

## Panelboards

### Pow-R-Line C Panelboards

#### Product Selection

#### Type PRL1a

Table 2.1 Base Configurations - PRL1a

| Ampere Rating        | Interrupting Rating (kA Sym.) 240Vac | Breaker Type |
|----------------------|--------------------------------------|--------------|
| <b>Main Lug Only</b> |                                      |              |
| 100                  | —                                    | —            |
| 225                  | —                                    | —            |
| 400                  | —                                    | —            |
| 600                  | —                                    | —            |
| <b>Main Breaker</b>  |                                      |              |
| 100                  | 10                                   | BAB          |
| 100                  | 18                                   | EDH/FDB      |
| 100                  | 22                                   | QBHW         |
| 100                  | 65                                   | ED           |
| 100                  | 65                                   | FD           |
| 100                  | 100                                  | EDH          |
| 100                  | 100                                  | HFD          |
| 225                  | 65                                   | ED           |
| 225                  | 100                                  | EDH          |
| 400                  | 65                                   | DK           |
| 400                  | 65                                   | KD           |
| 400                  | 100                                  | HKD          |
| 400                  | 200                                  | KDC          |

Table 2.2 Bolt-on BAB, QBHW, QBGF, QBHGF, QBGFEP, QBHGFEP, QBAF, QBAG

| Ampere Rating      | Interrupting Rating (kA Sym.) 240Vac <sup>①②</sup> | Breaker Type         |
|--------------------|----------------------------------------------------|----------------------|
| 15-30              | 10                                                 | DNBA(twin)           |
| 15-60              | 10                                                 | BAB <sup>®</sup>     |
| 70                 | 10                                                 | BAB                  |
| 80-100             | 10                                                 | BAB                  |
| 125                | 10                                                 | BAB (2-Pole)         |
| 15-50 <sup>③</sup> | 10                                                 | QBGF <sup>④</sup>    |
| 15-50 <sup>③</sup> | 10                                                 | QBGFEP <sup>⑤</sup>  |
| 15-20              | 10                                                 | QBCAF <sup>⑥</sup>   |
| 15-60              | 10                                                 | BAB-D <sup>⑦</sup>   |
| 15-30              | 10                                                 | BAB-C <sup>⑧</sup>   |
| 15-30              | 10                                                 | BABRSP <sup>⑨</sup>  |
| 15-60              | 22                                                 | QBHW                 |
| 70                 | 22                                                 | QBHW                 |
| 80-100             | 22                                                 | QBHW                 |
| 125                | 22                                                 | QBHW (2 Pole)        |
| 15-30              | 22                                                 | QBHGF <sup>④</sup>   |
| 15-30              | 22                                                 | QBHGFEP <sup>⑤</sup> |

① 1-pole breakers are rated 120Vac maximum.

② 240 volt breakers must be used on 3-phase, 3-wire, 240 volt delta systems or on the high leg of a midpoint delta grounded system.

③ 50 ampere devices are available as 2-pole only.

④ GFCI for 5 mA personnel protection.

⑤ GFP for 30 mA equipment protection.

⑥ Combination arc fault circuit breaker.

⑦ HID (High Intensity Discharge) rated breaker.

⑧ Switching Neutral Breaker. 1-pole device requires 2-pole space, 2-pole device requires 3-pole space.

⑨ Solenoid operated breaker.

® BAB breakers are not DC rated.

## Panelboards Pow-R-Line C Panelboards

PRL 1a

### Box Sizing and Selection

Assembled Circuit Breaker Panelboards box size and box and trim catalogue numbers for all standard panelboard types are found in **Table 2-4**.

2

#### Instructions:

- Using description of the required panelboard, select the rating and type of main required.
- Count the total number of branch circuit poles, including provisions, required in the panelboard. Do not count main breaker poles. Convert 2- or 3-pole branch breaker to single-poles, i.e., 3-pole breaker, count as 3-poles.

Determine sub-feed breaker or through-feed lug requirements.

- Select the main ampere rating section from **Table 2-4**.
- Select panelboard type from first column.
- From Step #2, determine the number of branch circuits in Column 2.
- Read box size, box and trim catalogue numbers across columns to the right. Specify surface or flush mounting on the order.

#### Cabinets

Fronts are code-gauge steel, ASA-61 light gray painted finish.

Boxes are code-gauge galvanized steel without knockouts. Standard depth is 5-3/4 inches (146.1 mm). Standard width is 20 inches (508.0 mm). An optional 28-inch (711.2 mm) wide box is available.

#### Top and Bottom Gutters

5-1/2 inches (139.7 mm) minimum.

**Table 2.4 PRL1a Panelboard Sizing**

| Main Ampere (Maximum)                          | Number Branch Circuit | Box Dimensions (Inches) |    |      | Box Catalogue Number | Trim Catalogue Number |
|------------------------------------------------|-----------------------|-------------------------|----|------|----------------------|-----------------------|
|                                                |                       | H                       | W  | D    |                      |                       |
| MAIN LUGS ONLY OR MAIN LUGS WITH SUB-FEED LUGS |                       |                         |    |      |                      |                       |
| 100                                            | 18                    | 30                      | 20 | 5.75 | EZB2030RC            | EZT2030 S or F        |
|                                                | 24                    | 30                      | 20 | 5.75 | EZB2030RC            | EZT2030 S or F        |
|                                                | 30                    | 30                      | 20 | 5.75 | EZB2030RC            | EZT2030 S or F        |
|                                                | 42                    | 36                      | 20 | 5.75 | EZB2036RC            | EZT2036 S or F        |
| 225                                            | 18                    | 30                      | 20 | 5.75 | EZB2030RC            | EZT2030 S or F        |
|                                                | 24                    | 36                      | 20 | 5.75 | EZB2036RC            | EZT2036 S or F        |
|                                                | 30                    | 36                      | 20 | 5.75 | EZB2036RC            | EZT2036 S or F        |
|                                                | 42                    | 42                      | 20 | 5.75 | EZB2042RC            | EZT2042 S or F        |
|                                                | 60                    | 54                      | 20 | 5.75 | EZB2054RC            | EZT2054 S or F        |
|                                                | 72                    | 60                      | 20 | 5.75 | EZB2060RC            | EZT2060 S or F        |
|                                                | 84                    | 72                      | 20 | 5.75 | EZB2072RC            | EZT2072 S or F        |
| 400 <sup>®</sup> /600                          | 24                    | 42                      | 20 | 5.75 | EZB2024RC            | EZT2042 S or F        |
|                                                | 30                    | 48                      | 20 | 5.75 | EZB2030RC            | EZT2048 S or F        |
|                                                | 42                    | 54                      | 20 | 5.75 | EZB2054RC            | EZT2054 S or F        |
|                                                | 60                    | 60                      | 50 | 5.75 | EZB2060RC            | EZT2060 S or F        |
|                                                | 72                    | 72                      | 20 | 5.75 | EZB2072RC            | EZT2072 S or F        |
|                                                | 84                    | 72                      | 20 | 5.75 | EZB2072RC            | EZT2072 S or F        |
| Main Lugs with Through-Feed Lugs               |                       |                         |    |      |                      |                       |
| 100                                            | 18                    | 30                      | 20 | 5.75 | EZB2030RC            | EZT2030 S or F        |
|                                                | 24                    | 30                      | 20 | 5.75 | EZB2030RC            | EZT2030 S or F        |
|                                                | 30                    | 30                      | 20 | 5.75 | EZB2030RC            | EZT2030 S or F        |
|                                                | 42                    | 36                      | 20 | 5.75 | EZB2036RC            | EZT2036 S or F        |
| 225                                            | 18                    | 30                      | 20 | 5.75 | EZB2030RC            | EZT2030 S or F        |
|                                                | 24                    | 36                      | 20 | 5.75 | EZB2036RC            | EZT2036 S or F        |
|                                                | 30                    | 36                      | 20 | 5.75 | EZB2036RC            | EZT2036 S or F        |
|                                                | 42                    | 42                      | 20 | 5.75 | EZB2042RC            | EZT2042 S or F        |
|                                                | 60                    | 60                      | 20 | 5.75 | EZB2060RC            | EZT2060 S or F        |
|                                                | 72                    | 60                      | 20 | 5.75 | EZB2072RC            | EZT2072 S or F        |
| 400/600                                        | 24                    | 48                      | 20 | 5.75 | EZB2048RC            | EZT2048 S or F        |
|                                                | 30                    | 30                      | 20 | 5.75 | EZB2054RC            | EZT2054 S or F        |
|                                                | 42                    | 60                      | 20 | 5.75 | EZB2060RC            | EZT2060 S or F        |
|                                                | 60                    | 72                      | 20 | 5.75 | EZB2072RC            | EZT2072 S or F        |
|                                                | 72                    | 90                      | 20 | 5.75 | EZB2072RC            | EZT2072 S or F        |
| Main Lugs with Surge Protection Device         |                       |                         |    |      |                      |                       |
| 100                                            | 18                    | 30                      | 20 | 5.75 | EZB2030RC            | EZT2030 S or F        |
|                                                | 24                    | 30                      | 20 | 5.75 | EZB2030RC            | EZT2030 S or F        |
|                                                | 30                    | 30                      | 20 | 5.75 | EZB2030RC            | EZT2030 S or F        |
|                                                | 42                    | 36                      | 20 | 5.75 | EZB2036RC            | EZT2036 S or F        |
| 225                                            | 18                    | 30                      | 20 | 5.75 | EZB2030RC            | EZT2030 S or F        |
|                                                | 24                    | 36                      | 20 | 5.75 | EZB2036RC            | EZT2036 S or F        |
|                                                | 30                    | 36                      | 20 | 5.75 | EZB2036RC            | EZT2036 S or F        |
|                                                | 42                    | 42                      | 20 | 5.75 | EZB2042RC            | EZT2042 S or F        |
|                                                | 60                    | 54                      | 20 | 5.75 | EZB2054RC            | EZT2054 S or F        |
|                                                | 72                    | 60                      | 20 | 5.75 | EZB2060RC            | EZT2060 S or F        |
|                                                | 84                    | 72                      | 20 | 5.75 | EZB2072RC            | EZT2072 S or F        |
| 400/600                                        | 24                    | 48                      | 20 | 5.75 | EZB2048RC            | EZT2048 S or F        |
|                                                | 30                    | 54                      | 20 | 5.75 | EZB2054RC            | EZT2054 S or F        |
|                                                | 42                    | 54                      | 20 | 5.75 | EZB2054RC            | EZT2054 S or F        |
|                                                | 60                    | 60                      | 20 | 5.75 | EZB2060RC            | EZT2060 S or F        |
|                                                | 72                    | 90                      | 20 | 5.75 | EZB2072RC            | EZT2072 S or F        |

- <sup>①</sup> In a Sub-Feed configuration, maximum incoming and outgoing cables are 1 per phase #500 kcmil.
- Through-Feed lugs are recommended for 400A applications.
- Depending on the panel configuration, 72/84cct interiors fit into a 90" H box.