



POWER DESIGN INC.  
PO Box 147  
Odell OR 97044  
Tel: (541)354-3222  
Fax: (541)354-3366  
Email: sales@powerdesigninc.com  
Web Sites: www.powerdesigninc.com & www.pdifiberglass.com

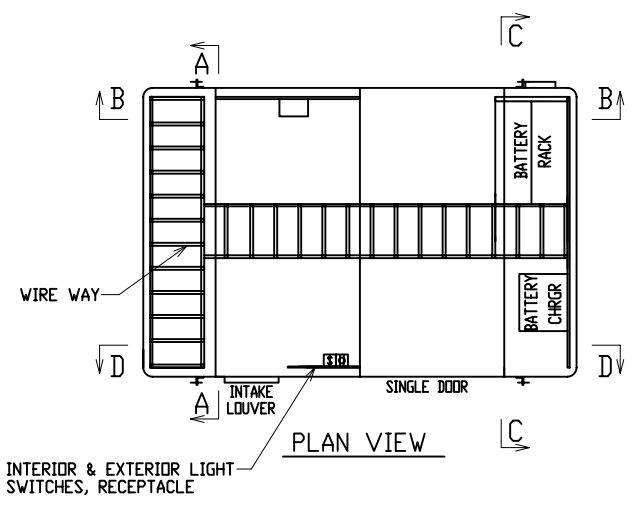
5/18/10 Rev 2

## CITY OF TACOMA – OLYMPIC PIPELINE SUBSTATION

Model #ME1-96-2528-L1-LG Modular Enclosure, per drawing #2528-R2, and to include the following:

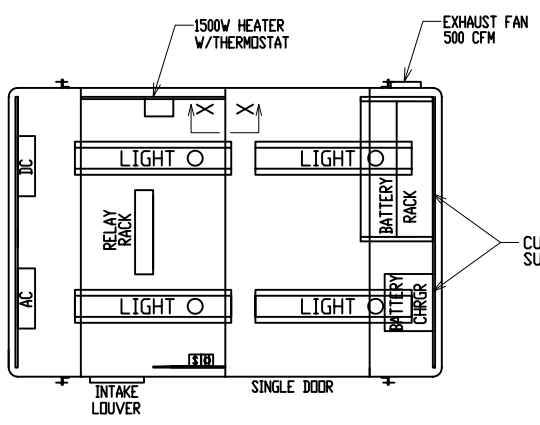
Item	Qty	Description
1	(1)	8' W X 12' L X 9' H, fiberglass enclosure, light gray in color, with ¼" fiberglass wall thickness nominal, R-19 foam board insulation with glass facer on walls & roof, with ¾" exterior grade plywood mounted on walls for equipment mounting, white interior gelcoat on walls and plywood, Power Design #ME1-96-144
2	(1)	Single fiberglass door, 36" W x 84" H, 14 GA SS jamb, 3-point latch and padlockable, SS hardware
3	(1)	AC breaker panel, 200A MB, <b>65 KAIC</b> , NEMA 1, surface mount, 30 circuit, with breakers, 120/240 VAC, 225A bus, Cutler Hammer type Pow-R-Line
4	(1)	DC breaker panel, 100A MLO, <b>14 KAIC</b> , NEMA 1, surface mount, 18 circuit, with breakers, 48 VDC, 225A bus, Cutler Hammer type Pow-R-Line
5	(1)	Heater, w/ wall mount adapter, 240V, 2000W, forced air, Cadet #CS202W & #CS4MW
6	(1)	Exhaust Fan, 10", 500 CFM, 120 VAC, totally enclosed motor, fiberglass gravity damper gelcoated gray, fiberglass reinforced polypropylene blades, epoxy coated wire guard, Dayton #1BLH6

- 7 (1) Intake louver, combination fixed (outside) and movable (inside) blade louver, 18" x 18" x 6" deep, aluminum with SS mounting flanges, McMaster-Carr #1999-K81, with shutter motor, 120/240 VAC, Dayton #2C831
- 8 (4) Interior light, 2-tube, fiberglass housing, 32W-T8, 120V, Lithonia #DMW 2 32 UNIV
- 9 (1) Exterior light, nonmetallic, vapor tight, 120VAC, 150W max, McMaster-Carr #14835K94
- 10 (1) Cable tray system, wire type, 18"W x 4"H, with supports, Cablofil #CF105 450EZ
- 11 (Lot) Miscellaneous equipment
  - (1) Relay rack, 23" universal rack, 48 RMU, 90"H, 1500#, Chatsworth #46383-505
  - (1) Motion sensor, adjustable light level and time delay, with manual override switch, Rab #SMS500W
  - (2) Thermostat, bulb type, 120 or 240 VAC, SPDT, 30-110 degree, heating/cooling, Dayton #4LZ94
  - (1) Fan timer, digital with 6 on/off settings per day, Intermatic #ST01C
  - (1) Exterior receptacle, 30A, 600 VAC in weatherproof box, Leviton #2650 & Raco #5026-0/5320-0
  - (Lot) Light switch, receptacles, EMT conduit, and wiring



INTERIOR & EXTERIOR LIGHT SWITCHES, RECEPTACLE

PLAN VIEW



SECTION W-W

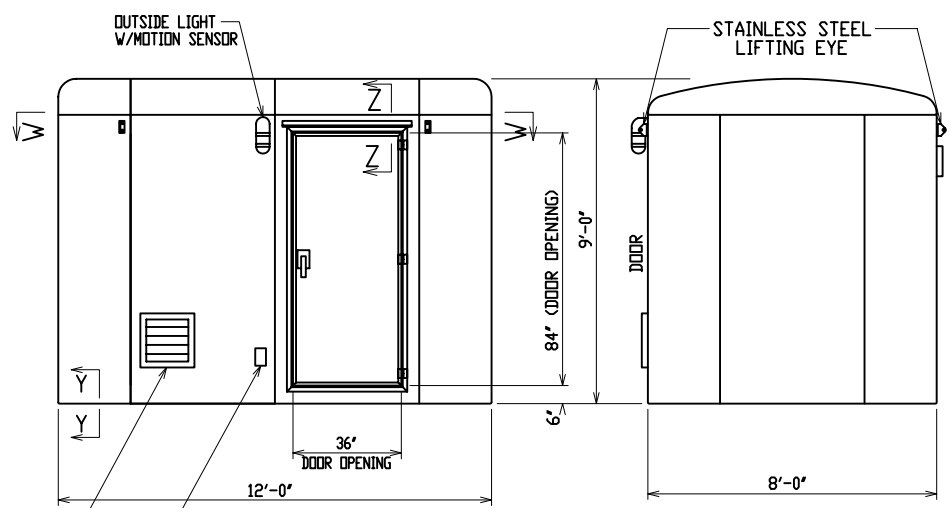
ORDERING INFORMATION:

MODEL ME 1 - 96 - 2528 - L1 - LG  
 NUMBER OF DOORS 1  
 NOMINAL WIDTH 8  
 DETAILS AS SHOWN ON THIS DRAWING  
 COLOR - LIGHT GRAY  
 PROVISION FOR PADLOCKING ONLY

CUSTOMER SUPPLIED

NOTE

1. MATERIAL:
  - 1) FIBERGLASS OUTER LAMINATE 1/4" NOMINAL THICKNESS, FOAM BOARD, R-19 WITH 1/8" FIBERGLASS SKIN LAMINATE
  - 2) EXTERIOR UV STABILIZED GELCOAT - 14 MIL NOMINAL THICKNESS LIGHT GRAY - WHITE INTERIOR
  - 3) FIRE RETARDANT - DOES NOT SUPPORT COMBUSTION
  - 4) STAINLESS STEEL HARDWARE
  - 5) ESTIMATED WEIGHT - 2100 POUNDS
2. STANDARDS:
  - 1) CONFORMS TO ANSI C57.12.28, PADMOUNT EQUIPMENT ENCLOSURE INTEGRITY STANDARD
  - 2) CERTIFIED TEST DATA OF ASTM STRUCTURAL STANDARDS AVAILABLE UPON REQUEST
3. DESIGN SPECIFICATIONS:
  - 1) DESIGN CODE 2006 IBC
  - 2) DESIGN WIND SPEED - 100 MPH, EXPOSURE - C, IMPORTANCE - 1.0
  - 3) SEISMIC DESIGN SITE CLASS - D, S<sub>s</sub> - 1.25, S<sub>1</sub> - 0.60
  - 4) GRAVITY LOAD GRAVITY LOAD - 7 PSF ROOF LIVE LOAD - 35 PSF (SNOW LOAD)



FRONT VIEW

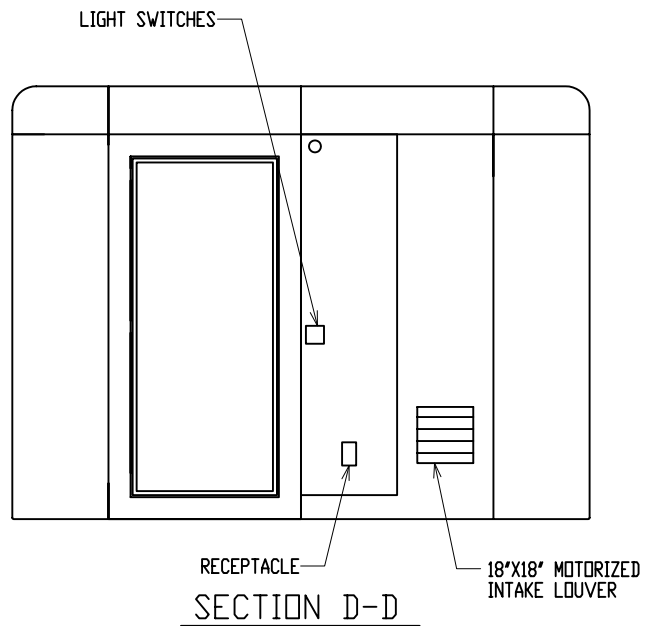
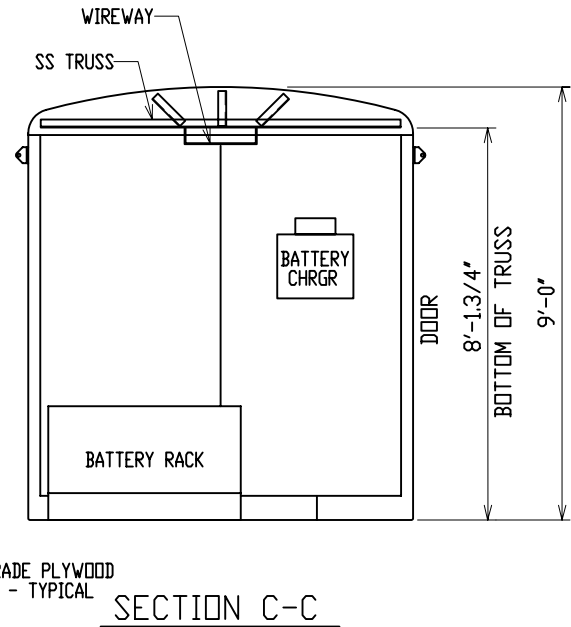
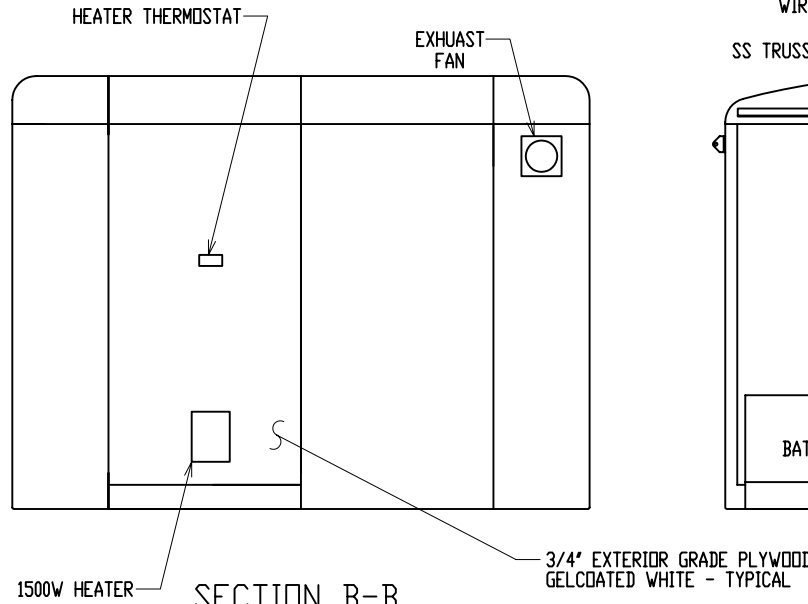
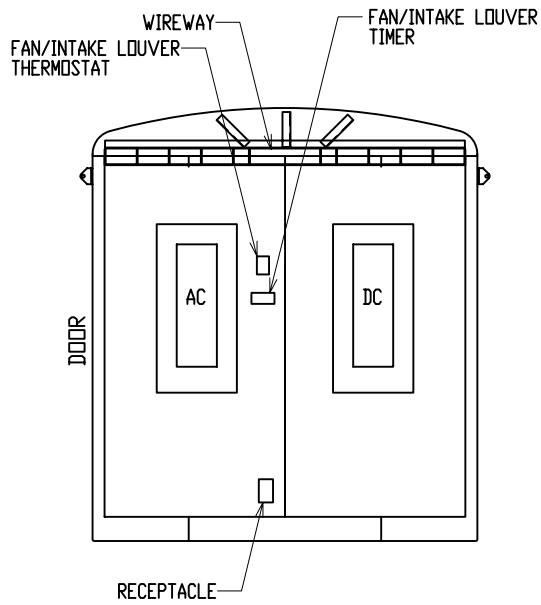
END VIEW

CATALOG NO: ME1-96-2528-L1-LG

FIBERGLASS MODULAR ENCLOSURE 8 FT WIDE x 9 FT HIGH x 12 FT LONG SINGLE DOOR HEATER & LIGHTS AC & DC PANELS			
<b>POWER DESIGN INC.</b> ODELL, OREGON			
DRAWN: RB	PAGE 1 OF 7	DATE 4-6-10	DRAWING NO. 2528-R3

CITY OF TACOMA

FILE REF:



CATALOG NO: ME1-96-2528-L1-LG

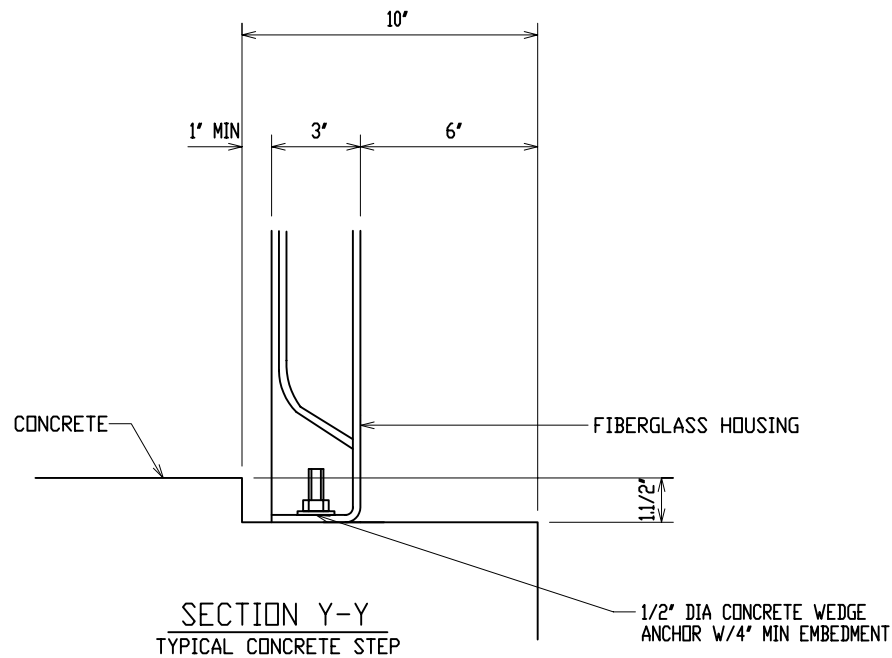
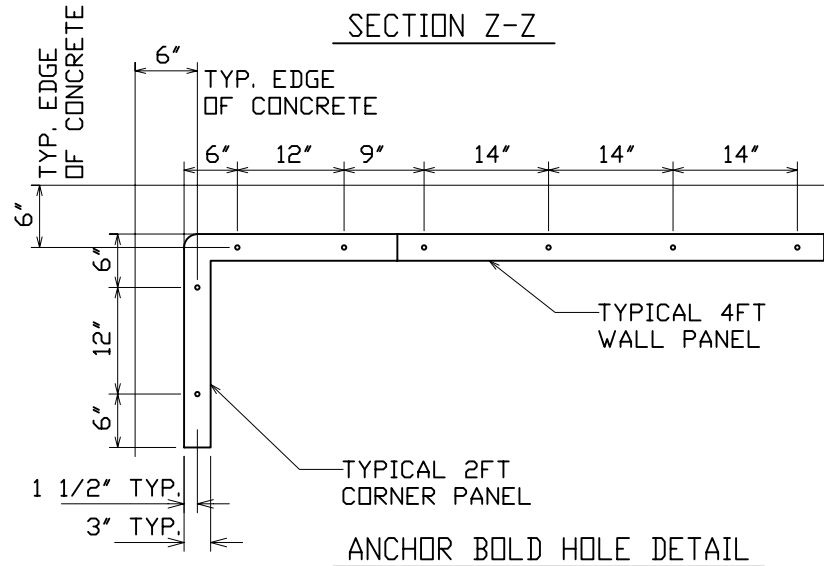
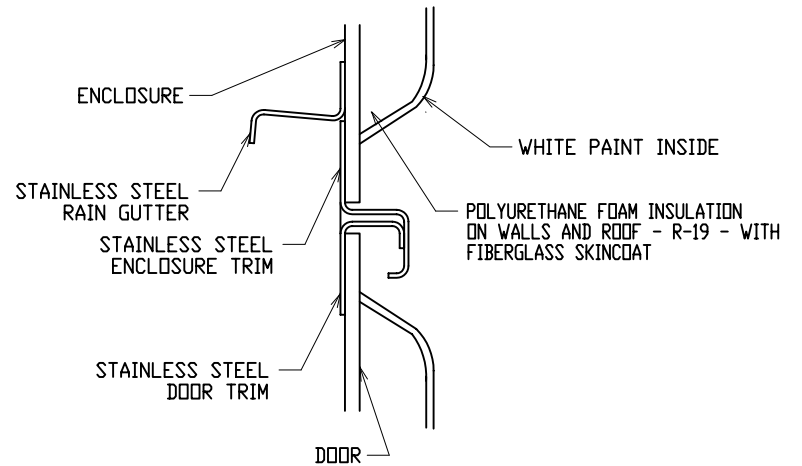
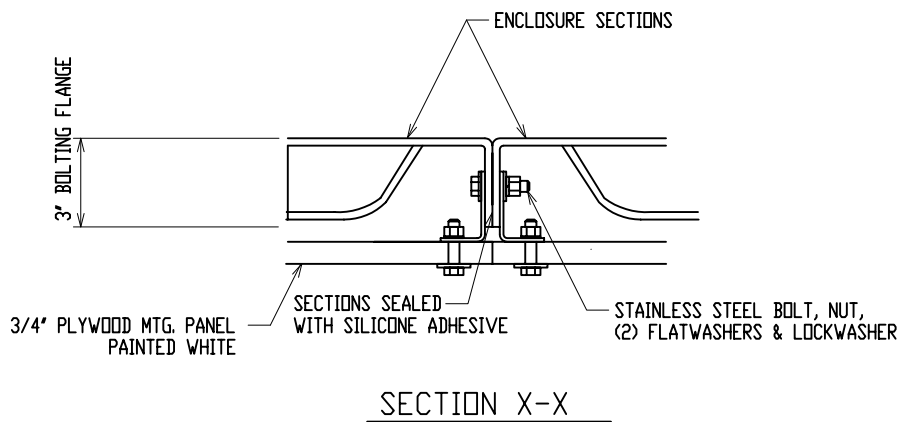
FIBERGLASS MODULAR ENCLOSURE  
8 FT WIDE x 9 FT HIGH x 12 FT LONG  
BUILDING DETAILS AND SECTIONS

**POWER DESIGN INC.**  
ODELL, OREGON

CITY OF TACOMA

FILE REF:

DRAWN: RB	PAGE 2 OF 7	DATE 4-6-10	DRAWING NO. 2528-R3
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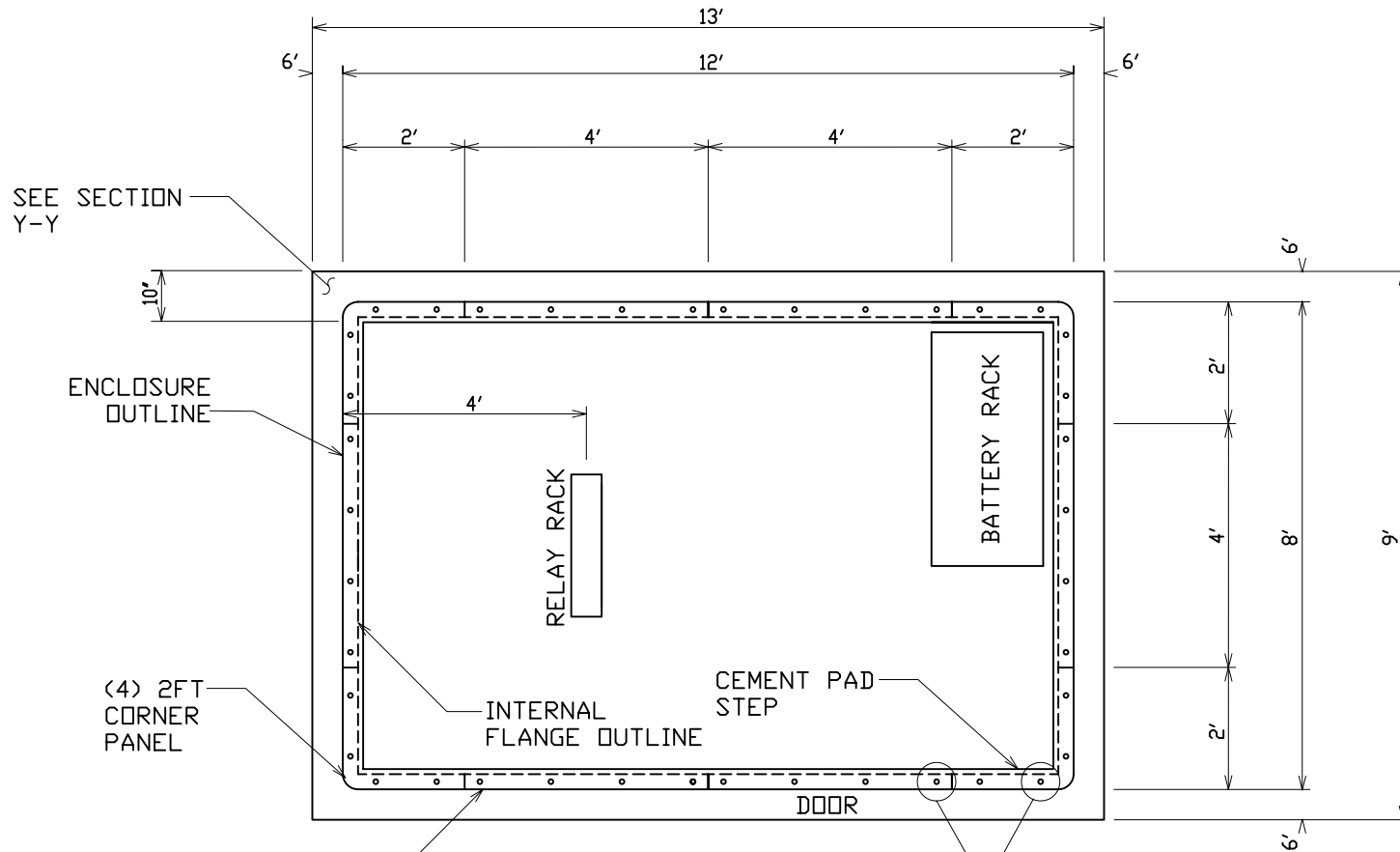


CATALOG NO: ME1-96-2528-L1-LG

FIBERGLASS MODULAR ENCLOSURE  
 8 FT WIDE x 9 FT HIGH x 12 FT LONG  
 BUILDING DETAILS AND SECTIONS



CITY OF TACOMA	DRAWN: RB	PAGE 3 OF 7	DATE 4-6-10	DRAWING NO. 2528-R3
FILE REF:				



SEE SECTION  
Y-Y

ENCLOSURE  
OUTLINE

(4) 2FT  
CORNER  
PANEL

(6) 4FT WALL  
PANEL

INTERNAL  
FLANGE OUTLINE

CEMENT PAD  
STEP

DOOR

TYP. 4' PANEL: ANCHOR W/(2)  
1/2" DIA. CONCRETE WEDGE  
ANCHORS W/4" MIN EMBEDMENT  
INSTALL W/STANDARD WASHER  
TYP. U.N.O

CATALOG NO: ME1-96-2528-L1-LG

FIBERGLASS MODULAR ENCLOSURE  
8 FT WIDE x 9 FT HIGH x 12 FT LONG  
PAD DETAILS



**POWER DESIGN INC.**

ODELL, OREGON

NOTE:

WEDGE ANCHORS AND PLATE WASHERS  
SUPPLIED BY CUSTOMER

CITY OF TACOMA

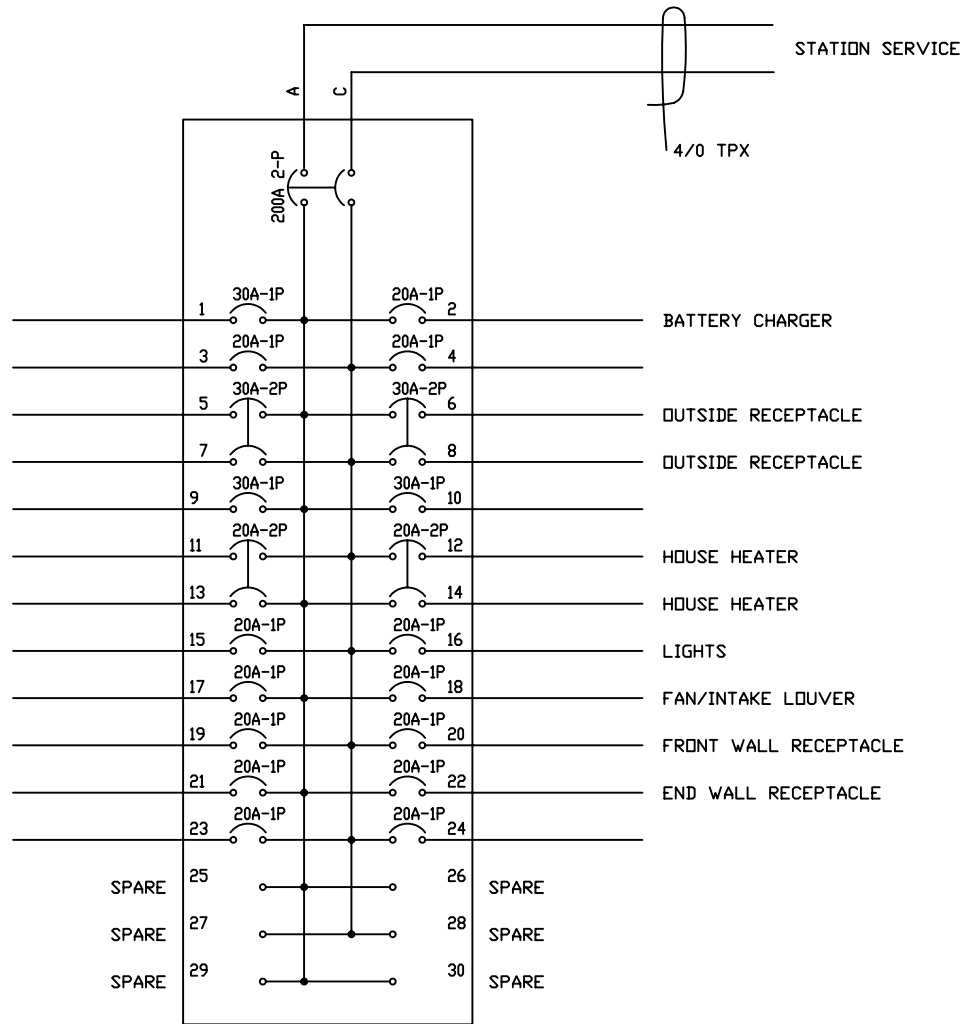
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PAGE  
4 OF 7

DATE  
4-6-10

DRAWING NO.  
2528-R3



AC PANEL BOARD

NEMA 1 - SURFACE MOUNT - MAIN CB  
120/240 VAC - 3W - 65 KAIC

CATALOG NO: ME1-96-2528-L1-LG

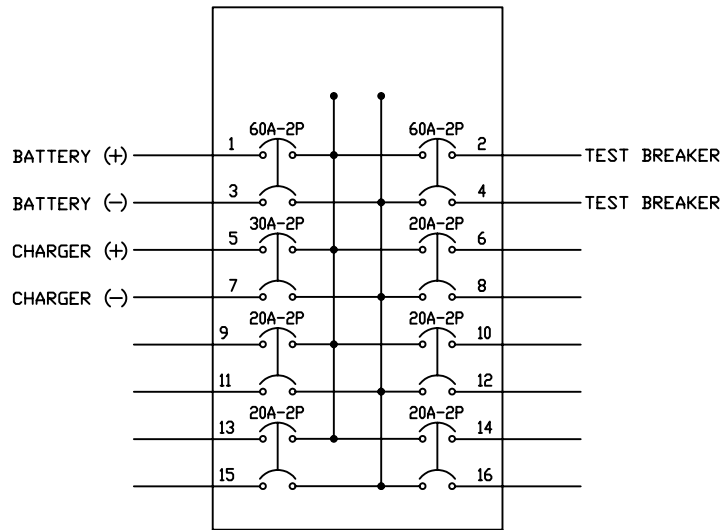
FIBERGLASS MODULAR ENCLOSURE  
8 FT WIDE x 9 FT HIGH x 12 FT LONG  
AC PANEL DETAILS



CITY OF TACOMA

FILE REF:

DRAWN: RB	PAGE 5 OF 7	DATE 4-6-10	DRAWING NO. 2528-R3
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DC PANEL BOARD  
 NEMA 1 - SURFACE MOUNT - MAIN LUGS ONLY  
 48 VDC - 2W - 42 KAIC

CATALOG NO: ME1-96-2528-L1-LG

FIBERGLASS MODULAR ENCLOSURE  
 8 FT WIDE x 9 FT HIGH x 12 FT LONG  
 DC PANEL DETAILS

 **POWER DESIGN INC.**  
 ODELL, OREGON

CITY OF TACOMA

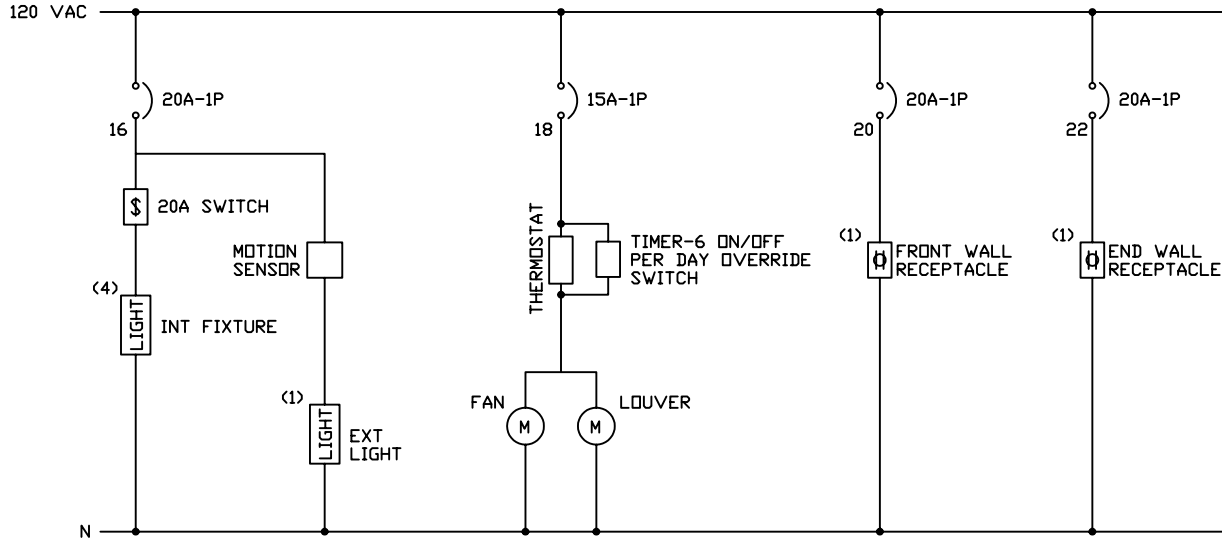
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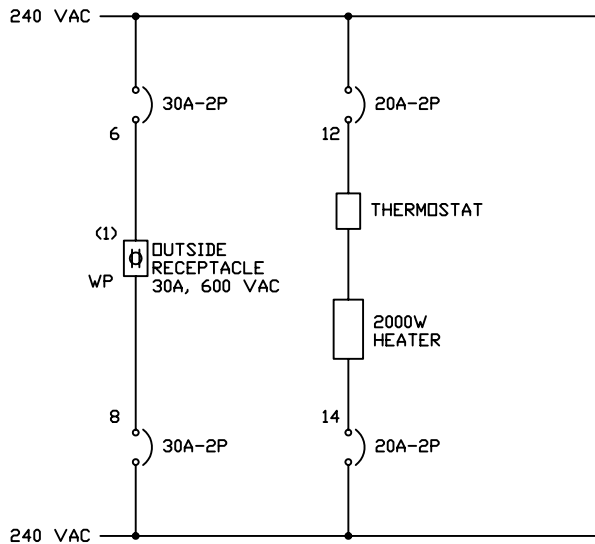
PAGE  
6 OF 7

DATE  
4-6-10

DRAWING NO.  
2528-R3



120VAC CIRCUIT SCHEMATIC  
FACTORY WIRING



240VAC CIRCUIT SCHEMATIC  
FACTORY WIRING

NOTES

- 1) ALL WIRE TO BE #12 SOLID THHN, BLACK-PHASES, WHITE-NEUTRAL, GREEN-GROUND
- CATALOG NO: ME1-96-2528-L1-LG

FIBERGLASS MODULAR ENCLOSURE  
8 FT WIDE x 9 FT HIGH x 12 FT LONG  
AC PANEL DETAILS



ODELL, OREGON

CITY OF TACOMA

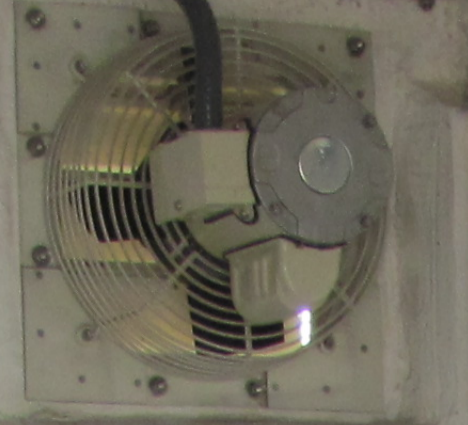
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11/08/2010



11/08/2010



PANEL P1  
10-177

CIRCUIT SWITCHED ALARM  
MOTOR OFF

BATTERY ALARM  
MOTOR OFF

BANK DIFFERENTIAL  
BANK 05  
R10

SEL  
STORAGE

TSA

TSB

TSC

BANK OVERCURRENT  
MOTOR ON

SEL  
CIRCUIT SWITCHED ALARM

TSD

TSE

TSF

10-177

TSG

TSH

11/08/2010

Main Breaker 200A  
ED3200, Vert Mtd.

1	GHB1030	GHB1020	2
3	GHB1020	GHB1020	4
5	GHB2030	GHB2030	6
7			8
9	GHB1030	GHB1030	10
11	GHB2020	GHB2020	12
13			14
15	GHB1020	GHB1020	16
17	GHB1020	GHB1020	18
19	GHB1020	GHB1020	20
21	GHB1020	GHB1020	22
23	GHB1020	GHB1020	24
25	PROV	PROV	26
27	PROV	PROV	28
29	PROV	PROV	30

Blank Cover  
3 inches

General Information

(Section 1 of 1)

Service Voltage: 120/240V 1Ph 3W  
 Bus Rating & Type: 225A Aluminum  
 Ground Bar: Std. Bolted Aluminum, Al or Cu cable  
 S.C. Rating: 65k A.I.C. Fully Rated  
 Enclosure: Type 1  
 Neutral Rating: 225A

Main Device Type: Main Breaker - Top Cable Entry - A & C Phase Connection  
 Main Terminals: Mechanical - (1) #14-40 (C1/A)  
 Neutral Terminals: Mechanical - (1) #6-300 kcmil (C1/A)  
 Box Catalog No.: EZ62042R  
 Trim: EZ Trim, Door In Door, Concealed Hardware (EZT2042S)

Surface Mounted

Box Dimensions: 42" [1066.8mm] H x 20" [508.0mm] W x 5.75" [146.0mm] D  
 Min. Gutter Size: Top = 5.5" [139.7mm] Bottom = 5.5" [139.7mm]  
 Left = 5.75" [146.0mm] Right = 5.75" [146.0mm]

Panel ID Nameplate: (1) ac  
 Type: Plastic, adhesive-backed (2) 120/240V 1Ph 3W  
 Color: White with Black Letters (3)

NEC Lighting & Appliance, UL CTL \*\*\*Non-Interchangeable Main Device\*\*\*

Trim Lock: Standard Lock & Key (Keyed WEM2)  
 Circuit Directory: Plastic Sleeve with Card  
 Main Circuit Breaker Trip Type: Thermal-Magnetic  
 Do not connect breakers with combined ampere ratings that exceed 140 amperes on any individual branch bus connector.

Device Modifications:

Ref # Description

Branch Devices

Qty	Poles	Trip	Frame	Amps	KAIC
3	1	30	GHB	100	65
13	1	20	GHB	100	65
2	2	30	GHB	100	65
2	2	20	GHB	100	65
6	1		PROV		

Notes

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PREPARED BY: E262 DATE: 05/25/10

Eaton Corporation

APPROVED BY: DATE: 05/25/10

JOB NAME: Robert AC/DC panel  
 DESIGNATION: ac

VERSION: 7.1

TYPE: PRL2a  
 DRAWING TYPE: Customer Approval

REG-ALT NUMBER: E262033 1K001-0000

REVISION: DWG SIZE: A

G.O.: ITEM: SHEET: 1 OF 1



### Shutter Motor

Shutter Motor, 120/240 Volts

Brand DAYTON

Mfr. Model # 2C831

### Tech Specs

- **Item:** Shutter Motor
- **Voltage:** 120/240
- **Hz:** 60
- **Phase:** 1
- **Amps:** 0.17/0.11
- **Height (In.):** 6-3/4
- **Width (In.):** 4-1/2
- **Depth (In.):** 4-1/4
- **Mounting Position:** Vertical
- **Includes:** Mounting Bracket, Linkage and 6" Leads With Junction Box

# UNIVERSAL RACK

## KEY FEATURES

- Supports 19" rack-mount equipment designed for two-post panel mounting like patch panels and network switches or use with shelves to support computer servers.
- Easy positioning of equipment or shelves with marked and numbered rack-mount spaces.
- Quick attachment of equipment with threaded equipment mounting holes and included equipment-mounting screws.
- Delivers unassembled in a single carton — quick and easy bolt-together assembly takes less than 10 minutes.
- Lightweight aluminum construction for easy transport and positioning during installation.
- Attach CPI vertical cable managers to the side of the rack through pre-punched holes.
- Secure the rack to the floor quickly with a concrete, wood or raised floor installation kit through pre-punched holes in base angle.

## APPLICATIONS

- Use with vertical and horizontal cable managers to support interconnect and network equipment in telecommunications rooms, equipment rooms and data centers.
- Use with shelves to support equipment.

## USE WITH

- MCS Master Cabling Section
- CCS Combination Cabling Section
- Global Vertical Cabling Section
- Universal Horizontal Cable Manager
- Rack and Frame Installation Kit
- Raised Floor Rack Support For 3" Channel

## RELATED ACCESSORIES

- 3" Channel Rack-To-Runway Mounting Plate
- Vertical PDUs for Racks
- Rack Shelves



Universal Rack is a heavy duty storage solution for patch panels and network switches and can be used with shelves to hold computer servers. Universal Rack uses less floor space than a cabinet or a four-post rack. Use Universal Rack in telecommunications rooms or equipment rooms to save floor space and hold heavy equipment.

Universal Rack meets project specifications. Universal Rack holds 1,500 lb of equipment and is available UL Listed as a communications circuit accessory. Universal Rack supports 19", 23" or 35" wide rack-mount equipment and shelves and is available in several heights. Equipment attaches to the front or rear of the 3" deep vertical mounting channels with screws. Equipment mounting positions are marked and numbered making it easy to position and install equipment or shelves.

Racks deliver unassembled in a compact carton. Universal Rack is easy to assemble. Components bolt together with included hardware. Assembly holes in the rack uprights are threaded. Assembly takes approximately 10 minutes. Two-post racks must be secured to building structure. Universal Rack has pre-punched base angles making it easy to attach the rack to the floor. Use a CPI installation kit for wood, slab or raised floors.

Most Universal Rack applications require cable management. Vertical cable managers attach directly to the side of Universal Rack. CPI cable managers organize cables by-rack-mount-space simplifying future moves, adds and changes to the network. The best solution includes horizontal managers in between patch panels and network switches to fan patch cords into individual port connections.

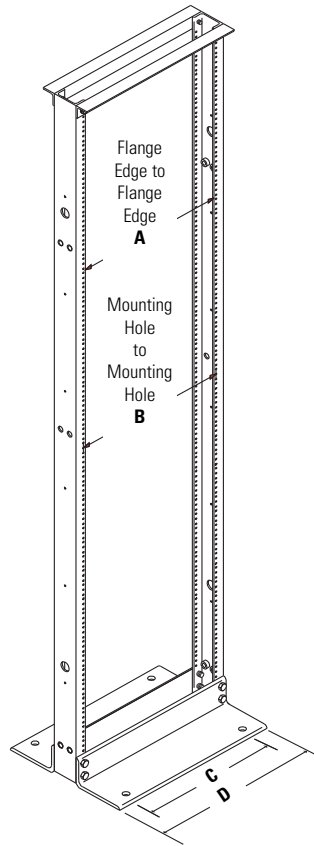
See reverse for product selection. Contact CPI Technical Support for configuration assistance.

**SPECIFICATIONS**

- Open floor-mount two-post rack supports 19", 23" or 35" wide rack-mount equipment
- For indoor use only, in environmentally controlled areas; may not be used outdoors, in industrial or harsh environments, or in plenum spaces
- Available sizes:  
 Heights: 36", 48", 60", 66", 72", 78", 84", 96", 108"  
 Width: 20.3", 24.3", 36.3"  
 Depth: 15"
- Equipment space:  
 Heights: 17 RMU, 24 RMU, 31 RMU, 34 RMU, 38 RMU, 41 RMU, 45 RMU, 48 RMU, 51 RMU, 55 RMU, 58 RMU  
 Width: 19" EIA (17-3/4" clearance), 23" (21-3/4" clearance), 35" (33-3/4" clearance)  
 Depth: 20"D  
*Note: Double-sided shelves for 26"D equipment are available. Use QuadraRack™ 4-Post Frame when rack-mount equipment exceeds 20"D.*
- Equipment Support:  
 1 pair C-shaped equipment mounting channels  
 - 19"W, 23"W or 35"W  
 - EIA-310-D compliant, Universal hole pattern  
 - 5/8" -5/8" -1/2" vertical hole spacing  
 - Threaded #12-24 equipment mounting holes  
 - Fixed in place  
 Includes 50 each #12-24 equipment mounting screws
- Cable Management  
 Use vertical and horizontal cable managers, sold as accessories
- Load capacity:  
 1,500 lb of equipment
- Certifications:  
 EIA-310-D compliant  
 Select models are UL Listed as a communications circuit accessory
- Material:  
 Aluminum extrusion
- Construction:  
 Bolted assembly  
 Ships unassembled
- Finish:  
 Clear grained aluminum or Epoxy-polyester hybrid powder coat paint  
 Available in black, gray or computer white

**DIMENSIONS**

Height	RMU
36"	17
48"	24
60"	31
66"	34
72"	38
78"	41
84"	45
90"	48
96"	51
102"	55
108"	58



Dimension	19" Rack	23" Rack	35" Rack
<b>A</b>	17.75" (450.9 mm)	21.75" (552.5 mm)	33.78" (858.0 mm)
<b>B</b>	18.31" (465.1 mm)	22.31" (566.7 mm)	34.31" (876.5 mm)
<b>C</b>	16.00" (406.4 mm)	20.00" (508.0 mm)	32.00" (812.8 mm)
<b>D</b>	20.31" (515.9 mm)	24.31" (617.5 mm)	36.31" (922.3 mm)

**ORDERING INFORMATION**

19"W Universal Rack			
Part Number		Description	Shipping Weight
19" W	UL Listed		
46353-X31	48353-X31	19"W x 36"H, 17 RMU	25 lb
46353-X20	48353-X20	19"W x 48"H, 24 RMU	28 lb
46353-X19	48353-X19	19"W x 60"H, 31 RMU	35 lb
46353-X00	48353-X00	19"W x 66"H, 34 RMU	36 lb
46353-X01	48353-X01	19"W x 72"H, 38 RMU	37 lb
46353-X02	48353-X02	19"W x 78"H, 41 RMU	38 lb
46353-X03	48353-X03	19"W x 84"H, 45 RMU	39 lb
46353-X05	48353-X05	19"W x 90"H, 48 RMU	40 lb
46353-X15	48353-X15	19"W x 96"H, 51 RMU	41 lb
46353-X17	48353-X17	19"W x 102"H, 55 RMU	41 lb
46353-X08	48353-X08	19"W x 108"H, 58 RMU	43 lb

X=color: 1=Gray, 2=Computer White, 5=Clear, 7=Black

23"W Universal Rack			
Part Number		Description	Shipping Weight
23"W	UL Listed		
46383-X31	48383-X31	23"W x 36"H, 17 RMU	26 lb
46383-X20	48383-X20	23"W x 48"H, 24 RMU	29 lb
46383-X19	48383-X19	23"W x 60"H, 31 RMU	36 lb
46383-X00	48383-X00	23"W x 66"H, 34 RMU	39 lb
46383-X01	48383-X01	23"W x 72"H, 38 RMU	40 lb
46383-X02	48383-X02	23"W x 78"H, 41 RMU	41 lb
46383-X03	48383-X03	23"W x 84"H, 45 RMU	42 lb
46383-X05	48383-X05	23"W x 90"H, 48 RMU	43 lb
46383-X15	48383-X15	23"W x 96"H, 51 RMU	44 lb
46383-X17	48383-X17	23"W x 102"H, 55 RMU	45 lb
46383-X08	48383-X08	23"W x 108"H, 58 RMU	46 lb

X=color: 1=Gray, 2=Computer White, 5=Clear, 7=Black

35"W Universal Rack			
Part Number		Description	Shipping Weight
35"W	UL Listed		
46363-X01	N/A	35"W x 72"H, 38 RMU	49 lb
46363-X03	N/A	35"W x 84"H, 45 RMU	51 lb

X=color: 1=Gray, 2=Computer White, 5=Clear, 7=Black

Note: There are no shelves for 35"W Universal Racks. Use with block-mounting brackets.



Catalog Number	
Notes	Type

## FEATURES & SPECIFICATIONS

### INTENDED USE

Intended for low to medium mounting heights where dust, dirt, humidity, moisture, or corrosive elements are present. Ideal for canopies, dock areas, wastewater treatment, refrigerated areas, food processing and other non-hazardous environments.

### CONSTRUCTION

Housing formed from impact resistant, UV stabilized, fiberglass reinforced polyester with cold-rolled steel enclosed wireway. Poured in gasketing provides a seal between housing and diffuser. Captive, corrosion-resistant cam-action latches secure the diffuser; six on 4' units, and ten on 8' units. Stainless steel latches available.

### FINISH

Painted parts pretreated with a five-stage iron-phosphate process to ensure superior paint adhesion and corrosion resistance, then finished with a high-gloss, baked white enamel.

### OPTICAL SYSTEM

Acrylic diffuser with a stippled interior surface to spread lamp image. High-impact diffuser optional.

### ELECTRICAL SYSTEM

Thermally protected, resetting, Class P, HPF, non-PCB, UL Listed and CSA Certified ballast is standard. Sound rating depends on lamp/ballast combination.

AWM, TFN, THHN wire throughout, rated for required temperatures.

### INSTALLATION

For unit or row installations, surface (ceiling or wall) or suspended mounting.

### LISTING

120V, 277V and MVOLT are UL Listed and CSA Certified (standard). 347V is CSA Certified (see Options). NOM Certified (see Options). Suitable for wet (DMW) or damp (DM) locations.

### WARRANTY

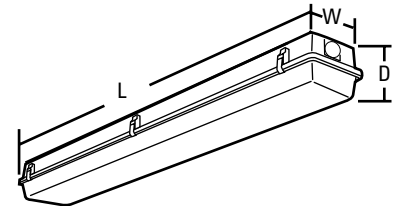
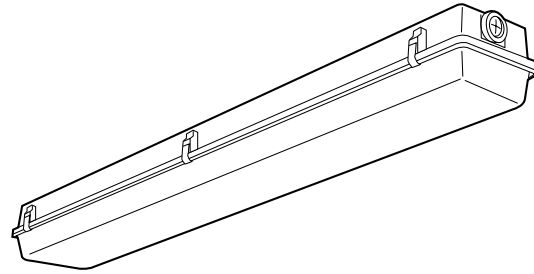
Guaranteed for one year against mechanical defects in manufacture.

## Enclosed and Gasketed Industrial

# DM/DMW

## Rapid Start

4' or 8' length  
1, 2 or 3 lamps



### Specifications

Length:	50" (1270)
	98" (2489)
Width:	8-1/8" (206)
Fixture Depth:	5-5/8" (143)

All dimensions are inches (millimeters).  
Specifications subject to change without notice.

## ORDERING INFORMATION

Example: **DMW 2 32 120 GEB**

Choose the boldface catalog nomenclature that best suits your needs and write it on the appropriate line. Order accessories as separate catalog number.

Series	Number of lamps	Lamp type	Diffuser	Voltage	Options
<b>DM</b> Damp location	1, 2, 3 <sup>1</sup> Not included	<b>32</b> 32W T8 (48")	(blank) Acrylic(15% DR) <b>AR</b> High-impact acrylic (50% DR) <b>DP</b> Deep acrylic <sup>2</sup> <b>ARDP</b> Deep high-impact acrylic <sup>2</sup>	<b>120</b>	<b>ES</b> Energy-saving ballasts (40W lamps only) <b>CW</b> Cold-weather ballasts, 0°F starting <sup>4</sup> <b>ELDW</b> Emergency battery pack (nominal 300 lumens) <b>EL5DW</b> Emergency battery pack (nominal 500 lumens) <b>EL6DW</b> Emergency battery pack (nominal 600 lumens) <b>EL14DW</b> Emergency battery pack (nominal 1400 lumens) <b>GEB</b> Electronic ballasts, ≤20% THD <b>GEB10IS</b> Electronic ballasts, ≤10% THD, Instant Start <sup>1</sup> <b>GEB10RS</b> Electronic ballasts, ≤10% THD, Rapid Start <sup>6</sup>
<b>DMW</b> Wet location		<b>40</b> 40W T12 (48")		<b>277</b> <b>347</b> <b>MVOLT</b> <sup>3</sup> Others available	
For tandem double-length unit, add prefix T. Example: <b>TDM</b>					
<b>Accessories</b>					
Order as separate catalog numbers.					
<b>BCD</b>	Bracket for hanger chain mounting. Two per package.				
<b>HC36</b>	Chain hangers (1 pair, 36" long). Requires BCD.				
<b>WLF</b>	Wet location fittings (1 pair, not installed).				
Notes					
1 32W T8 lamps only.					
2 Deep lens is standard on 8' fixtures.					
3 MVOLT available with GEB10IS only.					
4 Not recommended for use in ambient temperatures exceeding 40°F.					
5 Available with only 32 watt and 40 watt lamp types.					
6 Available for the DMW only.					
<b>GLR</b> Internal fast-blow fuse					
<b>GMF</b> Internal slow-blow fuse					
<b>NSF</b> NSF International certification <sup>6</sup>					
<b>RIF1</b> Radio interference filter, 1 per fixture					
<b>STSL</b> Stainless steel latches					
<b>WLF</b> Wet location fittings (1 pair, installed in fixture top)					
<b>CSA</b> CSA Certified (Only required for 347V).					
<b>NOM</b> NOM Certified.					

# DM/DMW Rapid Start

## MOUNTING DATA

For unit or row installation, surface (ceiling or wall) or suspended mounting.

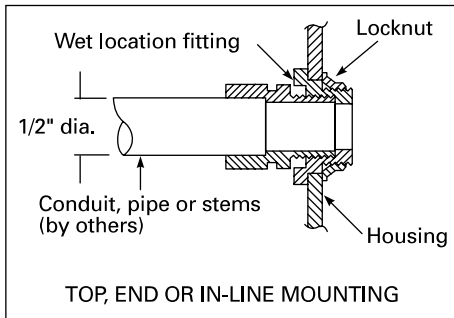
**DM/DMW** — Drill holes through housing and channel at appropriate locations.

**DMW** — Includes gasketed wet location fittings on ends for power feeding/mounting. Fitting is threaded for 1/2" rigid conduit (optional WLF for top mounting). Attach to surface using fasteners and sealing washers (by others) appropriate to ceiling materials.

Unit installation — Minimum of two hangers required.

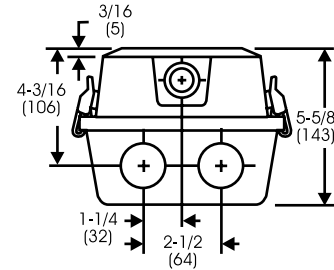
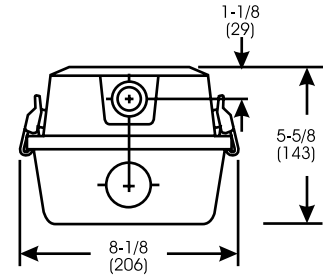
Row installation — Minimum of two hangers required. Recommend 1/2" nipple with union (by others) for DMW.

See ACCESSORIES below for hanging devices.



## DIMENSIONS

Inches (millimeters). Subject to change without notice.



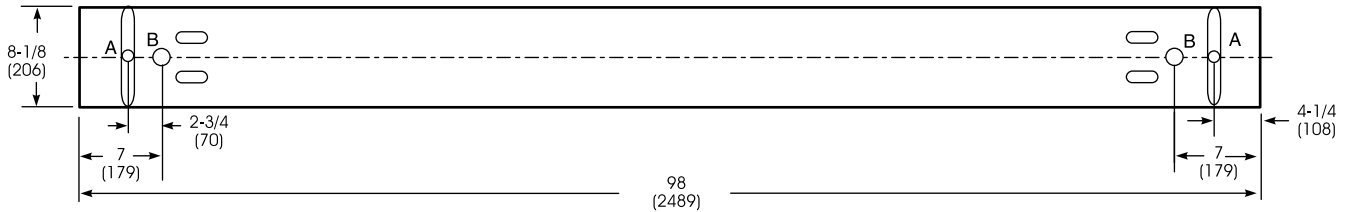
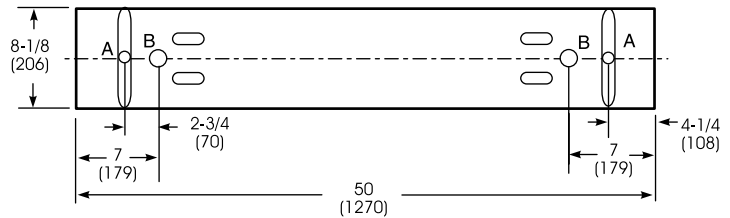
A = 11/16 (17) Dia.

B = 1-1/8 (29) Dia.

Recommended mounting locations (field drilling required)

\*8' fixtures are 5-5/8" deep

4' fixtures are 4-5/8" deep



## PHOTOMETRICS

Calculated using the zonal cavity method in accordance with IESNA LM41 procedure. Floor reflectances are 20%. Lamp configurations shown are typical. Full photometric data on these and other configurations available upon request.

### DM/DMW 1 40

Report LTL 4148

S/MH (along) 1.2 (across) 1.6

Coefficient of Utilization

Ceiling Wall	80%			70%			50%		
	70%	50%	30%	70%	50%	30%	50%	30%	10%
1	81	76	72	78	74	70	69	66	63
2	72	65	59	70	63	57	59	55	50
3	66	57	49	63	55	48	52	46	42
4	60	50	42	58	48	41	46	40	35
5	54	43	36	52	42	35	40	34	29
10	36	25	19	35	25	18	23	18	14

### DM/DMW 2 40

Report LTL 4147

S/MH (along) 1.3 (across) 1.5

Coefficient of Utilization

Ceiling Wall	80%			70%			50%		
	70%	50%	30%	70%	50%	30%	50%	30%	10%
1	72	68	65	70	66	63	63	60	58
2	65	59	54	63	57	53	54	50	47
3	59	52	46	57	50	45	47	43	39
4	54	45	39	52	44	38	42	37	33
5	49	40	33	47	39	33	37	32	28
10	33	23	17	31	23	17	22	17	13

### DM/DMW 2 32

Report LTL 5583

S/MH (along) 1.3 (across) 1.6

Coefficient of Utilization

Ceiling Wall	80%			70%			50%		
	70%	50%	30%	70%	50%	30%	50%	30%	10%
1	82	78	74	80	76	72	71	69	66
2	74	67	61	72	65	60	61	57	53
3	67	58	52	65	57	51	54	48	44
4	61	51	44	59	50	43	47	42	37
5	56	45	38	54	44	37	42	36	31
10	37	26	19	36	25	19	24	19	15

### Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixture
0-30	447	14.2	18.3
0-40	759	24.1	31.1
0-60	1459	46.3	59.8
0-90	2282	72.4	93.6
90-180	157	5.0	6.4
0-180	2439	77.4	100.0

### Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixture
0-30	869	13.8	20.3
0-40	1476	23.4	34.4
0-60	2789	44.3	65.0
0-90	4020	63.8	93.7
90-180	272	4.3	6.3
0-180	4293	68.1	100.0

### Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixture
0-30	884	15.2	19.5
0-40	1511	26.0	33.4
0-60	2883	49.7	63.7
0-90	4260	73.4	94.1
90-180	268	4.6	5.9
0-180	4528	78.1	100.0



### Lithonia Lighting

Acuity Lighting Group, Inc.

Fluorescent

One Lithonia Way, Conyers, GA 30012

Phone: 800-858-7763, Fax: 770-929-8789

In Canada: 1100 50th Ave., Lachine, Quebec H8T 2V3

www.lithonia.com

## McMASTER-CARR



### Combination Fixed- and Movable-Blade Wall Louver

One side has fixed blades that channel water away from the louver; the reverse side has a blade that you can open and close. These louvers are drop-in mount and have a 0.08" thick extruded aluminum frame and blades. They include a SS insect screen that can be removed for cleaning on the outside. Frame is 6" deep.

**Fits Opening  
Size, Wd. x Ht.**

18" x 18"

**O'all Size,  
Wd. x Ht.**

17 1/2" x 17 1/2"

**1999K81**

# The Com-Pak Plus

The economical choice for smaller areas



**CADET**  
SAFETY & QUALITY



## Features and Benefits

- Primary and Secondary Thermal Safeguards
  - **NOW WITH** robust, heavy duty high temperature manual power reset
  - Over temperature one-time thermal fuse
- Nichrome coil element for quick heat
- Powder coat paint process eliminates sharp metal edges
- Wall can designed for ease of installation

### General Information:

The Com-Pak Plus is our most popular in-wall fan heater. An economical choice that includes our highly regarded safety components. These heaters are perfect for smaller areas or larger areas needing the dispersed heat created by multiple heaters. Cadet recommends a wall-mounted thermostat for optimum performance, or you may prefer the convenience of an optional built-in thermostat.

### Technical Information:

Fan heaters and thermostats work best when installed on an inside wall. UL requires heater to be placed a minimum distance of 6" from adjacent surfaces and 4½" from the floor. Manufacturer recommends installation 12" from all surfaces. All models 1500 watts or less may be ceiling mounted. A 3' (91.44cm) minimum clearance is recommended for furniture or other objects placed directly in front of heater.

**NOTE:** Manufacturer recommends installing heater assembly after walls are finished. Heater must be cleaned every six months minimum.

### Architectural Information:

Fan forced electric air heaters shall be UL Listed, factory rated at 120V, 208V, and dual field rated from 208V to 240V. A painted 20 gauge wall mounting can with six knockouts and 34 cubic inch wiring compartment shall be provided with each complete heater. Each complete heater shall be of unitized construction and attach to the wall can with a single screw and shall be self-contained and completely separate from the wall mounting can.

Element is of nichrome type wire wrapped on mica insulators with an oversized 16 amp rating at 240V, high temperature manual power reset limit switch and an over-temperature thermal back-up fuse. A two stage centrifugal blower shall be driven by an impedance protected motor. The motor shall be totally isolated from the heating chamber. Metal grill shall be of one piece, 20-gauge construction and finished with a powder coat paint system.

### Ordering Information:

Suffix "T" in model number denotes built-in single pole thermostat. Model numbers without a "T" require a thermostat. Recommended for elevations under 10,000 feet. Complete unit available in white only.

## Carton Details

### Heat Assembly Only Carton

<b>DIMENSIONS</b>	12"W x 7.5"H x 5.25"D
<b>PALLET QTY.</b>	100
<b>CUBE</b>	.27

### Complete Unit Carton

<b>DIMENSIONS</b>	14.375"W x 9.375"H x 5.75"D
<b>PALLET QTY.</b>	96
<b>CUBE</b>	.45



HEATER ASSEMBLY WITH THERMOSTAT



WALL CAN

**The Com-Pak Plus**



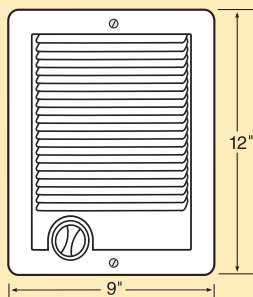
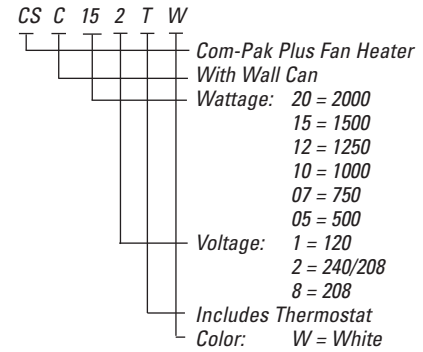
PHONE 360.693.2505  
 FAX 360.694.8668  
 WEB www.cadetco.com

UPC Code			WATTS			AMPS			Wt./Lbs
Part#	Model#	Description	240V	208V	120V	240V	208V	120V	
027418	67507	1 CSC202TW	2000	1500		8.33	7.21		7
027418	67506	4 CSC152TW	1500	1125		6.25	5.41		7
027418	67505	7 CSC102TW	1000	750		4.17	3.61		7
027418	67509	5 CSC151TW			1500			12.5	7
027418	67508	8 CSC101TW			1000			8.33	7
027418	67514	9 CS202	2000	1500		8.33	7.21		3.5
027418	67513	2 CS152	1500	1125		6.25	5.41		3.5
027418	67512	5 CS122	1250	937		5.21	4.5		3.5
027418	67511	8 CS102	1000	750		4.17	3.61		3.5
027418	67510	1 CS072	750	563		3.13	2.71		3.5
027418	67516	3 CS151			1500			12.5	3.5
027418	67515	6 CS101			1000			8.33	3.5
027418	67550	7 CS051			500			4.17	3.5
027418	67517	0 CS208		2000			9.62		3.5
027418	67522	4 CS202T	2000	1500		8.33	7.21		4
027418	67521	7 CS152T	1500	1125		6.25	5.41		4
027418	67520	0 CS122T	1250	937		5.21	4.5		4
027418	67519	4 CS102T	1000	750		4.17	3.61		4
027418	67518	7 CS072T	750	563		3.13	2.71		4
027418	67524	8 CS151T			1500			12.5	4
027418	67523	1 CS101T			1000			8.33	4
027418	67525	5 CS208T		2000			9.62		4

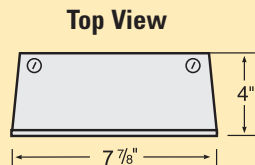
UPC Code			Description	Wt./Lbs
Part#	Model#	Description	Wt./Lbs	
027418	06390	8 CS4MA	4" Surface Mount Metal Adapter C Series, Almond	3.5
027418	06395	3 CS4MW	4" Surface Mount Metal Adapter C Series, White	3.5
027418	67060	1 CC10	C Wall Can Ten Pack	22.5
027418	67061	8 CC	C Wall Can Single Pack	2.5
027418	67063	2 CTT1W	Single Pole Field Mount Thermostat Kit, 17 amp, White	.25
027418	67064	9 CTT2W	Double Pole Field Mount Thermostat Kit, 17 amp, White	.25
027418	67065	6 CTT1A	Single Pole Field Mount Thermostat Kit, 17 amp, Almond	.25
027418	67066	3 CTT2A	Double Pole Field Mount Thermostat Kit, 17 amp, Almond	.25
027418	67067	0 CTPP	Tamper Proof Field Mount SP Thermostat Kit, 17 amp	.25
027418	67075	5 CGA	C Grill w/ Parts, Almond	1.5
027418	67079	3 CGW	C Grill w/ Parts, White	1.5
027418	67080	9 CGA10	C Grill Ten Pack w/ Parts, Almond	12.25
027418	67081	6 CGW10	C Grill Ten Pack w/ Parts, White	12.25
027418	67100	4 CAMA	18.5" x 22" Metal Adapter Plate C Series, Almond	3.5
027418	67105	9 CAMW	18.5" x 22" Metal Adapter Plate C Series, White	3.5
027418	67088	5 FWAP	Converts FW Models to C Model, Black	1
027418	67110	3 SAMA	12" x 21.25" Metal Adapter Plate C Series, Almond	2
027418	67115	8 SAMW	12" x 21.25" Metal Adapter Plate C Series, White	2

ACCESSORIES

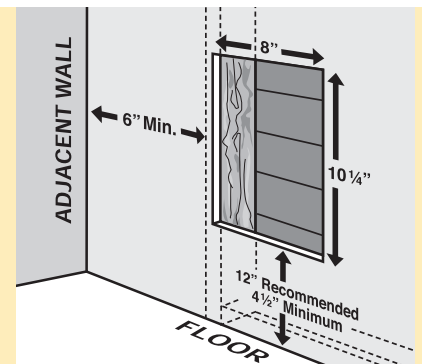
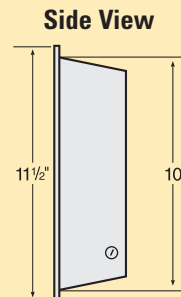
**Model No. Code**



**Grill Dimensions:**  
9"W x 12"H



**Wall Can Dimensions:**  
7 7/8"W x 11 1/2"H x 4"D



**Rough-in Dimensions:**  
8"W x 10 1/4"H x 4"D

# Intermatic

## Digital In-Wall Timer #ST01C



Can be used with four separate programming options: Same settings Monday through Friday, Saturday & Sunday, all 7 days of the week or individual daily settings.

- Set it once and never set it again; follows daily changes in sunrise/sunset times
- For single pole and three way applications up to 100 feet away
- Controls lighting including fluorescent and heavy duty loads such as fans and appliances
- Up to 6 ON/OFF settings per 7-day period a total of 42 ON/42 OFF settings per week
- Easy-to-set 6 button programming
- LCD digital clock and readout
- Astronomic feature automatically changes Sunrise and Sunset times - no resetting needed
- Program selections for Individual Day, All Days, Weekdays only, or Weekends only
- Flush mount design
- No neutral wire required
- To-the-minute setting accuracy
- Battery backup prevents program loss due to power failure
- Random setting feature available to avoid predictable “timer controlled” look
- Manual override feature
- Use with decorator-style wall plate (not included)
- Ratings:
  - Resistive: 15 Amp @ 120-277 VAC
  - Tungsten: 15 Amp @ 120 VAC, 6 A @ 208-277 VAC
  - Ballast: 8 Amp @ 120 VAC, 4 Amp @ 208-277 VAC
  - Motor: 1 HP @ 120 VAC, 2 HP @ 240 VAC
  - DC Loads: 4 Amp @ 12 VDC, 2 Amp @ 28 VDC



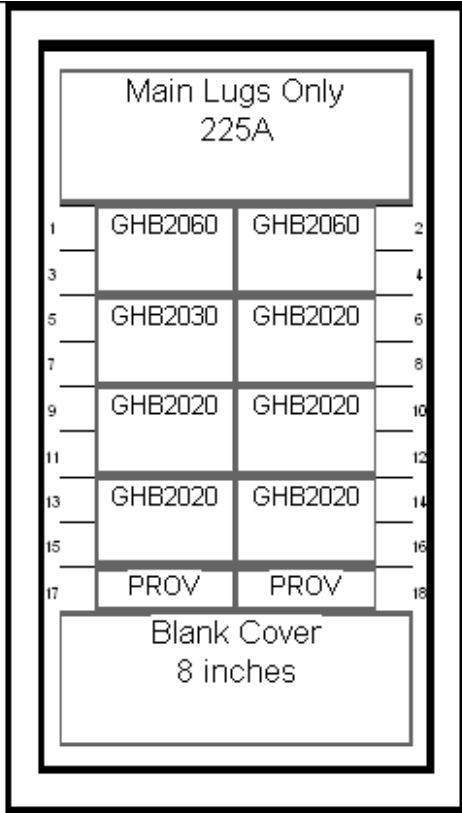
### **Exhaust Fan, 10 In, 115 V, 524 CFM**

Exhaust Fan, Corrosion Resistant Shutter Mount, Propeller Dia 10 In, CFM @ 0.000-In SP 524, @ 0.125-In SP 379, Sones @ 0.000-In SP @ 5 Ft 12.3, Voltage 115, 60 Hz, Single Phase, Full Load Amps 1.9, Motor HP 1/20, Motor Type Shaded Pole, Motor Enclosure Totally Enclosed Air-Over, Height 13 In, Width 13 In, Max Depth 13 1/2 In, Sq Opening Required 10 1/2 In, Frame Material Fiberglass, Propeller Material Fiberglass Reinforced Polypropylene, Number of Blades 4

Brand DAYTON  
Mfr. Model # 1BLH6

#### Tech Specs

- **Item:** Exhaust Fan
- **Type:** Corrosion Resistant Shutter Mount
- **Propeller Dia. (In.):** 10
- **CFM @ 0.000-In. SP:** 524
- **Sones @ 0.000-In. SP @ 5 Ft.:** 12.3
- **Max. Ambient Temp. (F):** 104
- **Voltage:** 115
- **Hz:** 60
- **Phase:** 1
- **Full Load Amps:** 1.9
- **Motor HP:** 1/20
- **Bearing Type:** Sealed Ball
- **Motor RPM:** 1550
- **Motor Type:** Shaded Pole
- **Motor Enclosure:** Totally Enclosed Air-Over
- **Motor Insulation:** Class B
- **Height (In.):** 13
- **Width (In.):** 13
- **Max. Depth (In.):** 14-7/8
- **Frame Material:** Fiberglass
- **Guard Material:** Steel
- **Wire Guard Finish:** Epoxy Coated
- **Propeller Material:** Fiberglass Reinforced Polypropylene
- **Number of Blades:** 4
- **Speed Control:** No
- **Agency Compliance:** UL Listed for US and CanadaBottom of Form



**General Information**

**(Section 1 of 1)**

Service Voltage: 125V DC 2W  
 Bus Rating & Type: 225A Aluminum  
 Ground Bar: Std. Bolted Aluminum, Alor Cu cable  
 S.C. Rating: 14k A.I.C. Fully Rated  
 Enclosure: Type 1  
 Neutral Rating: 225A

Main Device Type: Main Lugs Only - Top Cable Entry  
 Main Terminals: Mechanical - (1) #6-300kcmil (C/A)  
 Neutral Terminals: Mechanical -  
 Box Catalog No.: EZB2036R  
 Trim: EZ Trim, Door In Door, Concealed Hardware (EZ2036S)

Surface Mounted

Box Dimensions: 36" [914.4mm] H x 20" [508.0mm] W x 5.75" [146.0mm] D  
 Min. Gutter Size: Top = 5.5" [139.7mm] Bottom = 5.5" [139.7mm]  
 Left = 5.75" [146.0mm] Right = 5.75" [146.0mm]

Panel ID Nameplate: (1) DC PANELBOARD 14KAIC  
 Type: Plastic, adhesive-backed (2) 125V DC 2W  
 Color: White with Black Letters (3)

UL \*\*\*Non-Interchangeable Main Device\*\*\*

Trim Lock: Standard Lock & Key (Keyed WEM2)  
 Circuit Directory: Plastic Sleeve with Card  
 Do not connect breakers with combined ampere ratings that exceed 140 amperes  
 or any individual branch bus connector.

**Device Modifications:**

Ref #	Description

**Branch Devices**

Qty	Poles	Trip	Frame	Amps	KAIC
2	2	60	GHB	100	14
1	2	30	GHB	100	14
5	2	20	GHB	100	14
2	1		PROV		

**Notes**

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PREPARED BY E262	DATE 06/01/10	<b>Eaton Corporation</b>	
APPROVED BY	DATE 06/01/10	JOB NAME Robert AC/DC panel	DESIGNATION DC PANELBOARD 14KAIC
VERSION 7.1		TYPE PRL2a	DRAWING TYPE Customer Approval
REG-ALT NUMBER E2620331K001-0000	REVISION	DWG CODE A	G.O. ITEM SHEET 1 OF 1