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# **AIRPAX**® | IAX/LUX/LEX Series 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

LEX (Low-Depth)

#### **CONFIGURATIONS**





## **DELAY CURVES**





50/60Hz Long Delay (Motor Start)



50/60Hz Medium Delay







# 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	.0153	.0115	.011
62	No Trip	10-120	6-60	2-20	.2-3	.015-2	.0158	.01-25
63	No Trip	50-700	30-400	10-150	1.5-20	.015-10	.01385	.0135
69	No Trip	.120 MAX.	.100 MAX.	.050 MAX.	.022 MAX.	.017 MAX.	.017 MAX.	.017 MAX.

## **TYPICAL RESISTANCE / IMPEDANCE**

Current Rating	DC Resistance - Ohms				
(Amps)	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  $\pm$  20%: 2.6 -20. amperes  $\pm$  25%, 21.-30. amperes  $\pm$  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**

