

# COREPOWER®

## 1448

### 28 VDC or 115 VAC

## Electronic Circuit Breaker Unit

The COREPOWER® DC or AC Electronic Circuit Breaker Unit replaces conventional thermal mechanical circuit breakers and functions as both a breaker and a switch for controlling loads. By placing ECBUs closer to loads, aircraft manufacturers gain a significant reduction in wire weight, need fewer system components, and lower installation labor costs while increasing safety, efficiency and reliability. This new smaller unit requires less space and provides more flexible mounting options.



### Features

- Solid state circuit protection superior to thermal breakers
  - Standard I<sup>2</sup>t trip
  - "Instant trip" short circuit protection
  - Parallel arc fault protection
  - Secondary fuse protection
  - No nuisance tripping
- Dual RS-485 buses provide
  - Control of ECBs
  - ECB status (open, closed, tripped...)
  - ECB current data
  - ECB voltage data
- Four discrete inputs for alternate means of ECB control
- Dual redundant control power input
- System is expandable, 1 to 30 ECB cards – AC and DC cards can be mixed in the same chassis
- Convection cooled, no forced air or fan required

### DC Card Power

**Input:** One 28VDC input rated for 110A

**Output:** 24 unidirectional 28VDC electronic circuit breakers

- 4 programmable from 7.5 to 25 A
- 20 programmable from 2.0 to 10 A

### AC Card Power

**Input:** 3-phase 115VAC, 60–800Hz inputs, each rated for 50A

**Output:** 9 AC electronic circuit breakers, 3 per phase. Can be used individually, or ganged as three phase ECBs.

- 3 programmable from 2 to 5 A
- 3 programmable from 2 to 10 A
- 3 programmable from 7.5 to 25 A

### Safety

- Arc fault protection
- Power-up and continuous built-in test
- Level 4 lightning protection

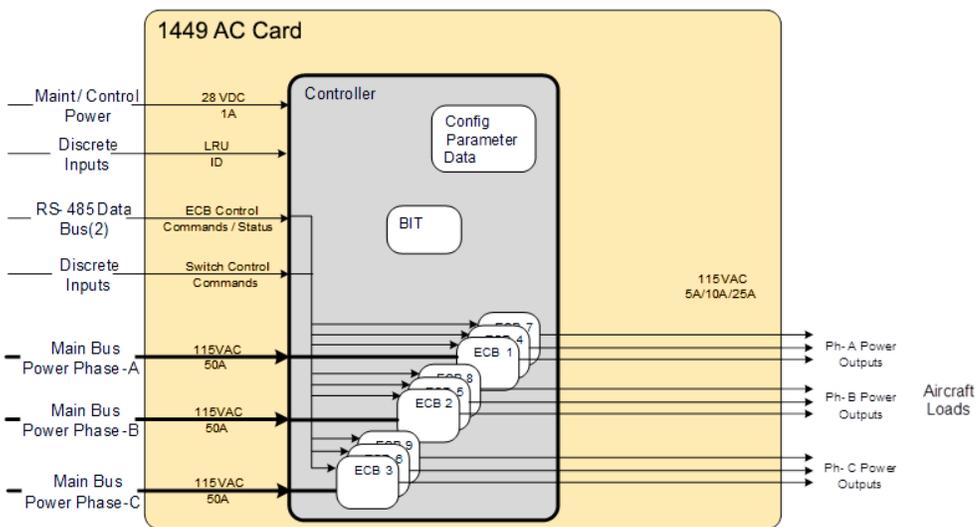
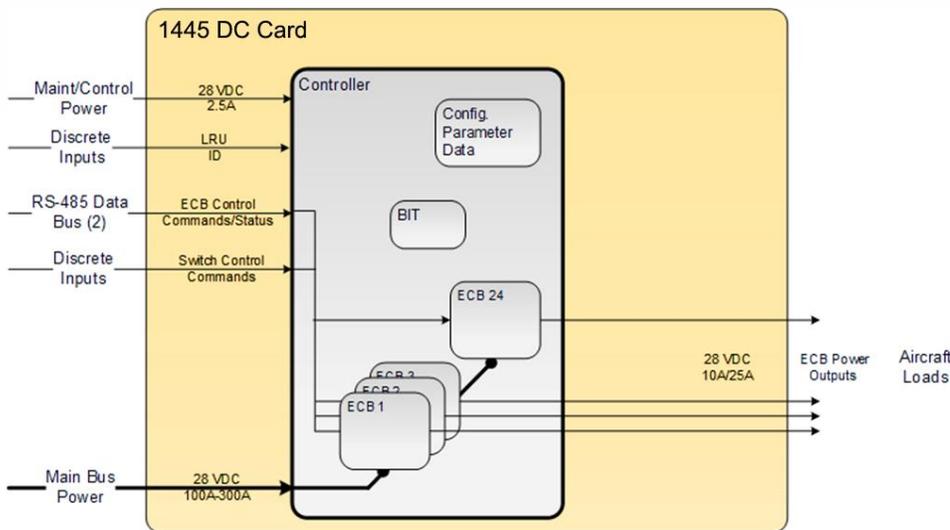
### KEY BENEFITS

- Lightweight and compact for maximum installation flexibility
- Each card is a fully contained, individually addressable unit
- Customer controlled configuration parameters
- Reduction in electrical system complexity – fewer wires and components
- System monitoring and control via existing avionics display
- Flight proven reliability, with over 10-million ECB failure-free flight hours

### Qualification

- RTCA/DO-160G
- RTCA/DO-254 DAL B
- RTCA/DO-178C Level A

## Baseline ECBU Interfaces



## Flexible Platform

Modular, scalable family of products for DC and AC secondary power distribution.

### 1448-10X, Single Card Chassis

X will roll depending on which card is in the unit, AC or DC

### 1448-20X, Two Card Chassis

X will roll depending on which cards are installed, i.e.:

- 2x AC
- 2x DC
- AC + DC

## Size

7.25in W x 9.95in L x 1.0in H

(184mm W x 253mm L x 25.5mm H)

Note: Does not include enclosure, which is a variable.

## Weight

1.6 lbs (725.7 g) DC card only, no chassis

1.8 lbs (816.5 g) AC card only, no chassis

## CONTACT INFO

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