
SAFETY MADE SIMPLE
Appleton®

P-SERIES POWERPLEX™ DISTRIBUTION PANELBOARDS

Appleton

A BREAKER PROTECTION BREAKTHROUGH

Simplify flameproof protection for lighting, heat trace and power circuit distribution with the new generation in panelboard innovation.

Introducing our new P Series PowerPlex™ panelboards for Zone 1 – 2 and 21 – 22 environments. They incorporate multiple, specially designed component-level enclosures that offer flameproof protection while housing off-the-shelf circuit breakers. These flameproof enclosures allow breakers to be replaced in the field, unlike expensive epoxy-encapsulated breakers. This inventive method of component-level protection – combined with a busbar design and modular configuration – delivers unprecedented installation flexibility and maintenance simplicity.

Explore the new state of the art in panelboard engineering: P Series PowerPlex. Only from Appleton, the worldwide leader in hazardous location electrical products.

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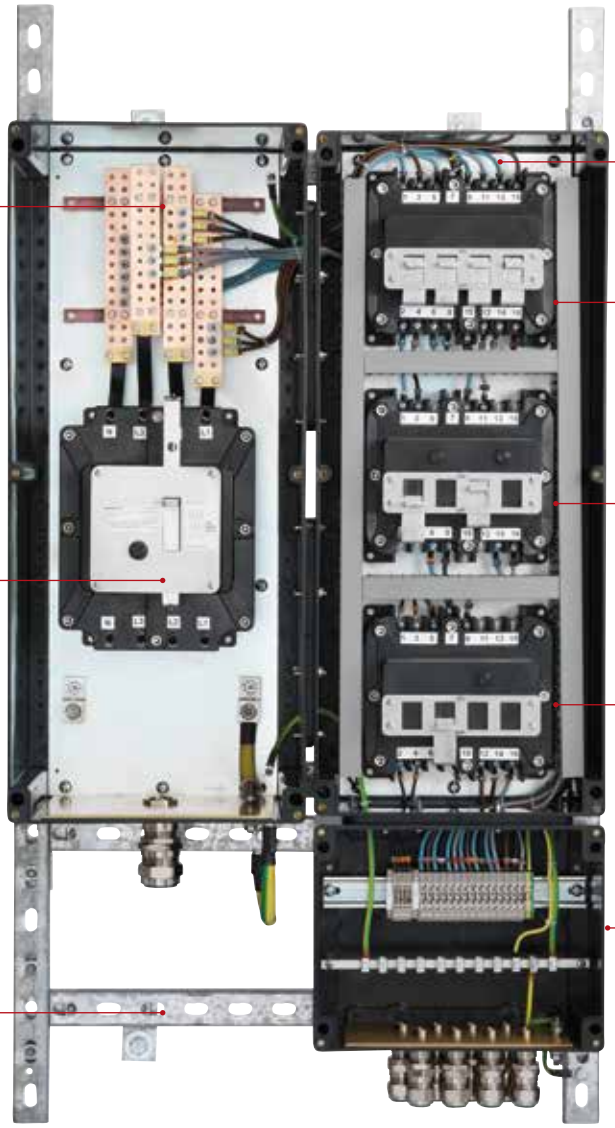
FLEXIBLE INSTALLATION

P Series PowerPlex panelboards feature an Increased Safety design that requires no barrier glands or conduit seals. The busbar is designed for ease of wiring, and factory-installed line and load connections allow you to increase breaker ampacity in the future without rewiring the panelboard. Optional removable gland plates on the bottom can be easily punched or drilled in the field to accommodate cable or conduit entries.

Standard panelboard arrangements are provided with a hot dipped galvanized steel wall mounting frame. Multiple breaker configurations can be coupled together vertically or horizontally in a modular fashion to suit your installation.
P Series PowerPlex panelboards are easy to retrofit to the available footprint.



BUSBAR

50 kA busbar system enables more robust, reliable and efficient electrical connections in a compact space, joining mains power through a hard-copper connection

INCOMING MAIN BREAKER (MCCB)

2-pole, 3-pole or 4-pole main breaker available from 40 to 250 amps

CHASSIS FRAME

Hot dipped galvanized steel wall-mounting frame

FACTORY WIRED LINE AND LOAD TERMINATIONS

Sized to maximum capacity of 6mm^2; can be used with branch breakers up to 32 amps

BREAKER FLEXIBILITY

Branch breakers are available in 1-, 2-, 3- and 4-pole and 1-pole plus neutral; available with multiple sensitivity GFI and with or without auxiliary contacts

MODULAR DESIGN

Modular design allows for unlimited circuit configurations with horizontal and vertical coupling options

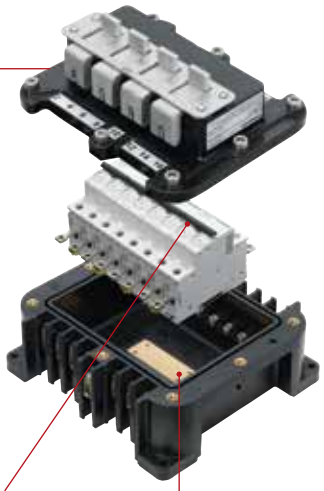
SIMPLE OPERATION AND MAINTENANCE

External actuation of the main breaker, as well as branch breakers through a weatherproof window, means you don't have to open an enclosure except for maintenance or reconfiguration. The lightweight breaker cover can be quickly and safely opened in the field while still maintaining the flameproof integrity of individual breaker housings.

Only P Series PowerPlex panelboards feature circuit breaker housings with a flameproof labyrinth joint, allowing use of off-the-shelf breakers rather than costly, specialized sealed breakers. Breaker housings can be opened easily using hand tools. There has never been a more effective way to minimize the downtime and costs associated with operating and servicing circuit breakers in hazardous locations.

MAIN BREAKER

BRANCH BREAKER



RUGGED TERMINATION

Each circuit breaker housing connects to the panelboard through Increased Safety line and load terminations for unyielding performance through years of heavy vibrations and shocks

FIELD REPLACEABLE BREAKER

Standard, off-the-shelf circuit breakers reduce inventory costs and downtime

EXTERNAL MAIN BREAKER ACTUATION

External actuation of main breaker allows for simple operation; provided with multiple lock-outs for better security

WEATHERPROOF WINDOW

External actuation through a weatherproof window simplifies maintenance

VENTING PLATE

Unique design of breaker housing allows heat to dissipate safely, enabling breakers to maintain their rated amperage and reducing the possibility of nuisance tripping

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RELIABLE PROTECTION

P Series PowerPlex panelboards provide reliable flameproof protection of lighting, heat trace and power circuits in Zone 1 and 2 – 21 and 22 environments. Indoors or outdoors, in weather-exposed and corrosive environments, they're the ideal electrical distribution solution for every part of your facility.

BENEFIT HIGHLIGHTS

- 250 amp MCCB main breaker, instead of a simple disconnect, provides overload and short circuit protection
- 50 kA busbar provides superior resistance to short circuits and mechanical failures
- Main and branch breaker combinations offer multiple cascading and short circuit ratings
- Branch breakers available in 1-, 2-, 3- and 4-pole and 1-pole plus neutral, with or without auxiliary contacts
- Multiple-sensitivity GFI breakers available
- Lightweight polyester enclosure offers exceptional durability and corrosion resistance
- 6 standard panelboard arrangements
- Modular design allows unlimited circuit configurations with horizontal and vertical coupling options

STANDARD MATERIALS

- Enclosure: Fiberglass reinforced polyester (FRP)
- Hardware: Stainless steel
- Busbar: Hard drawn copper
- Chassis: Hot dip galvanized for wall mounting

CERTIFICATIONS

- ATEX/IECEx:
  - Zone 1 and 2 – 21 and 22
  - Ⓔx II2GD
  - EPL Gb Db
  - Ex db eb IIB+H_2
  - Ex tb IIIC
  - IP66/Ik10
- ATEX/IECEx — Optional:
  - Zone 1 and 2 – 21 and 22
  - Ⓔx II2GD
  - EPL Gb Db
  - Ex db eb IIC
  - Ex tb IIIC
  - IP66/Ik10
- Ambient temperature ratings:
  - Standard model: -25°C to 55°C (-13°F to 131°F)
  - Standard model without switching: -40°C to 55°C (-40°F to 131°F)

STANDARD FEATURES

- Branch breaker current ratings:
  - 1-pole: 120, 240 volts, 63 amps maximum
  - 2-, 3- and 4-pole: 240 and 415 volts, 63 amps maximum
- Branch breakers are labeled with numbers:
  - Odd numbers for line side
  - Even numbers for load side
  - Labeled with inside breaker details
- Main circuit breaker rating:
  - 40 to 250 amps, 2- , 3- or 4-pole
- Branch and main breakers can be padlocked in either the On or Off position
- Breaker modules supplied with captive bolts
- Ground bar provided as standard
- External ground lug provided as standard
- 240/415 volt breaker module 8-pole terminal wire range: 2.5 mm^2 through 10 mm^2 (standard), 16 mm^2 with special lug
- 600 volt main breaker module 4-pole terminal wire range: 16 mm^2 through 150 mm^2
- Optional gland plate at the bottom of enclosure can be easily field punched or drilled for cable or conduit entries

STANDARD OPTIONS

- Drain, add suffix – D
- Drain/breather, add suffix – DV
- Gland plate bottom only, specify suffix – GPP = plastic gland plate, – GPB = brass gland plate
- Stainless steel legend plate (specify legend), add suffix – SP
- Voltmeter, add suffix – VM
- Ammeter, add suffix – AM
- Cable glands installed, add suffix – CG; (cable details to be provided by customer)
- For Ex de IIC, add suffix – IIC
- Optional frame (structure) for floor mounting, self standing with and without canopy, contact your local sales representative for additional information

STEPS TO CREATING CATALOG NUMBER

To create a complete catalog number, refer to the Catalog Numbering Guide below.
For complete details and dimensional data, refer to the P Series PowerPlex panelboard catalog pages at www.appletonelec.com.

P	P	E	M	06	12	2	16	C	G030	1	_	▲
Step 1			Step 2		Step 3						Step 4	Step 5

Step 1: Series is P
Material is P
Choose panel arrangement (A, B, C, D, E or F; see drawing at the end of the section for number of circuits)

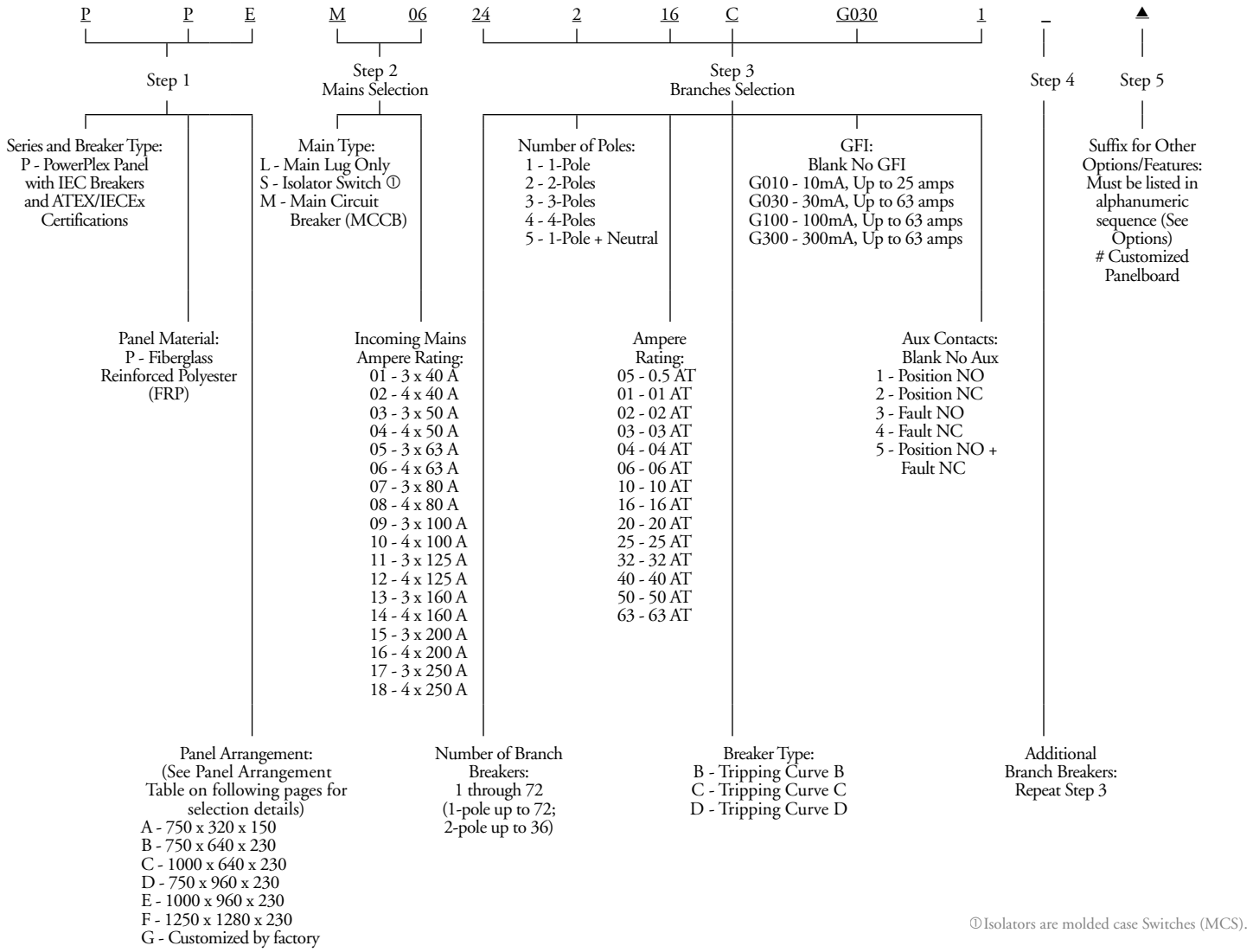
Step 2: Choose either main lug (L), isolator switch (S) or main circuit breaker (M)
Choose the ampere rating of incoming mains (3 or 4 poles plus ampere: 40, 50, 63, 80, 100, 125, 160, 200, 250)
If a main breaker is desired indicate amperage rating;
Example: PPEM06 – 4-pole 63 amp main breaker

Step 3: Choose the number of branch breakers
Choose the number of poles
Choose the ampere rating
Choose the breaker type
Choose OPTIONAL GFI
Choose OPTIONAL auxiliary contacts
First number is the number of branch breakers, second number is the number of poles, third number is the ampere rating, forth number is the breaker type and the fifth and six are optional GFI and/or auxiliary contacts; Example: 12216CG0301 is 12 2-pole 16 amp breakers with tripping curve C, 30 mA GFI and one auxiliary contact

Step 4: Repeat Step 3 for as many breaker types as required (please refer to standard configurations)

Step 5: Panel options: Add options in alphanumeric order. Standard options are listed previously in this brochure, or can be found in the Appleton catalog at www.appletonelec.com.

CATALOG NUMBERING GUIDE

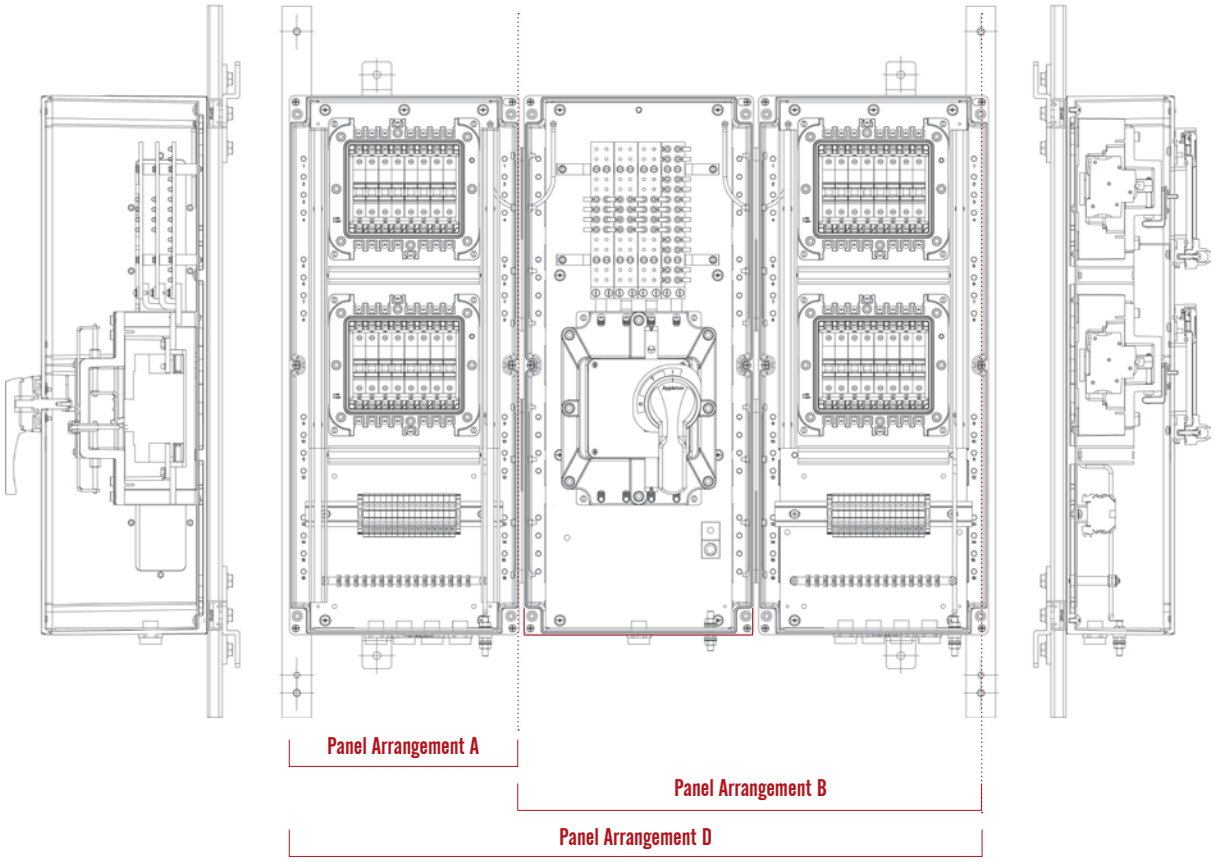


① Isolators are molded case Switches (MCS).

CIRCUIT CONFIGURATION ②

	Panel Arrangements				
Main Lugs, Isolator Switch or Main Breaker	A/B	C	D	E	F
Maximum No. of 8 Poles Modules in Each Arrangement	2	3	4	6	9
Branch Breakers	Maximum No. of Circuits				
1 Pole	16	24	32	48	72
1 Poles + Aux (NO or NC)	8	12	16	24	36
2 Poles	8	12	16	24	36
3 Poles	4	6	8	12	18
4 Poles	4	6	8	12	18
2 Poles + Aux (NO or NC)	4	6	8	12	18
3 Poles + Aux (NO or NC)	4	6	8	12	18
4 Poles + Aux (NO or NC)	2	3	4	6	9
2 Poles + Aux (NO+NC)	4	6	8	12	18
3 Poles + Aux (NO+NC)	2	3	4	6	9
4 Poles + Aux (NO+NC)	2	3	4	6	9
2 Poles+GFI	4	6	8	12	18
3 Poles+GFI	2	3	4	6	9
4 Poles+GFI	2	3	4	6	9
2 Poles + GFI + Aux (NO or NC)	4	6	8	12	18
3 Poles + GFI + Aux (NO or NC)	2	3	4	6	9
4 Poles + GFI + Aux (NO or NC)	2	3	4	6	9
2 Poles + GFI + Aux (NO+NC)	2	3	4	6	9
3 Poles + GFI + Aux (NO+NC)	2	3	4	6	9
4 Poles + GFI + Aux (NO+NC) ③	2	3	4	6	9

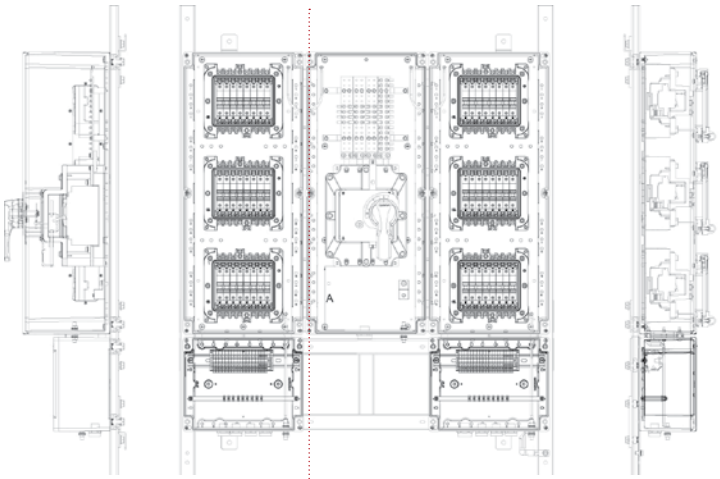
②Panel Arrangement A has the same number of circuits as Panel Arrangement B without the Mains.
③Up to 25 Amps Only.



PANELBOARD SPECIFICATIONS

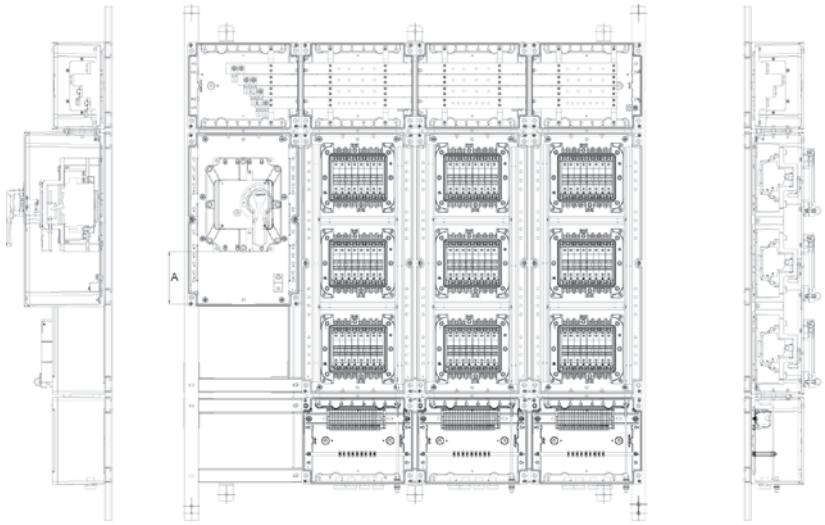
	Panel Arrangement A			Panel Arrangement B			Panel Arrangement D		
Panel Size	750 x 320 x 150 mm			990 x 666 x 230 mm			990 x 994 x 230 mmW		
Panel Weight	40 kg (88 lb)			70 kg (154 lb)			120 kg (265 lb)		
Voltage	220-240/380-415, 440 V			220-240/380-415, 440 V			220-240/380-415, 440 V		
Breaking Capacity in kA	Ratings in Amps	380/415 V	440 V④	Ratings in Amps	380/415 V	440 V④	Ratings in Amps	380/415 V	440 V④
Mains	63 A	-	-	100 A	25 kA	20 kA	160 A	25 kA	20 kA
Busbar	100 A	-	-	125 A	50 kA	50 kA	160 A	50 kA	50 kA
Branch Breakers ③	0.5 to 4 A	50 kA	25 kA	0.5 to 4 A	50 kA	25 kA	0.5 to 4 A	50 kA	25 kA
Branch Breakers ③	6 to 63 A	10 kA	6 kA	6 to 63 A	10 kA	6 kA	6 to 63 A	10 kA	6 kA
Panel Arrangement	100 A, 3 Ph, 5W	-	-	100 A, 3 Ph, 5W	20 kA	15 kA	160 A, 3 Ph, 5W	20 kA	15 kA

③Up to 25 Amps Only
④ 440 V Without GFI.



Panel Arrangement C

Panel Arrangement E



Panel Arrangement F

PANELBOARD SPECIFICATIONS

	Panel Arrangement C			Panel Arrangement E			Panel Arrangement F		
Panel Size	1250 x 666 x 230 mm			1250 x 994 x 230 mm			1470 x 1323 x 230 mm		
Panel Weight	80 kg (176 lb)			145 kg (320 lb)			200 kg (441 lb)		
Voltage	220-240/380-415, 440 V			220-240/380-415 V			220-240/380-415 V		
Breaking Capacity in kA	Ratings in Amps	380/415 V	440 V④	Ratings in Amps	380/415 V	440 V④	Ratings in Amps	380/415 V	440 V④
Mains	125 A	25 kA	20 kA	200 A	25 kA	20 kA	250 A	25 kA	20 kA
Busbar	125 A	50 kA	50 kA	250 A	50 kA	50 kA	250 A	50 kA	50 kA
Branch Breakers ③	0.5 to 4 A	50 kA	25 kA	0.5 to 4 A	50 kA	25 kA	0.5 to 4 A	50 kA	25 kA
Branch Breakers ③	6 to 63 A	10 kA	6 kA	6 to 63 A	10 kA	6 kA	6 to 63 A	10 kA	6 kA
Panel Arrangement	125 A, 3 Ph, 5W	20 kA	15 kA	200 A, 3 Ph, 5W	20 kA	-	250 A, 3 Ph, 5W	20 kA	-

③Up to 25 Amps Only.
④440 V Without GFI.

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Appleton is our premium line of industrial location products under the Appleton Group family of brands.

Appleton Group is a worldwide manufacturer of electrical products for virtually every type of environment. For over 150 years, our brands have been providing a rich tradition of long-term, practical, high quality solutions.

Distributors, contractors, engineers, electricians and site maintenance professionals around the world trust Appleton Group brands to make electrical installations safer, more productive and more reliable.

Appleton Group is organized into three focused businesses that provide distributors and end-users expert knowledge and excellent service.

Electrical Construction Materials

This group manufactures a broad range of electrical products including conduit and cable fittings, plugs and receptacles, enclosures and controls, conduit bodies and industrial lighting. Whether the application is hazardous location, industrial or commercial, the electrical construction materials group has the products to meet your needs.

Power Quality Solutions

This group offers the broadest power quality line, including uninterruptible power supplies, power conditioners, voltage regulators, shielded transformers, surge suppression devices and power supplies.

Heating Cable Systems

This group offers a broad range of electrical heating cable products for residential, commercial and industrial applications.

Electrical Construction Materials

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OZ/GEDNEY

Nutsteel

Power Quality Solutions

SOLAHD

Heating Cable Systems

EASYHEAT

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