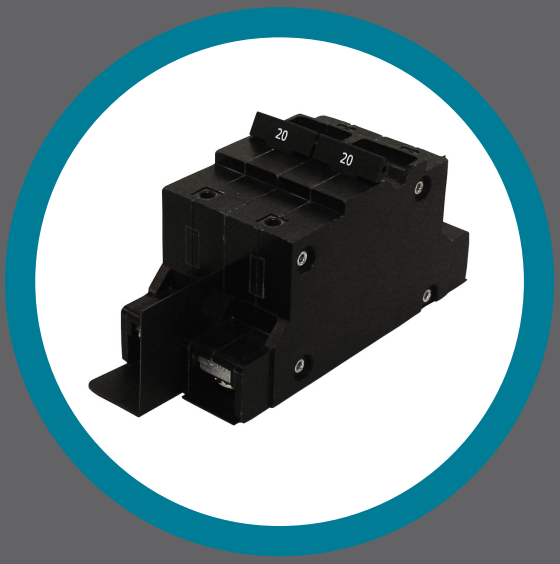
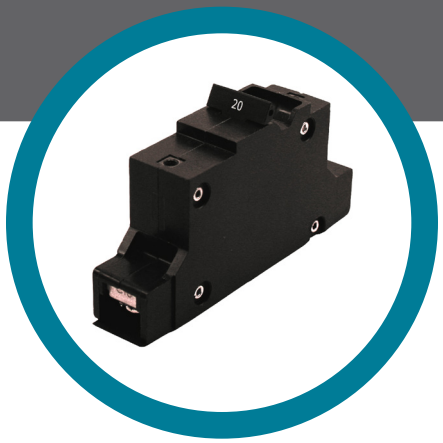
AIRPAX®

IAX/LUX/LEX Series

Low-Depth, Hydraulic-Magnetic Circuit Breakers





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Low-Depth, Hydraulic-Magnetic Circuit Breakers

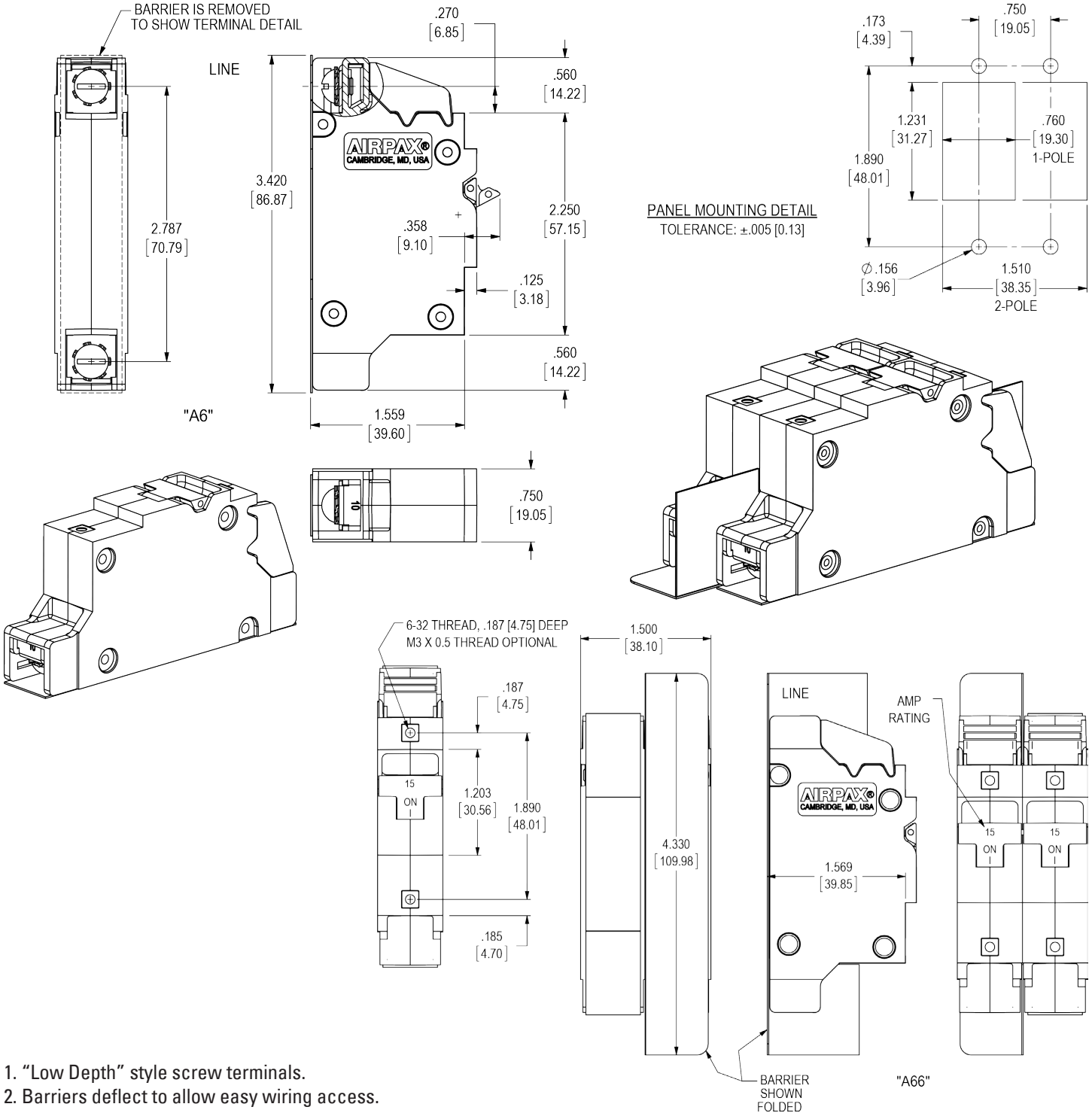
INTRODUCTION

Our lowest depth breaker family, the Airpax IAX/LUX/LEX series hydraulic magnetic circuit breaker allows increased density in datacenter rack power distribution units while leaving more space for equipment, wiring and airflow. These UL-489 Listed and IEC 60947-2 (pending) breakers are available in 1 and 2 pole models using a unique handle actuator (patent pending) which minimizes breaker volume while maintaining reliable switching and over current protection. Available high interrupt capacity 10 kAIC and low resistance all copper conductors meet the needs of high performing, high efficiency datacenters.

FEATURES

- Based on the proven high performance of the Airpax LEG series
- Low depth to minimize PDU intrusion into equipment rack space
- 240VAC rating on a single pole further minimizes space requirements
- UL-489 Listed and IEC 60947-2 (pending)
- 5 kAIC and 10 kAIC versions available
- Standard (copper and brass) and low resistance (all copper) conductors available
- Unique handle actuator for protection against accidental “turn-off” with minimal size and no handle guard required
- Screw terminals provide secure vibration resistant connection for high reliability applications
- Terminal orientation allows simple power conductor routing and ease of assembly

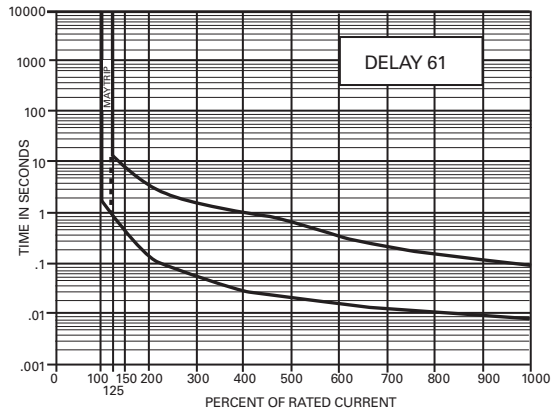
CONFIGURATIONS



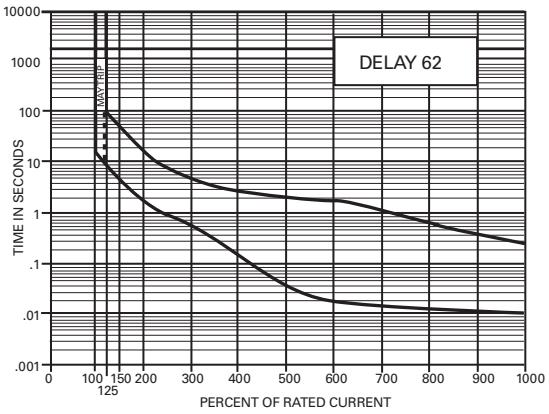
1. “Low Depth” style screw terminals.
2. Barriers deflect to allow easy wiring access.

DELAY CURVES

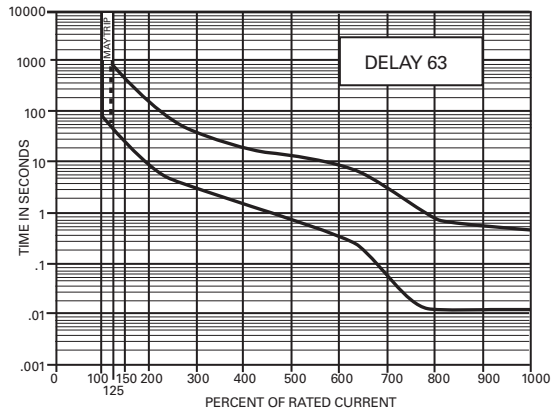
50/60Hz Short Delay



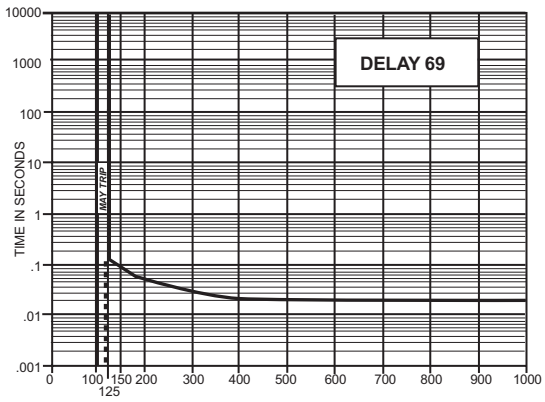
50/60Hz Medium Delay



50/60Hz Long Delay (Motor Start)



50/60Hz 125% Instant Trip



PERCENTAGE OF RATED CURRENT VS TRIP TIME IN SECONDS

Delay	100%	125%	150%	200%	400%	600%	800%	1000%
61	No Trip	.7-12	.35-7	.130-3	.030-1	.015-.3	.01-.15	.01-.1
62	No Trip	10-120	6-60	2-20	.2-3	.015-2	.015-.8	.01-25
63	No Trip	50-700	30-400	10-150	1.5-20	.015-10	.013-.85	.013-.5
69	No Trip	.120 MAX.	.100 MAX.	.050 MAX.	.022 MAX.	.017 MAX.	.017 MAX.	.017 MAX.

TYPICAL RESISTANCE / IMPEDANCE

Current Rating (Amps)	DC Resistance - Ohms	
	Standard	***All Copper***
2.0	.400	.385
14.0	.0098	.0091
15.0	.0075	.0070
20.0	.0049	.0046
30.0	.0027	.0024

DCR and Impedance based on 100% rated current applied and stabilized for a minimum of one hour. Tolerance 2.0 - 2.5 amperes ± 20%: 2.6 -20. amperes ± 25%, 21.-30. amperes ± 50%. Consult Sensata for special values and for coil impedance of delays not shown.

INRUSH PULSE TOLERANCE

Delay	Pulse Tolerance
61, 62, 63	10 times rated current (approx)

The table above provides a comparison of inrush pulse tolerance for each of the 50/60Hz delays. Pulse tolerance is defined as a single pulse of half sine wave peak current amplitude of 8 milliseconds duration that will not trip the circuit breaker. Consult Sensata for further assistance.

AGENCY APPROVALS - LUX CIRCUIT BREAKERS

Max Voltage	Frequency (Hz)	Phase	Minimum Poles	UL/CSA rated current	UL489 short circuit
240	50/60	1	1	2-30	5,000
240	50/60	1	1 only	15-30	10,000
240	50/60	1	2 only	2-30	10,000

DECISION TABLES

1 First Decision

Type

LUX	Single pole	U.L. listed per 489, C22.2 No. 5
LUXH	Two pole One handle per pole	
IAX	Single pole	Special customer variation not covered by agency approvals.
IAXH	Two pole One handle per pole	

1. Individual units riveted together as a single unit are indicated by "M" following the "type" (e.g. LUXHM). Must be handles in all poles. No mechanical linkage is provided between units.

2. See ratings table for specific rating values.

Example:

LUXHA66-1-61-20.0-NR-01

1 2 3 4 5 6 7

2 Second Decision

Poles

Screw Terminals	
Low Depth	
A6	Single Pole
A66	Two Pole

1. Screw terminals are 10-32. M5 terminals are available as an option in the sixth decision.

3 Third Decision

Construction

-1	Series

4 Fourth Decision

Frequency & Delay

-61	50/60 short delay
-62	50/60 long delay
-63	50/60 extra long / motor start
-69	50/60 125% instant trip

5 Fifth Decision

8.0	8 amp
15.0	15 amp
16.0	16 amp
20.0	20 amp
25.0	25 amp
30.0	30 amp

For other ratings, contact Sensata.

6 Sixth Decision

Miscellaneous

-A	Metric thread mounting, terminals and screws.
-N	"All copper" option
-R	10kAIC

1. One or more descriptors may be used as required.

2. When no sixth decision is selected, ASME/ANSI threads will be supplied.

7 Seventh Decision

Marked (Combination On - Off / I-O)	
-01	Black with white markings