

Series C® K-Frame



Typical Series C K-Frame Circuit Breaker

- All Series C 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. OPTIM circuit breakers are available as factory assembled only.
- K-frame circuit breakers with non-interchangeable trip units are suitable for reverse feed use.

Interrupting Capacity Ratings

NEMA/UL489/CSA Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles	Interrupting Capacity (Symmetrical Amperes) (kA)					Page Number
		Volts Ac (50/60Hz)				Volts Dc	
		240	277	480	600		
DK	2, 3	65	—	—	—	10	47
KDB	2, 3, 4	65	—	35	25	10	47
KD	2, 3, 4	65	—	35	25	10	45, 46, 49
HKD	2, 3, 4	100	—	65	35	22	45, 46, 49
KDC	2, 3, 4	200	—	100	50	22	45, 46, 49
CKD	3	65	—	35	25	10	48, 50
CHKD	3	100	—	65	35	22	48, 50

IEC 157-1 (P1) Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles	Interrupting Capacity (Symmetrical Amperes) (kA)						Page Number
		Volts Ac (50/60Hz)						
		240	380	415	440	500	600	
DK	2, 3	65	—	—	—	—	10	47
KDB	2, 3, 4	65	40	40	—	—	10	47
KD	2, 3, 4	65	40	40	—	—	10	45, 46, 49
HKD	2, 3, 4	100	65	65	—	—	22	45, 46, 49
KDC	2, 3, 4	200	100	100	—	—	22	45, 46, 49

① Weights shown are for thermal magnetic trip units. 3-pole electronic trip units weigh 2.5 lbs. (1.134 kg).
 ② 2-pole circuit breaker or two outside poles of 3-pole circuit breaker.
 ③ Time constant is 3 milliseconds minimum at 10 kA and 8 milliseconds minimum at 22 kA.

Types DK and KDB Thermal-Magnetic Circuit Breakers with Non-Interchangeable Trip Units

Maximum Continuous Ampere Rating @ 40°C	240 Vac Rated, 250 Vdc		
	Complete Circuit Breaker		
	Without Line and Load Terminals	With Line Terminals Only	With Standard Line and Load Terminals Only
	Catalog Number		

Maximum Continuous Ampere Rating @ 40°C	600 Vac Rated, 250 Vdc	
	Complete Circuit Breaker	
	Without Line and Load Terminals	With Standard Line and Load Terminals
	Catalog Number	

2-Pole

100	-	-	-
125	-	-	-
150	-	-	-
175	-	-	-
200	-	-	-
225	-	-	-
250	DK2250W	DK2250Y	DK2250
300	DK2300W	DK2300Y	DK2300
350	DK2350W	DK2350Y	DK2350
400	DK2400W	DK2400Y	DK2400

2-Pole

100	KDB2100W	KDB2100
125	KDB2125W	KDB2125
150	KDB2150W	KDB2150
175	KDB2175W	KDB2175
200	KDB2200W	KDB2200
225	KDB2225W	KDB2225
250	KDB2250W	KDB2250
300	KDB2300W	KDB2300
350	KDB2350W	KDB2350
400	KDB2400W	KDB2400

3-Pole

100	-	-	-
125	-	-	-
150	-	-	-
175	-	-	-
200	-	-	-
225	-	-	-
250	DK3250W	DK3250Y	DK3250
300	DK3300W	DK3300Y	DK3300
350	DK3350W	DK3350Y	DK3350
400	DK3400W	DK3400Y	DK3400

3-Pole

100	KDB3100W	KDB3100
125	KDB3125W	KDB3125
150	KDB3150W	KDB3150
175	KDB3175W	KDB3175
200	KDB3200W	KDB3200
225	KDB3225W	KDB3225
250	KDB3250W	KDB3250
300	KDB3300W	KDB3300
350	KDB3350W	KDB3350
400	KDB3400W	KDB3400



Instruction Leaflet/FRED Number 29C104

Molded Case Switches

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, Inc., Standard UL 1087.

Maximum Continuous Ampere Rating @ 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	Complete Circuit Breaker with Standard Line and Load Terminals	Complete Circuit Breaker with Standard Line and Load Terminals. Suitable for Reverse Feed Use
	Catalog Number		

2-Pole

400	DK2400K	KD2400K	KDB2400K
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3-Pole

400	DK3400K	KD3400K	KDB3400K
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4-Pole

400	-	KD4400K	-
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Note: Molded case switches may open above 4000 amperes.

Instruction Leaflet/FRED Number 29C104

Series C® K-Frame

Line and Load Terminals

Line and load terminals provide wire connecting capabilities for specific ranges of continuous current ratings and wire types. All terminals comply with Underwriters Laboratories, Inc., Standards UL486A and UL486B

and CSA Standard C22.2 No. 65, or Electrical Bulletin 1165. Unless otherwise specified, K-frame circuit breaker line and load terminals are shipped separately for field installation.

Ordering Information

K-frame circuit breakers use Cu/Al terminals as standard. When optional copper or Cu/Al terminals are required, order by catalog number. Specify if factory installation is required.

Line and Load Terminals

Maximum Breaker Amperes	Terminal Body Material	Wire Type	AWG Wire Range/ No. Conductors	Metric Wire Range mm ²	Terminal Catalog Number	Figure	Terminals with Control Wire Termination Catalog Number	Figure
Standard Cu/Al Pressure Terminals								
225	Aluminum	Cu/Al	3-350/(1)	35-185	TA300K ^①	4	—	—
350	Aluminum	Cu/Al	250-500/(1)	120-240	TA350K ^①	3	—	—
400	Aluminum	Cu/Al	3/0-250/(2)	95-120	2TA400K ^④	2	2TA400KCW ^④	5
					3TA400K ^⑤	2	3TA400KCW ^⑤	5
					4TA400K ^⑥	2	4TA400KCW ^⑥	5

Optional Copper and Cu/Al Pressure Type Terminals

225	Copper	Cu	3-350/(1)	35-185	T300K ^①	4	—	—
350	Copper	Cu	250-500/(1)	120-240	T350K ^①	3	—	—
400	Copper	Cu	3/0-250/(2)	95-120	2T400K ^④	2	2T400KCW ^④	5
					3T400K ^⑤	2	3T400KCW ^⑤	5
					4T400K ^⑥	2	4T400KCW ^⑥	5
400	Aluminum	Cu/Al	2/0-250/(2)	70-120	2TA401K ^④	1	2TA401KCW ^④	5
			or	70-240	3TA401K ^⑤	1	3TA401KCW ^⑤	5
			2/0-500/(1)	70-240	4TA401K ^⑥	1	4TA401KCW ^⑥	5
400	Aluminum	Cu/Al	500-750/(1)	300-400	TA402K	6	—	—

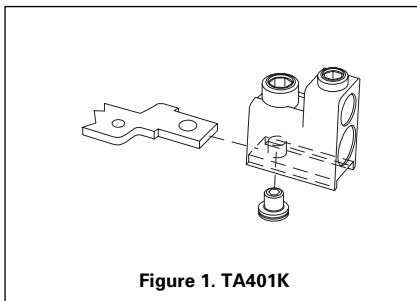


Figure 1. TA401K

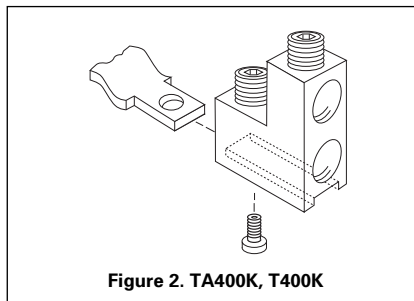


Figure 2. TA400K, T400K

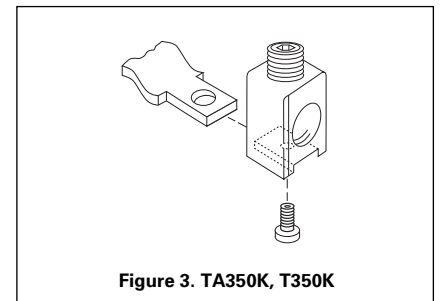


Figure 3. TA350K, T350K

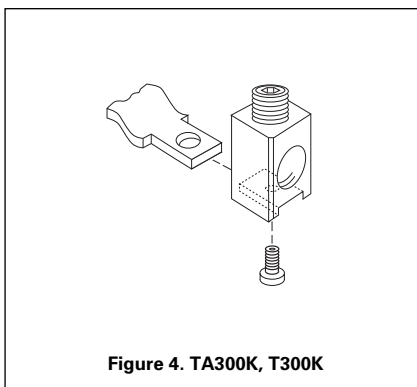


Figure 4. TA300K, T300K

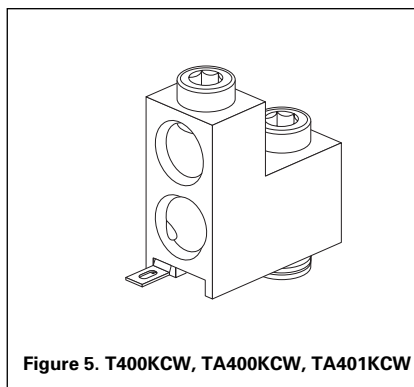


Figure 5. T400KCW, TA400KCW, TA401KCW

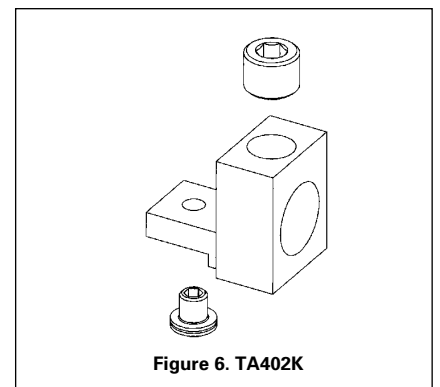


Figure 6. TA402K

See page 53 for other termination accessories.

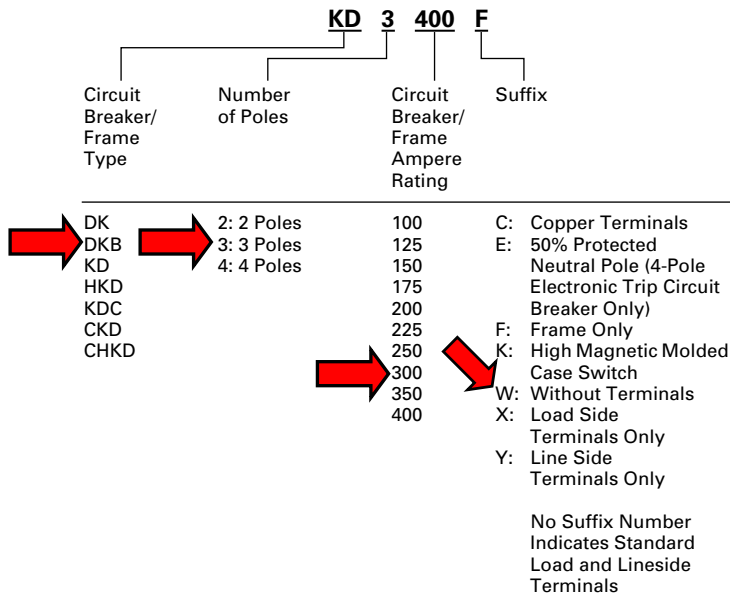
- ① Individually packed.
- ② Terminal kits contain one terminal for each pole and one terminal cover.
- ③ Terminal kits contain one terminal for each pole and three interphase barriers.

- ④ 2-Pole Kit.
- ⑤ 3-Pole Kit.
- ⑥ 4-Pole Kit.

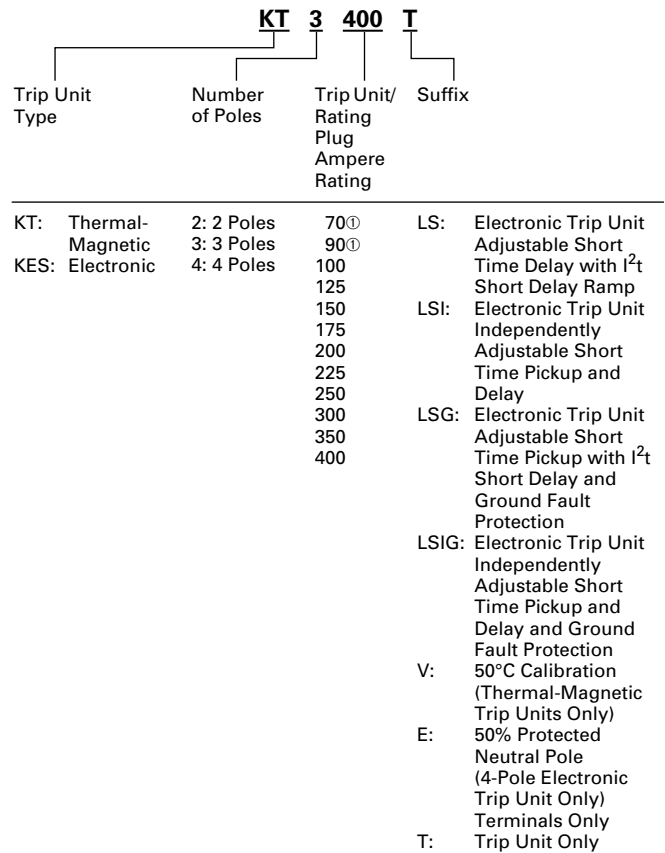
Catalog Numbering System

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.

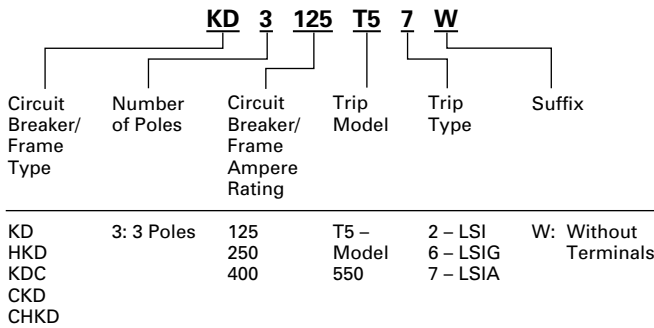
Circuit Breaker/Frame Catalog Number



Trip Unit Catalog Number



OPTIM Circuit Breaker/Frame Catalog Number



Dimensions/Weights

Dimensions, Inches (mm)

Number of Poles	Width	Height	Depth
2, 3	5.5 (140)	10.125 (257)	4.063 (103)
4	7.219 (183)	10.125 (257)	4.063 (103)

Approximate Shipping Weight, Lbs. (kg)

Breaker Type	Complete Breaker		Frame Only		Trip Unit①	
	Number of Poles					
	2	3	2	3	2	3
DK	10 (4.536)	11.5 (5.216)	–	–	–	–
KDB	10 (4.536)	11.5 (5.216)	–	–	–	–
KD	10 (4.536)	11.5 (5.216)	7.5 (3.402)	8.5 (3.856)	1.5 (.680)	1.5 (.680)
HKD	10 (4.536)	11.5 (5.216)	7.5 (3.402)	8.5 (3.856)	1.5 (.680)	1.5 (.680)
KDC	10 (4.536)	11.5 (5.216)	7.5 (3.402)	8.5 (3.856)	1.5 (.680)	1.5 (.680)

① Ampere rating available with electronic trip unit only.

Allowable Accessory Combinations

Different combinations of accessories can be supplied, depending on the types of accessories and the number of poles in the circuit breaker.

	Reference Page	2-Pole ^①		3-Pole			4-Pole				
		Left	Right	Left	Center	Right	Left	Center	Right	Neu.	
Internal Accessories (Only One Internal Accessory Per Pole)											
Alarm Lockout (Make/Break)	140		■	□		□		■			
Alarm Lockout (2Make/2Break)	140			□		□		■			
Auxiliary Switch (1A, 1B)	143		■	■		■		■		■	
Auxiliary Switch (2A, 2B)	143			■		■		■		■	
Auxiliary Switch (3A, 3B)	143			■		■		■		■	
Auxiliary Switch and Alarm Switch Combination	145			□		□		□		□	
Shunt Trip – Standard	149		■	■		■		■		■	
Shunt Trip – Low Energy	152			■		■		■			
Undervoltage Release Mechanism	156		■	■		■		■			
Cutler-Hammer PowerNet Communications Kit (OPTIM 550)	160					■					

External Accessories

End Cap Kit	161		●			●				●	
Keeper Nut	161		●			●				●	
Control Wire Terminal Kit	162		●			●				●	
Multewire Connectors	162		●			●				●	
Base Mounting Hardware	163		●			●				●	
Terminal Shields	165		●			●				●	
Interphase Barriers	166		●			●				●	
Non-Padlockable Handle Block	168	■				■				■	
Padlockable Handle Block	168					■					
Padlockable Handle Lock Hasp	169		■	□		□		□		□	
Cylinder Lock	169	□	□	□		□					
Key Interlock Kit	170	■	□	□		□		□		□	
Sliding Bar Interlock – Requires Two Breakers	171					●					
Walking Beam Interlock – Requires Two Breakers	171					●				●	
Electrical (Solenoid) Operator	172					●				●	
Plug-in Adapters	174		●			●				●	
Rear Connecting Studs	176		●			●				●	
Panelboard Connecting Straps	177		●			●				●	
Handle Mechanisms	178		●			●				●	
Door Hardware/Accessories	182		●			●				●	
Handle Extension	182		●			●				●	
IQ Energy Sentinel	184					●				●	
Solid-State (Electronic) Portable Test Kit	184		●			●				●	

OPTIM System Components 3-Poles

Breaker Interface Module (BIM)	185										
Digitrip OPTImizer	185										
Auxiliary Power Module	185										
Cutler-Hammer PowerNet Software	185										

Modifications (Refer to Cutler-Hammer)

Special Calibration	186		●			●				●	
Moisture Fungus Treatment	186		●			●				●	
Freeze-Tested Circuit Breakers	186		●			●				●	
Marine Application	186		●			●				●	

■ Applicable in indicated pole position

□ May be mounted on left or right pole – not both

● Accessory available/Modification available

① 2-pole breaker supplied in 3-pole frame. Current carrying parts omitted from center pole.



AB DE-ION Circuit Breakers

Types KDB, KD, HKD Equipped with Type KT Thermal-Magnetic Trip Unit

