

D2PB circuit breaker panelboards

Cl. I, Div. 2, Groups C, D
NEMA 3, 7CD (Div. 2), 12

Dusttight
Raintight
Wet Locations

1A

Factory sealed

Single- and two-pole circuit breakers

Applications:

D2PB panelboards are designed specifically for use:

- In Class I, Division 2, Groups C, D hazardous areas where flammable vapors or gases may be present due to accident or abnormal locations
- In damp, wet or corrosive locations
- Indoors or outdoors in Division 2 areas of petroleum refineries, chemical and petrochemical plants, and other process industry facilities

Features:

- Enclosures are of external flange design, which makes the interior completely accessible when the cover is removed
- Provided with concealed mounting, which is made possible by having four clearance holes for lag screws or mounting bolts in the back of the enclosure, one in each corner
- The interior sub-assembly, consisting of a mounting plate, main terminal blocks and circuit breakers, is removable as a complete unit
- Ample gutter space is provided for ease of field wiring
- Circuit breakers are contained in compact, individual factory sealed enclosures suitable for Class I, Division 2, Groups C, D hazardous areas; the individual enclosures are easily removed and replaced, therefore changing or adding individual circuit breakers will not present a problem
- The main cover, which is gasketed to exclude dirt and moisture, is attached to the body with hex head bolts and is removed only when installing the panelboard or making wiring changes. In the center of the main cover is a gasketed hinged door, which provides access only to the circuit breaker operating handles, and is held closed by two quick release catches. The door can be locked by as many as 3 padlocks to prevent unauthorized operation.
- Tapped conduit openings are provided for main conduit and branch circuits, as shown in the dimensional information; standard openings can be reduced or plugged to meet most installation requirements
- Circuit breakers are arranged in two vertical rows and have the circuit numbers marked on the handles; the left row is numbered 1, 3, 5, 7, etc. and the right row 2, 4, 6, 8, etc. Identifying information may be typed on the circuit directory card attached to the inside of the hinged door.

Certifications and compliances:

NEC:

- Class I, Division 2, Groups C, D

UL standards:

- UL67, UL877

Environmental ratings:

- NEMA 3, 7CD (Division 2), 12

Standard materials:

- Bodies, covers and hinged doors – copper-free aluminum
- Breaker operating handles – type 6/6 nylon
- Interior parts – sheet steel

Standard finishes:

- Copper-free aluminum – natural
- Type 6/6 nylon – natural (black)
- Sheet steel – electrogalvanized with chromate finish

Options:

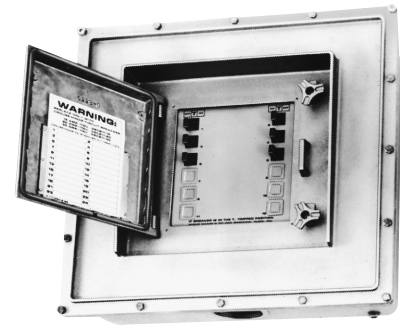
Description

Suffix

- Branch circuit conduit openings located at bottom instead of at top..... **INV**
- Drilled and tapped conduit openings other than standard..... **I**
Available on special order – please specify
- Breather and drain..... **DV**
- Circuit breaker operating handle lockout..... **D2PB02 (ordered separately)**
- Assortment of single- and two-pole circuit breakers and trip ratings..... **Specify**
- Wiring system other than those listed..... **Specify**

Panelboard provided with operating handle lockouts for lockout in ON or OFF positions:

- *Stainless steel lockout frame integral to panel faceplate*
- D2PB Size 1..... **L12**
- D2PB Size 2..... **L24**



Size ranges:

Panel size	Maximum number of breakers	
	Single-pole	Two-pole
12	12	6
24	24	12

Electrical ratings:

- Circuit breakers: single-pole – 120/240 VAC max.; two-pole – 120/240 VAC max.
- Trip ratings: 15, 20 and 30 amperes

1A

D2PB circuit breaker panelboards

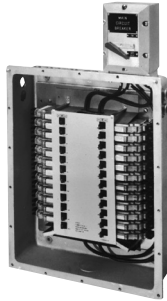
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NEMA 3, 7CD (Div. 2), 12

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D2PB with main breaker option



D2CB12-20

Ordering information:

Panelboards are available with single-pole and two-pole, 15, 20 or 30 ampere circuit breakers. To order a panelboard with all breakers of the same rating, add the desired rating as a suffix to the catalog number. For example, the 12 circuit D2PB1512 panelboard with all the circuit breakers rated at 20 amperes would be ordered as D2PB1512-20.

Panelboards shown below can also be furnished with an assortment of single-pole and two-pole breakers and breaker ampere ratings. To order, the quantities of breakers and ampere ratings are added as a suffix to the catalog number. The total number of poles will determine the panel size (24 poles maximum), and the wiring systems must be compatible when combining single- and two-pole circuit breakers. For example, a typical D2PB panelboard with a combination of (3) single-pole 15A, (3) single-pole 20A, (2) single-pole 30A, (4) two-pole 20A, and (4) two-pole 30A circuit breakers would be ordered as D2PB2508-315-320-230-808-420-430. The total number of poles is 24 and wiring systems 5 and 8 are compatible 4-wire, 3-phase.

The D2PB with a main breaker is available up to 100 amperes. To order D2PB with main breaker, add the appropriate suffix. Example: D2PB1512-15 with three-pole, 100A main circuit breaker would be ordered as D2PB1512-15-3M100. If two-pole main is required, change the number '3' to '2'. If a lower trip rating than 100 is required, the suffix will change accordingly.

Replacement circuit breaker assemblies:

Where D2PB (and N2PB) panelboards have been ordered with less than the maximum number of circuit breakers, breakers can easily be added in the field. Circuit breaker assemblies for field addition or replacement are listed below. They consist of the breaker itself in its factory sealed Class I, Division 2, Groups C, D enclosure, and necessary mounting hardware. These assemblies are not suitable for use as individually mounted units.

Ampere rating	Cat. # Single-pole	Cat. # Two-pole
15	D2CB11 15	D2CB12 15
20	D2CB11 20	D2CB12 20
30	D2CB11 30	D2CB12 30

Maximum no. of breakers				Single-pole circuit breakers		Two-pole circuit breakers	
Single-pole	Two-pole	Panel size	Main lug size ^A	Cat. # Wiring system 4 Mains: 3-wire Branches: 2-wire Solid neutral	Cat. # Wiring system 5 Mains: 4-wire, 3-phase Branches: 2-wire Solid neutral	Cat. # Wiring system 3 Mains: 3-wire Branches: 3-wire Solid neutral	Cat. # Wiring system 8 Mains: 4-wire, 3-phase Branches: 3-wire, 1-phase Solid neutral
6	—	1	1/0	D2PB1406 ⊕	D2PB1506 ⊕	—	—
8	4			D2PB1408 ⊕	D2PB1508 ⊕	D2PB1304 ⊕	D2PB1804 ⊕
10	5			D2PB1410 ⊕	D2PB1510 ⊕	D2PB1305 ⊕	D2PB1805 ⊕
12	6			D2PB1412 ⊕	D2PB1512 ⊕	D2PB1306 ⊕	D2PB1806 ⊕
12	6	2	4/0	D2PB2412 ⊕	D2PB2512 ⊕	D2PB2306 ⊕	D2PB2806 ⊕
14	7			D2PB2414 ⊕	D2PB2514 ⊕	D2PB2307 ⊕	D2PB2807 ⊕
16	8			D2PB2416 ⊕	D2PB2516 ⊕	D2PB2308 ⊕	D2PB2808 ⊕
18	9			D2PB2418 ⊕	D2PB2518 ⊕	D2PB2309 ⊕	D2PB2809 ⊕
20	10			D2PB2420 ⊕	D2PB2520 ⊕	D2PB2310 ⊕	D2PB2810 ⊕
22	11			D2PB2422 ⊕	D2PB2522 ⊕	D2PB2311 ⊕	D2PB2811 ⊕
24	12			D2PB2424 ⊕	D2PB2524 ⊕	D2PB2312 ⊕	D2PB2812 ⊕

⊕ Add ampere rating. See ordering information above.

^A 1/0 lug, rated 125A, takes wire sizes #6 to 1/0; 4/0 lug, rated 225A, takes wires sizes 1/0 to 4/0.

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Cl. I, Div. 2, Groups C, D
NEMA 3, 7CD (Div. 2), 12

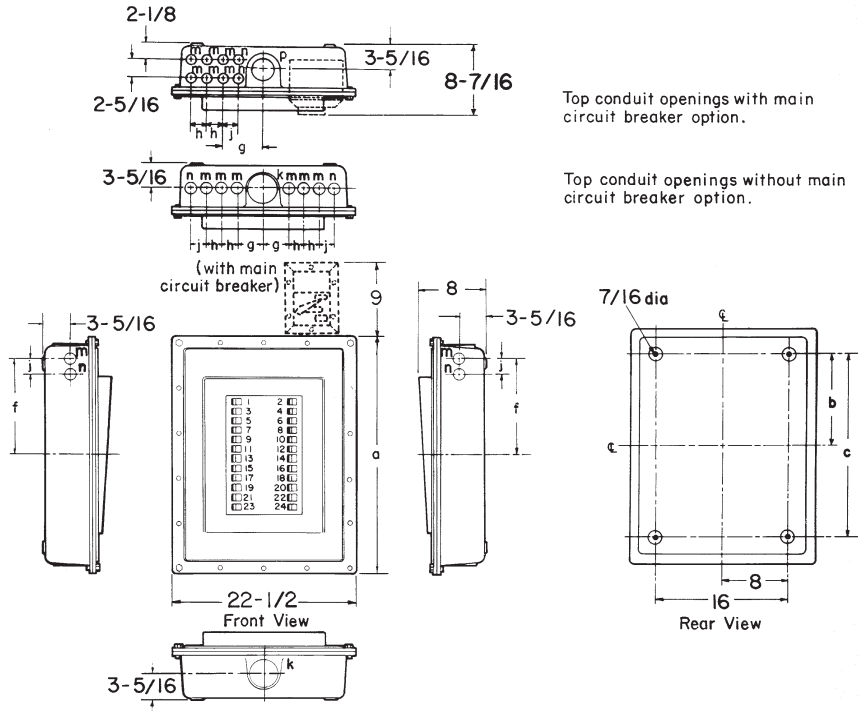
Dusttight
Raintight
Wet Locations

1A

Factory sealed

Single- and two-pole circuit breakers

Dimensions[Ⓟ] (in inches):



	Overall and mounting dimensions			Conduit openings spacing				Size				Quantity	
	a	b	c	f	g	h	j	k	m	n [Ⓟ]	p	Main	Branches
Panel size without main circuit breaker													
1	20 ³ / ₄	8	16	7 ³ / ₄	3 ¹ / ₂	2	—	3	1 ¹ / ₄	—	—	2	8
2	28 ³ / ₄	11 ³ / ₄	23 ¹ / ₂	11 ³ / ₈	3 ³ / ₁₆	1 ¹⁵ / ₁₆	1 ¹⁵ / ₁₆	3	1 ¹ / ₄	1 ¹ / ₄	—	2	12
Panel size with main circuit breaker													
1	20 ³ / ₄	8	16	7 ³ / ₄	5	1 ¹⁵ / ₁₆	—	—	1 ¹ / ₄	—	2 ¹ / ₂	2	8
2	28 ³ / ₄	11 ³ / ₄	23 ¹ / ₂	11 ³ / ₈	5	1 ¹⁵ / ₁₆	1 ¹⁵ / ₁₆	—	1 ¹ / ₄	1 ¹ / ₄	2 ¹ / ₂	2	12

[Ⓟ]Dimensions are approximate, not for construction purposes.

[Ⓞ]Conduit opening "n" not supplied on panel size 1.

D2PB circuit breaker panelboards

Cl. I, Div. 2, Groups C, D
NEMA 3, 7CD (Div. 2), 12

Dusttight
Raintight
Wet Locations

1A

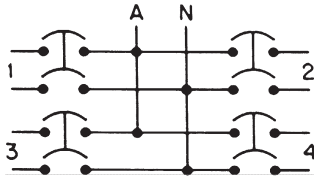
Factory sealed

Single- and two-pole circuit breakers

Wiring diagrams:

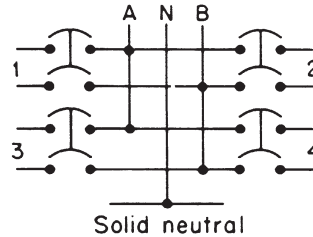
System 1

Mains—2-wire
Branches—2-wire
Breakers—2-pole



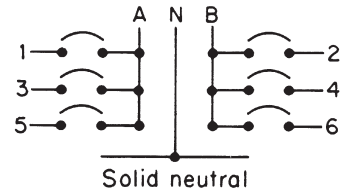
System 3

Mains—3-wire
Branches—3-wire
Breakers—2-pole
Solid neutral



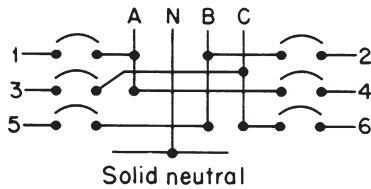
System 4

Mains—3-wire
Branches—2-wire
Breakers—Single-pole
Solid neutral



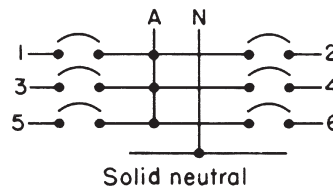
System 5

Mains—4-wire, 3-phase
Branches—2-wire, 1-phase
Breakers—single-pole
Solid neutral



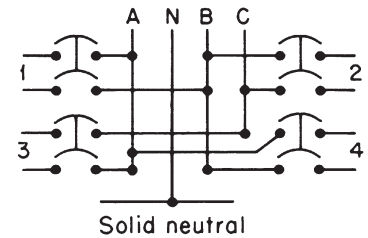
System 7

Mains—2-wire
Branches—2-wire
Breakers—single-pole
Solid neutral



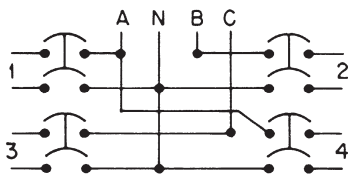
System 8

Mains—4-wire, 3-phase
Branches—3-wire, 1-phase
Breakers—2-pole
Solid neutral



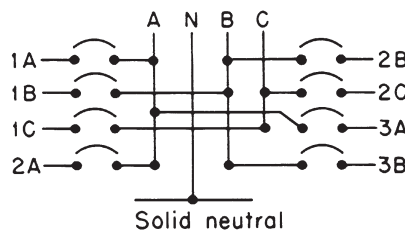
System 13

Mains—4-wire, 3-phase
Branches—2-wire, 1-phase
Breakers—2-pole



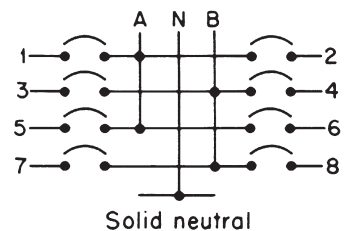
System 15

Mains—4-wire, 3-phase
Branches—3-wire, 1-phase
Breakers—single-pole
Solid neutral



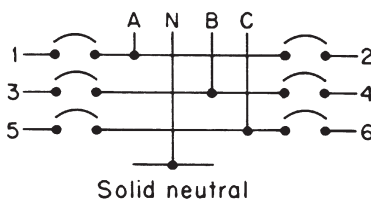
System 24

Mains—3-wire
Branches—2-wire
Breakers—single-pole
Solid neutral



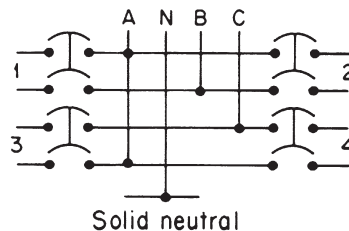
System 25

Mains—4-wire, 3-phase
Branches—2-wire, 1-phase
Breakers—single-pole
Solid neutral



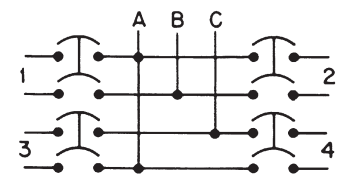
System 28

Mains—4-wire, 3-phase
Branches—3-wire, 1-phase
Breakers—2-pole
Solid neutral



System 29

Mains—3-wire, 3-phase
Branches—2-wire, 1-phase
Breakers—2-pole



D2PB, D2L and D2D circuit breaker panelboard assemblies

With transformer

Cl. I, Div. 2, Groups B^A, C, D
NEMA 3, 4^B, 7B^ACD (Div. 2), 12
Wet Locations
Watertight[®]

1A

Applications:

D2PB, D2L and D2D circuit breaker panelboard assemblies with transformers are for use:

- In Class I, Division 2, Group C, D hazardous areas where, due to accident or abnormal operations, flammable vapors or gases may be present, and which are subject to weather, dampness and corrosion
- Indoors or outdoors in Division 2 areas such as petroleum refineries, chemical and petrochemical plants, and other process industry facilities
- Where high voltage supply must be stepped down to the lower voltage necessary to serve lighting, heating, appliance, heat tracing, motor and similar circuits

Features:

- The factory assembled panelboard and transformer are on one compact frame, suitable for either wall or pole mounting. Wiring between the transformer secondary and main lugs of the panelboard is accomplished at the factory
- Easy to install and wire; the main feed is connected to the transformer primary and the branch circuits are wired to the panelboard terminal blocks
- The assembly can be installed in the load area to reduce the length of runs of low voltage branch circuits
- Panelboards used are standard D2PB, D2L or D2D units with circuit breakers listed in this section
- Transformers are compound filled or epoxy filled to completely seal out moisture and dirt

Certifications and compliances:

NEC/CEC:

- Class I, Division 2, Groups B^A, C, D

UL standards:

- UL67, UL1604

CSA standard:

- C22.2 No. 213

Environmental ratings:

- NEMA/EEMAC 3, 4^B, 7B^ACD (Division 2), 12

Standard materials:

- Frames – structural aluminum
- Mounting hardware – stainless steel
- Transformer enclosure – sheet steel, welded
- For panelboard materials, see individual listing pages

Standard finishes:

- Aluminum – natural
- Stainless steel – natural
- Sheet steel – primed and painted
- For panelboard finishes, see individual listing pages

Options:

- Material – structural steel frames
- Finish – primed and painted or hot dip galvanized
- For options available on the panelboards themselves, see individual listings pages

Size ranges:

Transformers

Single- or three-phase – 5 kVA to 30 kVA

Panelboards

Series	Maximum number of breakers		
	Single-pole	Two-pole	Three-pole
D2PB	24	12	–
D2L	42	20	14
D2D	30	14	10

Electrical ratings:

- Transformers – 480 volt primary; 120/240 volt secondary
- Panelboards – see individual listings

1A

^AD2L, D2D with GB suffix and breather and drain holes plugged.

^BNEMA 4 hoesitight with breather and drain openings plugged.

D2PB, D2L and D2D circuit breaker panelboard assemblies

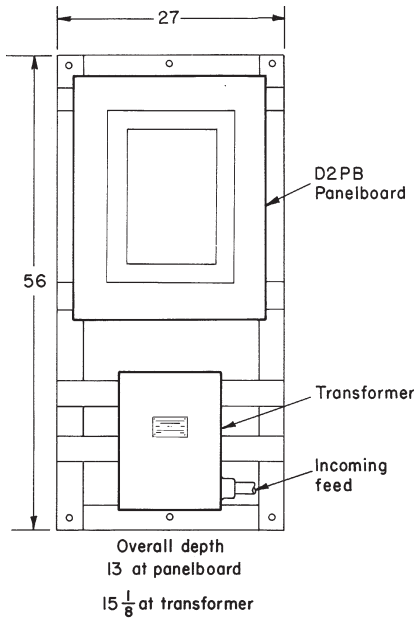
With transformer

Cl. I, Div. 2, Groups B[ⓐ], C, D
 NEMA 3, 4[ⓐ], 7B[ⓐ]CD (Div. 2), 12
 Wet Locations
 Watertight[ⓐ]

1A

Typical assembly:

24 circuit D2PB panelboard with single-phase transformer



Ordering checklist:

PANELBOARD SELECTION

1. Select the D2PB, D2L or D2D panelboard required, together with any applicable options or special features. See individual listing pages.

Catalog number: _____

TRANSFORMER REQUIREMENTS

2. Provide the following information, necessary for selection of the correct transformer:

Primary voltage _____

Secondary voltage _____

kVA rating _____

Taps – number and percentage _____

Frequency (60 cycle unless otherwise specified) _____

Single- or three-phase _____

Other requirements _____

1A

[ⓐ]D2L, D2D with GB suffix and breather and drain holes plugged.

[ⓑ]NEMA 4 hoesight with breather and drain openings plugged.

[Ⓒ]Dimensions are approximate, not for construction purposes.