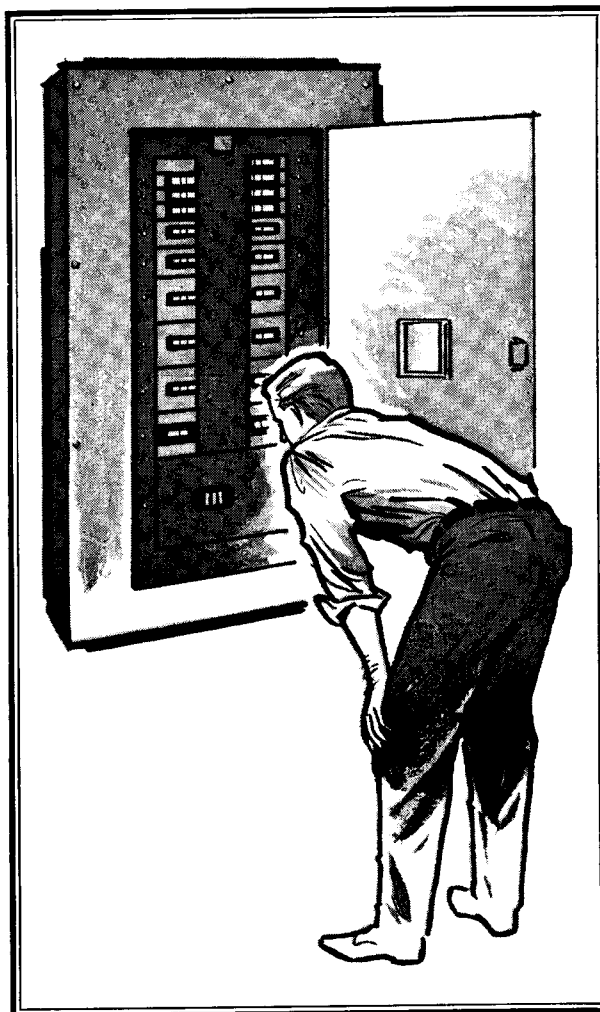




ET® HEAVY-DUTY CIRCUIT BREAKERS

DESCRIPTION



APPLICATIONS

I-T-E heavy-duty thermal-magnetic circuit breakers are designed for use in combination motor starters, control centers, bus duct plugs, power panelboards, distribution switchboards, secondary unit substations, machine tool and resistance welder control panels and all types of individual enclosures protecting power and distribution circuits, where the available fault currents are of magnitudes found in average industrial and commercial installations.

RATINGS

These breakers have ratings of 15 through 1200 amperes, 120 through 600 volts A-C, 125 through 250 volts D-C, with 7,500 to 50,000 amperes interrupting capacity.

FEATURES

Heavy-duty breakers combine instantaneous-magnetic short circuit protection with thermal time-delay overload protection. They have a quick-make, quick-break, trip-free mechanism design, coupled with common trip operation to assure all poles of the breaker opening simultaneously and automatically in the event of a fault or overload on any pole. These breakers cannot be held closed under abnormal conditions. A three-position handle visually indicates if the breaker is "on", "off", or has "tripped" on automatic operation.

Heavy-duty breakers are factory calibrated for 40C (104F) operation and sealed to prevent tampering.

I-T-E CIRCUIT BREAKER COMPANY

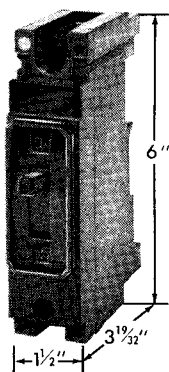
Printed in U. S. A.

NEW



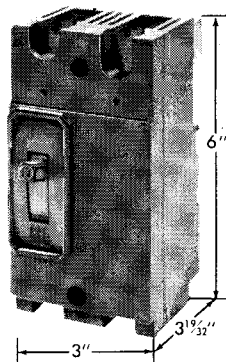
ET® HEAVY-DUTY CIRCUIT BREAKERS (continued)

DESCRIPTION



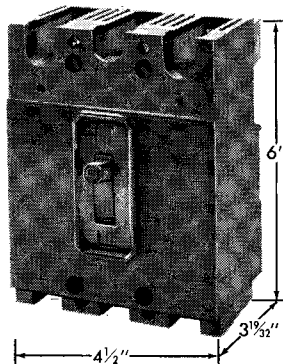
G-42702A

One Pole



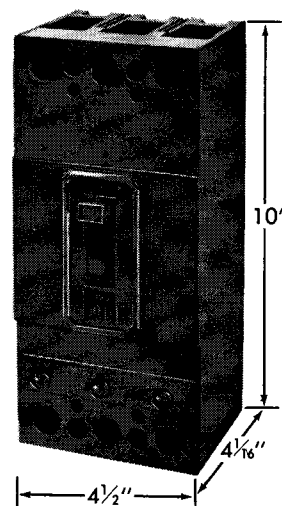
G-42703A

Two Pole



G-42704A

Three Pole



G-42705A

Two or Three Pole

E, EH, and EF Frame

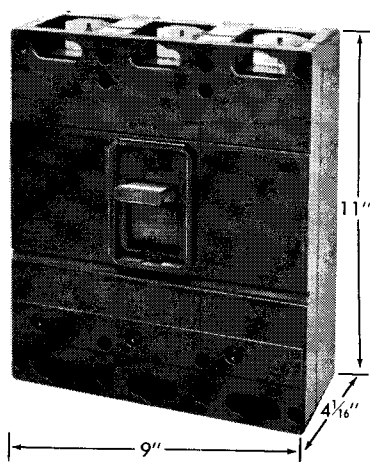
(EH and EF available in 2- and 3-pole construction only)

E Frame—1-Pole 120 Volts A-C, 125 Volts D-C • 2-, 3-Pole 240 Volts A-C, 125/250 Volts D-C

EH Frame—480 Volts A-C, 250 Volts D-C • EF Frame—600 Volts A-C, 250 Volts D-C 15–100 Amperes

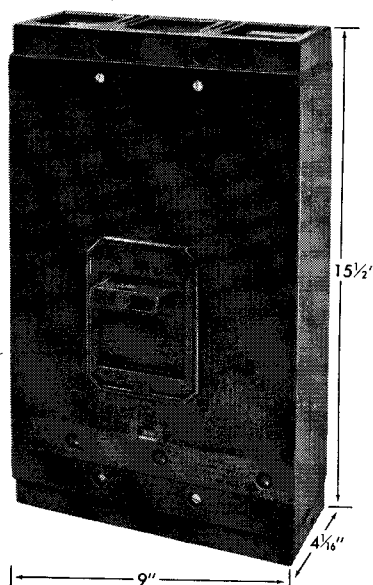
FJ Frame

600 Volts A-C • 250 Volts D-C
 70–225 Amperes



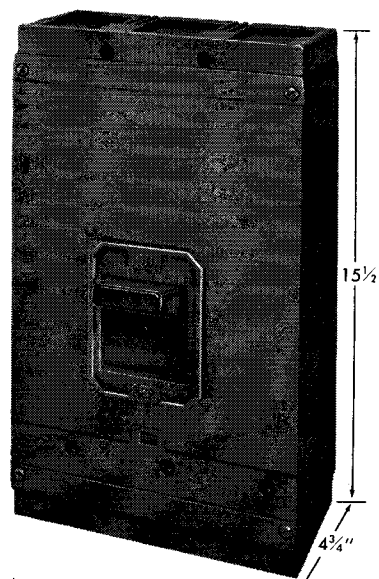
G-42706A

Two or Three Pole



G-42708A

Two or Three Pole



G-43206A

Three Pole

JJ and JKL Frame
 600 Volts A-C • 250 Volts D-C
 JJ Frame—250–400 Amperes
 JKL Frame—70–400 Amperes

KM Frame
 600 Volts A-C • 250 Volts D-C
 250–800 Amperes

KP Frame
 600 Volts A-C • 250 Volts D-C
 800–1200 Amperes

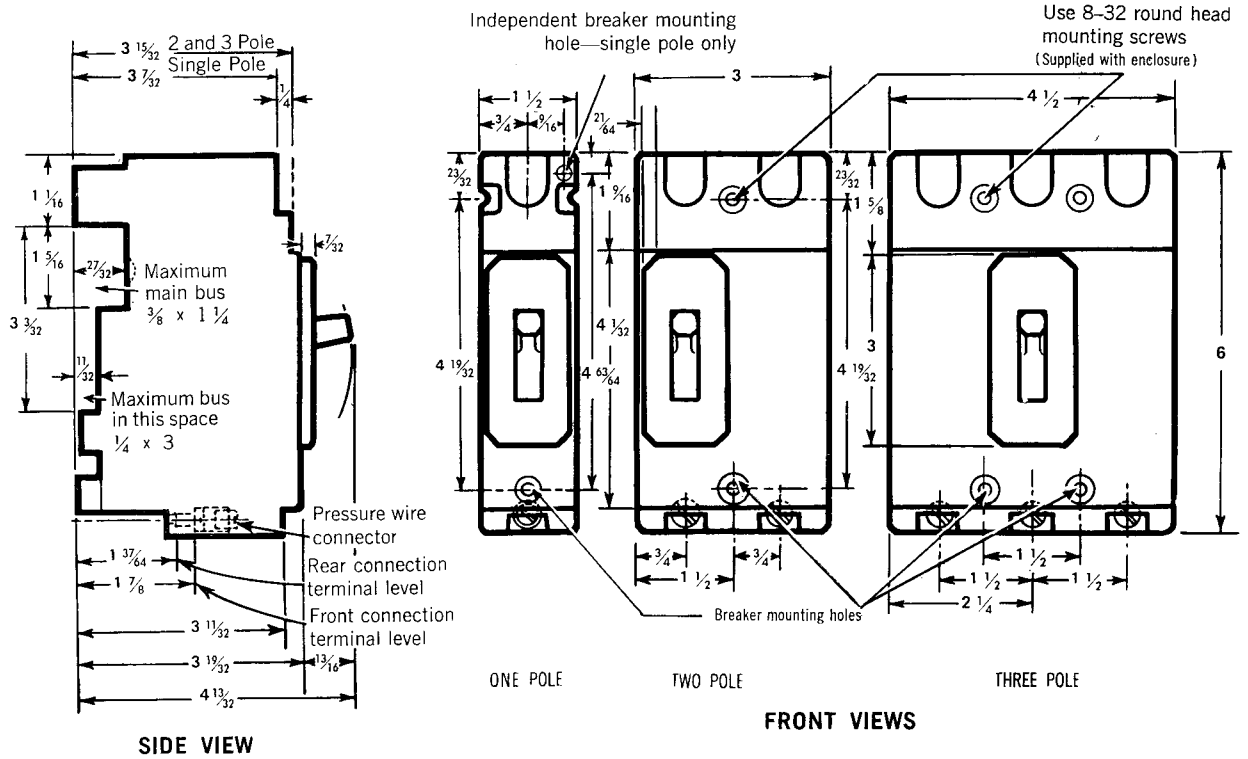


ET® E-, EH- AND EF-FRAME CIRCUIT BREAKERS

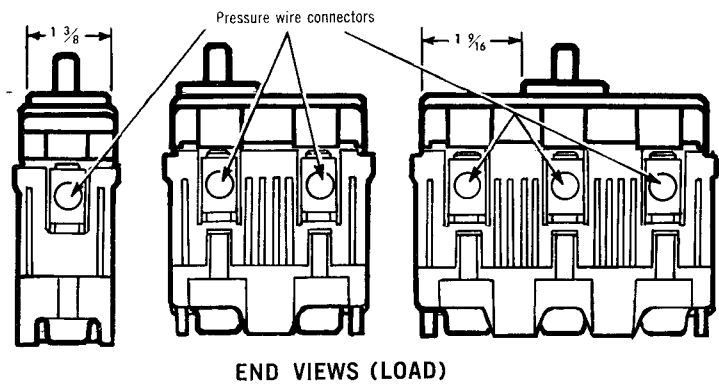
DIMENSIONS

G 43596A

Line end front-connected terminal level is $1\frac{3}{32}$ ". Line end rear-connected terminal level is $\frac{3}{32}$ ".



EH and EF frames available in 2- and 3-pole construction only.



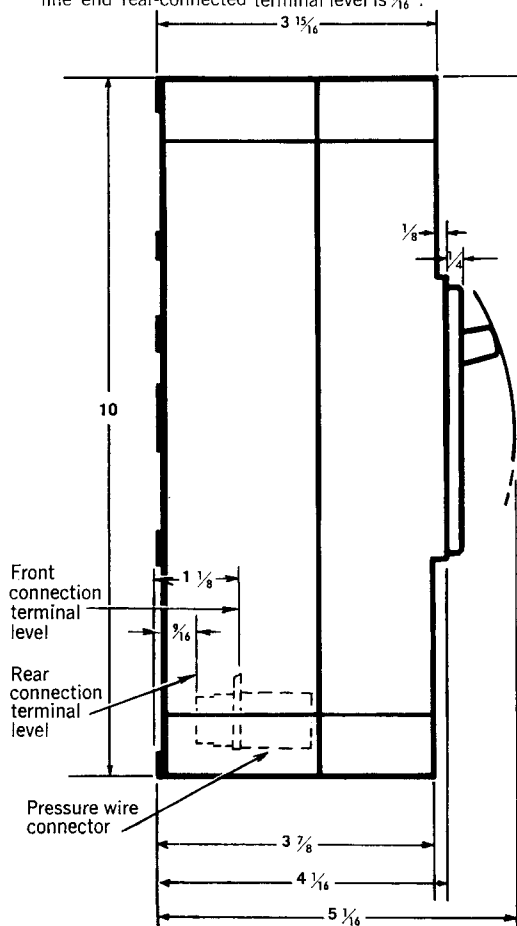


ET® FJ-FRAME CIRCUIT BREAKERS

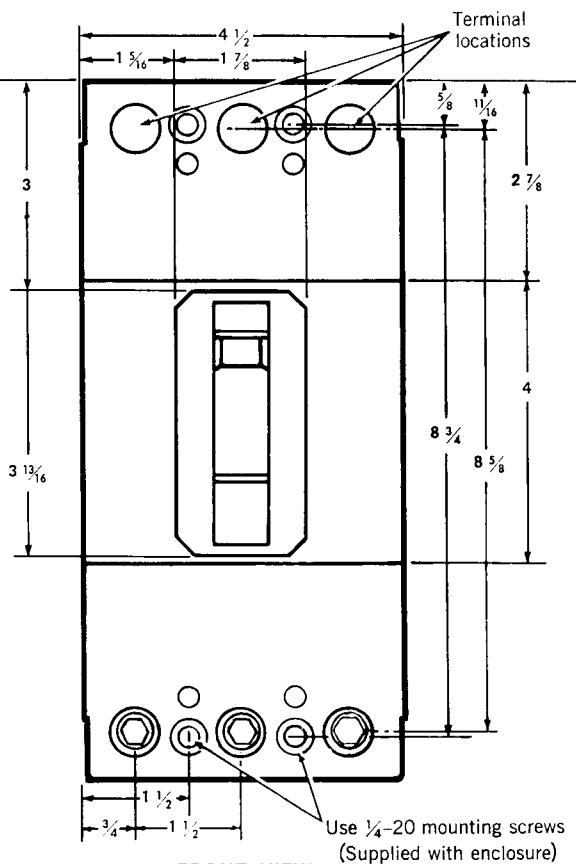
DIMENSIONS

G-43566AA

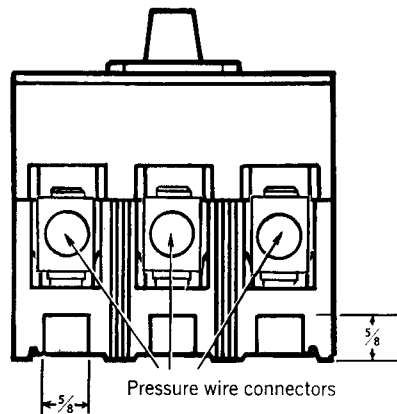
Line end front-connected terminal level is $1 \frac{1}{8}$ ";
line end rear-connected terminal level is $\frac{5}{16}$ ".



SIDE VIEW



FRONT VIEW



END VIEW (LOAD)

NOTE: Current-carrying parts are omitted from center pole in two pole construction.

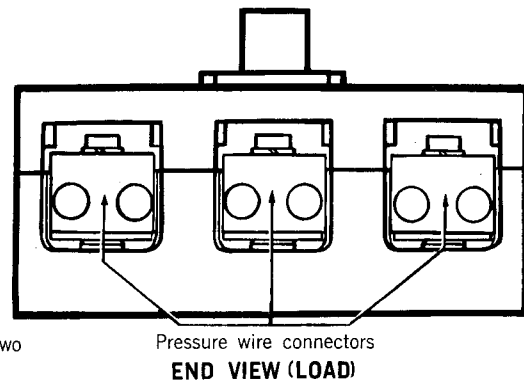
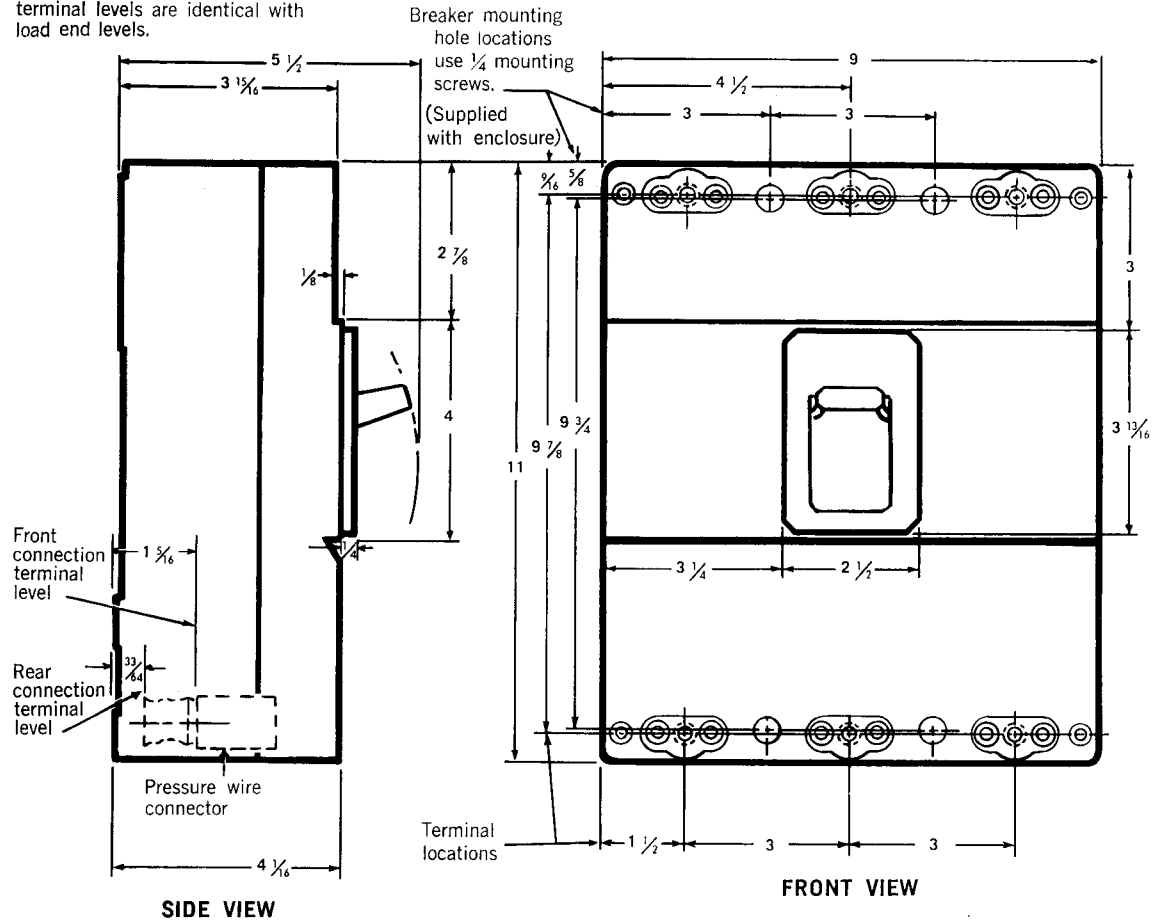


ET® JJ- AND JKL-FRAME CIRCUIT BREAKERS

DIMENSIONS

G-43567A

Line end front and rear-connected terminal levels are identical with load end levels.



NOTE: Current-carrying parts are omitted from center pole in two pole construction.

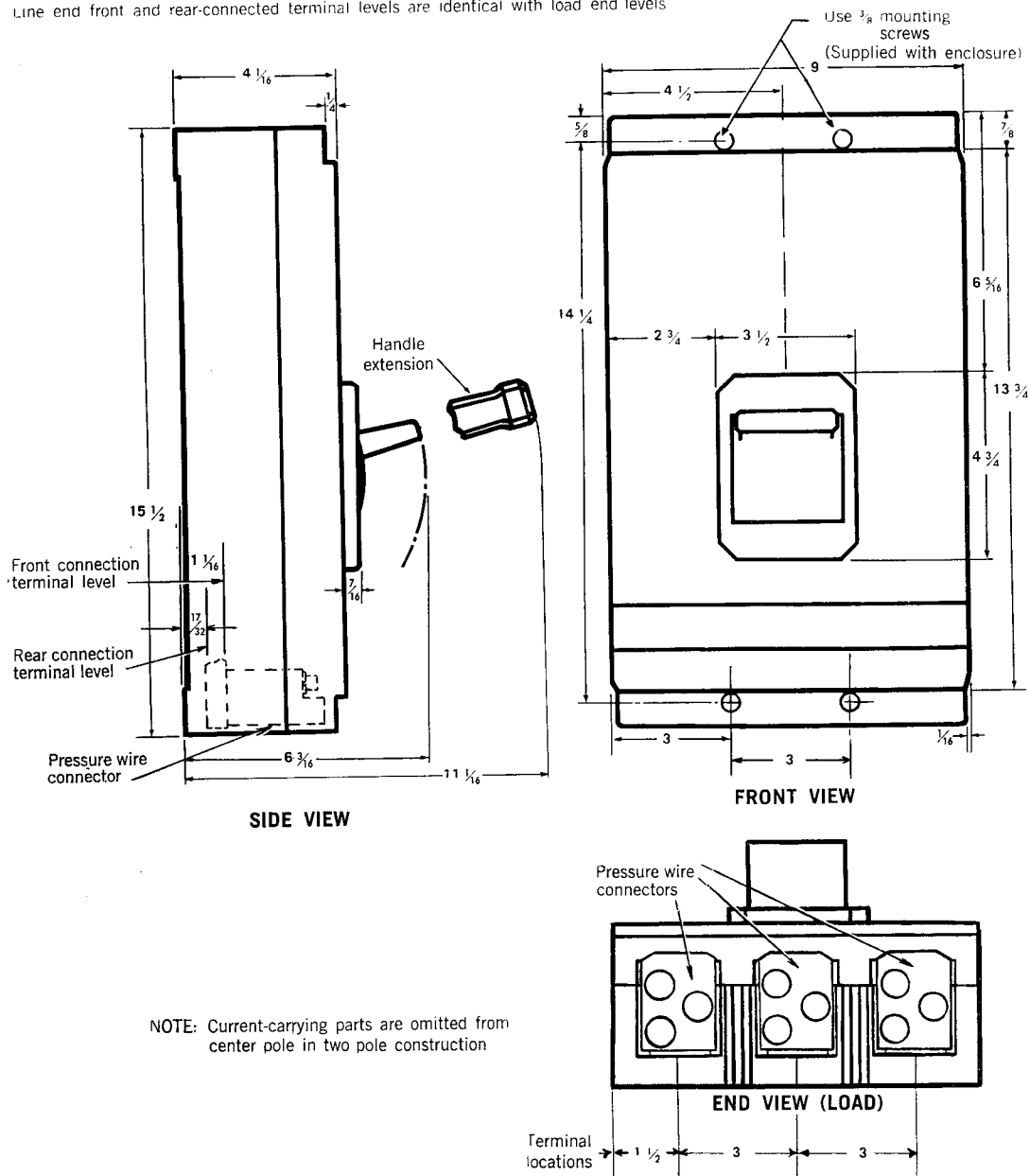


ET® KM-FRAME CIRCUIT BREAKERS

DIMENSIONS

-43569AA

Line end front and rear-connected terminal levels are identical with load end levels

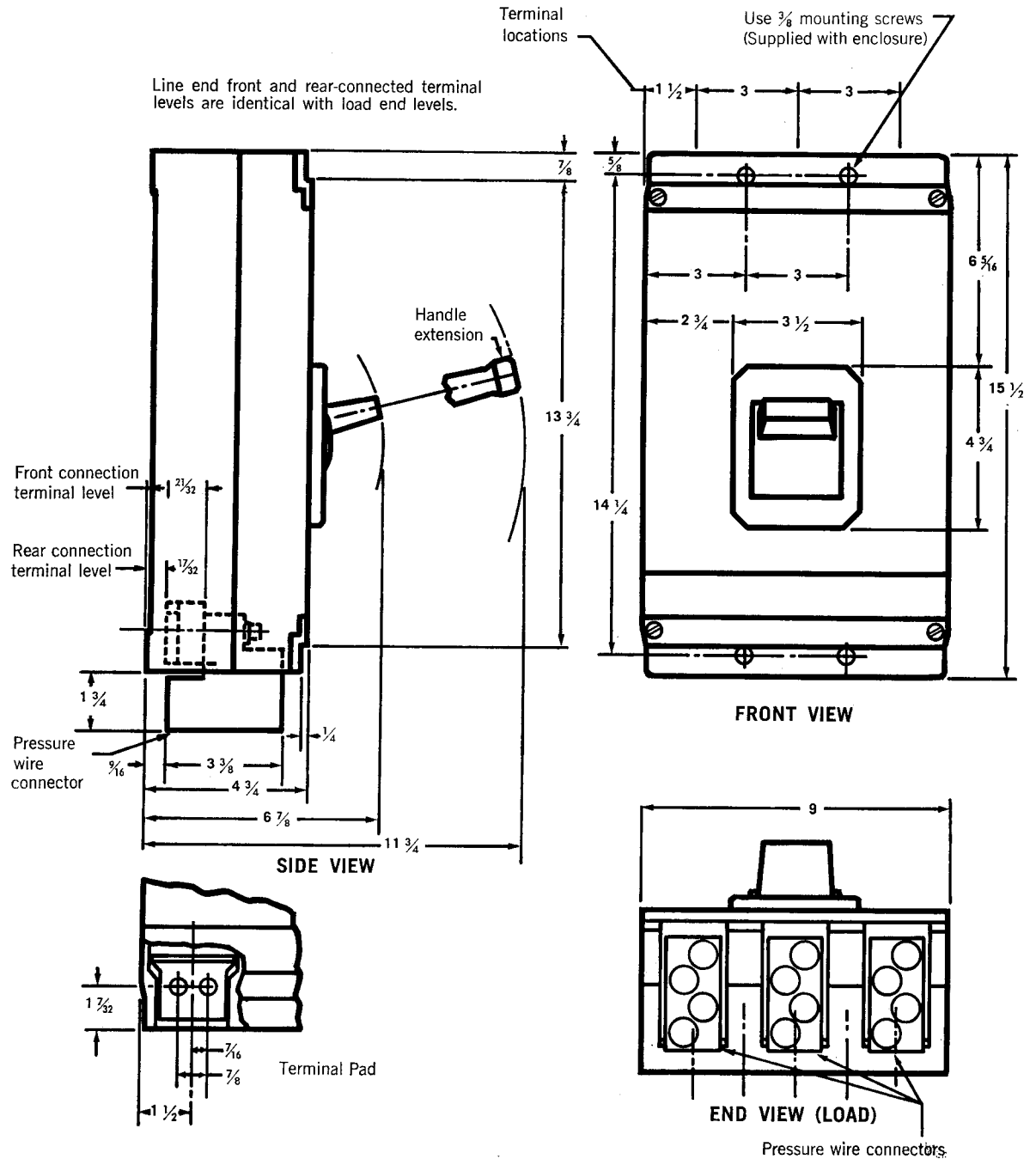




ET® KP-FRAME CIRCUIT BREAKERS

DIMENSIONS

G-43708A





ET® E-, EH- AND EF-FRAME CIRCUIT BREAKERS
15-100 AMPERES
40C CALIBRATION
PRICING

Rating, Amperes	Cat. No.	List Price*	Packaging		List Price, Ship. Pkg.	Weight, Lb./Ship. Pkg.
			Carton	Ship. Pkg.		
E FRAME						
E FRAME ONE POLE			120 VOLTS A-C • 125 VOLTS D-C			
15 20 30 40 50	EE1-B015 EE1-B020 EE1-B030 EE1-B040 EE1-B050	\$11.10	6	30	\$333.00	38
70 90 100	EE1-B070 EE1-B090 EE1-B100	22.60				
E FRAME ONE POLE			277 VOLTS A-C ^Δ			
15 20 30 40 50	EE1-H015 EE1-H020 EE1-H030 EE1-H040 EE1-H050	14.30	6	30	429.00	38
E FRAME TWO POLE						
240 VOLTS A-C • 125/250 VOLTS D-C						
15 20 30 40 50	EE2-B015 EE2-B020 EE2-B030 EE2-B040 EE2-B050	28.00	3	15	420.00	35½
70 90 100	EE2-B070 EE2-B090 EE2-B100	46.00				
100†	EE2-S100	28.00				
E FRAME THREE POLE						
240 VOLTS A-C						
15 20 30 40 50	EE3-B015 EE3-B020 EE3-B030 EE3-B040 EE3-B050	41.00	2	10	410.00	35½
70 90 100	EE3-B070 EE3-B090 EE3-B100	60.00				
100†	EE3-S100	41.00				

* Price includes load end pressure wire connectors. Wire range is single cable #14-#1/0 AWG (Cu), #6-#1/0 AWG (Al) (Cat. No. TA1-E100). Load end wire binding screws are furnished with single pole E-frame breakers rated 30 amperes and below. These binding screws have a single cable wire range of #14-#8 AWG (Cu). If line end connectors are required, specify by catalog number, at no additional charge. Refer to Section 2.6.5, Page 3 for other connectors available.

Δ 277 V, A-C E-frame single-pole breakers have an interrupting rating of 10,000 amperes (asymmetrical or symmetrical).

† Non-automatic circuit interrupter (disconnect device only).

INTERRUPTING RATINGS
(Based on NEMA Test Procedures)

Breaker Frame	Voltage		Amperes	
			Asymmetrical	Symmetrical
E	A-C	1 Pole 120 2, 3 Poles 240	7,500	7,500
	D-C	1 Pole 125 2, 3 Poles 125/250	5,000	
EH	A-C	240 480	15,000	14,000
	D-C	250	10,000	
EF	A-C	240	20,000	18,000
		480	15,000	14,000
		600	15,000	14,000
	D-C	250	10,000	

Rating, Amperes	Cat. No.	List Price*	Packaging		List Price Ship. Pkg.	Weight, Lb./Ship. Pkg.
			Carton	Ship. Pkg.		
EH FRAME						
EH FRAME TWO POLE			480 VOLTS A-C • 250 VOLTS D-C			
15 20 30 40 50	EH2-B015 EH2-B020 EH2-B030 EH2-B040 EH2-B050	\$51.00	3	15	\$765.00	35½
70 90 100	EH2-B070 EH2-B090 EH2-B100				65.00	
100†	EH2-S100	46.00			690.00	
EH FRAME THREE POLE					480 VOLTS A-C	
15 20 30 40 50	EH3-B015 EH3-B020 EH3-B030 EH3-B040 EH3-B050	65.00	2	10	650.00	35½
70 90 100	EH3-B070 EH3-B090 EH3-B100				79.00	
100†	EH3-S100	60.00			600.00	
EF FRAME						
EF FRAME TWO POLE			600 VOLTS A-C • 250 VOLTS D-C			
15 20 30 40 50	EF2-B015 EF2-B020 EF2-B030 EF2-B040 EF2-B050	60.00	3	15	900.00	35½
70 90 100	EF2-B070 EF2-B090 EF2-B100				76.00	
100†	EF2-S100	60.00			900.00	
EF FRAME THREE POLE					600 VOLTS A-C	
15 20 30 40 50	EF3-B015 EF3-B020 EF3-B030 EF3-B040 EF3-B050	77.00	2	10	770.00	35½
70 90 100	EF3-B070 EF3-B090 EF3-B100				93.00	
100†	EF3-S100	77.00			770.00	

FOR DIMENSIONS—See Section 2.2.2, Page 1.

FOR OPTIONAL ACCESSORY PRICING—See Section 2.6.5, Pages 1-6.

FOR ENCLOSURE PRICING—See Section 2.7.5, Pages 1-2.

SPECIFICATIONS

Breaker Frame	Underwriters' Laboratories, Inc.	Federal Specification W-C-375
E EH EF	Listed Listed Listed	Class 2A, 2B and 2C Class 2D



MOLDED-CASE CIRCUIT BREAKERS

ET® FJ-FRAME CIRCUIT BREAKERS

70-225 AMPERES

40C CALIBRATION

PRICING

Rating, Amperes	Instantaneous Trip Range		Two Pole 600 Volts A-C 250 Volts D-C			Three Pole 600 Volts A-C		
	Low	High	Cat. No.	List Price*	Ship. Wgt. Lb.	Cat. No.	List Price*	Ship. Wgt. Lb.
70	750	1600	FJ2-B070	\$170.00	7	FJ3-B070	\$210.00	9
90	750	1600	FJ2-B090			FJ3-B090		
100	750	1600	FJ2-B100			FJ3-B100		
125	750	1600	FJ2-B125			FJ3-B125		
150	750	1600	FJ2-B150	\$170.00	7	FJ3-B150	\$210.00	9
175	750	1600	FJ2-B175			FJ3-B175		
200	960	2000	FJ2-B200			FJ3-B200		
225	960	2000	FJ2-B225			FJ3-B225		
225†	—	—	FJ2-S225	135.00		FJ3-S225	170.00	

* Price includes load end pressure wire connectors. Wire range is single cable #4 AWG—300 MCM (Cu or Al) (Cat. No. TA1-F300). If line end connectors are required, specify by catalog number, at no additional charge. Refer to Section 2.6.5, Page 3 for other connectors available.

† Non-automatic circuit interrupter (disconnect device only).

FOR DIMENSIONS—See Section 2.2.2, Page 2.

FOR OPTIONAL ACCESSORY PRICING—See Section 2.6.5, Pages 1-6.

FOR ENCLOSURE PRICING—See Section 2.7.5, Pages 1-2.

INTERRUPTING RATINGS
(Based on NEMA Test Procedures)

Voltage		Amperes	
		Asymmetrical	Symmetrical
A-C	240	25,000	22,000
	480	20,000	18,000
	600	15,000	14,000
D-C	250	10,000	

SPECIFICATIONS

Underwriters' Laboratories, Inc.	Federal Specification W-C-375
Listed	Class 3A

12/29/65



JANUARY 1, 1966

ET® JJ- AND JKL-FRAME CIRCUIT BREAKERS

JJ 250-400 AMPERES • JKL 70-400 AMPERES

40C CALIBRATION

PRICING

Rating, Amperes	Instantaneous Trip Range		TWO POLE						THREE POLE																																			
			Complete Breaker			Trip Unit Only			Complete Breaker			Trip Unit Only																																
	Low	High	Cat. No.	List Price*	Ship. Wgt., Lb.	Cat. No.	List Price	Ship. Wgt., Lb.	Cat. No.	List Price*	Ship. Wgt., Lb.	Cat. No.	List Price	Ship. Wgt., Lb.																														
JJ FRAME															600 VOLTS A-C • 250 VOLTS D-C																													
250	1050	2250	JJ2-B250	\$300.00	18	—	—	—	JJ3-B250	\$364.00	20½	—	—	—																														
275	1050	2250	JJ2-B275						JJ3-B275																																			
300	1050	2250	JJ2-B300						JJ3-B300																																			
350	1900	3500	JJ2-B350						JJ3-B350																																			
400	1900	3500	JJ2-B400						JJ3-B400																																			
400†	—	—	JJ2-S400	227.00					JJ3-S400	273.00																																		
JKL FRAME															INTERCHANGEABLE TRIP UNIT															600 VOLTS A-C • 250 VOLTS D-C														
70‡	750	1600	JL2-B070	207.00	18	JL2-T070 JL2-T090 JL2-T100	JL2-T125 JL2-T150 JL2-T175 JL2-T200 JL2-T225	\$37.00	2½	JL3-B070 JL3-B090 JL3-B100	258.00	20½	JL3-T070 JL3-T090 JL3-T100 JL3-T125 JL3-T150 JL3-T175 JL3-T200 JL3-T225	\$48.00	3½																													
90‡	750	1600	JL2-B090																																									
100‡	750	1600	JL2-B100																																									
125	750	1600	JL2-B125																																									
150	750	1600	JL2-B150																																									
175	750	1600	JL2-B175	330.00				160.00		JL3-B250 JL3-B275 JL3-B300 JL3-B350 JL3-B400	400.00		JL3-T250 JL3-T275 JL3-T300 JL3-T350 JL3-T400	190.00																														
200	960	2000	JL2-B200																																									
225	960	2000	JL2-B225																																									
250	1050	2250	JL2-B250																																									
275	1050	2250	JL2-B275																																									
300	1050	2250	JL2-B300	330.00				160.00		JL3-B250 JL3-B275 JL3-B300 JL3-B350 JL3-B400	400.00		JL3-T250 JL3-T275 JL3-T300 JL3-T350 JL3-T400	190.00																														
350	1900	3500	JL2-B350																																									
400	1900	3500	JL2-B400																																									

* Complete breaker price includes line and load end pressure wire connectors. Wire range is single cable #4 AWG—300 MCM (Cu), #2 AWG—300 MCM (Al) for 70- to 225-ampere breakers (Cat. No. TA1-J300); single cable 250-500 MCM (Cu), 350-500 MCM (Al) for 250- to 400-ampere breakers (Cat. No. TA1-J500). Refer to Section 2.6.5, Page 3 for other connectors available. Deduct \$2.50 from list price for each connector not required, and specify same with order. JKL complete breakers are normally shipped with

frames, trip units and pressure wire connectors separately packaged. If complete assembly is required, specify with order.

† Non-automatic circuit interrupter.

‡ 70-, 90- and 100-ampere breakers have interrupting ratings of 30,000 amperes asymmetrical, 25,000 amperes symmetrical at 240 volts A-C; 25,000 amperes asymmetrical, 22,000 amperes symmetrical at 480 and 600 volts A-C; 10,000 amperes at 250 volts D-C.

JKL BREAKER FRAME ONLY

Description	Cat. No.	List Price	Ship. Wgt., Lb.
Two Pole	JL2-F400	\$160.00	16
Three Pole	JL3-F400	195.00	18

FOR DIMENSIONS—See Section 2.2.2, Page 3.

FOR OPTIONAL ACCESSORY PRICING—See Section 2.6.5, Pages 1-6.

FOR ENCLOSURE PRICING—See Section 2.7.5, Pages 1-2.

INTERRUPTING RATINGS (Based on NEMA Test Procedures)

Voltage		Amperes	
		Asymmetrical	Symmetrical
A-C	240	50,000	42,000
	480	35,000	30,000
	600	25,000	22,000
D-C	250	20,000	

SPECIFICATIONS

Breaker Frame	Underwriters' Laboratories, Inc.	Federal Specification W-C-375
JJ	Listed	Class 4B
JKL	Listed	Class 4B



MOLDED-CASE CIRCUIT BREAKERS

ET® KM- AND KP-FRAME CIRCUIT BREAKERS

KM 250-800 AMPERES • KP 800-1200 AMPERES

40C CALIBRATION

PRICING

Rating, Amperes	Instantaneous Trip Range		TWO POLE						THREE POLE					
			Complete Breaker			Trip Unit Only			Complete Breaker			Trip Unit Only		
	Low	High	Cat. No.	List Price	Ship. Wgt., Lb.	Cat. No.	List Price	Ship. Wgt., Lb.	Cat. No.	List Price	Ship. Wgt., Lb.	Cat. No.	List Price	Ship. Wgt., Lb.
KM FRAME*			INTERCHANGEABLE TRIP UNIT						600 VOLTS A-C • 250 VOLTS D-C					
250	1050	2250	KM2-B250	\$501.00	27	KM2-T250	\$150.00	3	KM3-B250	\$636.00	33	KM3-T250	\$197.00	4
275	1050	2250	KM2-B275			KM2-T275			KM3-B275			KM3-T275		
300	1050	2250	KM2-B300			KM2-T300			KM3-B300			KM3-T300		
350	1900	3500	KM2-B350			KM2-T350			KM3-B350			KM3-T350		
400	1900	3500	KM2-B400			KM2-T400			KM3-B400			KM3-T400		
500	1900	3500	KM2-B500	653.00	27	KM2-T500	288.00	3	KM3-B500	840.00	33	KM3-T500	380.00	4
600	1900	3500	KM2-B600			KM2-T600			KM3-B600			KM3-T600		
700	3200	5600	KM2-B700			KM2-T700			KM3-B700			KM3-T700		
800	3200	5600	KM2-B800	384.00	27	KM2-T800	—	3	KM3-B800	487.00	33	KM3-T800	—	4
800†	—	—	KM2-S800			—			KM3-S800			—		
KP FRAME**†			600 VOLTS A-C • 250 VOLTS D-C											
800	3200	5600	—	—	—	—	—	—	KP3-B800	1040.00	46	—	—	—
1000	4000	8000	—	—	—	—	—	—	KP3-B100	1070.00		—	—	—
1200	4000	8000	—	—	—	—	—	—	KP3-B120	1450.00		—	—	—
1200†	—	—	—	—	—	—	—	—	KP3-S120	740.00		—	—	—

* KM complete breaker price includes line and load end pressure wire connectors. Wire range is double cable #1 AWG—500 MCM (Cu or Al) for 250- to 600-ampere breakers (Cat. No. TA2-K500); triple cable 300-350 MCM (Cu or Al) for 700- and 800-ampere breakers (Cat. No. TA3-K350). Refer to Section 2.6.5, Page 3 for other connectors available. Deduct \$6.50 from list price for each Cat. No. TA2-K500 connector not required, or \$10.00 from list price for each Cat. No. TA3-K350 connector not required, and specify same with order. KM complete breakers are normally

shipped with frames, trip units and pressure wire connectors separately packaged. If complete assembly is required, specify with order.

** KP complete breaker price includes line and load end pressure wire connectors. Wire range is four cable 250—500 MCM (Cu or Al) (Cat. No. TA4-P500). Deduct \$25.00 from list price for each connector not required, and specify with order.

† Non-automatic circuit interrupter (disconnect device only).

♦ For KP two-pole application, use two outside poles only.

KM BREAKER FRAME ONLY

Description	Cat. No.	List Price	Ship. Wgt., Lb.
Two Pole	KM2-F800	\$325.00	24
Three Pole	KM3-F800	400.00	29

FOR DIMENSIONS—See Section 2.2.2, Pages 4-5.

FOR OPTIONAL ACCESSORY PRICING—See Section 2.6.5, Pages 1-6.

FOR ENCLOSURE PRICING—See Section 2.7.5, Pages 1-2.

INTERRUPTING RATINGS (Based on NEMA Test Procedures)

Voltage		Amperes	
		Asymmetrical	Symmetrical
A-C	240	50,000	42,000
	480	35,000	30,000
	600	25,000	22,000
D-C	250	20,000	

KP CONNECT-ALL MOUNTING ASSEMBLY† (Consists of Mounting Blocks and Mounting Pan)

Cat. No.	List Price	Ship. Wgt., Lbs.
MB-9300	\$120.00	57

† Pressure wire connectors supplied with KP-frame breakers are not suitable for use with the Connect-All mounting assembly. Instead, refer to the pressure wire connector chart (Section 2.6.5, Page 3) and specify the HP, CP frame connectors. List price \$30.00 each.

SPECIFICATIONS

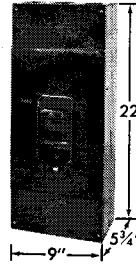
Breaker Frame	Underwriters' Laboratories, Inc.	Federal Specification W-C-375
KM	Listed	Class 5A
KP	—	Not Applicable



ET® MP-FRAME CIRCUIT BREAKERS

800-1200 AMPERES

40C CALIBRATION



G-42827A

Two or Three Pole

PRICING

Rating, Amperes	Instantaneous Trip Range		TWO POLE						THREE POLE					
			Complete Breaker			Trip Unit Only			Complete Breaker			Trip Unit Only		
	Low	High	Cat. No.	List Price*	Ship. Wgt., Lb.	Cat. No.	List Price	Ship. Wgt., Lb.	Cat. No.	List Price*	Ship. Wgt., Lb.	Cat. No.	List Price	Ship. Wgt., Lb.
800	3200	5600	MP2-B800	\$898.00	75	MP3-T800	\$290.00	5	MP3-B800	\$1040.00	78	MP3-T800	\$290.00	6
1000	3200	5600	MP2-B100	928.00		MP3-T100	320.00		MP3-B100	1070.00		MP3-T100	320.00	
1200	5000	8000	MP2-B120	1308.00		MP3-T120	700.00		MP3-B120	1450.00		MP3-T120	700.00	
1200†	—	—	MP2-S120	588.00	—	—	—	—	MP3-S120	740.00	—	—	—	—

* Complete breaker price includes line and load end pressure wire connectors. Wire range is four cable #1 AWG-350 MCM (Cu or Al) (Cat. No. TA4-M350). See chart below for other connectors available. Deduct \$25.00 from list price for each connector not required, and specify same with order. Complete breakers are

normally shipped with frames, trip units and pressure wire connectors separately packaged. If complete assembly is required, specify with order.

† Non-automatic circuit interrupter (discount device only).

INTERRUPTING RATINGS

(Based on NEMA Test Procedures)

Voltage		Amperes	
		Asymmetrical	Symmetrical
A-C	240	50,000	42,000
	480	35,000	30,000
	600	25,000	22,000
D-C	250	20,000	

BREAKER FRAME ONLY

Description	Cat. No.	List Price	Ship. Wgt., Lb.
Two Pole	MP2-F120	\$508.00	70
Three Pole	MP3-F120	600.00	72

OPTIONAL ACCESSORIES

REAR CONNECTING STUDS

(Two Required Per Pole)

Rating, Amperes	Extension Behind Breaker (Inches)	Cat. No.	List Price, Each
1200	5½	RS-9375	\$28.00
1200	8	RS-9366	30.00

PRESSURE WIRE CONNECTORS

Rating Amperes	Number Cables Per Connector	Cable Range	Cat. No.	List Price, Each
800-1200	4	#1 Awg-350 MCM(Cu) #1 Awg-350 MCM(Al)	TA4-M350	\$25.00
800	2	500-750 MCM(Cu)	TC2-M750	
1000	3	500 MCM(Cu)	TC3-M500	
1200	4	500 MCM(Cu) 500 MCM(Al)	TA4-M500	

MODIFICATIONS

Description	Cat. No.	List Price
Fungus Proofing	—	\$36.00
Handle Blocking (Lock-Off) Device	MPL-1	2.70
Shunt Trip	—	64.00
Undervoltage Trip	—	64.00

FOR DIMENSIONS—See Section 2.2.5, Page 6.

FOR ENCLOSURE PRICING—See Section 2.7.5, Pages 1-2 and refer to HLM frame enclosures. (For insulated groundable neutral, specify Cat. No. N-1200. List price \$22.00).

MODIFICATIONS

Description	Cat. No.	List Price
Auxiliary Switch	—	\$26.00
Alarm Switch	—	26.00
Mechanical Interlock	MI-5480	60.00
Telemend Motor Operator	See Section 2.6.5 Page 5 and refer to units listed for HLM and CM frames	378.00



ET® MP-FRAME CIRCUIT BREAKERS

DIMENSIONS

E-40977AA

Line end front and rear-connected terminal levels are identical with load end levels.

