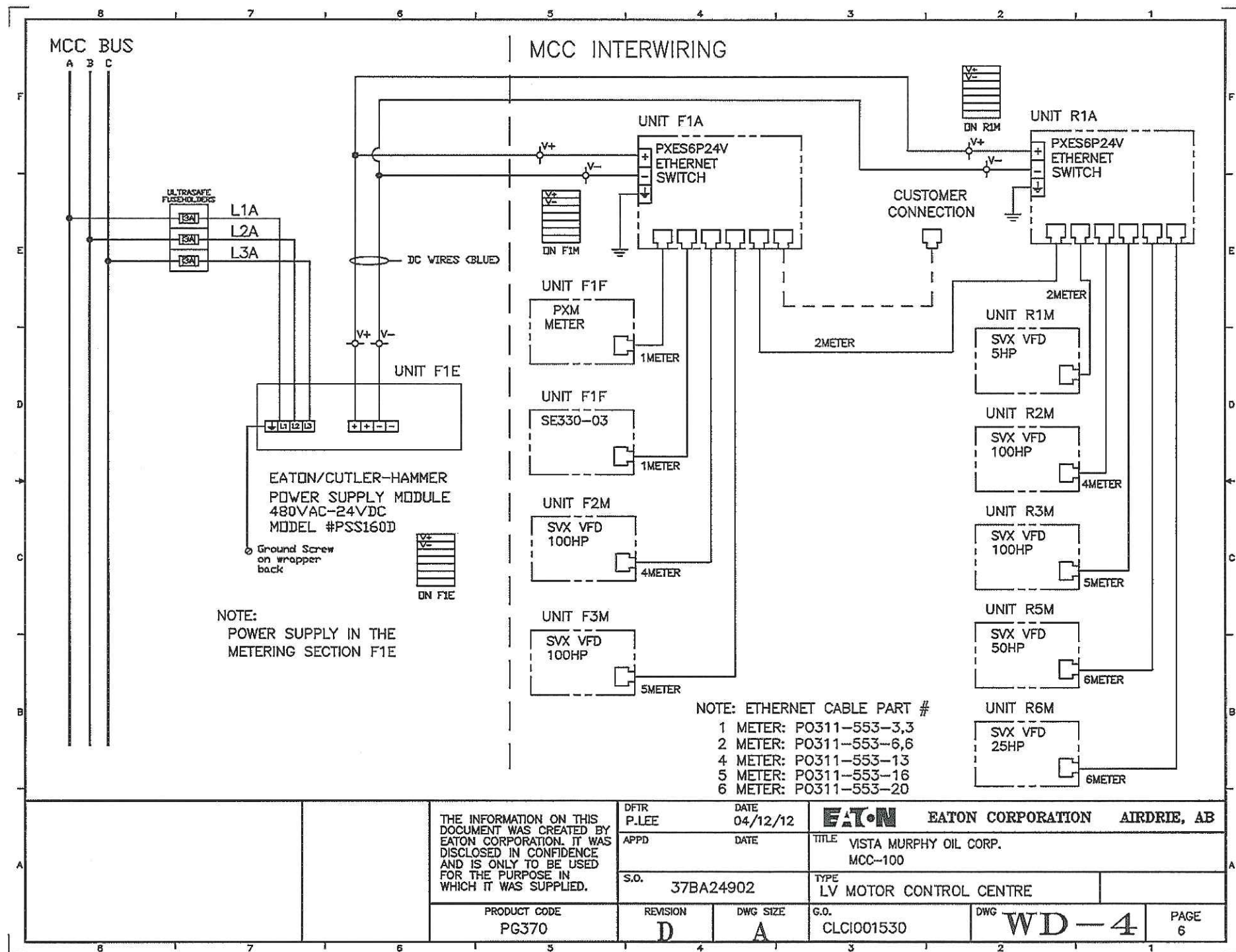
REVIEWED BY
P. WALLA

EQUIPMENT TAG
MCC-100

SDR CODE
DE105



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DEP5	MCC-100	P.V.S.L.A.	3 MAY 2012

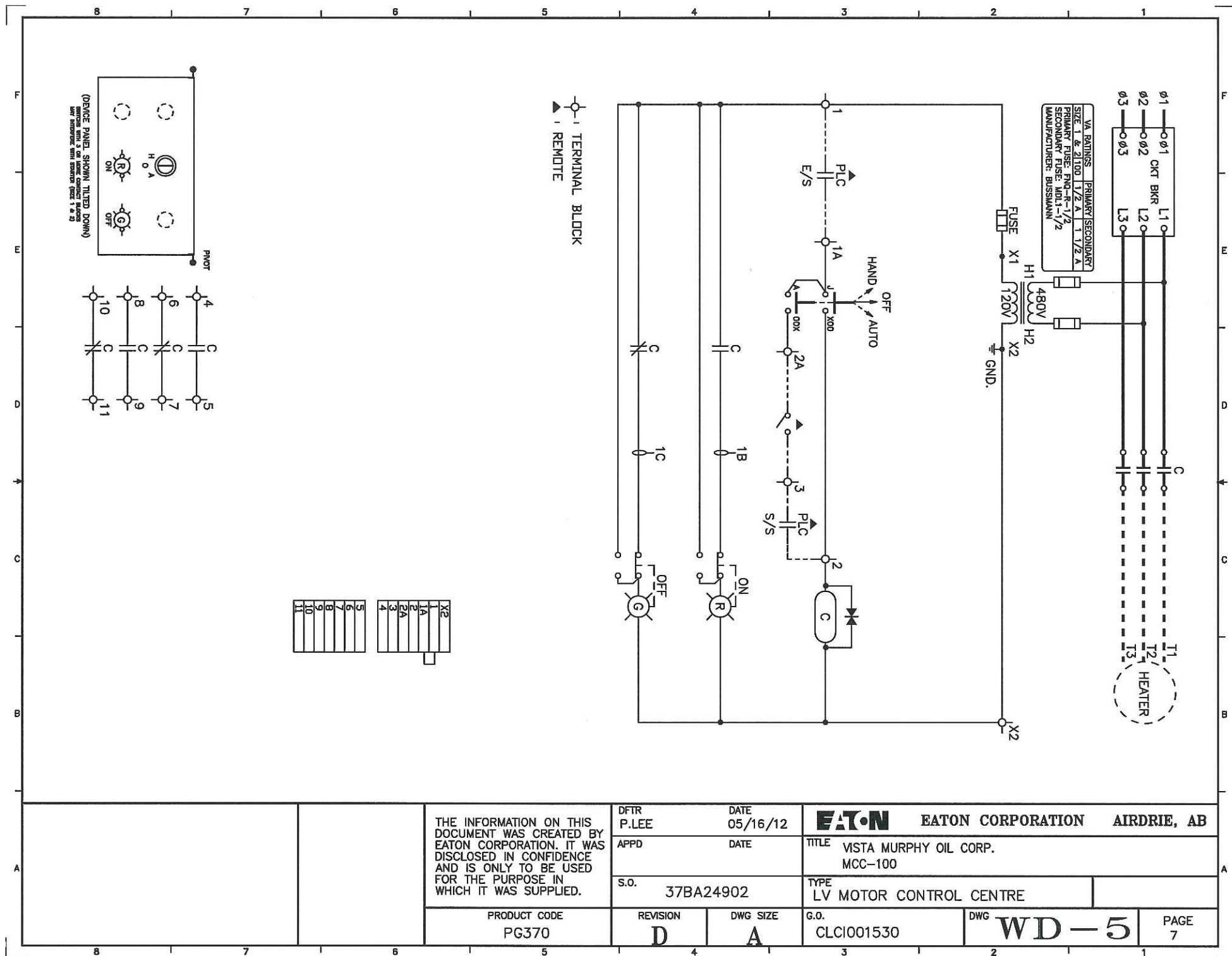


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DEBS	MCC-nd	P. VALLA	12 JUL 2012



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REVIEWED BY

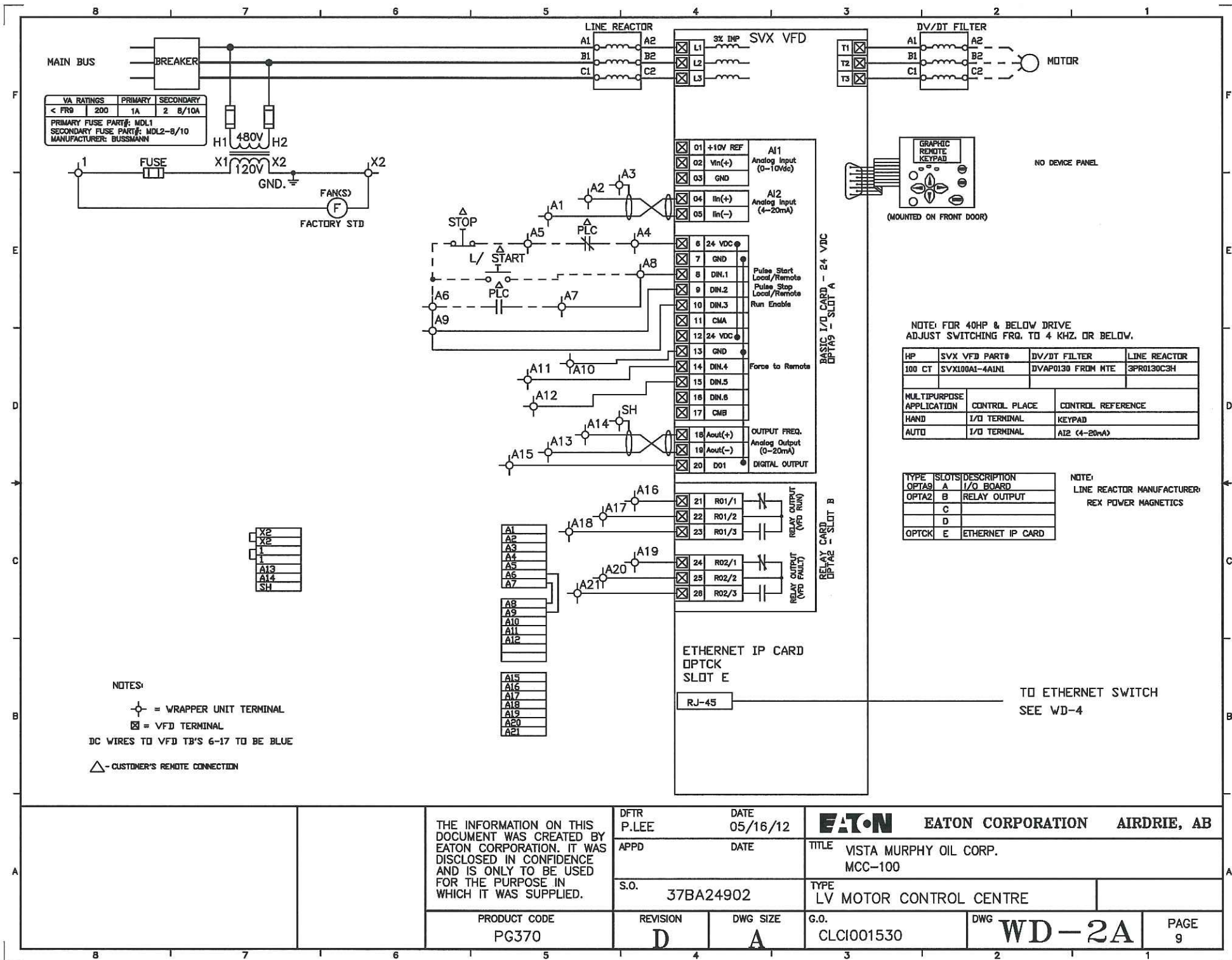
DATE

DE05

MCC-100

P. VALLS

12/01/2017



ADDITIONAL COMMENTS

NOTES:

C440 □/L
REFERENCE

RANGE	SIZE	HP@ 208V	HP@ 480V	HP@ 600V	CAT#	LOAD LUGS
0.3A-1.6A	1	NA	.25-.5	.25-.75	AN19DN0A5E1P6	#14-6 AWG (1)
1.0A-5.0A	1	.25-1	.75-2	1-3	AN19DN0A5E005	#14-6 AWG (1)
4.0A-20A	1	1.5-5	3-10	5-10	AN19DN0A5E020	#14-6 AWG (1)
9.0A-45A	2	7.5-10	15-25	15-25	AN19GN0A5E045	#14-6 AWG (1)
20A-100A	3	15-25	30-50	30-50	AN19KN0A5E100	#10-1 AWG (1)
30A-150A	4	30-40	60-100	60-100	CN15NN3A C/W C440A1A005SAX C/W 150:5A CT'S	#6-250 MCM (1)
60A-300A	5	50-75	125-200	125-200	AN19SN0A5E300	#2-750 MCM (1) #3/0-750 MCM (2)

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PRODUCT CODE
PG370

DFTR P.LEE DATE 02/27/12

APPD DATE

S.O. 37BA24902

REVISION

DWG SIZE

EATON EATON CORPORATION AIRDRIE, AB

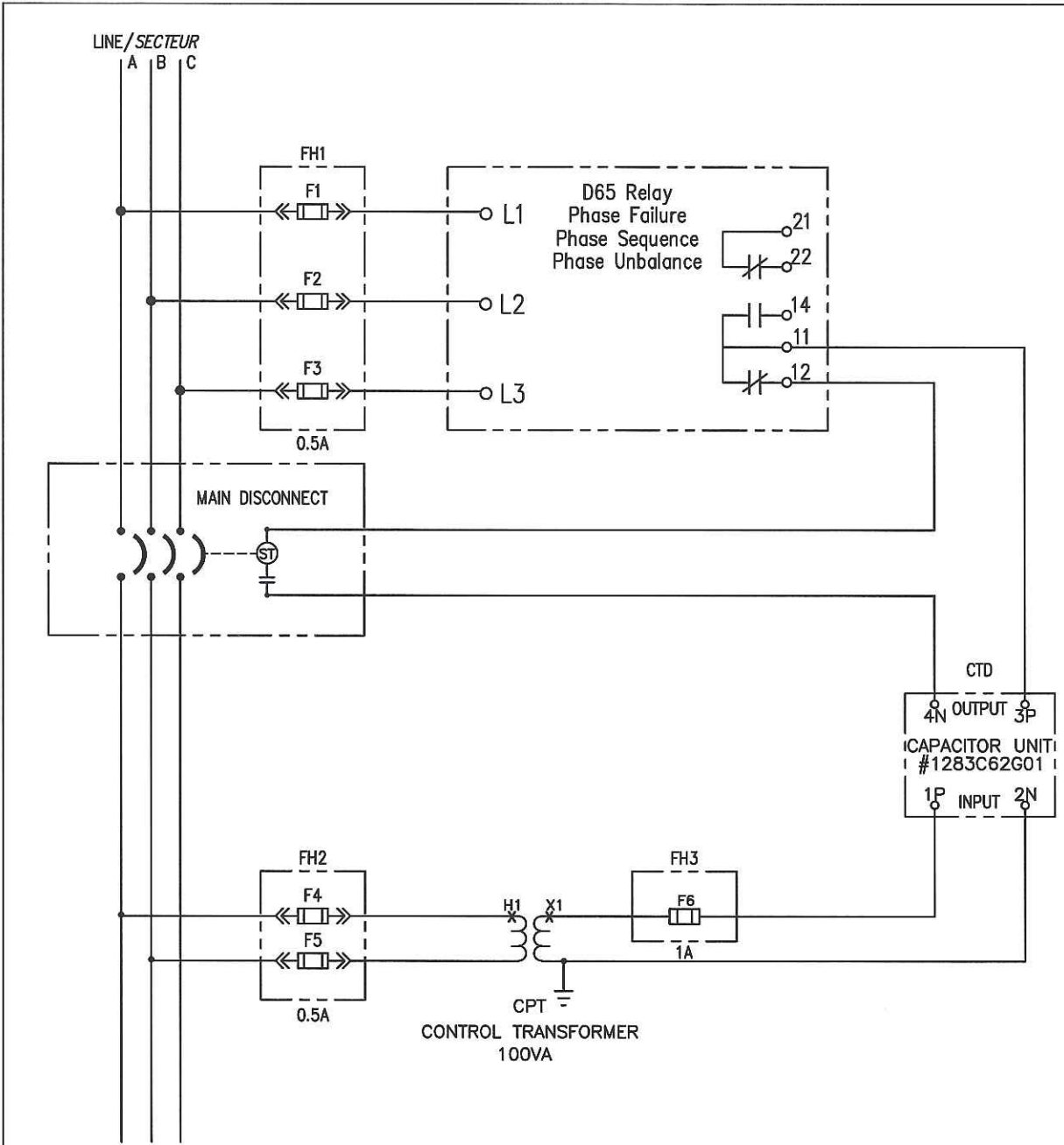
TITLE VISTA MURPHY OIL CORP.
MCC-100

TYPE LV MOTOR CONTROL CENTRE

G.O. CLCI001530

DWG **ADDITIONAL MFG INFO**

PAGE
99



ITEM	TAG	QUANTITY	Description	Part Number
1	D65	1	D65 Voltage Phase Monitor Relay	D65VMLS480-B2
2	CTD	1	Capacitor Trip Unit	1283C62G01
3	CPT	1	Control Power Transformer 100 VA 480-120V	5699A85H19
4	FH1	1	Fuse Holder	USCC3
5	F1-F3	3	Fuse	ATQR1
6	FH2	1	Primary Fuse Holders	USCC2
7	F4,F5	2	Primary Fuse	ATQR1/2
8	FH3	1	Secondary Fuse Holder	101400000
9	F6	1	Secondary Fuse	GDL1-4/10
10	ST	1	Shunt Trip 120 VAC	SNT-----
11		1	End Plate	105000000
12		2	End Stop	0383560000
13		1	Ground Block	101000000
14		0.2	Din Rail	051450000

NOTES : - MAIN DISCONNECT WILL TRIP ON LOSS OF HYDRO POWER SUPPLY
- CONTROL WIRING WILL BE No.14 SIS.
- GROUND WIRING TO BE No.12 SIS

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DE 45	MCC-100	P. WALLA	17/11/2012

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			APPD APPR. DATE		TITLE TITRE MAIN BREAKER PHASE RELAY				
			FILE NAME 3A15217	SCALE N.T.S.		TYPE Pow-R-Line C Swbd		D65VMLS 480	
			PRODUCT CODE 140		REVISION 1	DWG SIZE / ÉCHELLE A	G.O. C.G.	DWG DESSIN 3A15217G04	PAGE 1 OF 1

SELECT "CRL" CONTROL RELAY THAT
WILL PICK UP AT 50mA MINIMUM OR LARGER
OR VERIFY USED 12VDC INPUT PICKUP CURRENT.

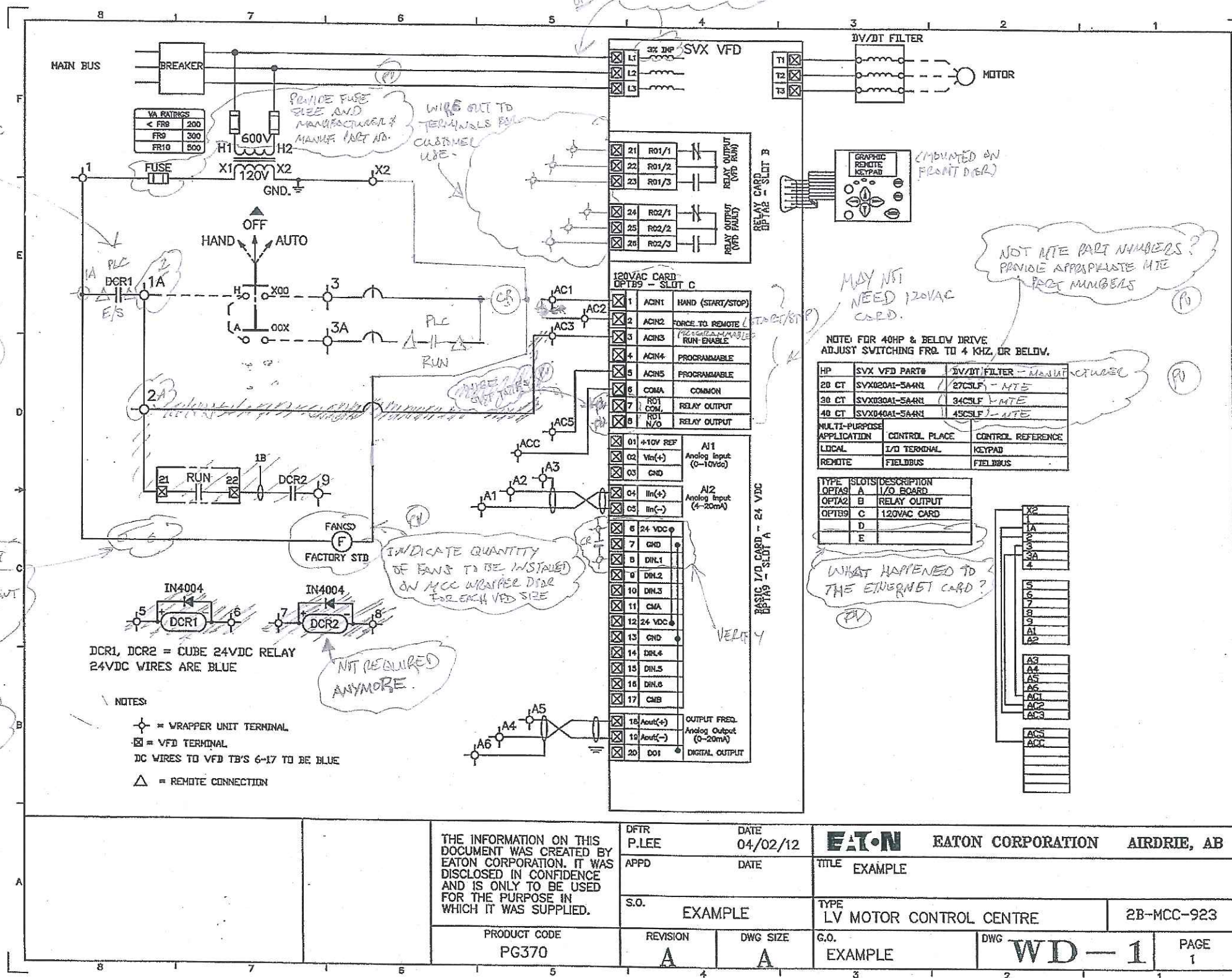
5% REQUIRED

NOTE: PLC CONTACTS
WILL BE RATED FOR 200A
FROM CUSTOMER

PLEASE PROVIDE VISTA
SVX 9000 VFD DEMO
UNIT FOR PROGRAMMING
BETTER UNDERSTANDING
OF ESTAN VFD OPERATION

PROVIDE DISCONNECT
SWITCH FOR
FANS FOR REPLACEMENT
OF FAN(S) WITHOUT
SHUTDOWN.

VERIFY WITH EATON IF THIS
SET UP WILL WORK



Note

THIS DRAWING WITH
MARK UPS WAS SENT
BY EMAIL TO EATON
ON SAT. 2017.

NOTE: FOR 40HP & BELOW DRIVE
ADJUST SWITCHING FREQ TO 4 KHZ. OR BELOW.

HP	SVX VFD PART#	2V/1T FILTER - Mod 1A
20 CT	SVX020A1-5A4N	27C5LF - NTE
30 CT	SVX030A1-5A4N	34C5LF - NTE
40 CT	SVX040A1-5A4N	45C5LF - NTE
MULTI-PURPOSE APPLICATION		
CONTROL PLACE	CONTROL REFERENCE	
LOCAL	I/O TERMINAL	KEYPAD
REMOTE	FIELD BUS	FIELD BUS

TYPE	SLOTS	DESCRIPTION
OPTA9	A	I/O BOARD
OPTA2	B	RELAY OUTPUT
OPTB9	C	120VAC CARD
	D	
	E	

WHAT HAPPENED TO
THE ETHERNET CARL

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DFTR	DATE
P.LEE	04/02/12

DATE _____

EATON EATON CORPORATION AIRDRIE, AB

TITLE	EXAMPLE
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S.O.	EXAMPLE
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TYPE	LV MOTOR CONTROL CENTRE
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2B-MCC-923

PRODUCT CODE
PG370

REVISION

DWG SIZE
A

G.O.	EXAMPLE
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DWG .

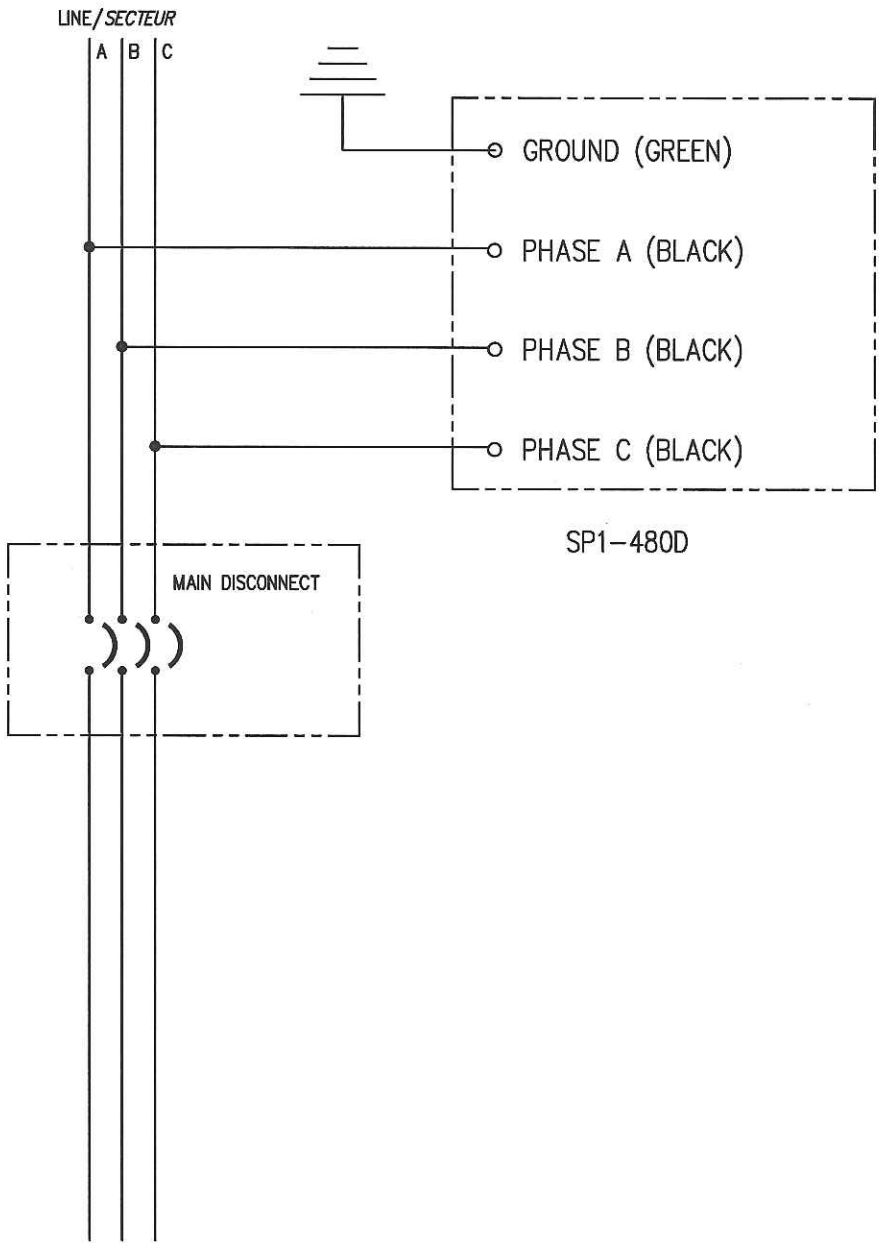
WD-1

PAGE
1

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SDR CODE	EQUIPMENT TAG	REVIEWED BY	DATE
DE05	MCC-100	P. FALLA	17 APR 2012

LINE/SECTEUR		A B C	
		○ WHITE	
		○ BLACK	
		○ BLACK	
		○ BLACK	
MAIN DISCONNECT		CHAS03	
NOTES : - KEEP WIRES AS SHORT AS POSSIBLE - TWIST AND BIND WIRES TOGETHER - CONTROL WIRING WILL BE No.14 SIS. - GROUND WIRING TO BE No.12 SIS			
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REVISION		DFTR DESS. DATE JML 12-MAR-2012	
		APPD APPR. DATE	
		FILE NAME SCALE N.T.S.	
		REVISION 1	
		DWG SIZE / ÉCHELLE A	
		G.O. C.G.	
		DWG DESSIN	
		PAGE 1 OF 1	

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SDR CODE	EQUIPMENT TAG	REVIEWED BY	DATE
DE 45	MCC-100	PALLA	17 APR 2012



NOTES : — KEEP WIRES AS SHORT AS POSSIBLE
— TWIST AND BIND WIRES TOGETHER
— CONTROL WIRING WILL BE No.14 SIS.
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			JML		22-NOV-2011		TITLE		SP1 SURGE PROTECTION DEVICE			
			APPD APPR.		DATE		TYPE		DELTA 3P 3W			
			FILE NAME		SCALE		Pow-R-Line C Swbd					
				N.T.S.								
		PRODUCT CODE		REVISION		DWG SIZE / ÉCHELLE		G.O.		PAGE		
		140		1		A		C.G.		1 OF 1		
								DWG DESSIN				