

■ AC Power
For *Business-Critical Continuity™*

Liebert® RDC

The Simpler Way To Wire A Colocation Facility Or Internet Data Center



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The influx of client/server rack equipment is changing the content of data centers. There are more devices than before, and they consume less power than their predecessors. Therefore most Power Distribution Units (PDUs) run out of circuit breaker poles before they run out of rated capacity.

The Liebert RDC extends the functionality of the PDU by packaging 168 poles (four complete panelboards) in a stand-alone cabinet with the smallest possible footprint.

Unlike standard Liebert Precision Power Centers (PPCs) and Liebert FPC, the Liebert RDC has no internal isolation transformer and requires 4-wire-plus-ground input from a Liebert PPC or other transformer.

By separating the Liebert PPC transformer and subfeed breakers from the panelboard function, Liebert was able to create an extremely compact package. It fits the area of a standard 24" raised-floor tile while permitting removal of adjacent floor tiles. This conserves precious floor space and allows maximum installation flexibility.

Accessibility and Electrical Isolation

Despite the small size, the Liebert RDC has exceptional accessibility. It uses inline 42-pole panelboards (unique in the industry) with wide-open access channels. With six inches of access space, it's easy to add future circuits.

The four panelboards are separated into vertical compartments with individual hinged access covers.

Another unique feature is the conduit-landing plate in the base of the unit. It features a full 168 holes as standard. In addition, holes in the front row on each side have oversized spacing on center. These can be over-punched from 1/2" to 3/4" without interfering with adjacent holes.

Build to Suit

The Liebert RDC is available with several helpful options:

- Current Monitoring, Current Plus Monitoring.
- LDMF Distribution Monitor, with or without display.
- Clear door insert panels enable visual inspection of the breakers without unlocking the cabinet.
- Tie breakers are available to allow connection of the panelboards to different inputs.
- Adjustable accent panels make it easier to compensate for breaker "creep."



High-Availability Configurations

The Liebert Remote Distribution Cabinet is an important element of High-Availability power systems.

The individual panelboards inside the Liebert RDC can receive power from different PDU transformers. For example, one side of the Liebert RDC can be fed from UPS A and PDU 1 while the other side can be fed from UPS B and PDU 2. This enables the RDC to provide fault-tolerant, fully maintainable dual-bus power to nearby load equipment.

Units can be configured with one, two or four inputs. A two-input Liebert RDC can be configured with two panelboards on each side sharing common input terminals.

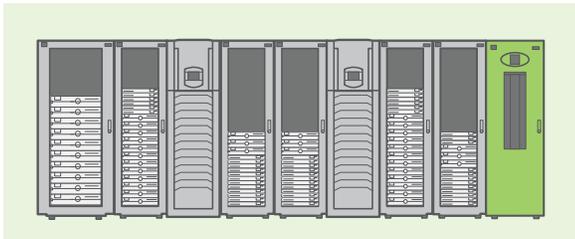


Figure 1 shows the most common use of the Liebert RDC – at the end of a section of equipment racks.

Typical System Applications

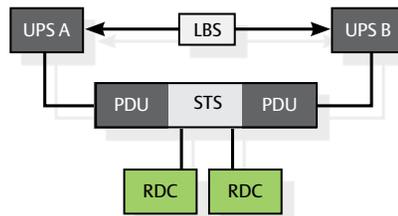


Figure 2 shows a simplified diagram of how the Liebert RDC can be applied with a single AC input per cabinet. Two PDU transformers feed a Static Transfer Switch, which in turn feeds two Liebert RDCs.

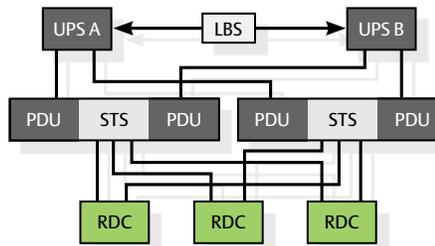
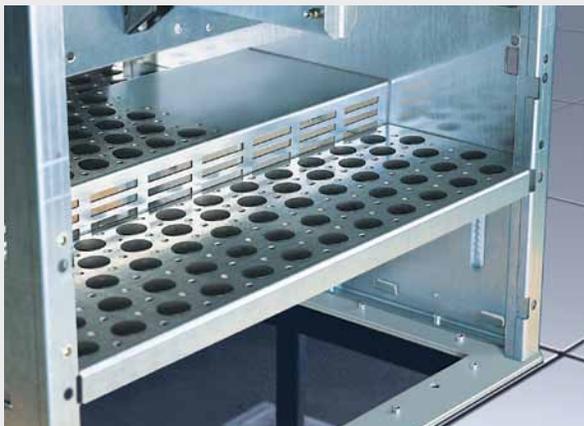


Figure 3 shows three Liebert RDCs, each receiving feeds from two Static Transfer Switches (STSs). Each STS is fed by two PDU transformers, which in turn are powered by two different UPSs.

Underfloor junction box, right, is standard for 4-input models and optional for others. Conduit-landing plate, below, is positioned for easy cable access.



Standard Features

Input/Output Voltages (VAC).

208Y/120, 220Y/127, 240Y/139
380Y/220, 400Y/230, 415Y/240

Input Frequency. 50 Hz, 60 Hz

Input Connections. 4-wire plus ground. Input busbars accept two-hole lugs.

Cable Access. Bottom-access cable entry only. Base has 168 conduit-landing holes standard.

Service Access. Front and rear required as standard. One side required for optional versions.

Service Clearances. 36" front and rear standard. One side required for optional versions.

Cooling. Convection cooling only; no fans. Heat rejection through screened opening in top.

Note: Minimum 24" clearance above unit.

Input Breakers. Four main panelboard breakers standard.

Panelboards. Four 42-pole inline panelboards, mounted side by side, 2 front, 2 rear.

Grounding. Isolated neutral and safety-ground bus bars. Neutral bus and wiring sized 1.73 times load.

Agency Approvals. UL-891, C-UL, CE.

Base Dimensions. 24x24 inches, 610x610 mm.

Note: Base is sized to fit a standard floor tile and permit removal of adjacent tiles.

Overall Dimensions (WxDxH).

24x25.8x78.3 inches 610x650x1990 mm.

Weight. 750 pounds (340 kilograms).

Optional Features

- EZ-View doors with clear insert panels
- Single-, Dual- or Four-input configurations
- Current monitoring
- Input junction box
- Underfloor conduit box
- Plug-in Main Panelboard breakers
- Tie-breakers



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