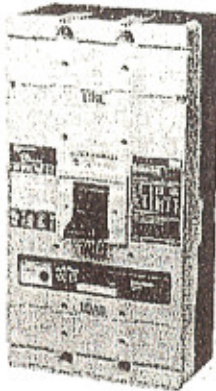


Selection Data — M-Frame

M-Frame, Electronic RMS,
400 – 800 Amperes/Thermal-
Magnetic, 300 – 800 Amperes

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M-Frame Breaker

Table 21.4-51. Dimensions in Inches (mm)

Width	Height	Depth
8.25 (209.6)	16.00 (406.4)	4.06 (103.2)

Table 21.4-52. Thermal-Magnetic Trip Ratings

Frame	Ratings
MDL	300, 400, 450, 500, 500, 700, 800

Table 21.4-53. Digitrip 310 Electronic Trip Unit
Rating Plugs

Frame	Rating Plugs
MDL	400, 500, 600, 700, 800, 400/800 Adjustable

Table 21.4-54. UL 489 Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles	Type of Trip ①	Interrupting Capacity (rms Symmetrical Amperes)			
			Volts AC (50/60 Hz)			Volts DC ②
			240	480	600	250
MDL, CMMDL ③	2, 3	N.I.T.	65,000	50,000	25,000	22,000
HMDL, CHMDL ④	2, 3	N.I.T.	100,000	65,000	35,000	25,000

① N.I.T. is non-interchangeable trip unit.

② Two poles or two poles of 3-pole circuit breaker. Thermal-magnetic trip units only. MDL, HMDL breakers with electronic trip unit are not DC rated.

③ Time constant is 3 milliseconds minimum at 10 kA and 8 milliseconds minimum at 22 kA.

④ 100% rated. Not for use on DC.

Table 21.4-55. Line and Load Terminals

Maximum Breaker Amperes	Terminal Body Material ①	Wire Type	AWG/kcmil Wire Range/Number of Conductors	Catalog Number
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Standard Cu/Al Pressure Terminals

600	Aluminum	Cu/Al	(2) #1 – 500 kcmil	TA700MA1
800	Aluminum	Cu/Al	(3) 3/0 – 400 kcmil	TAB00MA2
800	Aluminum	Cu/Al	(2) 500 – 750 kcmil	TAB01MA

Optional Copper and Cu/Al Pressure Type Terminals

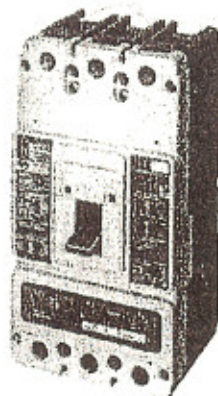
600	Copper	Cu	(2) 2/0 – 500 kcmil	T600MA1
800	Copper	Cu	(3) 3/0 – 300 kcmil	T800MA1

① UL listed for use with copper or aluminum conductors as noted.

Selection Data — K-Frame

K-Frame, Electronic RMS,
70 – 400 Amperes/Thermal-Magnetic,
100 – 400 Amperes

21



K-Frame Breaker

Table 21.4-40. Dimensions in Inches (mm)

Number of Poles	Width	Height	Depth
2, 3	5.50 (139.7)	10.13 (257.2)	4.06 (103.2)
4	7.22 (183.4)	10.13 (257.2)	4.06 (103.2)

Table 21.4-41. Thermal-Magnetic Trip Ratings

Frame	Ratings
DK, FDB, KD, HKD, KDC, HKDDC, CKD, CHKD	100, 125, 150, 175, 200, 225, 250, 300, 350, 400

Table 21.4-42. Digitrip 310 and OPTIM
Electronic Trip Unit Rating Plugs

Frame	Rating Plugs ①
KD, HKD, KDC, CKD, CHKD	70, 90, 100, 110, 125 ②, 150, 160, 175, 200, 225, 250 ②, 300, 350, 400 ③

① 160 ampere is only available on Digitrip 310.
② Adjustable rating plug available on
Digitrip 310.

Table 21.4-43. NEMA/UL 489/CSA Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles	Type of Trip ①	Interrupting Capacity (Symmetrical Amperes)				
			Volts AC (50/60 Hz)			Volts DC	
			240	480	600	250 ②③	600 ④
DK KDB	2, 3 2, 3, 4	N.I.T.	65,000	---	---	10,000	---
KD	2, 3, 4	I.T.	65,000	35,000	25,000	10,000	---
HKD	2, 3, 4	I.T.	100,000	65,000	35,000	22,000	---
KDC ⑤ HKDDC	2, 3, 4 3	I.T.	200,000	100,000	60,000	22,000	---
CKD ⑥ CHKD ⑥	3 3	I.T.	65,000 100,000	35,000 65,000	25,000 35,000	10,000 22,000	---

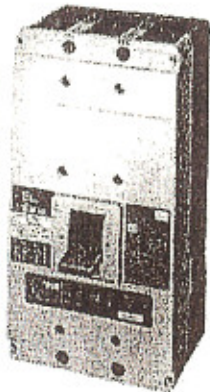
① N.I.T. is non-interchangeable trip; I.T. is interchangeable trip.
② 2-pole circuit breaker or two outside poles of 3-pole circuit breaker.
③ Time constant is 3 milliseconds minimum at 10 kA and 8 milliseconds minimum at 22 kA.
④ 8 milliseconds time constant.
⑤ Current limiting.
⑥ 100% rated.
⑦ Two poles in series.
⑧ Three poles in series.

Table 21.4-44. Line and Load Terminals

Maximum Breaker Amperes	Terminal Body Material ①	Wire Type	AWG/kcmil Wire Range/Number of Conductors	Metric Wire Range (mm ²)	Catalog Number
Standard Cu/Al Pressure Terminals					
225	Aluminum	Cu/Al	(1) 3 – 350 kcmil	35 – 185	TA300K
350	Aluminum	Cu/Al	(1) 250 – 500 kcmil	120 – 240	TA350K
400	Aluminum	Cu/Al	(2) 3/0 – 250 kcmil	95 – 120	2TA400K – 2-Pole Kit ② 3TA400K – 3-Pole Kit ② 4TA400K – 4-Pole Kit ②
Optional Copper and Cu/Al Pressure Type Terminals					
225	Copper	Cu	(1) 3 – 350 kcmil	35 – 185	T300K
350	Copper	Cu	(1) 250 – 500 kcmil	120 – 240	T350K
400	Copper	Cu	(2) 3/0 – 250 kcmil	95 – 120	2T400K – 2-Pole Kit ② 3T400K – 3-Pole Kit ② 4T400K – 4-Pole Kit ②
400	Aluminum	Cu/Al	(2) 2/0 – 250 kcmil or (1) 2/0 – 500 kcmil	70 – 120 70 – 240 70 – 240	2TA401K – 2-Pole Kit ② 3TA401K – 3-Pole Kit ② 4TA401K – 4-Pole Kit ②

① UL listed for use with copper or aluminum conductors as noted.
② TA400K, T400K and TA401K terminal kits contain one terminal for each pole and one terminal cover.

**N-Frame, Electronic RMS,
400 – 1200 Amperes**



N-Frame Breaker

Table 21.4-56. Dimensions in Inches (mm)

Number of Poles	Width	Height	Depth
2, 3	8.25 (209.6)	16.00 (406.4)	5.50 (139.7)
4	11.13 (282.4)	16.00 (406.4)	5.50 (139.7)

Table 21.4-57. Digitrip 310 Electronic Trip Unit Rating Plugs

Frame	Rating Plugs
800	400, 450, 500, 600, 700, 800 ①
1200	600, 700, 800, 900, 1000, 1100, 1200 ①

Table 21.4-58. Digitrip OPTIM Electronic Trip Unit Rating Plugs

Frame	Rating Plugs
800	400, 450, 500, 550, 600, 700, 800
1200	600, 700, 800, 1000, 1200

Table 21.4-59. UL 489 Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles	Type of Trip	Interrupting Capacity (Symmetrical Amperes)			
			Volts AC (50/60 Hz)			
			740	277	480	600
NO, CND ②	2, 3, 4	N.I.T.	65,000	—	50,000	25,000
HND	2, 3, 4	N.I.T.	100,000	—	65,000	35,000
CHND ③	2, 3, 4	N.I.T.	100,000	—	65,000	35,000
NDC	2, 3, 4	N.I.T.	200,000	—	100,000	50,000
CNDC ③	2, 3, 4	N.I.T.	200,000	—	100,000	50,000

② N.I.T. is non-interchangeable trip unit.
③ 100% rated.

Table 21.4-60. Line and Load Terminals

Maximum Breaker Amperes	Terminal Body Material ①	Wire Type	AWG/kcmil Wire Range/Number of Conductors	Metric Wire Range (mm ²)	Catalog Number
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Standard Cu/Al Pressure Terminals

700	Aluminum	Cu/Al	(2) 1 – 500 kcmil	50 – 300	TA700NB1
1000	Aluminum	Cu/Al	(3) 3/0 – 400 kcmil	95 – 185	TA1000NB1
1200	Aluminum	Cu/Al	(4) 4/0 – 500 kcmil	120 – 300	TA1200NB1
1200	Aluminum	Cu/Al	(3) 500 – 750 kcmil	300 – 400	TA1201NB1

Optional Copper and Cu/Al Pressure Type Terminals

700	Copper	Cu	(2) 2/0 – 500 kcmil	70 – 300	T700NB1
1000	Copper	Cu	(3) 3/0 – 500 kcmil	95 – 300	T1000NB1
1200	Copper	Cu	(4) 3/0 – 400 kcmil	95 – 185	T1200NB3

① UL listed for use with copper or aluminum conductors as noted.

Tyson's Corner Center Tenant Space Trip Elements

Service Size AMPS	Cutler-Hammer Breaker Frame
100-250	HKD-Trip Unit
250-400	HKD-Trip Unit
400-800	HMDL-Trip Unit
800-1200	HND-Trip Unit

Note: Breaker Frames are provided: Tenant will purchase the appropriate Trip Unit for that frame. Breaker Frames Catalog Cuts are attached.