
US CATALOG

ProLine

Panelboard and breakers

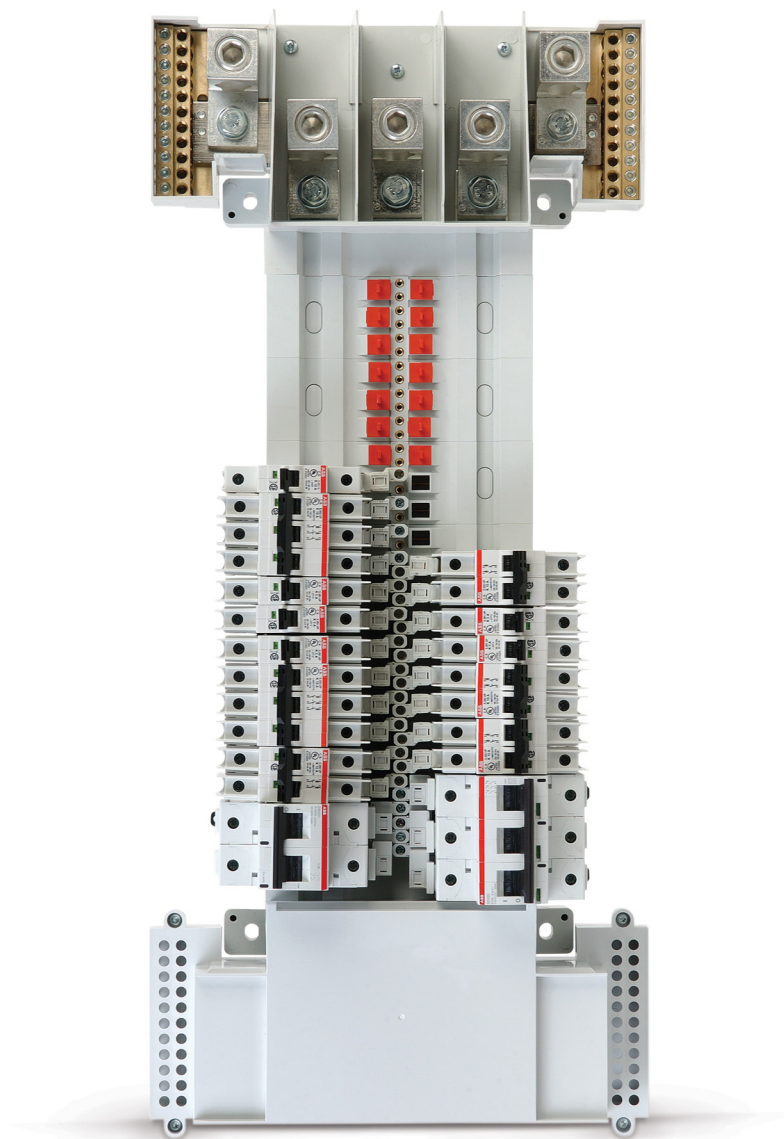


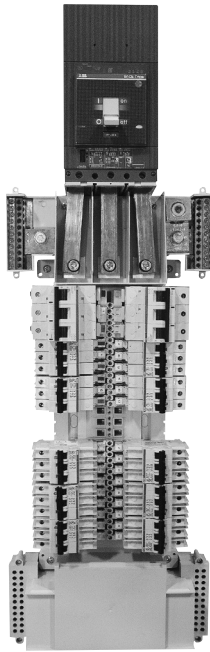


Table of contents

| | |
|----------------|---|
| 004–006 | Description and features |
| 007–008 | Guides: Catalog number and breaker placement |
| 009 | Ordering information: PL700, K curve |
| 010–011 | Accessories |
| 012–016 | Approximate dimensions |
| 017 | Technical specifications |
| 018 | Series UL ratings |
| 019 | Coordination (discrimination) IEC ratings |

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 #E319800
- UL 67
- 225 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 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

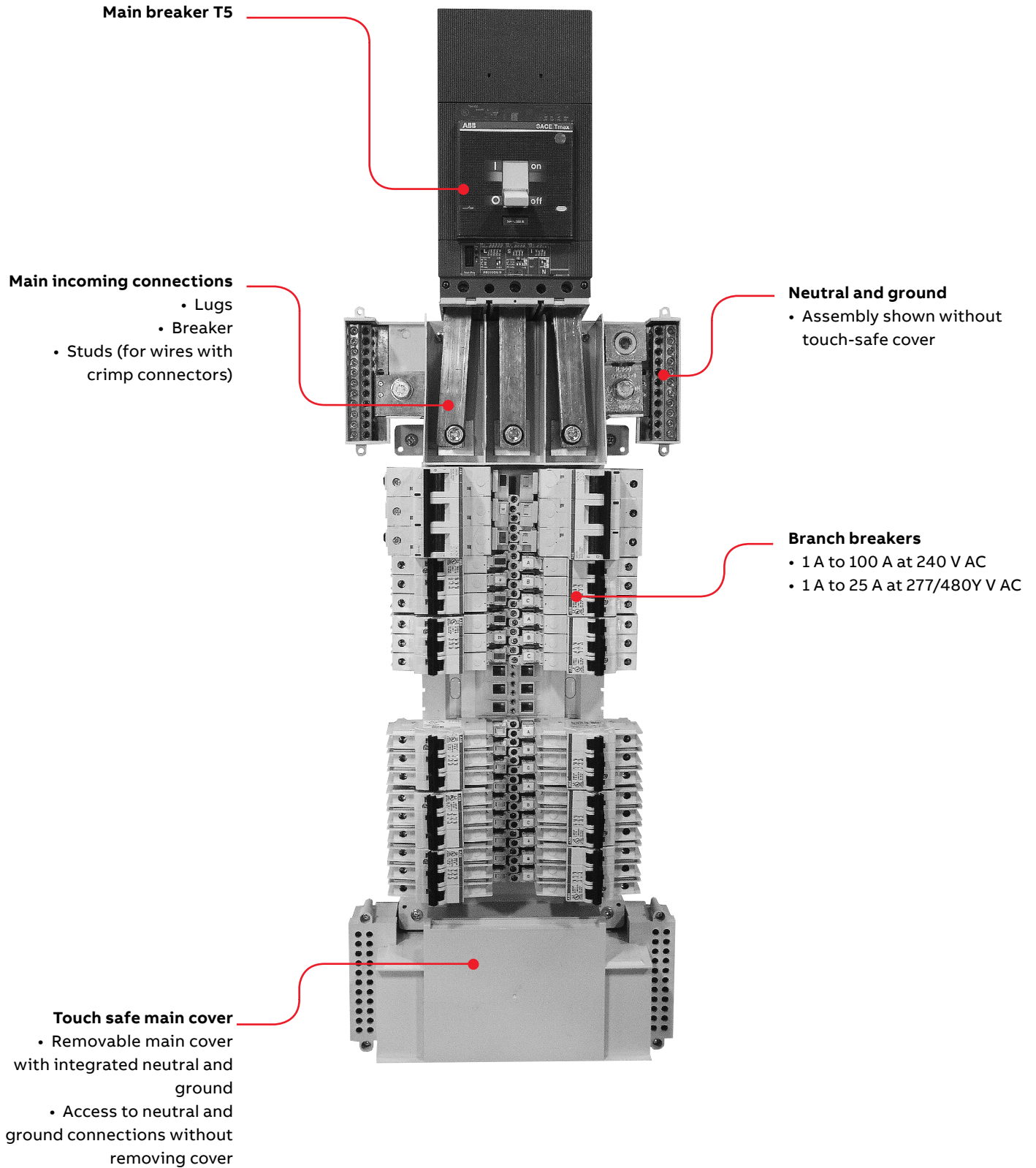
- Current-limiting according to UL 489
- Up to 240 V and 277/480Y V AC
- 10 kAIC with main lug
- 35 kAIC series rating with T5 main
- K or Z curve
- 1 A to 100 A

Features

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

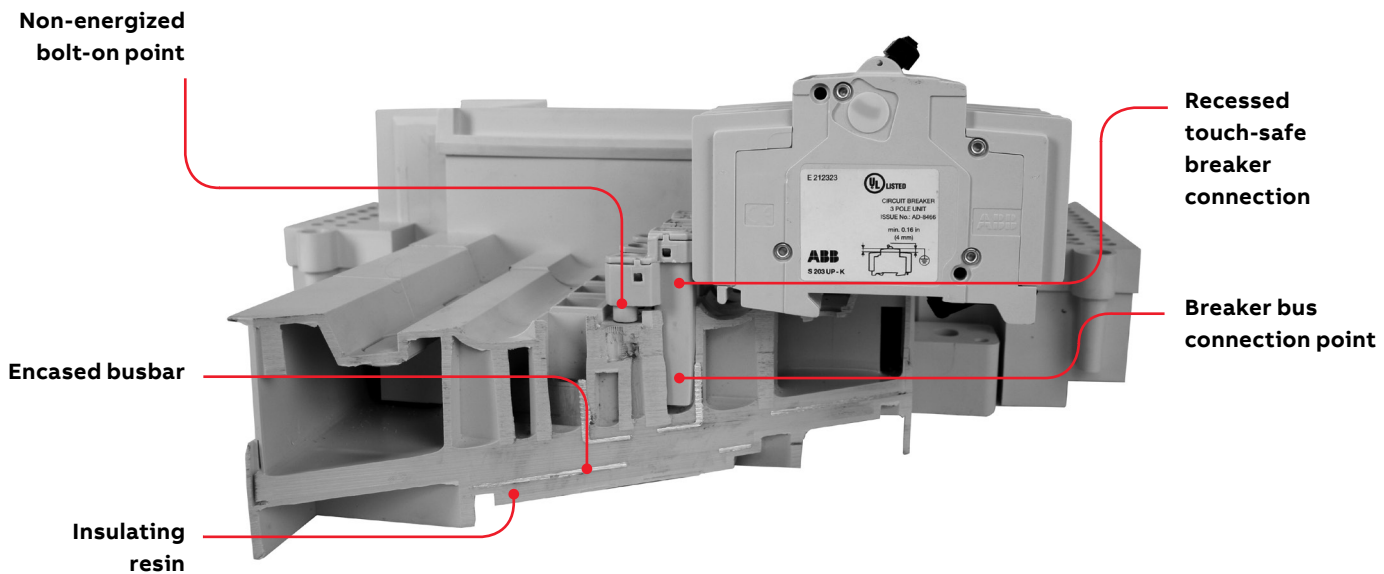
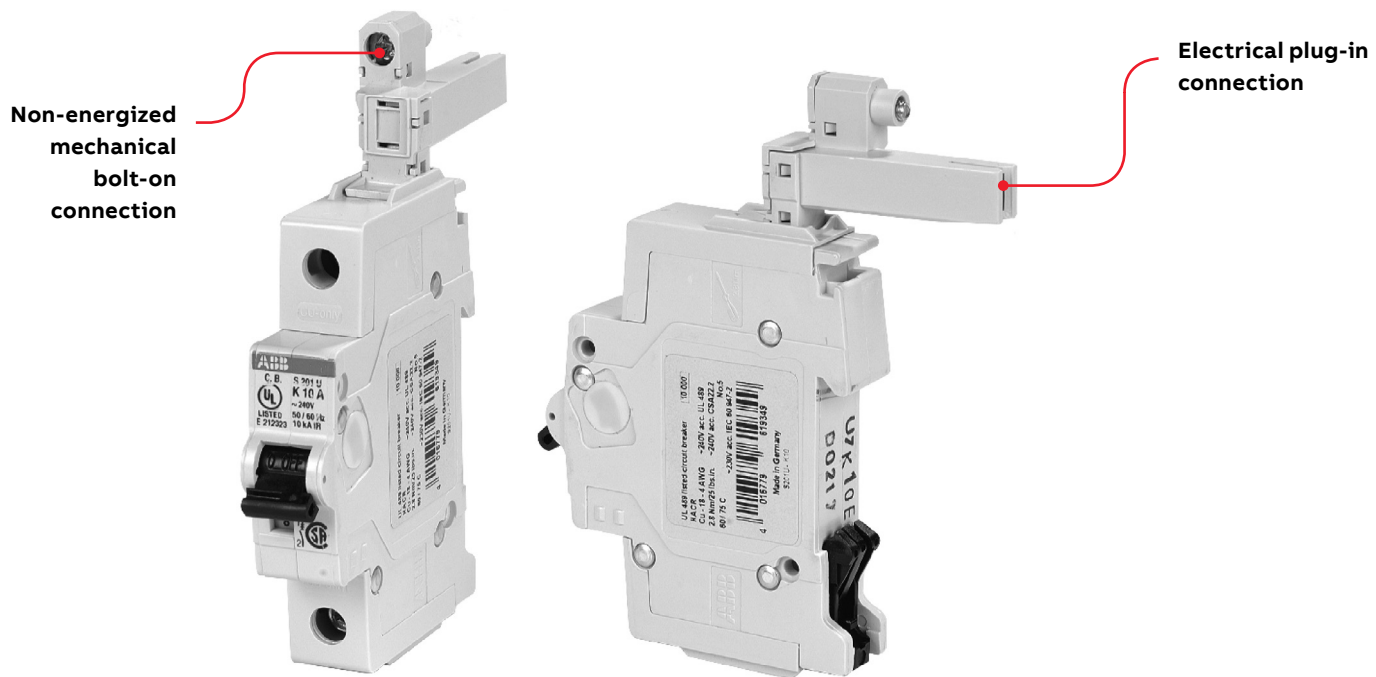
¹84 circuit is available as a single ended, stand alone, non-enclosed version only. Bus capacity is maximum 400A. Please contact Tech Support for assistance.

Panelboard features



Breaker features

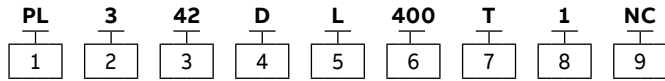
Pluggable with non-energized bolt-on connection



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 the 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 |
| | | 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.

Breaker placement guide



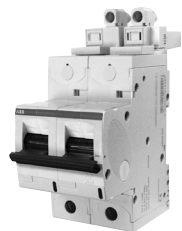
PL701U



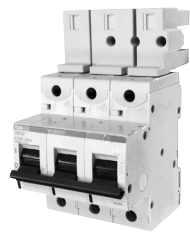
PL702U



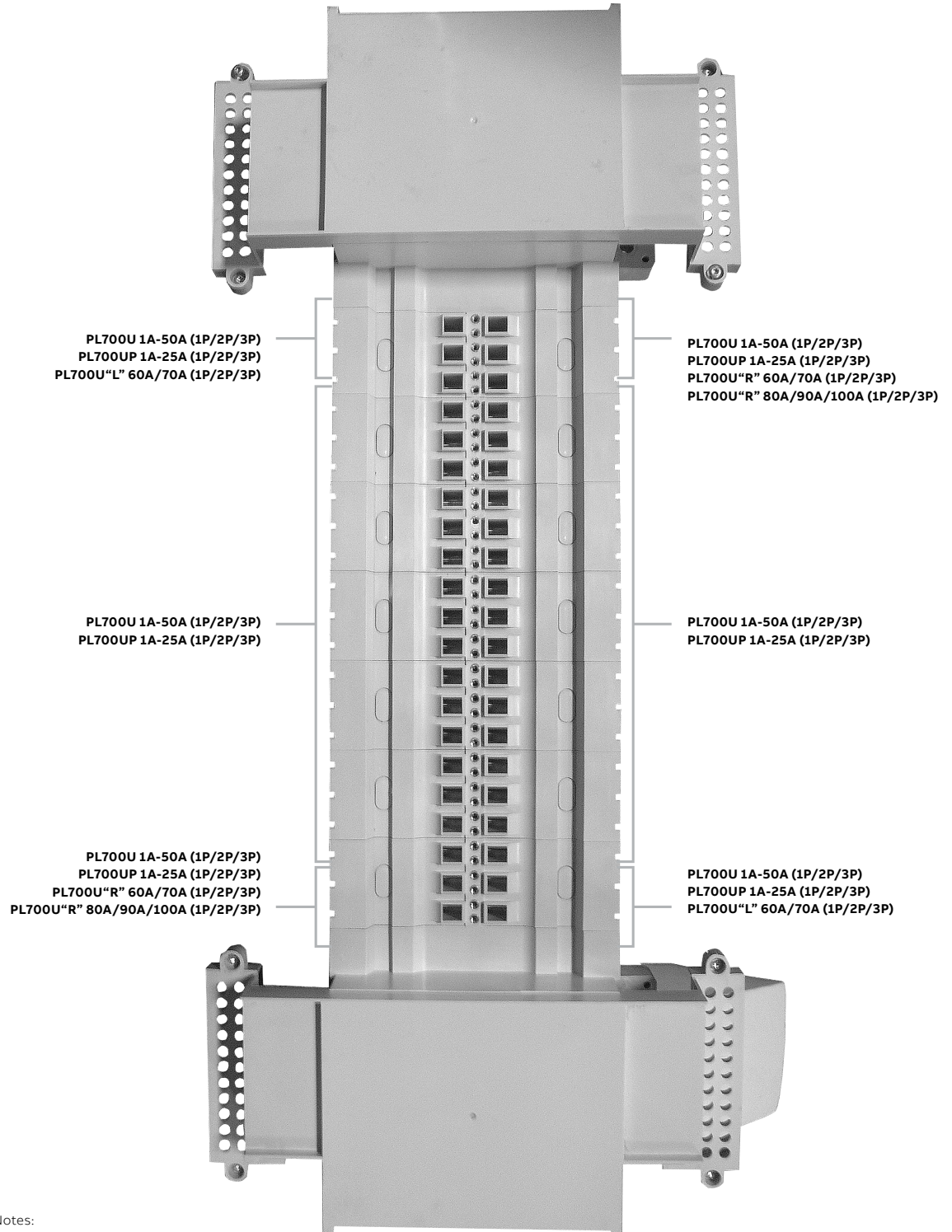
PL703UP



PL702U-K60L



PL703U-K100R



Notes:

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

Ordering information

PL700, K curve

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



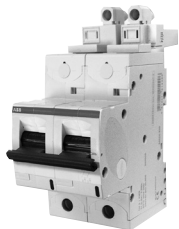
PL701U



PL702U



PL703UP



PL702U-K60L



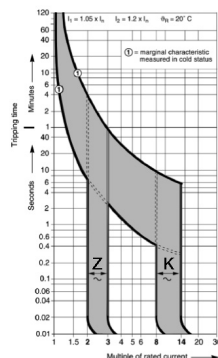
PL703U-K100R

120/208/240 V AC

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

277/480Y V AC

| K curve, 1 pole | | K curve, 2 pole | | K curve, 3 pole | |
|-------------------|----------------|-------------------|----------------|-------------------|----------------|
| Rated current (A) | Catalog number | Rated current (A) | Catalog number | Rated current (A) | Catalog number |
| 1 | PL701UP-K1 | 1 | PL702UP-K1 | 1 | PL703UP-K1 |
| 2 | PL701UP-K2 | 2 | PL702UP-K2 | 2 | PL703UP-K2 |
| 3 | PL701UP-K3 | 3 | PL702UP-K3 | 3 | PL703UP-K3 |
| 4 | PL701UP-K4 | 4 | PL702UP-K4 | 4 | PL703UP-K4 |
| 5 | PL701UP-K5 | 5 | PL702UP-K5 | 5 | PL703UP-K5 |
| 6 | PL701UP-K6 | 6 | PL702UP-K6 | 6 | PL703UP-K6 |
| 8 | PL701UP-K8 | 8 | PL702UP-K8 | 8 | PL703UP-K8 |
| 10 | PL701UP-K10 | 10 | PL702UP-K10 | 10 | PL703UP-K10 |
| 15 | PL701UP-K15 | 15 | PL702UP-K15 | 15 | PL703UP-K15 |
| 20 | PL701UP-K20 | 20 | PL702UP-K20 | 20 | PL703UP-K20 |
| 25 | PL701UP-K25 | 25 | PL702UP-K25 | 25 | PL703UP-K25 |



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 80A/90A/100A
 - 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 |

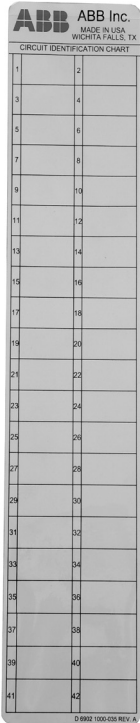
Switchboard circuit ID labels

| 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 |



PL350MECLUG

Accessories—panelboard

Main and sub-feed lugs

Lugs for incoming and outgoing connections

| Description | Catalog number |
|-----------------------------|----------------|
| 225 A single 4/0 to 350 MCM | PL350MECLUG |
| 400 A single 4/0 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

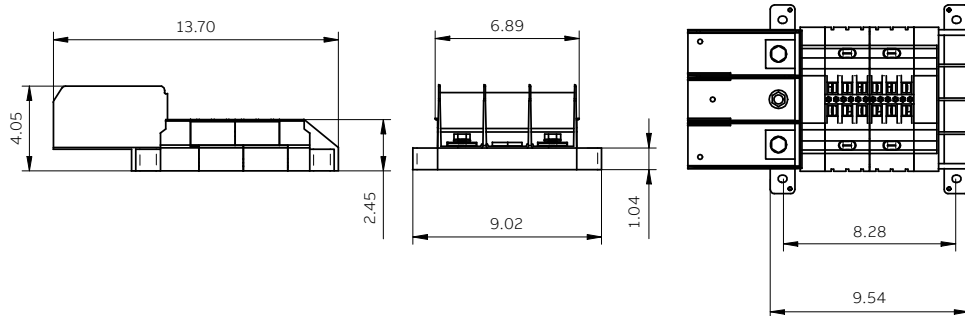
Kit for converting panelboard from main lugs to main breaker includes:
Breaker, adapter, plates and bus connections

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

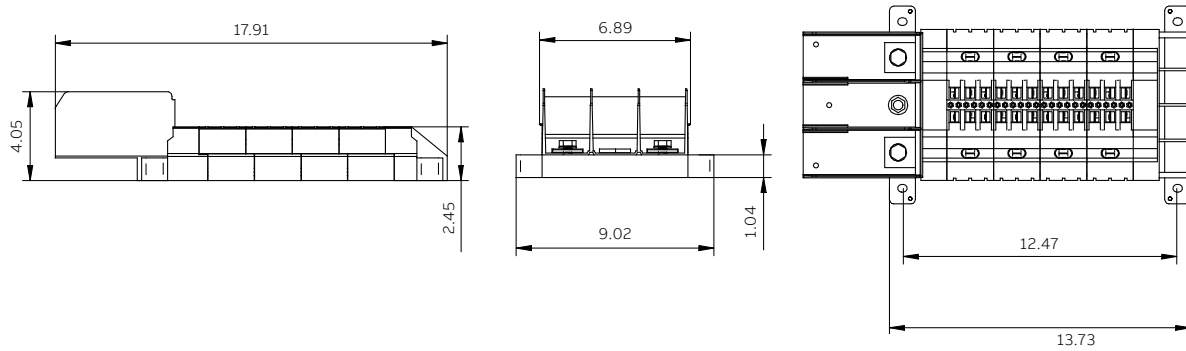
Approximate dimensions

Panelboards single-ended

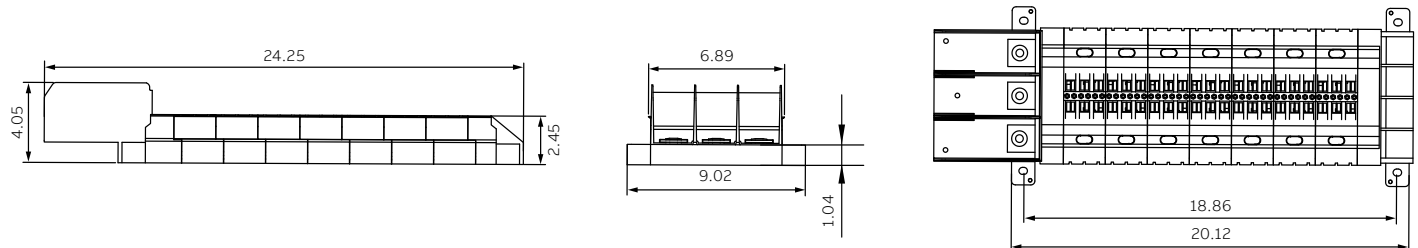
12-Circuit, single-ended



24-Circuit, single-ended

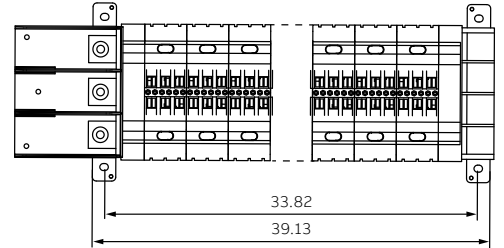
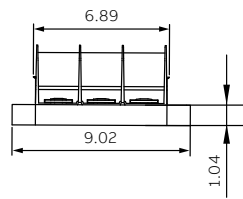
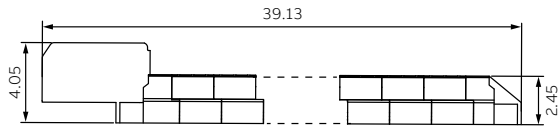


42-Circuit, single-ended



Approximate dimensions
 Panelboards single-ended

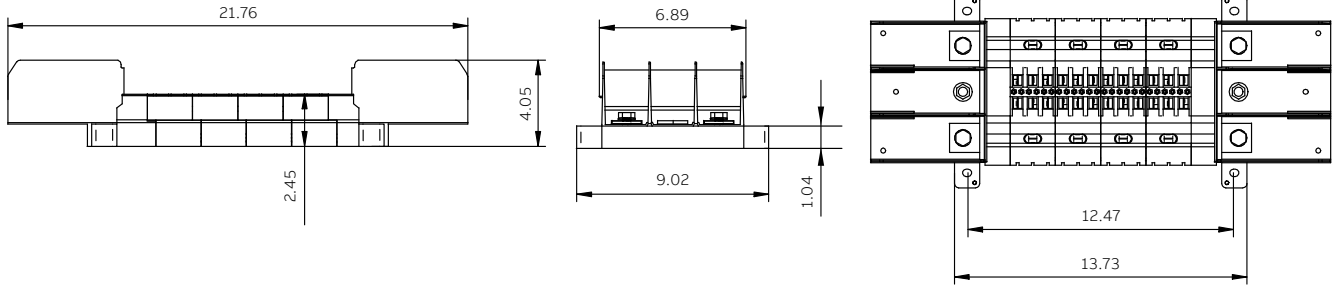
84-Circuit, single-ended



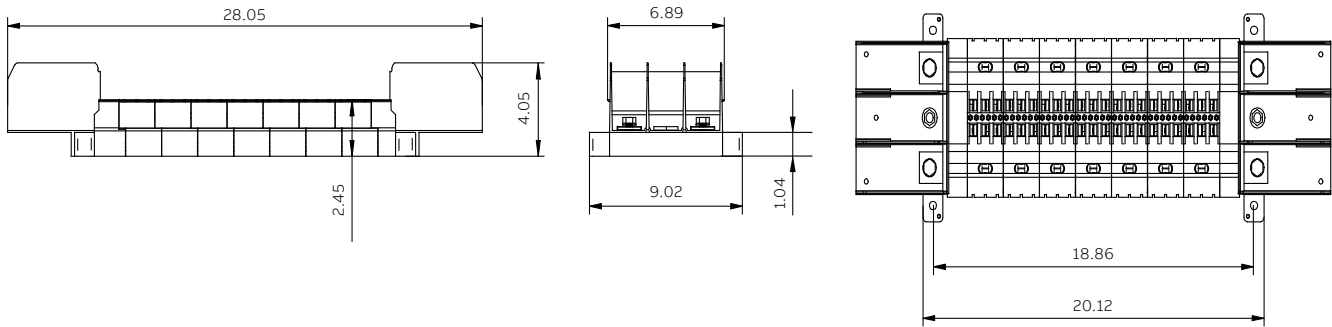
Approximate dimensions

Panelboards double-ended

24-Circuit, double-ended

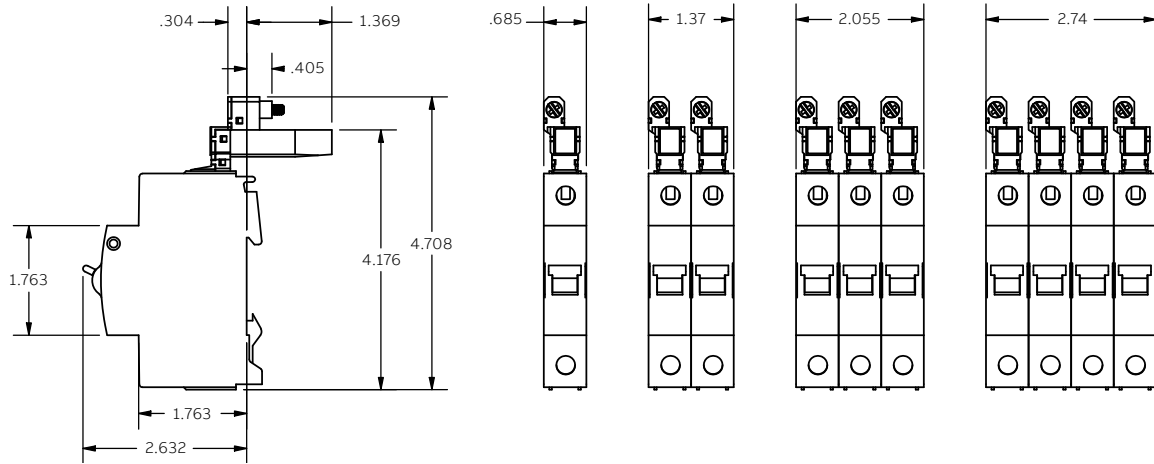


42-Circuit, double-ended

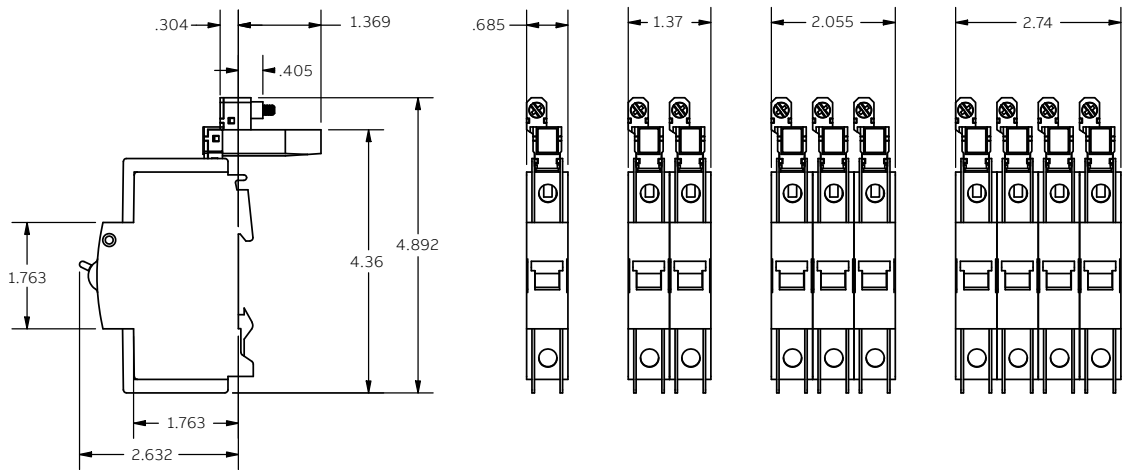


Approximate dimensions
 PL700 breakers

PL700U
1 A-50 A



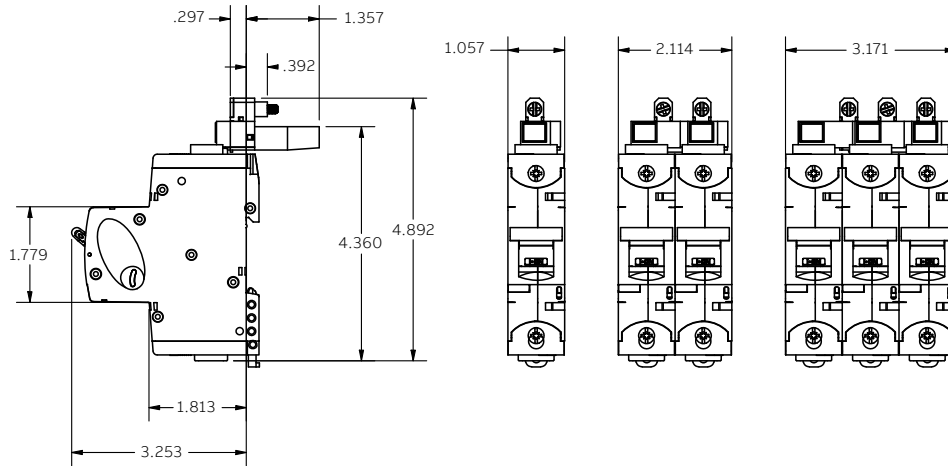
PL700UP
1 A-25 A



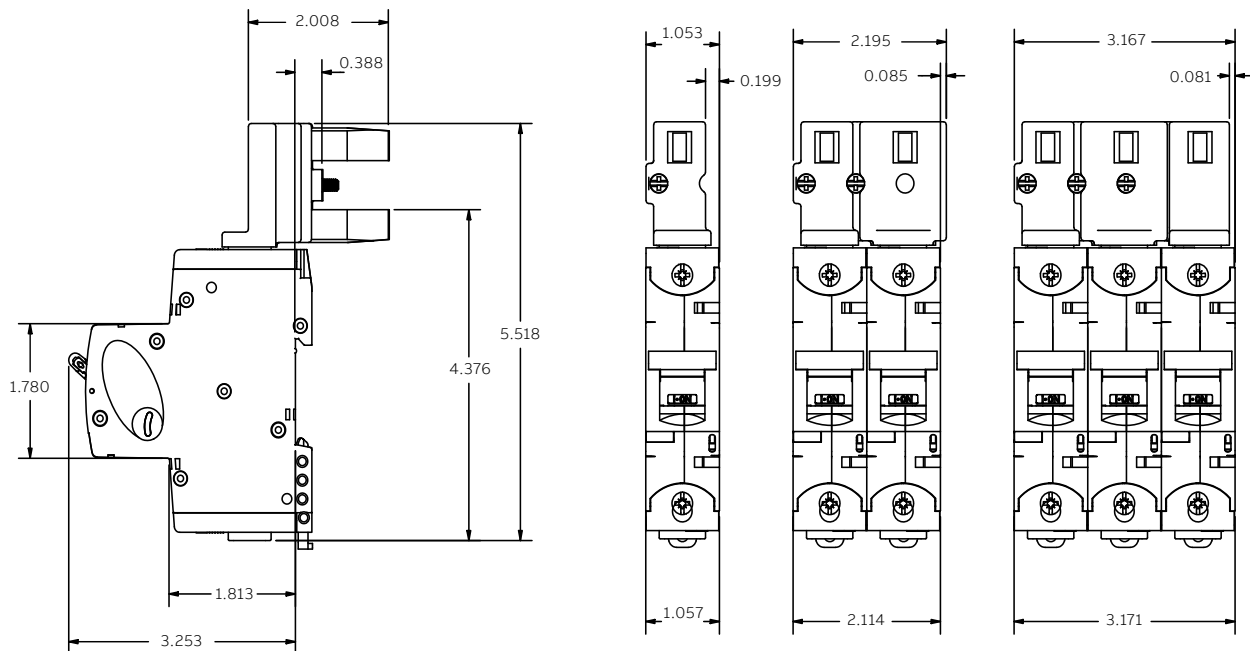
Approximate dimensions

PL700 breakers

PL700U 60 A-70 A



PL700U 80 A-100 A



Technical specifications

PL700 breakers

| Item | PL700U-K | PL700UP-K | PL700-K (L) PL700-K (R) |
|---|--|--|--|
| UL approvals | 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 25 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; 35 kA with main breaker | 240 V AC; 35kA 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 |
| Production category | IP 20 | IP 20 | IP 20 |
| Main terminals | | | |
| Wire size | 18–4 AWG/0.75–25 mm | 18–4 AWG/0.75–25mm | 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 | 6,000 operations |
| | 10,000 operations (32 A and higher) | 10,000 operations | — |
| 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 | 30g minimum of 2 impacts, shock duration of 13 ms | 30g minimum of 2 impacts, shock duration of 13 ms | — |
| Vibration resistance | 5g, 20 cycles, 5 Hz, 150 Hz at 0.8 In | 5g, 20 cycles, 5 Hz, 150 Hz at 0.8 In | — |

¹ 60 A/70 A have difference 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 |
|-------------------------------|------------|---------------|
| | 1 | 35 kA |
| | 2 | 35 kA |
| | 3 | 35 kA |
| | 4 | 35 kA |
| | 5 | 35 kA |
| | 6 | 35 kA |
| | 8 | 35 kA |
| | 10 | 35 kA |
| T3S 225 A Main breaker | 15 | 35 kA |
| | 20 | 35 kA |
| PL700 Branch K and Z curve | 25 | 35 kA |
| | 30 | 35 kA |
| | 40 | 35 kA |
| | 50 | 35 kA |
| | 60 | 35 kA |
| | 70 | 35 kA |
| | 80 | 35 kA |
| | 90 | 35 kA |
| | 100 | 35 kA |

Tmax T5 — PL700 at 240 V AC

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

Tmax T3 — PL700 at 480 V AC

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

Tmax T5 — PL700 at 480 V AC

| | PL700 Amps | Series rating |
|-------------------------------|------------|---------------|
| | 1 | 14 kA |
| | 2 | 14 kA |
| | 3 | 14 kA |
| | 4 | 14 kA |
| T5N 400 A Main breaker | 5 | 14 kA |
| | 6 | 14 kA |
| PL700 Branch K and Z curve | 8 | 14 kA |
| | 10 | 14 kA |
| | 15 | 14 kA |
| | 20 | 14 kA |
| | 25 | 14 kA |

Main lug — PL700 at 240 V AC

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

Main lug — PL700 at 480 V AC

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

Coordination (discrimination) IEC ratings

Tmax T3 — PL700 at 240 V AC

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

Main lug — PL700 at 240 V AC

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

Tmax T3 — PL700 at 480 V AC

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

Main lug — PL700 at 480 V AC

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

Tmax T5 — PL700 at 240 V AC

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



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