# **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**

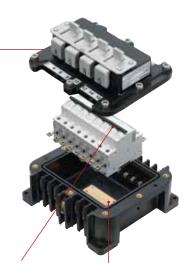


#### **RUGGED TERMINATION**

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



# **BRANCH BREAKER**



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



# **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
  - 🕼 II2GD
  - EPL Gb Db
  - Ex db eb IIB+H<sub>2</sub>
  - Ex tb IIIC
  - IP66/Ik10
- ATEX/IECEx Optional:
  - Zone 1 and 2 21 and 22
  - 🖾 II2GD
  - EPL Gb Db – Ex db eb IIC
  - 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)

#### 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.

<u>P</u>	<u>P</u>	<u>E</u>	<u>M</u>	<u>06</u>	<u>12</u>	2	<u>16</u>	<u>C</u>	<u>G030</u>	<u>1</u>	_	
	Step 1		Ste	p 2			Stej	р 3			Step 4	Step 5

<u>Step 1</u>: 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) <u>Step 2</u>: 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 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 3: Choose the number of branch breakers

Choose the number of poles

Choose the ampere rating Choose the breaker type

- <u>Step 4</u>: Repeat Step 3 for as many breaker types as required (please refer to standard configurations)
- <u>Step 5</u>: 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.

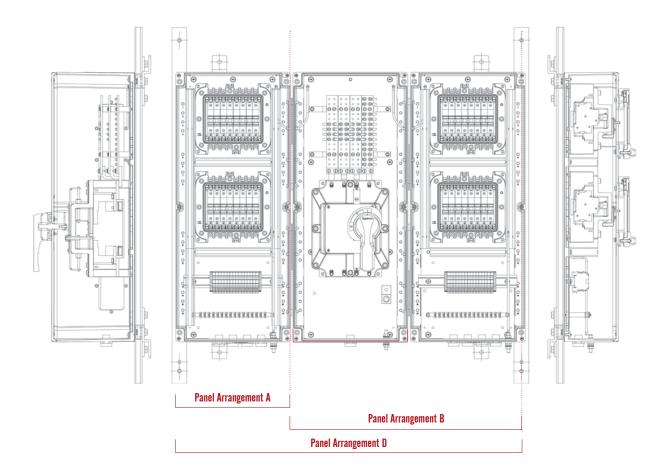
#### **CATALOG NUMBERING GUIDE**

		<u>4 2 16</u>	<u>C G030</u>	
Step 1	Step 2 Mains Selection	Bra	Step 3 nches Selection	Step 4 Step 5
Series and Breaker Type: P - PowerPlex Panel with IEC Breakers and ATEX/IECEx Certifications	Main Type: L - Main Lug Only S - Isolator Switch © M - Main Circuit Breaker (MCCB)	Number of Poles: 1 - 1-Pole 2 - 2-Poles 3 - 3-Poles 4 - 4-Poles 5 - 1-Pole + Neutral	GFI: Blank No GFI G010 - 10mA, Up to 25 amps G030 - 30mA, Up to 63 amps G100 - 100mA, Up to 63 amps G300 - 300mA, Up to 63 amps	Suffix for Other Options/Features: Must be listed in alphanumeric sequence (See Options) # Customized Panelboard
Panel Material: P - Fiberglass Reinforced Polyester (FRP)	Incoming Mains Ampere Rating: 01 - $3 \times 40 \text{ Å}$ 02 - $4 \times 40 \text{ Å}$ 03 - $3 \times 50 \text{ Å}$ 04 - $4 \times 50 \text{ Å}$ 05 - $3 \times 63 \text{ Å}$ 06 - $4 \times 63 \text{ Å}$ 07 - $3 \times 80 \text{ Å}$ 08 - $4 \times 80 \text{ Å}$ 09 - $3 \times 100 \text{ Å}$ 10 - $4 \times 100 \text{ Å}$ 11 - $3 \times 125 \text{ Å}$ 12 - $4 \times 125 \text{ Å}$ 13 - $3 \times 160 \text{ Å}$ 14 - $4 \times 160 \text{ Å}$ 15 - $3 \times 200 \text{ Å}$ 16 - $4 \times 200 \text{ Å}$ 17 - $3 \times 250 \text{ Å}$ 18 - $4 \times 250 \text{ Å}$	Ampere Rating: 05 - 0.5 AT 01 - 01 AT 02 - 02 AT 03 - 03 AT 04 - 04 AT 10 - 10 AT 16 - 16 AT 20 - 20 AT 32 - 32 AT 40 - 40 AT 50 - 50 AT 63 - 63 AT	Aux Conta Blank No 1 - Position No 2 - Position No 3 - Fault NO 4 - Fault NC 5 - Position No Fault NC	Aux D C
(See Panel Table on follo	Arrangement  Bi    pages for  1 th    n details)  (1-pol    x 150  2-pole    x 230  x 230    x 230  x 230    x 230  0 x 230	rough 72 (	Breaker Type: B - Tripping Curve B C - Tripping Curve C D - Tripping Curve D	Additional Branch Breakers: Repeat Step 3 D Isolators are molded case Switches (MCS).

# CIRCUIT CONFIGURATION @

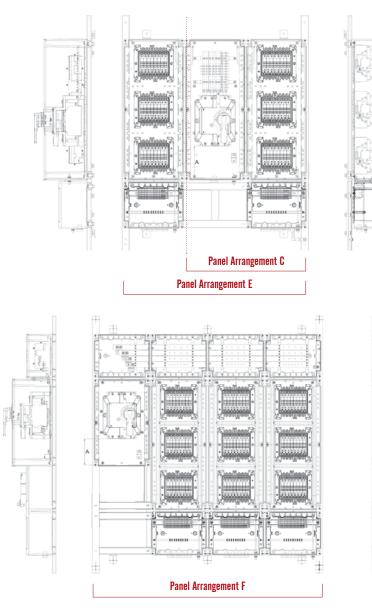
	Panel Arrangements							
Main Lugs, Isolator Switch or Main Breaker	A/B	с	D	E	F			
Maximum No. of 8 Poles Modules in Each Arrangement	2	3	4	6	9			
Branch Breakers	Maximum No. of Circuits							
1 Pole	16	24	32	48	72			
1 Poles + Aux (NO or NC)	8	12	16	24	36			
2 Poles	8	12	16	24	36			
3 Poles	4	6	8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





# PANELBOARD SPECIFICATIONS

	Panel Arrangement A			Par	el Arrangemer	nt B	Panel Arrangement D		
Panel Size	750	) x 320 x 150 r	nm	99	0 x 666 x 230 r	nm	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			220-2	240/380-415, 4	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 V@	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



# PANELBOARD SPECIFICATIONS

	Panel Arrangement C			Par	el Arrangemer	nt E	Panel Arrangement F		
Panel Size	1250 x 666 x 230 mm		125	0 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	-

