

Typical L-Frame Circuit Breaker



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L-Frame (125–600 Amperes)

Product Description

- All Eaton L-Frame circuit breakers are HACR rated
- L-Frame circuit breakers are available as individual components (frame, trip unit, terminals), or factory assembled complete breakers
- L-Frame circuit breakers with non-interchangeable trip units are suitable for reverse feed use

Standards and Certifications

- CE marked



2.4

Molded Case Circuit Breakers

Series C

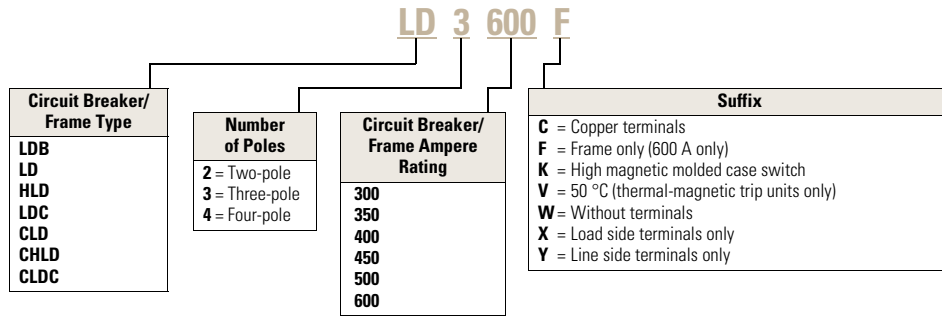
2

Catalog Number Selection

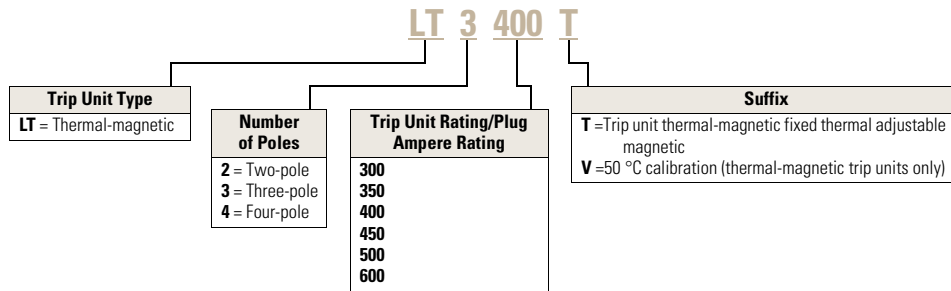
This information is presented only as an aid to understanding catalog numbers. It is not to be used to build catalog numbers for circuit breakers or trip units.

LD-Frame with Thermal-Magnetic Trip Unit Technology

Thermal-Magnetic Breakers and Frame ①



Thermal-Magnetic Trip Unit ①



Note

① Frames are the same for thermal-magnetic or 310+ electronic trip units, e.g., **LD3600F**, **HLD3600F**, etc.

Types LD, HLD and LDC Electronic Circuit Breakers with Interchangeable Trip Units

Order as individual components: breaker frame, trip unit and terminals. See 310+ adjustability specifications on **Page V4-T2-286**.

Types LD, HLD and LDC Electronic Circuit Breakers with Interchangeable 310+ Trip Units

| Maximum Continuous Ampere Rating at 40 °C | Circuit Breaker Frame Only | | | Digitrip RMS 310+ Trip Unit Only ^① | | | | Neutral CT for LSG and LSI ^{②③} | Terminal Information |
|---|---|---|---|---|--|--|--|--|----------------------|
| | Standard Interrupting Capacity 600 Vac Rated 35 kAIC at 480 Vac Catalog Number | High Interrupting Capacity 600 Vac Rated 65 kAIC at 480 Vac | Ultra High Interrupting Capacity Current Limiting 600 Vac Rated 100 kAIC at 480 Vac | Standard LS | Optional LSI | LSG | LSIG | | |
| | | | | Adjustable Short Time Pickup with I ² t Short Delay Ramp | Independently Adjustable Short Time Pickup and Delay | Adjustable Short Time Pickup with I ² t Short Delay and Ground Fault Protection | Independently Adjustable Short Time Pickup and Ground Fault Protection | | |
| Three-Pole | | | | | | | | | |
| 600 | LD3600F | HLD3600F | LDC3600F | LES3600LS | LES3600LSI | LES3600LSG | LES3600LSIG | LGFACT600 | See Page V4-T2-284 |
| Four-Pole ^④ | | | | | | | | | |
| 600 | LD4600F | HLD4600F | LDC4600F | LES4600LS | LES4600LSI | — | — | — | See Page V4-T2-284 |

Types LDB, HLDB and LDCB Electronic Circuit Breakers with Non-Interchangeable 310+ Electronic Trip Units Suitable for Reverse Feed

See 310+ adjustability specifications on **Page V4-T2-286**.

**Circuit Breaker Frame Including Digitrip RMS 310+ Electronic Trip Unit Less Terminals
Types LDB, HLDB and LDCB with Digitrip 310+ Non-Interchangeable Trip Units**

| Maximum Continuous Ampere Rating at 40 °C | Number of Poles | Factory Assembled Circuit Breaker Consisting of Frame and Trip Unit Less Terminals ^① | | | | Neutral CT for LSG and LSI ^{②③} | Terminal Information |
|---|-----------------|---|--|--|--|--|----------------------|
| | | Standard LS | Optional LSI | LSG | LSIG | | |
| | | Adjustable Short Time Pickup with I ² t Short Delay Ramp Catalog Number | Independently Adjustable Short Time Pickup and Delay | Adjustable Short Time Pickup with I ² t Short Delay and Ground Fault Protection | Independently Adjustable Short Time Pickup and Ground Fault Protection | | |
| 600 | 3 | LDB3600FT33W | LDB3600FT32W | LDB3600FT35W | LDB3600FT36W | LGFACT600 | See Page V4-T2-284 |
| 600 | 3 | HLDB3600FT33W | HLDB3600FT32W | HLDB3600FT35W | HLDB3600FT36W | | |
| 600 | 3 | LDCB3600FT33W | LDCB3600FT32W | LDCB3600FT35W | LDCB3600FT36W | | |

100% Rated Types CLD, CHLD and CLDC Electronic Circuit Breakers with Interchangeable Trip Units

The NEC allows the breaker to be rated at 100% of its frame size in an assembly, provided that 90 °C wire is applied at the 75 °C ampacity. All 100% rated circuit breakers have electronic trip units. Order as individual components: breaker frame, trip unit and terminals. See 310+ adjustability specifications on **Page V4-T2-286**.

100% Rated Types CLD, CHLD and CLDC Electronic Circuit Breakers with 310+ Interchangeable Trip Units

| Maximum Continuous Ampere Rating at 40 °C | Circuit Breaker Frame Only | | | Digitrip RMS 310+ Trip Unit Only | | | | Neutral CT for LSG and LSI ^{②③} | Terminal Information |
|---|---|---|---|---|--|--|--|--|----------------------|
| | Standard Interrupting Capacity 600 Vac Rated 35 kAIC at 480 Vac Catalog Number | High Interrupting Capacity 600 Vac Rated 65 kAIC at 480 Vac | Ultra High Interrupting Capacity Current Limiting 600 Vac Rated 100 kAIC at 480 Vac | Standard LS | Optional LSI | LSG | LSIG | | |
| | | | | Adjustable Short Time Pickup with I ² t Short Delay Ramp | Independently Adjustable Short Time Pickup and Delay | Adjustable Short Time Pickup with I ² t Short Delay and Ground Fault Protection | Independently Adjustable Short Time Pickup and Ground Fault Protection | | |
| Three-Pole | | | | | | | | | |
| 600 | CLD3600F | CHLD3600F | CLDC3600F | LES3600LS | LES3600LSI | LES3600LSG | LES3600LSIG | LGFACT600 | See Page V4-T2-284 |

Notes

- ① For AC use only.
- ② Required for four-wire systems if neutral protection is desired.
- ③ Included with LSG and LSI trip units.
- ④ Neutral is in right pole.

Technical Data and Specifications

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UL 489 Interrupting Capacity Ratings ^①

| Circuit Breaker Type | Number of Poles | Interrupting Capacity (kA rms Symmetrical Amperes) | | | | | |
|------------------------|-----------------|--|-----|-----|-----|----------|-------------------|
| | | Volts AC (50/60 Hz) | | | | Volts DC | |
| | | 240 | 277 | 480 | 600 | 125 | 250 ^{②③} |
| LDB | 2, 3 | 65 | — | 35 | 25 | — | 22 |
| LD | 2, 3, 4 | 65 | — | 35 | 25 | — | 22 |
| CLD ^④ | 2, 3, 4 | 65 | — | 35 | 25 | — | — |
| HLD, HLDB | 2, 3, 4 | 100 | — | 65 | 35 | — | 25 |
| CHLD ^④ | 2, 3, 4 | 100 | — | 65 | 35 | — | — |
| LDC, LDCB ^⑤ | 2, 3, 4 | 200 | — | 100 | 50 | — | 30 |
| CLDC ^{④⑤} | 2, 3, 4 | 200 | — | 100 | 50 | — | — |

IEC 947-2 Interrupting Capacity Ratings ^①

| Circuit Breaker Type | Number of Poles | Interrupting Capacity (kA Symmetrical Amperes) | | | | | | | |
|----------------------|-----------------|--|----------|----------|----------|----------|----------|-------------------|----------|
| | | Volts AC (50/60 Hz) | | | | Volts DC | | | |
| | | 240 | | 415 | | 690 | | 250 ^{②③} | |
| | | I_{cu} | I_{cs} | I_{cu} | I_{cs} | I_{cu} | I_{cs} | I_{cu} | I_{cs} |
| LDB | 2, 3 | 85 | 85 | 45 | 45 | 20 | 10 | 20 | 10 |
| LD | 2, 3, 4 | 85 | 85 | 45 | 45 | 20 | 10 | 20 | 10 |
| CLD ^④ | 2, 3, 4 | 85 | 85 | 45 | 45 | 20 | 10 | — | — |
| HLD, HLDB | 2, 3, 4 | 100 | 100 | 70 | 70 | 25 | 13 | 20 | 10 |
| CHLD ^④ | 2, 3, 4 | 100 | 100 | 70 | 70 | 25 | 13 | — | — |
| LDC, LDCB | 2, 3, 4 | 200 | 100 | 100 | 75 | 35 | 18 | 20 | 10 |
| CLDC ^④ | 2, 3, 4 | 200 | 100 | 100 | 75 | 35 | 18 | — | — |

UL 489 Current Limiting Data

| Frame | Circuit | I_p (kA) | I^2T ($10^6 A^2S$) |
|-------|--------------|------------|------------------------|
| LDC | 240 V/200 kA | 64.80 | 6.80 |
| LDC | 480 V/100 kA | 66.90 | 9.33 |
| LDC | 600 V/50 kA | 54.30 | 8.92 |

Notes

- ① Utilization Category A circuit breakers.
- ② L/R = 8 milliseconds minimum.
- ③ Two-pole circuit breaker or two poles of three-pole circuit breaker. Incorporating thermal-magnetic trip unit only.
- ④ 100% rated breakers.
- ⑤ Current limiting.