

Typical J-Frame Breaker



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J-Frame (70–250 Amperes)

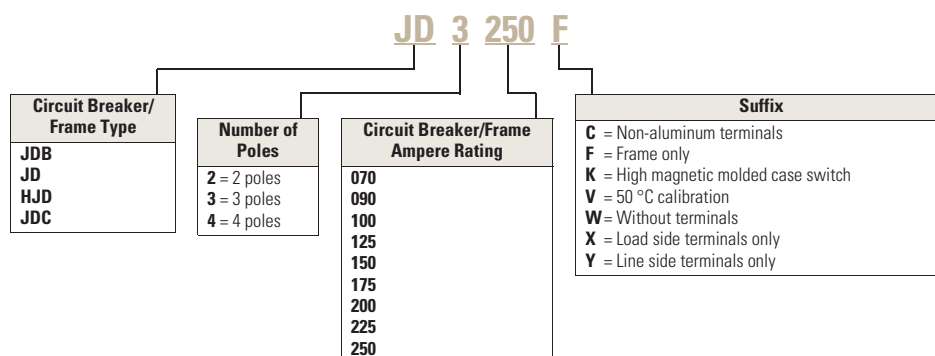
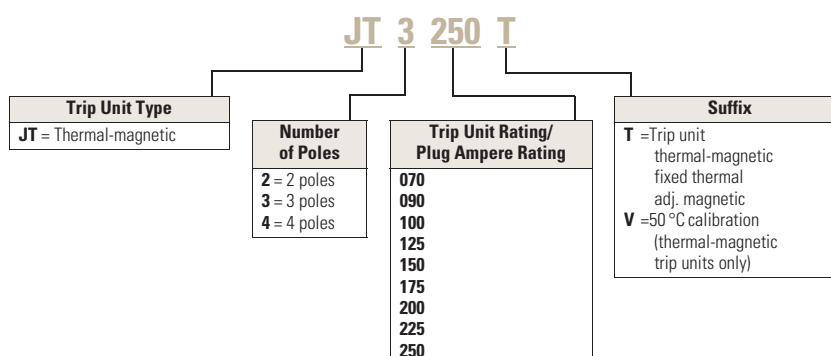
Product Description

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

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.

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Circuit Breaker/Frame**Trip Unit**

Product Selection

Types JD, HJD and JDC Thermal-Magnetic Circuit Breakers with Interchangeable Trip Units

Maximum Continuous Ampere Rating at 40 °C	Standard Interrupting Capacity 600 Vac Rated 35 kAIC at 480 Vac	High Interrupting Capacity 600 Vac Rated 65 kAIC at 480 Vac	Ultra High Interrupting Capacity 600 Vac Rated 100 kAIC at 480 Vac	Thermal-Magnetic Trip Unit Only ①	Standard Terminals Only
	Factory Assembled Circuit Consisting of Frame, Trip Unit and Terminals ①	Factory Assembled Circuit Consisting of Frame, Trip Unit and Terminals ①	Factory Assembled Circuit Consisting of Frame, Trip Unit and Terminals ①	For Use with Standard or High or Ultra High Interrupting Frames	See Page V4-T2-261 for Optional Terminals
	Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number
Two-Pole					
70	JD2070	HJD2070	JDC2070	JT2070T	TA250KB ②
90	JD2090	HJD2090	JDC2090	JT2090T	
100	JD2100	HJD2100	JDC2100	JT2100T	
125	JD2125	HJD2125	JDC2125	JT2125T	
150	JD2150	HJD2150	JDC2150	JT2150T	
175	JD2175	HJD2175	JDC2175	JT2175T	
200	JD2200	HJD2200	JDC2200	JT2200T	
225	JD2225	HJD2225	JDC2225	JT2225T	
250	JD2250	HJD2250	JDC2250	JT2250T	
Three-Pole					
70	JD3070	HJD3070	JDC3070	JT3070T	TA250KB ②
90	JD3090	HJD3090	JDC3090	JT3090T	
100	JD3100	HJD3100	JDC3100	JT3100T	
125	JD3125	HJD3125	JDC3125	JT3125T	
150	JD3150	HJD3150	JDC3150	JT3150T	
175	JD3175	HJD3175	JDC3175	JT3175T	
200	JD3200	HJD3200	JDC3200	JT3200T	
225	JD3225	HJD3225	JDC3225	JT3225T	
250	JD3250	HJD3250	JDC3250	JT3250T	
Four-Pole ③④					
125	JD4125	HJD4125	JDC4125	JT3125T	TA250KB ②
150	JD4150	HJD4150	JDC4150	JT3150T	
175	JD4175	HJD4175	JDC4175	JT3175T	
200	JD4200	HJD4200	JDC4200	JT3200T	
225	JD4225	HJD4225	JDC4225	JT3225T	
250	JD4250	HJD4250	JDC4250	JT3250T	

Notes

- ① Magnetic trip adjustable 5–10 times continuous ampere rating.
 ② Individually packed.
 ③ Fully rated neutral pole with no protection.
 ④ Neutral is in right pole.

Types JD, HJD and JDC Thermal-Magnetic Circuit Breakers—Frame Only

Standard Interrupting Capacity 600 Vac Rated 35 kAIC at 480 Vac Catalog Number	High Interrupting Capacity 600 Vac Rated 65 kAIC at 480 Vac Catalog Number	Ultra High Interrupting Capacity Current Limiting 600 Vac Rated 100 kAIC at 480 Vac Catalog Number
Two-Pole		
JD2250F	HJD2250F	JDC2250F
Three-Pole		
JD3250F	HJD3250F	JDC3250F
Four-Pole		
JD4250F	HJD4250F	JDC4250F

Type JDB Thermal-Magnetic Circuit Breakers with Non-Interchangeable Thermal-Magnetic Trip Units Suitable for Reverse Feed Application

Maximum Continuous Ampere Rating at 40 °C	600 Vac Rated, 250 Vdc Complete Circuit Breaker Without Line and Load Terminals Catalog Number	With Standard Line and Load Terminals Only Catalog Number
Two-Pole		
70	JDB2070W	JDB2070
90	JDB2090W	JDB2090
100	JDB2100W	JDB2100
125	JDB2125W	JDB2125
150	JDB2150W	JDB2150
175	JDB2175W	JDB2175
200	JDB2200W	JDB2200
225	JDB2225W	JDB2225
250	JDB2250W	JDB2250
Three-Pole		
70	JDB3070W	JDB3070
90	JDB3090W	JDB3090
100	JDB3100W	JDB3100
125	JDB3125W	JDB3125
150	JDB3150W	JDB3150
175	JDB3175W	JDB3175
200	JDB3200W	JDB3200
225	JDB3225W	JDB3225
250	JDB3250W	JDB3250

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	600 Vac Maximum, 250 Vdc Complete Circuit Breaker Only Without Line and Load Terminals Catalog Number	Suitable for Reverse Feed Use Catalog Number	Standard Terminals Only See Page V4-T2-261 for Optional Terminals Catalog Number
Two-Pole			
250	JD2250KW	JDB2250KW	TA250KB ①
	HJD2250KW	HJDB2250KW	—
Three-Pole			
250	JD3250KW	JDB3250KW	TA250KB ①
	HJD3250KW	HJDB3250KW	—
Four-Pole			
250	JD4250KW	JDB4250KW	TA250KB ①
	HJD4250KW	HJDB4250KW	—

Notes

① Individually packed.

Molded case switches may open above 2500 amperes.

Accessories Selection Guide and Ordering Information

Line and Load Terminals

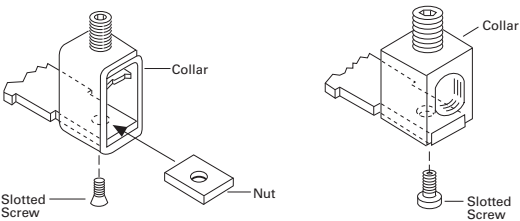
Eaton’s line and load terminals provide wire connecting capabilities for specific ranges of continuous current ratings and wire types. All terminals comply with Underwriters Laboratories Standards UL 486A and UL 486B and CSA Standard C22.2 No. 65, or Electrical Bulletin 1165.

Unless otherwise specified, J-Frame circuit breaker line and load terminals are shipped separately for field installation.

The bottom of the standard TA250KB terminal contains a recess that is positioned over the J-Frame circuit breaker terminal conductor.

Ordering Information

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



T250KB Terminal TA250KB Terminal (Standard)

Line and Load Terminals

Maximum Breaker Amperes	Terminal Body Material	Wire Type	AWG Wire Range/ No. Conductors	Metric Wire Range mm ²	Catalog Number
Standard Cu/Al Pressure Terminals					
250	Aluminum	Cu/Al	4–350 kcmil	25–185	TA250KB
Optional Cu Pressure Terminals					
250	Stainless Steel	Cu	4–350 kcmil	25–185	T250KB

Accessories

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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.

JD Frame Accessories

Description	Reference Page	Two-, Three-Pole Left	Center	Right	Four-Pole Left	Center	Right	Neutral
Internal Accessories (Only One Internal Accessory Per Pole)								
Alarm lockout (Make/Break)	V4-T2-379	□		□	□		□	
Auxiliary switch (1A, 1B)	V4-T2-381	■		■	■		■	
Auxiliary switch (2A, 2B)	V4-T2-381	■		■	■		■	
Auxiliary switch and alarm switch combination	V4-T2-383	□		□	□		□	
Shunt trip—standard	V4-T2-386	■		■	■		■	
Shunt trip—low energy	V4-T2-389	■		■	■		■	
Undervoltage release mechanism	V4-T2-393	■		■	■		■	
External Accessories								
End cap kit	V4-T2-414	●	●	●	●	●	●	●
Plug nut	V4-T2-415	●	●	●	●	●	●	●
Control wire terminal kit	V4-T2-415	●	●	●	●	●	●	●
Multiwire connectors	V4-T2-416	●	●	●	●	●	●	●
Base mounting hardware	V4-T2-417	●	●	●	●	●	●	●
Terminal shields	V4-T2-418	●	●	●	●	●	●	●
Interphase barriers	V4-T2-419	●	●	●	●	●	●	●
Non-padlockable handle block	V4-T2-420		■			■		
Padlockable handle block	V4-T2-420		■			■		
Padlockable handle lock hasp	V4-T2-421	□		□	□		□	
Cylinder lock	V4-T2-421	□		□				
Key interlock kit	V4-T2-422	□		□	□		□	
Sliding bar interlock—requires two breakers	V4-T2-423	●	●	●				
Electrical (solenoid) operator	V4-T2-425	●	●	●	●	●	●	●
Plug-in adapters	V4-T2-425	●	●	●	●	●	●	●
Rear connecting studs	V4-T2-427	●	●	●	●	●	●	●
Panelboard connecting straps	V4-T2-428	●	●	●	●	●	●	●
Handle mechanisms	V4-T2-508	●	●	●	●	●	●	●
Handle extension	V4-T2-522	●	●	●	●	●	●	●
IQ Energy Sentinel	V4-T2-430	●	●	●				
Modifications (Refer to Eaton)								
Special calibration	—	●	●	●	●	●	●	●
Moisture fungus treatment	V4-T2-220	●	●	●	●	●	●	●
Freeze-tested circuit breakers	—	●	●	●	●	●	●	●
Marine/naval application	—	●	●	●	●	●	●	●
Legend								
■ Applicable in indicated pole position								
□ May be mounted on left or right pole—not both								
● Accessory available/modification available								

Technical Data and Specifications

UL 489 Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles	Interrupting Capacity (kA Symmetrical Amperes)				
		Volts AC (50/60 Hz)			Volts DC	
		240	480	600	125	250 ^{①②}
JDB	2, 3	65	35	18	—	10
JD	2, 3, 4	65	35	18	—	10
HJD	2, 3, 4	100	65	25	—	22
JDC ^③	2, 3, 4	200	100	35	—	22

IEC 157-1 (P1) Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles	Interrupting Capacity (kA Symmetrical Amperes)				Volts DC	
		Volts AC (50/60 Hz)					
		240	380	415	600	125	250 ^{①②}
JD	2, 3, 4	65	35	35	—	—	10
HJD	2, 3, 4	100	65	65	—	—	22
JDC	2, 3, 4	200	100	100	—	—	22

UL 489 Current Limiting Data

Frame	Circuit	I _p (kA)	I ² T (10 ⁶ A ² S)
JDC	240 V/200 kA	42.6	1.36
JDC	480 V/100 kA	40.0	3.00
JDC	600 V/35 kA	31.9	3.10

Notes

- ① Two-pole circuit breaker or two outside poles of three-pole circuit breaker.
- ② Time constant is 3 milliseconds minimum at 10 kA and 8 milliseconds minimum at 22 kA.
- ③ Current limiting.

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Molded Case Circuit Breakers

Series C

Dimensions and Weights

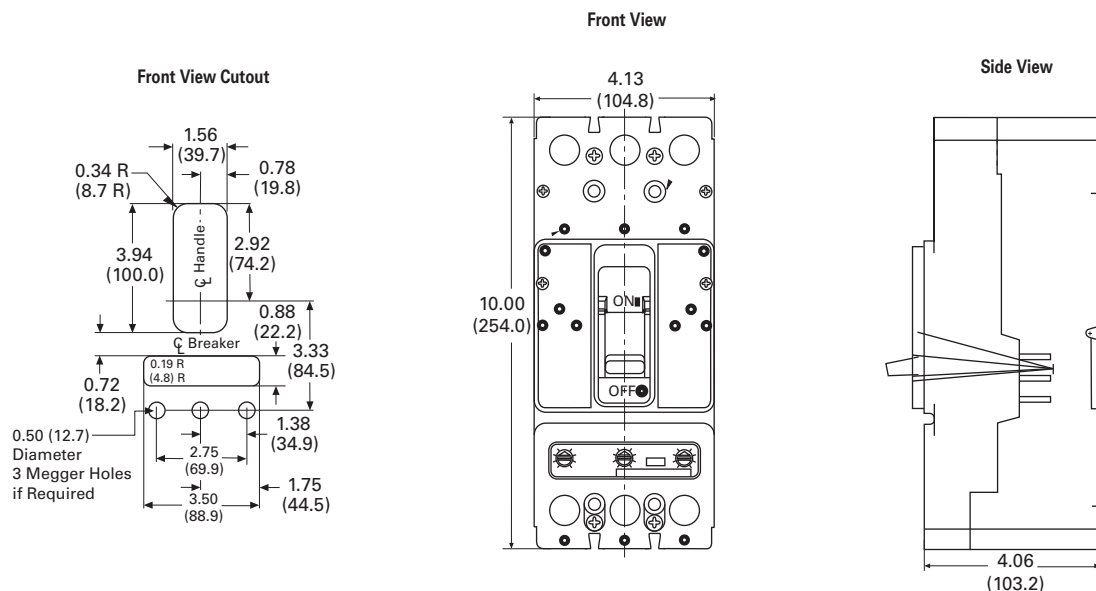
Approximate Dimensions in Inches (mm)

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JD Frame

Number of Poles	Width	Height	Depth
2, 3	4.13 (105.0)	10.00 (254.0)	4.06 (104.1)
4	5.50 (139.7)	10.00 (254.0)	4.06 (104.1)

JD-Frame, Three-Pole



Approximate Shipping Weight in Lbs (kg)

JD Frame

Breaker Type	Complete Breaker			Frame Only			Trip Unit		
	Two-Pole	Three-Pole	Four-Pole	Two-Pole	Three-Pole	Four-Pole	Two-Pole	Three-Pole	Four-Pole
JDB	11.25 (5.1)	12.50 (5.7)	—	—	—	—	—	—	—
JD	11.25 (5.1)	12.50 (5.7)	13.25 (6.0)	9.00 (4.1)	10.00 (4.5)	10.50 (4.8)	2.00 (0.9)	2.00 (0.9)	2.25 (1.0)
HJD	11.25 (5.1)	12.50 (5.7)	13.25 (6.0)	9.00 (4.1)	10.00 (4.5)	10.50 (4.8)	2.00 (0.9)	2.00 (0.9)	2.25 (1.0)
JDC	12.25 (5.6)	13.50 (6.1)	14.25 (6.5)	10.00 (4.5)	11.00 (5.0)	11.50 (5.2)	2.00 (0.9)	2.00 (0.9)	2.25 (1.0)