

Typical K-Frame Circuit Breaker



## Contents

<i>Description</i>	<i>Page</i>
Product Overview . . . . .	V4-T2-220
Standards and Certifications . . . . .	V4-T2-221
Quick Reference . . . . .	V4-T2-222
G-Frame (15–100 Amperes) . . . . .	V4-T2-225
F-Frame (10–225 Amperes) . . . . .	V4-T2-239
J-Frame (70–250 Amperes) . . . . .	V4-T2-257
K-Frame (70–400 Amperes)	
Catalog Number Selection . . . . .	V4-T2-266
Product Selection . . . . .	V4-T2-268
Accessories . . . . .	V4-T2-284
Technical Data and Specifications . . . . .	V4-T2-285
Dimensions and Weights . . . . .	V4-T2-288
L-Frame (125–600 Amperes) . . . . .	V4-T2-289
M-Frame (300–800 Amperes) . . . . .	V4-T2-315
N-Frame (400–1200 Amperes) . . . . .	V4-T2-326
R-Frame (800–2500 Amperes) . . . . .	V4-T2-341
Motor Circuit Protectors (MCP) . . . . .	V4-T2-360
Motor Protection Circuit Breakers (MPCB) . . . . .	V4-T2-371
Type ELC Current Limiter Attachment (Size 0–4) . . . . .	V4-T2-373
Current Limiting Circuit Breaker Module . . . . .	V4-T2-374
Internal Accessories . . . . .	V4-T2-377
External Accessories . . . . .	V4-T2-410

## K-Frame (70–400 Amperes)

### Product Description

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

# 2.4

## Molded Case Circuit Breakers

### Series C

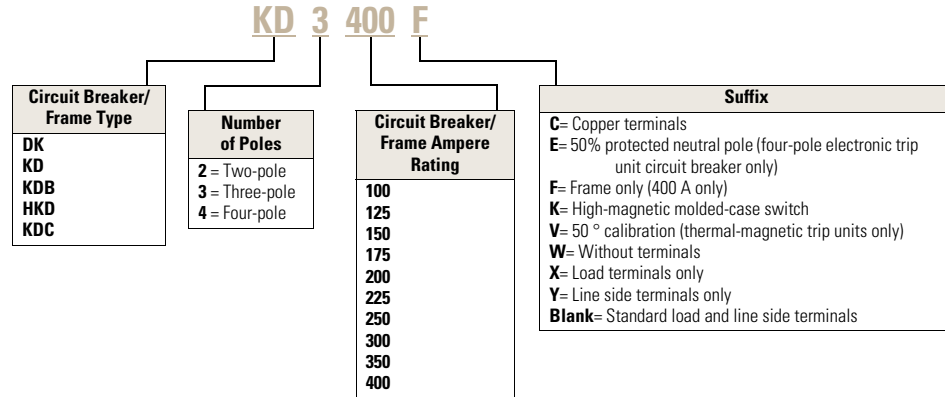
2

#### Catalog Number Selection

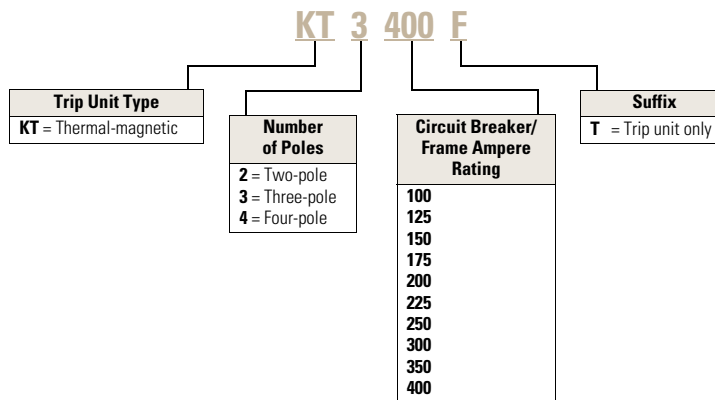
This information is presented only as an aid to understanding catalog numbers. It is not to be used to build catalog numbers for circuit breakers or trip units.

#### K-Frame with Thermal-Magnetic Trip Unit Technology

##### Thermal-Magnetic Breakers and Frames ①



##### Thermal-Magnetic Trip Unit ①



#### Notes

① Frames are the same for thermal-magnetic or 310+ electronic trip units, e.g., **KD3400F** or **HKD3400F**.

Ampere rating available with electronic trip unit only.

#### Molded Case Switches

Eaton’s molded case switches are used as compact switches in applications requiring high current switching capabilities. Molded case switches are constructed of circuit breaker

components and are of the high instantaneous automatic type. Molded case switches are listed in accordance with Underwriters Laboratories Standard UL 489.

#### Molded Case Switches

Maximum Continuous Ampere Rating at 40 °C	240 Vac Maximum, 250 Vdc	600 Vac Maximum, 250 Vdc	600 Vac Maximum, 250 Vdc
	Complete Circuit Breaker with Standard Line and Load Terminals Catalog Number	Complete Circuit Breaker with Standard Line and Load Terminals Catalog Number	Complete Circuit Breaker with Standard Line and Load Terminals. Suitable for Reverse Feed Use Catalog Number
<b>Two-Pole</b>			
400	DK2400K	KD2400K	KDB2400K
	—	HKD2400K	HKDB2400K
<b>Three-Pole</b>			
400	DK3400K	KD3400K	KDB3400K
	—	HKD3400K	HKDB3400K
<b>Four-Pole</b>			
400	—	KD4400K	KDB4400K
	—	HKD4400K	HKDB4400K

**Note**

Molded case switches may open above 4000 amperes.

## 310+ Electronic Trip Unit Accessories

Description	Catalog Number
Electronic portable test kit	MTST230V <sup>①</sup>
Trip unit tamper protection wire seal	5108A03H01
External neutral sensor, 400 A	LGFACT400 <sup>②</sup>
External neutral sensor, 250 A	LGFACT250 <sup>②</sup>
External neutral sensor, 125 A	LGFACT125 <sup>②</sup>
Breaker-mount cause-of-trip indication	TRIP-LED
Breaker-mount ammeter module	DIGIVIEW
Remote-mount ammeter module	DIGIVIEWR06 <sup>③</sup>

## Technical Data and Specifications

## NEMA/UL 489/CSA Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles <sup>④</sup>	Interrupting Capacity (kA Symmetrical Amperes)					Volts DC <sup>⑤⑥</sup>
		Volts AC (50/60 Hz)					
		240	277	480	600		
DK	2, 3	65	—	—	—	10	
KDB	2, 3, 4	65	—	35	25	10	
KD	2, 3, 4	65	—	35	25	10	
HKD, HKDB	2, 3, 4	100	—	65	35	22	
KDC <sup>⑦</sup>	2, 3, 4	200	—	100	65	22	
CKD	3	65	—	35	25	—	
CHKD	3	100	—	65	35	—	

## IEC 157-1 (P1) Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles <sup>④</sup>	Interrupting Capacity (kA Symmetrical Amperes)					Volts DC <sup>⑤⑥</sup>
		Volts AC (50/60 Hz)					
		240	380	415	440	500	
DK	2, 3	65	—	—	—	10	
KDB	2, 3, 4	65	40	40	—	10	
KD	2, 3, 4	65	40	40	—	10	
HKD, HKDB	2, 3, 4	100	65	65	—	22	
KDC	2, 3, 4	200	100	100	—	22	

## UL 489 Current Limiting Data

Frame	Circuit	I <sub>p</sub> (kA)	I <sup>2</sup> T (10 <sup>6</sup> A <sup>2</sup> S)
KDC	240 V/200 kA	56.00	2.30
KDC	480 V/100 kA	53.30	5.60
KDC	600 V/50 kA	43.40	5.40

## Notes

- ① MTST230V applies to 100–230 Vac.
- ② Included with all LD LSG and LSIG trip units and breakers.
- ③ Includes 6 ft cable for remote mounting; NEMA 3R rated.
- ④ Two-pole breaker supplied in three-pole frame. Current carrying parts omitted from center pole.
- ⑤ Two-pole circuit breaker or two outside poles of three-pole circuit breaker.
- ⑥ Time constant is 3 milliseconds minimum at 10 kA and 8 milliseconds minimum at 22 kA.
- ⑦ Current limiting.

# 2.4

## Molded Case Circuit Breakers

### Series C

#### Dimensions and Weights

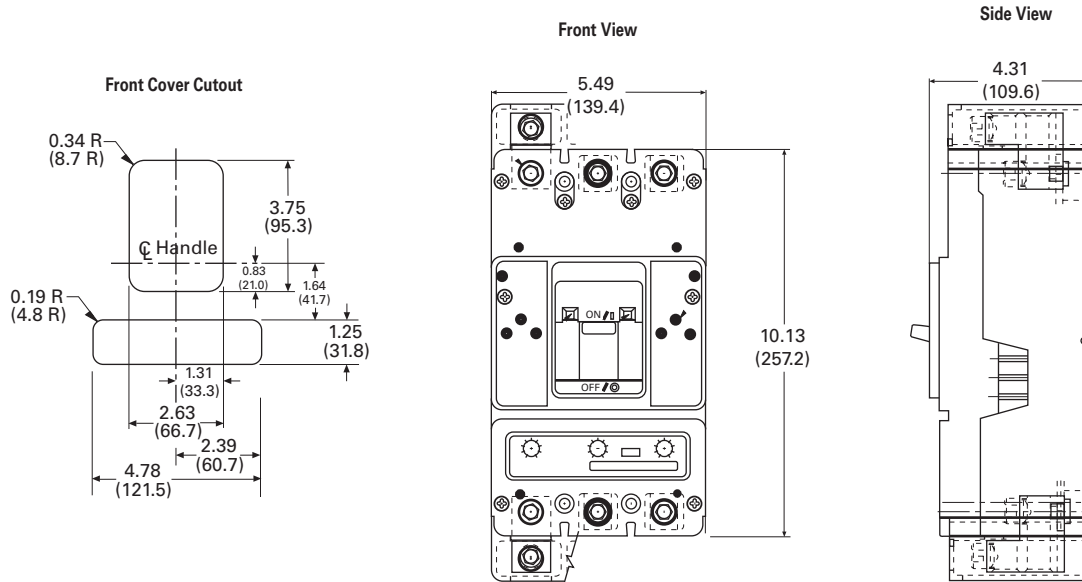
Approximate Dimensions in Inches (mm)

2

#### KD Frame

Number of Poles	Width	Height	Depth
2, 3	5.50 (149.7)	10.13 (257.3)	4.10 (104.1)
4	7.22 (183.4)	10.13 (257.3)	4.10 (104.1)

#### KD-Frame, Two- and Three-Pole



Approximate Shipping Weight, Lbs (kg)

#### KD Frame

Breaker Type	Complete Breaker		Frame Only		Trip Unit ①	
	Two-Pole	Three-Pole	Two-Pole	Three-Pole	Two-Pole	Three-Pole
DK	10.0 (4.5)	11.5 (5.2)	—	—	—	—
KDB	10.0 (4.5)	11.5 (5.2)	—	—	—	—
KD	10.0 (4.5)	11.5 (5.2)	7.5 (3.4)	8.5 (3.9)	1.5 (0.7)	1.5 (0.7)
HKD, HKDB	10.0 (4.5)	11.5 (5.2)	7.5 (3.4)	8.5 (3.9)	1.5 (0.7)	1.5 (0.7)
KDC	10.0 (4.5)	11.5 (5.2)	7.5 (3.4)	8.5 (3.9)	1.5 (0.7)	1.5 (0.7)

#### Note

① Weights shown are for thermal-magnetic trip units. Three-pole electronic trip units weigh 2.5 lbs (1.1 kg).