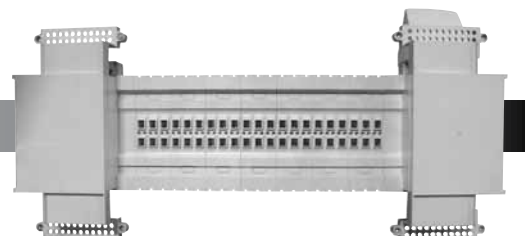




21 - Proline panelboard

Proline panelboard21.1 - 21.16

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Features	21.2 - 21.4
Breaker placement	21.5
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PL700, K-Curve.....	21.6
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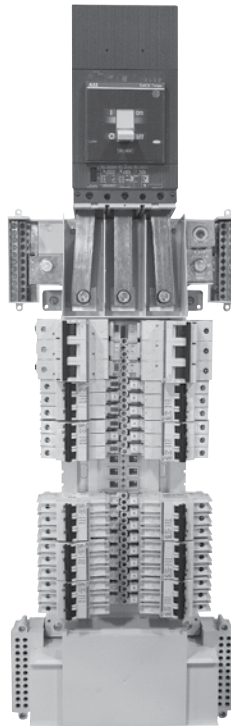
Notes

ProLine Panelboard & breakers



ProLine panelboard & breakers

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



Electrical:

- UL File #E319800
- UL67
- 225A and 400A
- 12, 24, 42 circuit
- Up to 240V & 277/480Y VAC
- 35 kAIC series rating (240V)
- 14 kAIC series rating (277/480V)
- Single or double ended Incoming
- Fully rated feed through lugs
- 1A to 100A branch breakers
- Fully rated sub fed lugs or breaker
- K or Z 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 approved current limiting breaker to be used in a panelboard application.



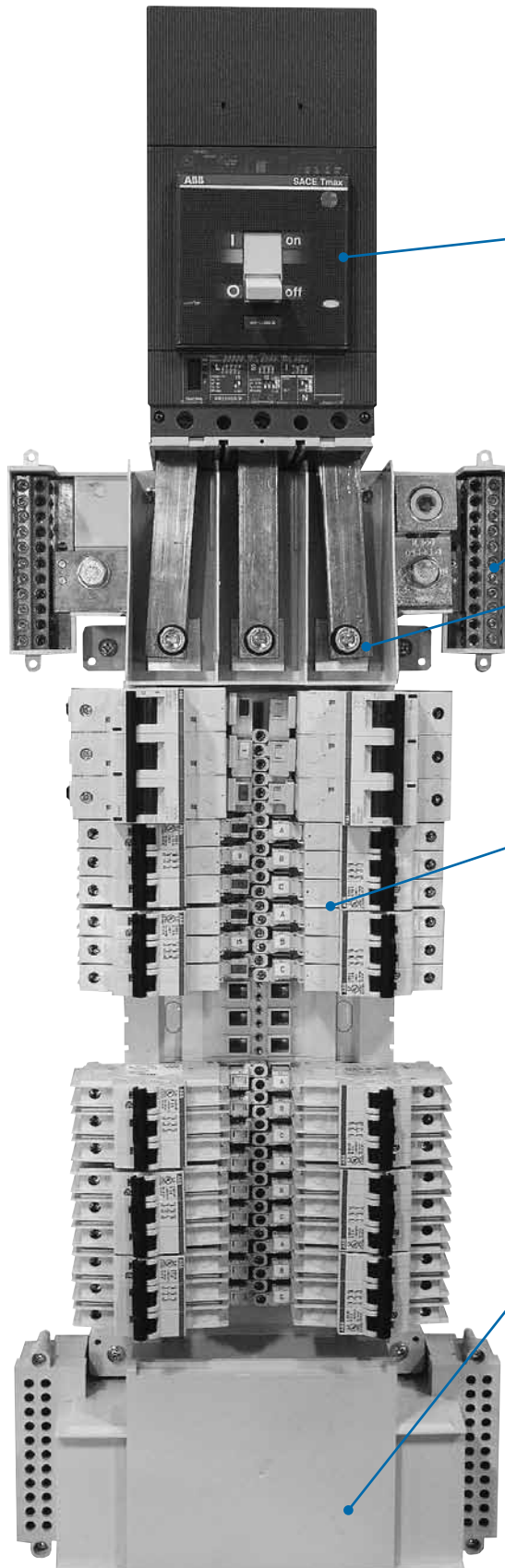
Electrical:

- Current limiting according to UL489
- Up to 240V & 277/480Y VAC
- 10KAIC with main lug
- 35KAIC series rating with T5 main
- K or Z curve
- 1A to 100A

Features:

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

ProLine features



Main breaker: T5

Neutral and ground:

- Assembly shown without touch safe cover

Main incoming connections:

- Lugs
- Breaker
- Studs (for wires with crimp connectors)

Branch breakers:

- 1A to 100A at 240VAC
- 1A to 25A at 277/480Y VAC

Touch safe main cover:

- Removable main cover with integrated neutral and ground
- Access to neutral and ground connections without removing cover

ProLine features

ProLine
panelboard

Pluggable with non-energized
bolt-on connection

Non-energized
mechanical bolt-on
connection

Electrical plug-in connection

Non-energized bolt-on point

Recessed touch-safe
breaker connection

Breaker bus
connection point

Insulating resin

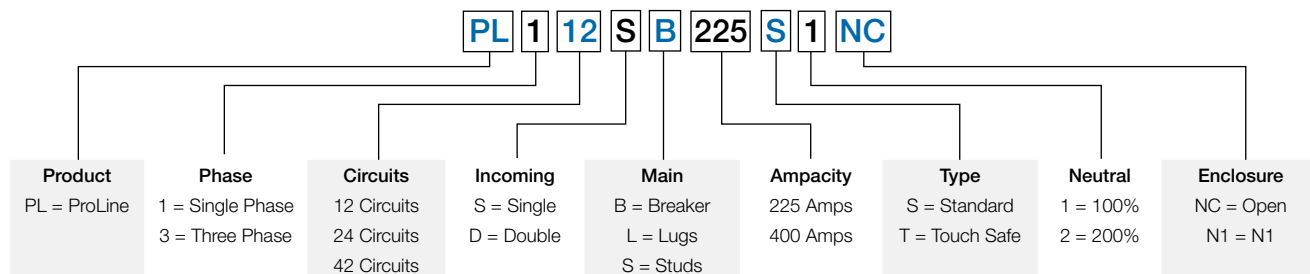
Encased bus bar

Stable bus bar design for high withstand ratings

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

ProLine features

Catalog number explanation

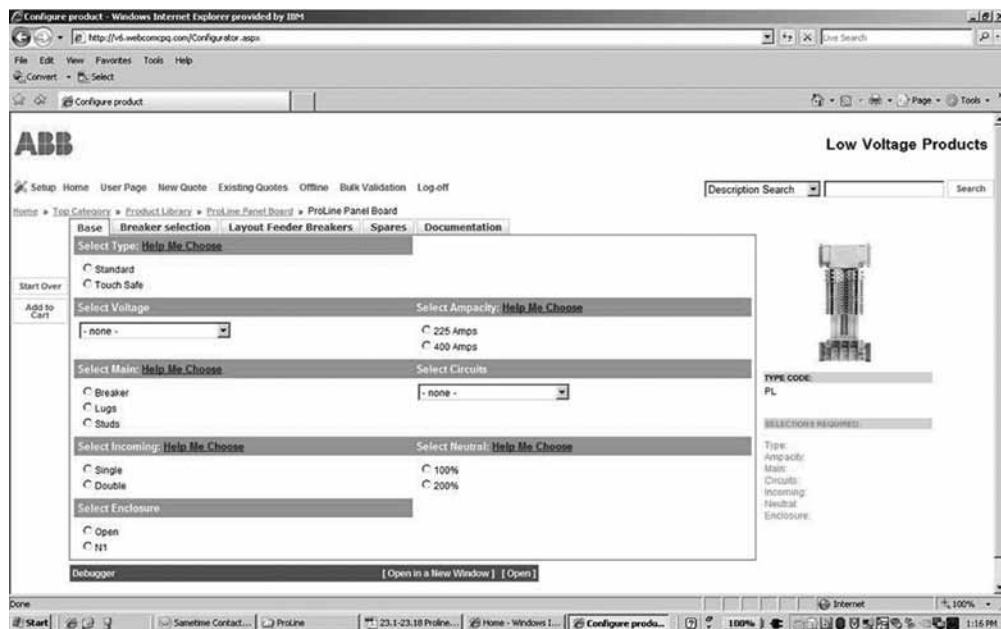
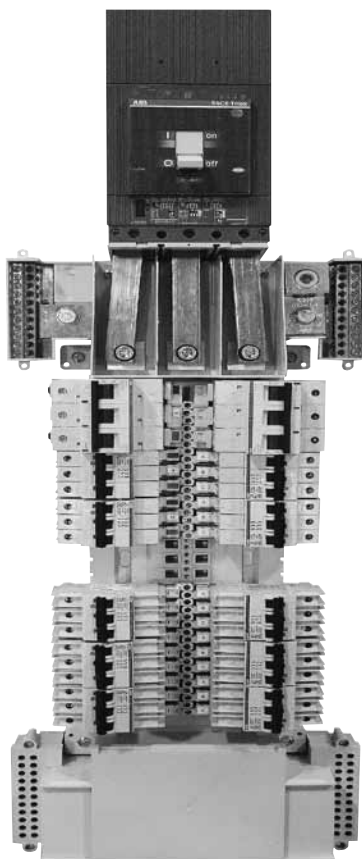


ProLine panelboards can be configured with the above options using the ProLine panelboard configurator.

The ProLine Panelboard Configurator

Allows users 24 hour access to:

- Quotations
- Specifications
- Dimensional drawings
- Literature
- URL: <http://v6.webcomcpq.com/AbbLogin.aspx?cfdomain=abblp>



Breaker placement guide K and Z Curve



PL700U 1A-50A (1P/2P/3P)
PL700UP 1A-25A (1P/2P/3P)
PL700U"L" 60A/70A (1P/2P/3P)

PL700U 1A-50A (1P/2P/3P)
PL700UP 1A-25A (1P/2P/3P)
PL700U"R" 60A/70A (1P/2P/3P)
PL700U"R" 80A/90A/100A (1P/2P/3P)

PL700U 1A-50A (1P/2P/3P)
PL700UP 1A-25A (1P/2P/3P)

PL700U 1A-50A (1P/2P/3P)
PL700UP 1A-25A (1P/2P/3P)

PL700U 1A-50A (1P/2P/3P)
PL700UP 1A-25A (1P/2P/3P)
PL700U"R" 60A/70A (1P/2P/3P)
PL700U"R" 80A/90A/100A (1P/2P/3P)

PL700U 1A-50A (1P/2P/3P)
PL700UP 1A-25A (1P/2P/3P)
PL700U"L" 60A/70A (1P/2P/3P)

NOTES

1. PL70xU-"R" & "L" have different dimensions (see dimension drawings)
2. PL70xU-"R" 80A/90A/100A
 - a. Have double stab adapters
 - b. Are available as "R" only

PL700, K-Curve

ProLine breakers, 120, 208, 240 & 277/480Y VAC
UL489

K

120/208/240 VAC

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

277/480Y VAC

K Curve 1 Pole		K Curve 2 Pole		K Curve 3 Pole	
Catalog number	Rated current	Catalog number	Rated current	Catalog number	Rated current
PL701UP-K1	1	PL702UP-K1	1	PL703UP-K1	1
PL701UP-K2	2	PL702UP-K2	2	PL703UP-K2	2
PL701UP-K3	3	PL702UP-K3	3	PL703UP-K3	3
PL701UP-K4	4	PL702UP-K4	4	PL703UP-K4	4
PL701UP-K5	5	PL702UP-K5	5	PL703UP-K5	5
PL701UP-K6	6	PL702UP-K6	6	PL703UP-K6	6
PL701UP-K8	8	PL702UP-K8	8	PL703UP-K8	8
PL701UP-K10	10	PL702UP-K10	10	PL703UP-K10	10
PL701UP-K15	15	PL702UP-K15	15	PL703UP-K15	15
PL701UP-K20	20	PL702UP-K20	20	PL703UP-K20	20
PL701UP-K25	25	PL702UP-K25	25	PL703UP-K25	25

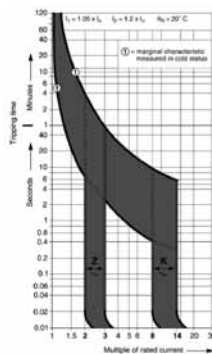
PL701U

PL702U

PL703UP

PL702U-K60L

PL703U-K100R



Tripping Characteristic K

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

NOTES

- PL70XU-"R" & "L" have different dimensions (see dimension drawings)
- PL70xU-"R" 80A/90A/100A
 - Have double stab adapters
 - Are available as "R" only

PL700, Z-CurveProLine breakers, 120, 208, 240 & 277/480Y VAC
UL489**Z**

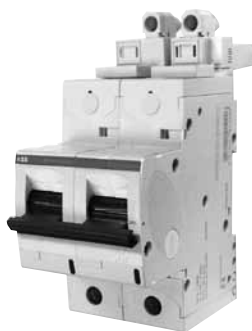
PL701U



PL702U



PL703UP



PL702U-K60L



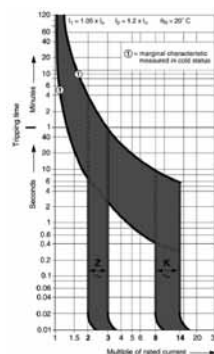
PL703U-K100R

120 / 208 / 240 VAC

Z Curve 1 Pole		Z Curve 2 Pole		Z Curve 3 Pole	
Catalog number	Rated current	Catalog number	Rated current	Catalog number	Rated current
PL701U-Z1	1	PL702U-Z1	1	PL703U-Z1	1
PL701U-Z2	2	PL702U-Z2	2	PL703U-Z2	2
PL701U-Z3	3	PL702U-Z3	3	PL703U-Z3	3
PL701U-Z4	4	PL702U-Z4	4	PL703U-Z4	4
PL701U-Z5	5	PL702U-Z5	5	PL703U-Z5	5
PL701U-Z6	6	PL702U-Z6	6	PL703U-Z6	6
PL701U-Z8	8	PL702U-Z8	8	PL703U-Z8	8
PL701U-Z10	10	PL702U-Z10	10	PL703U-Z10	10
PL701U-Z15	15	PL702U-Z15	15	PL703U-Z15	15
PL701U-Z20	20	PL702U-Z20	20	PL703U-Z20	20
PL701U-Z25	25	PL702U-Z25	25	PL703U-Z25	25
PL701U-Z30	30	PL702U-Z30	30	PL703U-Z30	30
PL701U-Z40	40	PL702U-Z40	40	PL703U-Z40	40
PL701U-Z50	50	PL702U-Z50	50	PL703U-Z50	50
PL701U-Z60L	60	PL702U-Z60L	60	PL703U-Z60L	60
PL701U-Z70L	70	PL702U-Z70L	70	PL703U-Z70L	70
PL701U-Z60R	60	PL702U-Z60R	60	PL703U-Z60R	60
PL701U-Z70R	70	PL702U-Z70R	70	PL703U-Z70R	70
PL701U-Z80R	80	PL702U-Z80R	80	PL703U-Z80R	80
PL701U-Z90R	90	PL702U-Z90R	90	PL703U-Z90R	90
PL701U-Z100R	100	PL702U-Z100R	100	PL703U-Z100R	100

277/480Y VAC

Z Curve 1 Pole		Z Curve 2 Pole		Z Curve 3 Pole	
Catalog number	Rated current	Catalog number	Rated current	Catalog number	Rated current
PL701UP-Z1	1	PL702UP-Z1	1	PL703UP-Z1	1
PL701UP-Z2	2	PL702UP-Z2	2	PL703UP-Z2	2
PL701UP-Z3	3	PL702UP-Z3	3	PL703UP-Z3	3
PL701UP-Z4	4	PL702UP-Z4	4	PL703UP-Z4	4
PL701UP-Z5	5	PL702UP-Z5	5	PL703UP-Z5	5
PL701UP-Z6	6	PL702UP-Z6	6	PL703UP-Z6	6
PL701UP-Z8	8	PL702UP-Z8	8	PL703UP-Z8	8
PL701UP-Z10	10	PL702UP-Z10	10	PL703UP-Z10	10
PL701UP-Z15	15	PL702UP-Z15	15	PL703UP-Z15	15
PL701UP-Z20	20	PL702UP-Z20	20	PL703UP-Z20	20
PL701UP-Z25	25	PL702UP-Z25	25	PL703UP-Z25	25

**Tripping Characteristic Z**

UL 489

10 kA

Z Curve

Resistive Loads

Curve allows for protection of application with low inrush and sensitive loads.

NOTES

1. PL70XU-"R" & "L" have different dimensions (see dimension drawings)
2. PL70xU-"R" 80A/90A/100A
 - a. Have double stab adapters
 - b. Are available as "R" only

Panelboard accessories

Panelboard chassis hole bus cover

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

Switchboard circuit ID labels

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



PL24LBL

Panelboard directory card and holder

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

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

Neutral / Ground assembly

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



PL350MECLUG

Neutral / Ground lugs

Catalog number	Description
PLNG12250	Proline, 12 CKT, 250A, N/G Lug
PLNG24250	Proline, 24 CKT, 250A, N/G Lug
PLNG42250	Proline, 42 CKT, 250A, N/G Lug
PLNG12400	Proline, 12 CKT, 400A, N/G Lug
PLNG24400	Proline, 24 CKT, 400A, N/G Lug
PLNG42400	Proline, 42 CKT, 400A, N/G Lug

Main and sub-feed lugs

Lugs for incoming and outgoing connections

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

Enclosure blank circuit covers

Covers for filling enclosure spaces not used by breakers

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

Panelboard spare parts

Catalog number	Description
PLGNDLUG	Ground lug 14-1/0, 1/4" Stud



Main cover

Catalog number	Description
PLMCVR	Main cover

Main breaker conversion kit

Kit for converting panelboard from main lugs to main breaker

(Kit includes: Enclosure extension, breaker, adaptor, plates, and bus connections)

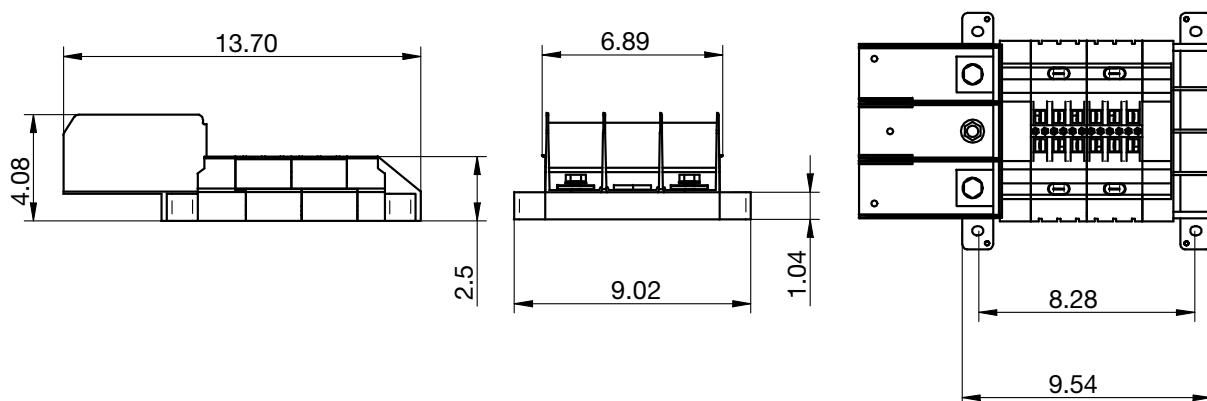
Catalog number	Description
PLT5225CONV3P	225A T5 main breaker, 3 Phase
PLT5225CONV1P	225A T5 main breaker, 1 Phase
PLT5CONV3P	400A T5 main breaker, 3 Phase
PLT5CONV1P	400A T5 main breaker, 1 Phase

Approximate dimensions (inches)

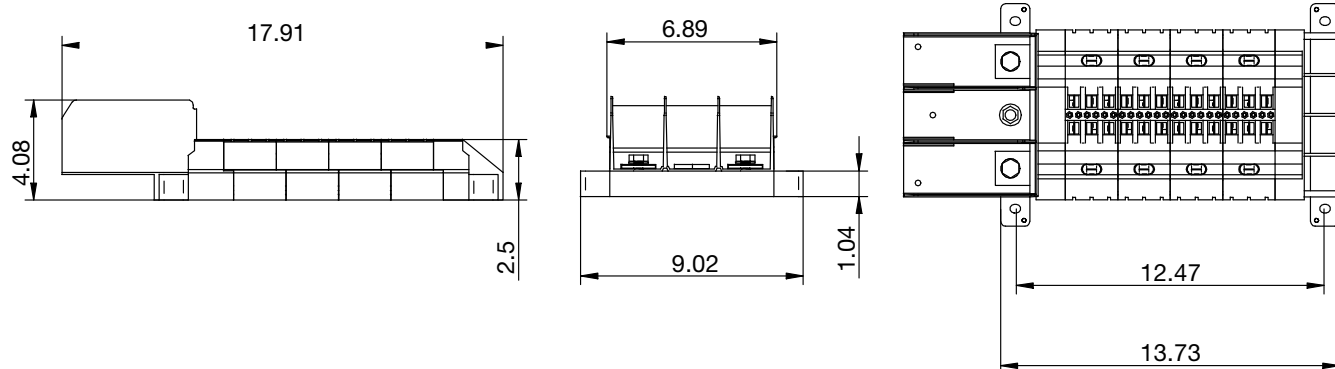
Panelboards

Single-ended

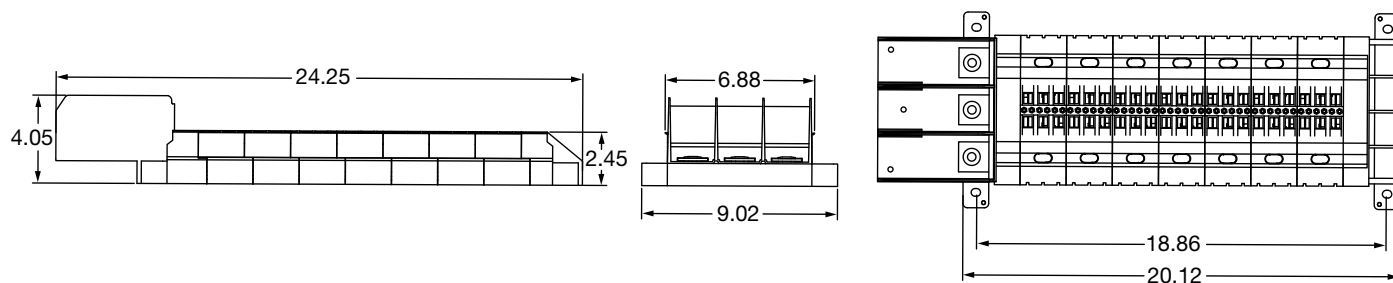
12 circuit, single-ended



24 circuit, single-ended



42 circuit, single-ended



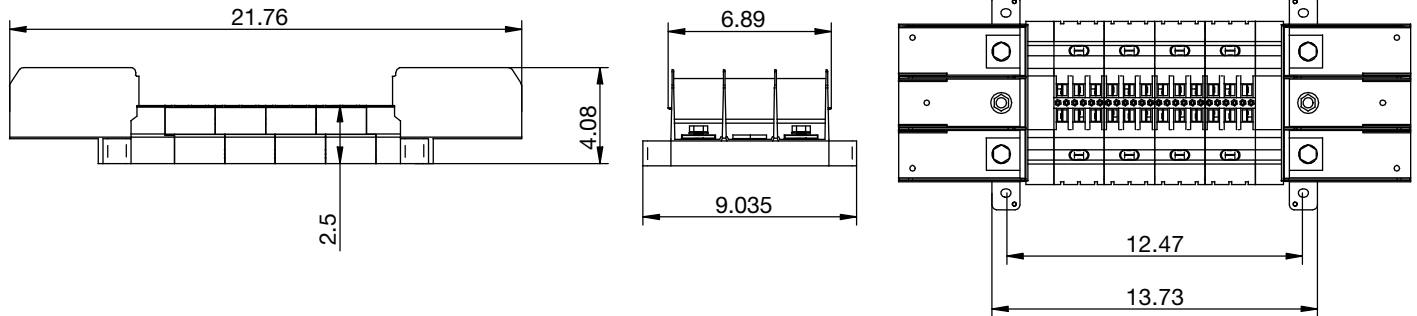
Approximate dimensions (inches)

Panelboards

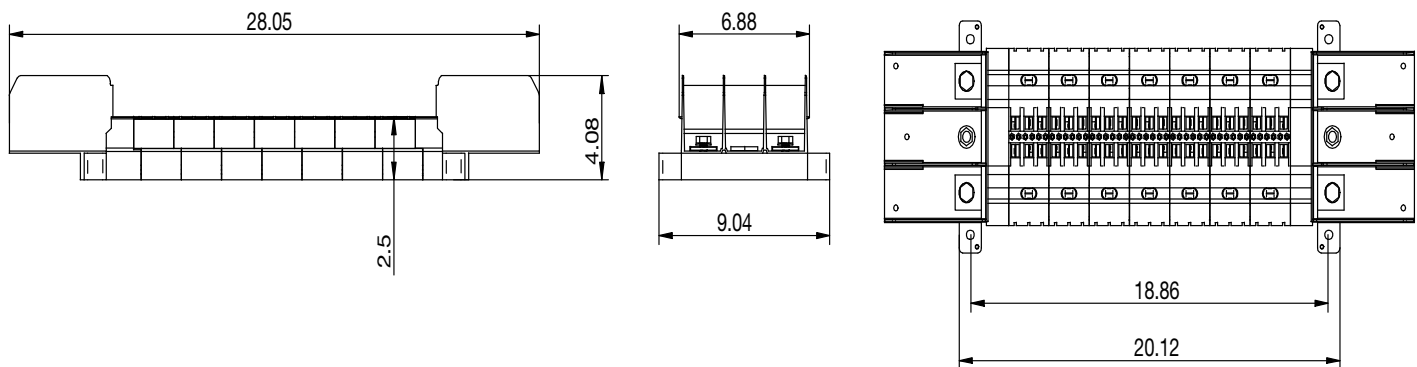
Double-ended

ProLine
panelboard

24 circuit, double-ended



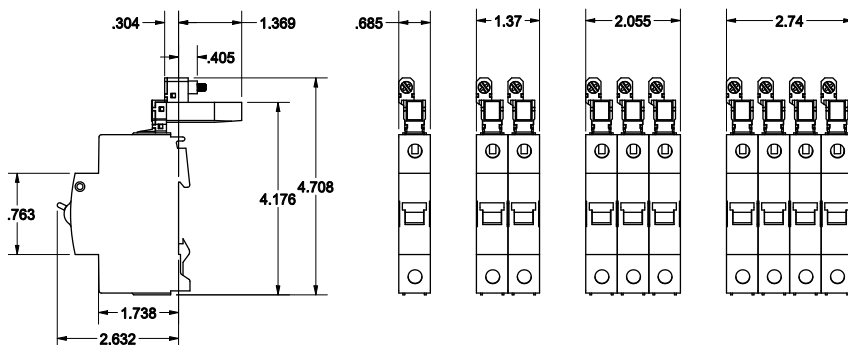
42 circuit, double-ended



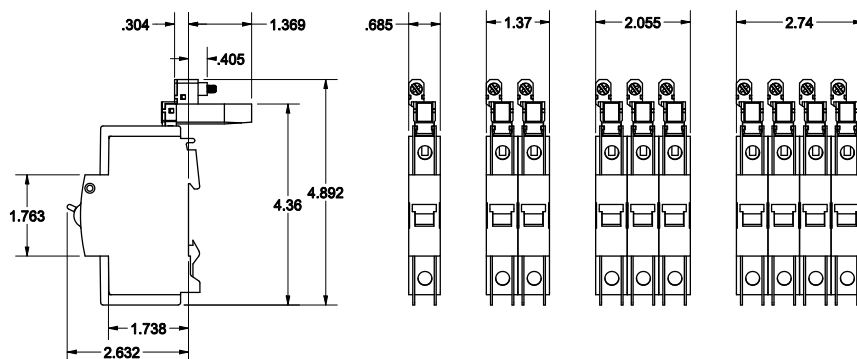
Approximate dimensions (mm)

PL700 breakers

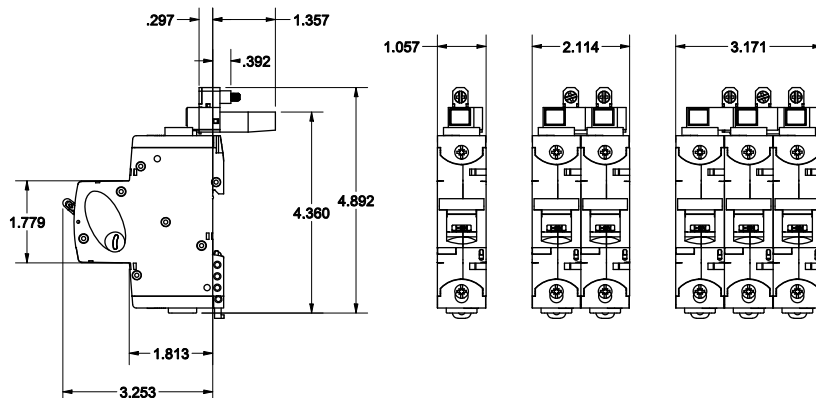
PL700U 1A-50A



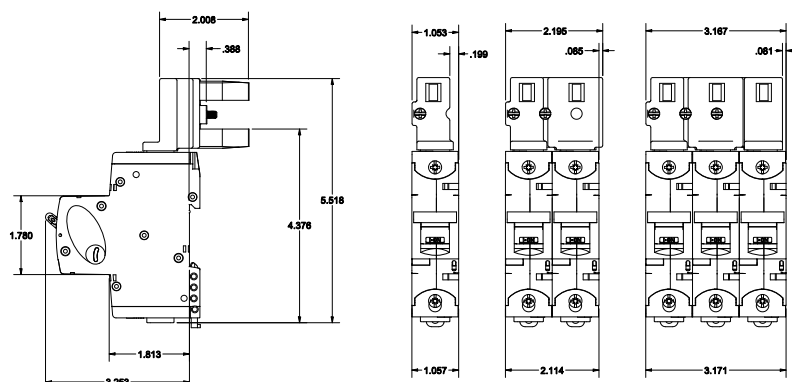
PL700UP 1A-25A



PL700U60-70A 60A-70A



PL700U80-100A 80A-100A



Technical data PL700 breakers

ProLine
panelboard

Item	PL700U-K,Z	PL700UP-K,Z	PL700U-K"L", PL700U-K"R"	PL700U-Z"R", PL700U-Z"L"
Approvals: UL	489	489	489	489
Number of Poles:	1,2,3	1,2,3	1,2,3	1,2,3
Tripping Characteristic:	K,Z	K,Z	K	Z
Rated Currents:	1 to 50A	1 to 25A	60 to 70A ①; 80 to 100A ②	60 to 70A ①; 80 to 100A ②
Minimum Operating Voltage:	12V	12V	—	—
UL Rated Voltage & Interrupting Capacity: Series rating Frequency: 120VAC 240 VAC 277 VAC 277/480Y VAC	240VAC; 35kA w/main breaker 50/60 Hz 10kA 10kA — —	480VAC; 35kA w/main breaker 50/60 Hz 10kA 10kA 10kA 10kA	240VAC; 35kA w/main breaker 50/60 Hz 50kA: multi pole 30kA: single pole — —	240VAC; 35kA w/main breaker 50/60 Hz 50kA: multi pole 30kA: single pole — —
Frequency:	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Rated Voltage:	240VAC	277/480Y VAC	240VAC	240VAC
Production Category:	IP20	IP20	IP20	IP20
Main Terminals: Wire Size Torque Tool	18-4 AWG/0.75-25mm 25 in-lbs/2.8 nm #2 Posidrive	18-4 AWG/0.75-25mm 25 in-lbs/2.8 nm #2 Posidrive	25-1 AWG 35 in-lbs./4nm	25-1 AWG 36 in-lbs./4nm
Service Life at Rated Load:	20,000 operations (below 32A) 10,000 operations (32A & higher)	20,000 operations 10,000 operations	6,000 operations —	6,000 operations —
Ambient Temperatures: Minimum Maximum	-25°C -13°F +55°C 131°F	-25°C -13°F +55°C 131°F	-25°C -13°F 60°C 140°F	-25°C -13°F 60°C 140°F
Storage Temperatures: Minimum Maximum	-40°C -40°F 70°C 158°F	-40°C -40°F 70°C 158°F	-40°C -40°F 70°C 158°F	-40°C -40°F 70°C 158°F
Shock Resistance:	30g minimum of 2 impacts, shock duration of 13ms	30g minimum of 2 impacts, shock duration of 13ms	—	—
Vibration Resistance:	5g, 20 cycles, 5 Hz, 150 Hz @ 0.8 In	5g, 20 cycles, 5 Hz, 150 Hz @ 0.8 In	—	—

① 60A/70A have different for factor (see dimension drawings)
 ② 80A/90A/100A available as "R" only and have different form factor (see dimension drawings)
 80A to 100A have double stab adapters

Series UL ratings

Tmax T3 – PL700 @ 240VAC

T3S 225A Main Breaker PL700 Branch K and Z Curve	PL700 Amps	Series Rating
	1	35kA
	2	35kA
	3	35kA
	4	35kA
	5	35kA
	6	35kA
	8	35kA
	10	35kA
	15	35kA
	20	35kA
	25	35kA
	30	35kA
	40	35kA
	50	35kA
	60	35kA
	70	35kA
	80	35kA
	90	35kA
	100	35kA

Tmax T5 – PL700 @ 240VAC

T5N 400A Main Breaker PL700 Branch K and Z Curve	PL700 Amps	Series Rating
	1	35kA
	2	35kA
	3	35kA
	4	35kA
	5	35kA
	6	35kA
	8	35kA
	10	35kA
	15	35kA
	20	35kA
	25	35kA
	30	35kA
	40	35kA
	50	35kA
	60	35kA
	70	35kA
	80	35kA
	90	35kA
	100	35kA

Tmax T3 – PL700 @ 480VAC

T3S 225A Main Breaker PL700 Branch K and Z Curve	PL700 Amps	Series Rating
	1	14kA
	2	14kA
	3	14kA
	4	14kA
	5	14kA
	6	14kA
	8	14kA
	10	14kA
	15	14kA
	20	14kA
	25	14kA

Tmax T5 – PL700 @ 480VAC

T5N 400A Main Breaker PL700 Branch K and Z Curve	PL700 Amps	Series Rating
	1	14kA
	2	14kA
	3	14kA
	4	14kA
	5	14kA
	6	14kA
	8	14kA
	10	14kA
	15	14kA
	20	14kA
	25	14kA

Main Lug – PL700 @ 240VAC

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

Main Lug – PL700 @ 480VAC

Main Lug PL700 Branch K and Z Curve	PL700 Amps	Series Rating
	1	10kA
	2	10kA
	3	10kA
	4	10kA
	5	10kA
	6	10kA
	8	10kA
	10	10kA
	15	10kA
	20	10kA
	25	10kA

Coordination (discrimination) IEC ratings

ProLine
panelboard

Tmax T3 – PL700 @ 240VAC

	PL700 Amps	Coordination rating
	1	28.6kA
	2	28.6kA
	3	28.6kA
	4	28.6kA
	5	28.6kA
	6	28.6kA
	8	28.6kA
	10	28.6kA
	15	28.6kA
	20	28.6kA
	25	28.6kA
	30	28.6kA
	40	28.6kA
	50	28.6kA
	60	28.6kA
	70	28.6kA
	80	28.6kA
	90	28.6kA
	100	28.6kA

Tmax T5 – PL700 @ 240VAC

	PL700 Amps	Coordination rating
	1	28.6kA
	2	28.6kA
	3	28.6kA
	4	28.6kA
	5	28.6kA
	6	28.6kA
	8	28.6kA
	10	28.6kA
	15	28.6kA
	20	28.6kA
	25	28.6kA
	30	28.6kA
	40	28.6kA
	50	28.6kA
	60	28.6kA
	70	28.6kA
	80	28.6kA
	90	28.6kA
	100	28.6kA

Tmax T3 – PL700 @ 480VAC

	PL700 Amps	Coordination rating
	1	14kA
	2	14kA
	3	14kA
	4	14kA
	5	14kA
	6	14kA
	8	14kA
	10	14kA
	15	14kA
	20	14kA
	25	14kA

Main Lug – PL700 @ 480VAC

	PL700 Amps	Coordination rating
	1	10kA
	2	10kA
	3	10kA
	4	10kA
	5	10kA
	6	10kA
	8	10kA
	10	10kA
	15	10kA
	20	10kA
	25	10kA

Main Lug – PL700 @ 240VAC

	PL700 Amps	Coordination rating
	1	10kA
	2	10kA
	3	10kA
	4	10kA
	5	10kA
	6	10kA
	8	10kA
	10	10kA
	15	10kA
	20	10kA
	25	10kA
	30	10kA
	40	10kA
	50	10kA
	60	10kA
	70	10kA
	80	10kA
	90	10kA
	100	10kA

Breaker features

ABB current limiting breaker components

