
US CATALOG

ProLine

Panelboard and breakers

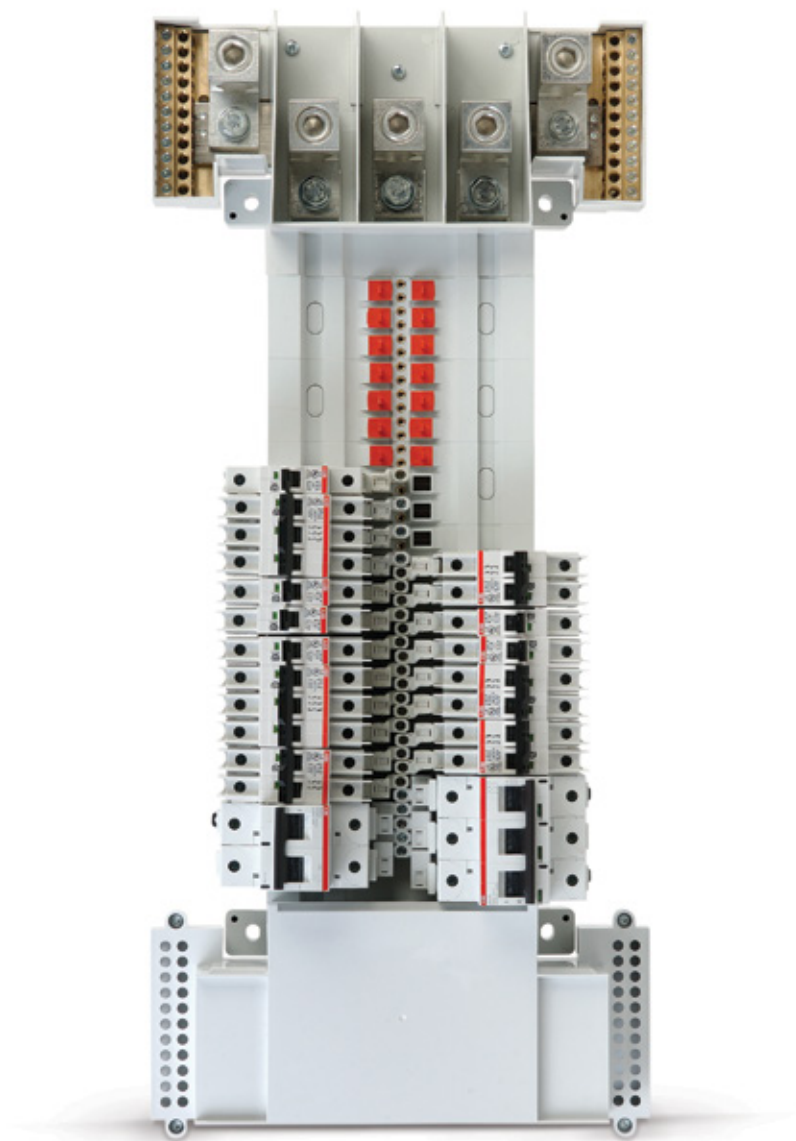
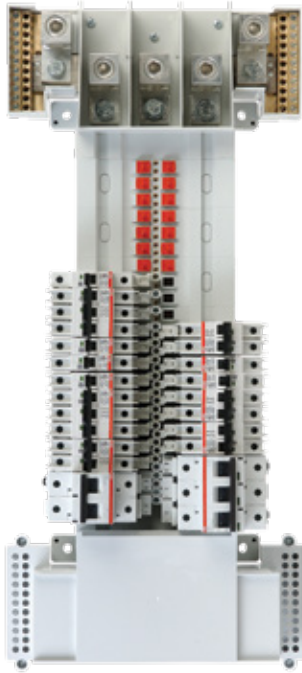


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ProLine panelboard and breakers description

The ProLine panelboard is the electrical industry's first current-limiting, touch-safe and fully coordinated UL 67 panelboard.



Electrical

- UL File #E499134 (old file #E313800)
- UL 67
- 225 A, 250 A and 400 A
- 12, 24, 42, 84 circuits¹
- Up to 240 V and 277/480Y V AC
- 35 kAIC series rating (240 V)
- 14 kAIC series rating (277/480 V)
- Single- or double-ended incoming fully rated feed-through lugs
- 1 A to 100 A branch breakers
- Fully rated sub-fed lugs or breaker
- K trip curve breakers
- N1 enclosure

Features

- Breakers UL current-limiting
- Fully coordinated
- Touch-safe
- Pluggable breaker with non-energized bolt-on screw

The ProLine circuit breaker is the industry's first UL listed current-limiting breaker to be used in a panelboard application.



Electrical

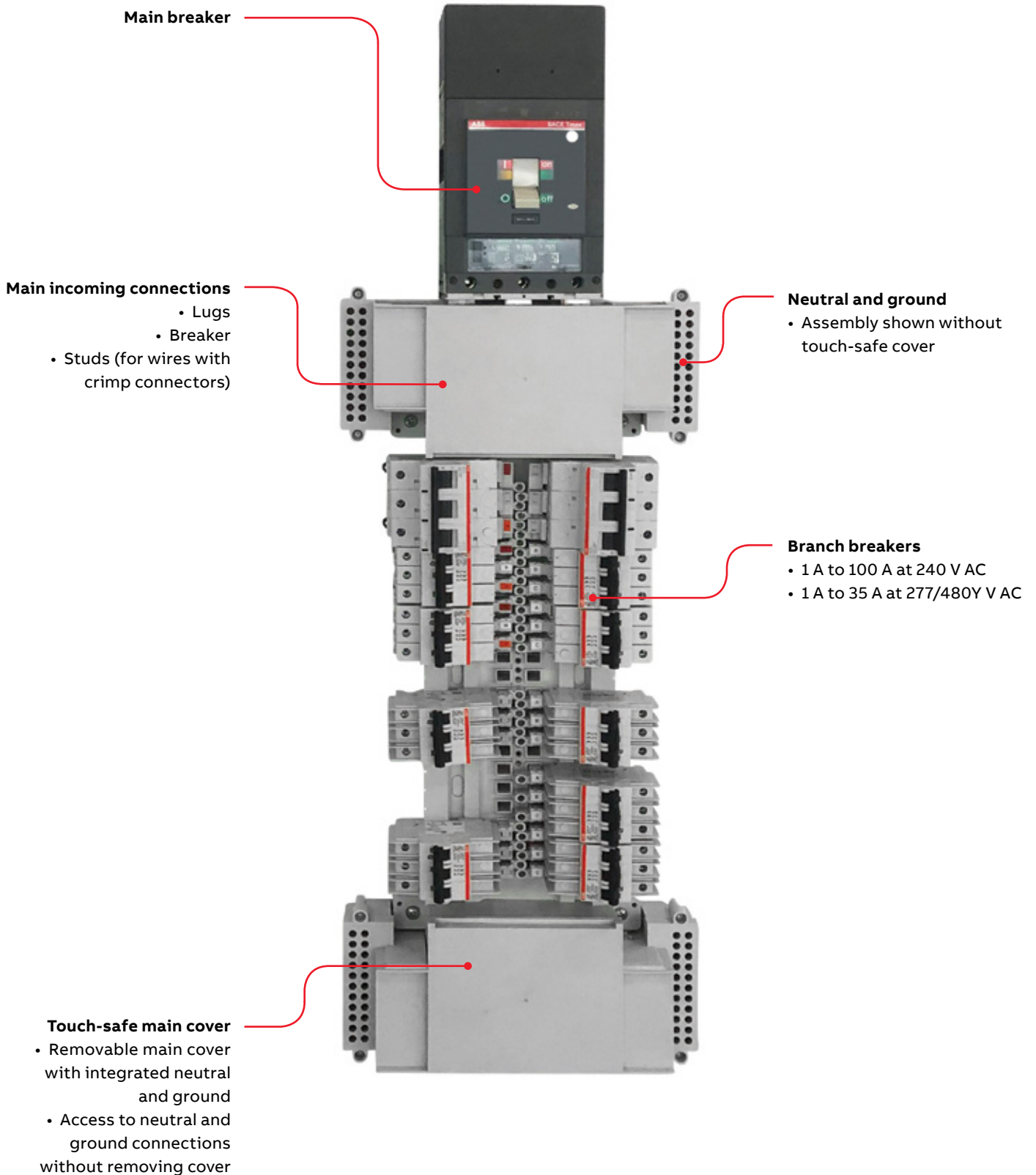
- Current-limiting according to UL 489
- Up to 240 V and 277/480Y V AC
- 10 kAIC with main lug
- 35 kAIC series rating with T5 main
- K or Z curve
- 1 A to 100 A

Features

- Contact position window
- Independent thermal magnetic trip units
- Pluggable breaker with non-energized bolt-on screw

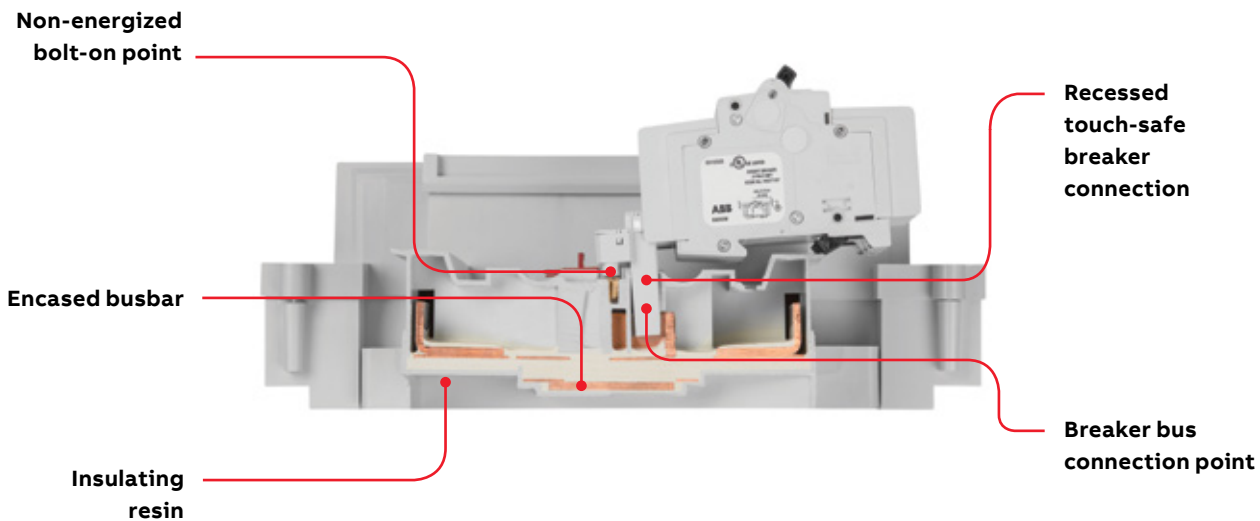
¹84-circuit is available as a single-ended, stand-alone, non-enclosed version only. Bus capacity is maximum 400 A. Please contact Tech Support for assistance.

Panelboard features



Breaker features

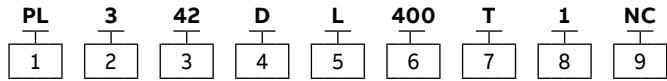
Pluggable with non-energized bolt-on connection



Stable busbar design for high withstand ratings

- Busbar designed with more surface area than typical panelboard busbar
- Busbar encased in resin to aid stabilization in case of a fault

Catalog number guide and panelboard configurator



Catalog number guide

1	Product	PL	ProLine
2	Phases	3	Three-phase
3	Circuits	12	12 Circuits
		24	24 Circuits
		42	42 Circuits
		84	84 Circuits ¹
4	Incoming	S	Single
		D	Double

5	Main	B	Breaker
		L	Lugs
		S	Studs
6	Ampacity	225	225 Amps
		250	250 Amps
		400	400 Amps
7	Type	T	Touch-safe
8	Neutral	1	100%
		2	200%
9	Enclosure	NC	Open
		N1	N1 Enclosed

¹84-circuit is available as a single-ended stand-alone, non-enclosed version only. Bus capacity is maximum 400 A. Please contact Tech Support for assistance.

ProLine breakers 120, 208, 240 V AC and 277/480Y V AC, UL 489

PL700, K curve



PL701U



PL702U



PLU700M



PL702U-K60L



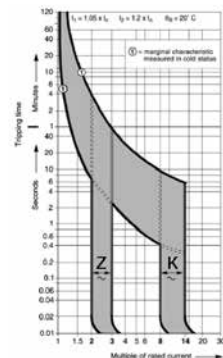
PL703U-K100R

120/208/240 V AC

Rated current (A)	K curve, 1-pole		K curve, 2-pole		K curve, 3-pole	
	Catalog number	Rated current (A)	Catalog number	Rated current (A)	Catalog number	Rated current (A)
1	PL701U-K1	1	PL702U-K1	1	PL703U-K1	1
2	PL701U-K2	2	PL702U-K2	2	PL703U-K2	2
3	PL701U-K3	3	PL702U-K3	3	PL703U-K3	3
4	PL701U-K4	4	PL702U-K4	4	PL703U-K4	4
5	PL701U-K5	5	PL702U-K5	5	PL703U-K5	5
6	PL701U-K6	6	PL702U-K6	6	PL703U-K6	6
8	PL701U-K8	8	PL702U-K8	8	PL703U-K8	8
10	PL701U-K10	10	PL702U-K10	10	PL703U-K10	10
15	PL701U-K15	15	PL702U-K15	15	PL703U-K15	15
20	PL701U-K20	20	PL702U-K20	20	PL703U-K20	20
25	PL701U-K25	25	PL702U-K25	25	PL703U-K25	25
30	PL701U-K30	30	PL702U-K30	30	PL703U-K30	30
40	PL701U-K40	40	PL702U-K40	40	PL703U-K40	40
50	PL701U-K50	50	PL702U-K50	50	PL703U-K50	50
60	PL701U-K60L	60	PL702U-K60L	60	PL703U-K60L	60
70	PL701U-K70L	70	PL702U-K70L	70	PL703U-K70L	70
60	PL701U-K60R	60	PL702U-K60R	60	PL703U-K60R	60
70	PL701U-K70R	70	PL702U-K70R	70	PL703U-K70R	70
80	PL701U-K80R	80	PL702U-K80R	80	PL703U-K80R	80
90	PL701U-K90R	90	PL702U-K90R	90	PL703U-K90R	90
100	PL701U-K100R	100	PL702U-K100R	100	PL703U-K100R	100

277/480Y V AC

Rated current (A)	K curve, 1-pole		K curve, 2-pole		K curve, 3-pole	
	Catalog number	Rated current (A)	Catalog number	Rated current (A)	Catalog number	Rated current (A)
1	PLU701M-K1	1	PLU702M-K1	1	PLU703M-K1	1
2	PLU701M-K2	2	PLU702M-K2	2	PLU703M-K2	2
3	PLU701M-K3	3	PLU702M-K3	3	PLU703M-K3	3
4	PLU701M-K4	4	PLU702M-K4	4	PLU703M-K4	4
5	PLU701M-K5	5	PLU702M-K5	5	PLU703M-K5	5
6	PLU701M-K6	6	PLU702M-K6	6	PLU703M-K6	6
7	PLU701M-K7	7	PLU702M-K7	7	PLU703M-K7	7
8	PLU701M-K8	8	PLU702M-K8	8	PLU703M-K8	8
10	PLU701M-K10	10	PLU702M-K10	10	PLU703M-K10	10
13	PLU701M-K13	13	PLU702M-K13	13	PLU703M-K13	13
15	PLU701M-K15	15	PLU702M-K15	15	PLU703M-K15	15
16	PLU701M-K16	16	PLU702M-K16	16	PLU703M-K16	16
20	PLU701M-K20	20	PLU702M-K20	20	PLU703M-K20	20
25	PLU701M-K25	25	PLU702M-K25	25	PLU703M-K25	25
30	PLU701M-K30	30	PLU702M-K30	30	PLU703M-K30	30
32	PLU701M-K32	32	PLU702M-K32	32	PLU703M-K32	32
35	PLU701M-K35	35	PLU702M-K35	35	PLU703M-K35	35



Trip curve K

- UL 489
- 10 kA
- K curve
- Inductive loads
- Curve allows for loads with higher inrush during system start-up

Notes:

- PL70XU-R and L have different dimensions (see dimension drawings)
- PL70XU-R 80 A/90 A/100 A
 - Have double stab adapters
 - Are available as R only

Accessories — panelboard



PLBUSCVR

Panelboard chassis hole bus cover

Description	Catalog number
Bus cover (Binky) to cover stab adapter circuit holes on panelboard	PLBUSCVR

Switchboard circuit ID labels

Description	Catalog number
12-Circuit switchboard circuit ID label	PLIDLBL12
24-Circuit switchboard circuit ID label	PLIDLBL24
42-Circuit switchboard circuit ID label	PLIDLBL42
42-Circuit switchboard circuit ID label, for circuit 43–84	PLIDLBL43-84

Panelboard directory card and holder

Directory card for marking circuit designation (card and holder, package of 5)

Description	Catalog number
12-Circuit description card, label holder	PL12LBL
24-Circuit description card, label holder	PL24LBL
42-Circuit description card, label holder	PL42LBL



PL24LBL

Neutral/ground assembly

Description	Catalog number
Neutral bar assembly (100%), 42-circuit, 400 A	PLN42400S
Neutral bar assembly (200%), 42-circuit, 400 A	PLN42400S2
Ground bar assembly, 42-circuit, 400 A	PLG42400S
Neutral bar assembly (100%), 42-circuit, 225 A	PLN42225S
Neutral bar assembly, (200%), 42-circuit, 225 A	PLN42225S2
Ground bar assembly, 42-circuit, 225 A	PLG42225S
Neutral bar assembly (100%), 24-circuit, 400 A	PLN24400S
Neutral bar assembly (200%), 24-circuit, 400 A	PLN24400S2
Ground bar assembly, 24-circuit, 400 A	PLG24400S
Neutral bar assembly (100%), 24-circuit, 225 A	PLN24225S
Neutral bar assembly (200%), 24-circuit, 225 A	PLN24225S2
Ground bar assembly, 24-circuit, 225 A	PLG24225S
Neutral bar assembly (100%), 12-circuit, 400 A	PLN12400S
Neutral bar assembly (200%), 12-circuit, 400 A	PLN12400S2
Ground bar assembly, 12-circuit, 400 A	PLG12400S
Neutral bar assembly (100%), 12-circuit, 225 A	PLN12225S
Neutral bar assembly (200%), 12-circuit, 225 A	PLN12225S2
Ground bar assembly, 12-circuit, 225 A	PLG12225S

Neutral/ground lugs

Description	Catalog number
ProLine, 12-circuit, 250 A, N/G lug	PLNG12250
ProLine, 24-circuit, 250 A, N/G lug	PLNG24250
ProLine, 42-circuit, 250 A, N/G lug	PLNG42250
ProLine, 12-circuit, 400 A, N/G lug	PLNG12400
ProLine, 24-circuit, 400 A, N/G lug	PLNG24400
ProLine, 42-circuit, 400 A, N/G lug	PLNG42400

Accessories — panelboard



PL350MECLUG

Main and sub-feed lugs

Lugs for incoming and outgoing connections

Description	Catalog number
225 A single 4/0 AWG to 350 MCM	PL350MECLUG
400 A single 4/0 AWG to 600 MCM	PL600MECLUG

Enclosure blank circuit covers

Covers for filling enclosure spaces not used by breakers

Description	Catalog number
ProLine PB filler plate for S200 MCBs	PLBLNKCVR S200
ProLine PB filler plate, hinged for S200 MCBs	PLBLNKCVR S200H
ProLine PB filler plate for S800 MCBs	PLBLNKCVR S800
ProLine PB filler plate, hinged for S800 MCBs	PLBLNKCVR S800H



PLMCVR

Main cover

Description	Catalog number
Main cover	PLMCVR

Main breaker conversion kit

Kit for converting panelboard from main lugs to main breaker includes:

Breaker, adapter, plates and bus connections

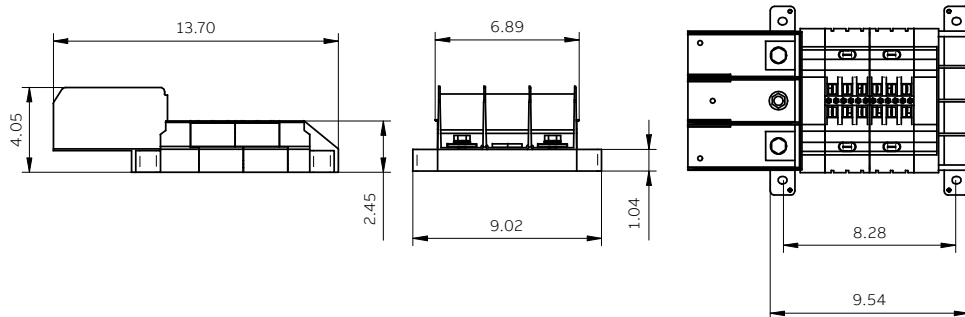
Description	Catalog number
150 A T5 main breaker, 3-phase, electronic trip	PLT5150CONV3P
400 A T5 main breaker, 3-phase	PLT5CONV3P

Approximate dimensions

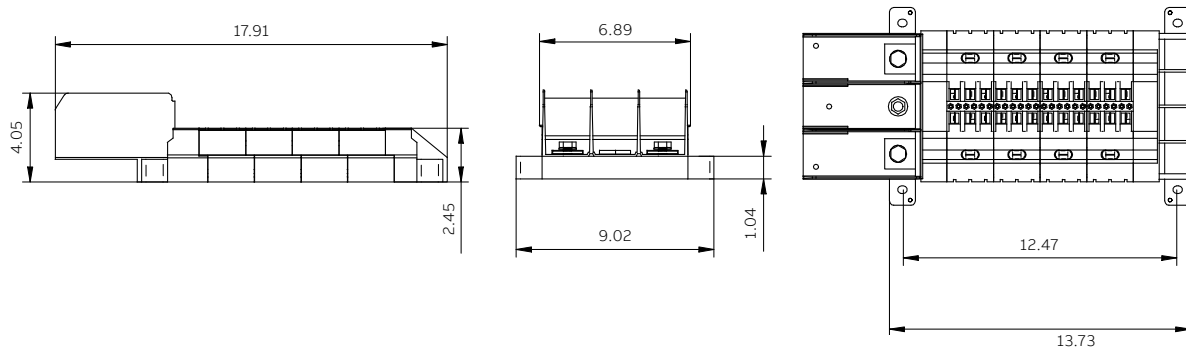
Panelboards single-ended

Dimensions in inches.

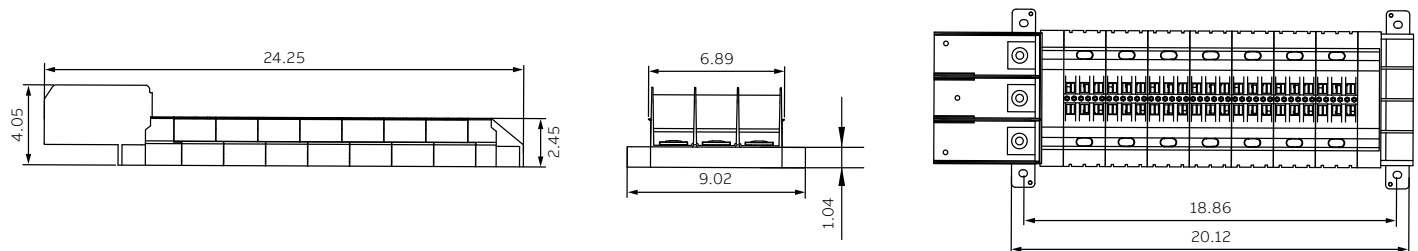
12-Circuit, single-ended



24-Circuit, single-ended



42-Circuit, single-ended

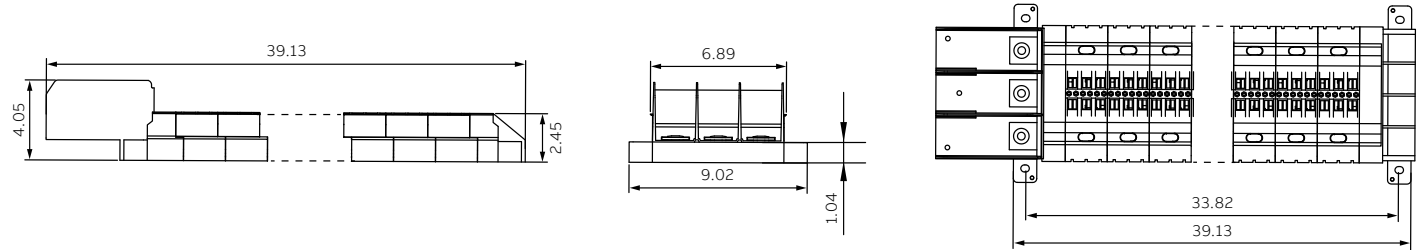


Approximate dimensions

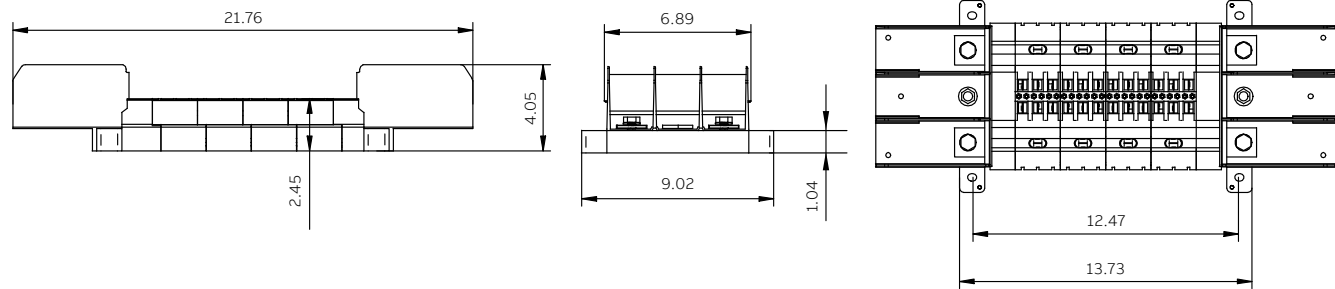
Panelboards single-ended and double-ended

Dimensions in inches.

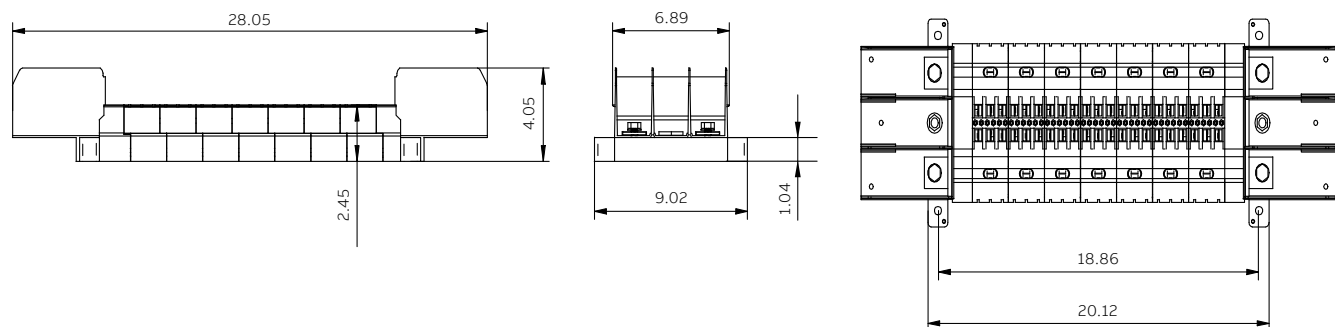
84-Circuit, single-ended



24-Circuit, double-ended



42-Circuit, double-ended

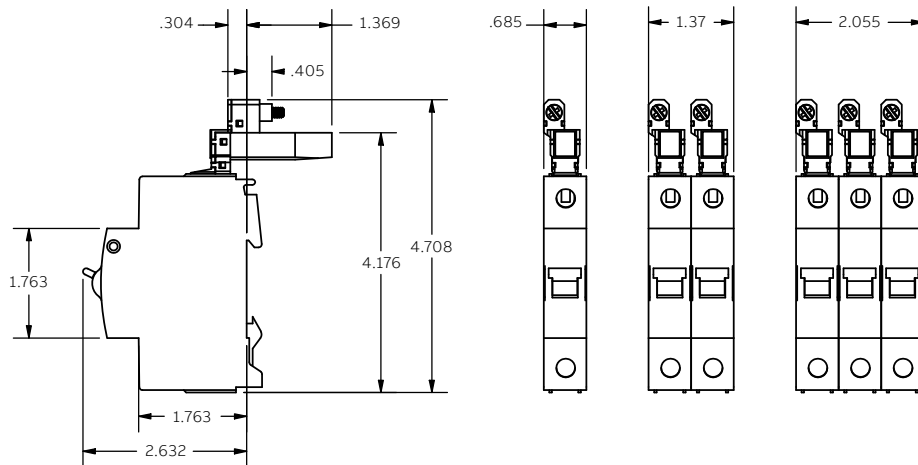


Approximate dimensions

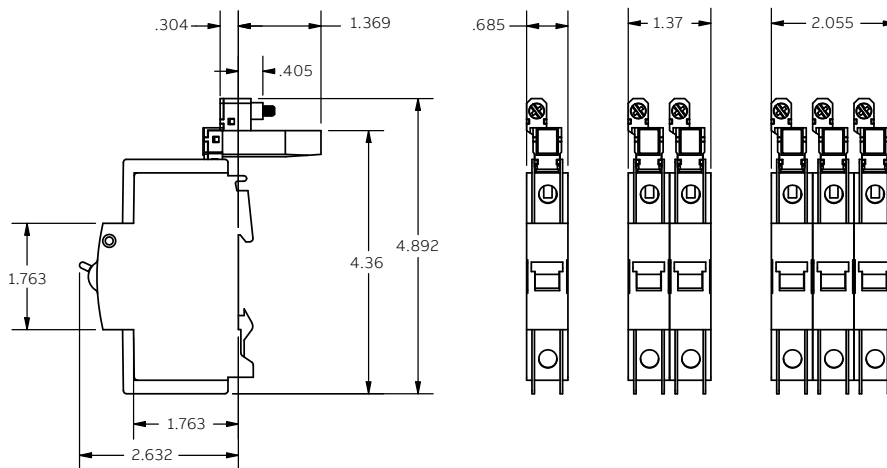
PL700 breakers

Dimensions in inches.

PL700U 1 A-50 A



PLU700M 1 A-35 A

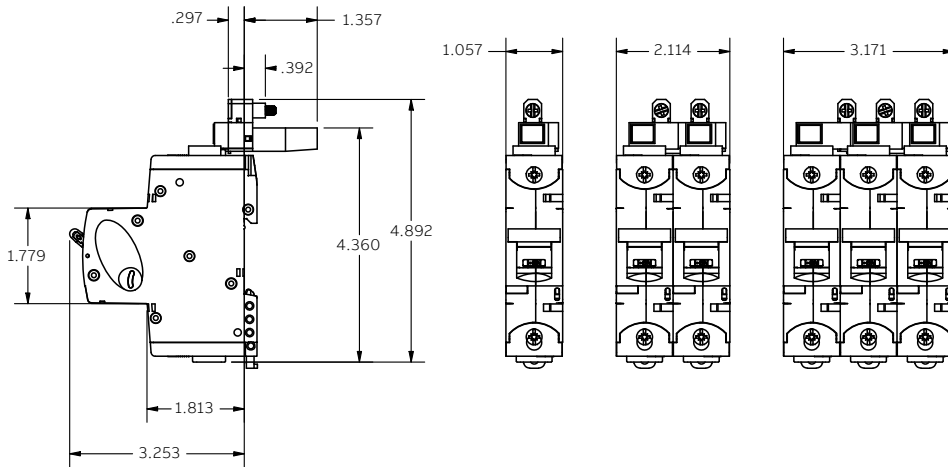


Approximate dimensions

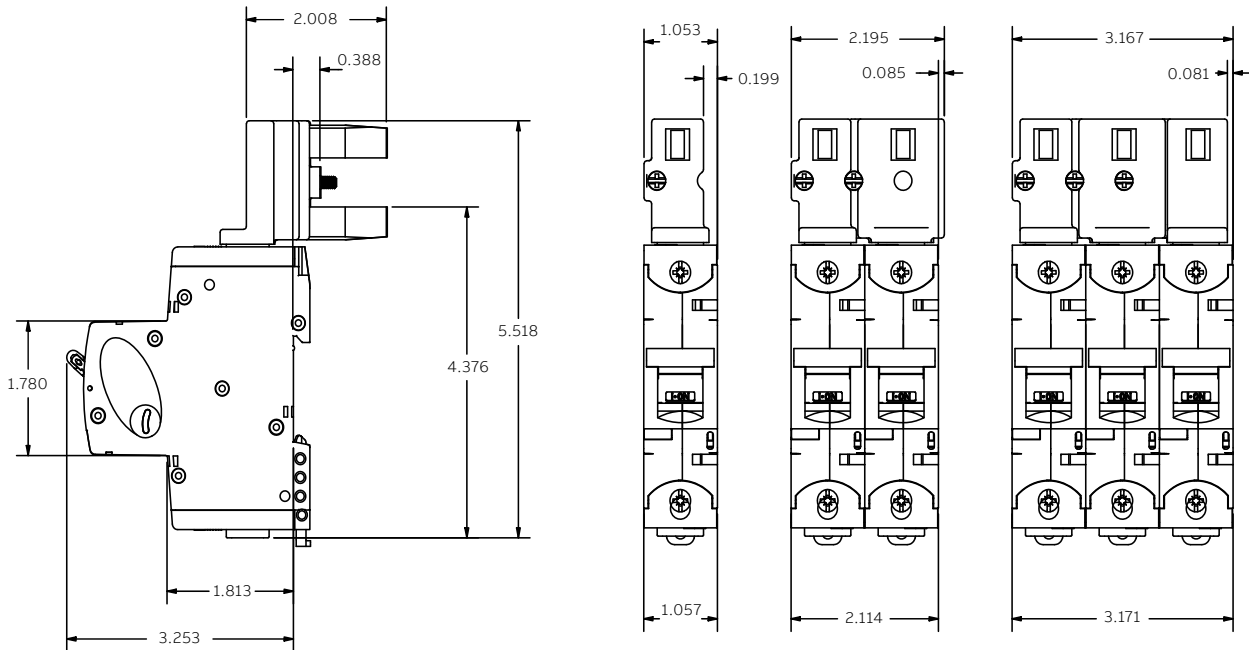
PL700 breakers

Dimensions in inches,

PL700U 60 A-70 A



PL700U 80 A-100 A



Technical specifications

PL700 breakers

Item	PL700U-K	PLU700M	PL700-K (L) PL700-K (R)
UL ratings	489	489	489
Number of poles	1, 2, 3	1, 2, 3	1, 2, 3
Tripping characteristic	K	K	K
Rated currents	1 to 50 A	1 to 35 A	60 to 70 A ¹ , 80 to 100 A ²
Minimum operating voltage	12 V	12 V	—
UL rated voltage and interrupting capacity			
Series rating	240 V AC; 35 kA with main breaker	480 V AC; 14 kA with main breaker	240 V AC; 35 kA with main breaker
120 V AC	10 kA	10 kA	50 kA: multi-pole
240 V AC	10 kA	10 kA	30 kA: single-pole
277 V AC	—	10 kA	—
277/480Y V AC	—	10 kA	—
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Rated voltage	240 V AC	277/480Y V AC	240 V AC
Protection category	IP 20	IP 20	IP 20
Main terminals			
Wire size	18–4 AWG/0.75–25 mm ²	18–16 AWG/13.3 in.-lbs. 14–10 AWG/17.7 in.-lbs. 8–4 AWG/39.8 in.-lbs.	25–1 AWG
Torque	25 in.-lbs./2.8 Nm	25 in.-lbs./2.8 Nm	35 in.-lbs./4 Nm
Tool	#2 Posidrive	#2 Posidrive	—
Service life at rated load	20,000 operations (below 32 A)	20,000 operations (below 32 A)	6,000 operations
	10,000 operations (32 A and higher)	10,000 operations (32 A and higher)	—
Ambient temperatures			
Minimum	-25 °C -13 °F	-25 °C -13 °F	-25 °C -13 °F
Maximum	+55 °C 131 °F	+55 °C 131 °F	60 °C 140 °F
Storage temperatures			
Minimum	-40 °C -40 °F	-40 °C -40 °F	-40 °C -40 °F
Maximum	70 °C 158 °F	70 °C 158 °F	70 °C 158 °F
Shock resistance	25 g minimum of 2 impacts, shock duration of 13 ms	25 g minimum of 2 impacts, shock duration of 13 ms	—
Vibration resistance	5 g, 20 cycles, 5 Hz, 150 Hz at 0.8 In	5 g, 20 cycles, 5 Hz, 150 Hz at 0.8 In	—

¹ 60 A/70 A have different dimensions.

² 80 A/90 A/100 A available as "R" only and have double stab adapters.

Series UL ratings

Tmax® T3 — PL700 at 240 V AC

	PL700 Amps	Series rating kA
	1	35
	2	35
	3	35
	4	35
	5	35
	6	35
T3S 225 A Main breaker	8	35
	10	35
PL700 Branch K and Z curve	13	35
	15	35
	16	35
	20	35
	25	35
	30	35
	40	35
	50	35

Tmax XT3 — PL700 at 240 V AC

	PL700 Amps	Series rating kA
	1	35
	2	35
	3	35
	4	35
	5	35
	6	35
XT3S 225 A Main breaker	8	35
	10	35
PL700 Branch K and Z curve	13	35
	15	35
	16	35
	20	35
	25	35
	30	35
	40	35
	50	35

Tmax T3 — PLU700 at 480 V AC

	PLU700 Amps	Series rating kA
	1	14
	1,6	14
	2	14
	3	14
	4	14
	5	14
	6	14
T3S 225 A Main breaker	7	14
	8	14
PLU700 Branch C, K and Z curve	10	14
	13	14
	15	14
	16	14
	20	14
	25	14
	30	14
	32	14
	35	14
T3S 225 A Main breaker	40	14
PLU700 Branch C and Z curve		

Tmax XT3 — PLU700 at 240 V AC

	PLU700 Amps	Series rating kA
	1	14
	1,6	14
	2	14
	3	14
	4	14
	5	14
	6	14
XT3S 225 A Main breaker	7	14
	8	14
PLU700 Branch C, K and Z curve	10	14
	13	14
	15	14
	16	14
	20	14
	25	14
	30	14
	32	14
	35	14
XT3S 225 A Main breaker	40	14
PLU700 Branch C and Z curve		

Tmax T5 — PL700 at 240 V AC

	PL700 Amps	Series rating kA
	1	35
	2	35
	3	35
	4	35
	5	35
	6	35
T5N 400 A Main breaker	8	35
	10	35
PL700 Branch C, K and Z curve	13	35
	15	35
	16	35
	20	35
	25	35
	30	35
	40	35
	50	35

Tmax XT4 — PL700 at 240 V AC

	PL700 Amps	Series rating kA
	1	35
	2	35
	3	35
	4	35
	5	35
	6	35
XT4S 250 A Main breaker	8	35
	10	35
PL700 Branch K and Z curve	13	35
	15	35
	16	35
	20	35
	25	35
	30	35
	40	35
	50	35

Series UL ratings

Tmax T5 — PLU700 at 480 V AC

	PLU700 Amps	Series rating kA
	1	14
	1,6	14
	2	14
	3	14
	4	14
	5	14
	6	14
T5N 400 A Main breaker	7	14
	8	14
PLU700 Branch C, K and Z curve	10	14
	13	14
	15	14
	16	14
	20	14
	25	14
	30	14
	32	14
	35	14
T5N 400 A Main breaker	40	14
PLU700 Branch C and Z curve		

Tmax XT4 — PLU700 at 240 V AC

	PLU700 Amps	Series rating kA
	1	14
	1,6	14
	2	14
	3	14
	4	14
	5	14
	6	14
XT4S 250 A Main breaker	7	14
	8	14
PLU700 Branch C, K and Z curve	10	14
	13	14
	15	14
	16	14
	20	14
	25	14
	30	14
	32	14
	35	14
XT4S 250 A Main breaker	40	14
PLU700 Branch C and Z curve		

Main lug — PL700 at 240 V AC

	PL700 Amps	Series rating kA
	1	10
	2	10
	3	10
	4	10
	5	10
	6	10
	8	10
Main lug	10	10
	15	10
PL700 Branch K and Z curve	20	10
	25	10
	30	10
	40	10
	50	10
	60	10
	70	10
	80	10
	90	10
	100	10

Main lug — PL700 at 480 V AC

	PL700 Amps	Series rating kA
	1	10
	2	10
	3	10
Main lug	4	10
	5	10
PL700 Branch K and Z curve	6	10
	8	10
	10	10
	15	10
	20	10
	25	10

Coordination (discrimination) IEC ratings

Tmax T3 — PL700 at 240 V AC

	PL700 Amps	Coordination rating kA
	1	28.6
	2	28.6
	3	28.6
	4	28.6
	5	28.6
	6	28.6
	8	28.6
T3S 225 A Main breaker	10	28.6
	15	28.6
	20	28.6
PL700 Branch K and Z Curve	25	28.6
	30	28.6
	40	28.6
	50	28.6
	60	28.6
	70	28.6
	80	28.6
	90	28.6
	100	28.6

Main lug — PL700 at 240 V AC

	PL700 Amps	Coordination rating kA
	1	10
	2	10
	3	10
	4	10
	5	10
	6	10
	8	10
	10	10
Main lug	15	10
	20	10
PL700 Branch K and Z Curve	25	10
	30	10
	40	10
	50	10
	60	10
	70	10
	80	10
	90	10
	100	10

Tmax T3 — PL700 at 480 V AC

	PL700 Amps	Coordination rating kA
	1	14
	2	14
	3	14
T3S 225 A Main breaker	4	14
	5	14
	6	14
PL700 Branch K and Z curve	8	14
	10	14
	15	14
	20	14
	25	14

Main lug — PL700 at 480 V AC

	PL700 Amps	Coordination rating kA
	1	10
	2	10
	3	10
	4	10
Main lug	5	10
	6	10
PL700 Branch K and Z curve	8	10
	10	10
	15	10
	20	10
	25	10

Tmax T5 — PL700 at 240 V AC

	PL700 Amps	Coordination rating kA
	1	28.6
	2	28.6
	3	28.6
	4	28.6
	5	28.6
	6	28.6
	8	28.6
T5N 400 A Main breaker	10	28.6
	15	28.6
	20	28.6
PL700 Branch K and Z curve	25	28.6
	30	28.6
	40	28.6
	50	28.6
	60	28.6
	70	28.6
	80	28.6
	90	28.6
	100	28.6

Breaker placement guide



PL701U



PL702U



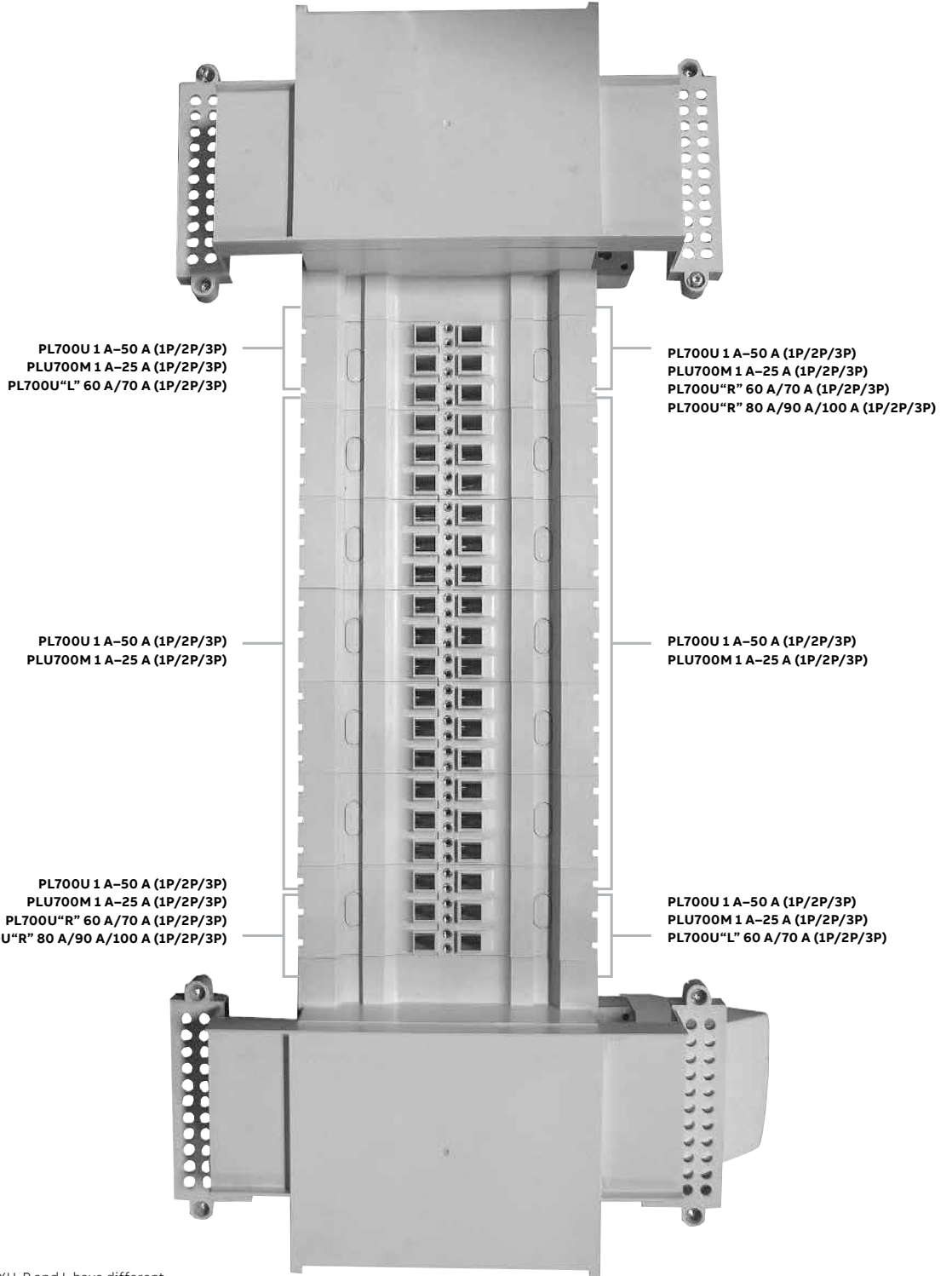
PLU703M



PL702U-K60L



PL703U-K100R



Notes:

- PL70XU-R and L have different stab adapter position dimensions (see dimension drawings)
- PL70XU-R 80 A/90 A/100 A
 - Have double stab adapters
 - Are available as R only



—

ABB Inc.

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