

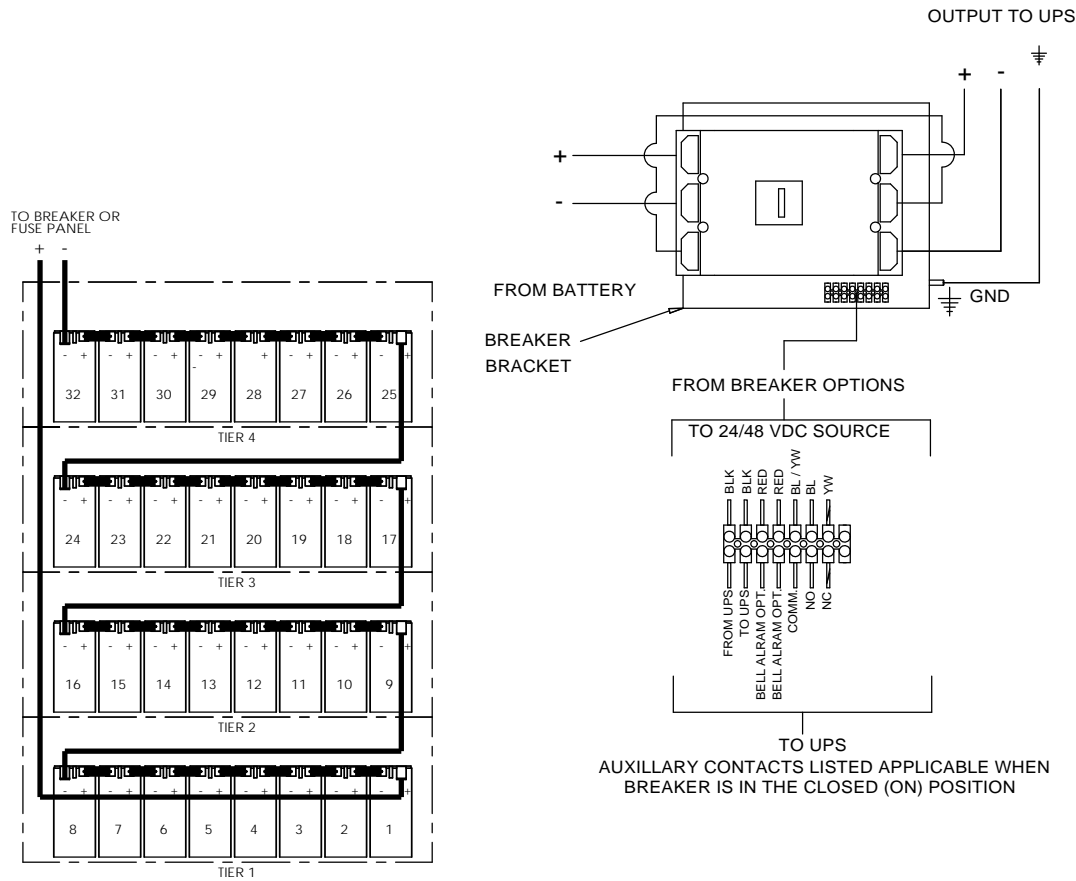
**CABINET NOTES:**

1. NEMA 1 DESIGN.
2. EMPTY CABINET WEIGHT: 680 LBS. (309 KG)
3. UL 1778 LISTED AND FULLY TESTED AT THE FACTORY PRIOR TO SHIPPING.
4. FULLY WELDED FRAME. MANUFACTURED FROM HEAVY GAUGE STEEL.
5. POWDER COATED WITH A CORROSION RESISTANT, EPOXY HYBRID POWDER USING A FIVE STAGE EMERSION PRETREATMENT PROCESS.
6. BATTERIES CAN BE ACCESSED FROM FRONT, REAR, AND BOTH SIDES.
7. CUSTOM DESIGNED PALLETS FOR SHIPPING ANYWHERE LOCALLY AND GLOBALLY (UPON REQUEST).
8. BATTERY CABINET CAN BE MOVED WITH A NORMAL PALLET JACK FROM FRONT AND REAR.
9. STANDARD AND CUSTOM SPILL CONTAINMENT OPTIONS ARE AVAILABLE.
10. SEISMICALLY CERTIFIED TO IBC (2012), ASCE 7-10, AND CBC (2010) CODES. DESIGN MEETS DEFAULT SEISMIC DESIGN CATEGORY D (Ss=2.9), IMPORTANCE FACTOR 1.5, AND HORIZONTAL STATIC ACCELERATION OF .817g.

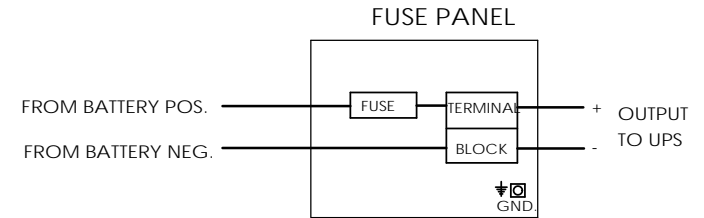
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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES		<b>Electronic Systems Support</b> <a href="http://www.ess.to">www.ess.to</a>		3233 W. Kingsley Rd. Garland, Texas 75041 PH. 972-272-2468 FAX 972-276-9844	
TITLE: BATTERY CABINET, 12V FT, 384V, 4 TIER, TOP BREAKER					
PROJECTION:	NAME	DATE	SIZE	DWG. NO.	REV
DRAWN BY: RNA		08-09-12	D	EFC42-SPEC	C
SCALE: 1:12				SHEET 1 OF 3	

## BREAKER DETAIL



## FUSE OPTION



BATTERY CONFIGURATION TABLE						
BATTERY MODEL NUMBER	BATTERY MANUFACTURER					MAXIMUM NUMBER OF BATTERIES PER CABINET
	ENERSYS	EAST PENN	C & D	NORTHSTAR	GNB/EXIDE	
12XE110F-FR	12XE1010F-FR	HR3500ET	UPS 12-355MFR	12-450RT	M12V155FT	40
	12XE1110F-FR	HR5500ET	UPS12-410MRFX	12-650RT	M12V180FT	
	12XE1150F-FR		UPS 12-615MRF	12-730RT	S12V645FT	
			UPS 12-700MRF		S12V735FT	
			UPS12-1000MRF			

### ELECTRICAL NOTES:

1. ALL CABLES ARE UL LISTED.
2. ALL BREAKERS ARE UL RECOGNIZED.
3. ALL FUSES ARE UL RECOGNIZED, TYPE A50P, A70P OR EQUIVALENT. (FUSED CABINETS ARE NOT LISTED IN UL FILE). ALWAYS REPLACE WITH SAME TYPE OR ITS EQUIVALENT.
4. TERMINAL BLOCKS ARE UL RECOGNIZED, 600V RATED.
5. CABINETS ARE SHIPPED WITH THE BREAKER IN THE TRIPPED POSITION.
6. CABINET GROUND CONNECTION IS A 5/16-18 THREADED STUD.
7. CABLES BETWEEN BATTERY CABINET TO UNINTERRUPTIBLE POWER SUPPLY ARE OPTIONAL.

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ESS FRONT TERMINAL CABINET SYSTEM MATRIX											
ESS EFC42 CABINET WITH BREAKER SYSTEM PART NUMBERS											
E F C 4 2 A P 32 550ET B 04 A											
DIGIT 1	DIGIT 2	DIGIT 3	DIGIT 4	DIGIT 5	DIGIT 6	DIGIT 7	DIGIT 8-9	DIGIT 10-14	DIGIT 15	DIGIT 16-17	DIGIT 18
CABINET MODEL			NUMBER OF TIERS	BATTERY TYPE	COLOR	HEIGHT (INCHES)	BATTERY QUANTITY	BATTERY MODEL PER MANUFACTURER	BREAKER OR FUSE	AMPS	BREAKER OPTION
E = ESS STANDARD	F = FRONT TERMINAL	C = CABINET W/TOP BREAKER	4 = 4 TIER OF BATTERIES	2 = 12V FT (STANADARD)	**A = BLACK	C = 80.0	32	ENERSYS	B = BREAKER	04 = 600 AMPS	A = 24 VDC SHUNT TRIP, AUX CONTACT
C = CENTER TAP CABLING					B = BEIGE	D = 79.0	30	XE101 - 12XE1010F-FR	H = BREAKER W/HANDLE OPTION	05 = 500 AMPS	B = 48 VDC SHUNT TRIP, AUX CONTACT
S = SPLIT BUS CABLING					C = LIEBERT GRAY	E = 78.7	24	XE111 - 12XE1110F-FR		06 = 450 AMPS	C = 24 VDC UVR, AUX CONTACT
					D = MITSUBISH BEIGE	F = 78.4		XE115 - 12XE1150F-FR		07 = 400 AMPS	D = 48 VDC UVR, AUX CONTACT
					E = MGE WHITE	G = 78.00		EAST PENN		08 = 350 AMPS	E = 120 VDC SHUNT TRIP, AUX CONTACT
					F = TOSHIBA BLACK	H = 77.3		350ET - HR3500ET		09 = 300 AMPS	F = 240 VDC SHUNT TRIP, AUX CONTACT
					G = GE WHITE	J = 76.8		550ET - HR5500ET		10 = 250 AMPS	G = 120 VDC UVR, AUX CONTACT
					H = LIEBERT BLACK	K = 75.3		C & D		11 = 225 AMPS	H = 240 VDC UVR, AUX CONTACT
					I = EATON BLACK	L = 75.0		355MR - UPS12-355MRF		12 = 200 AMPS	J = 24VDC UVR W/BELL ALARM
					J = LIGHT GRAY	M = 74.8		615MR - UPS12-615MRF		13 = 175 AMPS	K = BELL ALARM
						N = 73.5		700MR - UPS12-700MRF		14 = 150 AMPS	
						**P = 72.0		41MRX - UPS12-410MRXF		15 = 125 AMPS	
								1KMRX - UPS12-1000MRXF		16 = 100 AMPS	
								NORTHSTAR		17 = 75 AMPS	
								450RT - 12-450RT		18 = 50 AMPS	
								650RT - 12-650RT		19 = 40 AMPS	
								730RT - 12-730RT		20 = 30 AMPS	
								GNB/EXIDE			
								M12V155FT			
								M12V180FT			
								S12V645FT			
								S12V735FT			



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

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

**PART NUMBER GUIDE:**

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. OVERALL PART NUMBER OF SYTEM IS ALWAYS 18 DIGITS LONG.
3. THE BASE NUMBER (DIGITS 1-5) WILL ALWAYS BE THE SAME.
4. DIGITS 6-7 WILL FOLLOW THE BASE NUMBER INDICATING THE COLOR AND HEIGHT OF THE CABINET.
5. DIGITS 8-18 MAKE UP THE REST OF THE SYSTEM PART NUMBER WHICH INCLUDE OPTIONS FOR BATTERY QUANTITIES, BATTERY MODEL, AND BREAKER OPTIONS.
6. EXAMPLE: **EFC42AP** - THIS REPRESENTS A STANDARD **EFC42** CABINET, WITH A POWDER COAT FINISH OF STANDARD BLACK AND 72.00" HEIGHT.  
PLEASE NOTE, ONLY STANDARD CABINETS (COLOR AND HEIGHT) ARE IN STOCK. MINIMUM ORDERS OF 20 OR MORE CANBINETS ARE REQUIRED FOR NON STANDARD CABINETS UNLESS IT IS THROUGH OEM CONTRACTS.

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