

---

---

# COX

Research and Technology, Inc.

---

---

SANTA MONICA  
20HP VFD  
CONTROL PANEL

Cox Research and Technology, Inc.  
14697 S. Harrells Ferry Road  
Baton Rouge, LA. 70816  
(225) 756-3271 Fax (225) 755-1030

CP-1951

VOLTAGE	277/480V	(480V, 277/480V, 240V, 120/240V, 208V, 120/208V)
PHASE/HZ	3/60	
NO. MOTORS	1	
HP	20	
FLA	27	
TYPE OF PUMP	Self-Priming	(Self-Priming, Submersible)
MANUFACTURER		
CATALOG NUMBER		
CONTROL VOLTAGE	120V	(120V, Other)
ENCLOSURE	NEMA 3R	(NEMA 1, NEMA 3R, NEMA 4, NEMA 4X)
ENCLOSURE MATERIAL	Painted Steel	(Painted Steel, Stainless Steel, Fiberglass)
CONTROL SENSOR		(Floats, Bubbler, Other)
CAPACITORS	No	(Yes, No)
CAPACITOR WIRING FIGURE	N/A	
THERM. & SEAL FAIL WIRING FIGURE		

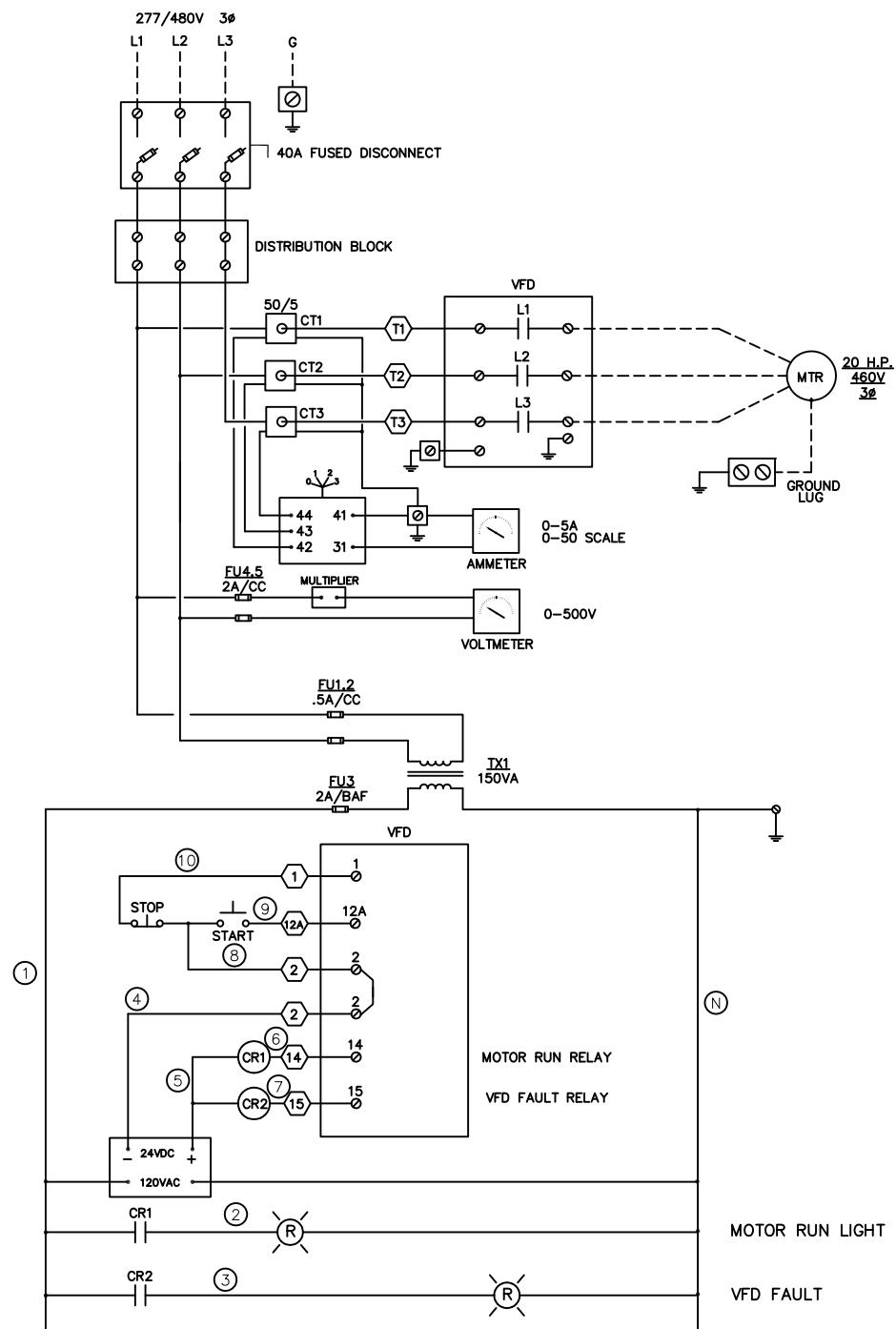
OPTIONS:

SEAL FAIL LIGHTS		(Submersible Only)
SEAL FAIL RELAYS		(Submersible Only)
SEAL FAIL PUMP SHUTDOWN		(Submersible Only)
HT PUMP SHUTDOWN		(Self-Primer, Submersible)
ALARM HORN		
ALARM LIGHT		
LIGHT PANEL MTD		
LIGHT REMOTE MTD		
LIGHT FLASHER		
LIGHTNING ARRESTER		
ELAPSED TIME METER		
PHASE MONITOR	X (IN VFD)	
NEMA RATED STARTERS		
GROUND FAULT RECPT.		
GREEN RUN LIGHTS VS. RED		
POLE, BOX, SEAL		
INTRINSICALLY SAFE RELAYS		
HIGH TEMP. LOCKOUT, MANUAL RESET		
ECONOMY VERSION		

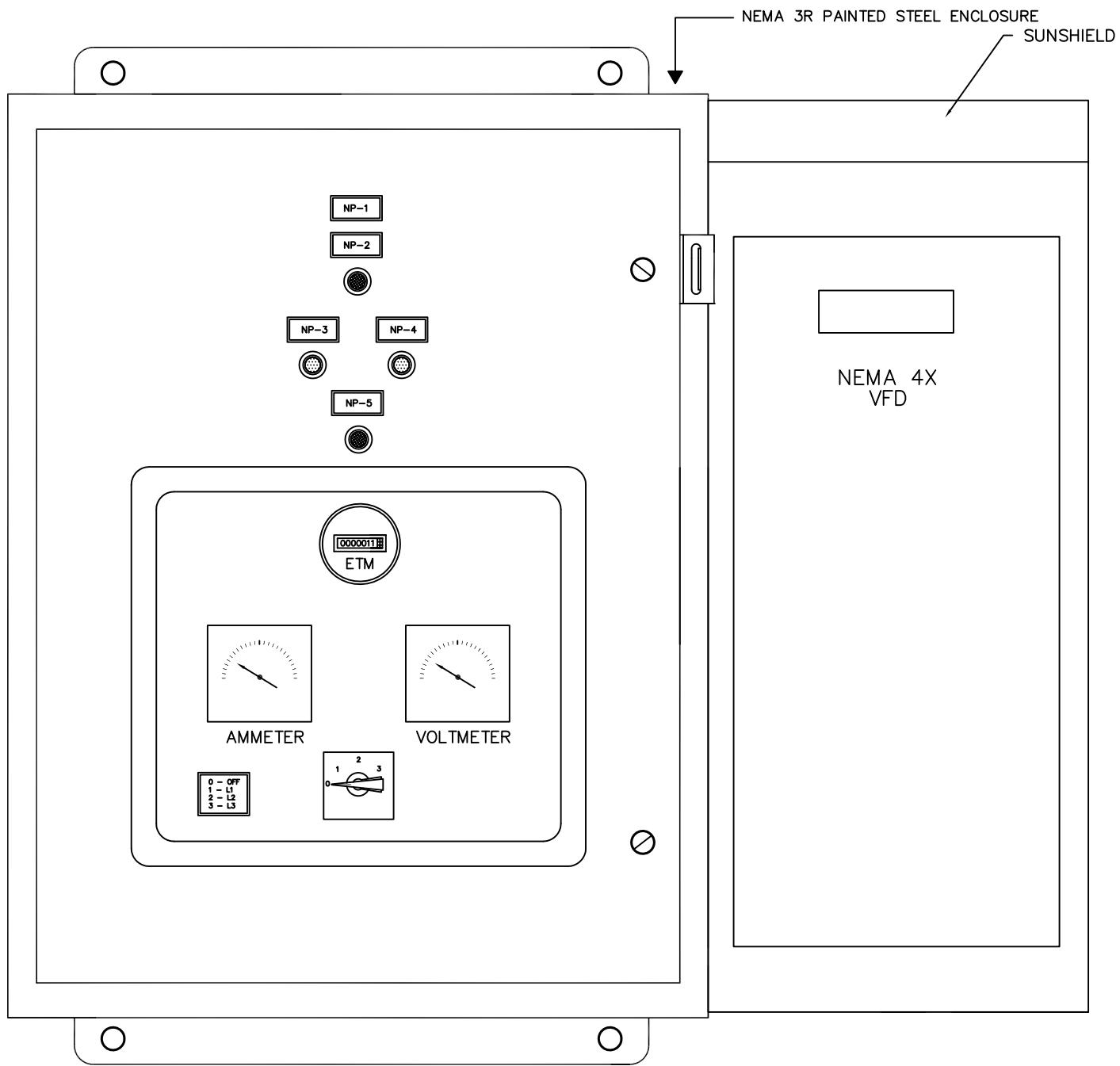
SOLD TO: Irrigation Mart  
 TAG : Santa Monica  
 VFD

SHIP TO:

	Drawing Title						
	PANEL DESCRIPTION						
		REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY
9/02/04 11/15/04		S/N	Sales Engineer	Application Engineer	DRAWN	APPROVED	
			C.C.	R.C.	BY C. RACHAL	BY	DATE
	Project Title	<hr/> <hr/> <hr/> <hr/> <hr/>			P.O. Box 77808 Baton Rouge, LA 70809	PURCHASE ORDER NUMBER	
	20 HP VFD CONTROL PANEL	<hr/> <hr/> <hr/> <hr/> <hr/>			Ph. (225)756-3271 Fax (225)756-1030	DRAWING NUMBER CP-1951	
		<hr/> <hr/> <hr/> <hr/> <hr/>				SHEET NUMBER 1	



	Drawing Title  POWER DIAGRAM				
		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION DRAWN BY C. RACHAL	ECN APPROVED BY DATE
DATE 11/15/04		Application Engineer R.C.			
	Project Title  20 HP VFD CONTROL PANEL		COX Research and Technology, Inc.	P.O. Box 77808 Baton Rouge, LA 70809 Ph. (225)756-3271 Fax (225)756-1030	PURCHASE ORDER NUMBER  DRAWING NUMBER CP-1951 SHEET NUMBER 2



VIEW OF FRONT OF PANEL

NAMEPLATE SCHEDULE

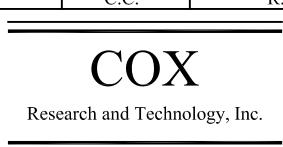
NP-1	MOTOR
NP-2	RUN
NP-3	STOP
NP-4	START
NP-5	VFD FAULT

NOTE:  
SEWER GASSES WILL DESTROY COMPONENTS IN PANEL.  
PROPER SEALS MUST BE INSTALLED EXTERNAL TO THE  
PANEL TO PREVENT ENTRY OF GASSES.

	Drawing Title					
	ENCLOSURE					
		REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE BY
DATE 11/15/04	S/N	Sales Engineer	Application Engineer	DRAWN	APPROVED	
		C.C.	R.C.	BY C. RACHAL	BY DATE	
	Project Title				PURCHASE ORDER NUMBER	
	20 HP VFD	COX			DRAWING NUMBER	CP-1951
	CONTROL PANEL	Research and Technology, Inc.			SHEET NUMBER	3

## BILL OF MATERIALS

ITEM	QTY	MANUFACTURER	PART NO.	DESCRIPTION
1	1	B-LINE	24208RHL	ENCLOSURE
1a	1	B-LINE	N2420P	BACKPLATE
2	1	ABB	OS60J12	FUSABLE DISCONNECT
3	1	ABB	OHB4	DIRECT MOUNT HANDLE
4	1	SIMPSON	1X099	VOLTMETER
5	1	SIMPSON	4TL72	AMMETER
6	1	ELECTROSWITCH	3115A	AMMETER SWITCH
7	1	MARATHON	1323580	DISTRIBUTION BLOCK
8	1	ABB	T4150PSF1	TRANSFORMER
9	1	AC TECH	M14200E	4X VFD
10	2	ACI	JR22AN11B	PUSH BUTTONS
11	2	ACI	JR22FR	PILOT LIGHTS
12	1	SIEMENS	6EP1331-1SH02	POWER SUPPLY 120AC-24DC
13	2	IDEC	RU2SD24	CR1,2
14	3	ITT	2SFT500/50:5	CURRENT TRANSFORMER
15	1	B LINE	HWK1212	WINDOW KIT
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				

	Drawing Title								
	BILL OF MATERIALS								
			REFERENCE DRAWING		NO.	REVISION-LOCATION	ECN	DATE	BY
DATE 11/15/04			S/N	Sales Engineer	Application Engineer	DRAWN	APPROVED		
				C.C.	R.C.	BY C. RACHAL	BY	DATE	
	Project Title		 <b>COX</b> Research and Technology, Inc. <hr/> <hr/>		PURCHASE ORDER NUMBER				
	20 HP VFD								
	CONTROL PANEL								
			DRAWING NUMBER			CP-1951			
			SHEET NUMBER			4			

## VFD PARAMETER SETTINGS

<u>PARAMETER NO.</u>	<u>PARAMETER NAME</u>	<u>PARAMETER SETTING</u>
1	SPEED #1	<u>60 HZ</u>
8	ACCEL	15 SEC
9	DECCEL	3 SEC
10	MIN. FREQ.	0.5 HZ
11	MAX. FREQ.	<u>60 HZ</u>
17	MOTOR OL	100%
18	BASE	<u>60 HZ</u>
26	STOP	RAMP
27	ROTATION	FWD
28	AUTO/MAN	AUTO
30	CONTROL	REMOTE
52	TB14OUT	RUN
53	TB15OUT	1 FAULT