The COREPOWER® DC 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.

Features
- Circuit protection superior to thermal breakers, but without nuisance trip problems
  - Standard i^2t trip
  - Instant trip
  - Parallel arc fault protection
- Provides a flexible platform for DC secondary power distribution
- Incorporates bus current and voltage monitoring
- Dual RS-485 buses provide for:
  - Control of ECB
  - ECB status, current and voltage data
- Dual redundant central processors
- Dual redundant auxiliary power supplies
- Data acquisition functions
  - Eight discrete inputs
  - Four analog inputs
  - Eight discrete outputs
  - Two relay drivers
- Level 4+ lightning protection
- Pulse width modulation of ECBs
- Discrete input and/or Analog input control
- Up to 45 circuit breakers per unit

Power
Input/Output:
- 28VDC
Continuous current rating = 300A

Safety
- Arc fault protection
- Flight proven reliability, with over 10-million ECB failure-free flight hours
- Extensive built-in test

Qualification
- RTCA/DO-160G
- RTCA/DO-178B, Level A

KEY BENEFITS
- Programmable for custom configuration
- Increased reliability
- Arc fault protection
- Reduction in electrical system weight and installation
- System monitoring and control via avionics
Seven types of unidirectional DC ECBs are offered:
- 2.5A: programmable from 1 to 2.5 amps
- 7.5A: programmable from 2.5 to 7.5 amps
- 15A: programmable from 7.5 to 15 amps
- 30A: programmable from 15 to 30 amps
- 50A: programmable from 20 to 50 amps
- 100A: programmable from 40 to 100 amps
- 200A: programmable from 80 to 200 amps

The ECU supports various combinations of DC ECBs and control options by choice of plug-in circuit card assemblies. Each ECU can support up to 4 plug-in circuit card assemblies (CCAs), providing maximum installation flexibility.

**Standard ECU Configurations**

<table>
<thead>
<tr>
<th>ECU Configuration</th>
<th>2.5A</th>
<th>7.5A</th>
<th>15A</th>
<th>30A</th>
<th>50A</th>
<th>100A</th>
<th>200A</th>
<th>CCAs</th>
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<td>14</td>
<td>12</td>
<td>8</td>
<td>4</td>
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<td>1</td>
<td>A1, A2, A3, A8</td>
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<td>14</td>
<td>12</td>
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<td>A1, A2, A3</td>
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<td>A1, A3</td>
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**1426 Circuit Card Assemblies Matrix**

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<tr>
<th>CCA REF DES</th>
<th>DISCRETE INPUT</th>
<th>DISCRETE OUTPUT</th>
<th>ANALOG INPUT</th>
<th>2.5A ECB</th>
<th>7.5A ECB</th>
<th>15A ECB</th>
<th>30A ECB</th>
<th>50A ECB</th>
<th>100A ECB</th>
<th>200A 3CB</th>
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<tr>
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</tbody>
</table>

**Size**

10.05 in W x 4.55 in H x 9.51 in L

(25.53 cm W x 11.56 cm H x 24.16 cm L)

Note: Does not include mounting flange, connector and hardware protrusions

**Weight**

10.5 lbs (4.78 kg) maximum