# Revised Type P1 - General Specifications

**480V AC Maximum**
**600Y/347V AC Maximum (limited applications)**
**400 Ampere Max. Mains**
**250 Ampere Maximum Branch**
**UL Short Circuit Rating — 200,000 A. @ 240 Vac / 100,000 A. @ 480/277 Vac. IR Maximum**

**Branch Breaker Symmetrical Interrupting Capacity**

**Based on Underwriters' Test Procedure**

Feed thru and subfeed lugs may result in lower interrupting ratings if not protected by a main device. Consult sales office.

### Standards

NEC: 2020 (where accepted)
NEMA: PB1.1
UL: 67, 50 and 50E. Listed by Underwriter's Laboratories, Inc., under "Panelboards"
File #E2269, and #E4016.
Meets Federal Specification W-P-115c.

### Service

1-phase 2-wire - 120 Vac, 240 Vac

1-phase 3-wire - 120/240 Vac

3-phase 3-wire - 480Y/277 (when derived from 3-phase 4-wire system), 480 Vac, 347 Vac, 240 Vac, 120 Vac

3-phase 4-wire - 208Y/120 Vac, 480Y/277 Vac, 600Y/347 Vac, 380/220 Vac (see complete list in table on page 11-6)

### Panelboard Fronts and Doors

Standard panelboards are furnished with trim featuring concealed fasteners and hinges with a flush door lock. All are factory-assembled for ease of installation. Fronts are fabricated from code gauge steel and finished ANSI-61. See page 11-35 for optional fronts.

### Main Breakers

BL, BLH, HBL, NGB, HGB, LGB, BQD, ED4, ED6, HED4, QR2, QRH2,HQR2, HQR2H, FXD6, FD6, HFD6, HFXD6, JXD6, JD6, HJXD6, HJD6, 3VA41/52/61/62/53/63. (All main breakers except 400 amp frame are mounted horizontal.)

**Note: Revised P1 interiors with BL, BQD, GB or 3VA41 Type Mains can be Back-fed in unit space. See special Notes for unit space reduction.**

### Main Breaker Panel Connectors

| Ampere Rating | Connectors Suitable for Cu or Al |
|---|---|
| 100 | (1)—#14 1/0 AWG |
| 125 | (1)—#4 1/0 AWG |
| 225 | (1)—#4 AWG–300 kcmil |
| 250 | (1)—#4/0 AWG–350 kcmil Al<br>(1)—#6/0 AWG–350 kcmil Cu |
| 400① | (2)—#3/0 AWG–250 kcmil Al or<br>(1)—#3/0 AWG–500 kcmil Al |

Connector ranges indicated do not apply to all main breaker types. Refer to molded case circuit breaker standard pressure wire connector chart (Section 7) for the connector range of a specific frame.

### Main Lug Connectors⑥

| | |
|---|---|
| 125 | (1)—#6 AWG–350 kcmil |
| 250 | (1)—#6 AWG–350 kcmil |
| 400 std. | AL (2) 1/0-250 kcmil or<br>(1) #2 AWG–600 kcmil |
| 400 opt. | CU (2) 1/0–4/0 or<br>(1) 110–600 kcmil |
| 400 opt. | AL (1) AL 1/0–750 kcmil<br>(2) AL/CU 250 kcmil max.<br>[max. (1) 600 kcmil (1) wire] |

### Boxes

20" wide, 5.75" deep

- End walls are blank as standard.
- End walls with knockouts are available for 5.75" deep enclosures, if requested at time of order, and are available as a field installable kit.

### Weight — Approximate

Total panelboard weight when filled with a normal quantity of breakers and accessories is:

- About 3 lbs. per inch of box height

### Gauge Steel Boxes (Type 1)

| Width | Height | Gauge Steel |
|---|---|---|
| 20" | All | #16 |

### Fronts — Surface, Flush (Type 1)

| | | |
|---|---|---|
| 20" | All | #14 |

### Series Connected Short Circuit Ratings

The term "Series Connected Short Circuit Rating" refers to the application of series connected circuit breakers in a combination that allows some breakers to have lower individual interrupting ratings than the available fault current. This is permitted as long as the series combination has been tested and certified by UL.

See Circuit Breaker Section of this book. Series ratings must be specified on order at time of entry.

① P1 400 amp main breaker panels have wire bending space available for 600 kcmil.
② 400A main breaker is vertical mounted.
③ Feed-thru lug wire bending space is 15.000" and neutral wire bending space is 15.880" on 400A panel.
④ P1 panel limited to (1) subfeed 250 amperes max.
⑤ See Branch Breaker Side Gutter Chart for Revised P1 Backfed Options.
⑥ See complete list of MLO connectors on page 11-27.

**For inches / millimeters conversion, see Application Data section.**

**Shown with Standard Mains, Top Fed and Surface Trim**
Catalog number is for aluminum main bus. For optional copper main bus change "A" in position 11 to "C".

Panels are top feed, surface mounted. For bottom feed, change "T" in position 12 to "B". For flush mounting, change "S" in position 13 to "F".

Replace fifth and sixth position in panelboard catalog number, with alternate main breaker code.

Note: Original P1 was produced until 2015 and in January the revised P1 was introduced. All interior numbers that end with "T" or "N" are the new Revised interiors. "T" at end of catalog number indicates there is a Subfeed area available. "N" at end of catalog number indicates there is no Subfeed area available.

## Table P1-16 – Main Lugs Only (These are examples of configured panels - for reference only)

| Main Lug Only | | | Revised P1 – Subfeed Space①③ | Revised P1 – Subfeed Space①③ | Revised P1 – Subfeed Space①③④ |
|---|---|---|---|---|---|
| Max Panel Amp Rating | Max 1-Pole Circuits | Box Height (in.) | 208Y/120V 3-Phase 4-Wire Catalog # | 120/240V 1-Phase 3-Wire Catalog # | 480Y/277V 3-Phase 4-Wire Catalog # |
| 125 | 18 | 32 | P1C18ML125ATST⑧ | P1A18ML125ATST⑧ | P1E18ML125ATST⑧ |
| | 30 | 38 | P1C30ML125ATST | P1A30ML125ATST | P1E30ML125ATST |
| | 42 | 44 | P1C42ML125ATST | P1A42ML125ATST | P1E42ML125ATST |
| | 54 | 50 | P1C54ML125ATST | P1A54ML125ATST | P1E54ML125ATST |
| | 66 | 56 | P1C66ML125ATST | P1A66ML125ATST | P1E66ML125ATST |
| 250 | 18 | 32 | P1C18ML250ATST⑧ | P1A18ML250ATST⑧ | P1E18ML250ATST⑧ |
| | 30 | 38 | P1C30ML250ATST | P1A30ML250ATST | P1E30ML250ATST |
| | 42 | 44 | P1C42ML250ATST | P1A42ML250ATST | P1E42ML250ATST |
| | 54 | 50 | P1C54ML250ATST | P1A54ML250ATST | P1E54ML250ATST |
| | 66 | 56 | P1C66ML250ATST | P1A66ML250ATST | P1E66ML250ATST |
| 400 | 18 | 56 | – | – | – |
| | 30 | 62 | P1C30ML400ATST | P1A30ML400ATST | P1E30ML400ATST |
| | 42 | 68 | P1C42ML400ATST | P1A42ML400ATST | P1E42ML400ATST |
| | 54 | 74 | P1C54ML400ATST | P1A54ML400ATST | P1E54ML400ATST |
| | 66② | 74② | P1C66ML400ATSN② | P1A66ML400ATSN② | P1E66ML400ATSN② |

## Table P1-17 – Main Circuit Breaker (These are examples of configured panels - for reference only)

| | | | | | |
|---|---|---|---|---|---|
| 100 | 18 | 32 | P1C18BL100ATST⑧ | P1A18BL100ATST⑧ | P1E18V1100ATST⑧ |
| | 30 | 38 | P1C30BL100ATST | P1A30BL100ATST | P1E30V1100ATST |
| | 42 | 44 | P1C42BL100ATST | P1A42BL100ATST | P1E42V1100ATST |
| | 54 | 50 | P1C54BL100ATST | P1A54BL100ATST | P1E54V1100ATST |
| | 66 | 56 | P1C66BL100ATST | P1A66BL100ATST | P1E66V1100ATST |
| 125 | 18 | 32 | P1C18V1125ATST⑧ | — | P1E18V1125ATST⑧ |
| | 30 | 38 | P1C30V1125ATST | — | P1E30V1125ATST |
| | 42 | 44 | P1C42V1125ATST | — | P1E42V1125ATST |
| | 54 | 50 | P1C54V1125ATST | — | P1E54V1125ATST |
| | 66 | 56 | P1C66V1125ATST | — | P1E66V1125ATST |
| 225 | 18 | 32 | P1C18QR225ATST⑧ | P1A18QR225ATST⑧ | P1E18VA225ATST⑧ |
| | 30 | 38 | P1C30QR225ATST | P1A30QR225ATST | P1E30VA225ATST |
| | 42 | 44 | P1C42QR225ATST | P1A42QR225ATST | P1E42VA225ATST |
| | 54 | 50 | P1C54QR225ATST | P1A54QR225ATST | P1E54VA225ATST |
| | 66 | 56 | P1C66QR225ATST | P1A66QR225ATST | P1E66VA225ATST |
| 250 | 18 | 32 | P1C18VA250ATST⑧ | P1A18VA250ATST⑧ | P1E18VA250ATST⑧ |
| | 30 | 38 | P1C30VA250ATST | P1A30VA250ATST | P1E30VA250ATST |
| | 42 | 44 | P1C42VA250ATST | P1A42VA250ATST | P1E42VA250ATST |
| | 54 | 50 | P1C54VA250ATST | P1A54VA250ATST | P1E54VA250ATST |
| | 66 | 56 | P1C66VA250ATST | P1A66VA250ATST | P1E66VA250ATST |
| 400 | 18 | 56 | — | — | — |
| | 30 | 62 | P1C30VE400ATST | P1A30VE400ATST | P1E30VE400ATST |
| | 42 | 68 | P1C42VE400ATST | P1A42VE400ATST | P1E42VE400ATST |
| | 54 | 74 | P1C54VE400ATST | P1A54VE400ATST | P1E54VE400ATST |
| | 66② | 74② | P1C66VE400ATSN② | P1A66VE400ATSN② | P1E66VE400ATSN② |

## Table P1-18 – Standard Enclosures

| Box Height (in.) | Catalog Number | | | | |
|---|---|---|---|---|---|
| | Type 1 Standard Trim | | | | |
| | Box⑤ | Surface⑥ | Flush⑥ | Type 3R⑦ | Type 3R/12⑦ |
| 26 | B26 | S26B | F26B | NR26 | WP26 |
| 32 | B32 | S32B | F32B | NR32 | WP32 |
| 38 | B38 | S38B | F38B | NR38 | WP38 |
| 44 | B44 | S44B | F44B | NR44 | WP44 |
| 50 | B50 | S50B | F50B | NR50 | WP50 |
| 56 | B56 | S56B | F56B | NR56 | WP56 |
| 62 | B62 | S62B | F62B | NR62 | WP62 |
| 68 | B68 | S68B | F68B | NR68 | WP68 |
| 74 | B74 | S74B | F74B | NR74 | WP74 |

**① For all products without subfeed space - change "T" at end to "N" and reduce box size by 6".**

② No sub-feed space only for 400A 66 circuit.
③ BL/BQD/GB Type Mains are only available as Back-Fed. No kits are available for use in Main or Sub-feedspace. (GB Type includes NGB, HGB and LGB Breakers). These breakers take up branch circuit space.
④ xGB interiors are not available as Non-Feed-Thru, without Subfeed Space.
⑤ 16 GA std., Optional 14 GA & 12 GA Enclosures only.
⑥ 14 Gauge Steel only.
⑦ 16 Gauge Can w/ 14 Gauge Front.
⑧ The Revised P1 (18 circuit 250A only) is limited to 100A per connection (200A per pair) when installing BL/BQD or xGB Branch Breakers across from one another. 3VA41 does not have this restriction. All other configurations allow 125A per connection max. (250A per pair max.)