

# Charles Universal Broadband Enclosure

## CUBE-SS4C228CV1

### General Description and Installation

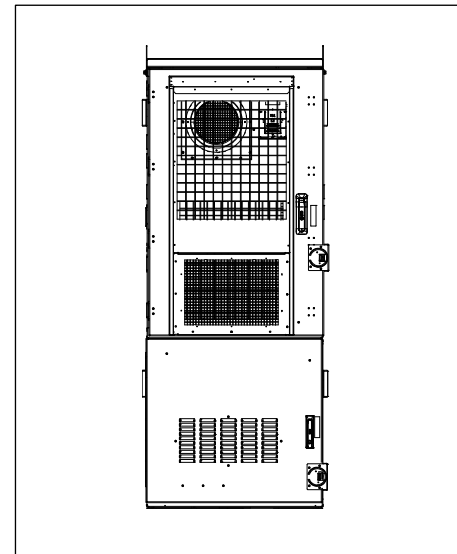
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## 1. GENERAL INTRODUCTION

### 1.1. Document Purpose

This document provides additional information for the CUBE-SS4C228CV1 of the Charles Industries' Universal Broadband Enclosure (CUBE) product line that is not included in the family document, LT-SSXX228XXX. Figure 1 shows a closed front view of the enclosure.

-NOTE-  
*Hereafter, the CUBE-SS4C228CV1 Charles Universal Broadband Enclosure will be referred to as the "CUBE."*



**Figure 1 Front View of the CUBE**

## 2. PRODUCT DESCRIPTION

The equipment compartment includes a 6000W 48VDC thermosiphon. The battery compartment supports three strings of -48VDC VRLA batteries (customer supplied). Figure 2 shows the components of the CUBE.

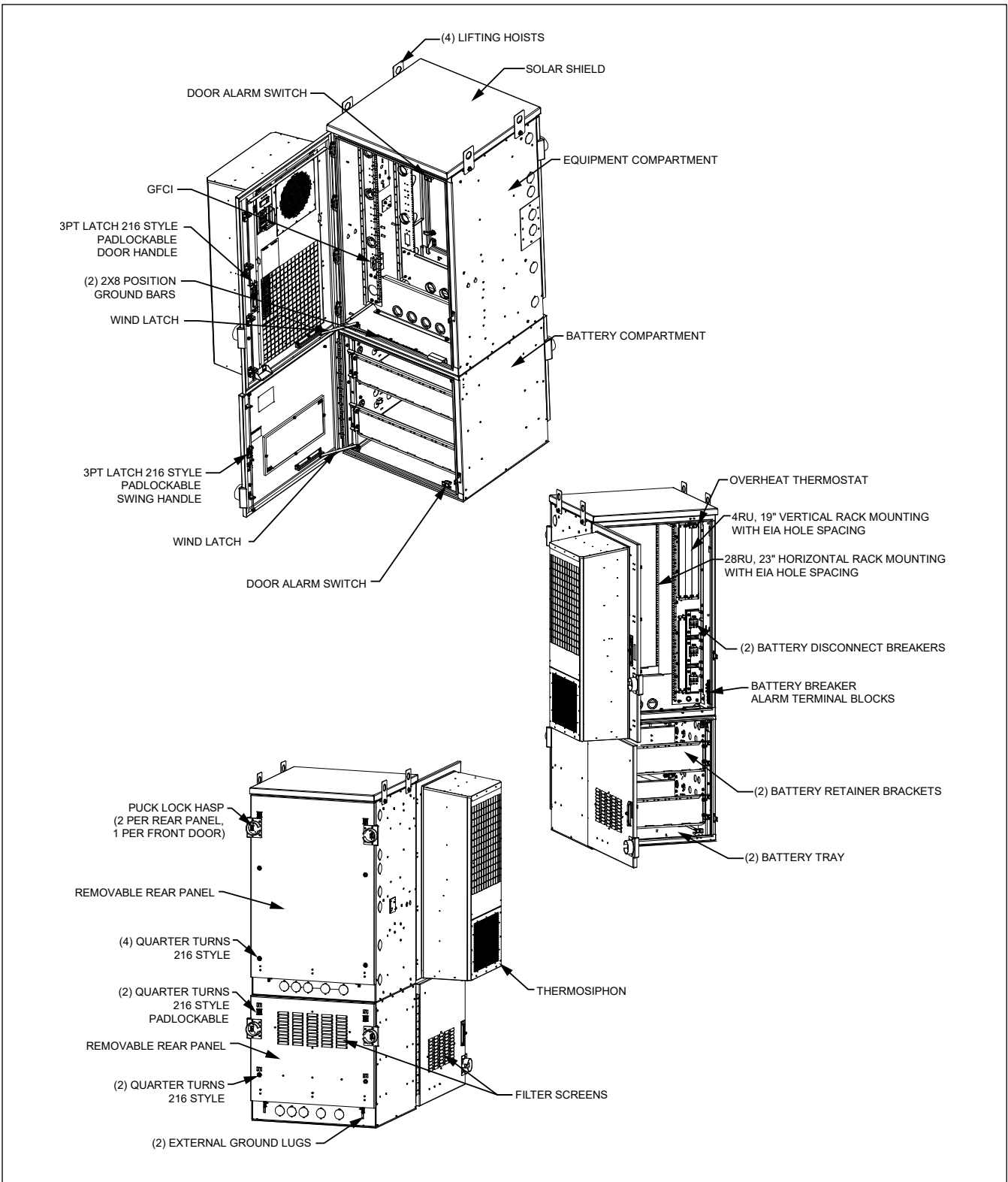


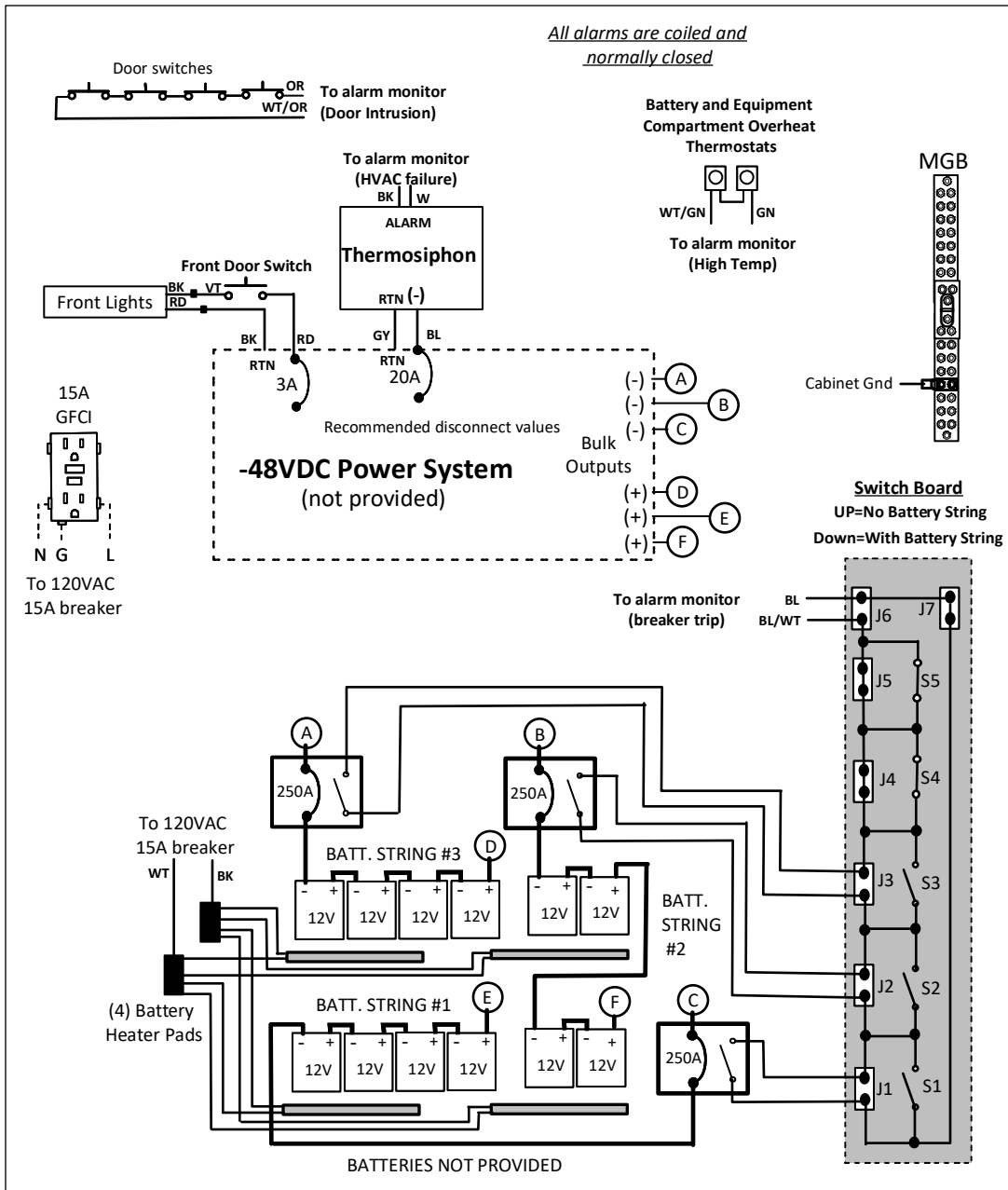
Figure 2 CUBE Components

### 3. CUBE WIRING AND EQUIPMENT

After the CUBE is properly mounted in the desired location, apply No-Ox where bus bar and other 2-hole lug connections will be made. Install ground and power connections. Always ground the equipment first, before making any other connections.

	<b>WARNING</b>	<b>Perform all bonding and grounding connections prior to any electrical and communications connections.</b>
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In order to prevent condensation prior to being placed in service, do not remove the desiccant until power is applied to the CUBE. A basic electrical diagram is shown in Figure 3.



**Figure 3 CUBE Electrical Diagram**

### 3.1. Thermosiphon Operation

The DC powered thermosiphon in the equipment compartment has a speed controller and includes an internal and an external fan. The fans' speed increases with increasing ambient temperature. Fan settings are defined below.

Fan Setting	Internal	External
Turn-on Setting	-40°C	35°C
Medium Temp Setting	35°C	35°C
High Temp Setting	45°C	45°C

For more information, refer to the thermosiphon documentation found inside the CUBE.

-NOTE-

*Changing the speed controller default factory set points can lead to system performance issues, such as equipment failures, increased power use, unnecessary alarms, noise, condensation build up, fan failure caused by excessive runtimes and vibration. Avoid placing items in front of the thermosiphon's return and supply vents. Maintain a minimum of 6" clearance to enable proper air flow.*

### 4. SPECIFICATIONS

Physical	
Weight	Approx. 725 lbs. as shipped
Electrical	
Battery Disconnect Breakers	18-908176-0
Thermal	
Thermosiphon	3250W, Vikinor VHT-325-DC
Maximum Heat Dissipation	3090W@19°C above ambient with solar

Table 1 CUBE Specifications (see family documentation for full list)