Liebert® RXA

Remote Power Distribution System

Benefits

Suitable For Any IT Space

The Liebert RXA is a remote power panel ideal for small to large data centers, server rooms, network closets and remote facilities.

The unit offers flexibility for enterprise and colocation companies that require specific server distribution needs within a compact footprint.

With features like easy installation and serviceability, it is ideally suited for edge support environments and facilities with limited space.

Key Benefits:

- **Reliable uninterrupted power** distribution for your IT infrastructure
- **High power density**:
  - 400 Amps 84 Poles in 0.19 m^2
  - 800 Amps 168 Poles in 0.38 m^2
- **Available in two ratings**: 250 Amps or 400 Amps
- **Flexible and scalable** panel board, accepts 1, 2, 3 or 4 Poles branch circuit breakers, up to 84 Poles of available space
- **Hot-swappable panel board system**: replace or add a branch circuit in less than 20 seconds while other branches remain live
- **Intelligent oversight** with Liebert DPM monitoring system

The Liebert® RXA remote power distribution system helps meet high density power demands, with an intelligent monitoring system. The unit's compact footprint increases valuable floor space, reduces operating costs and enables flexible expansion of your distribution system for the future.

The Liebert® RXA ensures continuous power to critical applications in a reliable and safe manner, and dramatically reduces the costs associated with product certification. With Liebert® DPM intelligent monitoring, data center and facility managers get a complete overview of all circuits and consumption, allowing users to capture, for example, Power Usage Effectiveness (PUE) values, optimise load distribution and ultimately, increase cost efficiency and energy efficiency within the data center.

A navigation menu allows for easy system programming and equipment load management, along with the ability to import or export site-specific configurations to or from other units. The monitoring system offers voltage, current, power and energy metering with 1% accuracy, further integrating with your BMS systems to provide management of local and remote power distribution using automatic notifications of potential overloads, as well as local or remote emergency power-off.

The Right Solution

Entirely preconfigured, certified and tested, the Liebert RXA is the ideal solution for data center engineers, saving on valuable time for planning and drawings. With the Liebert DPM, you can easily monitor energy consumption at IT branch level, detect phase imbalances, as well as thresholds with visible and audible alarm notifications.

To reduce maintenance and energy costs, we provide you with a modular and hot-swappable busbar distribution system, using the touchproof feature which enables maintenance work during operation to avoid downtime.

Adding Value

The Liebert RXA features intelligent power monitoring at input and branch circuit level, with a 9” touchscreen colour display, providing a one-line system, input breaker status, as well as equipment load level and power quality.

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Liebert® RXA Specifications

Technical Characteristics	Model / Ratings / Version **Liebert® RXA 250 A**	Model / Ratings / Version **Liebert® RXA 400 A**
Rated current of the assembly (In)	250 A	400 A
Rated nominal power of the assembly (Pn)	173 kVA @400 V	277 kVA @400 V
Rated and operational voltage (Un) & (Ue)	230/400 V +-5%	
Rated circuit insulation voltage (Ui)	440 Vac	
Rated frequency (fn)	50/60 Hz	
Number of outgoing circuits	max. 84	
Number of poles	3Ph + N + G	
Operating temperature	0° ... +40°C	
Storage temperature	-25° ... +70°	
Display*	Integrated 9" color touchscreen display	
Power Monitoring System*	Liebert® DPM	
Standards		
Environmental	REACH; RoHS; WEEE	
Regulatory	IEC 61439-2	
Mechanical Characteristics		
Height	2000 mm / 79"	
Width	603 mm / 24"	
Depth	328 mm / 13"	
Weight (w/o protection devices)	155 Kg	175 Kg
Colour	Ral 7021 mate	
Degree of protection (closed/open doors)	IP20	
Front main door type	Lexan window door w/ display	
Second access door type	Safety door w/ direct access to Branch Circuit Monitoring	
Customer comunication pins	Top	
Cables entry	Top Bottom (optional)	Top
Cables exit	Top Bottom	Top Bottom
Communication/Monitoring*		
Manufacturer	Liebert DPM	
Metered Values	V, I, cosφ, P, S, THD	
Intellislot card	Yes	
Comunication port	Modbus TCP, SNMP, BACnet IP or MSTP, Modbus/RTU, SMS, Email, HTTP/HTTPS and Vertiv Protocol	
Communications card	Vertiv™ Liebert® IntelliSlot RDU101	

**Not included in the Liebert® RXA model without a monitoring system*

Figure 1. *Liebert® RXA (second access door view)*

Figure 2. *Liebert® RXA (internal view)*

Figure 3. *Liebert® RXA without Liebert® DPM monitoring system*

Power Monitoring System

The Liebert® DPM is an advanced monitoring system from Vertiv that provides remote access to energy readings and facilitates data integration for data center intensive industries, facilities working to optimise server capacity, and businesses with a critical need to maintain uptime. This embedded system provides real time views of electrical capacity, as well as power usage on branch circuits and mains. It sends visible and audible threshold alerts on power and environmental conditions, thereby helping to prevent downtime.

The Liebert DPM consists of a two-level system monitoring:

Input Monitoring Level
shows the data from the Main Input Circuit Breaker:

- Phase Current
- Neutral Current
- Ground Current
- Current Load Percentage
- Voltage Line-to-Line
- Voltage Line-to-Neutral
- Frequency
- Real Power (kW)
- Apparent Power (kVA)
- Power Factor
- Energy (kW-Hours)
- Peak Current (A)
- Peak Demand (kW)
- Current Crest Factor
- Current Total Harmonic Distortion (THD) in total THD - includes 3rd, 5th, 7th and 9th Harmonics
- Voltage Total Harmonic Distortion (THD) in total THD - includes 3rd, 5th, 7th and 9th Harmonics
- Circuit identification and status of the MICB

Branch Circuit Monitoring Level
shows the data for each outcoming circuit from the unit, either for monophase or triphase loads:

- Phase Current
- Percent Load
- Real Power (kW)
- Power Factor
- Energy (kW-Hours)
- Peak Current (A)
- Peak Demand (kW)
- Circuit identification of each breaker

Figure 1. *Front 9" touch screen coloured display with visible and audible alarms to prevent downtime*

The display's frame includes LED and speakers with alarms for faults or warnings, all easily programmable:

- Output Overvoltage
- Output Undervoltage
- Output Overcurrent
- Neutral Overcurrent
- Ground Overcurrent
- Summary Alarm

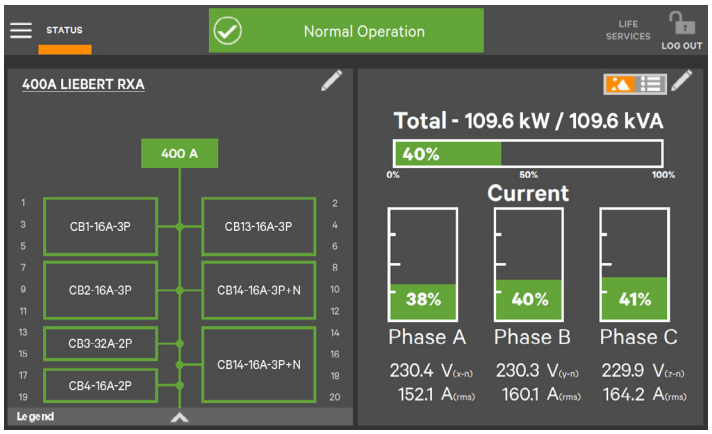

Figure 2. *On left is a "single-line" electrical diagram of the Liebert® RXA unit, displaying the input and output distribution of branch panel boards and sub-feed breakers. On right is the unit's total output load, with individual power levels for each phase in a 3-phase distribution, including voltage and amperage for each phase.*

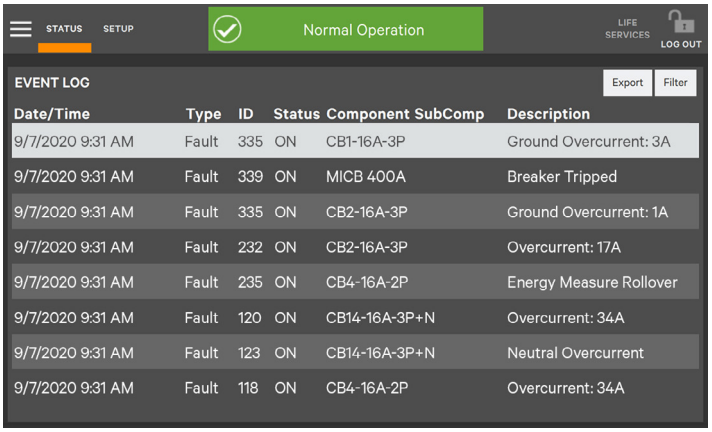

Figure 3. *Displays the event log with summaries of power events that occurred in the unit, including the location, date, and time of the events. 3-phase distribution, including voltage and amperage for each phase.*

High-Availability Configurations

The flexible Liebert® RXA is easily configured to accommodate current site needs and future growth.

Single: 328 mm x 603 mm (13" x 24") | 84pole | 250/400 A

- Wall-mounted
- Back supported by column Unistrut or wire cage

Double: 603 mm x 603 mm (24" x 24") | 168pole | 250/400 A

- Free-standing
- Drop-in replacement for floor tile

Double: 328 mm x 1207 mm (13" x 48") | 168pole | 250/400 A

- Wall-mounted
- Back supported

Triple: 603 mm x 932 mm (24" x 37") | 252pole | 250/400 A

- Free-standing
- Panel boards: front rear, one side

Quadruple: 603 mm x 1260 mm (24" x 50") | 336pole | 250/400 A

- Free-standing
- Panel boards: front, rear, both sides

For ease of wiring and installation, the conduit-landing plates at the top and base of the unit are removable and made of aluminum to easily drill through, depending on cable size.