

**TABLE 1 - CLEARANCE BETWEEN BATTERY RAILS**

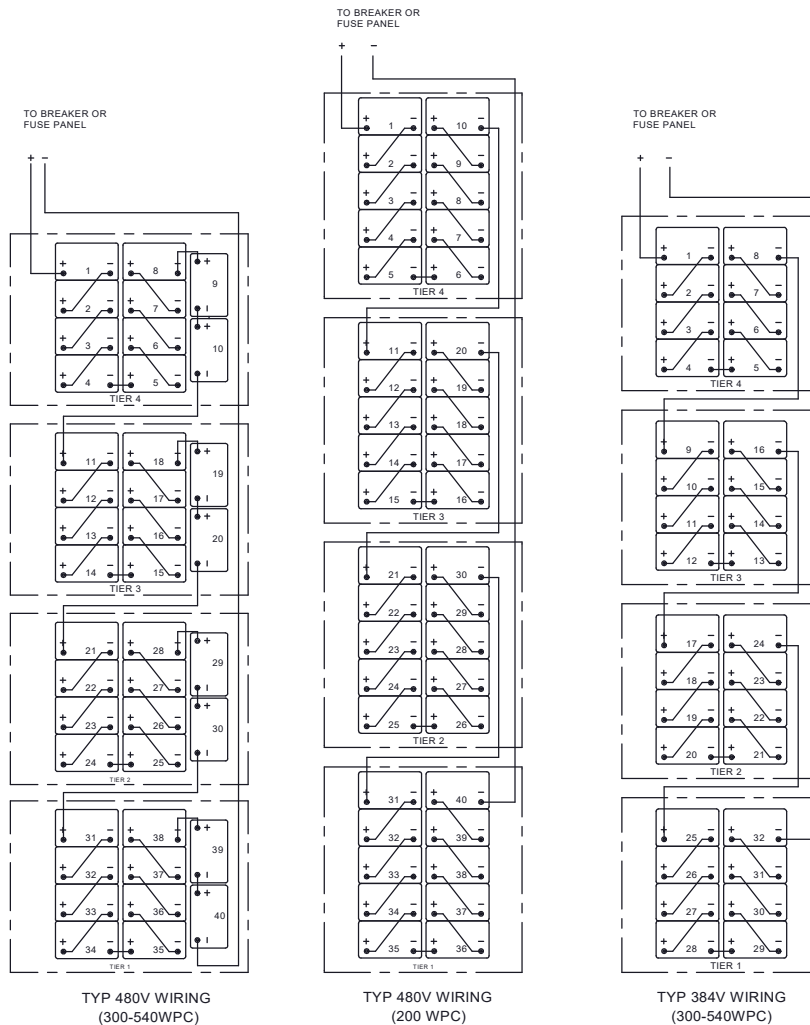
CABINET HEIGHT	DIM "A"
82.0	16.54
80.0	15.87
79.0	15.44
<b>78.7</b>	<b>15.44</b>
78.4	15.21
78.0	15.21
77.3	14.97
76.8	14.97

#### CABINET NOTES:

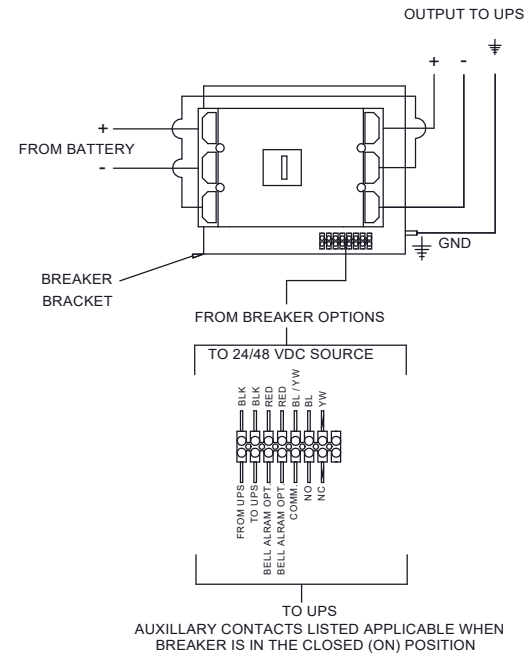
- NEMA 1 DESIGN.
- EMPTY CABINET WEIGHT 625 LBS (283 KG). BASED ON 78.7" TALL CABINET.
- UL 1778 LISTED.
- TESTED AND FACTORY ASSEMBLED PRIOR TO SHIPPING.
- FULLY WELDED FRAME. MANUFACTURED FROM HEAVY GAUGE STEEL.
- POWDER COATED WITH A CORROSION RESISTANT POWDER USING A SEVEN STAGE IMMERSION PRETREATMENT PROCESS.
- BATTERIES CAN BE ACCESSED FROM FRONT, REAR, AND BOTH SIDES.
- CUSTOM DESIGNED PALLETS FOR SHIPPING ANYWHERE LOCALLY AND GLOBALLY (UPON REQUEST).
- BATTERY CABINET CAN BE MOVED WITH A NORMAL PALLET JACK FROM FRONT AND REAR.
- BATTERIES ARE SECURED WITH NON-CONDUCTIVE STRAPPING FOR FOR SAFE TRANSIT.
- STANDARD AND CUSTOM SPILL CONTAINMENT OPTIONS ARE AVAILABLE.
- SEE HEIGHT LEGEND TABLE IN PAGE 3, DIGIT 7, FOR HEIGHTS AVAILABLE.
- TYPICAL CLEARANCE BETWEEN BATTERY RAILS AT FRONT OF CABINET. STANDARD CABINET HEIGHT IS 78.7" TALL. SEE TABLE 1 FOR ALL CONFIGURATIONS.
- CLEARANCE BETWEEN TOP BATTERY RAIL AND BOTTOM OF BREAKER BRACKET TYP FOR ALL CABINET HEIGHTS.
- COMPLIANT TO IBC (2018), ASCE 7-10 (2016), AND CBC (2016) CODES. DESIGN MEETS DEFAULT SEISMIC DESIGN CATEGORY D, (SS = 2.44G, S1 = 0.99G, SDS = 1.63), AND IMPORTANCE FACTOR 1.5.
- OPTIONAL PULL OUT BATTERY SHELVES AVAILABLE.

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PROJECT: DRAWN BY: RNA    NAME:    DATE: 07-14-15				TITLE: BATTERY CABINET, 12V, TOP TERMINAL			
SIZE: <b>D</b>		DWG. NO.: ETC38-SPEC		REV: <b>D</b>		SCALE: 1:12    WEIGHT:    SHEET 1 OF 5	



## BREAKER DETAIL



BATTERY CONFIGURATION TABLE	
BATTERY CAPACITY	MAXIMUM NUMBER OF BATTERIES PER CABINET
200 WPC	60
300 WPC-620 WPC	40

### ELECTRICAL NOTES:

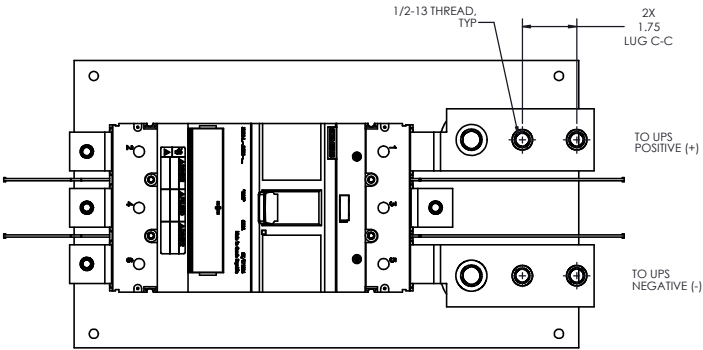
1. ALL CABLES USED ARE UL LISTED.
  2. ALL BREAKERS ARE UL RECOGNIZED.
  3. TERMINAL BLOCKS ARE UL RECOGNIZED, 600V RATED.
  4. CABINETS ARE SHIPPED WITH THE BREAKER IN THE TRIPPED POSITION.
  5. CABINET GROUND CONNECTION IS A 5/16-18 THREADED STUD.
  6. CABLES BETWEEN BATTERY CABINET TO UNINTERRUPTIBLE POWER SUPPLY ARE OPTIONAL.
- OTHER BATTERIES DESIGNED FOR HIGHER CAPACITY BUT LOWER RUN TIMES WILL FIT, CONSULT WITH SALES.

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PROJECTION:	NAME: RNA	DATE: 07-14-15	SIZE: D	DWG. NO. ETC38-SPEC	REV D
SCALE: 1:12			WEIGHT:		SHEET 2 OF 5

SIEMENS BREAKER SIZING						
BREAKER SIZE AMPS	40A	50A	70A	100A	125A	150A
A.I.C. RATING 600DC	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
MECHANICAL OUTPUT LUG SIZE (IF EQUIPPED)	(1) #8-3/0	(1) #8-3/0	(1) #8-3/0	(1) #8-3/0	(1) #8-3/0	(1) #6-350
BUS CONNECTION (LINE)	(1) #6	(1) #6	(1) #6	(1) #4	(1) #4	(1) #4
BUS CONNECTION (LOAD)	UP TO (1) #6-3/0 CABLE, SINGLE HOLE LUG, 1/4" BOLT	UP TO (1) #6-3/0 CABLE, SINGLE HOLE LUG, 1/4" BOLT	UP TO (1) #6-3/0 CABLE, SINGLE HOLE LUG, 1/4" BOLT	UP TO (1) #4-3/0 CABLE, SINGLE HOLE LUG, 1/4" BOLT	UP TO (1) #4-3/0 CABLE, SINGLE HOLE LUG, 1/4" BOLT	UP TO (1) #4-4/0 CABLE, SINGLE HOLE LUG, 3/8" BOLT
BREAKER SIZE AMPS	175A	200A	225A	250A	300A	350A
A.I.C. RATING 600DC	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
MECHANICAL OUTPUT LUG SIZE (IF EQUIPPED)	(1) #6-350	(1) #6-350	(1) #6-350	(1) #6-350	(1) 2/0-600	(1) 2/0-600
BUS CONNECTION (LINE)	(1) #2	(1) #2	(1) 1/0	(1) 1/0	(1) 2/0	(1) 4/0
BUS CONNECTION (LOAD)	UP TO (1) #2-350 CABLE, SINGLE HOLE LUG, 3/8" BOLT	UP TO (1) #2-350 CABLE, SINGLE HOLE LUG, 3/8" BOLT	UP TO (1) 1/0-350 CABLE, SINGLE HOLE LUG, 3/8" BOLT	UP TO (1) 1/0-350 CABLE, SINGLE HOLE LUG, 3/8" BOLT	UP TO (2) 2/0-500 MCM CABLE, 1.75" C-C LUG, 1/2" BOLT	UP TO (2) 4/0-500 MCM CABLE, 1.75" C-C LUG, 1/2" BOLT
BREAKER SIZE AMPS	400A	450A	500A	600A		
A.I.C. RATING 600DC	50 kA	50 kA	50 kA	50 kA		
MECHANICAL OUTPUT LUG SIZE (IF EQUIPPED)	(1) 2/0-600	(2) 2/0-600	(2) 2/0-600	(2) 2/0-600		
BUS CONNECTION (LINE)	(1) 4/0	(2) 1/0	(2) 1/0	(2) 2/0		
BUS CONNECTION (LOAD)	UP TO (2) 4/0-500 MCM CABLE, 1.75" C-C LUG, 1/2" BOLT	UP TO (2) 1/0-750 MCM CABLE, 1.75" C-C LUG, 1/2" BOLT	UP TO (2) 1/0-750 MCM CABLE, 1.75" C-C LUG, 1/2" BOLT	UP TO (2) 2/0-750 MCM CABLE, 1.75" C-C LUG, 1/2" BOLT		

UPS CONNECTION



600A SIEMENS BREAKER SHOWN, POSITIVE AND NEGATIVE "TO UPS" BUS CONNECTIONS WILL VARY IN SIZE DEPENDING ON THE SIZE OF AND AMPERAGE OF BREAKER. REFERENCE BREAKER SIZING TABLE ABOVE.

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PROJECTION:			TITLE: BATTERY CABINET, 12V, TOP TERMINAL			
DRAWN BY	NAME	DATE	SIZE	DWG. NO.	REV	
	RNA	07-14-15	D	ETC38-SPEC	D	
			SCALE: 1:12	WEIGHT: 21.3034	SHEET 3 OF 5	

### ESS CABINET WITH BREAKER SYSTEM PART NUMBERS

**SEE PAGE 5 FOR BATTERY MODEL  
NOMENCLATURE**


\*\*REPRESENTS STANDARD COLOR FOR ALL ESS CABINETS (DIGIT 6)

\*\*REPRESENTS ESS STANDARD HEIGHT OF TOP TERMINAL BATTERY CABINETS (DIGIT 7)

1. REFERENCE THE BATTERY PART NUMBER GUIDE TABLE WHEN ORDERING A CABINET.
2. WHEN PLACING ORDER, INDICATE THE QTY OF CABINETS. NO DASHES ARE TO BE INCLUDED IN PART NUMBER.
3. QTY OF PART NUMBER OF SYSTEM IS ALWAYS 1000 UNLESS NOTED OTHERWISE.
4. THE BASE NUMBER (DIGITS 1-5) WILL ALWAYS BE THE SAME.
5. DIGITS 6-7 WILL FOLLOW THE BASE NUMBER INDICATING THE COLOR AND HEIGHT OF THE CABINET.
6. DIGITS 8-18 MAKE UP THE REST OF THE SYSTEM PART NUMBER WHICH INCLUDE OPTIONS FOR BATTERIES, BREAKERS, BATTERY MODELS, AND BREAKER OPTIONS.
7. EXAMPLE: ETC38AE - THIS REPRESENTS A STANDARD ETC38 CABINET, WITH A POWDER COAT FINISH OF STANDARD BLACK AND 78.7" HEIGHT.



▶ PLEASE NOTE, ONLY STANDARD CABINETS (COLOR AND HEIGHT) ARE IN STOCK. MINIMUM ORDERS OF 20 OR MORE CABINETS ARE REQUIRED FOR NON STANDARD CABINETS UNLESS IT IS THROUGH OEM CONTRACTS.

▶ ETC38 CABINETS ARE NOT AVAILABLE WITH 800A BREAKERS. PLEASE CONSIDER ETC41 FOR CABINETS WITH 800A BREAKERS.

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	<p>TITLE:</p> <p>BATTERY CABINET, 12V, TOP TERMINAL</p>		<p>PROJ. NO. 07-146-15</p> <p>DATE 07-14-15</p>		<p>REV D</p>	
<p>SCALE: 1:12</p>		<p>WEIGHT:</p>		<p>SHEET 4 OF 5</p>		

DIGIT 10-14: BATTERY MODEL PER MANUFACTURE					
UL APPROVED TOP TERMINAL BATTERY MODELS					
ENERSYS	C&D	CSB	EAST PENN	HOPPECKE	VISION
HX100 = 12HX100	105PL = UPS12-105PLP	HL110 = HRL12110W	HR150 = U1HR1500	PR080 = VR 12-80	UN115 = UNA12-115
HX150 = 12HX150	155PL = UPS12-155PLP	HL150 = HRL12150W	HR200 = 45HR2000	PR110 = VR 12-110	UN150 = UNA12-150
HX205 = 12HX205	215PL = UPS12-215PLP	HL200 = HRL12200W	HR300 = HR3000	PR130 = VR 12-130	UN200 = UNA12-200
HX300 = 12HX300	305PL = UPS12-305PLP	HL280 = HRL12280W	HR350 = HR3500	PR150 = VR 12-150	UN320 = UNA12-320
HX330 = 12HX330	355PL = UPS12-355PLP	HL330 = HRL12330W	HR400 = HR4000	GR270 = VR 122700	UN370 = UNA12-370
HX400 = 12HX400	405PL = UPS12-405PLP	HL33W = HRL12330WG	HR500 = 31HR5000	GR290 = VR 122900	UN420 = UNA12-420
HX505 = 12HX505	495PL = UPS12-495PLP	HL390 = HRL12390W	HR550 = HR5500	GR360 = VR 123600	UN500 = UNA12-500s
HX540 = 12HX540	545PL = UPS12-545PLP	HL500 = HRL12500W	HRC95 = HRC950	GR390 = VR 123900	UN540 = UNA12-540s
HX560 = 12HX560FR+	605PL = UPS12-605PLP	HL540 = HRL12540W	HRC80 = HRC800	GR470 = VR 124700	
XE760 = 12XE760-FR	305PM = UPS12-305PLM	XL170 = XHRL12170W		GR440 = VR 124400	
XE040 = 12XE1040-FR	355PM = UPS12-355PLM	XL250 = XHRL12250W		GR520 = VR 125200	
NX100 = NPX-100	405PM = UPS12-405PLM	XL360 = XHRL12360W			
NX135 = NPX-135	495PM = UPS12-495PLM	XL36W = XHRL12360WG	NARADA	LEOCH	YUASA
NX150 = NPX-150	545PM = UPS12-545PLM	XL410 = XHRL12410W	NH100 = 12HRL100	XP100 = XP12-100FR	SW210 = SWU210-12FR
XE030 = XE30	605PM = UPS12-605PLM	XL41G = XHRL12410WG	NH140 = 12HRL140	XP150 = XP12-150FR	SW300 = SWU300-12FR
XE400 = XE40		XL475 = XHRL12475W	NH150 = 12HRL150	XP210 = XP12-210FR	SW360 = SWU360-12FR
XE060 = XE60		XL500 = HXRL12500W	NH200 = 12HRL200	XP300 = XP12-300FR	SW390 = SWU390-12FR
XE070 = XE70		XL620 = XHRL12620W	NH300 = 12HRL300	XP350 = XP12-350FR	SW425 = SWU425-12FR
XE095 = XE95		XL650 = XHRL12650W	NH365 = 12HRL365	XP400 = XP12-400FR	SW500 = SWU500-12FR
		XPL20 = XPL2000	NH390 = 12HRL390	XP49L = XP12-490LPFR	SW585 = SWU585-12FR
STRYTEN		XPL22 = XPL2200	NH400 = 12HRL400	XP490 = XP12-490FR	
SV325 = S12V325FL		XPL27 = XPL2700	NH550 = 12HRL550	XP540 = XP12-540FR	KUNG LONG
SV370 = S12V370FL		XPL35 = XPL3500	NX400 = 12HRXL400	PL330 = PLX12-330	WX300 = WXL12300WNV0
SV539 = S12V539FL		XPL42 = XPL4200	NX550 = 12HRXL550	PL360 = PLX12-360	WX365 = WXL12365WNV0
		XPL47 = XPL4700		PL420 = PLX12-420	WX420 = WXL12420WNV0
NORTHSTAR		XPL57 = XPL5700		PL500 = PLX12-500	WX450 = WXL12450WNV0
NS300 = NSB12-300		XPL67 = XPL6700		PL540 = PLX12-540	WX500 = WXL12500WNV0
NS400 = NSB12-400		HR120W = HR12120W		PL620 = PLX12-620	WX505 = WXL12505WNV0
					WX550 = WXL12550WNV0

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SCALE: 1:12				WEIGHT:	REV D	
				SHEET 5 OF 5		