

# Contents

**Load Centers**

|                                                                |             |
|----------------------------------------------------------------|-------------|
| Catalog Numbering System                                       | 1-2         |
| Siemens PL and ES Series Load Centers™ Introduction            | 1-3         |
| WireGuide™ Load Centers and Breakers                           | 1-4         |
| PL Series Load Centers Features and Product Offering           | 1-5 – 1-6   |
| PL Series Single Phase Main Lug & Main Breaker Load Centers    | 1-7         |
| PL Series Single Phase Special Load Centers                    | 1-8         |
| PL Series Three Phase Main Lug & Main Breaker Load Centers     | 1-9         |
| PL Series Three Phase Unassembled Load Centers                 | 1-10        |
| ES Series Load Centers Features and Product Offering           | 1-11 – 1-12 |
| ES Series Single Phase Main Lug & Main Breaker Load Centers    | 1-13        |
| ES Series Single Phase Special Load Centers                    | 1-15        |
| ES Series Three Phase Main Lug & Main Breaker Load Centers     | 1-16        |
| EQ® Load Centers, 300-400 Amp                                  | 1-17        |
| Generator Ready Load Centers                                   | 1-18        |
| Riser Panel Load Centers                                       | 1-19        |
| EQ® Load Centers, Small Circuit and Circuit Breaker Enclosures | 1-20 – 1-21 |
| Load Centers OEM Interiors and Accessories                     | 1-22 – 1-24 |
| Standby Power Systems                                          | 1-25 – 1-26 |
| Knockout Diagrams                                              | 1-27 – 1-31 |
| Load Center Cross Reference                                    | 1-32 – 1-33 |

**Circuit Breakers**

|                                                 |             |
|-------------------------------------------------|-------------|
| Arc-Fault and Ground-Fault Breakers             | 1-34        |
| Intelli-Arc Diagnostic Tool                     | 1-35        |
| Type QP, 1" Breakers                            | 1-36        |
| Duplex, Triplex and Quadplex Plug-In Breakers   | 1-37        |
| Special Application Breakers                    | 1-38        |
| Type QD, 3/4" Breakers                          | 1-39        |
| Main and Branch Circuit Breakers                | 1-40 – 1-41 |
| Circuit Breaker Dimension Drawings and Lug Data | 1-42 – 1-43 |
| Circuit Breaker Accessories                     | 1-44 – 1-45 |

|                                  |             |
|----------------------------------|-------------|
| <b>Surge Protection Products</b> | 1-46 – 1-48 |
|----------------------------------|-------------|

**Temporary Power Outlet Panels**

|                                    |             |
|------------------------------------|-------------|
| Introduction and Features          | 1-49 – 1-50 |
| Catalog Numbering System           | 1-51        |
| Common Configurations              | 1-52        |
| Temporary Power Dimension Drawings | 1-53 – 1-57 |

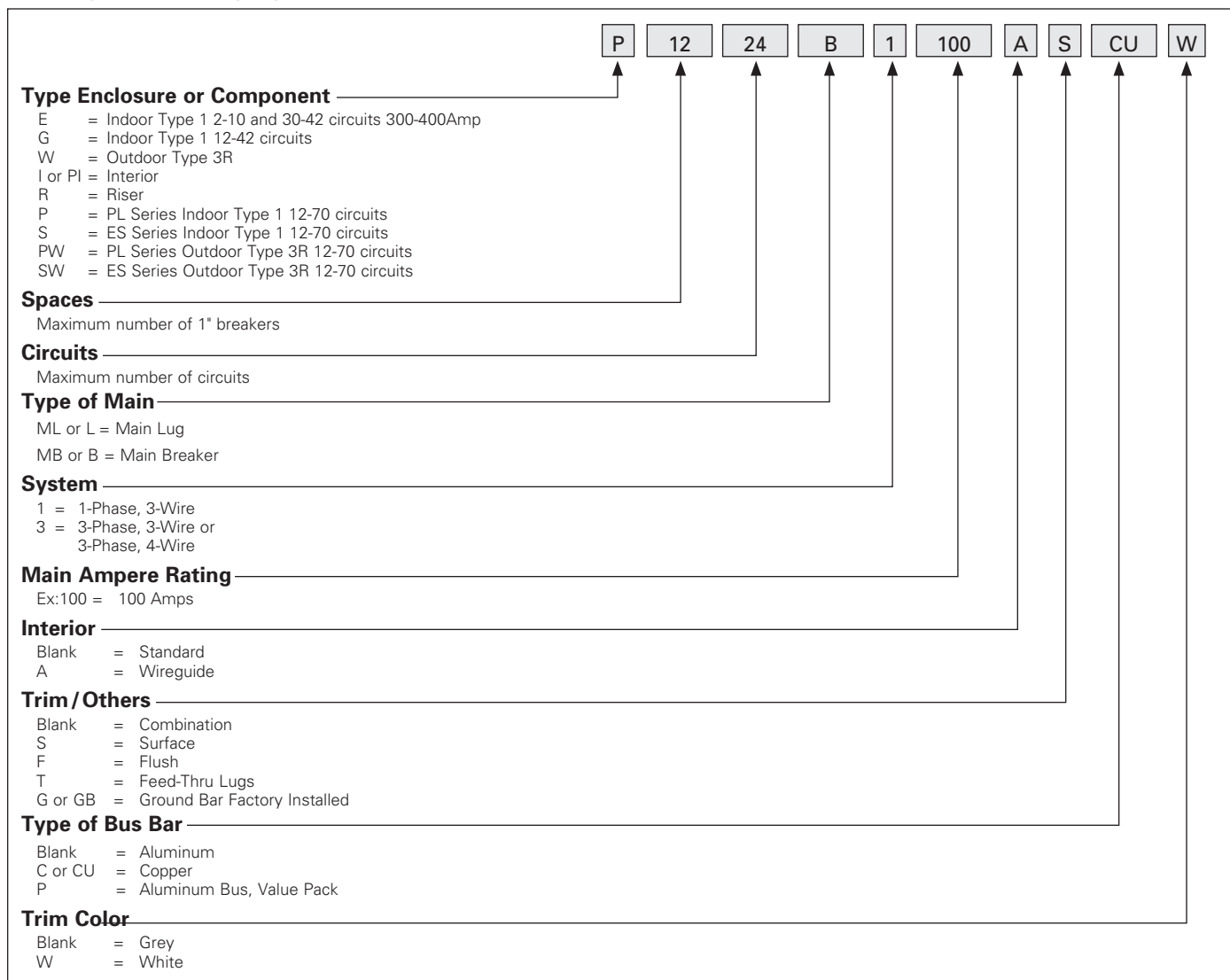
|                          |             |
|--------------------------|-------------|
| <b>Structured Wiring</b> | 1-58 – 1-61 |
|--------------------------|-------------|

|                                        |      |
|----------------------------------------|------|
| AC Disconnects, 1-Phase, NEMA 3R Rated | 1-62 |
|----------------------------------------|------|

# Load Centers

## Catalog Numbering System

### Catalog Numbering System



### Products Shown In Sections 1 of this Speedfax Meet or Exceed the Following Standards.

- UL50 — Electric Cabinets and Boxes
- UL67 — Electric Panelboards
- UL486 — Wire Connectors
- UL489 — Molded-Case Circuit Breakers
- UL869 — Service Equipment
- UL943 — Ground Fault interrupters (Class A — Personnel Protection)
- Federal Specification W-P-115b — Panel Power Distribution
- Federal Specification W-C-375B — Circuit Breakers
- NEC
- NEMA 250

### Underwriters' Laboratories, Inc. Reference File Numbers:

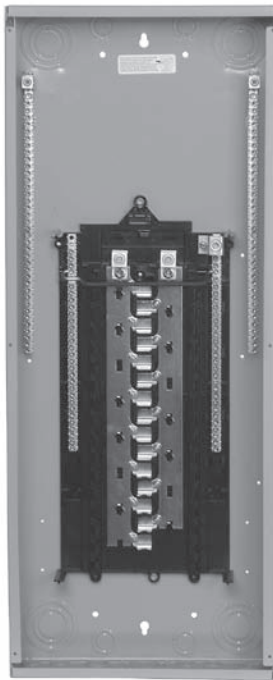
- Series Connected Circuit Breaker Information is recognized by UL under file #E10848(N)
- Load Centers Listed by UL under file #E10703
- Load Centers UL recognized components found under file #E10703, Volume 6 and 7. (Also referenced under the recognized components directory — section QEUY2)
- EQ Circuit Breakers are Listed by UL under file #E82615

# Load Centers

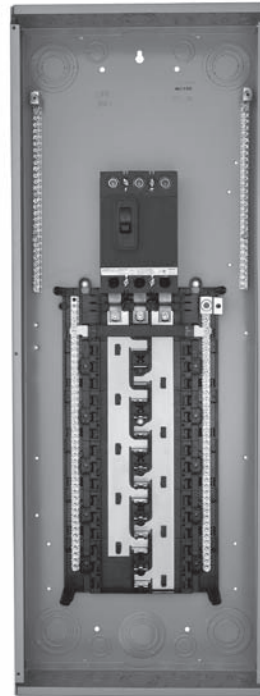
## Siemens PL and ES Series Load Centers™ Overview

### PL Series:

- Convertible
- Invertible
- Insta-wire neutrals & grounds
- Ground bars included
- Copper busbars
- Dual neutrals on all configurations
- Carton-in-carton packaging
- Lifetime warranty



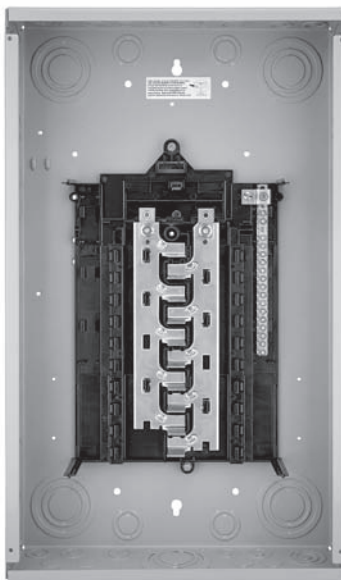
**PL Series 1-phase**



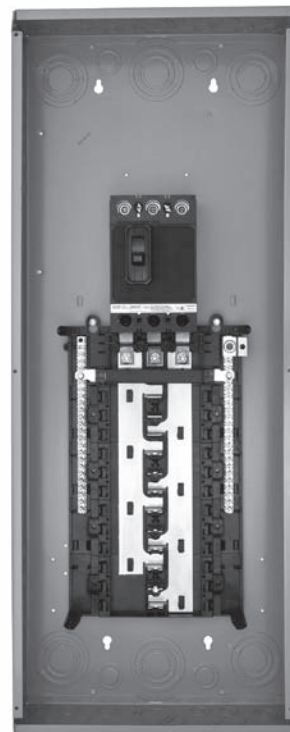
**PL Series 3-phase**

### ES Series:

- Invertible
- Insta-wire neutrals & grounds
- Aluminum busbars
- Single sided neutral on 24 circuits and below
- Single piece carton packaging
- 10 year warranty



**ES Series 1-phase**



**ES Series 3-phase**

# Load Centers

## WireGuide™ Load Centers and Breakers

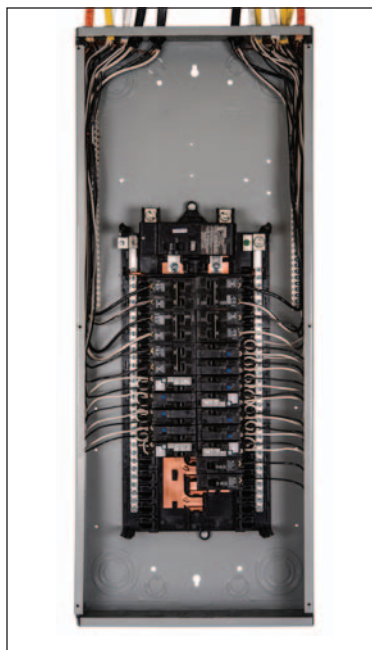
LOAD CENTERS & CIRCUIT BREAKERS  
1

### **NEW** WireGuide™ Load Centers and Breakers

WireGuide load centers accept new AFCIs with shortened neutral wires that slide directly into the neutral bar.

#### Features

- Over 4 inches of breaker wire bending space
- 11 SKUs each available in both grey and white<sup>①</sup>
- Pre-trimmed and ready to install neutral wires have an "Oops Loop" if extra wire is needed
- Full length neutral bars
- Decreased installation time
- WireGuide breakers available in Dual Function and AFCI



### PL 1Ø Main Breaker WireGuide Load Centers<sup>②④</sup>

#### Copper Bus

| Amp Rating | No. of Spaces | No. of Circuits | Catalog Number | Dimensions (inches) |       |       |
|------------|---------------|-----------------|----------------|---------------------|-------|-------|
|            |               |                 |                | Height              | Width | Depth |
| 200        | 30            | 60              | P3060B1200ACU  | 36                  | 14.5  | 4.25  |
| 200        | 40            | 80              | P4080B1200ACU  | 36                  | 14.5  | 4.25  |

### PL 1Ø Main Lug WireGuide Load Centers<sup>③</sup>

#### Copper Bus

|     |    |    |               |    |      |      |
|-----|----|----|---------------|----|------|------|
| 125 | 20 | 40 | P2040L1125ACU | 24 | 14.5 | 4.25 |
| 125 | 30 | 60 | P3060L1125ACU | 30 | 14.5 | 4.25 |
| 200 | 30 | 60 | P3060L1200ACU | 36 | 14.5 | 4.25 |

### ES 1Ø Main Breaker WireGuide Load Centers<sup>②④</sup>

#### Aluminum Bus

|     |    |    |             |    |      |      |
|-----|----|----|-------------|----|------|------|
| 200 | 30 | 60 | S3060B1200A | 36 | 14.5 | 4.25 |
| 200 | 40 | 80 | S4080B1200A | 36 | 14.5 | 4.25 |

### ES 1Ø Main Lug WireGuide Load Centers<sup>③⑤</sup>

#### Aluminum Bus

|     |    |    |              |    |      |      |
|-----|----|----|--------------|----|------|------|
| 125 | 20 | 40 | S2040L1125AG | 21 | 14.5 | 4.25 |
| 125 | 24 | 48 | S2448L1125AG | 24 | 14.5 | 4.25 |
| 125 | 30 | 60 | S3060L1125AG | 30 | 14.5 | 4.25 |
| 200 | 30 | 60 | S3060L1200AG | 30 | 14.5 | 4.25 |

### Combination Type AFCI WireGuide Breaker

| Breaker Type | Amp Rating | Catalog Number |
|--------------|------------|----------------|
| QAF2         | 15         | QA115AFCWG     |
|              | 20         | QA120AFCWG     |

### Dual Function AFCI/GFCI WireGuide Breaker

|       |    |          |
|-------|----|----------|
| QFGA2 | 15 | Q115DFWG |
|       | 20 | Q120DFWG |



① WireGuide load centers available (made to order) in white by adding "W" to the end of the part number.

② 60/75°C Rated 22,000A IR

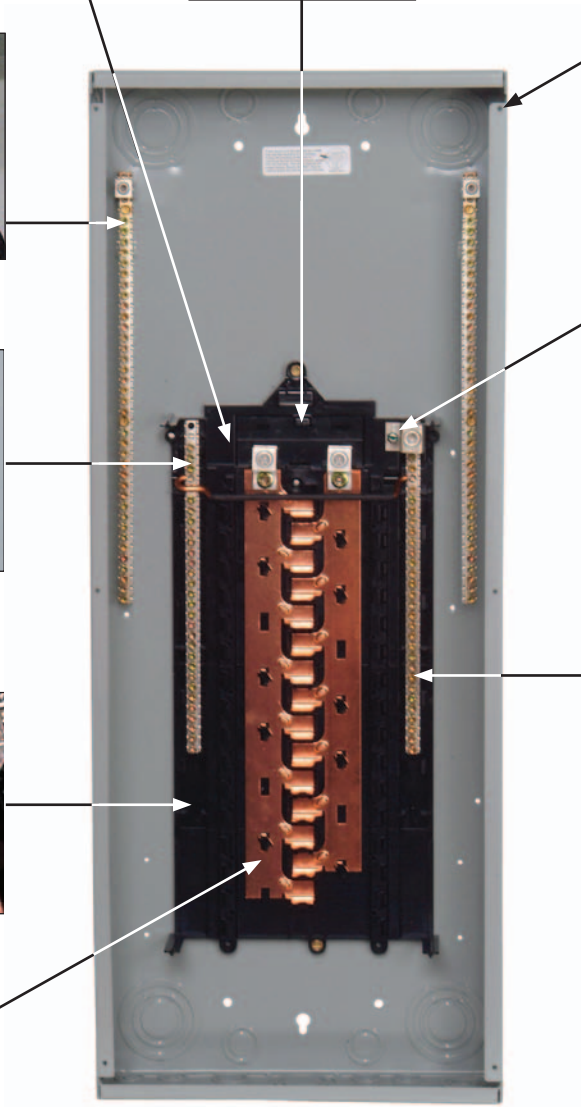
③ 60/75°C Rated 100,000A IR

④ Suitable for use as service equipment.

⑤ ES Series single phase skus with a "G" suffix have ground bar included (factory installed).

# PL Series Load Centers

## Features



Invertible for bottom feed application.

All devices are provided with 2 factory installed ground bars.

Combination head screw on the neutrals, ground, trim, upper pan, and bond screw provide installation flexibility.

A rigid, sturdy base pan provides the ruggedness required for the most harsh applications.

Copper Bus

All devices convertible from main lug to main breaker and vice versa.

Mounting tabs on the trim hold it in place on the load center, freeing up both hands to drive the trim screws.

The pre-positioned bond screw eliminates bond strap/screw assemblies, and reduces the risk of losing components in the field.

The patented INSTA-WIRE™ neutral/ground system allows for faster installation because screws are backed out, ready for wire insertion. The visible neutral and grounds system aids in the insertion of conductors.

PL Series Load Centers ship with trims packaged separately.

The outdoor enclosure has a slide hinge door for the easiest installation and can be removed by backing out only one screw.





# PL Series Load Centers

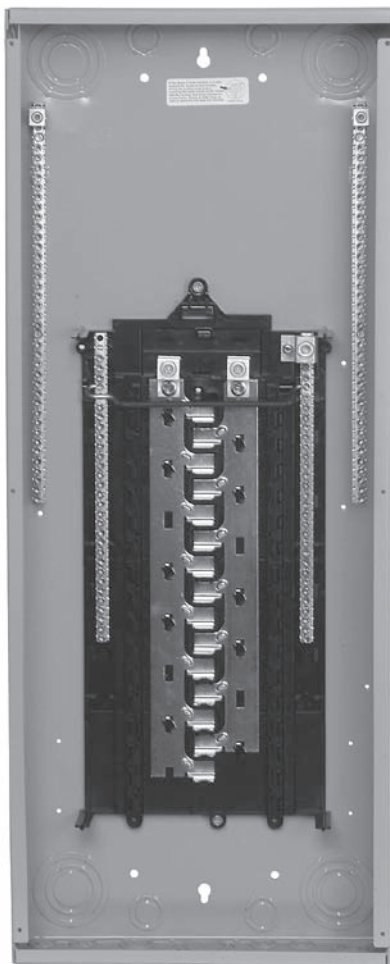
## Product Offering

### 1 LOAD CENTERS & CIRCUIT BREAKERS

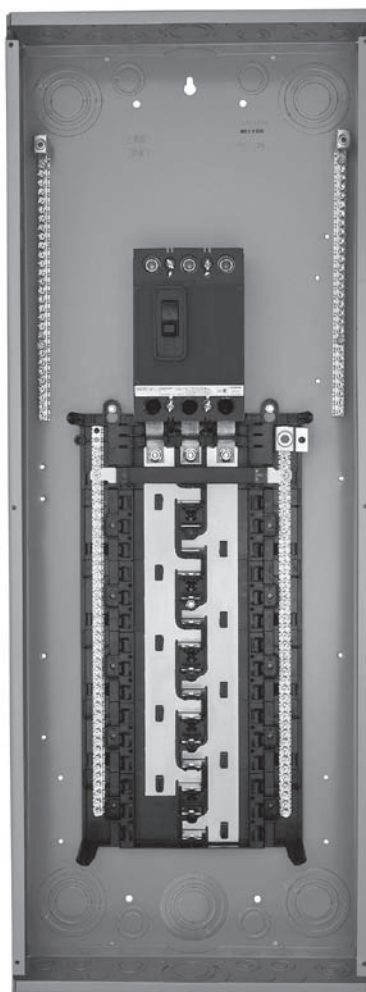
The PL Series Load Center product line provides a wide array of variation to meet any application need.

The following offering is available in the PL Series product line:

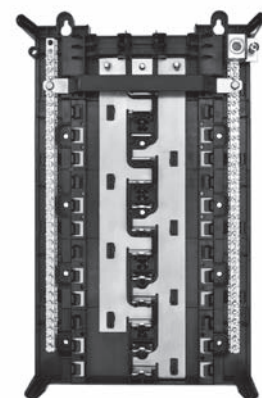
- 12-70 Circuits/Spaces
- Indoor and Outdoor enclosures
- 100 to 225 Amp
- Main Lug and Main Breakers
- Un-assembled offering in 3-phase



**PL Series  
1-phase Main Lug**



**PL Series  
3-phase Main Breaker**



**Un-assembled 3-phase**

# PL Series 1-Phase Main Lug & Main Breaker Load Centers

1-phase, 3-wire SN, 120/240 Volts AC

• Revised •  
02/24/16

## Main Breaker/Convertible Load Centers<sup>①</sup>

12-70 Circuits / 100-225 Amperes

Copper Bus<sup>⑦</sup>

60/75°C Rated 22,000A IR<sup>②</sup>

| Branch Circuits |               |                 | Indoor Enclosure – NEMA Type 1 |                                        | Outdoor Enclosure – NEMA Type 3R |                                        |
|-----------------|---------------|-----------------|--------------------------------|----------------------------------------|----------------------------------|----------------------------------------|
| Amp Rating      | No. of Spaces | No. of Circuits | Catalog Number                 | Enclosure Height (inches) <sup>③</sup> | Catalog Number                   | Enclosure Height (inches) <sup>④</sup> |
| 100             | 12            | 24              | P1224B1100CU                   | 18                                     | PW1224B1100CU                    | 21                                     |
| 100             | 16            | 24              | P1624B1100CU <sup>⑤</sup>      | 21                                     | PW1624B1100CU                    | 23                                     |
| 100             | 20            | 20              | P2020B1100CU                   | 24                                     | PW2020B1100CU                    | 27                                     |
| 100             | 20            | 24              | P2024B1100CU                   | 24                                     | —                                | —                                      |
| 100             | 24            | 24              | P2424B1100CU                   | 24                                     | —                                | —                                      |
| 100             | 30            | 30              | P3030B1100CU                   | 30                                     | —                                | —                                      |
| 100             | 30            | 40              | —                              | —                                      | PW3040B1100CU                    | 35                                     |
| 125             | 30            | 30              | P3030B1125CU <sup>⑤</sup>      | 30                                     | PW3040B1125CU                    | 35                                     |
| 150             | 20            | 30              | P2030B1150CU                   | 24                                     | —                                | —                                      |
| 150             | 20            | 30              | —                              | —                                      | PW2030B1150CU                    | 27                                     |
| 150             | 30            | 30              | P3030B1150CU                   | 30                                     | —                                | —                                      |
| 150             | 30            | 40              | —                              | —                                      | PW3040B1150CU                    | 35                                     |
| 200             | 20            | 40              | P2040B1200CU                   | 30                                     | PW2040B1200CU                    | 27                                     |
| 200             | 30            | 40              | P3040B1200CU                   | 36                                     | PW3040B1200CU                    | 35                                     |
| 200             | 30            | 40              | P3040B1200 <sup>⑧⑨</sup>       | 36                                     | —                                | —                                      |
| 200             | 40            | 40              | P4040B1200CU <sup>⑤</sup>      | 36                                     | PW4040B1200CU                    | 38                                     |
| 200             | 40            | 40              | P4040B1200 <sup>⑧⑨</sup>       | 36                                     | —                                | —                                      |
| 200             | 54            | 70              | P5470B1200CU                   | 44                                     | —                                | —                                      |
| 225             | 42            | 60              | P4260B1225CU <sup>⑤</sup>      | 39                                     | PW4260B1225CU                    | 42                                     |
| 225             | 54            | 70              | P5470B1225CU <sup>⑤</sup>      | 44                                     | —                                | —                                      |

Single phase factory installed 22kA IR main circuit breaker offers 22/10kA IR series combination rating when using 10kA type QP, QT, QPF, QE, QN, and QAF2/QAF2C branch breakers.

## Main Lug/Convertible Load Centers<sup>⑥</sup>

12-70 Circuits / 125-225 Amperes

Copper Bus<sup>⑦</sup>

60/75° Rated 100,000A IR

| Branch Circuits |               |                 | Indoor Enclosure - NEMA Type 1 |                                        | Outdoor Enclosure - NEMA Type 3R |                                        |
|-----------------|---------------|-----------------|--------------------------------|----------------------------------------|----------------------------------|----------------------------------------|
| Amp Rating      | No. of Spaces | No. of Circuits | Catalog Number                 | Enclosure Height (inches) <sup>③</sup> | Catalog Number                   | Enclosure Height (inches) <sup>④</sup> |
| 125             | 12            | 12              | P1212L1125CU <sup>⑤</sup>      | 18                                     | PW1212L1125CU <sup>⑤</sup>       | 21                                     |
| 125             | 12            | 24              | P1224L1125CU <sup>⑤</sup>      | 18                                     | PW1224L1125CU <sup>⑤</sup>       | 21                                     |
| 125             | 16            | 24              | P1624L1125CU                   | 21                                     | PW1624L1125CU                    | 23                                     |
| 125             | 20            | 20              | P2020L1125CU <sup>⑤</sup>      | 24                                     | —                                | —                                      |
| 125             | 20            | 24              | P2024L1125CU                   | 24                                     | —                                | —                                      |
| 125             | 24            | 40              | P2440L1125CU <sup>⑤</sup>      | 24                                     | —                                | —                                      |
| 125             | 30            | 40              | P3040L1125CU <sup>⑤</sup>      | 30                                     | PW3040L1125CU                    | 35                                     |
| 125             | 40            | 40              | P4040L1125CU <sup>⑤</sup>      | 36                                     | —                                | —                                      |
| 150             | 20            | 30              | P2030L1150CU                   | 24                                     | PW2030L1150CU                    | 27                                     |
| 200             | 12            | 24              | P1224L1200CU                   | 24                                     | PW1224L1200CU <sup>⑤</sup>       | 23                                     |
| 200             | 20            | 40              | P2040L1200CU                   | 30                                     | PW2040L1200CU                    | 27                                     |
| 200             | 24            | 40              | P2440L1200CU                   | 30                                     | —                                | —                                      |
| 200             | 30            | 30              | P3030L1200CU                   | 36                                     | —                                | —                                      |
| 200             | 30            | 40              | P3040L1200CU <sup>⑤</sup>      | 36                                     | PW3040L1200CU                    | 35                                     |
| 200             | 30            | 40              | P3040L1200 <sup>⑧⑨</sup>       | 36                                     | —                                | —                                      |
| 200             | 30            | 54              | P3054L1200CU                   | 36                                     | PW3054L1200CU                    | 35                                     |
| 200             | 40            | 40              | P4040L1200CU <sup>⑤</sup>      | 36                                     | PW4040L1200CU                    | 38                                     |
| 200             | 40            | 40              | P4040L1200 <sup>⑧</sup>        | 36                                     | —                                | —                                      |
| 225             | 12            | 24              | —                              | —                                      | PW1224L1225CU                    | 23                                     |
| 225             | 42            | 60              | P4260L1225CU <sup>⑤</sup>      | 39                                     | PW4260L1225CU                    | 42                                     |
| 225             | 54            | 70              | P5470L1225CU                   | 44                                     | —                                | —                                      |

① Suitable for use as service equipment.

② May be installed on higher rated systems when protected by a circuit breaker with a higher AIR rating.

③ Indoor enclosures are 14 1/4" wide by 3 7/8" deep.

④ Outdoor enclosures are 14 1/2" wide by 4 1/4" deep.

⑤ Suitable for use as service entrance equipment when not more than six main disconnecting means are provided. See article 230.71 of the NEC®.

⑥ 125A load centers will accept MBK100A and MBK125A. 150A load centers will accept MBK150A. 200A load centers will accept MBK200A and MBK150A. 225A load centers will accept MBK225A, MBK200A, MBK150A.

⑦ Copper bus load centers are recommended for those applications where the environment may be severe (i.e. far and coastal areas).

⑧ Includes all PL Series features with aluminum bussing.

⑨ Available (made to order) in white by adding "W" to the end of the part number.

# PL Series 1-Phase Special Application Load Centers

## 1-phase, 3-wire SN, 120/240 Volts AC

### Split Ground Series Main Lug Convertible Load Centers Copper Bus 12-60 Circuits / 125-200 Amperes 60/75° Rated, 100,000A IR

| Branch Circuits |               |                 | Indoor Enclosure – NEMA Type 1 |                                        |
|-----------------|---------------|-----------------|--------------------------------|----------------------------------------|
| Amp Rating      | No. of Spaces | No. of Circuits | Catalog Number                 | Enclosure Height (inches) <sup>②</sup> |
| 125             | 12            | 24              | P1224L1125CUSG                 | 18                                     |
| 125             | 16            | 24              | P1624L1125CUSG                 | 21                                     |
| 125             | 20            | 30              | P2030L1125CUSG                 | 24                                     |
| 125             | 24            | 30              | P2430L1125CUSG                 | 24                                     |
| 150             | 20            | 30              | P2030L1150CUSG                 | 24                                     |
| 200             | 30            | 40              | P3040L1200CUSG                 | 36                                     |
| 200             | 30            | 40              | P3040L1200SG <sup>①</sup>      | 36                                     |
| 200             | 40            | 40              | P4040L1200CUSG                 | 36                                     |
| 200             | 40            | 40              | P4040L1200SG <sup>①</sup>      | 36                                     |
| 225             | 40            | 60              | P4260L1225CUSG                 | 39                                     |

### First Surge PL Load Centers Copper Bus 54-60 Circuits 60/75° Rated, 22,000A IR

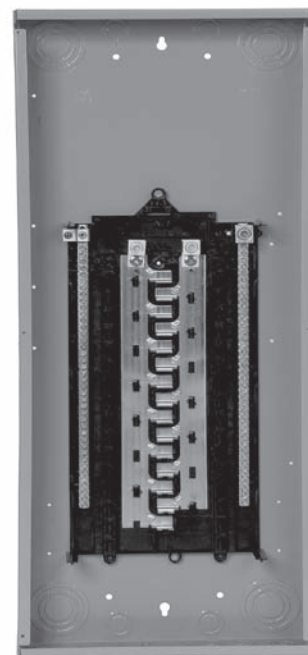
| Amp Rating | No. of Spaces | No. of Circuits | Catalog Number | Surge Protection | Enclosure Height (inches) <sup>②</sup> |
|------------|---------------|-----------------|----------------|------------------|----------------------------------------|
| 200        | 30            | 54              | P3054B1200S140 | 140kA            | 36                                     |
| 200        | 40            | 60              | P4060B1200S140 | 140kA            | 42                                     |

### Split Ground Series Main Breaker Convertible Load Centers Copper Bus 40 Circuits / 200 Amperes 60/75° Rated, 22,000A IR<sup>③</sup>

| Branch Circuits |               |                 | Indoor Enclosure – NEMA Type 1 |                                        |
|-----------------|---------------|-----------------|--------------------------------|----------------------------------------|
| Amp Rating      | No. of Spaces | No. of Circuits | Catalog Number                 | Enclosure Height (inches) <sup>②</sup> |
| 200             | 40            | 40              | P4040B1200CUSG                 | 36                                     |

### Outdoor Trailer Panels Copper Bus 16 Circuits / 200 Amperes 60/75° Rated, 22,000A IR<sup>⑤</sup>

| Amp Rating | No. of Spaces | No. of Circuits | Catalog Number | Main Breaker       |                   | Enclosure Height (inches) <sup>④</sup> |
|------------|---------------|-----------------|----------------|--------------------|-------------------|----------------------------------------|
| 200        | 8             | 16              | PW0816L1200TC  | MBK150A or MBK200A | Field Installed   | 23                                     |
| 200        | 8             | 16              | PW0816B1200TC  | MBK200A            | Factory Installed | 23                                     |



**Split Ground Load Centers** have factory installed 100% neutral with factory bonded 75% ground. No neutral tie strap.

① Includes all PL Series features with aluminum bussing.  
② Indoor enclosures are 14 1/4" wide by 3 7/8" deep.

③ May be installed on higher rated systems when protected by a circuit breaker with a higher AIR rating.  
④ Outdoor enclosures are 14 1/2" wide by 4 1/4" deep.  
⑤ Main lug panel rated 100,000A IR.

⑥ Load centers with white trim have increased lead time of 3-4 weeks. Sold in pallet quantities only.  
⑦ Load centers with CUW suffix indicates copper bus with white trim. Load centers with W suffix only indicates aluminum bus with white trim.



# PL Series 3-Phase Main Lug & Main Breaker Load Centers

3-phase, 3-wire, 240 Volt AC or 3-phase, 4-wire, 120/240 or 120/208 Volts AC

## Main Breaker/Convertible Load Centers

30-70 Circuits / 100-225 Amperes

Copper Bus<sup>⑧⑩</sup>

60/75°C Rated 22,000A IR<sup>①</sup>

| Branch Circuits |               |                 | Indoor Enclosure – NEMA Type 1 |                                        | Outdoor Enclosure – NEMA Type 3R |                                        |
|-----------------|---------------|-----------------|--------------------------------|----------------------------------------|----------------------------------|----------------------------------------|
| Amp Rating      | No. of Spaces | No. of Circuits | Catalog Number                 | Enclosure Height (inches) <sup>③</sup> | Catalog Number                   | Enclosure Height (inches) <sup>④</sup> |
| 100             | 12            | 24              | P1224B3100CU <sup>②</sup>      | 24                                     | —                                | —                                      |
| 100             | 30            | 42              | P3042B3100CU <sup>②</sup>      | 30                                     | —                                | —                                      |
| 125             | 30            | 30              | P3030B3125CU                   | 39                                     | —                                | —                                      |
| 150             | 24            | 42              | P2442B3150CU                   | 36                                     | —                                | —                                      |
| 150             | 42            | 42              | P4242B3150CU                   | 42                                     | —                                | —                                      |
| 200             | 30            | 54              | P3054B3200CU                   | 39                                     | PW3054B3200CU                    | 38                                     |
| 200             | 42            | 60              | P4260B3200CU <sup>⑩</sup>      | 42                                     | PW4260B3200CU                    | 42                                     |
| 225             | 42            | 60              | P4260B3225CU                   | 42                                     | —                                | —                                      |
| 225             | 42            | 60              | P4260B3225TCU <sup>⑥</sup>     | 49                                     | —                                | —                                      |
| 225             | 54            | 70              | P5470B3225CU                   | 49                                     | —                                | —                                      |

## Main Lug/Convertible Load Centers<sup>⑤</sup>

12-70 Circuits / 125-225 Amperes

Copper Bus<sup>⑧⑩</sup>

60/75°C Rated 100,000A IR<sup>⑨</sup>

| Branch Circuits |               |                 | Indoor Enclosure – NEMA Type 1 |                                        | Outdoor Enclosure – NEMA Type 3R |                                        |
|-----------------|---------------|-----------------|--------------------------------|----------------------------------------|----------------------------------|----------------------------------------|
| Amp Rating      | No. of Spaces | No. of Circuits | Catalog Number                 | Enclosure Height (inches) <sup>③</sup> | Catalog Number                   | Enclosure Height (inches) <sup>④</sup> |
| 125             | 12            | 24              | P1224L3125CU <sup>⑦</sup>      | 21                                     | PW1224L3125CU <sup>⑦</sup>       | 21                                     |
| 200             | 24            | 42              | P2442L3200CU                   | 36                                     | PW2442L3200CU                    | 35                                     |
| 200             | 30            | 54              | P3054L3200CU                   | 39                                     | PW3054L3200CU                    | 38                                     |
| 225             | 42            | 60              | P4260L3225CU                   | 42                                     | PW4260L3225CU <sup>⑩</sup>       | 42                                     |
| 225             | 54            | 70              | P5470L3225CU                   | 49                                     | —                                | —                                      |

① May be installed on higher rated systems when protected by a circuit breaker with a higher AIR rating.

② Back fed main breaker.

③ Indoor enclosures are 14 1/4" wide by 3 7/8" deep.

④ Outdoor enclosures are 14 1/2" wide by 4 1/4" deep.

⑤ Suitable for use as service entrance equipment when not more than six main disconnecting means are provided. See article 230.71 of the NEC®.

⑥ Includes factory installed feed through lugs and is also non-convertible.

⑦ Non-convertible to main breaker.

⑧ All load centers are provided with tin plated copper bus bars.

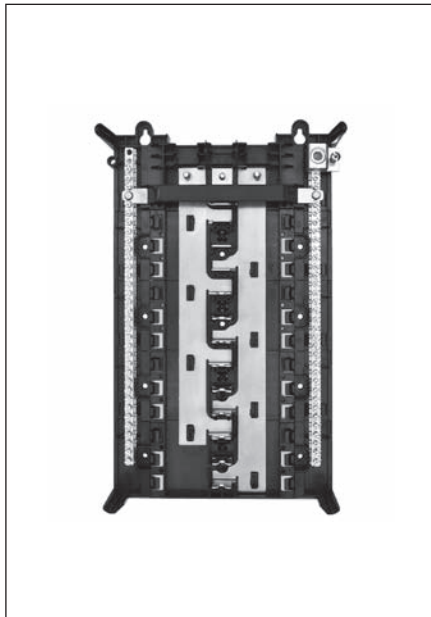
⑨ Rated 100,000A IR in series with breakers listed on wiring diagram.

⑩ All load centers are provided with tin-plated copper bus bars.

⑪ Available (made to order) in white by adding "W" to the end of the part number

# PL Series 3-Phase Unassembled Load Centers

3-phase, 3-wire, 240 Volt AC or 3-phase, 4-wire, 120/240 or 120/208 Volts AC



## Main Breaker Convertible Unassembled Load Centers

24-70 Circuits / 100-225 Amperes

Copper Bus<sup>⑤</sup>

60/75°C Rated 22,000A IR<sup>①</sup>

| Interiors  |               |                 |                            | Enclosure                              |                          | Trim Kit           |                                  |
|------------|---------------|-----------------|----------------------------|----------------------------------------|--------------------------|--------------------|----------------------------------|
| Amp Rating | No. of Spaces | No. of Circuits | Interior Catalog Number    | Enclosure Height (inches) <sup>③</sup> | Enclosure Catalog Number | No. Breaker Spaces | Trim Catalog Number <sup>④</sup> |
| 100        | 30            | 42              | PI3042B3100CU <sup>②</sup> | 30                                     | 3PE30                    | 30                 | PT3042B3100                      |
| 150        | 24            | 42              | PI2442B3150CU              | 36                                     | 3PE36                    | 24                 | PT2442X3150                      |
| 200        | 30            | 54              | PI3054B3200CU              | 39                                     | 3PE39                    | 30                 | PT3054X3200                      |
| 200        | 42            | 60              | PI4260B3200CU              | 42                                     | 3PE42                    | 42                 | PT4260X3200                      |
| 225        | 54            | 70              | PI5470B3225CU              | 49                                     | 3PE49                    | 54                 | PT5470X3225                      |

## Main Lug Convertible Unassembled Load Centers

12-70 Circuits / 125-225 Amperes

Copper Bus<sup>⑤</sup>

60/75° Rated 100,000A IR<sup>⑥</sup>

| Interiors  |               |                 |                         | Enclosure                              |                          | Trim Kit           |                                  |
|------------|---------------|-----------------|-------------------------|----------------------------------------|--------------------------|--------------------|----------------------------------|
| Amp Rating | No. of Spaces | No. of Circuits | Interior Catalog Number | Enclosure Height (inches) <sup>③</sup> | Enclosure Catalog Number | No. Breaker Spaces | Trim Catalog Number <sup>④</sup> |
| 125        | 12            | 24              | PI1224L3125CU           | 21                                     | 3PE21                    | 12                 | PT1224L3125                      |
| 200        | 24            | 42              | PI2442L3200CU           | 36                                     | 3PE36                    | 24                 | PT2442X3200                      |
| 200        | 30            | 54              | PI3054L3200CU           | 39                                     | 3PE39                    | 30                 | PT3054X3200                      |
| 225        | 42            | 60              | PI4260L3225CU           | 42                                     | 3PE42                    | 42                 | PT4260X3225                      |
| 225        | 54            | 70              | PI5470L3225CU           | 49                                     | 3PE49                    | 54                 | PT5470X3225                      |

① May be installed on higher rated systems when protected by a circuit breaker with a higher AIR rating.

② Back fed main breaker.

③ Indoor enclosures are 14 1/4" wide by 3 7/8" deep.

④ Trim catalog numbers with a "B" indicate for use with main breaker and is not convertible. "L" indicates for use with main lug and is not convertible. "X" indicates can be used with convertible interior.

⑤ All load center interiors are provided with tin plated copper bus bars.

⑥ Rated 100,000A IR in series with breakers listed on wiring diagram.

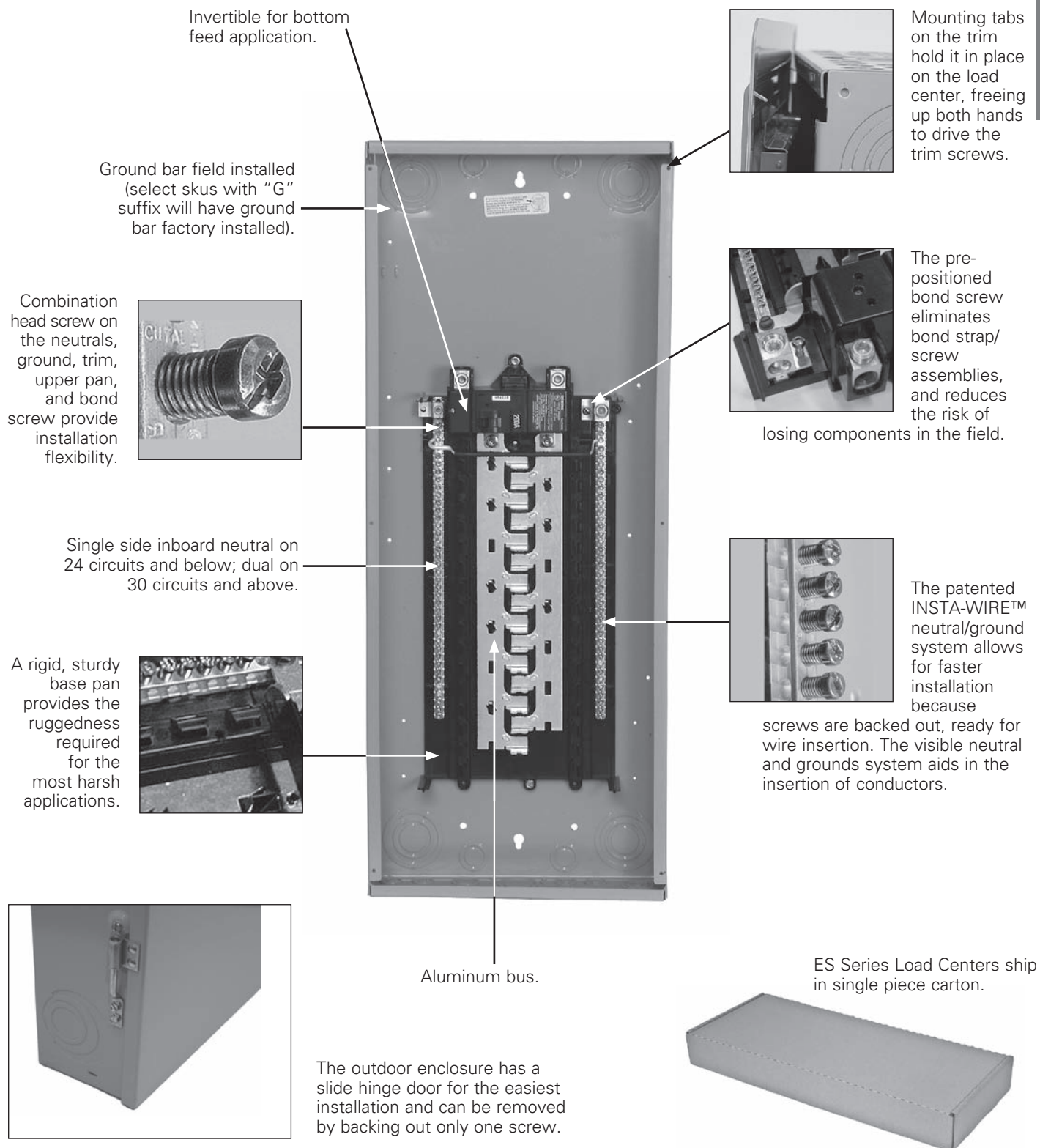
# ES Series Load Centers

## Features

• Revised •

04/28/15

1  
LOAD CENTERS &  
CIRCUIT BREAKERS



# ES Series Load Centers

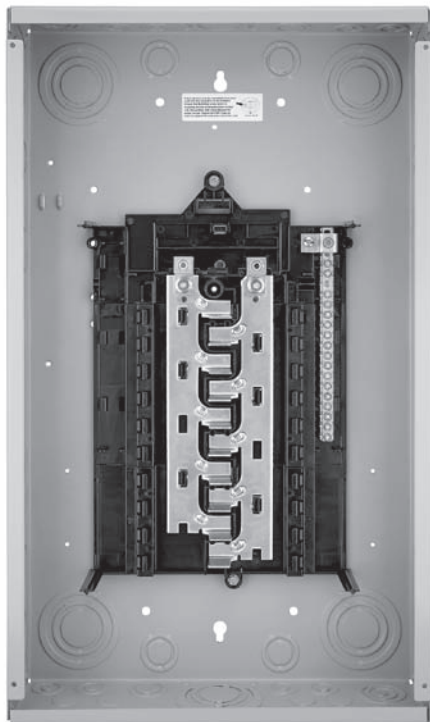
## Product Offering

### 1 LOAD CENTERS & CIRCUIT BREAKERS

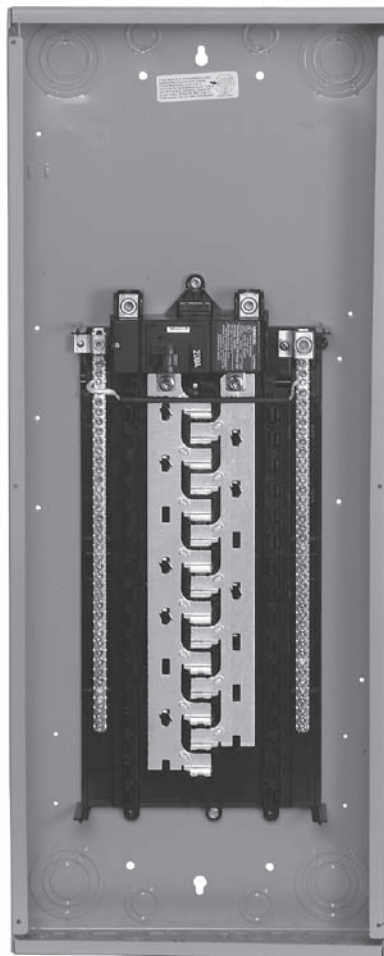
The ES Series Load Center product line provides a wide array of variation to meet any application need.

The following offering is available in the ES Series product line:

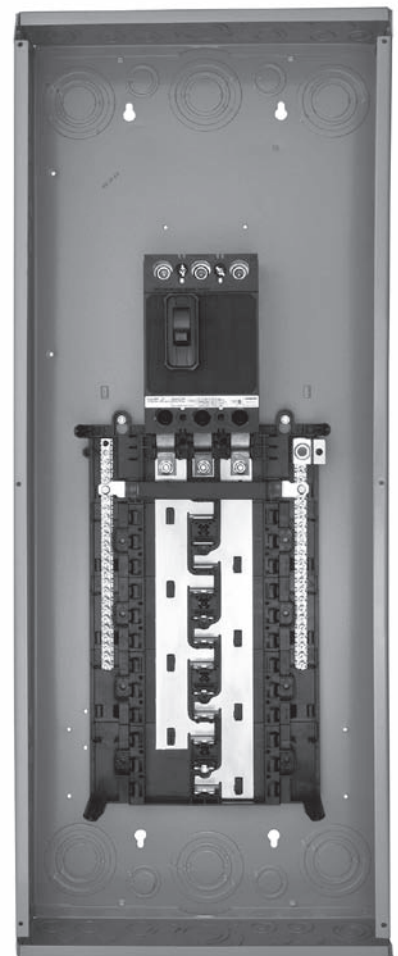
- 12-70 Circuits/Spaces
- Indoor and Outdoor enclosures
- 100 to 225 Amp
- Main Lug and Main Breakers
- Value packs – a mix of branch breakers provided with the load center.



**ES Series**  
**1-phase Main Lug**  
**125A, 12-24 circuits**



**ES Series**  
**1- phase Main Breaker**  
**125- 225A, 30-70 circuits**



**ES Series**  
**3-phase Main Breaker**

# ES Series 1-Phase Main Lug & Main Breaker Load Centers

1-phase, 3-wire SN, 120/240 Volts AC

## Main Breaker<sup>①</sup>

Aluminum Bus

12-70 Circuits / 100-225 Amperes

60/75°C Rated 22,000A IR<sup>②</sup>

| Branch Circuits |               |                 | Indoor Enclosure – NEMA Type 1 |                                        | Outdoor Enclosure – NEMA Type 3R |                                        |
|-----------------|---------------|-----------------|--------------------------------|----------------------------------------|----------------------------------|----------------------------------------|
| Amp Rating      | No. of Spaces | No. of Circuits | Catalog Number                 | Enclosure Height (inches) <sup>③</sup> | Catalog Number                   | Enclosure Height (inches) <sup>④</sup> |
| 100             | 10            | 20              | S1020B1100                     | 18                                     | —                                | —                                      |
| 100             | 12            | 24              | S1224B1100                     | 18                                     | SW1224B1100                      | 21                                     |
| 100             | 16            | 24              | S1624B1100 <sup>⑤</sup>        | 21                                     | SW1624B1100                      | 23                                     |
| 100             | 20            | 20              | S2020B1100                     | 24                                     | SW2020B1100                      | 27                                     |
| 100             | 20            | 24              | S2024B1100                     | 24                                     | —                                | —                                      |
| 100             | 30            | 30              | S3030B1100 <sup>⑤</sup>        | 30                                     | —                                | —                                      |
| 125             | 12            | 24              | —                              | —                                      | SW1224B1125                      | 21                                     |
| 125             | 16            | 24              | S1624B1125                     | 21                                     | —                                | —                                      |
| 125             | 16            | 32              | —                              | —                                      | SW2024B1125                      | 27                                     |
| 125             | 24            | 24              | S2424B1125 <sup>⑤</sup>        | 24                                     | SW2424B1125                      | 27                                     |
| 125             | 30            | 30              | S3030B1125 <sup>⑤</sup>        | 30                                     | —                                | —                                      |
| 125             | 30            | 40              | S3040B1125                     | 30                                     | SW3040B1125                      | 35                                     |
| 150             | 16            | 30              | S1630B1150                     | 24                                     | —                                | —                                      |
| 150             | 20            | 30              | S2030B1150                     | 24                                     | —                                | —                                      |
| 150             | 24            | 30              | S2430B1150                     | 30                                     | —                                | —                                      |
| 150             | 30            | 30              | S3030B1150 <sup>⑤</sup>        | 30                                     | —                                | —                                      |
| 150             | 30            | 40              | S3040B1150                     | 30                                     | SW3040B1150                      | 35                                     |
| 150             | 40            | 40              | —                              | —                                      | SW4040B1150                      | 38                                     |
| 200             | 16            | 32              | S1632B1200                     | 24                                     | —                                | —                                      |
| 200             | 20            | 40              | S2040B1200                     | 30                                     | SW2040B1200                      | 27                                     |
| 200             | 24            | 40              | S2440B1200                     | 30                                     | —                                | —                                      |
| 200             | 30            | 40              | S3040B1200 <sup>⑤</sup>        | 36                                     | SW3040B1200                      | 35                                     |
| 200             | 40            | 40              | S4040B1200 <sup>⑤</sup>        | 36                                     | SW4040B1200                      | 38                                     |
| 200             | 54            | 70              | S5470B1200                     | 44                                     | —                                | —                                      |
| 225             | 42            | 60              | S4260B1225                     | 39                                     | SW4260B1225                      | 42                                     |
| 225             | 54            | 70              | S5470B1225                     | 44                                     | —                                | —                                      |

## Main Lug

Aluminum Bus

12-70 Circuits / 125-225 Amperes

60/75° Rated 100,000A IR

| Branch Circuits |               |                 | Indoor Enclosure - NEMA Type 1 |                                        | Outdoor Enclosure - NEMA Type 3R |                                        |
|-----------------|---------------|-----------------|--------------------------------|----------------------------------------|----------------------------------|----------------------------------------|
| Amp Rating      | No. of Spaces | No. of Circuits | Catalog Number                 | Enclosure Height (inches) <sup>③</sup> | Catalog Number                   | Enclosure Height (inches) <sup>④</sup> |
| 125             | 12            | 12              | S1212L1125 <sup>⑤</sup>        | 18                                     | SW1212L1125 <sup>⑤</sup>         | 21                                     |
| 125             | 12            | 24              | S1224L1125 <sup>⑤</sup>        | 18                                     | SW1224L1125 <sup>⑤</sup>         | 21                                     |
| 125             | 16            | 24              | S1624L1125                     | 21                                     | SW1624L1125                      | 21                                     |
| 125             | 20            | 20              | S2020L1125 <sup>⑤</sup>        | 21                                     | —                                | —                                      |
| 125             | 20            | 20              | S2020L1125G <sup>⑤⑥</sup>      | 21                                     | —                                | —                                      |
| 125             | 20            | 24              | S2024L1125                     | 21                                     | —                                | —                                      |
| 125             | 20            | 24              | S2024L1125G <sup>⑤</sup>       | 21                                     | —                                | —                                      |
| 125             | 24            | 24              | S2424L1125 <sup>⑤</sup>        | 24                                     | SW2424L1125                      | 27                                     |
| 125             | 24            | 24              | S2424L1125G <sup>⑤⑥</sup>      | 24                                     | —                                | —                                      |
| 125             | 24            | 40              | S2440L1125 <sup>⑤</sup>        | 24                                     | —                                | —                                      |
| 125             | 24            | 40              | S2440L1125G <sup>⑤</sup>       | 24                                     | —                                | —                                      |
| 125             | 30            | 40              | S3040L1125 <sup>⑤</sup>        | 30                                     | SW3040L1125                      | 29                                     |
| 125             | 30            | 40              | S3040L1125G <sup>⑤⑥</sup>      | 30                                     | —                                | —                                      |
| 125             | 40            | 40              | S4040L1125                     | 36                                     | —                                | —                                      |
| 150             | 20            | 30              | S2030L1150 <sup>⑤</sup>        | 24                                     | SW2030L1150                      | 27                                     |
| 200             | 12            | 24              | S1224L1200 <sup>⑤</sup>        | 21                                     | SW1224L1200 <sup>⑤</sup>         | 21                                     |
| 200             | 20            | 40              | S2040L1200                     | 24                                     | SW2040L1200                      | 27                                     |
| 200             | 24            | 40              | S2440L1200 <sup>⑤</sup>        | 30                                     | —                                | —                                      |
| 200             | 30            | 30              | S3030L1200 <sup>⑤</sup>        | 30                                     | —                                | —                                      |
| 200             | 30            | 40              | S3040L1200 <sup>⑤</sup>        | 30                                     | SW3040L1200                      | 35                                     |
| 200             | 30            | 40              | S3040L1200L50 <sup>⑦</sup>     | 36                                     | —                                | —                                      |
| 200             | 30            | 54              | S3054L1200                     | 30                                     | SW3054L1200                      | 35                                     |
| 200             | 40            | 40              | S4040L1200 <sup>⑤</sup>        | 36                                     | SW4040L1200                      | 35                                     |
| 225             | 12            | 24              | —                              | —                                      | SW1224L1225                      | 23                                     |
| 225             | 42            | 60              | S4260L1225                     | 36                                     | SW4260L1225                      | 38                                     |
| 225             | 54            | 70              | S5470L1225                     | 42                                     | —                                | —                                      |

① Suitable for use as service equipment.

② May be installed on higher rated systems when protected by a circuit breaker with a higher AIR rating.

③ Indoor enclosures are 14 1/4" wide by 3 7/8" deep.

④ Outdoor enclosures are 14 1/2" wide by 4 1/4" deep.

⑤ Suitable for use as service entrance equipment when not more than six main disconnecting means are provided. See article 230.71 of the NEC®.

⑥ ES Series single phase skus with a "G" suffix have ground bar included (factory installed).

⑦ Line and Neutral Lug Wire Range: 500 kcmil - #2 AL/CU

⑧ Available (made to order) in white by adding "W" to the end of the part number.



# ES Series 1-Phase Unassembled Load Centers

## 1-phase, 3-wire SN, 120/240 Volts A

### Features

- Available for the most popular ES Load Centers
- Gives the ability to order in bulk
- Enclosures will have minimal packaging for less hassle and waste at the job site
- Keeps the covers separate to prevent damage or theft
- Includes full size cardboard covers to keep the interior safe during painting
- All main lug panels include factory installed ground bars



### Main Breaker ES Unassembled Load Centers<sup>①</sup>

24-40 Circuits / 125-200 Amperes

Aluminum Bus  
60/75° Rated 22,000A IR<sup>②</sup>

| Amp Rating | Box Catalog Number | Main         | No. of Spaces | No. of Circuits | Dimensions |       |       | Trim Catalog Number | Pallet Quantity |
|------------|--------------------|--------------|---------------|-----------------|------------|-------|-------|---------------------|-----------------|
|            |                    |              |               |                 | Height     | Width | Depth |                     |                 |
| 125        | SB2424B1125        | Main Breaker | 24            | 24              | 24         | 14.5  | 4.25  | ST2424B1125         | 36              |
| 200        | SB3040B1200        | Main Breaker | 30            | 40              | 36         | 14.5  | 4.25  | ST3040B1200         | 30              |
| 200        | SB4040B1200        | Main Breaker | 40            | 40              | 36         | 14.5  | 4.25  | ST4040B1200         | 30              |

### Selectable Main ES Unassembled Load Centers<sup>③</sup>

30-40 Circuits / 200 Amperes

Aluminum Bus

| Amp Rating | Box Catalog Number | Main        | No. of Spaces | No. of Circuits | Dimensions |       |       | Trim Catalog Number | Pallet Quantity |
|------------|--------------------|-------------|---------------|-----------------|------------|-------|-------|---------------------|-----------------|
|            |                    |             |               |                 | Height     | Width | Depth |                     |                 |
| 150/200    | SB3040C1200G       | Convertible | 30            | 40              | 36         | 14.5  | 4.25  | ST3040X1200         | 30              |
| 150/200    | SB4040C1200G       | Convertible | 40            | 40              | 36         | 14.5  | 4.25  | ST4040X1200         | 30              |

### Main Lug ES Unassembled Load Centers<sup>③</sup>

24-40 Circuits / 125-200 Amperes

Aluminum Bus  
60/75° Rated 100,000A IR

| Amp Rating | Box Catalog Number | Main     | No. of Spaces | No. of Circuits | Dimensions |       |       | Trim Catalog Number | Pallet Quantity |
|------------|--------------------|----------|---------------|-----------------|------------|-------|-------|---------------------|-----------------|
|            |                    |          |               |                 | Height     | Width | Depth |                     |                 |
| 125        | SB2440L1125G       | Main Lug | 24            | 40              | 24         | 14.5  | 4.25  | ST2440L1125         | 36              |
| 125        | SB3040L1125G       | Main Lug | 30            | 40              | 30         | 14.5  | 4.25  | ST3040L1125         | 36              |
| 200        | SB3040L1200G       | Main Lug | 30            | 40              | 30         | 14.5  | 4.25  | ST3040L1200         | 36              |
| 200        | SB4040L1200G       | Main Lug | 40            | 40              | 36         | 14.5  | 4.25  | ST4040L1200         | 30              |

① Suitable for use as service equipment.

② May be installed on higher rated systems when protected by a circuit breaker with a higher AIR rating.

③ ES Series single phase skus with a "G" suffix have ground bar included (factory installed).

# ES Series 1-Phase Special Load Centers

## 1-phase, 3-wire SN, 120/240 Volts AC

### First Surge ES Load Centers

### Aluminum Bus

#### 54-60 Circuits

#### 60/75° Rated, 22,000A IR

| Amp Rating | No. of Spaces | No. of Circuits | Catalog Number | Surge Protection | Enclosure Height (inches) <sup>②</sup> |
|------------|---------------|-----------------|----------------|------------------|----------------------------------------|
| 200        | 30            | 54              | S3054B1200S060 | 60kA             | 36                                     |
| 200        | 40            | 60              | S4060B1200S060 | 60kA             | 42                                     |

### Outdoor Trailer Panels

### Aluminum Bus

#### 16 Circuits / 200 Amperes

#### 60/75° Rated 100,000A IR

| Amp Rating | No. of Spaces | No. of Circuits | Catalog Number            | Main Breaker | Enclosure Height (inches) <sup>④</sup> |
|------------|---------------|-----------------|---------------------------|--------------|----------------------------------------|
| 200        | 8             | 16              | SW0816L1200T              | N/A          | 23                                     |
| 200        | 8             | 16              | SW0816B1200T <sup>⑤</sup> | MBK200A      | 23                                     |

### Value Pack Load Centers<sup>③</sup>

### Aluminum Bus

| Catalog Number | Load Center | Breakers Included  | Amp | No. of Spaces | No. of Circuits |
|----------------|-------------|--------------------|-----|---------------|-----------------|
| S2020B1100P    | S2020B1100  | (3) Q120, (1) Q230 | 100 | 20            | 20              |
| S3040B1200P    | S3040B1200  | (3) Q120, (1) Q230 | 200 | 30            | 40              |
| S3040L1200P    | S3040L1200  | (3) Q120, (1) Q230 | 200 | 30            | 40              |
| S4040B1200P    | S4040B1200  | (3) Q120, (1) Q230 | 200 | 30            | 40              |
| S3054B1200P    | N/A         | (3) Q120, (1) Q230 | 200 | 30            | 54              |

### Split Ground Series Load Centers<sup>⑥</sup>

#### 30-40 Circuits / 125-200 Amperes

#### 16 Circuits / 200 Amperes

### Aluminum Bus

| Branch Circuits |               |                 | Indoor Enclosure – NEMA Type 1 |                                        |
|-----------------|---------------|-----------------|--------------------------------|----------------------------------------|
| Amp Rating      | No. of Spaces | No. of Circuits | Catalog Number                 | Enclosure Height (inches) <sup>②</sup> |
| 125             | 20            | 30              | S2030L1125SG                   | 21                                     |
| 150             | 30            | 30              | S3030B1150SG                   | 30                                     |
| 200             | 40            | 40              | S4040B1200SG                   | 36                                     |

### Selectable Main Load Centers<sup>⑦</sup>

#### 24-40 Circuits / 125-200 Amperes

### Aluminum Bus

| Branch Circuits |               |                 | Indoor Enclosure – NEMA Type 1 |                                        | Outdoor Enclosure – NEMA Type 3R |                                        | Available Kits |                           |
|-----------------|---------------|-----------------|--------------------------------|----------------------------------------|----------------------------------|----------------------------------------|----------------|---------------------------|
| Amp Rating      | No. of Spaces | No. of Circuits | Catalog Number                 | Enclosure Height (inches) <sup>②</sup> | Catalog Number                   | Enclosure Height (inches) <sup>④</sup> | Main Lug       | Main Breaker              |
| 125             | 24            | 24              | S2424C1125                     | 24                                     | SW2424C1125                      | 27                                     | ECMLK125       | MBK100A, MBK125A          |
| 200             | 20            | 40              | S2040C1200                     | 35                                     | SW2040C1200                      | 35                                     | ECMLK225       | MBK200A                   |
| 200             | 30            | 40              | S3040C1200                     | 36                                     | SW3040C1200                      | 35                                     | ECMLK225       | MBK150A, MBK200A, MBK225A |
| 200             | 40            | 40              | S4040C1200                     | 36                                     | SW4040C1200                      | 38                                     | ECMLK225       | MBK150A, MBK200A, MBK225A |

① Load centers with white trim have increased lead time of 3-4 weeks. Sold in pallet quantities only. Additional charge will apply. Contact sales office for details.  
② Indoor enclosures are 14 1/4" wide by 3 7/8" deep.

③ Breakers are shipped inside a sleeve located inside the load center.  
④ Outdoor enclosures are 14 1/2" wide by 4 1/4" deep.  
⑤ Main breaker rated 22,000A IR.

⑥ Split Ground load centers have factory installed 100% neutral with factory bonded 75% ground.  
⑦ Selectable main load centers do not come with main lugs or main breakers. Those kits are sold separately.

# ES Series 3-Phase Main Lug & Main Breaker Load Centers

3-phase, 3-wire, 240 Volt AC or 3-phase, 4-wire, 120/240 or 120/208 Volts AC

## Main Breaker

## Aluminum Bus

30-60 Circuits / 100-225 Amperes

60/75°C Rated 10,000A IR<sup>①</sup>

| Branch Circuits |               |                 | Indoor Enclosure – NEMA Type 1 |                                        | Outdoor Enclosure – NEMA Type 3R |                                        |
|-----------------|---------------|-----------------|--------------------------------|----------------------------------------|----------------------------------|----------------------------------------|
| Amp Rating      | No. of Spaces | No. of Circuits | Catalog Number                 | Enclosure Height (inches) <sup>③</sup> | Catalog Number                   | Enclosure Height (inches) <sup>④</sup> |
| 100             | 12            | 24              | S1224B3100 <sup>②</sup>        | 24                                     | —                                | —                                      |
| 100             | 30            | 30              | S3030B3100 <sup>②</sup>        | 30                                     | —                                | —                                      |
| 100             | 30            | 42              | S3042B3100 <sup>②</sup>        | 30                                     | —                                | —                                      |
| 125             | 30            | 42              | S3042B3125                     | 35                                     | —                                | —                                      |
| 150             | 24            | 42              | S2442B3150                     | 36                                     | SW2442B3150                      | 35                                     |
| 150             | 42            | 42              | S4242B3150                     | 42                                     | —                                | —                                      |
| 150             | 30            | 54              | S3054B3150                     | 35                                     | —                                | —                                      |
| 200             | 30            | 54              | S3054B3200                     | 39                                     | SW3054B3200                      | 38                                     |
| 200             | 42            | 60              | S4260B3200                     | 42                                     | SW4260B3200                      | 42                                     |
| 225             | 42            | 42              | S4242B3225                     | 42                                     | SW4242B3225                      | 42                                     |

## Main Lug<sup>⑤</sup>

## Aluminum Bus

12-70 Circuits / 125-225 Amperes

60/75° Rated 100,000A IR<sup>⑥</sup>

| Branch Circuits |               |                 | Indoor Enclosure – NEMA Type 1 |                                        | Outdoor Enclosure – NEMA Type 3R |                                        |
|-----------------|---------------|-----------------|--------------------------------|----------------------------------------|----------------------------------|----------------------------------------|
| Amp Rating      | No. of Spaces | No. of Circuits | Catalog Number                 | Enclosure Height (inches) <sup>③</sup> | Catalog Number                   | Enclosure Height (inches) <sup>④</sup> |
| 125             | 12            | 24              | S1224L3125                     | 21                                     | SW1224L3125                      | 21                                     |
| 150             | 18            | 36              | S1836L3150                     | 24                                     | SW1836L3150                      | 23                                     |
| 150             | 24            | 42              | S2442L3150                     | 30                                     | SW2442L3150                      | 27                                     |
| 200             | 12            | 24              | S1224L3200                     | 21                                     | SW1224L3200                      | 21                                     |
| 200             | 24            | 42              | S2442L3200                     | 30                                     | SW2442L3200                      | 27                                     |
| 200             | 30            | 54              | S3054L3200 <sup>⑦</sup>        | 30                                     | SW3054L3200                      | 35                                     |
| 225             | 42            | 60              | S4260L3225 <sup>⑦</sup>        | 36                                     | SW4260L3225                      | 38                                     |
| 225             | 54            | 70              | S5470L3225 <sup>⑦</sup>        | 42                                     | —                                | —                                      |

① May be installed on higher rated systems when protected by a circuit breaker with a higher AIR rating.

② Back fed main breaker.

③ Indoor enclosures are 14 1/4" wide by 3 7/8" deep.

④ Outdoor enclosures are 14 1/2" wide by 4 1/4" deep.

⑤ Suitable for use as service entrance equipment when not more than six main disconnecting means are provided. See article 230.71 of the NEC<sup>®</sup>.

⑥ Rated 100,000A IR in series with breakers listed on wiring diagram.

⑦ Available (made to order) in white by adding "W" to the end of the part number.