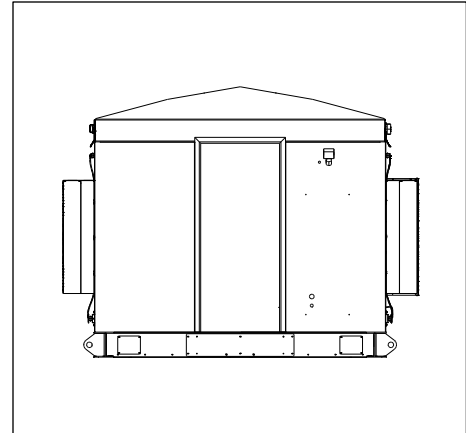


# Charles Universal Broadband Enclosure

## WIC-101010SXAN1

### General Description and Installation

<b>1. GENERAL INTRODUCTION .....</b>	<b>1</b>
1.1. Document Purpose .....	1
1.2. Product Purpose.....	1
1.3. Product Mounting and Location.....	1
<b>2. PRODUCT DESCRIPTION.....</b>	<b>2</b>
<b>3. INSTALLATION .....</b>	<b>6</b>
3.1. Inspecting the Product.....	6
3.2. Following and Using Safety Precautions.....	6
3.3. Obtaining Tools and Equipment.....	6
3.4. Preparing the Installation Site.....	6
3.5. Lifting the WIC.....	7
3.6. Mounting the WIC.....	7
3.7. WIC Wiring and Equipment.....	10
3.8. Conduit Seals.....	13
3.9. Verifying the Installation.....	13
<b>4. PERIODIC MAINTENANCE.....</b>	<b>13</b>
<b>5. TECHNICAL ASSISTANCE AND REPAIR SERVICE.....</b>	<b>13</b>
<b>6. WARRANTY &amp; CUSTOMER SERVICE .....</b>	<b>13</b>
<b>7. SPECIFICATIONS.....</b>	<b>13</b>
7.1. Regulatory Specifications.....	13
7.2. Product Specifications.....	14
7.3. Part Numbers .....	14
7.4. Alarm Connections.....	15



**Figure 1 Front View of the WIC**

## 1. GENERAL INTRODUCTION

### 1.1. Document Purpose

This document provides general information for the WIC-101010SXAN1 walk-in cabinet. Figure 1 shows a closed front view of the enclosure.

-NOTE-

*Hereafter, the Charles Walk-in Cabinet WIC-101010SXAN1 will be referred to as the "WIC."*

### 1.2. Product Purpose

The WIC consists of a protective walk-in enclosure for an integrated system of electronic components and equipment that can serve fiber and copper interfaces. Note: this enclosure is not intended for use as a dwelling and is not suitable for human or animal habitation.

### 1.3. Product Mounting and Location

This enclosure is suitable for outside plant-type (OSP) locations and those that may require NEC compliance. The outdoor, weather-resistant WIC is to be mounted on a concrete pad. The installer connects the power, fiber and copper connections. Detailed mounting and installation information is covered in Section 3.

## 2. PRODUCT DESCRIPTION

The WIC is an enclosure that houses multiple equipment racks suitable for customer supplied equipment. The WIC has four Charles CTMS thermal devices mounted on the side walls, as well as a Charles Intelligent Ventilation System (IVS). Motion-sensitive lighting units are mounted on the front and rear. Multiple exterior ground bars all connect to an interior master ground bar.

Equipment and power racks are added to the WIC by Worldwide Technologies. See their documentation for information about the power equipment included. Accessory kits are available (sold separately) that add more cable entry ports, a stair kit for the front door, and a 10k BTU DC powered HVAC system. All kits are listed in Table 1.

Figure 2 shows the WIC dimensions. Figures 3 and 4 show the external and internal components of the WIC. Figure 5 shows the WIC with equipment and power racks and optional kits installed.

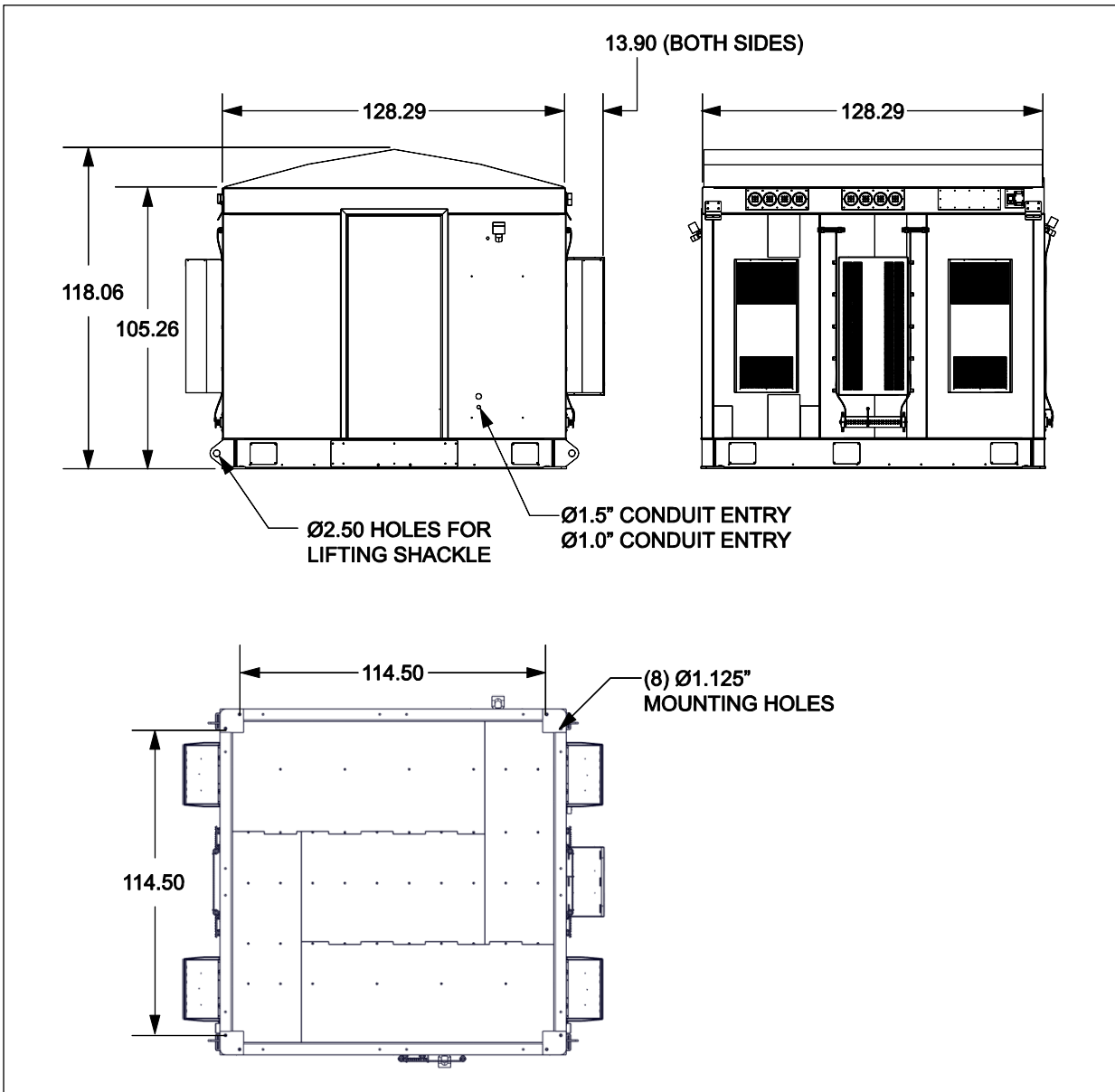


Figure 2 WIC Dimensions (in inches)

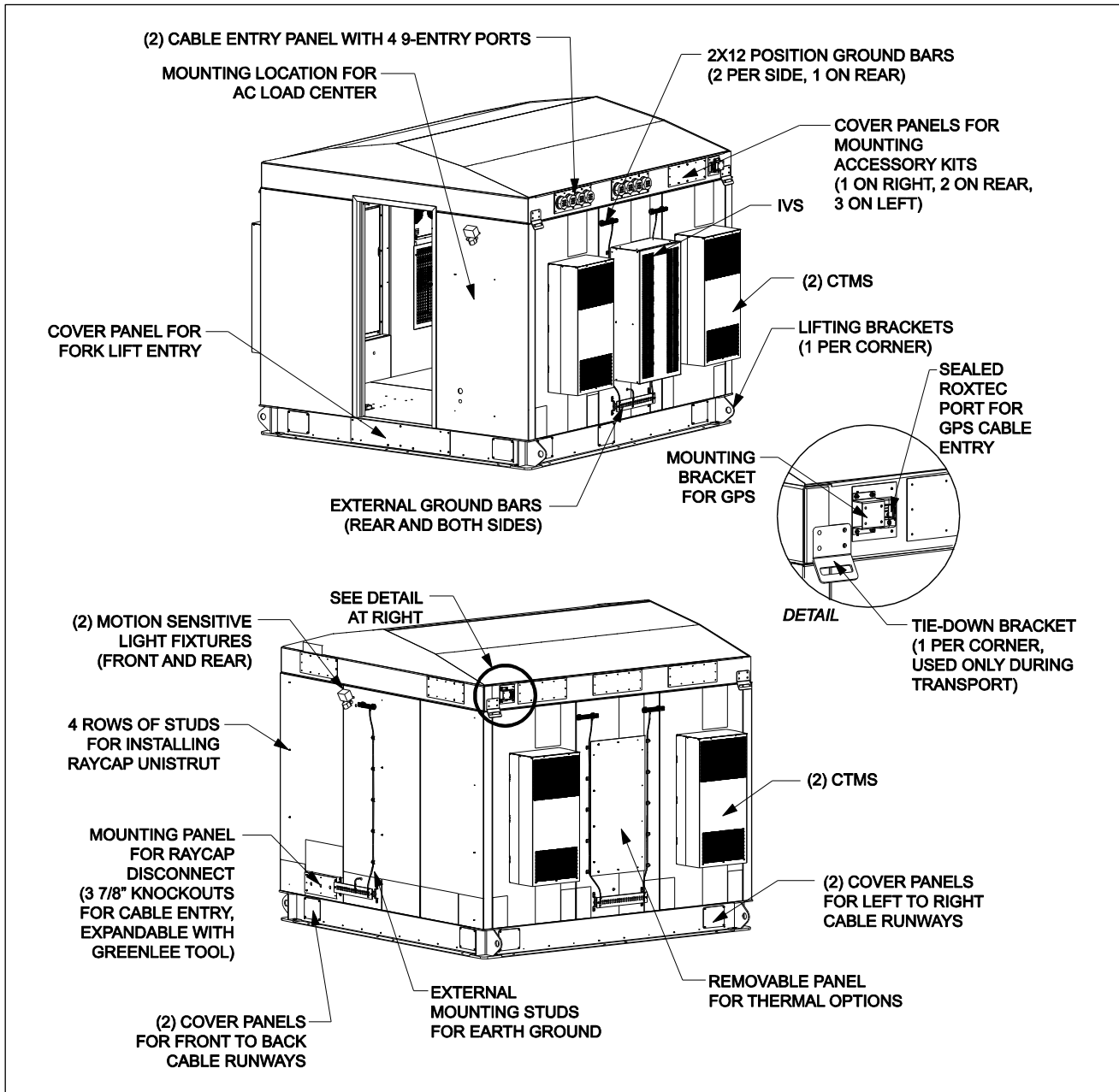
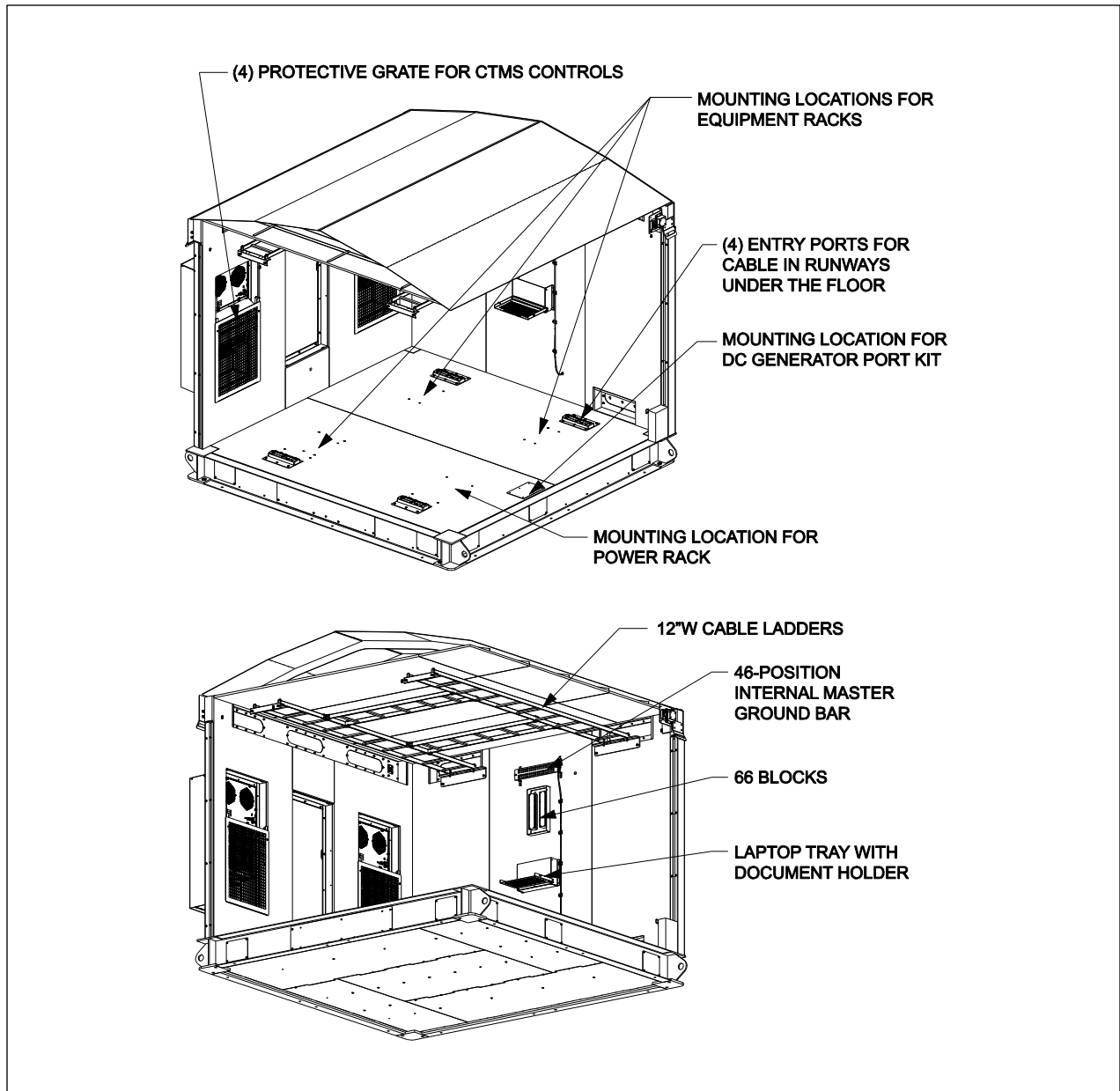
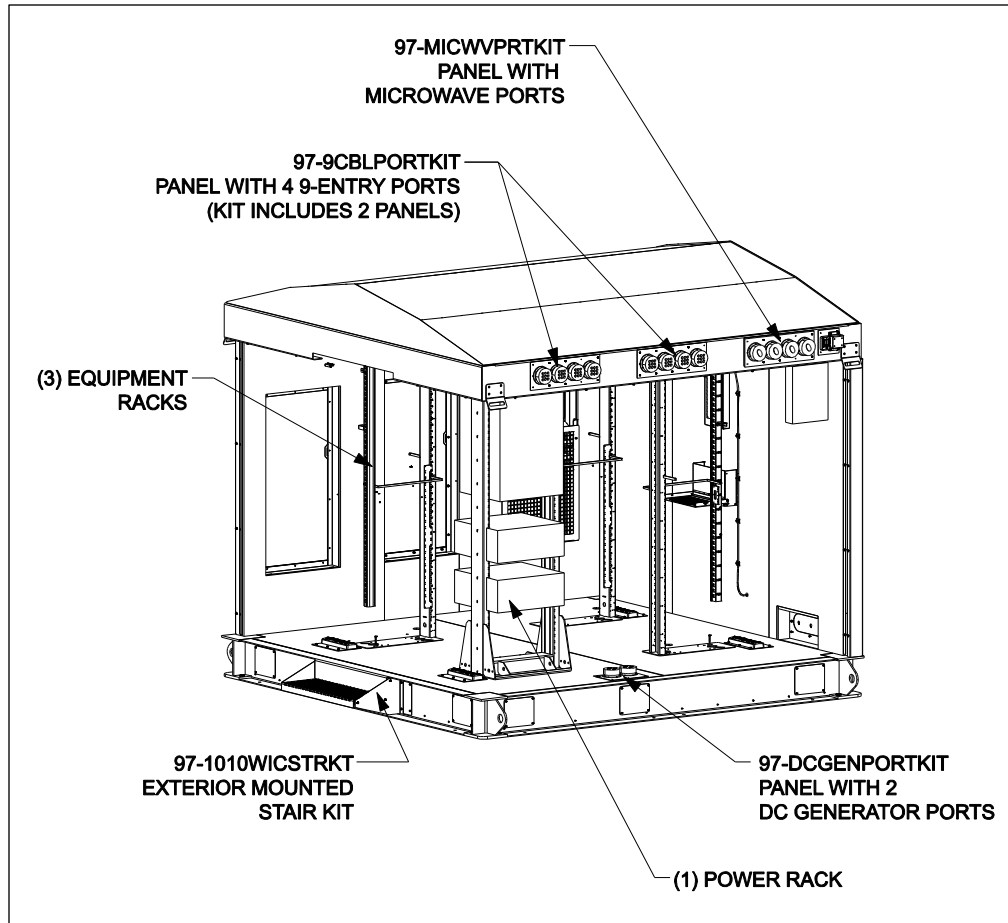


Figure 3 WIC External Components



**Figure 4 WIC Internal Components  
(Front and Right Side Walls Hidden)**



**Figure 5 WIC with Optional Kits and Equipment Racks Installed  
(Front and Right Side Walls Hidden)**

### 3. INSTALLATION

#### 3.1. Inspecting the Product

The WIC is shipped as a wide load on a flatbed trailer with shrink wrap. Unpack the unit, and dispose of the packaging material.

*-INSPECTION NOTE-*

*Visually inspect the unit for damages prior to installation. If the equipment was damaged in transit, immediately report the extent of the damage to the transportation company.*

#### 3.2. Following and Using Safety Precautions

Read the following site and safety tips, cautions, and warnings, then proceed with the paragraphs that follow.

- For installation, follow all National Electrical Codes (NEC) ANSI/NFPA 70, local, environmental, workplace, and company codes, safety procedures, and practices.
- Minimum spacing between the accessories and components and the housing for ITE equipment shall be maintained for safe operation of the equipment when installed in accordance with NEC ANSI/NFPA 70.
- Read all instructions, warnings and cautions on the equipment and in the documentation shipped with the product.
- Always connect ground connections first.
- Do not place this product on weak or unstable surfaces which may allow the product to fall, resulting in potentially serious damage(s) to persons or product.
- Only authorized trained personnel shall install the WIC.

#### 3.3. Obtaining Tools and Equipment

Obtain the following recommended or needed items for installing the WIC.

- Sufficient length and quantities of fiber cable (or pigtailed)
- Cable scoring, opening, and cutting tools for cable sheathing, shields, wrappings, strength members and buffer tubes
- Wire strippers
- Crimpers
- Cable, tube, wire, and fiber cleaning materials
- Protective and/or insulated work gloves
- Safety glasses
- Tape measure
- Marking utensil
- #6 ground wire or rod and earth ground materials
- Bond strap (optional, from cable bond clamp to bond post)
- Any exterior cable strain relief, per company practice
- Slotted, hex, and Phillips screwdrivers
- Assorted cable ties, clips, or fasteners (optional)
- Can wrench (216 type tool)
- Forklift or crane for lifting
- Level

#### 3.4. Preparing the Installation Site

Observe the following site preparation recommendations.

- Leave adequate horizontal and vertical space between multiple installations to allow for proper cable access, as well as enough room around the enclosure to open the door(s).
- The site must meet minimal personnel and equipment safety requirements.
- The distance from the cable entry point should be consistent with local installation practices.
- The pad must be able to support the weight of the WIC.
- Run all fiber and copper facilities to the site.

### 3.5. Lifting the WIC

See Table 1 for WIC weight. The WIC can be moved by either forklift or crane.

If using a forklift, remove the panel on the front, below the door (Figure 3) to access the forklift pockets. When the WIC is in place, replace this panel.

If using a crane, then Charles recommends the following procedure for lifting the WIC.

#### 3.5.1. Required Equipment

- One derrick (crane) capable of lifting the WIC
- Spreader bars
- Four lifting slings or chains with each having a minimum 10,000 lbs. capacity
- Connecting links to attach slings to the WIC's lifting brackets
- 75-ft. long tagline rope

Insert the lifting sling connecting links securely through each of the lifting brackets as shown in Figure 6.

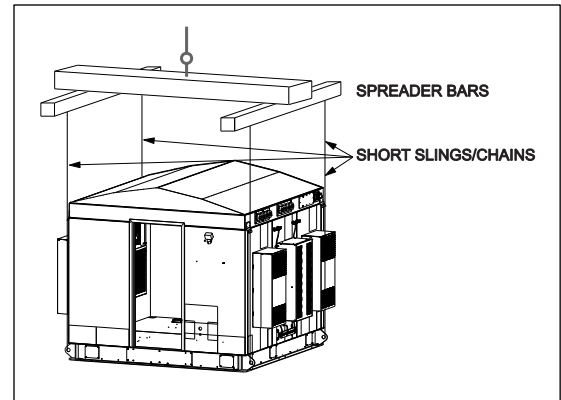


Figure 6 Lifting the WIC

#### 3.5.2. Warnings and Specific Safety Precautions

	<b>WARNING</b>	<b>Improper hoisting equipment and unsafe lifting procedures can result in serious injury or death</b>
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Observe the following local safety procedures when performing the tasks in this section.

- Keep the WIC away from any power lines.
- Keep bystanders away from the work operations at all times.
- Only trained operators shall operate the crane for lifting and setting the WIC.
- Do not suspend loads over people or equipment.
- All persons working with hoisting equipment shall wear standard safety gear according to local practices including safety helmets and steel-toed shoes.
- Do not operate the hoisting equipment until all stabilizer are extended and in firm contact with the ground or adequate support structure.
- Do not attempt to retract or extend the stabilizers while a load is suspended.

### 3.6. Mounting the WIC

The WIC can be mounted on a new or existing concrete or composite pad. Ensure that the unit is level.

Two EMI mounting kits are also available (1000-0000-0101 helical mounting assembly or 1000-0000-0162 gravity mounting kit). See the documentation that ships with the kit for mounting instructions.

#### 3.6.1. Constructing a New Pad

- Use only concrete for new pad construction. Do not use substitute materials since they lack the rigidity for WIC placement.
- Observe local building practices for pad construction. Charles recommends that the pad should extend a minimum of 8" beyond the WIC base on all sides.
- Use a minimum of 6" of sand or gravel as a base for the pad for leveling purposes.
- Figure 7 shows the required conduit openings and mounting hole dimensions for entering/mounting the bottom of the WIC. Use these dimensions when designing the pad.

	<b>WARNING</b>	<p><b>When pad mounting, the compression strength of the pad must be at least 4000 psi as determined by ASTM C39 test of compression strength of concrete cylinders.</b></p> <p><b>The slump of the concrete shall be 2" to 4" as determined by ASTM C143 test method.</b></p>
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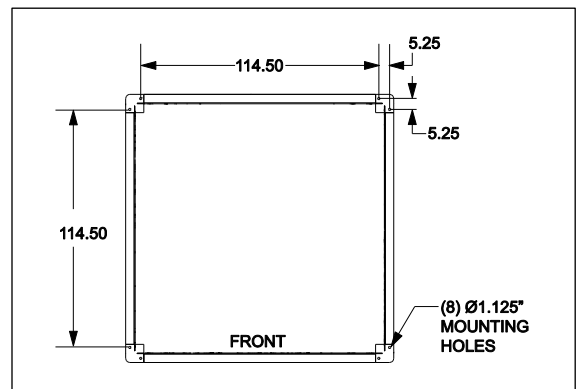


Figure 7 Mounting Hole Dimensions (in inches) Viewed from Above

**3.6.2. Mounting the WIC on a Pad**

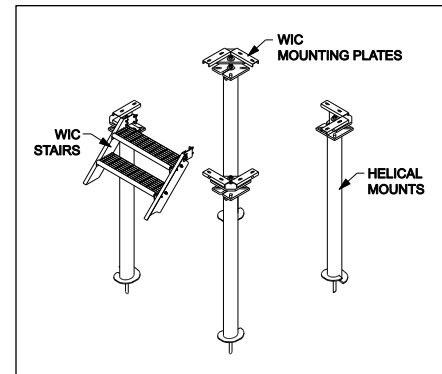
Eight customer supplied, corrosion resistant, 3/4” Grade 8 hex head bolts with anchors are required for mounting the WIC to the concrete pad. The WIC comes with a pair of washers for each mounting hole. Use both washers when securing the bolts. Use the following steps to mount the WIC to a pad.

1. Layout, drill, and set the 3/4” anchors per manufacturer’s recommendations. The embedment depth is not to exceed 3.5”.
2. Clean any debris from the concrete pad.
3. Ensure that the WIC is parallel to the pad surface as it is placed onto the pad and that it aligns with the holes in the pad.
4. Place the WIC on the pad. Loosen the slings so that all the weight is on the pad. Check that the WIC is level and properly aligned.
5. Secure the WIC to the pad using the 3/4" hex head bolts and washers (two washers per bolt). Tighten all bolts securely.
6. Once the WIC is secured, remove the slings and tagline and close the door.

**3.6.3. Mounting with the EMI Helical Mounting Kit**

This kit is ordered separately from EMI (part number 1000-0000-0101).

1. Assemble the universal driving tool on the correct Kelly bar adapter.
2. Connect the Kelly bar adapter to the Kelly bar on the drive head.
3. Move the drive tool assembly to the first helical and attach the universal driving tool to the helical plate, ensuring that the Kelly bar is as centered in the helical as possible. The leveling hardware can be used for this temporary attachment.
4. Lift the helical upright, allowing it to swing free of the ground.
5. Maneuver the helical directly over the installation point.
6. Lower the helical until the point of the helical is forced into the ground on target.
7. Screw the helical 12 inches into the ground and plumb using a level on two sides at 90 degrees from each other.
8. Continue screwing the helical into the ground while correcting the Kelly bar’s orientation so the helical embeds itself straight. A ground man can be of assistance in keeping the foundation plumb during the installation.
9. Drive the helical until the helical plate is 11 inches above grade, oriented as shown in Figure 8. Stop the driving tool assembly. Disconnect the universal driving tool from the helical plate.
10. Repeat steps 3 through 9 for all helicals paying attention to helical plate orientations.
11. Install leveling hardware in the center on each helical. Each helical has one set of leveling hardware and each set of leveling hardware consists of one threaded rod, four nuts, eight washers, and four lock washers.
12. Install the four corner plates on the leveling hardware, one in each corner.
13. Level and secure all the leveling hardware on the corner plates and helicals. The leveling hardware should not be installed outside the 3 inch radius of the helical pipe. The corner plates have elongated holes for 2 inches of play.
14. Lift and set WIC on the Helical Foundation Kit. Be sure to bolt the WIC base to the corner plates prior to releasing all of the weight of the WIC onto the corner plates.
15. Once all hardware is installed connecting the WIC base to all corner plates, tighten and secure all the hardware.



**Figure 8 EMI Helical Mounting Kit**



### 3.6.4. Mounting with the EMI Gravity Mounting Kit

This kit is ordered separately from EMI (part number 1000-0000-0162).

Grade Considerations:

1. Ground/gravel should be normally dry and have good drainage.
2. Ground/gravel should be level or very close.

Procedure:

1. Lift and set the WIC On The Ground (Gravity) Foundation Kit in the desired location. The WIC On The Ground (Gravity) Foundation Kit ships assembled, stairs separate of course, so lift and set it on grade in the desired location. If using a forklift and the forks are not long enough to get under all three bars of the frame, make sure the frame does not tilt over during lifting. This can be accomplished with weight on the two bars the forks did get under, or by removing the footers from the bar the forks did not get under. This is aimed at safety, as the frame can withstand tilting. The weight of the frame is 300 lbs. The weight of the footers are 31 lbs each.
2. Level the frame by adjusting the leveling hardware between the frame and the nine footers. Be sure to maintain 18 inches from grade to the top of the frame, which is the bottom of the WIC. Start by leveling the four corners first then adjust the remaining footers.
3. Lift and set the WIC on the WIC On The Ground (Gravity) Foundation Kit in desired location. Be sure to bolt the WIC base to the frame prior to releasing all of the weight of the WIC on the frame.
4. Once all hardware is installed connecting the WIC base to the frame, tighten and secure the hardware.

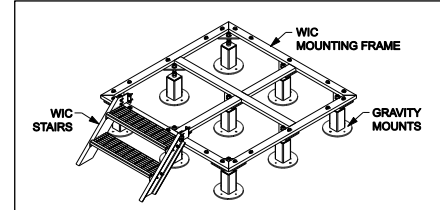


Figure 9 EMI Gravity Mounting Kit

### 3.6.5. Mounting with the EMI Extension Mounting Kit

This kit is ordered separately from EMI (part number D1007-0000-0012).

This kit includes four concrete pad extensions for the four corners of the WIC.

1. Set the four concrete pad extensions on the four corners of the concrete pad in the desired locations (Figure 10).
2. Lift and set the WIC on the extensions. Ensure that the WIC is level, and bolt the WIC base to the extensions prior to releasing all of the weight of the WIC on the extensions.
3. Once all hardware is installed connecting the WIC base to the extensions, tighten and secure the hardware.



Figure 10 EMI Extension Mounting Kit

### 3.7. WIC Wiring and Equipment

After the WIC 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>
---	----------------	--

A basic electrical diagram is shown in Figure 11. This diagram shows the WIC with the power system, load center, and accessory kits installed.

#### 3.7.1. Torque Requirements

Torque all hardware as shown below (unless otherwise noted). These values apply to SAE Grade 1 & 2 Low Carbon Steel, ASTM A307 Low Carbon Steel, and Stainless Steel Grade 18-8.

Thread Size	In-lbs	Ft-lbs
4-40	4±10%	
6-32	8±10%	
8-32	16±10%	
10-32	26±10%	
12-24	50±10%	
1/4-20/M6	60±5%	5±5%
5/16-18	125±5%	10.4±5%
3/8-16	180±5%	15.0±5%
1/2-13	500±2%	41.7±2%
5/8-11	1000±1%	83.3±1%

Use these values for the Grade 8 mounting hardware:

Thread Size	Ft-lbs	
	Coarse	Fine
1/4	9	10
5/16	18	20
3/8	33	37
7/16	52	58
1/2	80	90
9/16	115	129
5/8	159	180
3/4	282	315
7/8	454	501
1	682	764

#### 3.7.2. Ground Connection

The WIC has external ground bars on the sides and rear for grounding equipment. All cables entering the WIC must be grounded to the 2x12 position ground bars in the upper locations. The 24-position ground bars in the lower positions connect to the earth ground. Use the pair of mounting studs on the external rear for connecting an earth ground. This requires a 3/8" lug with 0.75" spacing.

The equipment racks, as well as all equipment installed in the racks must be connected to the internal 46-position master ground bar, located on the rear wall.

Use the pair of mounting studs on the external rear for connecting an earth ground. This requires a 3/8" lug with 0.75" spacing.

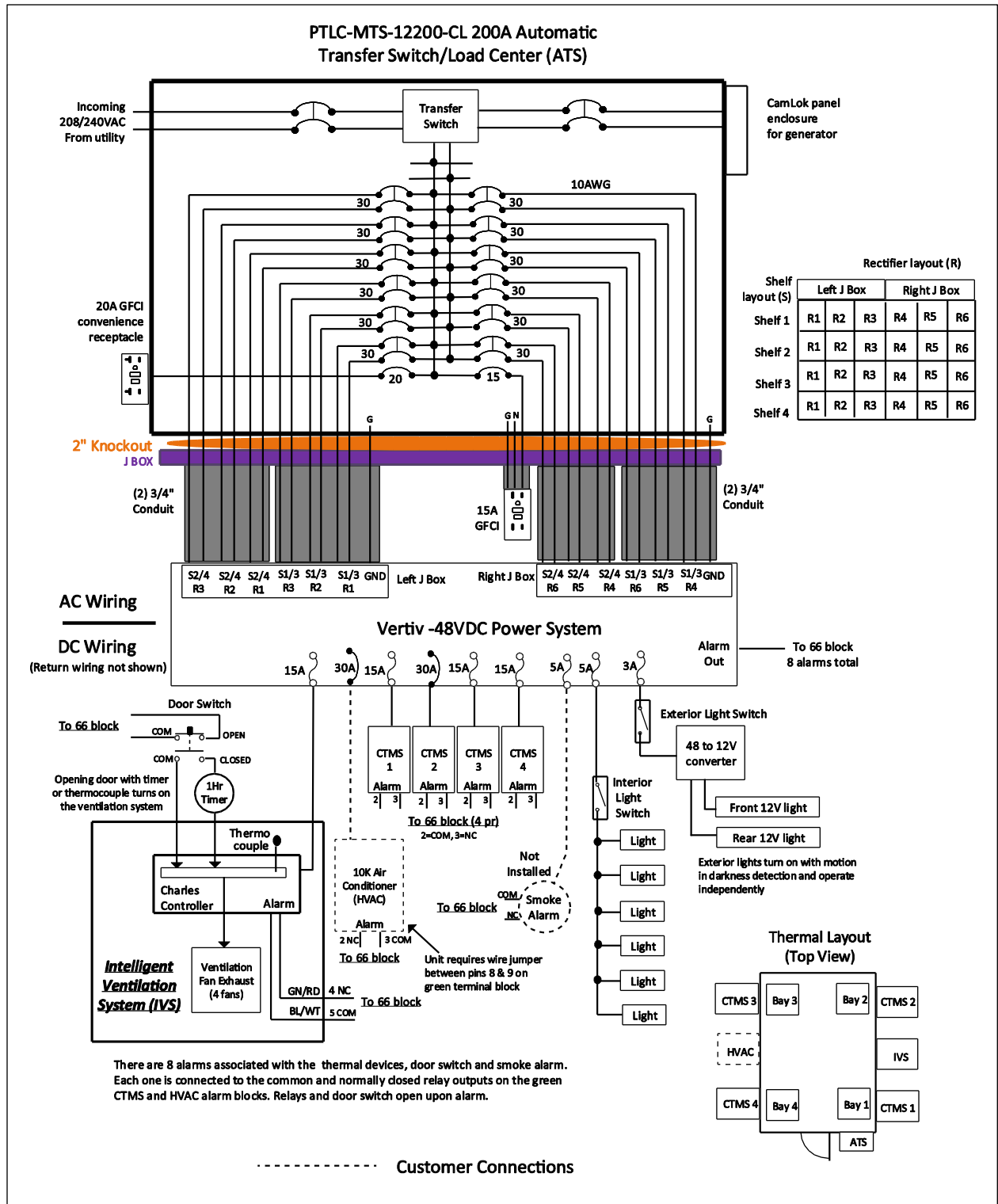


Figure 11 Electrical Diagram

**3.7.3. AC Voltage Connection**

The WIC has a mounting location and a pair of conduit knockouts on the front for mounting a customer supplied AC load center.

**3.7.4. CTMS Operation**

The four 6000W DC powered CTMS mounted on the sides of the WIC each have a fan speed controller and include two internal and two external fans. The fans’ speed increases with increasing ambient temperature. Default fan settings are defined below and can be modified if necessary.

The CTMS has a protective grate on the inside. This grate is secured in place by two bolts. To access the CTMS control panel, remove this grate. For more information, refer to the heat exchanger documentation found inside the WIC.

Temperature range for cooling operations:

Parameter	Threshold	CTMS
Inside Temperature	< 77°F	Fans on
Inside Temperature	> 77°F	Fan Speed 25%
Inside Temperature	> 90°F	Fan Speed 100%

Temperature range for heating operations:

Parameter	Threshold	CTMS
Inside Temperature	< 50°F	Heating On
Inside Temperature	≥ 55°F	Heating Off

-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 CTMS’s return and supply vents. Maintain a minimum of 2” clearance to enable proper air flow.*

The CTMS is shipped with the operational parameters set at the factory.

**3.7.5. IVS Operation**

The DC powered IVS has an on-board controller, four ventilation fans, and six dampers leading into the WIC interior space.

The IVS is turned on in two ways. First, there is a manual timer that can be set for a maximum of one hour. A technician entering the WIC can set this timer so that fresh air will be drawn into the WIC while work is being performed. Second, the IVS can be activated by an internal temperature probe connected to the controller that turns the fans on when the interior temperature reaches 60°C. The IVS will then draw outside air into the WIC to cool the cabinet.

**3.7.6. HVAC Operation**

**This section only applies if the 97-WIC10KHVACKT HVAC kit has been installed on the WIC.**

The HVAC system is turned on manually whenever the WIC is occupied. The 10000BTU DC powered HVAC compressor and fans are speed controlled. The compressor turns on at 30°C, reaches its high speed at 42°C, and turns off at 27°C. The internal fan is always on to continually circulate heat within the cabinet. The heating cycle turns on at 10°C and off at 15°C. See the label on the air conditioner for firmware information. For further information, refer to the HVAC documentation that ships with the kit.

-NOTE-

*Changing the cooling or heating cycles’ default factory set points can lead to system performance issues, such as equipment failures, increased power use, unnecessary alarms, noise, condensation build up, compressor or fan failure caused by excessive runtimes and vibration. Avoid placing items in front of the HVAC’s return and supply vents. Maintain a minimum of 2” clearance to enable proper air flow.*

**3.7.7. Fiber and Copper Entry**

The WIC has two cable entry holes on the front (Ø1.5” and Ø1.0”) intended for conduit entry for the customer supplied AC load center.

The two sides and the rear each have a Ø1.06” entry hole for the ground cables.

The AC disconnect panel has three Ø7/8” knockouts intended to cable entry for the customer supplied Raycap AC disconnect. These holes can be enlarged using a Greenlee tool to a maximum of Ø2.0”.

The upper rear corners, on the sides of the WIC, each have a sealed cable entry port for GPS cable entry.

The interior floor of the WIC has four entry ports for running cable inside from the runway space beneath the floor.

The right side of the WIC, near the top, has two panels, each with four portals. Each portal has nine Ø0.605" entry ports that accommodate Ø0.5" cable.

See Figures 2, 3, and 4 for all entry locations.

### 3.8. Conduit Seals

All conduit openings on the WIC must be completely sealed with a duct seal compound to prevent moisture from entering the WIC. Use a moldable, flame-retardant putty style duct seal material. Do not use an expanding foam seal. Mold the putty so that the open space around the wire or conduit is completely sealed, as shown in Figure 12. If the openings must be accessed at any time, remove the putty and set it aside. When work is complete, re-mold the putty to re-seal the opening.

### 3.9. Verifying the Installation

Verify that earth ground and all grounding and bonding is complete and functional. After verifying that all installer connections are secure and complete, apply voltage.

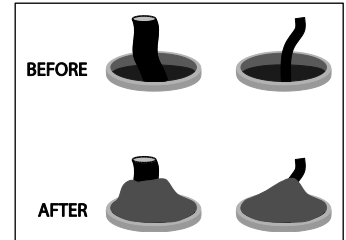


Figure 12 Applying Putty Seal

## 4. PERIODIC MAINTENANCE

In the event that the enclosure must be opened in freezing conditions, use a narrow, pointed metallic object such as a screwdriver or chisel, along with a non-metallic device like a rubber mallet, to remove excessive ice buildup around the door and locking mechanism. A commercial aerosol de-icer spray can be used to free up locks and latches if needed. Use protective gloves and safety glasses when applying de-icer sprays.

Reset the GFCI duplex receptacle periodically to ensure it is working. The unit meets UL-943, which requires an auto-monitoring (self-testing) feature. A flashing or solid red LED indicates a fault. If the unit continues to show a fault after resetting, replace the unit.

Refer to the CTMS manual supplied with the CTMS for periodic maintenance requirements.

## 5. TECHNICAL ASSISTANCE AND REPAIR SERVICE

For questions on product repair or if technical assistance is required, contact Charles Technical Support.

847-806-8500

[techserv@charlesindustries.com](mailto:techserv@charlesindustries.com) (email)

<http://www.charlesindustries.com/techserv.htm>

## 6. WARRANTY & CUSTOMER SERVICE

Charles Industries LLC offers a one-year warranty on the WIC product. The Charles warranty is limited to the operation of the WIC hardware as described in this documentation and does not cover equipment which may be integrated by a third party. The terms and conditions applicable to any specific sale of product shall be defined in the resulting sales contract. For questions on warranty or other customer service assistance, contact your Charles Customer Service Representative.

847-806-6300

[mktserv@charlesindustries.com](mailto:mktserv@charlesindustries.com) (email)

[http://www.charlesindustries.com/main/telecom\\_sales\\_support.htm](http://www.charlesindustries.com/main/telecom_sales_support.htm)

## 7. SPECIFICATIONS

### 7.1. Regulatory Specifications

- Designed to meet GR-487
- UL-60950 Recognized
- GFCI: UL-943 Listed

If WICs are field-modified, a customer provided ETL field evaluation of the modified components may be required to re-establish ETL certification to UL standards. Consult local jurisdictions for guidance on a site-by-site basis.

### 7.2. Product Specifications

Physical		
Dimensions and Weight	10"Hx10"Wx10"D, Approx. 7850 lbs. without equipment racks Approx. 13,850 lbs. with equipment racks	
Materials	Steel	
Color	Exterior: Cool white; interior floor: light gray	
Electrical		
Ventilation System	Charles IVS, 83-008367-0, -48VDC	
Bonding and Grounding	12 and 24 position ground bars on the sides and rear (external) 46 position master ground bar on rear wall (internal) 1 pair of ground studs on the rear for earth ground	
Cable Entry	See Figure 2 and section 3.7.7	
Thermal		
6000W CTMS	Charles Industries 99-004920-0	
Cooling Capacity at Full Speed	320 W/K	
Heat Removal	$\Delta T$ (max. internal – ambient)	Capacity
	19°C	6000W
	10°C	3200W
	5°C	1600W
Heating Capacity	500W below 15°C / 1000W below 10°C	
CTMS Operating Temperature for Cooling	77°F to 95°F	
CTMS Operating Temperature for Heating	50°F to 41°F	
Average Shelter Temperature	90°F to 95°F	
HVAC (only if using the 97-WIC10KHVACKT kit)	Dantherm 708349, -48VDC	
Cooling Capacity	10000BTU	
Environmental		
Operating Temp. Range, Outside Enclosure	-40° to +115°F, -40° to 46°C	
Operating Temp Range, Inside Enclosure	-40° to +131°F, -40° to 55°C	
Humidity	0 to 95% (non-condensing)	
Altitude	Up to 2,000 meters (6560 feet)	
Kits and Replacement Parts		
Touch-up Paint	Exterior: 02-000634-0; interior floor: 02-000736-0	
4-Wire Door Alarm Switch (Black)	17-400319-0	
External Stair Kit	97-1010WICSTRKIT; CEQ.46634	
Microwave Port Kit	97-MICWVPRTKIT; CEQ.46671	
DC Generator Port Kit	97-DCGENPORTKIT; CEQ.46636	
Cable Entry Port Kit	97-9CBLPORKIT; CEQ.46663	
HVAC Kit	97-WIC10KHVACKT	
Exterior Light	99-005035-0	
Helical Mounting Kit	EMI part number: 1000-0000-0101 AT&T part number: CEQ.19785	
Gravity Mounting Kit	EMI part number: 1000-0000-0162 AT&T part number: CEQ.46388	
Extension Mounting Kit	EMI part number: D1007-0000-0012 AT&T part number: CEQ.20061	

**Table 1 WIC Specifications**

### 7.3. Part Numbers

Charles Part Number	Description	NESC ID
WIC-101010SXAN1	NSB 10x10 Walk-in-Cabinet (WIC) Fully Configured Ericsson RAN	ERNSB10x10WIC-01
	NSB 10x10 Walk-in-Cabinet (WIC) Fully Configured Nokia RAN	NONSB10x10WIC-01

## 7.4. Alarm Connections

Alarm Block 1:

	Alarm 66 Block Block#-Pair#	Pin #	BBU Wire Color (per local market)	Normal Contact State (NC or NO)	AT&T Alarm Label/Verbiage	Comments or Factory/OEM Alarm
BBU 1-4	1-1	1	WHITE/BLUE	NC	RBS INTRUSION	Entry door switch contacts
		2	BLUE/WHITE			
	1-2	3	WHITE/ORANGE	NC	RBS COMMERCIAL POWER FAIL	from PTLC power fail relay
		4	ORANGE/WHITE			
	1-3	5	WHITE/GREEN	NC	RBS PWR AC SPD	from PTLC surge protector
		6	GREEN/WHITE			
	1-4	7	WHITE/BROWN	NC	RBS SMOKE	Smoke Detector
		8	BROWN/WHITE			
BBU 5-8	1-5	9	WHITE/SLATE	NC	RBS TEMP HIGH	High temp
		10	SLATE/WHITE			
	1-6	11	RED/BLUE	NC	RBS TEMP LOW	Low temp
		12	BLUE/RED			
	1-7	13	RED/ORANGE	NC	RBS HUMIDITY HIGH	Humidity Sensor
		14	ORANGE/RED			
	1-8	15	RED/GREEN	NC	RBS HVAC 1 FAIL	HVAC Fail
		16	GREEN/RED			
BBU 9-12	1-9	17	RED/BROWN	NC	RBS GEN TRANSFER SW FAIL	350A (-48VDC) CB AUX contacts
		18	BROWN/RED			
	1-10	19	RED/SLATE	NC	RBS FIF PDU FUSE FAIL	FIF Fuse Fail
		20	SLATE/RED			
	1-11	21	BLACK/BLUE		(SPARE)	
		22	BLUE/BLACK			
	1-12	23	BLACK/ORANGE		(SPARE)	
		24	ORANGE/BLACK			
BBU 13-16	1-13	25	BLACK/GREEN	NC	RBS LTE RRU AT DC SYS SPD	Raycap #1 alarm
		26	GREEN/BLACK			
	1-14	27	BLACK/BROWN	NC	RBS LTE RRU AT DC SYS SPD	Raycap #2 alarm
		28	BROWN/BLACK			
	1-15	29	BLACK/SLATE	NC	RBS LTE RRU AT DC SYS SPD	Raycap #3 alarm
		30	SLATE/BLACK			
	1-16	31	YELLOW/BLUE	NC	RBS 5G RRU AT DC SYS SPD	Future (5G) Raycap #1 Alarm
		32	BLUE/YELLOW			
1-17	33	YELLOW/ORANGE	NC	RBS 5G RRU AT DC SYS SPD	Future (5G) Raycap #2 Alarm	
	34	ORANGE/YELLOW				
1-18	35	YELLOW/GREEN	NC	RBS 5G RRU AT DC SYS SPD	Future (5G) Raycap #3 Alarm	
	36	GREEN/YELLOW				
1-19	37					
	38					
1-20	39					
	40					
1-21	41					
	42					
1-22	43					
	44					
1-23	45					
	46					
1-24	47					
	48					
1-25	49					
	50					

**NOTE: The Alarm Block configurations shown are standard on all new metal and concrete WICs (Walk-In-Cabinet). Additional alarms should be added as applicable**

Alarm Block 2:

	Alarm 66 Block Block#-Pair#	Pin #	BBU Wire Color (per local market)	Normal Contact State (NC or NO)	AT&T Alarm Label/Verbiage	Comments or Factory/OEM Alarm
BBU 17-20	2-1	1	WHITE/BLUE	NC	RBS DC CR	DC PLANT PCR
		2	BLUE/WHITE			
	2-2	3	WHITE/ORANGE	NC	RBS DC MJ	DC PLANT PMJ
		4	ORANGE/WHITE			
	2-3	5	WHITE/GREEN	NC	RBS DC HIGH VOLT	DC PLANT HV1
		6	GREEN/WHITE			
	2-4	7	WHITE/BROWN	NC	RBS DC LOW VOLT	DC PLANT LV1
		8	BROWN/WHITE			
BBU 21-24	2-5	9	WHITE/SLATE	NC	RBS FUSE FAIL	DC PLANT FA
		10	SLATE/WHITE			
	2-6	11	RED/BLUE	NC	RBS DC RECT MJ	DC PLANT RFA
		12	BLUE/RED			
	2-7	13	RED/ORANGE	NC	RBS DC RECT CR	DC PLANT RFA(MULT)
		14	ORANGE/RED			
	2-8	15	RED/GREEN	NC	RBS BATT TEMP HIGH	DC PLANT HITEMP1
		16	GREEN/RED			
BBU 25-28	2-9	17	RED/BROWN		(SPARE)	
		18	BROWN/RED			
	2-10	19	RED/SLATE		(SPARE)	
		20	SLATE/RED			
	2-11	21	BLACK/BLUE		(SPARE)	
		22	BLUE/BLACK			
	2-12	23	BLACK/ORANGE	NO	RBS GENERATOR RUNNING	Gen run
		24	ORANGE/BLACK			
BBU 29-32	2-13	25	BLACK/GREEN	NO	RBS GENERATOR FUEL LOW	Gen low fuel
		26	GREEN/BLACK			
	2-14	27	BLACK/BROWN	NO	RBS GENERATOR SHUT DOWN	Gen shutdown
		28	BROWN/BLACK			
	2-15	29	BLACK/SLATE	NO	RBS GENERATOR MJ	Gen major
		30	SLATE/BLACK			
	2-16	31	YELLOW/BLUE	NO	RBS GENERATOR FUEL LEAK	Fuel basin rupture
		32	BLUE/YELLOW			
2-17	33	WHITE/BLUE	NC	RBS DC CR	DC PLANT PCR	
	34	BLUE/WHITE				
2-18	35	WHITE/ORANGE	NC	RBS DC MJ	DC PLANT PMJ	
	36	ORANGE/WHITE				
2-19	37					
	38					
2-20	39					
	40					
2-21	41					
	42					
2-22	43					
	44					
2-23	45					
	46					
2-24	47					
	48					
2-25	49					
	50					

Gray highlighted cells: fixed gen sites only