

# ACB-4012 AIR CIRCUIT BREAKER

Ideal for applications where integrated control, condition-based maintenance and power monitoring are required.

L3Harris is the world's leading supplier of innovative, shock-hardened circuit breakers and switchgear for harsh environment applications.

## PRODUCT DESCRIPTION

L3Harris' Navy-type ACB-4012 is a draw-out style, low-voltage air circuit breaker that is rated for a continuous current of 4,000 amps at 500 volts and a symmetrical interrupting rating of 85 kA RMS. The ACB-4012 is ideal for applications where integrated control, condition-based maintenance and power monitoring are required.

Originally a commercial design, the ACB-4012 circuit breaker assembly is ruggedized to qualified military specifications MIL-DTL-17587; MIL-S-901, Grade A; and MIL-STD-167-1A, Type 1 (4-to-33 Hz) for use in harsh conditions experienced on board navy ships. The circuit breaker is designed for easy front access so that the unit can be controlled and monitored safely through an access port on the front door of a switchgear enclosure.

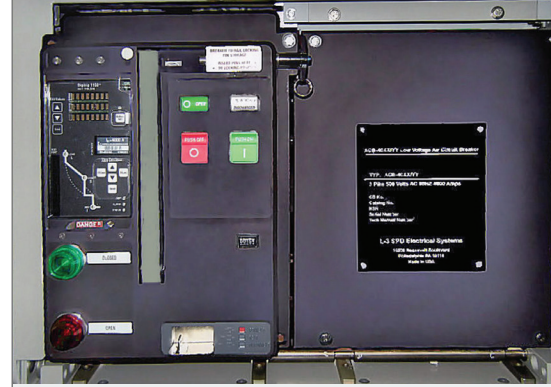
The ACB-4012 is a form, fit and function replacement for the ACB-4010HR and can also be adapted to fit into ACB-4000HR switchboards using a modified cradle design. The modified cradle for the ACB-4000HR is shown on the next page with the overall dimensions.

## OPERATION

- > **Opening:** The opening of the breaker can be initiated with or without control power applied using the red PUSH OFF button.
- > **Charging:** The closing springs can be charged, either automatically (when control power is applied to the charging motor) or manually (using the charging handle).
- > **Closing:** Once the closing springs have been charged, the breaker can be closed using the green PUSH ON button with or without control power applied.
- > **Resetting a fault trip:** If a protective trip occurs, the reset button on the protective device can be used to clear the fault alarm after the cause is resolved.

## STATUS INDICATION

- > **Protection module:** Indicates operating status using LED lights and messages displayed on the 3-line LED display.
- > **Racking mechanism:** Contains flags that indicate when the breaker is fully in the CONNECTED, TEST or DISCONNECT positions.
- > **Operating mechanism:** The charged/discharged and open/closed status indicating flags are mechanically linked to the auxiliary switch to indicate breaker status.
- > **Indicating lamps:** Two indicating lamps that protrude from the front cover indicate the status of the breaker (green=closed, red=open).



## AVAILABLE FEATURES

- > Electric closing mechanism
- > Hold-closed mechanism
- > Racking mechanism lockout (mechanical)
- > Mechanical racking position indicator
- > Secondary disconnect terminal blocks (qty 18)
- > Operations counter
- > Overcurrent protection
- > Shunt trip (120 VAC)
- > Electromechanical undervoltage lockout (UVLO)
- > Status indicating light

## HIGHLIGHTS

- > Replaces for ACB-4010HR and ACB-4000HR
- > Design-qualified to military specifications
- > Front access for manual control
- > Sophisticated electronic protection module
- > Quick and easy removal from cradle
- > Closing spring charged either automatically or manually
- > Breaker position and closing spring status flags
- > Colored indicating lights show open/closed status
- > Optional electromechanical undervoltage lockout

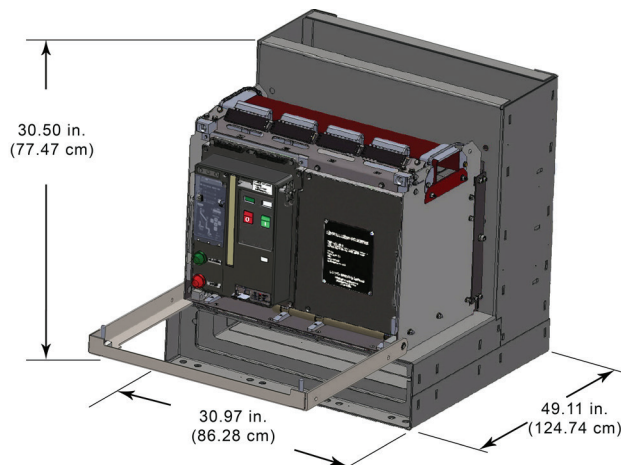
## PROTECTION

This circuit breaker is equipped with a sophisticated electronic protection module to provide configurable power monitoring capabilities and automatic equipment protection. The built-in electronic protection module enables:

- > Access to real-time and stored monitoring data
- > Control functions using either a laptop with control software installed or the 3-line LED display and tactile push-buttons
- > Monitoring of breaker status and resetting after trip event right from the front of the breaker
- > Adjustable long-time, short-time and instantaneous trip signals

ACB-4012	WIDTH	HEIGHT	DEPTH	WEIGHT
Circuit Breaker	25.41 in (64.54 cm)	17.64 in (44.81 cm)	18.85 in (43.88 cm)	315 lb
Cradle (Track Extension Raised)	32.11 in (81.56 cm)	23.20 in (58.93 cm)	25.35 in (64.39 cm)	422 lb
Cradle (Track Extension Lowered With Breaker In Test Or Connect Positions)	32.11 in (81.56 cm)	23.20 in (58.93 cm)	42.97 in (109.14 cm)	737 lb
Maximum Overall (Breaker In Disconnect Position On Track Extension)	32.11 in (81.56 cm)	23.20 in (58.93 cm)	44.07 in (111.94 cm)	737 lb

CIRCUIT BREAKER AND ATTACHMENTS	
Maximum Continuous Current (amps)	4,000
Continuous Current Setting (amps) (100 amp increments)	2,000-to-4,000
Rated Maximum Volts	(60 Hz) 500 VAC
Maximum Interrupting Rating - Symmetrical Short Circuit Current (amps)	85,000
Rated Short-Time Current Delay at 85kA RMS	0.75
Number of Phases	3
Number of Protected Poles	6 (2 per phase)
Auxiliary Switch – Number of Contacts	18 (11"A" and 7"B")
Auxiliary Switch Ratings	15 amps 15 amps
Secondary Disconnect Terminal Block	18-to-20 amps



## L3Harris\_sht\_AirCircuitBreakerACB-4012

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L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.



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