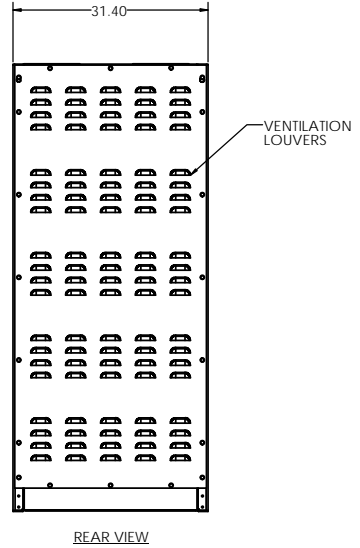
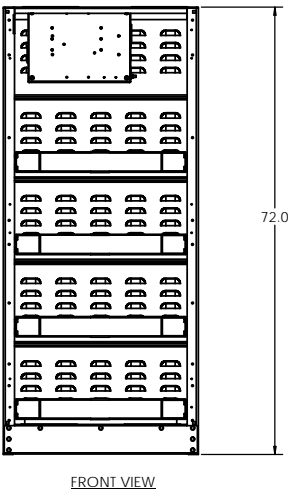
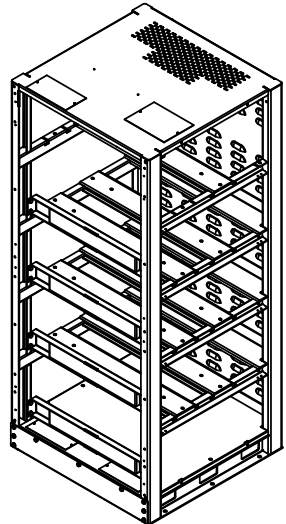
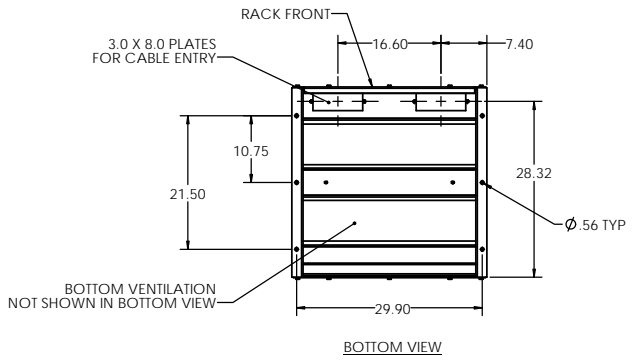
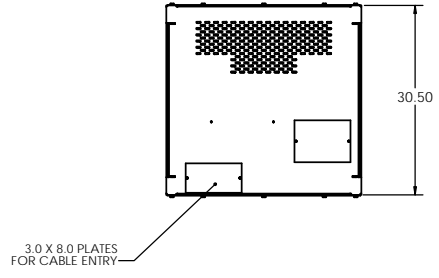


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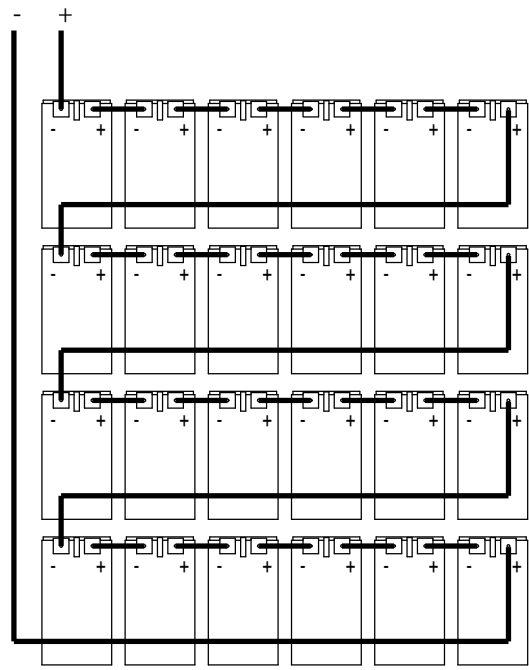
- RACK NOTES:**
1. EMPTY RACK WEIGHT: 409 LBS.
 2. FULLY WELDED FRAME. MANUFACTURED FROM HEAVY GAUGE STEEL.
 3. ALL BATTERY TERMINALS HAVE POLYCARBONATE COVERS.
 4. OPTIONAL WALL MOUNTED BREAKER ENCLOSURES ARE AVAILABLE.
 5. POWDER COATED WITH A CORROSION RESISTANT, EPOXY HYBRID POWDER USING A FIVE STAGE EMERSION PRETREATMENT PROCESS.
 6. BATTERIES CAN BE ACCESSED FROM FRONT, REAR, AND BOTH SIDES.
 7. CUSTOM DESIGNED PALLETS FOR SHIPPING ANYWHERE, LOCALLY AND GLOBALLY.
 8. BATTERY RACK CAN BE MOVED WITH A NORMAL PALLET JACK FROM FRONT AND REAR.
 9. STANDARD AND CUSTOM SPILL CONTAINMENT OPTIONS ARE AVAILABLE.

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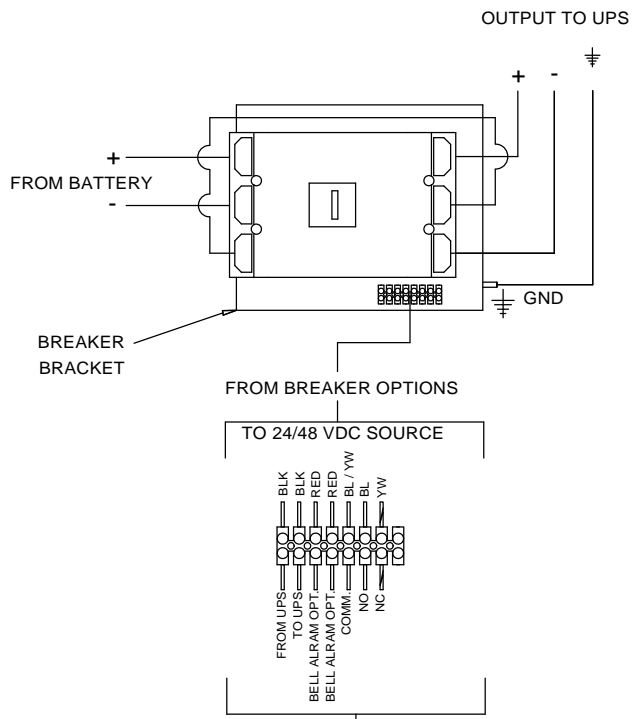
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES		Electronic Systems Support www.ess.to		3233 W. Kingsley Rd. Garland, Texas 75041 PH. 972-272-2468 FAX 972-276-9844	
TITLE: BATTERY RACK, 16V FT, 384V				DWG. NO. EFR4B-SPEC	
PROJECTION:		DRAWN BY: RNA		DATE: 3-5-13	
SIZE: D		SCALE: 1:16		REV: B SHEET 1 OF 3	

8 7 6 5 4 3 2 1

TO BREAKER OR FUSE PANEL

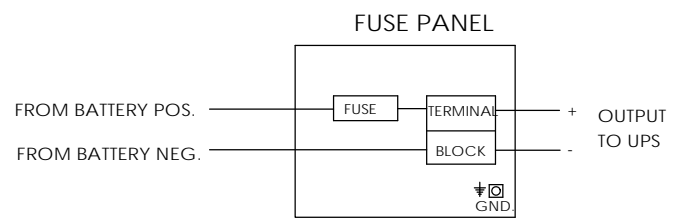


BREAKER DETAIL



TO UPS
AUXILIARY CONTACTS LISTED APPLICABLE WHEN BREAKER IS IN THE CLOSED (ON) POSITION

FUSE OPTION



BATTERY CONFIGURATION TABLE		
BATTERY MODEL NUMBER	BATTERY MANUFACTURER	MAXIMUM NUMBER OF BATTERIES PER CABINET
	ENERSYS	
	16HX550F-FR	24

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 RACKS ARE NOT LISTED IN UL FILE). ALWAYS REPLACE WITH SAME TYPE OR ITS EQUIVALENT.
4. TERMINAL BLOCKS ARE UL RECOGNIZED, 600V RATED.
5. RACKS ARE SHIPPED WITH THE BREAKER IN THE TRIPPED POSITION.
6. RACK GROUND CONNECTION IS A 5/16-18 THREADED STUD.
7. CABLES BETWEEN BATTERY RACK TO UNINTERRUPTIBLE POWER SUPPLY ARE OPTIONAL.

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SCALE: 1:16		REV: B	
		SHEET 2 OF 3	

ESS FRONT TERMINAL RACK SYSTEM MATRIX											
ESS EFR4B RACK SYSTEM PART NUMBERS											
E F R 4 B A P 24 HX550 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								
TYPE OF BATTERY		TYPE OF CABINET OR RACK	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	R = RACK	4 = 4 TIER OF BATTERIES	B = 16V FT 550	**A = BLACK	C = 80.0	24	ENERSYS	B = BREAKER	01 = 1000 AMPS	A = 24 VDC SHUNT TRIP, AUX CONTACT
C = CENTER TAP CABLING					B = BEIGE	D = 79.0	18	HX550 - 16HX550F-FR		02 = 800 AMPS	B = 48 VDC SHUNT TRIP, AUX CONTACT
S = SPLIT BUS CABLING					C = LIEBERT GRAY	E = 78.7				03 = 700 AMPS	C = 24 VDC UVR, AUX CONTACT
					D = MITSUBISHI BEIGE	F = 78.4				04 = 600 AMPS	D = 48 VDC UVR, AUX CONTACT
					E = MGE WHITE	G = 78.00				05 = 500 AMPS	E = 120 VDC SHUNT TRIP, AUX CONTACT
					F = TOSHIBA BLACK	H = 77.3				06 = 450 AMPS	F = 240 VDC SHUNT TRIP, AUX CONTACT
					G = GE WHITE	J = 76.8				07 = 400 AMPS	G = 120 VDC UVR, AUX CONTACT
					H = LIEBERT BLACK	K = 75.3				08 = 350 AMPS	H = 240 VDC UVR, AUX CONTACT
					I = EATON BLACK	L = 75.0				09 = 300 AMPS	J = 24VDC UVR W/BELL ALARM
					J = LIGHT GRAY	M = 74.8				10 = 250 AMPS	K = BELL ALARM
						N = 73.5				11 = 225 AMPS	
						**P = 72.0				12 = 200 AMPS	
										13 = 175 AMPS	
										14 = 150 AMPS	
										15 = 125 AMPS	
										16 = 100 AMPS	
										17 = 75 AMPS	
										18 = 50 AMPS	
										19 = 40 AMPS	
										20 = 30 AMPS	
▶ **REPRESENTS STANDARD COLOR FOR ALL ESS RACKS (DIGIT 6)											
▶ **REPRESENTS ESS STANDARD HEIGHT OF TOP TERMINAL BATTERY RACKS (DIGIT 7)											

PART NUMBER GUIDE:

1. REFERENCE THE BATTERY PART NUMBER GUIDE TABLE WHEN ORDERING A RACK.
 2. WHEN PLACING ORDER, INDICATE THE QTY OF RACKS. NO DASHES ARE TO BE INCLUDED IN PART NUMBER. OVERALL PART NUMBER OF SYSTEM 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 RACK.
 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: **EFR4BAP** - THIS REPRESENTS A STANDARD **EFR4B** RACK, WITH A POWDER COAT FINISH OF STANDARD BLACK AND 72.00" HEIGHT.
- ▶ PLEASE NOTE, ONLY STANDARD RACKS (COLOR AND HEIGHT) ARE IN STOCK. MINIMUM ORDERS OF 20 OR MORE RACKS ARE REQUIRED FOR NON STANDARD RACKS UNLESS IT IS THROUGH OEM CONTRACTS.

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