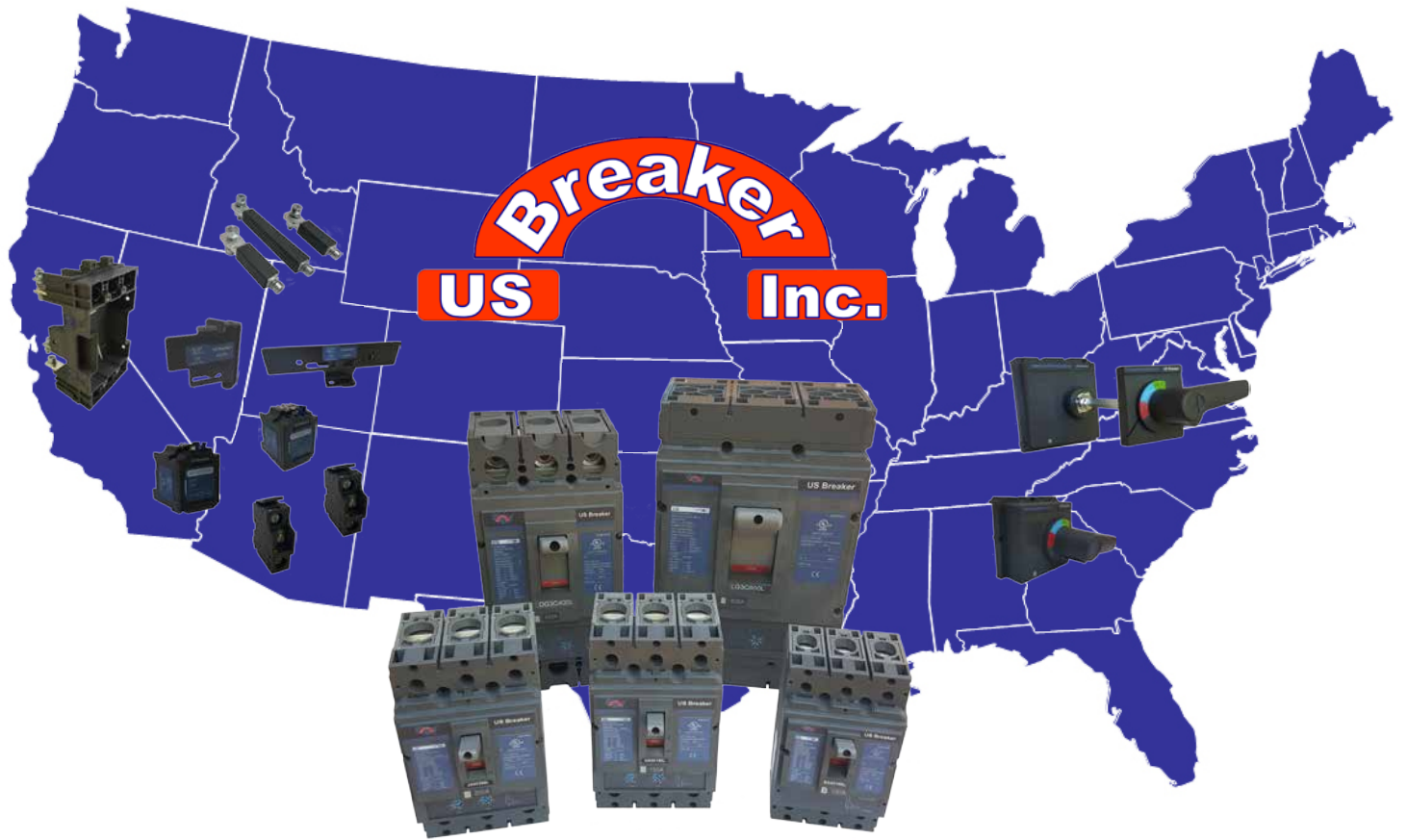


US Breaker, Inc.

UL489 Circuit Breakers V-24



**Superior UL489 Listed
Circuit Breakers at a Better Price!**

www.usbreaker.com

Toll Free: (866) 652-2045

In Georgia: (706) 467-0007

Telemecanique Replacements • New Circuit Breakers



A Superior UL489 Circuit Breaker at a Better Price! (Square D & Merlin Gerin Replacements)

Click-in-Place Field Installable Accessories Save on Inventory

Adjustable Amperage Reduces Inventory & Improves Coordination

Highly Reliable Current Limiting Design Backed by a 2 Year Warranty

15 - 600 Amp

Safety Minded Isolated Current Chambers use Double Break Technology to Reduce Let-Thru Current in a Fault

Global Certifications in One Product (UL File # E481916)

Compact Size and Interchangeable Mounting with Many Square D Frames

Flexible Mounting Options with Removable Lugs & Forward or Reverse Feed

Square D & US Breaker Matching Designs Allow for Backup Sourcing and the Lowest Price!

100A- 400A Match:

- Mounting Holes
- Width
- Faceplate Cutout
- Double Break Contacts
- A Click in Place Accessorie Feature



Square D Compared to US Breaker HD/HG



Square D Compared to US Breaker JD/JG



UL489 Molded Case Circuit Breakers by US Breaker (600Vmax)



E Frame



H & J Frame



D Frame



L Frame

15 - 100A 3P E Frame

(Includes 6 Lugs 14 - 3/0)		
Amps	Thermal	Magnetic
15	15	150
20	20	200
25	25	250
30	30	300
35	35	350
40	40	400
50	50	500
60	60	600
70	70	700
80	80	800
90	90	900
100	100	1000

Standard AIC (22KA@480V)

US Breaker	Square D Similar	
ED Part #	Cross Ref ⁽¹⁾	Price
ED3C015L	BDL36015	\$119.68
ED3C020L	BDL36020	\$119.68
ED3C025L	BDL36025	\$119.68
ED3C030L	BDL36030	\$119.68
ED3C035L	BDL36035	\$129.11
ED3C040L	BDL36040	\$129.11
ED3C050L	BDL36050	\$129.11
ED3C060L	BDL36060	\$129.11
ED3C070L	BDL36070	\$139.79
ED3C080L	BDL36080	\$139.79
ED3C090L	BDL36090	\$139.79
ED3C100L	BDL36100	\$139.79

High AIC (35KA@480V)

US Breaker	Square D Similar	
EG Part #	Cross Ref ⁽¹⁾	Price
EG3C015L	BGL36015	\$149.46
EG3C020L	BGL36020	\$149.46
EG3C025L	BGL36025	\$149.46
EG3C030L	BGL36030	\$149.46
EG3C035L	BGL36035	\$156.69
EG3C040L	BGL36040	\$156.69
EG3C050L	BGL36050	\$156.69
EG3C060L	BGL36060	\$156.69
EG3C070L	BGL36070	\$163.33
EG3C080L	BGL36080	\$163.33
EG3C090L	BGL36090	\$163.33
EG3C100L	BGL36100	\$163.33

100 - 150A 3P H Frame

(Includes 6 Lugs 8 - 350kcmil)		
Amps	Thermal	Magnetic
100	(80 - 100)	(700 - 1200)
125	(100 - 125)	(875 - 1500)
150	(120 - 150)	(1050 - 1800)

Standard AIC (25KA@480V)

US Breaker	Square D Direct	
HD Part #	Cross Ref ⁽²⁾	Price
HD3C100L	HDL36100	\$209.77
HD3C125L	HDL36125	\$248.89
HD3C150L	HDL36150	\$248.89

High AIC (42KA@480V)

US Breaker	Square D Direct	
HG Part #	Cross Ref ⁽²⁾	Price
HG3C100L	HGL36100	\$279.22
HG3C125L	HGL36125	\$309.88
HG3C150L	HGL36150	\$309.88

175 - 250A 3P J Frame

(Includes 6 Lugs 8 - 350 kcmil)		
Amps	Thermal	Magnetic
175	(140 - 175)	(875 - 1750)
200	(160 - 200)	(1000 - 2000)
225	(180 - 225)	(1125 - 2250)
250	(200 - 250)	(1250 - 2750)

Standard AIC (25KA@480V)

US Breaker	Square D Direct	
JD Part #	Cross Ref ⁽²⁾	Price
JD3C175L	JDL36175	\$258.89
JD3C200L	JDL36200	\$258.89
JD3C225L	JDL36225	\$258.89
JD3C250L	JDL36250	\$339.33

High AIC (42KA@480V)

US Breaker	Square D Direct	
JG Part #	Cross Ref ⁽²⁾	Price
JG3C175L	JGL36175	\$329.82
JG3C200L	JGL36200	\$329.82
JG3C225L	JGL36225	\$329.82
JG3C250L	JGL36250	\$419.89

250 - 400A 3P D Frame

(Includes 6 Lugs 3/0 - 500 kcmil)		
Amps	Thermal	Magnetic
250	(200 - 250)	(1250 - 2500)
300	(240 - 300)	(1500 - 3000)
350	(280 - 350)	(1750 - 3500)
400	(320 - 400)	(2000 - 4000)

Standard AIC (35KA@480V)

US Breaker	Square D Direct	
DG Part #	Cross Ref ⁽³⁾	Price
-	-	-
DG3C300L	LGL36300U31X	\$449.16
DG3C350L	LGL36350U31X	\$449.16
DG3C400L	LGL36400U31X	\$449.16

High AIC (50KA@480V)

US Breaker	Square D Direct	
DJ Part #	Cross Ref ⁽³⁾	Price
DJ3C250L	LJL36250U31X	\$549.56
DJ3C300L	LJL36300_	\$587.42
DJ3C350L	LJL36350_	\$587.42
DJ3C400L	LJL36400_	\$587.42

400 - 600A 3P L Frame

(Includes 6 Lugs (2) 3/0 - 400 kcmil)		
Amps	Thermal	Magnetic
400	-	-
500	(400 - 500)	(2500 - 5000)
600	(480 - 600)	(3000 - 6000)

Standard AIC (42KA@480V)

US Breaker	Square D Similar	
LG Part #	Cross Ref ⁽¹⁾	Price
-	-	-
LG3C500L	-	\$958.80
LG3C600L	LGL36600U31X	\$958.80

High AIC (65KA@480V)

US Breaker	Square D Similar	
LC Part #	Cross Ref ⁽¹⁾	Price
LC3C400L	LCL36400	\$1097.00
LC3C500L	LCL36500	\$1097.00
LC3C600L	LCL36600	\$1097.00

1) **Similar** Cross Ref is an electrical equivalent with slightly different dimensions and mounting holes. The LGL36600U31X is electronic and LG3C600L is electromechanical.

2) **Direct** Cross Ref is an electrical equivalent with the same width, mounting holes and faceplate cutout.

3) **Direct** LGL / LJL replacements have the same width, mounting holes and faceplate cutout. US Breaker frames are electromechanical and the DJ frame is 50KA@480V (vs 65KA).

• Square D part numbers are provided to assist product selection. Proper engineering evaluation is required for each customer application.



Circuit Breaker Technical Data

											
Frame Size		100A		250A				400A		600A	
Circuit Breaker Frame		ED	EG	HD	HG	JD	JG	DG	DJ	LG	LC
Rated Current		15 - 100		100 - 150		175 - 250		250 - 400		400 - 600	
Max Voltage	AC 50/60 Hz	600/347V						600V			
	DC	600V									
AIC - UL489 Interrupting Capacity (KA rms)	240Vac	50	100	50	100	50	100	65	100	65	100
	480Vac	22	35	25	42	25	42	35	50	42	65
	600/347Vac	14	20	14	20	14	20	14	25	18	30
	600Vac	-									
	500Vdc (2P)	20	35	20	35	20	35	35	50	35	50
	600Vdc (3P)										
(K)AIC - IEC 60947-2 (Icu = 100% Ics)	380 / 415Vac	50	100	50	100	50	100	65	100	65	100
T-M Trip Unit Adjustments	Thermal Adj.	Fixed		Adjustable (0.8, 0.9 or 1.0) x In							
	Magentic Adj.	Fixed - (10) x In		Adj. (7 - 12) x In		Adjustable (5 - 10) x In					
Dimensions & Weight	L x W x D (in)	6.5 x 3.5 x 3.3		7.2 x 4.1 x 3.5				11.2 x 5.5 x 4.6		12.3 x 7.7 x 5.4	
	Weight (lb)	3.7		4.4				13.5		25.4	
Wire Terminals (75C Cu Only)	Wire Range	#14 - 3/0 AWG		#8 - 350 kmil				3/0 - 500 kmil		(2) 3/0 - 400 kmil	
	Torque (in-lb)	89		230				310		310	

Connection Accessories - UL489 Circuit Breakers

Wire Lugs*

Frame	Type	Part #	Holes	Wire Size Per Hole	Price Ea
E	Standard	XWL1EE1H	1	#14 - 3/0 AWG	\$13.44
	Optional	XWL1EE3H	3	#14 - #3 AWG	\$16.80
	Optional	XWL1EE3H	6	#14 - #6 AWG	
H, J	Standard	XWL1HJ1H	1	#8 AWG - 350 Kcmil	\$13.44
	Optional	XWL1HJ6H	6	#12 - #6 AWG	
D	Standard	XWL1DD1H	1	3/0 AWG - 500 Kcmil	\$33.60
	Optional	XWL1DD2H	2	3/0 AWG - 250 Kcmil	\$33.60
L	Standard	XWL1LL2H	2	3/0 AWG - 400 Kcmil	\$42.00

* All wire lugs are rated for 75C Cu * Catalog number represents 1 unit. * 6 wire lugs include a terminal shield



Plug-In Kit*

Frame	Part #	Price
E	XPB1EE	\$184.80
H, J	XPB1HJ	\$252.00
D	XPB1DD	\$588.00

* Complete Kit Including 6 Breaker Stabs and Base



Rear Connection Kit*

Frame	Part #	Price
E	XRC1EE	\$63.84
H, J	XRC1HJ	\$75.60
D	XRC1DD	\$168.00
L	XRC1LL	\$235.20

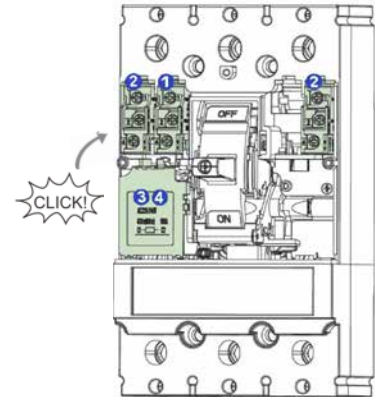
* Complete Breaker Kit (2 short - 2 long - 2 short)



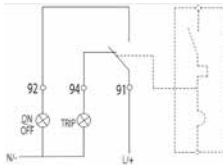


Internal Accessories - UL489 Circuit Breakers

- ✓ Click-in-Place Accessories!
- ✓ UL Listed for Field Installation!



1

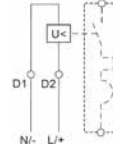


Alarm Switch (1 per breaker)

Frames	Switch Part #	Contacts		Price
		NO	NC	
E, H, J, D, L	XAL1EL	1	1	\$16.80

Rated Operation: 5A@240Vac, 2A@480Vac, 0.25A@110-220Vdc

3

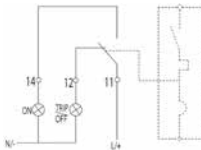


Under Voltage Release

Frame	110 - 127Vac	220 - 240Vac	24 - 30Vdc	Price
E	XUVAEE120	XUVAEE240	XUVDEE024	\$33.60
H, J, D	XUVAHD120	XUVAHD240	XUVDHD024	\$36.96
L	XUVALL120	XUVALL240	XUVDLL024	\$42.00

Voltage: Pickup U_e 80-110%, Drop Out U_e 35-70%, Auto Interrupts 10-60ms

2

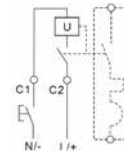


Aux Switch (up to 2 per breaker)

Frames	Switch Part #	Contacts		Price
		NO	NC	
E, H, J, D, L	XAU1EL	1	1	\$16.80

Rated Operation: 5A@240Vac, 2A@480Vac, 0.25A@110-220Vdc

4



Shunt Trip

Frame	100 - 130Vac	220 - 240Vac	480 - 500Vac	Price	24Vdc	Price
E	XSTAE120	XSTAE240	XSTAE480	\$33.60	XSTD024	\$42.00
H, J, D	XSTAHD120	XSTAHD240	XSTAHD480	\$43.68	XSTDHD024	\$50.40
L	XSTALL120	XSTALL240	XSTALL480	\$53.76	XSTDLL024	\$58.80

Pickup Voltage: U_s 70 - 110%, Auto Interrupts 10-60ms

External Accessories - UL489 Circuit Breakers

Close Coupled Operator (Gray/Green -Nema 4/4X, IP55)



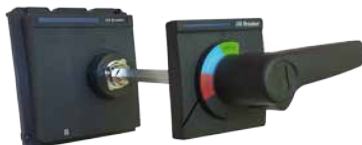
Frame	Part #	Price
E	XCCGEE00	\$86.94
H, J	XCCGHJ00	\$89.94
D	XCCGDD00	\$96.60
L	XCCGLL00	\$99.97



Lock (off position)

Frame	Part #	Price
E	XPLFEE	\$13.44
H, J	XPLFHJ	\$13.44
D	XPLFDD	\$13.44
L	XPLFLL	\$13.44

Through the Door Variable Depth Operator Lockable - (Nema 1, 3R, 12, 4/4X)



Frame	Assembly Including the Shaft Length Shown			
	6 inch	Price	12 inch	Price
E	XVDGEE06	\$94.60	XVDGEE12	\$99.80
H, J	XVDGHJ06	\$97.60	XVDGHJ12	\$102.80
D	XVDGDD06	\$111.92	XVDGDD12	\$116.92
L	XVDGLL06	\$114.92	XVDGLL12	\$119.92



Mechanical Interlock

Frame	Part #	Price
E	XMIXEE	\$33.60
H, J	XMIXHJ	\$33.60
D	XMIXDD	\$33.60
L	XMIXLL	\$33.60



Cross References to US Breaker's UL489 3P 480V MCCB's

Direct Replacement Cross Ref: Merlin Gerin Compact NS100 N, NS160 N, NS250 N & NS400 N

US Breaker- Brand Part #	Merlin Gerin Cross Reference		Description: Complete Breaker (Frame, Trip & Terminals)	Price Each
Frame	Trip Unit			
HG3C100L	NS100N	TM100D	US Breaker 3P 100 Amp 42KA@480V UL489 HG Circuit Breaker	\$279.22
HG3C125L	NS160N	TM125D	US Breaker 3P 125 Amp 42KA@480V UL489 HG Circuit Breaker	\$309.88
HG3C150L	NS160N	TM150D ¹⁾	US Breaker 3P 150 Amp 42KA@480V UL489 HG Circuit Breaker	\$309.88
JG3C200L	NS250N	TM200D	US Breaker 3P 200 Amp 42KA@480V UL489 JG Circuit Breaker	\$329.82
JG3C250L	NS250N	TM250D	US Breaker 3P 250 Amp 42KA@480V UL489 JG Circuit Breaker	\$419.89
DJ3C250L	NS400N	STR23SE 250A ²⁾	US Breaker 3P 250 Amp 50KA@480V UL489 DJ Circuit Breaker	\$549.56
DG3C400L	NS400N	STR23SE 400A ²⁾	US Breaker 3P 400 Amp 35KA@480V UL489 DG Circuit Breaker	\$449.16

• US Breaker accessories are intended and UL listed for use with US Breaker Circuit Breakers only.

Direct Replacement Cross Ref: Merlin Gerin / Schneider NSF150 N, NSF250 N & NSJ400 N

US Breaker- Brand Part #	Merlin Gerin Cross Reference		Description: Complete Breaker (Frame, Trip & Terminals)	Price Each
Frame	Trip Unit			
HG3C100L	NSF150 N	TM 100	US Breaker 3P 100 Amp 42KA@480V UL489 HG Circuit Breaker	\$279.22
HG3C125L	NSF150 N	TM 125	US Breaker 3P 125 Amp 42KA@480V UL489 HG Circuit Breaker	\$309.88
HG3C150L	NSF150 N	TM 150	US Breaker 3P 150Amp 42KA@480V UL489 HG Circuit Breaker	\$309.88
JG3C175L	NSF250 N	TM 175	US Breaker 3P 175 Amp 42KA@480V UL489 JG Circuit Breaker	\$329.82
JG3C200L	NSF250 N	TM 200	US Breaker 3P 200 Amp 42KA@480V UL489 JG Circuit Breaker	\$329.82
JG3C225L	NSF250 N	TM 225	US Breaker 3P 225 Amp 42KA@480V UL489 JG Circuit Breaker	\$329.82
JG3C250L	NSF250 N	TM 250	US Breaker 3P 250 Amp 42KA@480V UL489 JG Circuit Breaker	\$419.89
DJ3C250L	NSJ400 N	STR23SP 250A ³⁾	US Breaker 3P 250 Amp 50KA@480V UL489 DJ Circuit Breaker	\$549.56
DG3C400L	NSJ400 N	STR23SP 400A ³⁾	US Breaker 3P 400 Amp 35KA@480V UL489 DG Circuit Breaker	\$449.16

• US Breaker accessories are intended and UL listed for use with US Breaker Circuit Breakers only.

Electrical Replacement Cross Ref. (Different Dimensions): GE, Eaton, Square D & Siemens

Amps (3 Pole)	US Breaker Brand Part #	Dim (in) (H x W x D)	Short Circuit (KAIC)		Cross Reference (Electrical Replacements - different dimensions)				Price Each
			240V	480V	General Electric	Eaton Cutler Hammer	Square D	Siemens	
15	ED3C015L	6.5 x 3.5 x 3.3	50	22	TED134015WL	EHD3015L	FAL34015	ED43B015L ³⁾	\$119.68
20	ED3C020L	6.5 x 3.5 x 3.3	50	22	TED134020WL	EHD3020L	FAL34020	ED43B020L ³⁾	\$119.68
25	ED3C025L	6.5 x 3.5 x 3.3	50	22	TED134025WI	EHD3025L	FAL34025	ED43B025L ³⁾	\$119.68
30	ED3C030L	6.5 x 3.5 x 3.3	50	22	TED134030WL	EHD3030L	FAL34030	ED43B030L ³⁾	\$119.68
35	ED3C035L	6.5 x 3.5 x 3.3	50	22	TED134035WL	EHD3035L	FAL34035	ED43B035L ³⁾	\$124.11
40	ED3C040L	6.5 x 3.5 x 3.3	50	22	TED134035WL	EHD3040L	FAL34040	ED43B040L ³⁾	\$124.11
50	ED3C050L	6.5 x 3.5 x 3.3	50	22	TED134050WL	EHD3050L	FAL34050	ED43B050L ³⁾	\$124.11
60	ED3C060L	6.5 x 3.5 x 3.3	50	22	TED134060WL	EHD3060L	FAL34060	ED43B060L ³⁾	\$124.11
70	ED3C070L	6.5 x 3.5 x 3.3	50	22	TED134070WL	EHD3070L	FAL34070	ED43B070L ³⁾	\$138.79
80	ED3C080L	6.5 x 3.5 x 3.3	50	22	TED134080WL	EHD3080L	FAL34080	ED43B080L ³⁾	\$138.79
90	ED3C090L	6.5 x 3.5 x 3.3	50	22	TED134090WL	EHD3090L	FAL34090	ED43B090L ³⁾	\$138.79
100	ED3C100L	6.5 x 3.5 x 3.3	50	22	TED134100WL	EHD3100L	FAL34100	ED43B100L ³⁾	\$138.79
125	HD3C125L	7.2 x 4.1 x 3.5	50	25	TED134125WL (or THED)	FD3125L ³⁾	KAL36125	ED43B125L	\$248.89
150	HD3C150L	7.2 x 4.1 x 3.5	50	25	TED134150WL (or THED)	FD3150L ³⁾	KAL36150	FD63B150 ⁴⁾	\$248.89
175	JG3C175L	7.2 x 4.1 x 3.5	100	42	SFHA36AT0250 + ²⁾	JD3175L	KAL36175	FD63B175	\$329.82
200	JG3C200L	7.2 x 4.1 x 3.5	100	42	SFHA36AT0250 + ²⁾	JD3200L	KAL36200	FD63B200	\$329.82
225	JG3C225L	7.2 x 4.1 x 3.5	100	42	SFHA36AT0250 + ²⁾	JD3225	KAL36225	FD63B225	\$329.82
250	JG3C250L	7.2 x 4.1 x 3.5	100	42	SFHA36AT0250 + ²⁾	JD3250	KAL36250	FD63B250	\$419.89
300	DG3C300L	11.2 x 5.5 x 4.6	65	35	SGHA36AT0400 + ²⁾	KD3300	LAL36300	JD63B300	\$449.16
400	DG3C400L	11.2 x 5.5 x 4.6	65	35	SGHA36AT0400 + ²⁾	KD3400	LAL36400	JD63B400	\$449.16
500	LG3C500L	12.3 x 7.7 x 5.4	65	42	SGHA36AT0600 + ²⁾	LD3500	LCL36500 ⁴⁾	LD63B500	\$938.80
600	LG3C600L	12.3 x 7.7 x 5.4	65	42	SGHA36AT0600 + ²⁾	LD3600	LCL36600 ⁴⁾	LD63B600	\$938.80

1) Merlin Gerin's part is a 160A (international), US Breaker offers the HG3C150L at 150A or JG3C175L at 175A.

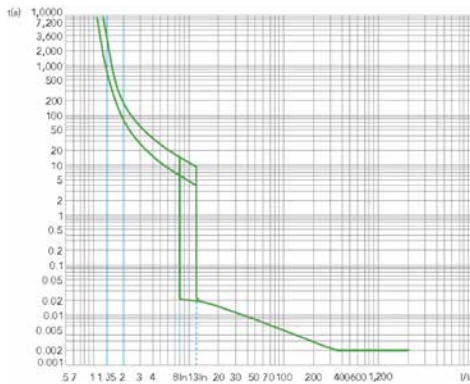
2) US Breaker offers an electromechanical trip unit and the comparison model has a electronic trip. An extra rating plug is not required with US Breaker frames.

3) US Breaker has equal or higher AIC rating at 480V. Use US Breakers EG frame for Siemens ED4 and HG for Eatons FD3125L & FD3150L if a higher AIC rating is needed at 240V.

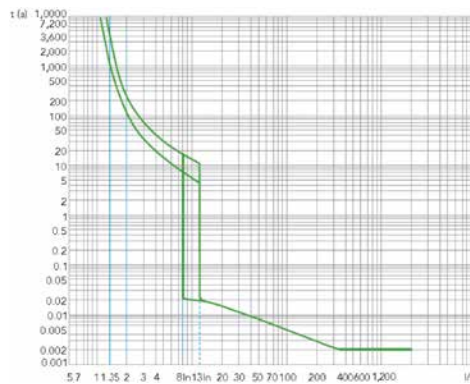
4) Use US Breakers LC frame for equivalent AIC ratings with Square D's LCL36500 or LCL36600 and US Breakers HG3C150L for higher AIC ratings than Siemens FD63B150.



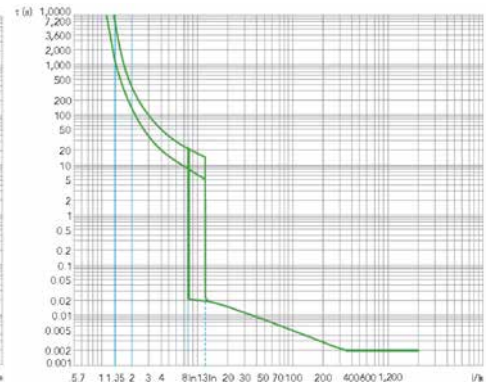
Circuit Breaker Time Current Curves



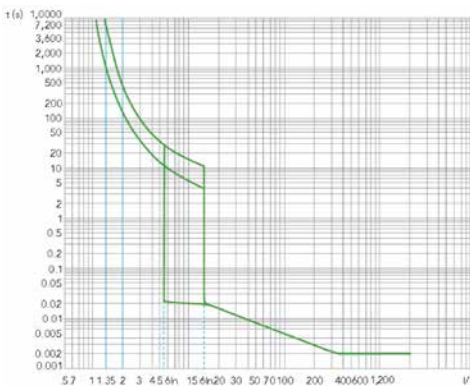
E Frame 15 - 35 Amp



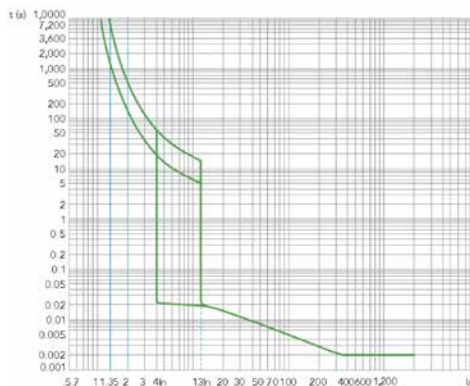
E Frame 40 - 50 Amp



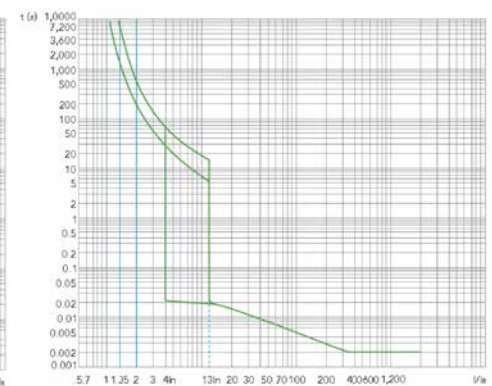
E Frame 60 - 100 Amp



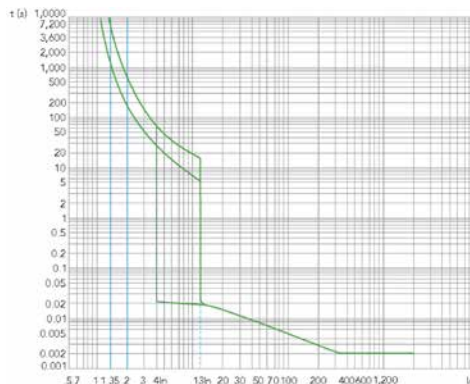
H Frame 100 - 150 Amp



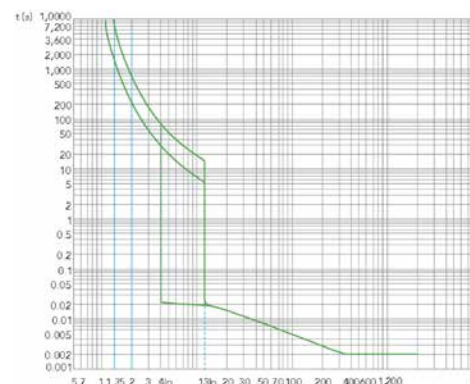
J Frame 175 - 250 Amp



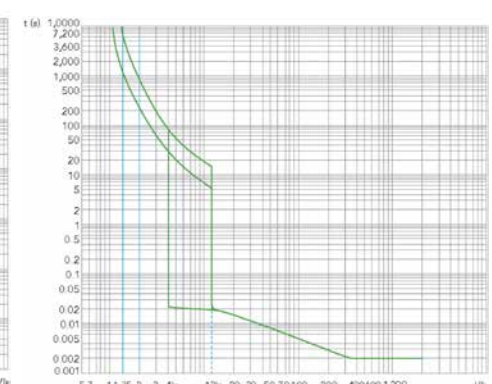
D Frame 250 - 350 Amp



D Frame 400 Amp

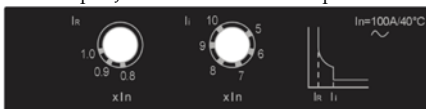


L Frame 400 Amp



L Frame 500- 600 Amp

Example: JD3C200L $I_n = 200$ Amps



Ir Thermal Setting

8 (x I_n) => 160 Amp
9 (x I_n) => 180 Amp
1 (x I_n) => 200 Amp

Ii Magnetic Setting

5 (x I_n) => 1000A
6 (x I_n) => 1200A
7 (x I_n) => 1400A

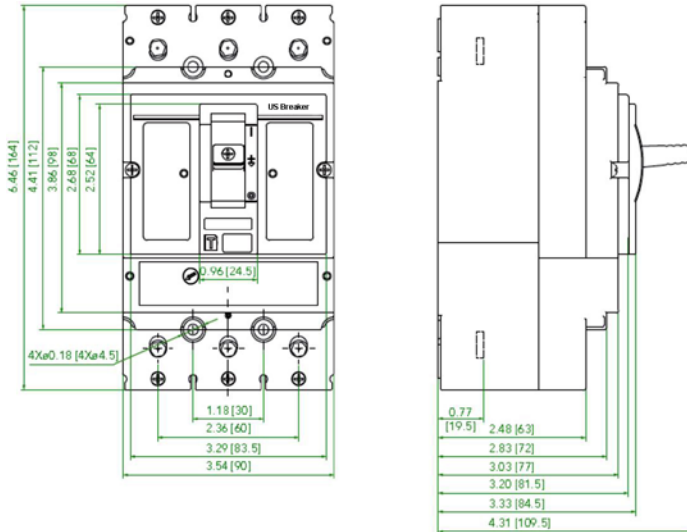
8 (x I_n) => 1600A
9 (x I_n) => 1800A
10 (x I_n) => 2000A

Trip Unit Adjustments

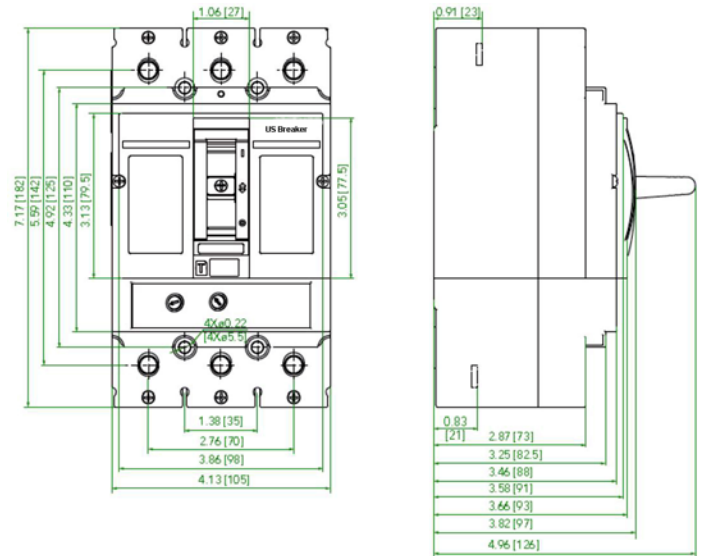
Circuit Breaker Frame	ED	EG	HD	HG	JD	JG	DG	DJ	LG	LC
Rated Current In	15 - 100		100 - 150		175 - 250		250 - 400		400 - 600	
Thermal Adj.	Fixed=In		Adjustable = (0.8, 0.9 or 1.0) x In							
Magentic Adj.	Fixed=(10) x In		Adj=(7-12) x In		Adjustable = (5-10) x In					



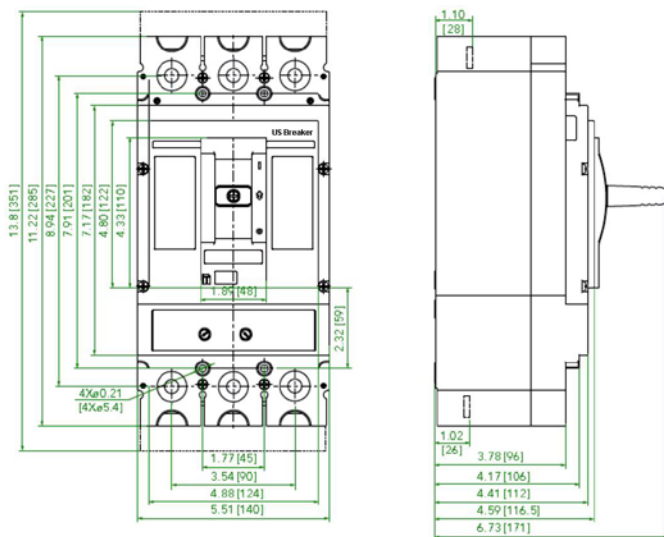
Circuit Breaker Dimensions



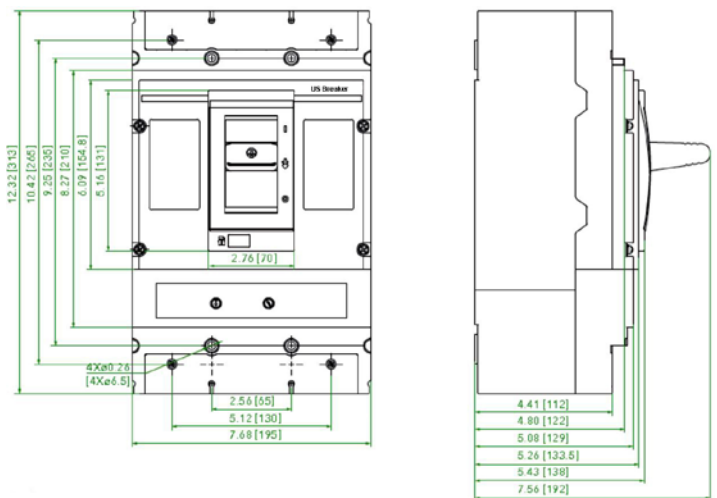
E Frame 3P 15 - 100A



H & J Frame 3P 100 - 250A



D Frame 3P 250 - 400A

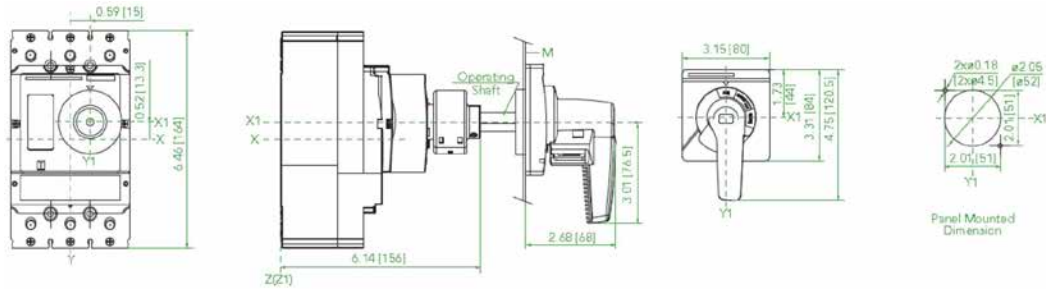


L Frame 3P 400 - 600A

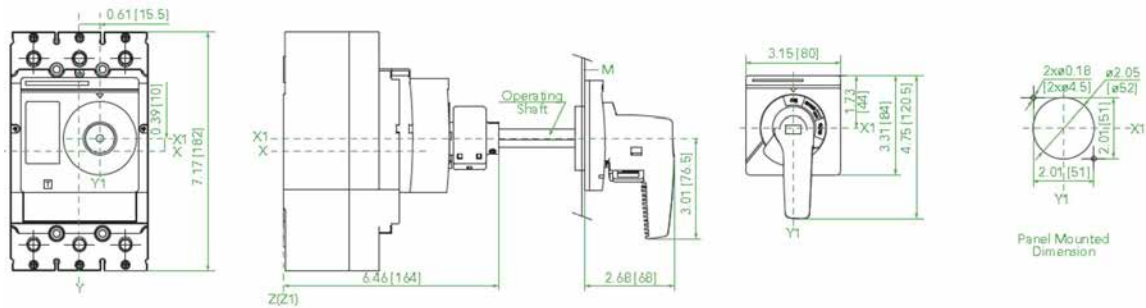


Extended Rotary Operator Dimensions

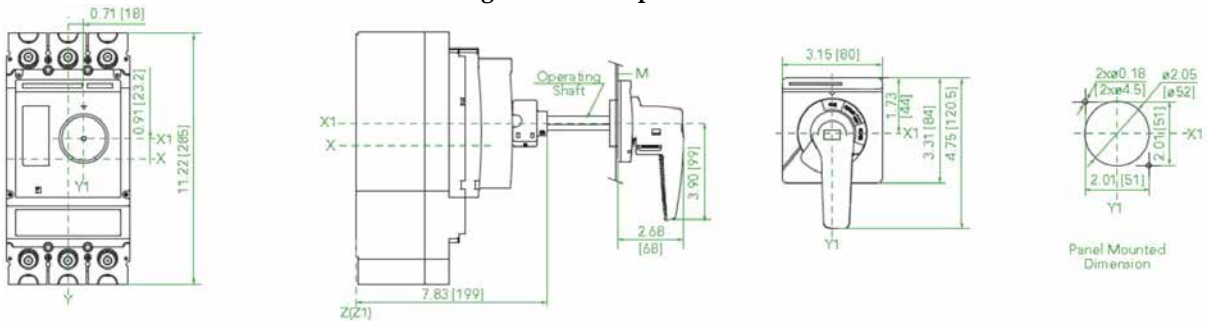
E Frame Through the Door Operator XVDEE___



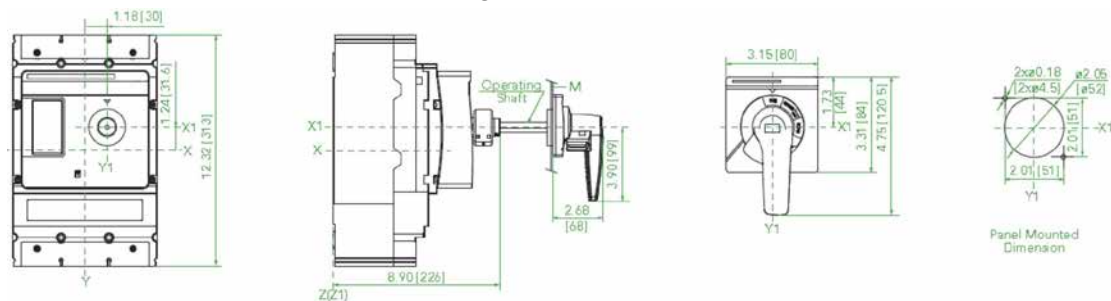
H & J Frame Through the Door Operator XVDHJ___



D Frame Through the Door Operator XVDDD___



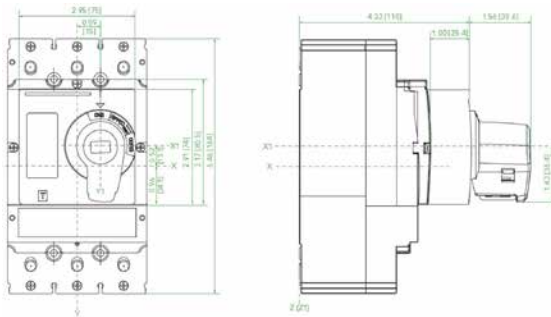
L Frame Through the Door Operator XVDLL___



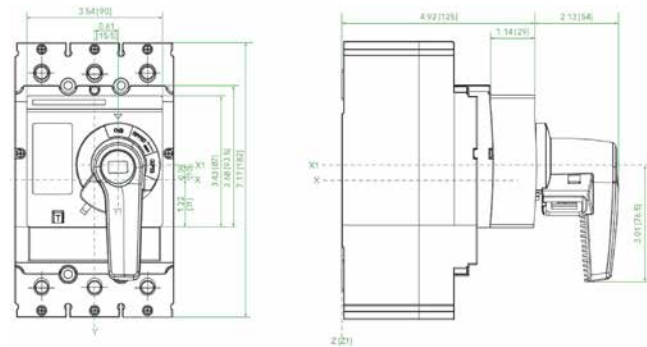


Close Coupled Operator Dimensions

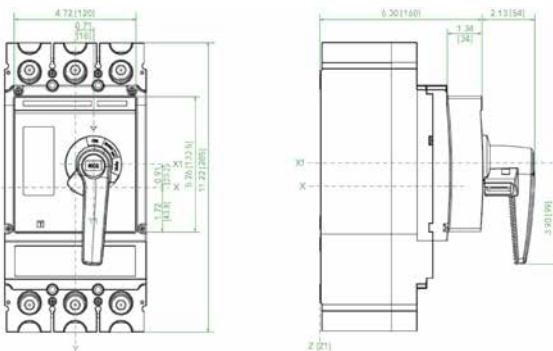
E Frame Close Coupled Operator XCCEE___



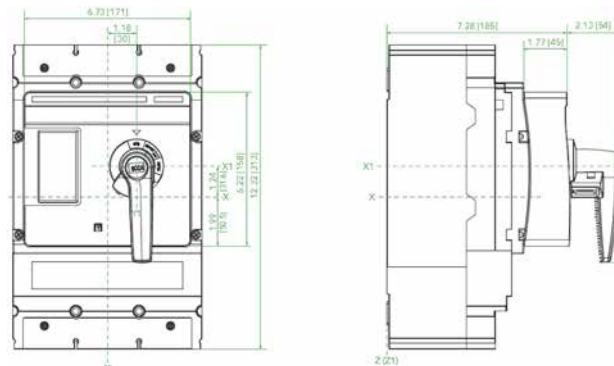
H & J Frame Close Coupled Operator XCCHJ___



D Frame Close Coupled Operator XCCDD___

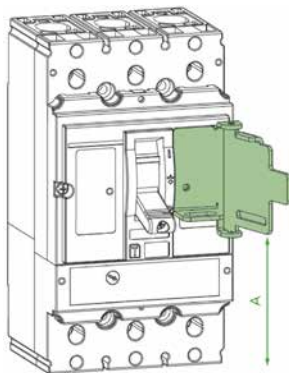


L Frame Close Coupled Operator XCCLL___



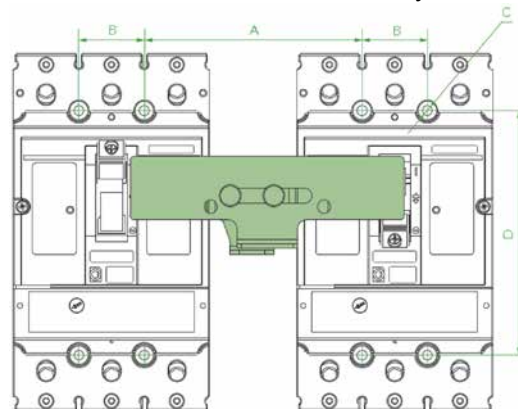
Locking Accessory Dimensions

Padlock Assembly



Dim (inches)	A
XPLFEE	5.71
XPLFHJ	6.50
XPLFDD	8.46
XPLFLL	10.51

Mechanical Interlock Assembly

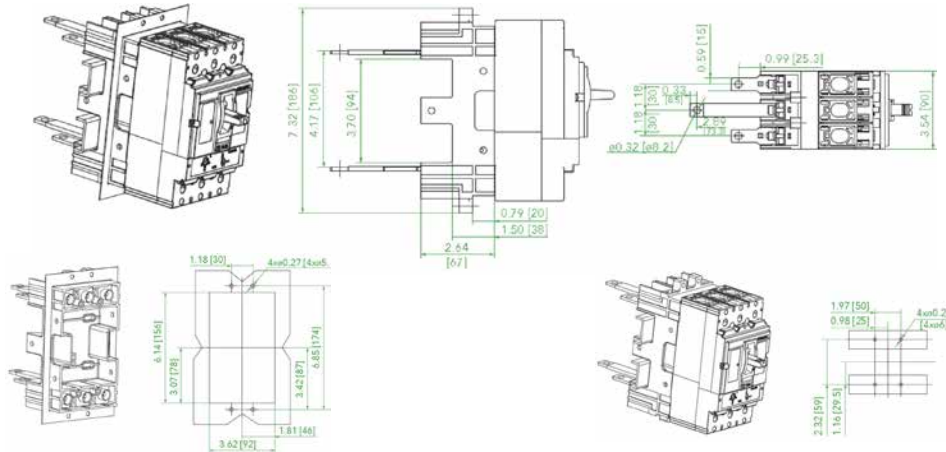


Dim (inches)	A	B	C (diam)	D
XMIXEE	3.94	1.18	0.18	4.41
XMIXHJ	4.53	1.38	0.22	4.92
XMIXDD	5.63	1.77	0.22	7.91
XMIXLL	8.03	2.56	0.26	9.25

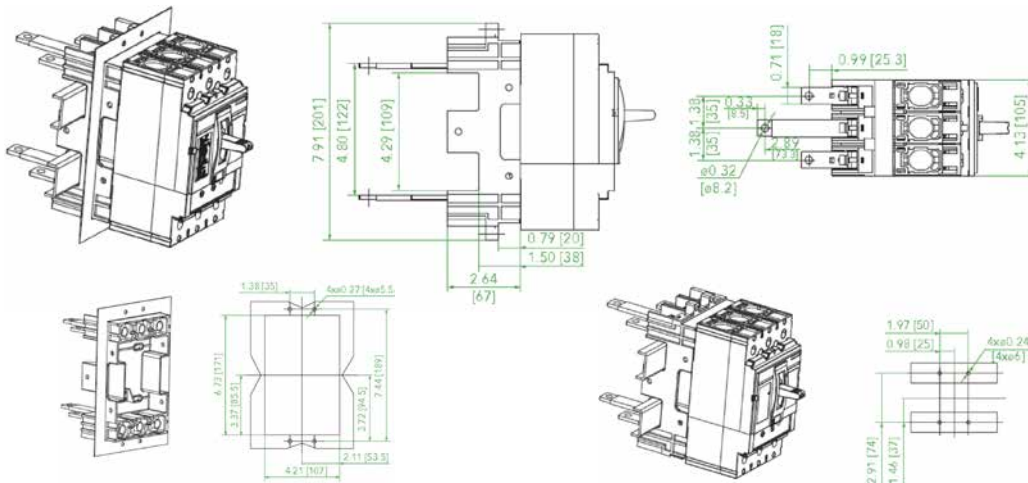


Plug in Base Dimensions

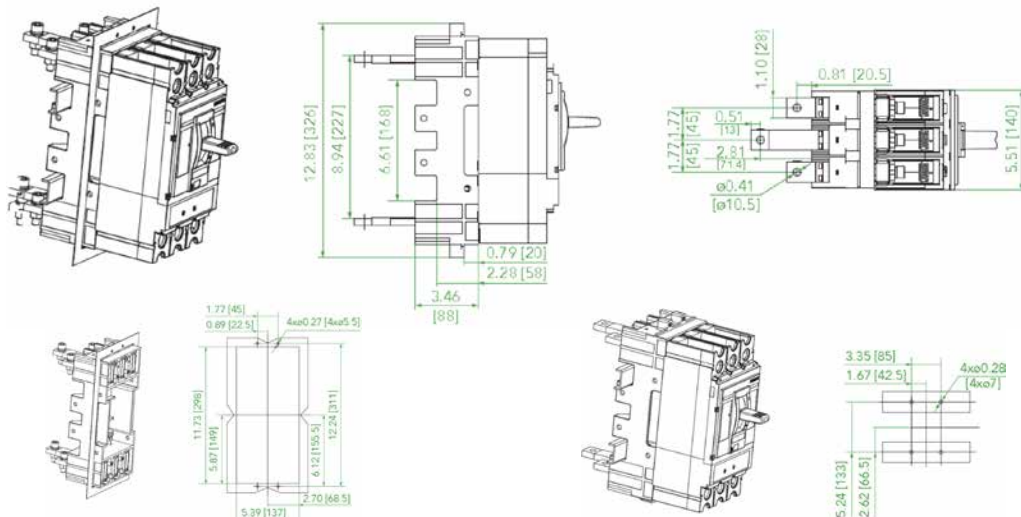
E Frame XPB1EE



H & J Frame XPB1HJ



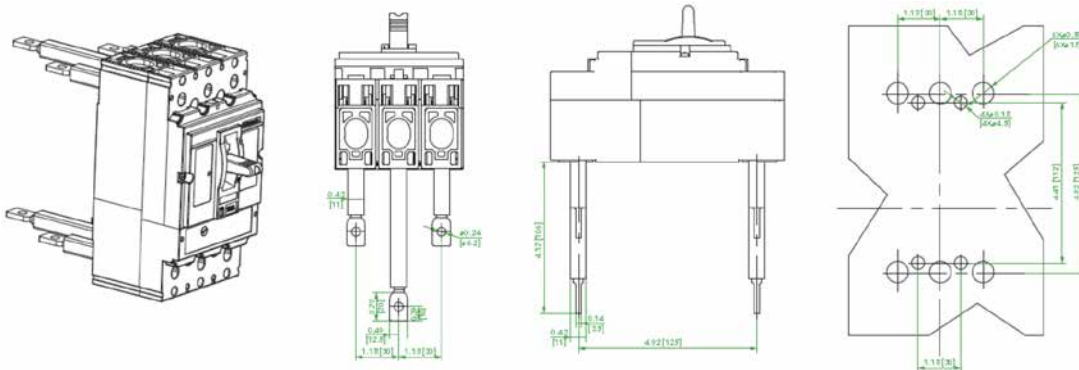
D Frame XPB1DD



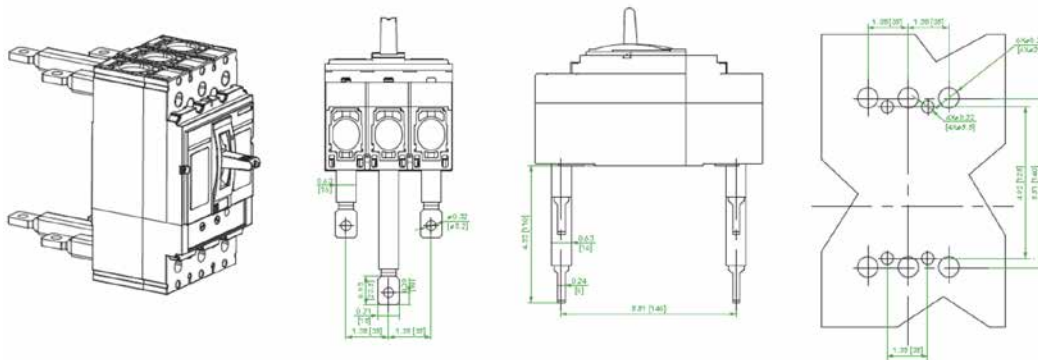


Rear Connection Kit Dimensions

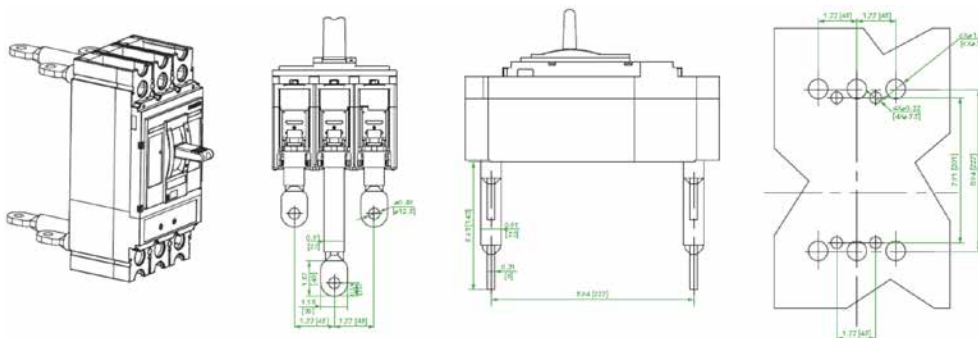
E Frame XRC1EE



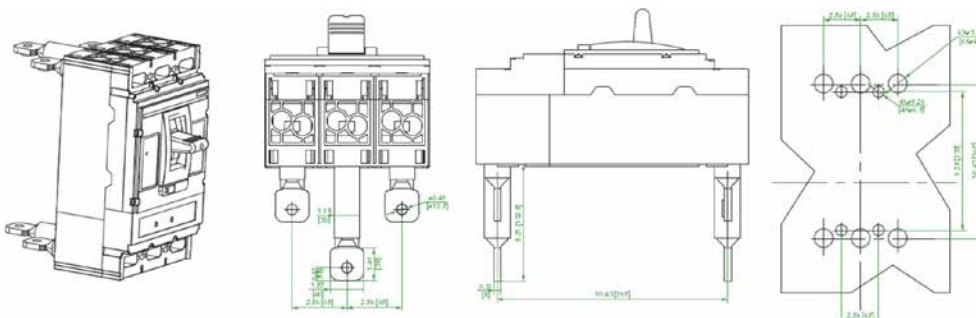
H & J Frame XRC1HJ



D Frame XRC1DD



L Frame XRC1LL





Branch Circuit Breaker Selection & Wire Sizing

Allowable Wire Ampacities (Guidelines for Circuit Breaker Selection)
Based on Table 310.16 (2020) of the National Electrical Code® (NEC) NFPA70®



Calculated Load "Next Size Up" per NEC Branch Circuit Calculation ⁽¹⁾	US Breaker Part # Standard AIC	US Breaker Part # High AIC	Minimum Insulated Copper Wire Size Based on Type (up to 3 Conductors in a raceway or cable) ⁽²⁾		
			60°C (140°F): TW, UF	75°C (167°F): RHW, THHW, THW, THWN, XHHW, ZW	90°C (194°F): FEP, FEPB, MI, RHH, RHW-2, SA, SIS, TBS, THHN, THHW, THW-2, THWN-2, USE-2, XHH, XHHW, XHHW-2, ZW-2
15	ED3C015L	EG3C015L	14 AWG *	14 AWG *	*
20	ED3C020L	EG3C020L	12 AWG *	14 AWG *	14 AWG *
25	ED3C025L	EG3C025L	10 AWG *	12 AWG *	14 AWG *
30	ED3C030L	EG3C030L	10 AWG *	10 AWG *	12 AWG *
35	ED3C035L	EG3C035L	8 AWG	10 AWG *	10 AWG *
40	ED3C040L	EG3C040L	8 AWG	8 AWG	10 AWG *
50	ED3C050L	EG3C050L	6 AWG	8 AWG	8 AWG
60	ED3C060L	EG3C060L	4 AWG	6 AWG	6 AWG
70	ED3C070L	EG3C070L	4 AWG	4 AWG	6 AWG
80	ED3C080L	EG3C080L	3 AWG	4 AWG	4 AWG
90	ED3C090L	EG3C090L	2 AWG	3 AWG	4 AWG
100	ED3C100L	EG3C100L	1 AWG	3 AWG	3 AWG
110	HD3C125L (Set 110A)	HG3C125L (Set 110A)	1 AWG	2 AWG	3 AWG
125	HD3C125L	HG3C125L	1/0 AWG	1 AWG	2 AWG
150	HD3C150L	HG3C150L	3/0 AWG	1/0 AWG	1/0 AWG
175	JD3C175L	JG3C175L	4/0 AWG	2/0 AWG	2/0 AWG
200	JD3C200L	JG3C200L	250 KCMIL	3/0 AWG	3/0 AWG
225	JD3C225L	JG3C225L	300 KCMIL	4/0 AWG	3/0 AWG
250	JD3C250L	JG3C250L	350 KCMIL	250 KCMIL	4/0 AWG
300	DG3C300L	DJ3C300L	500 KCMIL	350 KCMIL	300 KCMIL
350	DG3C350L	DJ3C350L	600 KCMIL	500 KCMIL	350 KCMIL
400	DG3C400L	DJ3C400L	750 KCMIL	600 KCMIL	500 KCMIL
500	LG3C500L	LC3C500L	1500 KCMIL	900 KCMIL	700 KCMIL
600	LG3C600L	LC3C600L	-	1500 KCMIL	1000 KCMIL

Note: The table above is for branch circuit protection and is not designed for motor loads. These are general references to the National Electrical Code® (NEC) NFPA70® to assist standard 80% rated circuit breaker selection. Proper engineering evaluation is required for each customer application.

(1) **Load Calculations** for standard 80% rated protective devices: For Branch-Circuit application up to 600V, referencing NEC 210.19(A) including footnotes & exceptions, select the next standard ampereage up after final load calculations and adjustment factors. The load is considered the greater of the following "general rule of thumb" or the maximum load calculation after correction & adjustment factors per NEC 310.15.

$$\text{Total Load} = 125\% \text{ of continuous loads (per NEC 310.14)} + 100\% \text{ of non-continuous loads}$$

Branch-Circuit Load calculations found in Article 220 Part II include the following useful references:

Section 220.12 Lighting load for non-dwelling occupancies.
Section 220.14 Other loads - all occupancies.
Section 220.16 Loads for addition to existing installations.
Section 310.15 Ampacity tables including but not limited to ambient temperature correction and adjustment factors for conductors.
:

(2) **Wire Selection** is based on table 310.16 (2020). The following additional NEC references should also be applied:

*Section 240.4(D) Overcurrent Protection Limitations (unless otherwise specifically permitted elsewhere in the NEC NFPA70® Code, the overcurrent protection for conductor types marked with an asterisk shall not exceed 15A for #14 copper, 20A for #12 copper, or 30A for #10 copper, after any correction factors for ambient temperature and number of conductors have been applied).
Section 310.15(B) Ampacity correction factors for ambient temperatures other than 30C (86 Deg F).
Section 310.15(C)(1) Ambient compensation required per for more than 3 current carrying conductors.
Section 310.16 Conditions of Use: Such as conductor voltages between 0 - 2000V, conductors rated 60C, 75C or 90C, wiring installed in a 30C ambient temp, and having not more than 3 current carrying conductors.



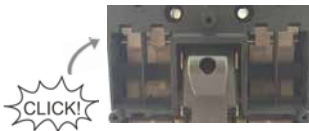
15 - 600 Amp

Superior UL489 Breakers (Square D Mounting Holes)

Safety Minded Isolated Current
Chambers Use Double Break
Technology to Reduce Let-Thru
Current in a Fault



Click-In-Place Field Installable
Accessories Save on Inventory



Adjustable Amperage Reduces
Inventory & Improves
Coordination



Global Certifications
in One Product
(UL File # E481916)



Compact Size and
Interchangeable
Mounting with Many
Square D Frames



Highly Reliable
UL489 Listed Cutting Edge Design
Backed by a 2 Year Warranty



Flexible Mounting Options
Allow Any Position Forward
or Reverse Feed

