

PowerVar 3300 Series UPS

Input Specifications:

208 VAC (3 phase 4 conductor with ground)

150 Amp Load

Input Voltage Range (+30%, -17%)

Power Factor (0.99 100% load, 0.98 min. 50% load)

Input THDi (1% - 100% load, 2% - 50% load)

Frequency Range (46 – 64Hz)

Output Specifications

208 VAC / 120 VAC (3 phase 4 conductor with ground)

Overload Capacity (w / Utility) >130% for 1 second

111- 130% for 60 Seconds

101-110% for 60 min

Efficiency (94%)

Output Voltage THD (2%)

Output Frequency (50 / 60 HZ)

RUN Time @ full Load = 8 minutes (with 65AH ext, cab)

Agency Approvals

UL 1778 (5th Ed.), cUL, CSA 22.2

IEC 62040-1 UPS Standards

ISO 9001 Quality Assurance Program

EMI Compatibility: FCC Title 47, Part 15, Subpart B

Communications

RS485/232 Comm Ports

SNMP Compatible

Modbus Compatible

Accessories

Remote Monitoring Software

Seismic Mounting

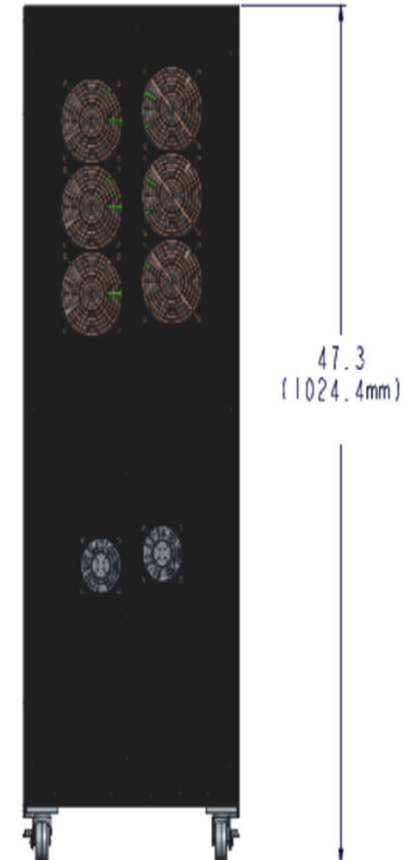
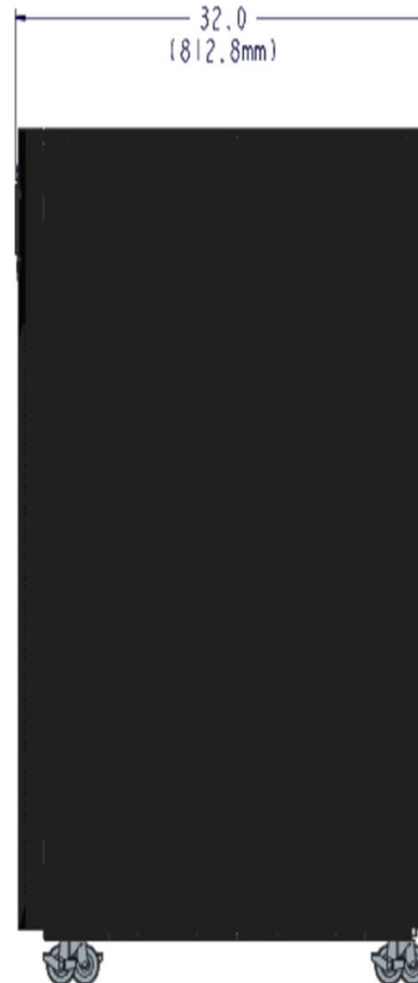
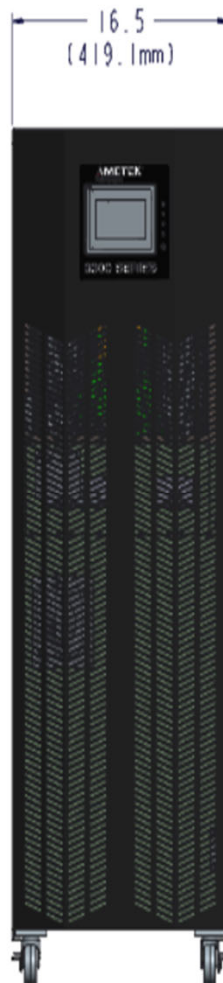
Audible Noise

Less than 70dba @ 1 meter

Dimension (W x D x H)

17"x 31"x 47"

BTU = 10.27 k BTH/hr



PCDU – Power Conditioning Distribution Unit

BTU = 2561 BTU/hr

Dimension: W x H X D 28.1" x 39.5" x 37.4"
713 x 1003 x 950 mm

Weight: 762 lbs (346 KG)

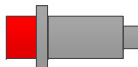
1 – **3 phase 20 amp Receptacle HBL2720**
(NEMA L15-30R) Plug= HBL2721

3 – **Duplex 20 amp receptacle** 120 vac
(NEMA 5-20R)

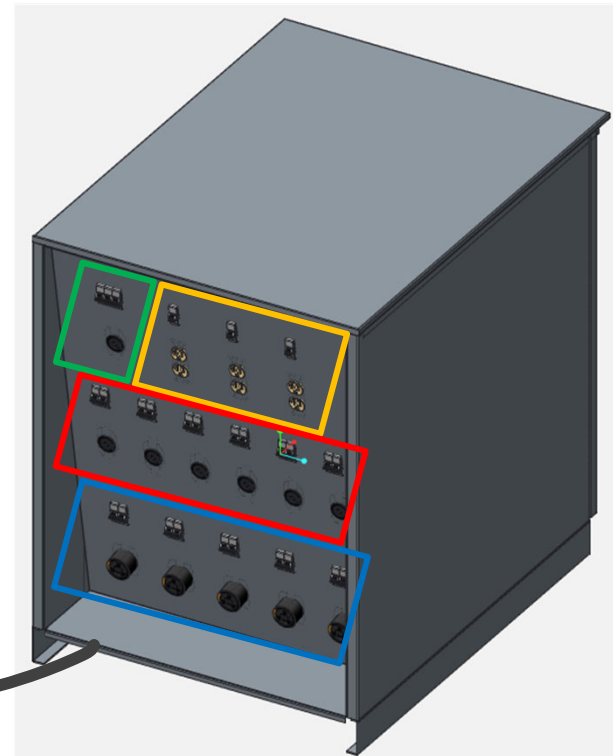
6 – **30 amp Receptacle HBL2620**
(NEMA L6-30R) Plug= HBL2621

5 – **50 Amp Receptacle HBL3771**
(non-NEMA) Plug= HBL3763C

The Input Cable length will be 8 ft. and it will be terminated with a HBL4100P9W



Rear View no cable cover

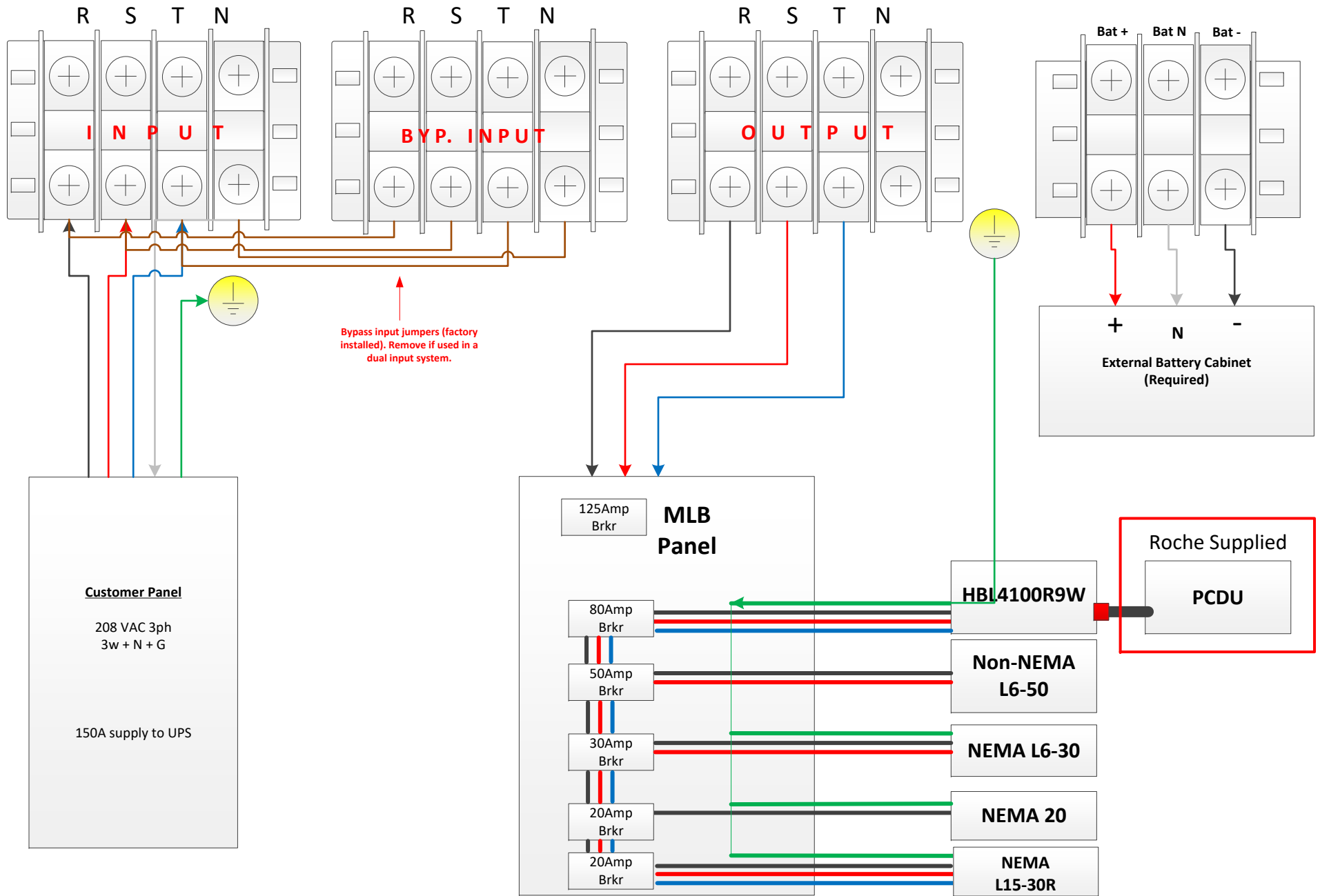


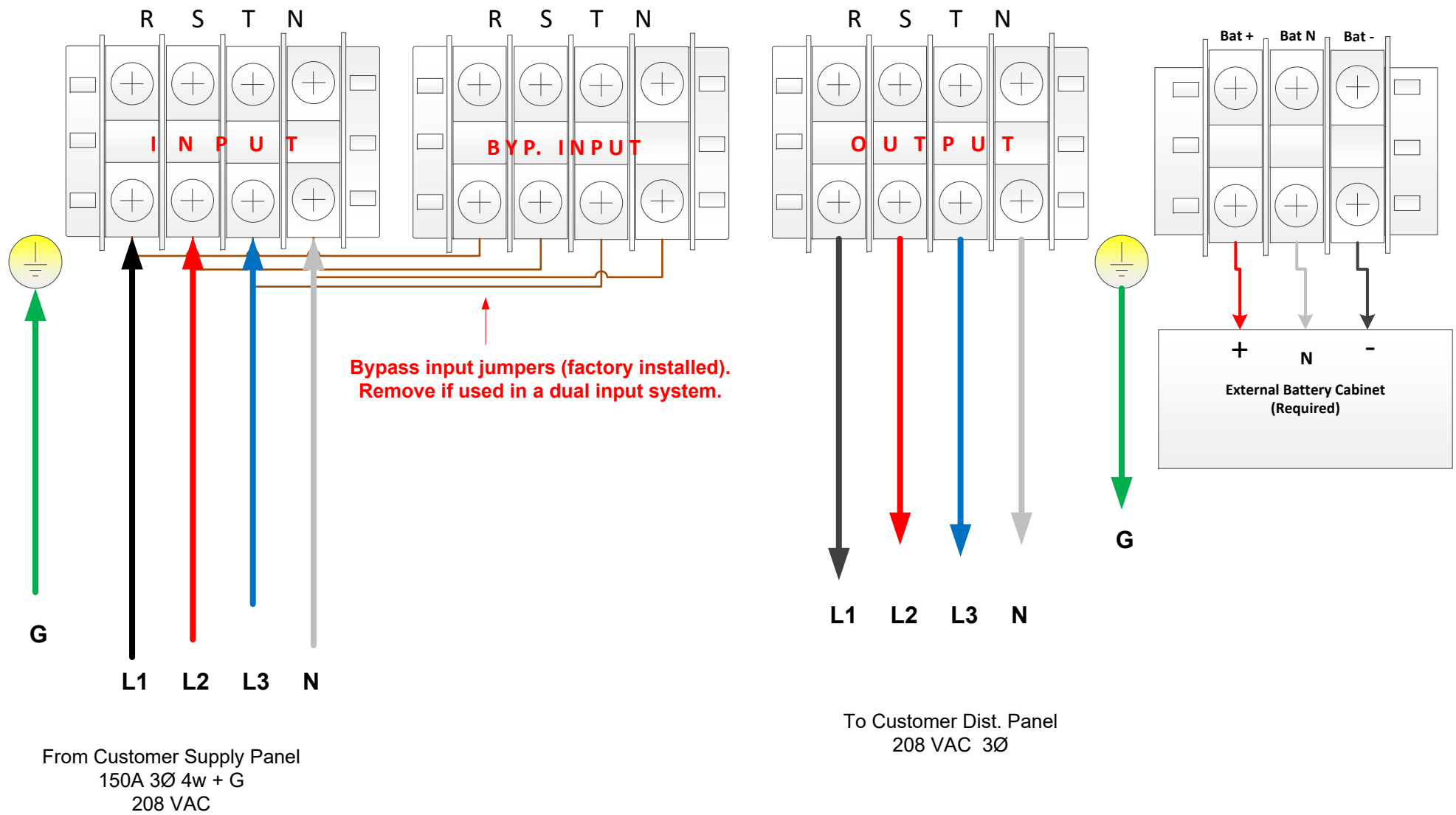
The PCDU can also be installed on a customers existing UPS System.
Providing they have the capacity to support the PCDU.

The Hubbell HBL4100R9W receptacle must be provided by the customer for connection of the PCDU.

NOTE: This unit is a 3 conductor with ground. No Neutral is required for the PCDU circuit.

UPS Terminals-- 30/40kVA





3300 Series UPS Input/Output wiring

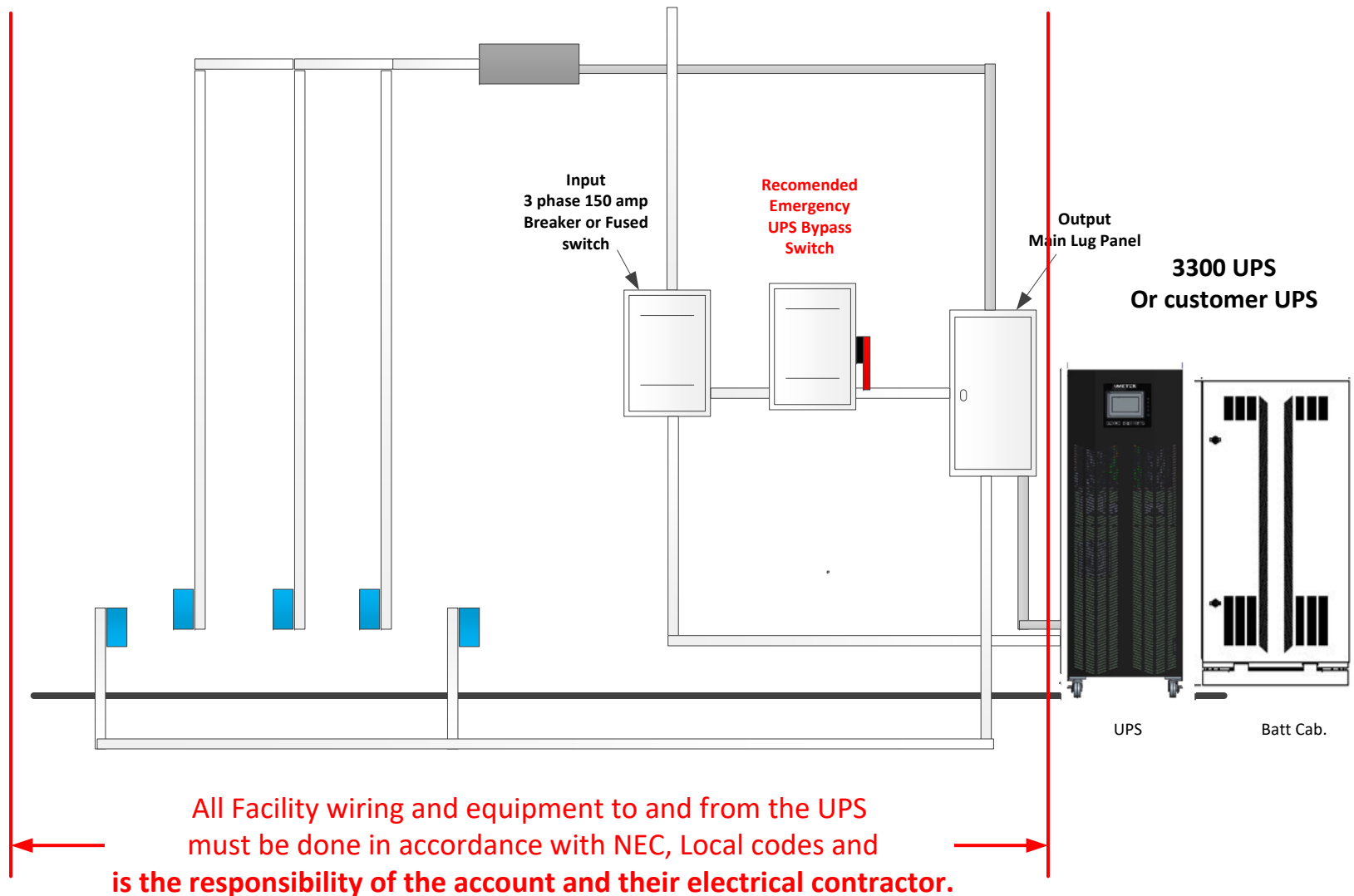
A PCDU is not required. At any time, the customer may elect to run an/or individual circuit(s) from the output main lug panel to a Roche device. Thus eliminating the PCDU altogether.

Concept drawing

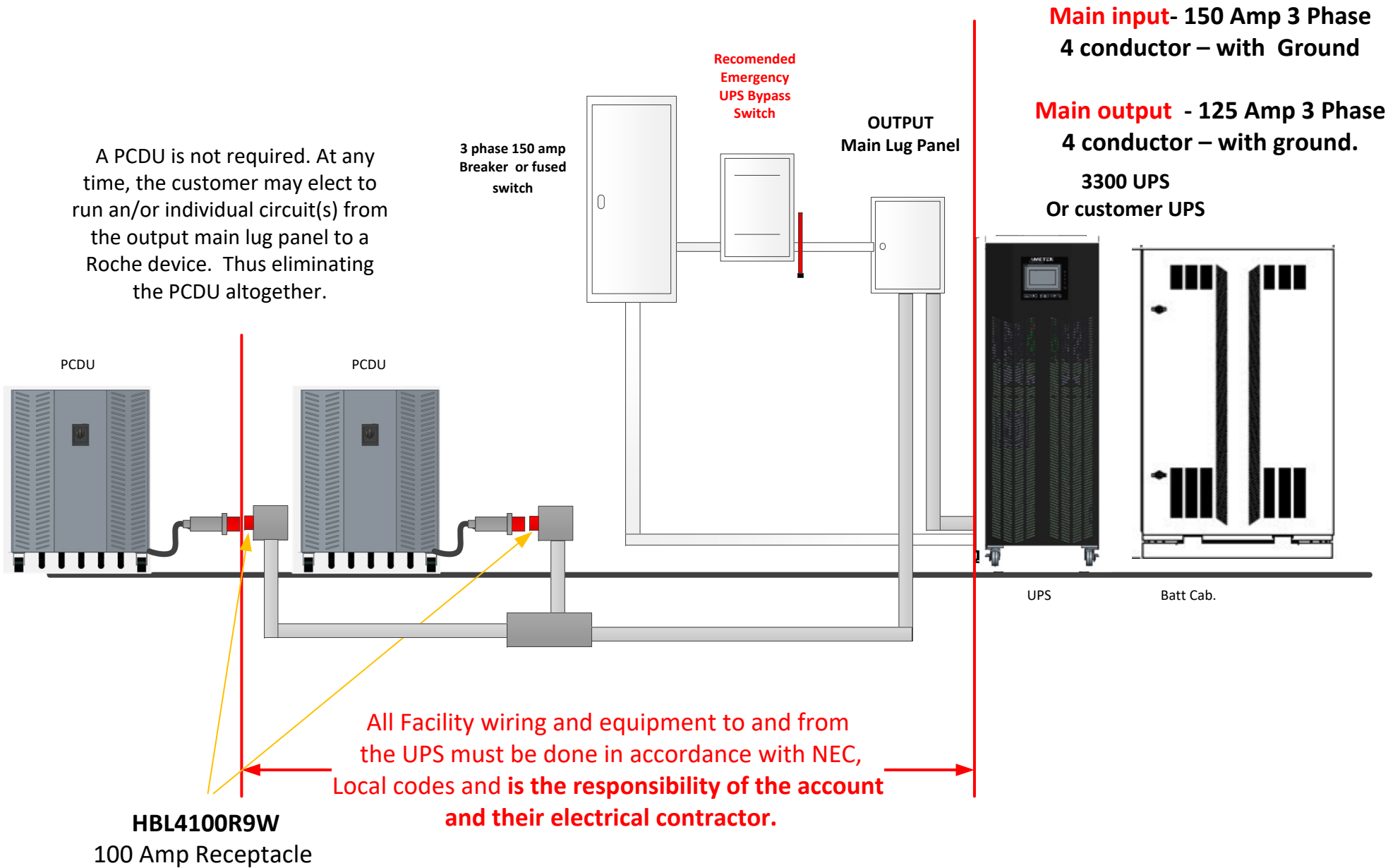
Circuits directly wired from the UPS Output Main Lug Panel to the appropriate receptacle based on location and product being powered.

Main input- 150 Amp 3 Phase
4 conductor – with Ground

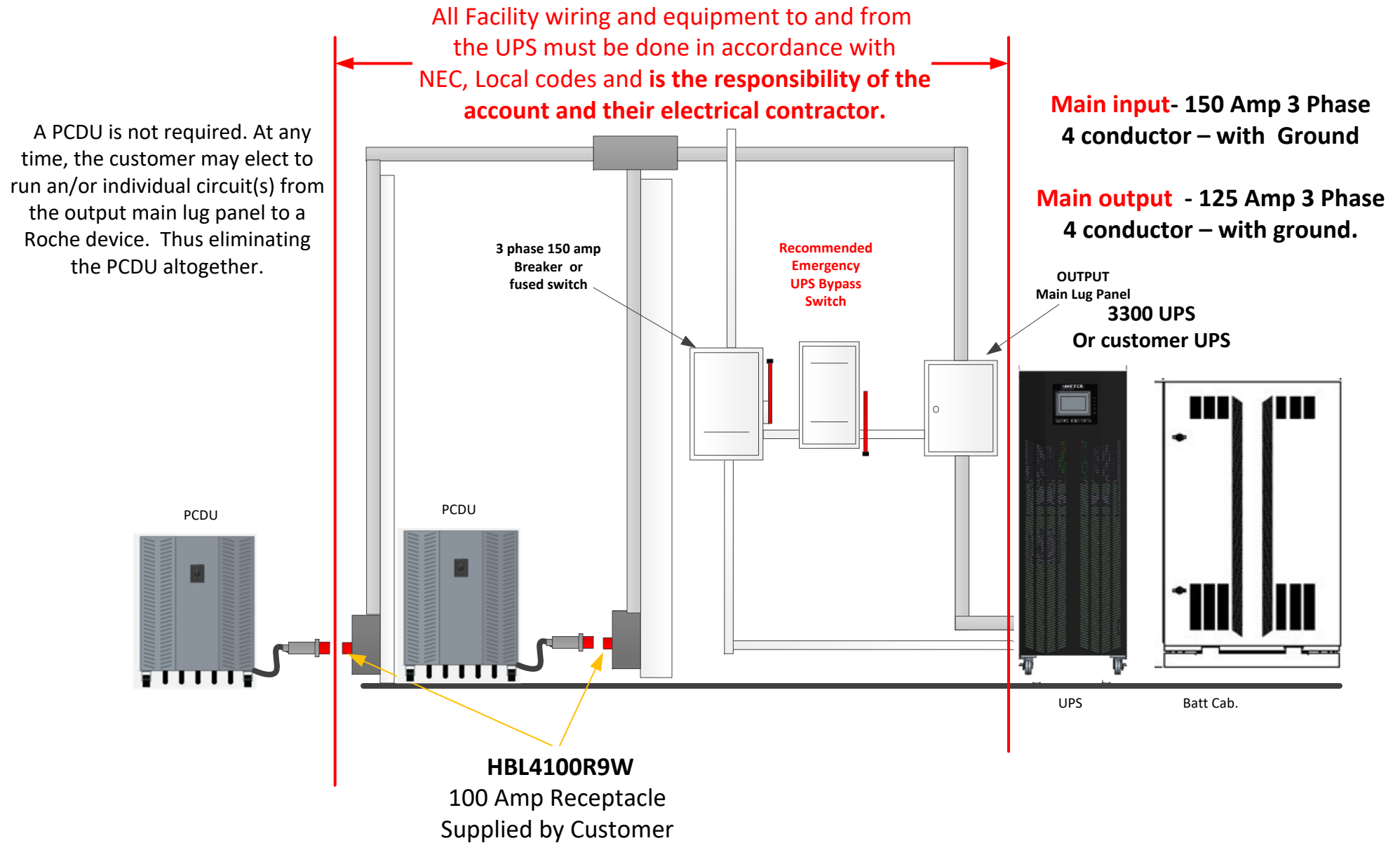
Main Lug Output - 125 Amp 3 Phase
4 conductor – with ground. Each circuit is wired to code according to its need.



UPS Remote Connectivity Concept Under Floor



UPS Remote Connectivity Concept Overhead



FAQ

1. The basic system consists of PCDU and UPS.

A: 1 UPS and up to 2 PCDU. It is not necessary to have a second PCDU unless load factors require it. The load factors are balanced so that with 1 UPS we support up to: 8 - 30 amp loads, 6 - 50 amp loads, 1- 3 phase 20 amp load and 16 - 120 VAC 15 amp loads.

This equates to: 1- c8100 with PXT and additional CLW. (8-30 amp loads), 3 - c8000 core with 4 modules ea. and 1 - p501 or p701

2. PCDU is the local unit and the UPS is direct wired to power source?

A: The PCDU is the local unit and should be placed to allow the cables from any Roche product to reach it. The 8100 cables are 32' and the c8000 cables are 20'. So try to balance the placement of the PCDU.

The UPS is hard wired to the source as are the PCDU(s) drops from the UPS. The PCDU drops will terminate to a 100 amp receptacle "HBL4100R9W" .

The PCDU can also be installed on a customers existing UPS System. The Hubble Plug HBL4100R9W would be required for connection.

3. What is the max distance the PCDU can be from UPS?

A: Our concern is that we must make sure that National and Local Codes are met and that they size wiring according to code. Long distance runs can cause a voltage drop to occur. Follow your National and Local Codes.

4. Where is the power on the 8100, behind the Input Station?

A: Power for the c8100 is: 3 - lines at the IPB back and 2 lines at the CRW. Then, if necessary, 2 from the PXT and 1 from the CLW. (8 total) these lines are 30 ft long and we must place the PCDU for the best fit. Remember bends will cause a loss, so a good rule to follow, Consider the max lengths to be 25 ft.

5. Some accounts want to use 480 VAC power. Where would the 480 stepdown transformer be located, with the UPS or at the PCDU?

A: A step Down Transformer (480 VAC to 208 VAC) would be placed next to or near the UPS itself and should NEVER be placed in a lab. In that situation, the account should be pressed to place the UPS and Stepdown in a utility room designed for Electrical power.

6. Can the UPS be used with ONLY the c8000, c6000 or the MPA?

A: . Yes. It can be used without the c8100. If doing this, you should consider the cost(s) ordering processes for justification.

7. Is a PCDU always needed or can the UPS be configured without the PCDU?

A: A PCDU is not required. At any time, the customer may elect to run an/or individual circuit(s) from the output main Lug panel to a Roche device. Thus eliminating the PCDU altogether.

8. Are all these Items in Inventory and how long will they take to order for Delivery?

A: These items will be inventoried at a low level. The order for these products should be placed at the time of the Instrument(s) orders.

9. Can existing c8000 or c6000 UPS be swapped out for the 3300 UPS and PCDU(s)?

A: Yes! , Cost(s) should be considered.

10. What is the process to get the 3300 UPS /PCDU(s) installed with the c8000 or c6000 before the delivery of the c8100?

A: The Project manager will contact PowerVar in order to schedule the installation 3 weeks in advance. The goal is to allow for the Order process and Delivery to occur a minimum 1 month before installation of ANY product to be powered by this UPS system.

11. What is the Warranty on the UPS, PCDU(s) and Optional products?

A: The system is warranted by Powervar for 2 years. Maintenance after the fact remains the same as today. The system is the customers responsibility. The customer can purchase from Powervar a maintenance contract.

12. If a central generator is not available and power is lost, what is the available run time of the UPS?

A: The system is capable of a full 8 minutes of run time at Full Load (40 KVA). If less load then that time is greater. If the Customer request additional battery time, there is an optional Battery Cabinet which can be purchased by the customer (From PowerVAR) to allow for additional runtimes in the following increments: 11, 18, 32 and 44 minutes at FULL LOAD. Price of the Optional Battery cabinet varies by the Up time requested.

13. What is the Alarm system which alerts the customer that the UPS needs attention?

A: The system is capable of remote connectivity. The system can alert Roche that an issue is present and the same can also be setup for the customer. The unit itself will alarm with a Beeping to indicate possible trouble. If the unit is located outside the customers view, the remote connectivity can be used as an alert.

14. Who is responsible for the Installation of the UPS?

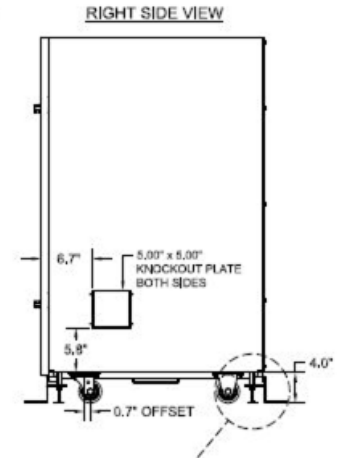
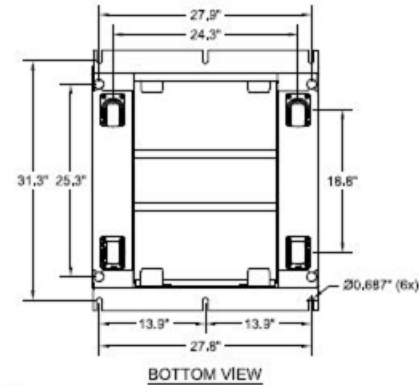
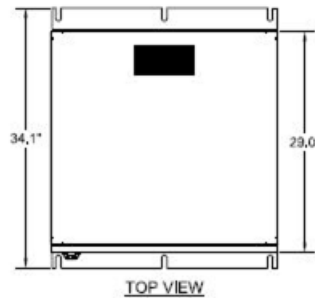
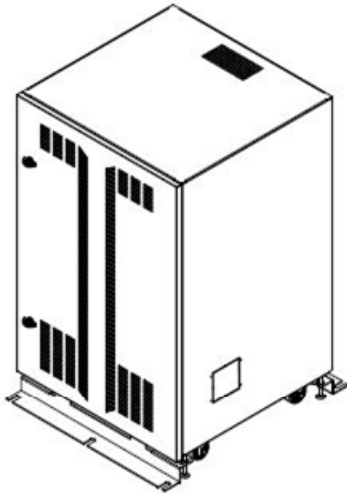
A: **The customer is responsible for all on site wiring, equipment and placement.** Drawings are attached to give a general overview of how the wiring is to be accomplished. Because of Local code(s) the drawing are only our recommendation and NOT requirements. We will assist customers as necessary should they have concerns or issues towards the UPS and PCDU installations. The Roche installation team is responsible for Powering up the UPS and plugging in the PCDU's.

15. If a Step Down Transformer is required, By who and how is this ordered?

A: This should be determined by the Sales team along with the customer once they start to discuss power requirements. The 480 to 208 Transformer is an Option and the customer would be required to purchase and install the product. They will be responsible for all wiring to and from the product and to the UPS as previously stated.

3300 Series External Battery Cabinets

(Required; the 3300 Series 30/40kVA UPS does not have internal batteries)



BC20 Battery Cabinet

String Voltage: 240VDC String

- Batteries wired in +120/-120 VDC split bus with neutral tap configuration

Battery Type: HRL12280WFR Batteries

Battery Supply/install: C&C Supply / Install

Battery Warranty: 3yr Full

Breaker Size: 175A Breaker

Breaker Trip Accessory: 24VDC UV Trip

Breaker Alarm Accessory: 1 Auxiliary Contact

Cabling: #2 AWG Cable

Structural Option: Standard

UL Listing: Listed to UL 1778

Dimensions: 29.8"W x 29.0"D x 48.0"H

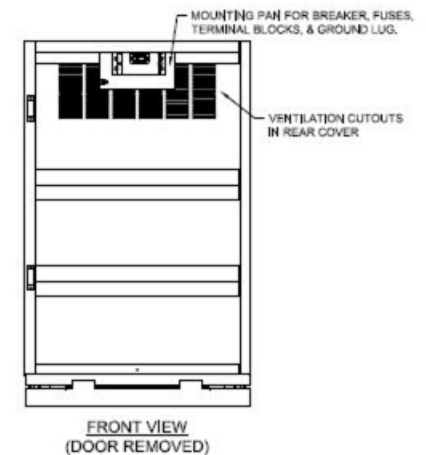
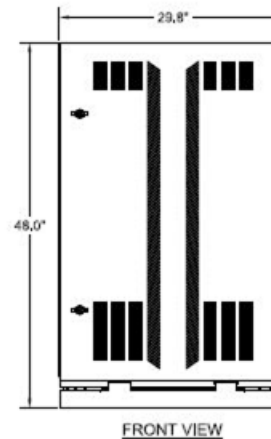
Weight: 1620lbs

Color: BT

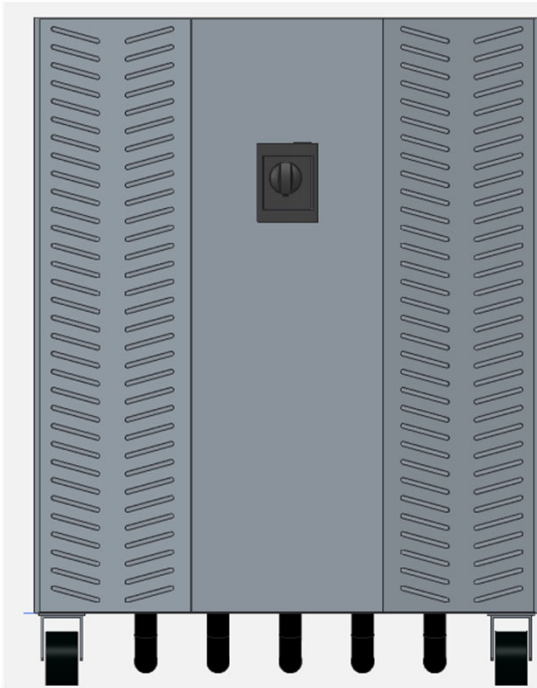
1-String Runtime: 16min @ 30kWB Load (PF=1, 94% Eff)

19min @ 30kWB Load (PF=0.9, 94% Eff)

Lead Time: 2-3 Weeks ARO



PCDU views & Specifications



Output: 25 kVA, 3 phase 208/120 VAC WYE (69 amps/phase)

Input: 208 VAC Delta (Nominal voltages measured phase to phase)

60 Hz Voltage tolerance +/- 10%

Input Overcurrent Protection: 80A circuit breaker with LOTO rotary handle

Input Voltage Tap: Factory configured for 208 Vac.

Input Connections: IEC 60309 3pole 4w pin & sleeve 100A male plug (Leviton 4100P9W)

Output Connections:

- (5) 50A receptacles w/40A CB,
- (6) L6-30R w/ 24A CB
- (1) L15-30R w/16A CB
- (3) 5-20R duplex w/16A CB

Efficiency at Rated Load: > 97% @ 50 Hz. Heat Loss @ 80 % of Rated Load: < 2561 BTU/hr.

Load Regulation Response Time: < 2 msec for a 50% change in load.

Surge Voltage Withstand: ANSI/IEEE C62.41 Category A & B, 6 kV / 200A & 500 A, and 3000 A, 100 kHz ringwave and impulse.

Surge Voltage Let-thru: With unit under power, ANSI/IEEE C62.41 Category A surge applied will affect the output voltage by < 10 V normal mode (L-N) and < 0.5 V common mode (N-G).

Overload Capability: Can typically tolerate 10 times rated output for 0.5 cycle,

5 times rated output for 1 second, and 3.5 times rated output for 5 seconds without degradation.

Operating Temperature: 0°C to +40°C Storage Temp: -40°C to +70°C Cooling: Natural Convection

Approvals & Markings: UL, cUL under UL1012 (upon approval of prototype unit)

CE Marked in compliance with EU directives

Dimensions (W X H x D): 28.1" w x 39.5" h x 37.4"d

Total footprint 1134 square inches

Unit Weight: approx. 762 lb.

Packaging: Standard Powervar packaging crate

Warranty 5-year materials and workmanship

**The PCDU can also be installed on a customers existing UPS System.
Providing they have the capacity to support the PCDU.**

**The Hubbell HBL4100R9W receptacle must be provided by the
customer for connection of the PCDU.**