

# COREPOWER®

## 1426 Series

### Electronic Circuit Breaker Unit (ECBU)

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<sup>2</sup>t 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

#### KEY BENEFITS

- Programmable for custom configuration
- Increased reliability
- Arc fault protection
- Reduction in electrical system weight and installation
- System monitoring and control via avionics

#### Qualification

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

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

**Standard ECBU Configurations**

ECBS:	2.5A	7.5A	15A	30A	50A	100A	200A	CCAS
<b>1426-10</b>	14	12	8	4	1	1	1	A1, A2, A3, A8
<b>1426-20</b>	14	12	8	4				A1, A2, A3
<b>1426-30</b>	20	16	8					A1, A3, A3

**1426 Circuit Card Assemblies Matrix**

CCA REF DES	DISCRETE INPUT	DISCRETE OUTPUT	ANALOG INPUT	2.5A ECB	7.5A ECB	15A ECB	30A ECB	50A ECB	100A ECB	200A 3CB
<b>A1</b>	8	8	4							
<b>A2</b>				4	4	4	4			
<b>A3</b>				10	8	4				
<b>A8</b>								1	1	1

**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

**CONTACT INFO**

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