RELIANCE

ADB SAFEGATE

Power ACE3

Advanced Control Equipment
Third Generation

ADB SAFEGATE

RELIANCE Power ACE3, ADB SAFEGATE's latest distributed control and monitoring solution, raises the bar with a simple, intuitive user interface, enhanced communication options and increased input/output expandability.

The RELIANCE Power ACE3 unit's full-color interactive touchscreen provides easy access to exactly what you want. All output readings are available at a glance and the new 7-inch color display allows the user to easily navigate through the ACE3 pages.

The CCR-integrated ACE3 unit is fully configurable via the local touchscreen – no separate PC or laptop is required – and it allows airports to customize monitoring of energy use. Using the touchscreen airports can configure the CCR, ACE, IRMS, Failsafe Options, and Enable Features.

In addition to being backward compatible with our ACE1, ACE2 and Liberty's DCMU units, the ACE3 can interface with any manufacturer's CCR.

It also has three communication options: Serial, Ethernet, and Wireless connectivity, and up to eight times more input/output capacity.

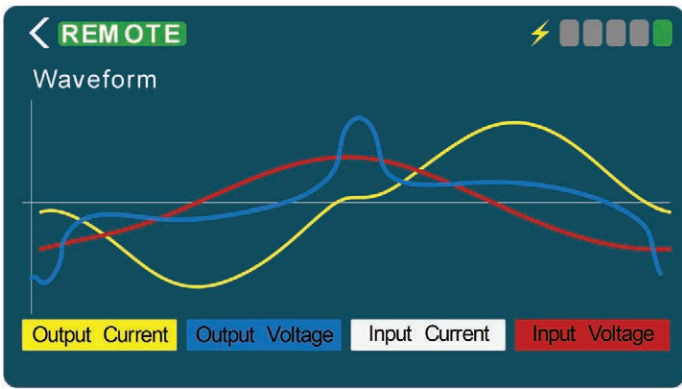| ACE3 Integrated CCR	ACE3 Combo Box	ACE3 I/O

- **Controls and monitors all CCR functions**
- **New URC4 Regulator Controller**
- **Integrated Output Monitoring**
  - **No Separate CVM Required**
- **Optional Input Power Monitoring**
  - **Power Factor**
  - **Efficiency %**

- **Interfaces to any manufacturers CCR**
- **Available for 6.6 A and 20 A**
- **40% smaller footprint compared to ACE1 and ACE2 Combo Box**

- **Expandable to meet airport needs**
- **Same footprint as Combo Box**
- **All inputs are optically isolated**
- **All outputs are mechanically latching**
- **All I/O points have independent commons**
- **I/O status viewable on screen**

In typical modes of operation, the ACE3 touchscreen will display several tiles, which contain all available output data. The user can select an individual tile to make it more prominent on the screen. The Pop Up Menu can be opened by touching the gear icon in the upper left corner.
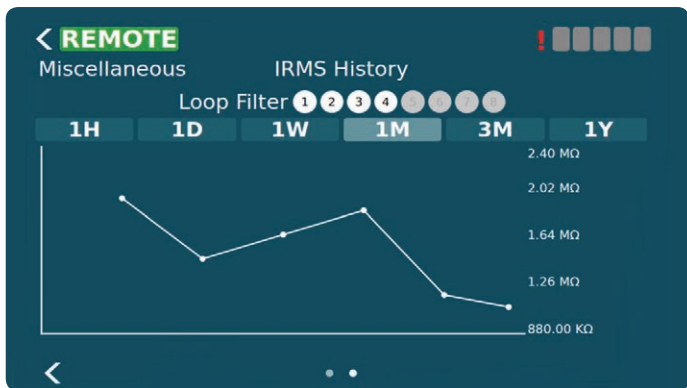
Waveform

Waveform

Output Current | Output Voltage | Input Current | Input Voltage

The ACE3 has a built in waveform viewer to graphically view the input and output current and voltage waveforms of the CCR to help with troubleshooting.

Events

REMOTE

EVENTS

Date/Time	Name	Description
2017-07-24 14:11:41	ClientConnect	interface=ace3Diag,addres...
2017-07-24 14:11:22	CCRComm	raised=1
2017-07-24 14:11:20	PowerUp	
2017-07-24 14:11:39	ClientConnect	interface=ace3Diag,addres...
2017-07-24 14:11:19	CCRComm	raised=2

Separate event and alarm screens are available for displaying active and historical event and alarm data. These screens can be accessed from the Alarms and Warnings tile on the Home page.

IRMS History

REMOTE
Miscellaneous   IRMS History
Loop Filter ① ② ③ ④ ⑤ ⑥ ⑦ ⑧

1H	1D	1W	1M	3M	1Y

2.40 MΩ
2.02 MΩ
1.64 MΩ
1.26 MΩ
880.00 KΩ

The ACE3 has a localized IRMS Viewer, allowing the user to view the historical IRMS megging data in graphical form with or without an ALCMS.

Hour/Cycle Counts

REMOTE
Hour/Cycle Counts

CCR Cycle Count	0

Total On Time	0.0 Hrs
B1 On Time	0.0 Hrs
B2 On Time	0.0 Hrs
B3 On Time	0.0 Hrs
B4 On Time	0.0 Hrs
B5 On Time	0.0 Hrs

Reset

The Hour/Cycle Counts page displays how long the CCR has run at each step, tracks how the regulator is being used, and helps with knowing when to schedule preventative maintenance.

The Feature Enable Screen

REMOTE
Feature Enable

- ☐ IRMS
- ☐ CVM
- ☐ Circuit Selector
- ☑ Display Input Current
- ☑ Display Input Voltage
- ☐ Display Analog Current Gauge
- ☑ Local Step Control
- [Digital ▾] Screen Saver

REMOTE
Feature Enable   Alarms

- ☑ CCR Cable
- ☑ CCR Power
- ☑ CCR Communications
- ☑ IO Cable
- ☑ Overload
- ☑ Open Circuit
- ☑ Over Current
- ☑ Lamps Out
- ☑ Incorrect Current
- ☑ Low VA
- ☑ Remote/Local
- ☑ Protective Shutdown
- ☑ IRMS Reading
- ☐ Failsafe
- ☑ Port A Down
- ☑ Port B Down

REMOTE
Feature Enable   Alarms

- ☑ High Temperature
- ☑ IRMS Communications
- ☑ IRMS Failure
- ☑ IRMS No Reading
- ☑ ACE Under Voltage
- ☑ ACE Over Voltage
- ☑ IO Communications
- ☑ IO Config
- ☑ IO Board Failure
- ☑ CCR Door Ajar
- ☑ CSS Loop Not Active
- ☑ CCR Unstable Input Power
- ☑ CCR Not Calibrated
- ☑ CCR Not Configured

REMOTE
Feature Enable   Warnings

- ☐ Lamps Out Calibration
- ☐ VA Calibration
- ☑ Lamps Out
- ☑ IRMS Reading
- ☑ Failsafe Forced
- ☑ Multiple Controlling Clients
- ☑ High Temperture
- ☑ Low Temperture
- ☑ DC Supply #1
- ☑ DC Supply #2
- ☑ EtherNet J19 Link
- ☑ EtherNet J20 Link
- ☑ EtherNet J27 Link
- ☑ EtherNet J35 Link

The Feature Enable screen is used to enable or disable features, alarms, and warnings by checking the box next to the feature/alarm/warning name. These changes take affect immediately.

Disabling an alarm or warning prevents that alarm/warning from showing up on the alarm page and the corresponding event(s) will not be generated
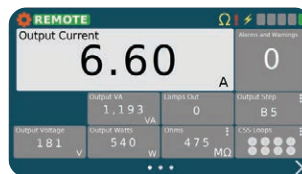
ACE3 Combo Box

1

Compatible with any CCR manufacturer.

2

Available as a CCR-integrated or wall-mounted unit.

3

Easy configuration using the local touchscreen, no laptop required.
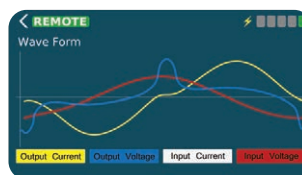
ACE3 Integrated into a CCR

4

Backwards compatible with previous versions: ACE1 and ACE2.

5

Three communication options: Serial, Ethernet, and Wireless connectivity.
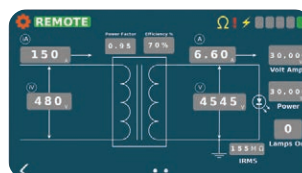
6

It will also easily interface to or replace any Liberty DCMU units.

7

All monitoring data is displayed on one screen.

8

New Features: Real-time input & output waveforms, enhanced troubleshooting, cable megging, and more.

9

Alternate one line diagram view displays readings as an electrical drawing layout.

RELIANCE Power ACE3 provides better performance, easier maintenance and more functionality than previous distributed control products.