

SYSTEM SPECIFICATIONS

SYSTEM MODEL NO. CZS-48510
 SYSTEM RATING: 50 AMPS FOR 8 HOURS TO 1.75 VPC.
 RECOMMENDED SYSTEM FLOAT VOLTAGE: 54.48 MIN. 55.2 MAX.
 SYSTEM CUTOFF VOLTAGE: 42
 FULL LOAD CURRENT: 50 ADC
 FULL LOAD CURRENT PER SERIES CIRCUIT: 25 ADC
 OPEN CIRCUIT VOLTAGE: 49.6 - 51.6 VDC

NOTE: SYSTEM IS SIZED TO ACCOMMODATE A 175 AMP SPIKE

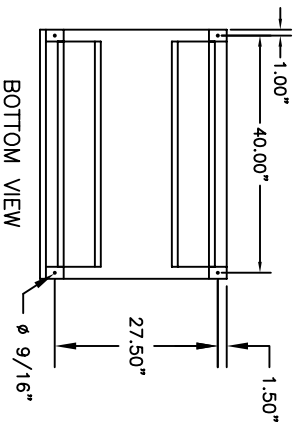
- ① ALL RECOMMENDED CUSTOMER'S CABLE GAUGES ARE BASED ON TABLE 310-16 OF N.E.C. USING 75C CABLE IN 30C AMBIENT.
- ② SEE BATTERY LABEL FOR TORQUE VALUES
- ③ USE INSULATED TOOLS FOR CABINET INSTALLATION. DO NOT ALLOW TOOLS OR CABLES TO REST ON BATTERIES.

PARALLEL CONNECTOR:

WIRE SIZE WILL BE SPECIFIED AS PER GAUGE (MINIMUM) TO BE USED. LENGTHS OF CABLE TO JUNCTION BOX SHOULD BE MADE SO THAT THE TOTAL LENGTH OF CABLES PER STRING IS EQUAL. THIS WILL MINIMIZE VARIATIONS OF RESISTANCE IN EACH STRING. HENCE EQUALLY DISTRIBUTE LOAD CURRENTS.

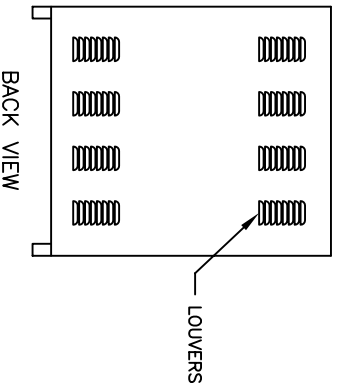
NOTE:

* ALTERNATE METHOD MAY BE USED TO CONNECT TWO SYSTEMS ACCORDING TO CUSTOMER SPECIFICATIONS.



BOTTOM VIEW

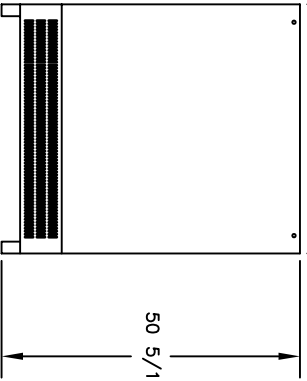
TRIPLE KNOCKOUTS
 $\phi 1 \frac{3}{32}''$ X $\phi 1 \frac{31}{32}''$ X $\phi .5''$
 TYP (4) PLACES BOTH SIDE



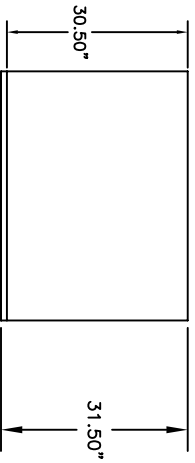
BACK VIEW



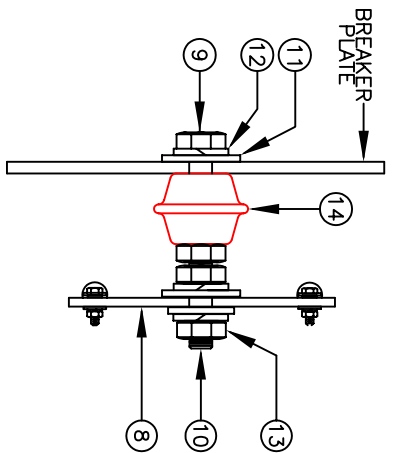
SIDE VIEW



FRONT VIEW



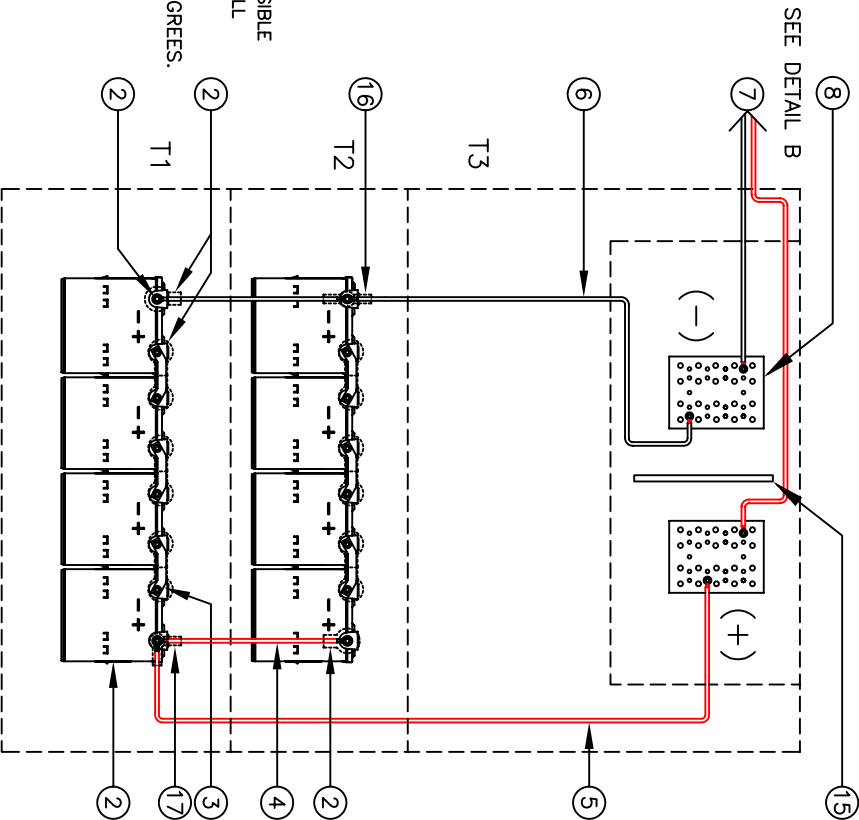
TOP VIEW



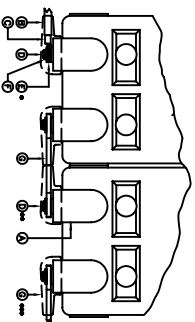
DETAIL B
 BUSBAR ASSEMBLY

IMPORTANT NOTES

THE CUSTOMER AND/OR CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THIS EQUIPMENT IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS WHEN HANDLING, KEEP UPRIGHT WITHIN +/- 15 DEGREES. PLEASE REFER TO 2008 NEC SECTION 480-9 FOR THE REQUIREMENTS ON WORKING SPACES.



WIRING DIAGRAM



DETAIL A
 TERMINAL CONNECTION

NO.	DESCRIPTION	QTY	PART NO.
1	BATTERY RAIL INSULATION	6	AC-0012
2	TERMINAL BOOT (9580B02) RED	1	AC-0011
3	TERMINAL BOOT (9580B01) BLACK	1	VX-0011
4	PLATE BUSBAR SEPARATOR	2	CC-0002
5	5/16-18 STAINLESS	2	CC-0002
6	5/16-18 UNC HEX NUT	2	HM-0007
7	5/16-18 UNC WASHER	6	HM-0006
8	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
9	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
10	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
11	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
12	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
13	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
14	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
15	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
16	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
17	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
18	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
19	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
20	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
21	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
22	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
23	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
24	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
25	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
26	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
27	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
28	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
29	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
30	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
31	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
32	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
33	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
34	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
35	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
36	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
37	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
38	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
39	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
40	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
41	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
42	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
43	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
44	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
45	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
46	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
47	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
48	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
49	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
50	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
51	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
52	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
53	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
54	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
55	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
56	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
57	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
58	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
59	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
60	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
61	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
62	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
63	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
64	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
65	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
66	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
67	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
68	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
69	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
70	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
71	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
72	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
73	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
74	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
75	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
76	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
77	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
78	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
79	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
80	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
81	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
82	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
83	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
84	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
85	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
86	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
87	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
88	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
89	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
90	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
91	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
92	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
93	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
94	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
95	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
96	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
97	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
98	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009
99	5/16-18 UNC 5/8" HEX HEAD SCREW	2	HM-0008
100	5/16-18 UNC 2" FLTY THREADED STD	2	HM-0009

IMPORTANT NOTE

ALL CONNECTIONS TO BE RETORQUED ANNUALLY. ALL CONNECTIONS MUST BE CHECKED FOR PROPER TORQUE PRIOR TO START UP OR ENERGIZING OF SYSTEM.

NOTE: CABLES SIZED TO RESTRICT A VOLTAGE DROP OVER 2%

NO.	DESCRIPTION	QTY	PART NO.
1	CABINET	1	PSG-12255
2	BATTERY/BOOTS/HARDWARE	6	CC-0179
3	BUSBAR (THICK)	1	1-459E
4	CABLE	1	1-609E
5	CABLE	1	1-459E
6	CABLE	1	1-459E
7	CABLE	1	1-459E
8	CABLE	1	1-459E
9	CABLE	1	1-459E
10	CABLE	1	1-459E
11	CABLE	1	1-459E
12	CABLE	1	1-459E
13	CABLE	1	1-459E
14	CABLE	1	1-459E
15	CABLE	1	1-459E
16	CABLE	1	1-459E
17	CABLE	1	1-459E
18	CABLE	1	1-459E
19	CABLE	1	1-459E
20	CABLE	1	1-459E
21	CABLE	1	1-459E
22	CABLE	1	1-459E
23	CABLE	1	1-459E
24	CABLE	1	1-459E
25	CABLE	1	1-459E
26	CABLE	1	1-459E
27	CABLE	1	1-459E
28	CABLE	1	1-459E
29	CABLE	1	1-459E
30	CABLE	1	1-459E
31	CABLE	1	1-459E
32	CABLE	1	1-459E
33	CABLE	1	1-459E
34	CABLE	1	1-459E
35	CABLE	1	1-459E
36	CABLE	1	1-459E
37	CABLE	1	1-459E
38	CABLE	1	1-459E
39	CABLE	1	1-459E
40	CABLE	1	1-459E
41	CABLE	1	1-459E
42	CABLE	1	1-459E
43	CABLE	1	1-459E
44	CABLE	1	1-459E
45	CABLE	1	1-459E
46	CABLE	1	1-459E
47	CABLE	1	1-459E
48	CABLE	1	1-459E
49	CABLE	1	1-459E
50	CABLE	1	1-459E
51	CABLE	1	1-459E
52	CABLE	1	1-459E
53	CABLE	1	1-459E
54	CABLE	1	1-459E
55	CABLE	1	1-459E
56	CABLE	1	1-459E
57	CABLE	1	1-459E
58	CABLE	1	1-459E
59	CABLE	1	1-459E
60	CABLE	1	1-459E
61	CABLE	1	1-459E
62	CABLE	1	1-459E
63	CABLE	1	1-459E
64	CABLE	1	1-459E
65	CABLE	1	1-459E
66	CABLE	1	1-459E
67	CABLE	1	1-459E
68	CABLE	1	1-459E
69	CABLE	1	1-459E
70	CABLE	1	1-459E
71	CABLE	1	1-459E
72	CABLE	1	1-459E
73	CABLE	1	1-459E
74	CABLE	1	1-459E
75	CABLE	1	1-459E
76	CABLE	1	1-459E
77	CABLE	1	1-459E
78	CABLE	1	1-459E
79	CABLE	1	1-459E
80	CABLE	1	1-459E
81	CABLE	1	1-459E
82	CABLE	1	1-459E
83	CABLE	1	1-459E
84	CABLE	1	1-459E
85	CABLE	1	1-459E
86	CABLE	1	1-459E
87	CABLE	1	1-459E
88	CABLE	1	1-459E
89	CABLE	1	1-459E
90	CABLE	1	1-459E
91	CABLE	1	1-459E
92	CABLE	1	1-459E
93	CABLE	1	1-459E
94	CABLE	1	1-459E
95	CABLE	1	1-459E
96	CABLE	1	1-459E
97	CABLE	1	1-459E
98	CABLE	1	1-459E
99	CABLE	1	1-459E
100	CABLE	1	1-459E



POWER ENERGY SYSTEMS
 1000 W. KIMBERLY DRIVE
 CHANDLER, AZ 85226
 (480) 948-1111
 FAX: (480) 948-1112
 WWW.POWER-ES.COM

POWER ENERGY SYSTEMS
 1000 W. KIMBERLY DRIVE
 CHANDLER, AZ 85226
 (480) 948-1111
 FAX: (480) 948-1112
 WWW.POWER-ES.COM

POWER ENERGY SYSTEMS
 1000 W. KIMBERLY DRIVE
 CHANDLER, AZ 85226
 (480) 948-1111
 FAX: (480) 948-1112
 WWW.POWER-ES.COM

POWER ENERGY SYSTEMS
 1000 W. KIMBERLY DRIVE
 CHANDLER, AZ 85226
 (480) 948-1111
 FAX: (480) 948-1112