Eaton MV AutoVAR Approval Drawings

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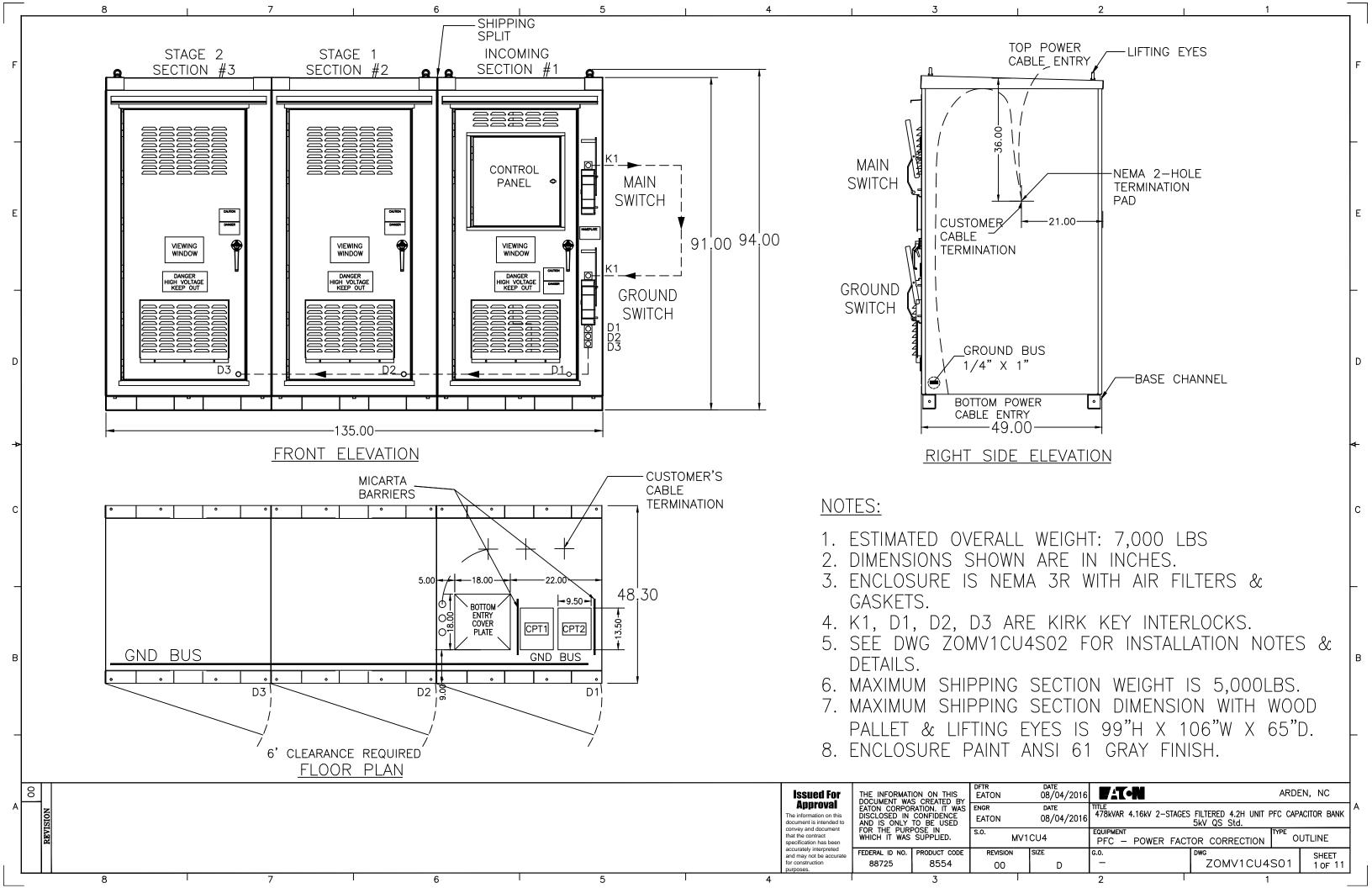
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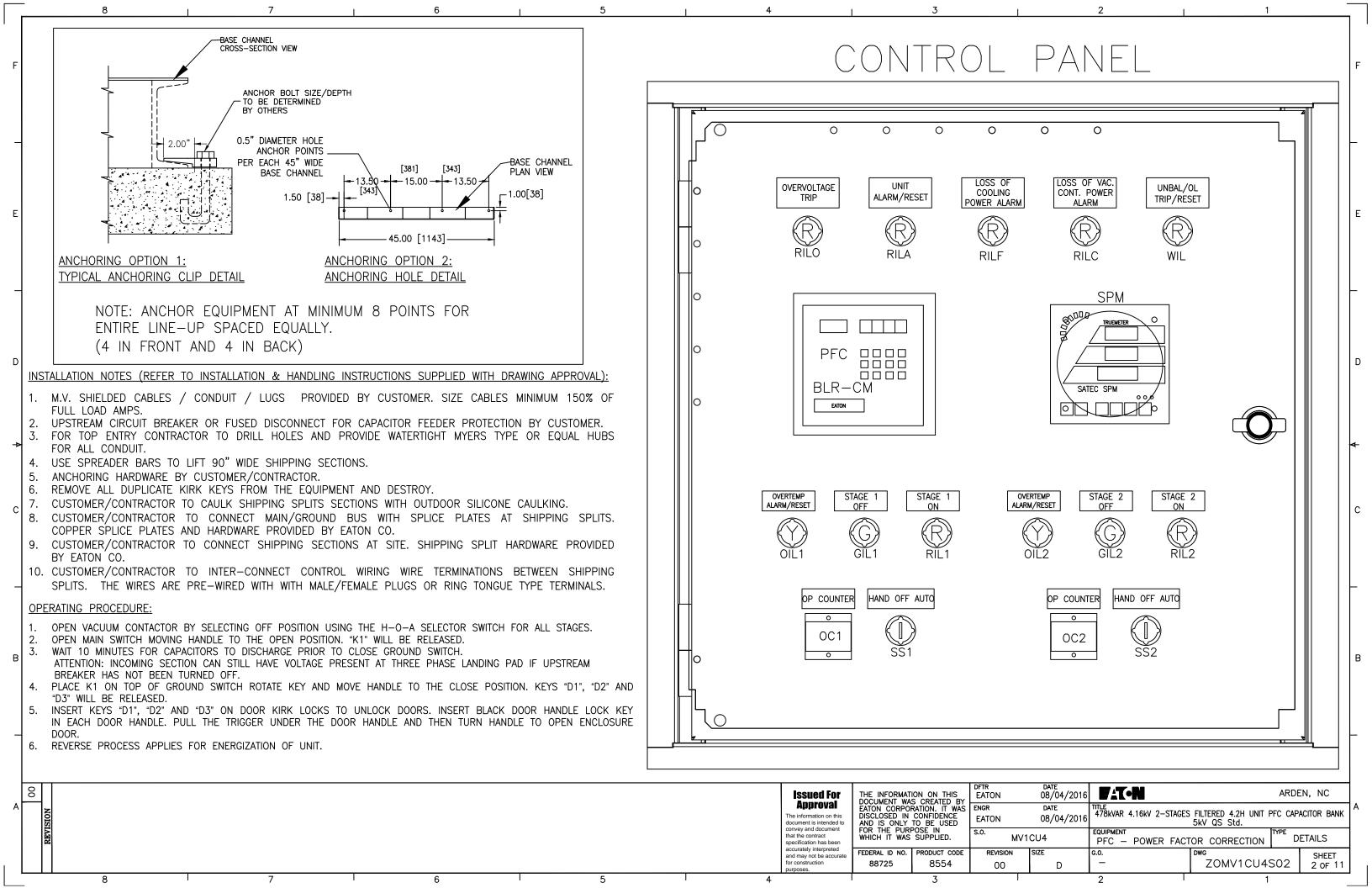
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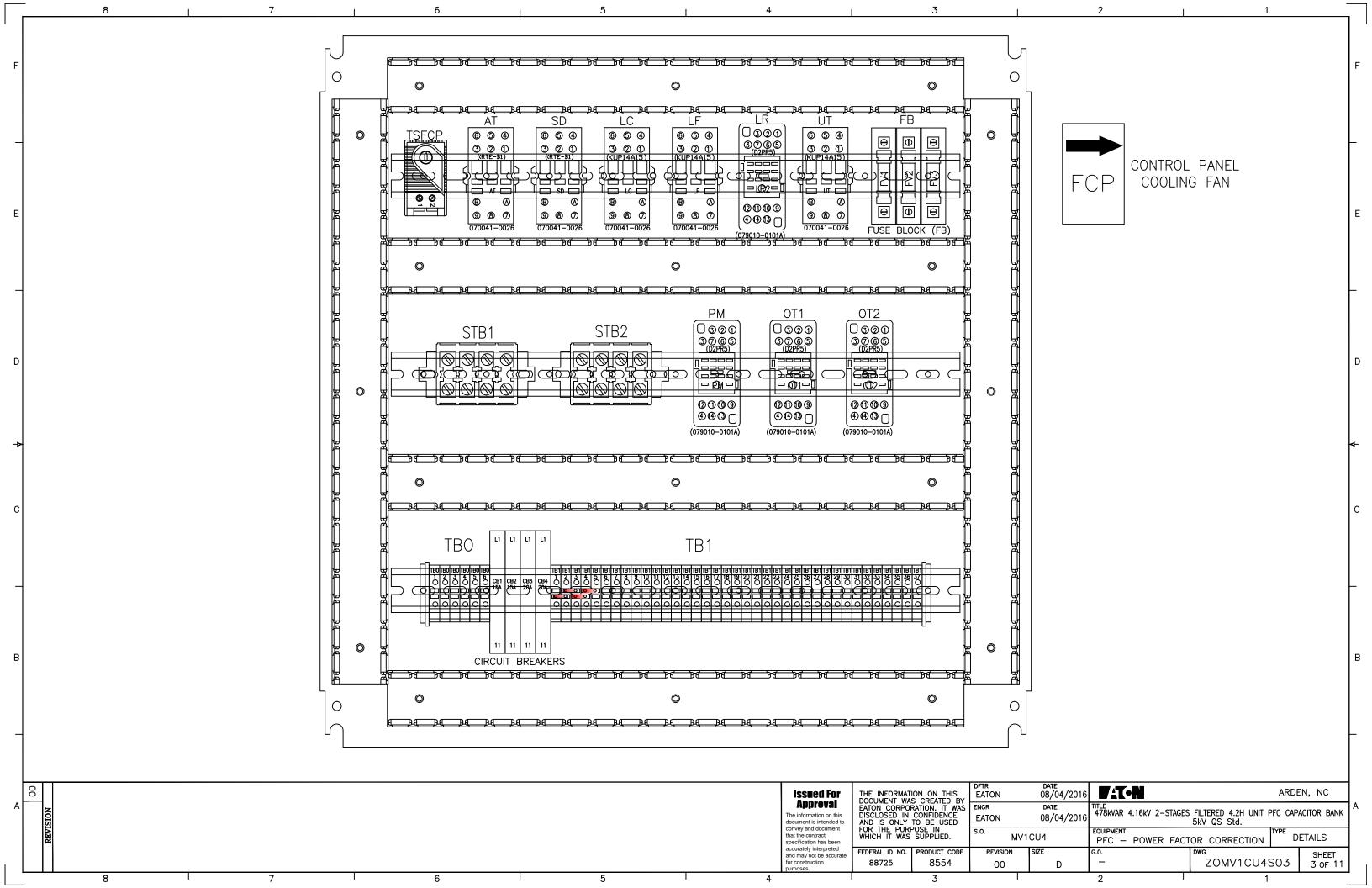
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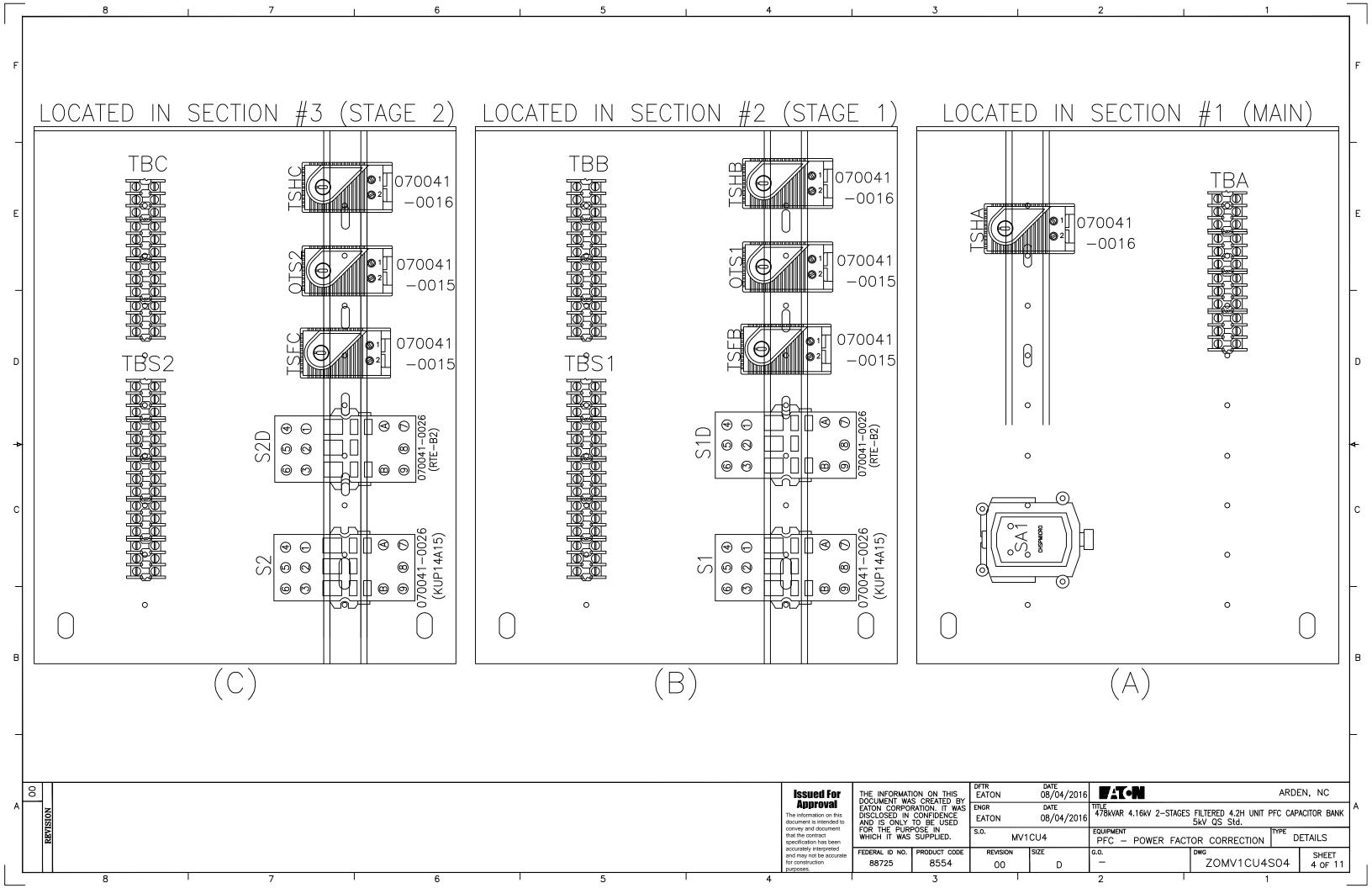
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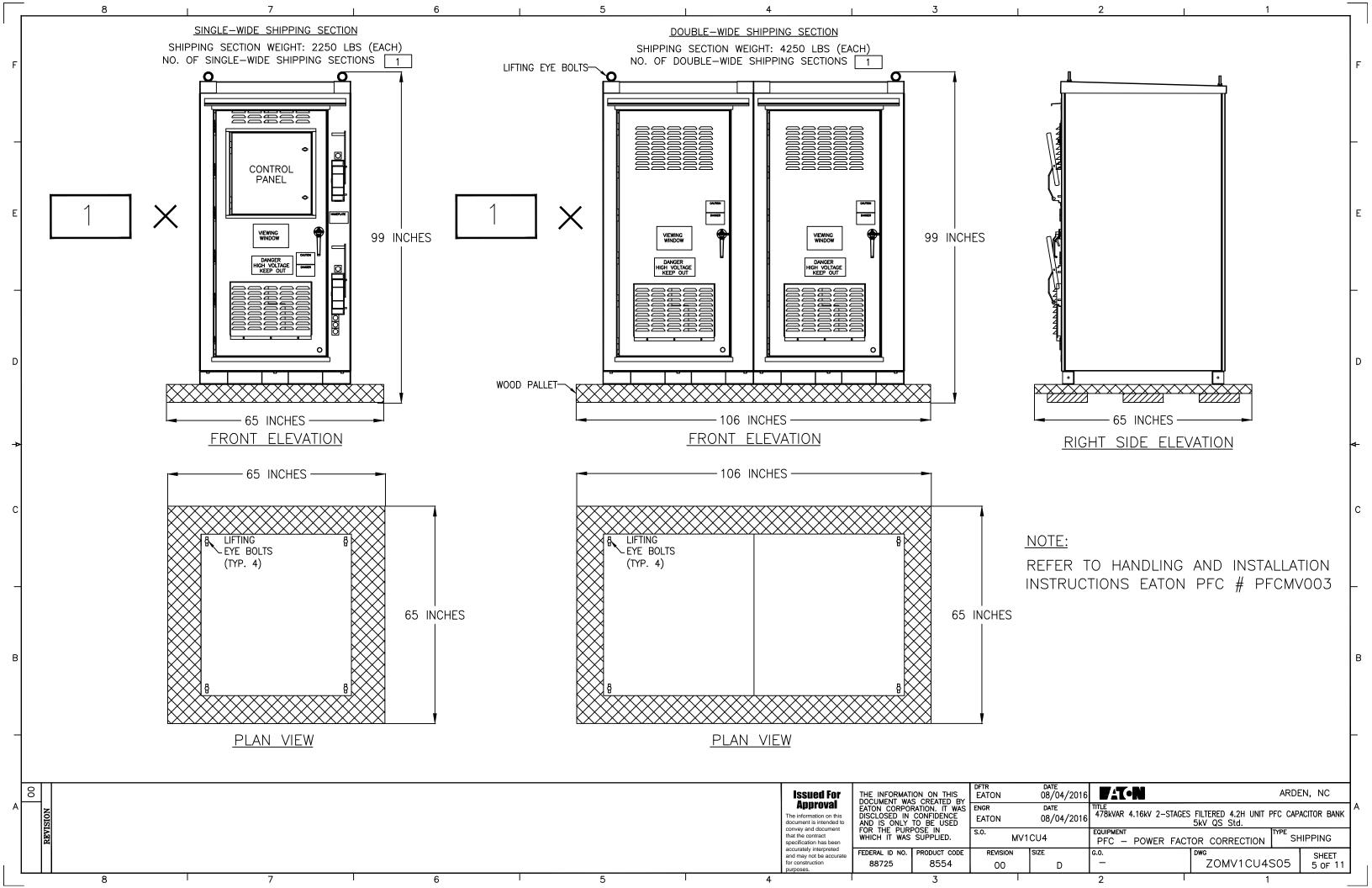
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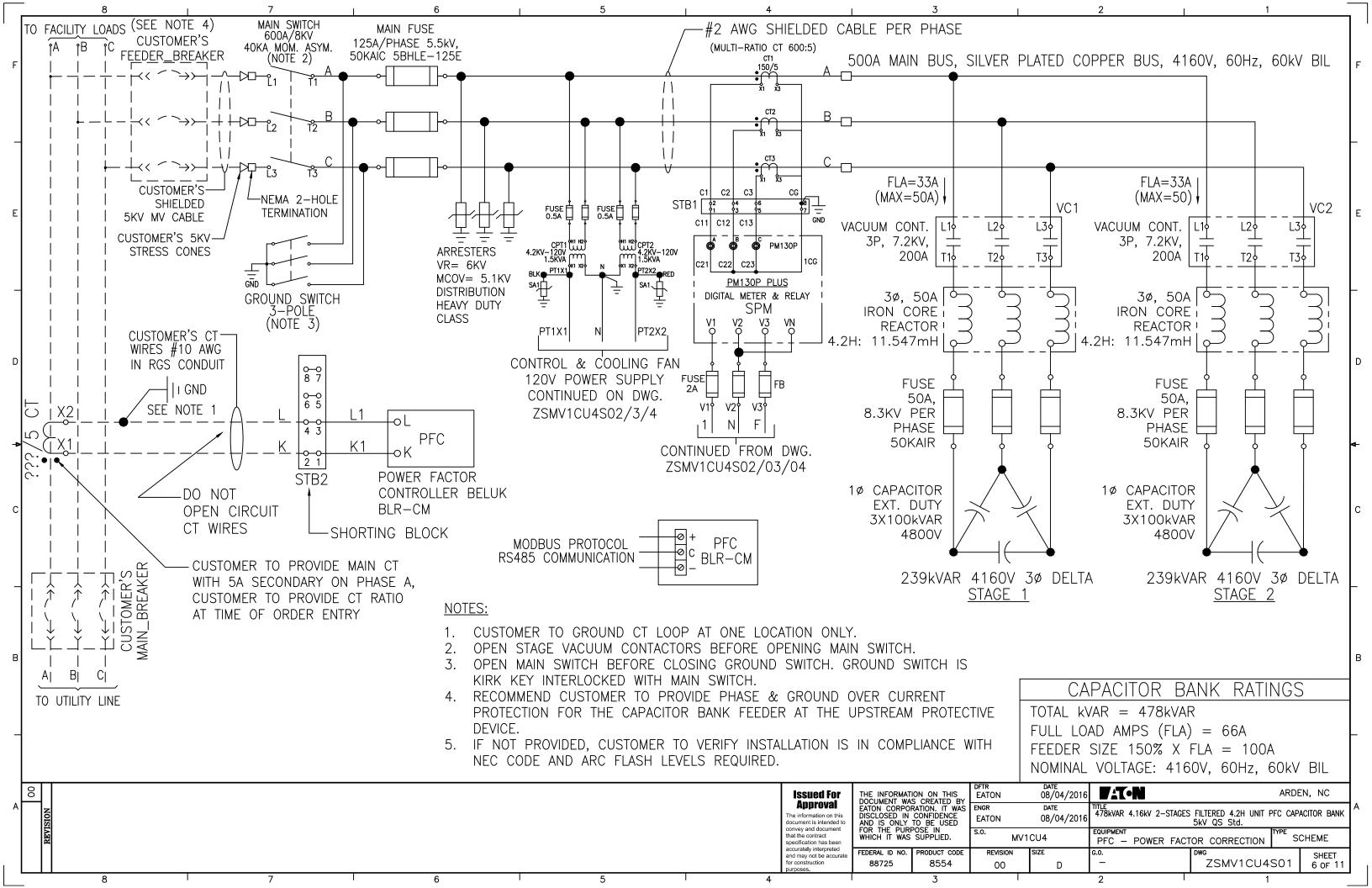


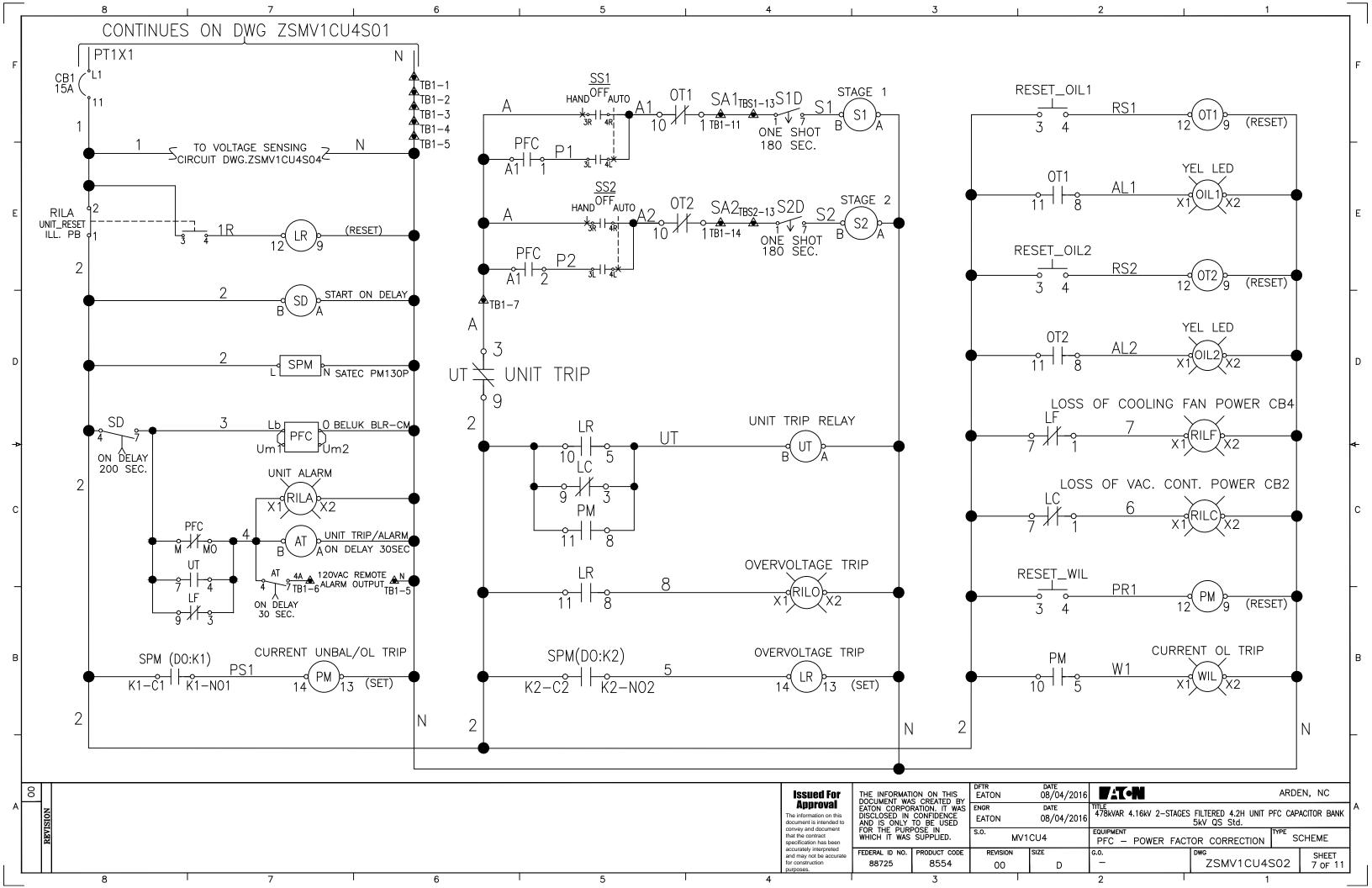


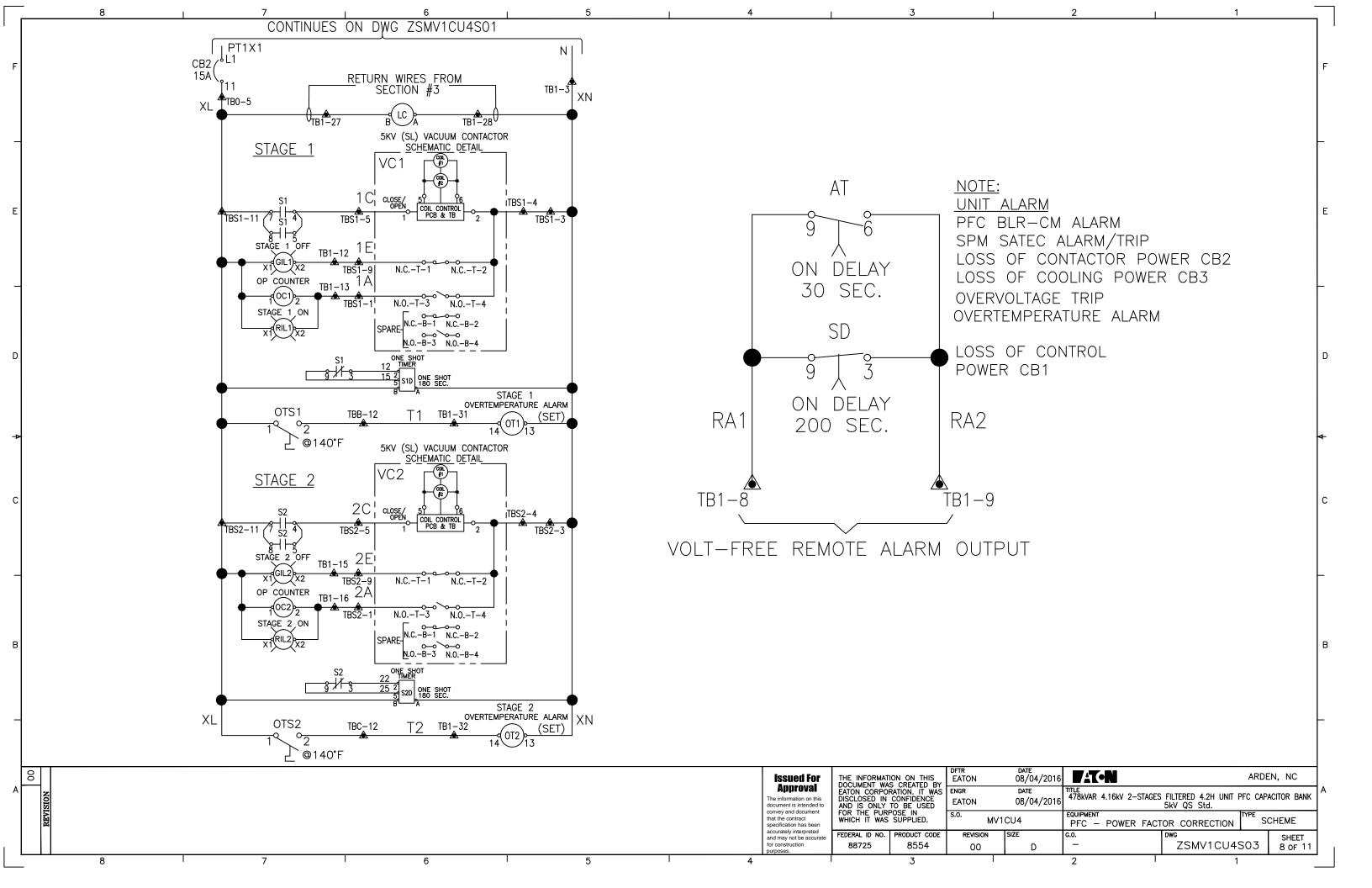


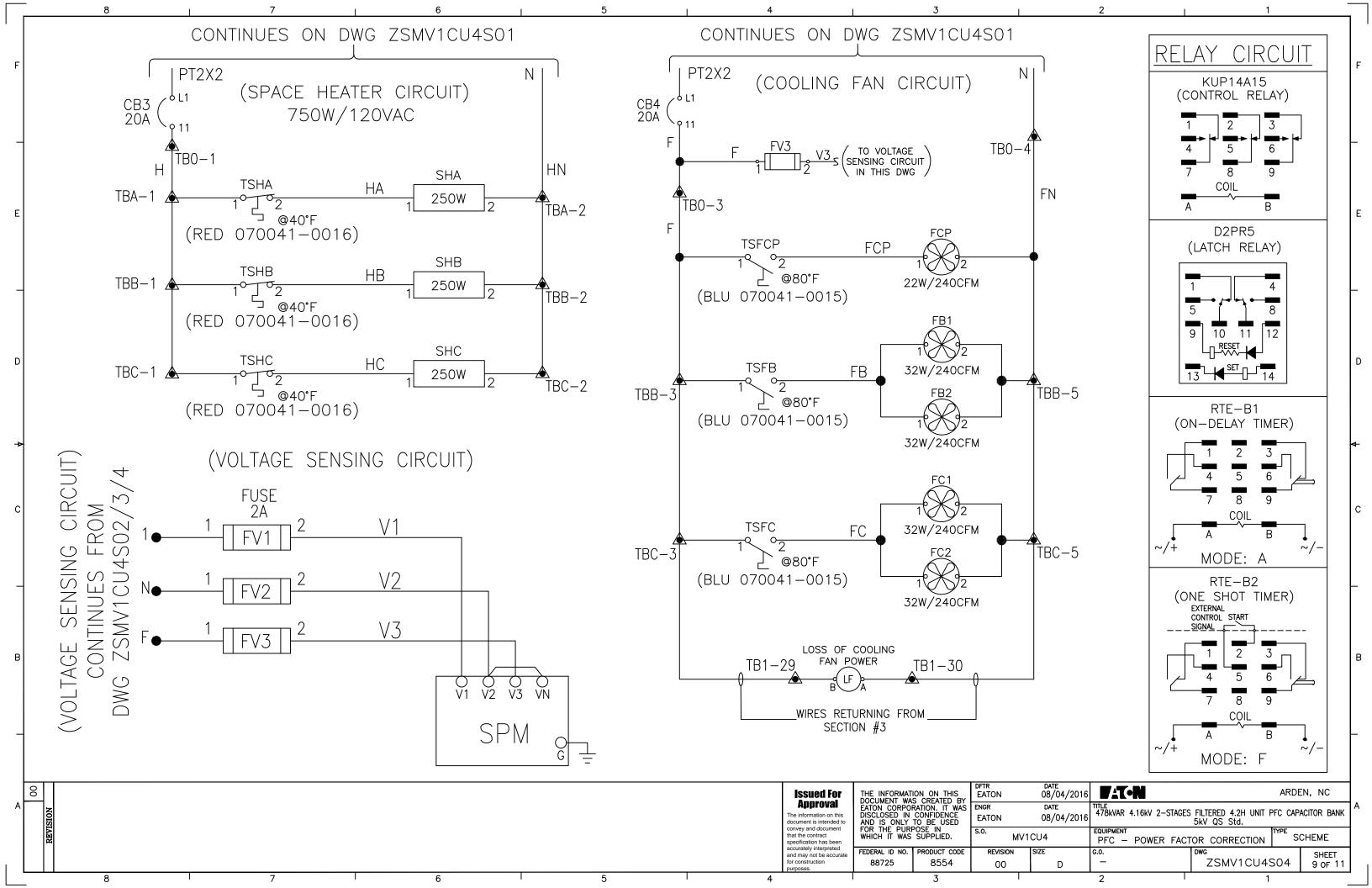




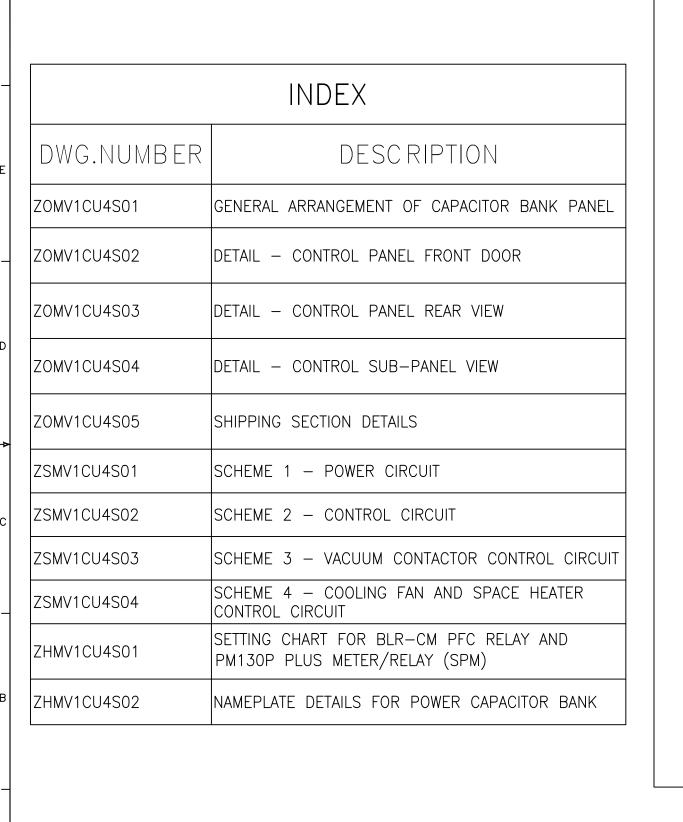








	8		7	6		<u>l</u> 5		4		3		2		1	
				BLR-CM POWER FAC	TOR CONTR	ROL RELAY SETTINGS				PM	130P PLUS	METER/	RELAY SETTINGS (SPM)		
	+++>SETUP < → PA	SSWORD 2402	→				lu prov	laa ar w laan w laa	urner Jeeurner	esenen CHG em	Code		Settings	Description]
F	> MEASUREMENT< →	CT FACTOR	→ XXX	** CUSTOMER'S MAIN CT RATIO. FIELD VERIFY.		{ NOTE: TO TOGGLE YES/NO USE PRESS BUTTON LINED-UP WITH }	- ⇒ M RELAY → M	→ PHI 2 → HAL	NTROL CONTROL LT → SLEEP ← ↓	rtc	hour		HH. MI	ADJUST TIME USING ARROW KEYS	F
		+ VT FACTOR	→ 35	PT VOLTAGE SENSING RATIO	>ALARM< →	CONTROL ALARM	◆► ENABLED ♦⇒→ NO		NO NO		dAtE		MM. DD YR	ADJUST DATE USING ARROW KEYS]
		♦ NOM. VOLTAG		NOMINAL SYSTEM LINE-LINE VOLTAGE PT PRIMARY CONNECTION		→ NO CURRENT	◆► ENABLED ♦⇒→ NO	NO YES NO 1	NO NO		dAy		DISPLAYS CURRENT DAY]
		♦ CONNECTION	V=L−L	TYPE		→ STEP FAULT	◆► ENABLED ♦⇒→ YES		NO NO		dSt		En	DAYLIGHT SAVINGS TIME OPTION	.
		EXTENDED →	SYNCH FREG	QUENCY. ◀► 60 Hz		→ STEP WARNING	◆ ENABLED ◆ ⇒ YES		NO NO		dSt.S		Apr F. Sun	DAYLIGHT SAVINGS START DATE DAYLIGHT SAVINGS	↓
			♦ PHASE COM			DOWED FLOTOR					dSt.E		Oct L. Sun	END DATE DAYLIGHT SAVINGS START	-
			V-TOL (MIN			→ POWER FACTOR	Image: Second control of the cont		NO NO		dSt.S ho		2 AM 2 AM	HOUR DAYLIGHT SAVINGS	-
			+V−TOL (MAX	<i>'</i>		→ HARMONICS U	◆ DISABLED ♦⇒→ -	c0.90 MAX i0.80 d	_ _	bASc	ConF		30P3	END HOUR WIRING MODE	11
F	+		← TEST MODE	→ NO		1 IAMIONICS 0		!%← ← ↓		<i>b</i> / 100	Pt		35	PT RATIO = PRIMARY/SECONDARY	_E
	>STEP< →	STEP 01	DISCHARGE	TIME → 200 S ←		→ HARMONICS I	◆► DISABLED ♦⇒→ -		_ _		Pt.F		1	PT RATIO MULTIPLICATION FACTOR. ONLY USED ON HV	
			+STEP TYPE	→ NORMAL				!%← ←↓	'		Ct		600	CT PRIMARY CURRENT CAPACITOR BANK CT]
		+	♦ STEP NOM.	· · · · · · · · · · · · · · · · · · ·		→ OVERLOAD P	◆► DISABLED ♦⇒→ -		- -		Ad.P		900 sec	LENGTH OF DEMAND PERIOD TYPICAL 15MINUTES=900SEC]
		STEP 02	DISCHARGE					!KW ← ← ↓			FrEq		60	NOMINAL FREQUENCY, Hz	
		+	♦STEP TYPE ♦STEP NOM.	NORMAL VALUE Qc → c239 kvar ←		→ OVERLOAD Q	DISABLED +⇒→ -		_ _		LoAd	1.55	100A	MAXIMUM DEMAND LOAD CURRENT (ENTER FLA) OUTPUT RELAY #1 OPERATION	↓
		STEP 03	DISCHARGE			D EVDADT		[{] KVAR ← ↓		rEL	rEL. 1	tyPE Polr	UnLt (UNLATCHED) nor (N.O.)	OUTPUT RELAY #1 OPERATION MODE OUTPUT RELAY #1 POLARITY	4
		3121 00	♦ STEP TYPE	→ OFF		→ P-EXPORT	◆ DISABLED ♦⇒ -		_ _		rEL. 2	tyPE	nor (N.O.) UnLt (UNLATCHED)	OUTPUT RELAY #2 OPERATION	-
		+	♦ STEP NOM.			→ TEMP1	□ DISABLED	C + dT # °C +			'LL. 2	Polr	nor (N.O.)	MODE OUTPUT RELAY #2 POLARITY	1
		STEP 04	DISCHARGE	TIME → 200 S ←		→ TEMP2	→ DISABLED → → −	 	_ _	SEtP	SP. 1	triG	r.C.Unb	TRIGGER PARAMETER %HIGH CURRENT UNBALANCE	
			♦STEP TYPE	◆► OFF				C - dT # °C -			_	On	25	OPERATE LIMIT	11
		+		VALUE Qc → c KVAR ←	+	→ DI INPUT	→ DISABLED → → → → → → → → → → → → →	, 	- -			OFF	5	RELEASE LIMIT]
		STEP 05	DISCHARGE		DLIAC	C COMPENSATION ANOLE					POINT	On d	30	OPERATE DELAY (SECONDS)	.
→			♦ STEP TYPE	→ OFF		SE COMPENSATION ANGLE					SET	OFFd	60	RELEASE DELAY (SECONDS) SETPOINT ACTION: OUTPUT RELAY	- 4
		STEP 06	DISCHARGE	VALUE Qc → C KVAR ← TIME → 200 S ←	VT L						CD 0	Act	r 1 On	#1 ON TRIGGER PARAMETER	41
		3161 00	♦ STEP TYPE	→ OFF	A-						SP. 2	triG On	A.Hi.u 4576	OVER VOLAGE OPERATE LIMIT	-
	↓			VALUE Qc → C KVAR ←	A-	- ! ! - !					1 2		4368	RELEASE LIMIT	-
С	>CONTROL<	COS PHI 1		: 0 0.5 AL TARGET POWER FACTOR	B-						SETPOINT	On d	30	OPERATE DELAY	c
	CONTROL	+ COS PHI 2	· →	NI / A 2nd TARGET POWER FACTOR	В-							OFFd	60	(SECONDS) RELEASE DELAY (SECONDS)	11
		+ SWITCH INTER	RVAL →	200 SEC SWITCHING TIME DELAY BETWEEN STEPS	B-	-C C 120°+90°					S	Act	r 2 On	SETPOINT ACTION: OUTPUT RELAY #2 ON	11
		♦ STEP EXCHAP		200 SEC ← TIME DELAY BETWEEN STEP EXCHANGE	C-						SP. 3	triG	r.Hi.C	TRIGGER PARAMETER OVER CURRENT]
		EXTENDED →			C-						2	On	101A	OPERATE LIMIT] L
			OGNITION (ON/OF			-A C 240°+90°					POINT	OFF	100A	RELEASE LIMIT	4
			CLES BALANCING									On d	30	OPERATE DELAY (SECONDS) RELEASE DELAY	4
		-	CLES BALANCING								SET	—	60 r 1 On	(SECONDS) SETPOINT ACTION: OUTPUT RELAY	4
В		♦ STEP EXCH	SENSITIVITY %	→ NO → 60% →							SP. 4	Act triG	nonE	#1 ON TRIGGER PARAMETER	- в
		CONTROL 3 CONTROL 3		→ AUTOMATIC								On	?	? OPERATE LIMIT	1
	+ +		FREEZE STEPS?	NO							 	OFF	?	RELEASE LIMIT	11
	> DISPLAY < →	♦ DISPLAY ON		SELECT DISPLAY AS PER PREFERENCE		** FIELD VERIFY AND ADJ	JUST AS NECESSARY.				POINT	On d	?	OPERATE DELAY (SECONDS)	1
		♦ CONTRAST		- + ADJUST CONTRAST AS PER PREFERENCE							SETE	OFFd	?	RELEASE DELAY (SECONDS)]
	+ +	PASSWORD		DAFAULT PASSWORD 2402								Act	?	SETPOINT ACTION: ?	
	>ALARM < →									diSP	bAr	CAPACIT	TOR BANK FLA=66A	DEFINES THE NOMINAL FLA 100% LEVEL FOR THE BAR GRAPH DISPLAY	
	11									I DFTR	DATF	·			_
8	11							Issued For Approval	THE INFORMATION DOCUMENT WAS C	ON THIS EATON		2016	T•N	ARDEN, NC	_ _
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AUTOVAR® MV POWER CAPACITOR BANK

G.O.# FREQ. KVAR **VOLTS** FLA PH FLUID 18GAL 60 Hz 478 4160 66A

SERIAL NO.

NO. OF STAGES

PART NO.

{TBD}

478MV2AD41FGMW

MAIN DISCONNECT RATING

MAIN FUSE RATING

AMPS

600

NO. OF ENCLOSURES

FUSE INTERRUPTING RATING

50 KA



221 Heywood Road, Arden NC 28704 Made in USA

AMPS

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EATON ENGR EATON MV1CU4

DATE 08/04/2016 VATON ARDEN, NC TITLE 478kVAR 4.16kV 2-STAGES FILTERED 4.2H UNIT PFC CAPACITOR BANK 5kV QS Std. 08/04/2016 NAMEPLATE PFC - POWER FACTOR CORRECTION

REVISION ZHMV1CU4S02 8554

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