



UNITIZED DISTRIBUTION SUBSTATION (UDS) OFFERING

ESSMETRON
1505 West 3rd Ave
Denver, CO 80223
303-592-1903

FFI

Ferrie, Franzmann Industries



UDS STANDARD OFFERINGS

- Overall construction is NEMA 1 with the panelboard, automatic transfer switch, and circuit breaker areas constructed within a dedicated area built to NEMA 12 standards.
- Free standing structure
- Heavy duty construction
- Internally mounted transformer and panelboards
- Cold rolled steel
- Powder coat paint finish
- Typical enclosure dimensions 42" W x 97" H x 20" D
- Dead front doors
- UL listed





UDS ELECTRICAL OPTIONS

- Single or three phase transformer
 - Copper or aluminum wound
 - 80°C and 115°C rise
- Single phase transformers 15kVA to 37.5kVA
 - 480V to 204V/120V
- Three phase transformers 15kVA to 75kVA
 - 480V Delta to 208V/120V Wye
 - 480V Delta to 480V/277V Wye
- Primary/Secondary fused or main breaker disconnect
- Automatic Transfer Switch
- Transient Voltage Surge Suppressor
- Custom modifications available





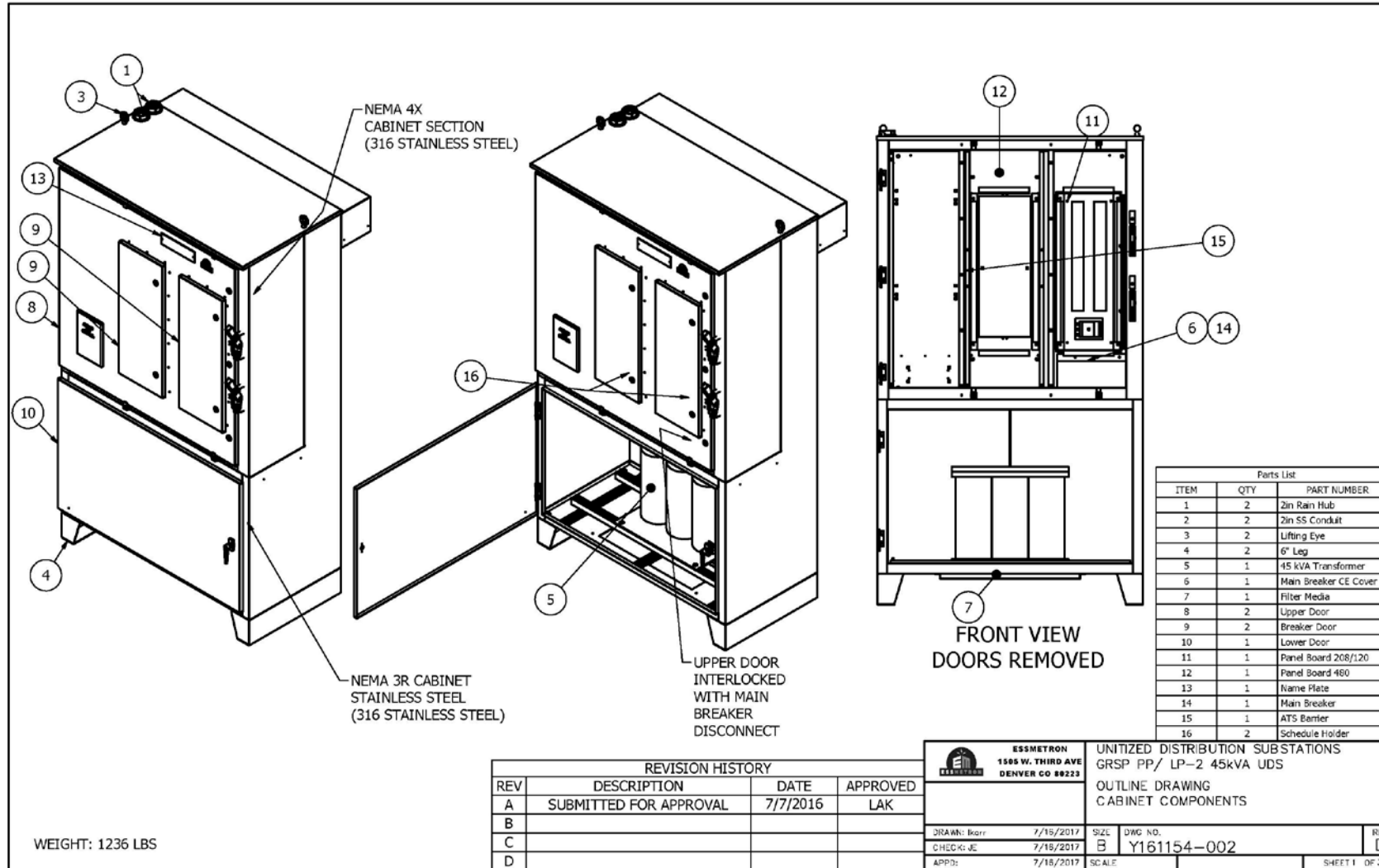
UDS ENCLOSURE OPTIONS

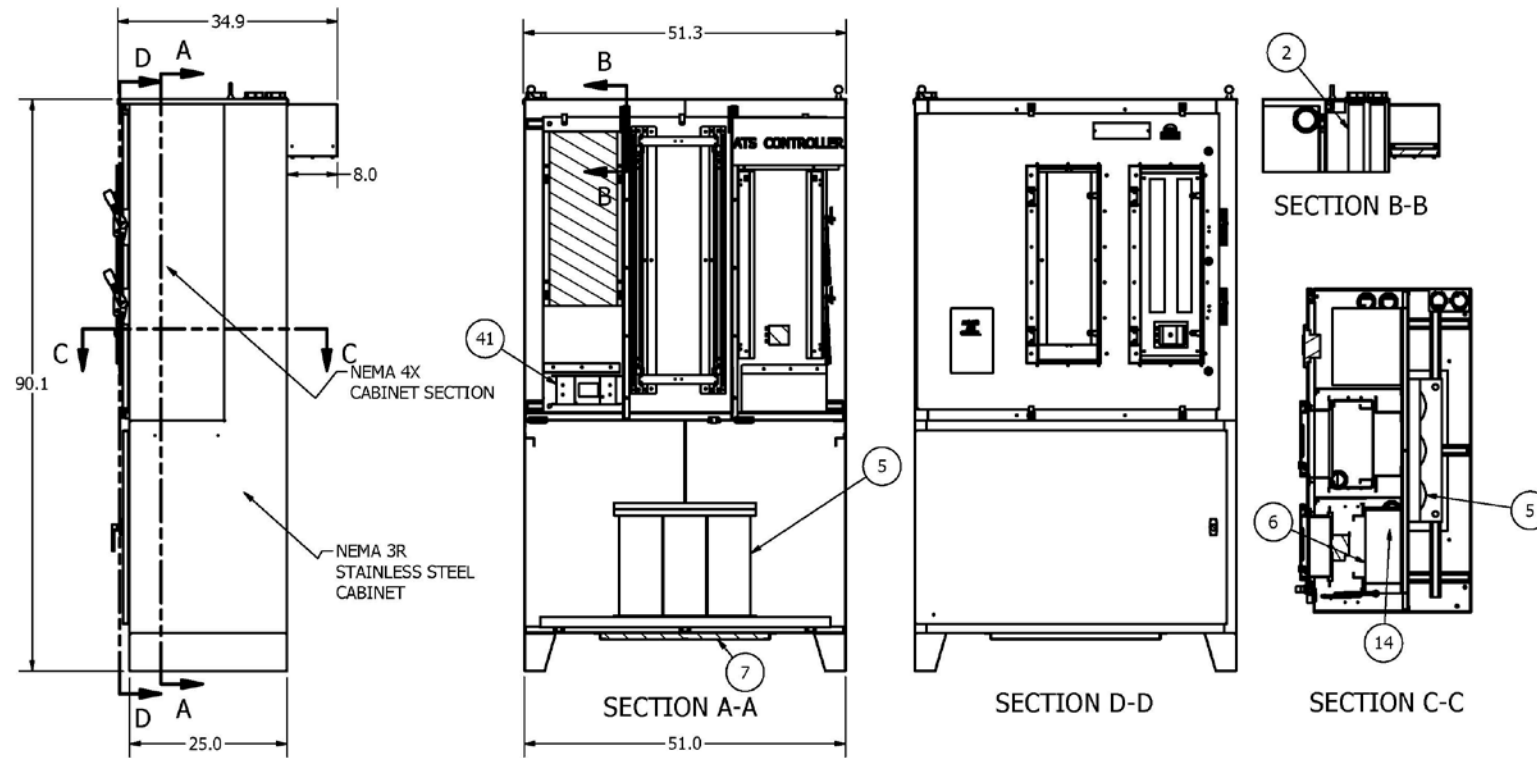
- Stainless steel – 304, 304L, 316, 316L
- Type 3R
- Isolated transformer, panelboard, and controls compartments.
- Keyed or padlockable deadfront doors
- Compartment doors mechanically interlocked with disconnect switch
- Coastal paint to C57.12.29 on stainless for harsh environments
- Rear heat dissipation for isolated transformer




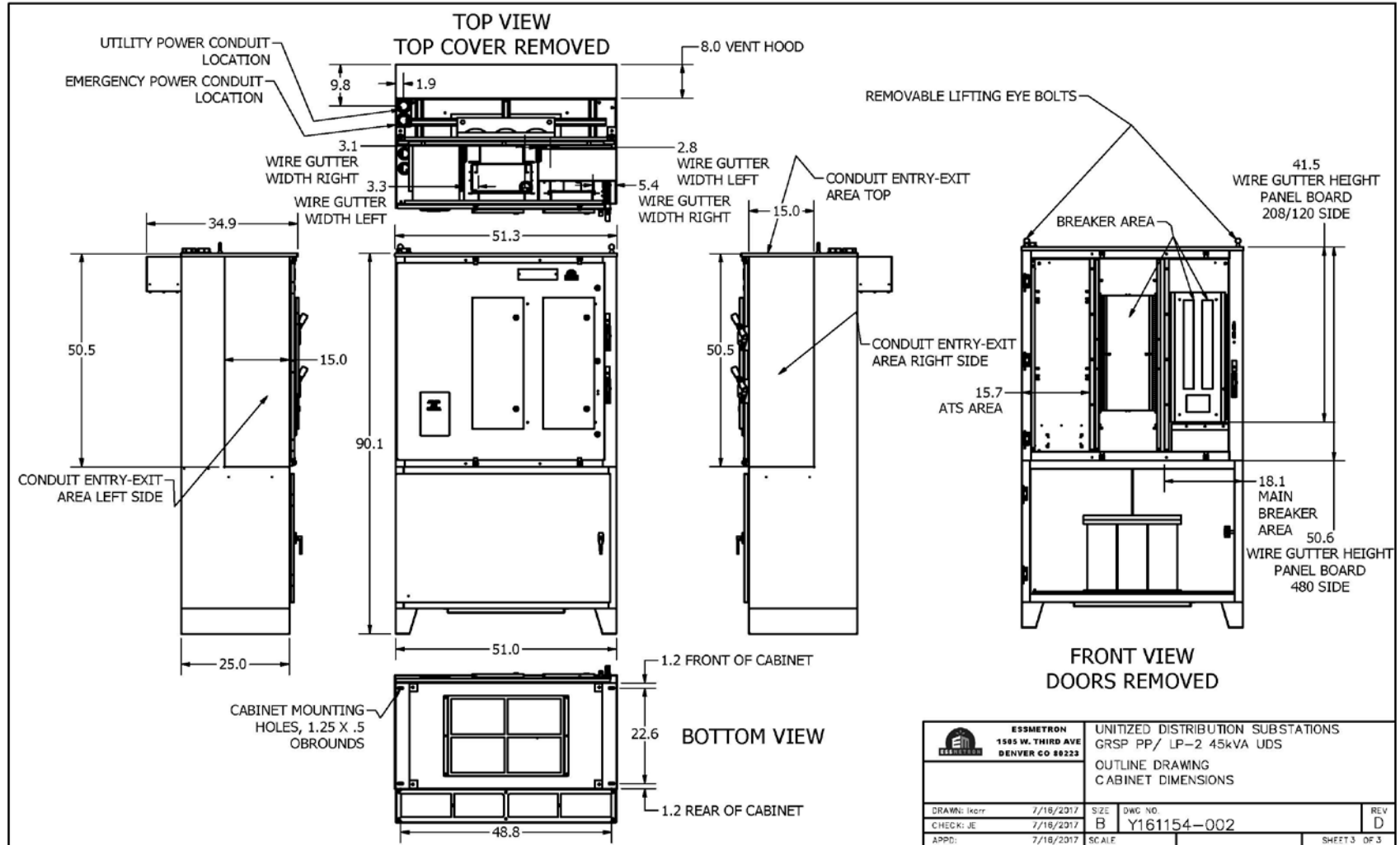


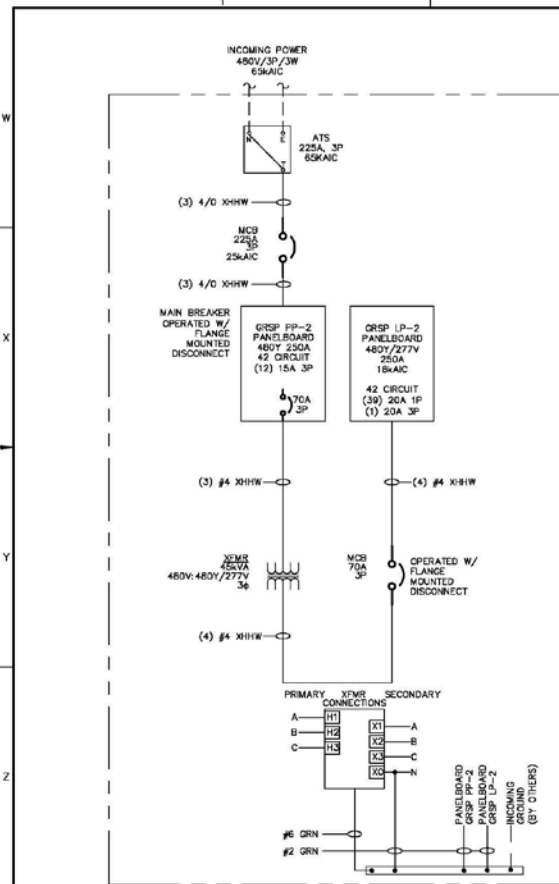
DESIGN PACKAGE EXAMPLE





 ESSMETRON 1505 W. THIRD AVE DENVER CO 80223		UNITIZED DISTRIBUTION SUBSTATIONS GRSP PP/ LP-2 45kVA UDS OUTLINE DRAWING CABINET COMPONENTS CONT.		
DRAWN: Barr	7/18/2017	SIZE	DWG NO.	REV
CHECK: JE	7/18/2017	B	Y161154-002	D
APPD:	7/18/2017	SCALE		SHEET 2 OF 3





GRSP PP-2									
LOCATION: GREASE PROCESSING		NEMA: 4X		PH A WEIGHTED VA		2134			
VOLTS: 480		FEED: MTG. UDS		PH B WEIGHTED VA		2134			
PHASE & WIRE: 3PH 3W		BUS RATING: 250		PH C WEIGHTED VA		2134			
INTERRUPT: 65 KAIC		MAIN: CB		EQUIP SIZING VA		6402			
		MAIN RATING: MLO		PANEL AMPS		7.7			
IC/F DESCRIPTION	LOAD (VA)	BKR	CIR	Ø	CIR	BKR	LOAD (VA)	DESCRIPTION	IC/F
I GRSP OVERHEAD DOOR NO. 1	567	15A-3P	1	A	2		433		I
I	567		3	B	4	15A-3P	433	GRSP BRIDGE CRANE NO. 1	I
I	567		5	C	6		433		I
I GRSP OVERHEAD DOOR NO. 2	567	15A-3P	7	A	8		567		I
I	567		9	B	10	15A-3P	567	GRSP OVERHEAD DOOR NO. 3	I
I	567		11	C	12		567		I
I SPARE		15A-3P	13	A	14				I
I			15	B	16	15A-3P		SPARE	I
I			17	C	18				I
I SPARE		15A-3P	19	A	20				I
I			21	B	22	15A-3P		SPARE	I
I			23	C	24				I
I SPARE		15A-3P	25	A	26				I
I			27	B	28	15A-3P		SPARE	I
I			29	C	30				I
I SPARE		15A-3P	31	A	32				I
I			33	B	34	15A-3P		SPARE	I
I			35	C	36				I
I			37	A	38				I
I WELDING RECEPTACLES		15A-3P	39	B	40	70A-3P		TRANSFORMER	I
I			41	C	42				I

GRSP LP-2									
LOCATION: SHED CONTROL ROOM		NEMA: 4X		PH A WEIGHTED VA		3846			
VOLTS: 480 / 277		FEED: MTG. UDS		PH B WEIGHTED VA		1735			
PHASE & WIRE: 3PH 4W		BUS RATING: 250		PH C WEIGHTED VA		1670			
INTERRUPT: 18 KAIC		MAIN: MLO		EQUIP SIZING VA		11538			
				PANEL AMPS		13.9			
IC/F DESCRIPTION	LOAD (VA)	BKR	CIR	Ø	CIR	BKR	LOAD (VA)	DESCRIPTION	IC/F
C GREASE PROCESSING BUILDING NIGHT LIGHTING	1672	20A-1P	1	A	2		1165		C
C GREASE PROCESSING BUILDING ROOF LIGHTING	448	20A-1P	3	B	4	20A-3P	940	GRSP LC 2A (GRSP LIGHTING INTERIOR)	C
C BOILER ROOM LIGHTING	372	20A-1P	5	C	6		964		C
C MECHANICAL & MAINTENANCE ROOM LIGHTING	240	20A-1P	7	A	8	20A-1P			C
I SPARE		20A-1P	9	B	10	20A-1P		SPARE	I
I SPARE		20A-1P	11	C	12	20A-1P		SPARE	I
I SPARE		20A-1P	13	A	14	20A-1P		SPARE	I
I SPARE		20A-1P	15	B	16	20A-1P		SPARE	I
I SPARE		20A-1P	17	C	18	20A-1P		SPARE	I
I SPARE		20A-1P	19	A	20	20A-1P		SPARE	I
I SPARE		20A-1P	21	B	22	20A-1P		SPARE	I
I SPARE		20A-1P	23	C	24	20A-1P		SPARE	I
I SPARE		20A-1P	25	A	26	20A-1P		SPARE	I
I SPARE		20A-1P	27	B	28	20A-1P		SPARE	I
I SPARE		20A-1P	29	C	30	20A-1P		SPARE	I
I SPARE		20A-1P	31	A	32	20A-1P		SPARE	I
I SPARE		20A-1P	33	B	34	20A-1P		SPARE	I
I SPARE		20A-1P	35	C	36	20A-1P		SPARE	I
I SPARE		20A-1P	37	A	38	20A-1P		SPARE	I
I SPARE		20A-1P	39	B	40	20A-1P		SPARE	I
I SPARE		20A-1P	41	C	42	20A-1P		SPARE	I

NOTES		REVISIONS		UNUNITED DISTRIBUTION SUBSTATION	
X DENOTES SHORTING TERMINAL BLOCK. DENOTES TEST SWITCH.		DATE: 10/27/17		SWBD-480V/3P/3W	
DENOTES NEMA 4 HOLE PATTERN PROVISIONS. DENOTES FIELD WIRED TERMINAL BLOCK.		APPROVED: J.C.		ONE LINE GRSP PP/LP-2	
480V WIRE COLORS: A-BROWN B-ORANGE C-YELLOW N-WHITE (AS NEEDED)		1 AS BUILT		SIZE: B	
208V WIRE COLORS: A-BLACK B-RED C-BLUE				DWG NO. Y161150-01	
				REV 1	
				SCALE: N.T.S.	
				SHEET 2 OF 8	