

Applications

P.O. Box 2328 • 227 N. Freedom Ave. • Alliance, OH 44601 • Phone: (330) 821-7667 • Fax: (330) 829-3175 • Website: www.filnor.com • Email: filnor@filnor.com

The CDP panels provide protection for lightning and power distribution circuits in the commercial and industrial establishments. The circuit breakers' thermomagnetic trip allows for momentary overloads from motor driven devices, while instantaneous tripping is had for short circuits.

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Fronts:

Boxes:

per code

· Blank ends

fastening trim

- Trim are flat gauge steel per code
- Standard painted finish ANSI 61 gray
- Directory card with plastic cover on front of trim

· Galvanized sheet gauge steel

• 3/4 inch flange for rigidity and

• Wire gutters meet or exceed UL/NEC requirements

Services:

- AC system 600 Volt AC maximum
- DC system 250 Volt DC maximum
- 3 Phase, 4 Wire
- 1 Phase, 3 Wire
- 3 Phase, 3 Wire
- 1 Phase, 2 Wire

Interior:

- Branch circuit breakers to be bolted to bus
- All bus bar to be copper rated 1000 ampere per square inch
- Underwriters Laboratories Inc. listed for use with circuit breakers as manufactured by the following companies: General Electric, Seimens, Westinghouse-Eaton

Applications:

Filnor, Inc. is a leader in custom and commercial power and distribution panels for:

- Aerospace
- Banking
- Communications
- Data Processing
- Electronics
- Government
- Medical
- Military
- Petrochemical
- UPS Power/Distribution
- Utilities
- Waste Water/Sanitation

CDP Panelboards

Options

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Mains:

- Main bus to 1600 ampere
- Main circuit breaker to 1200 ampere

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- Main fused disconnect switch
- Compression lugs
- Sub-feed lugs

Interiors:

- To fit existing boxes
- Split bus
- Service Entrance Label
- Through-feed lugs
- Tamper-proof screws

Boxes:

- Aluminum
- Stainless steel
- Nema 3R
- Nema 4X
- Nema 12
- Special drilling
- Special knockouts
- Increase gauge
- Increase gutters
- Painted

Fronts:

- Door over breaker handles
- Trim hinged to box
- Special locks
- Plastic directory card holder
- Special painting
- Split door
- Common trim over two boxes

Circuit Breakers:

- Handle locking device
- Padlocking devices
- Increase interrupting capacity
- Shunt trip
- Undervoltage trip
- Auxiliary switch
- Interlock mechanisms

Others:

- Metering
- Ground Bus
- Ground fault
- Nameplates



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Specifications

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Furnish factory assembled CDP panelboards as manufactured by Filnor, Inc. where indicated on the drawings. Provide panelboards of dead front, circuit breaker type. Panels to have main lugs or main breaker as indicated on drawings.

Circuit breakers shall be bolton-type, quick-make quickbreak, trip-free, thermal magnetic with toggle handles. Tripped indication shall be clearly shown on the breaker handle taking a position between "ON" and "OFF." Circuit breakers shall be equipped with individually insulated, braced and protected connectors. Branch breakers to be connected for sequence phasing, i.e. breakers 1 and 2 connected to phase "a", breakers 3 and 4 to phase "b", etc, to conform to branch circuit numbering system shown on drawing. Polarity or block phasing will not be acceptable. The front faces of all circuit breakers shall be flush with each other. Large permanent individual numbers shall be affixed in a uniform position. Provisions for additional breakers shall be such that field addition of connectors or mounting hardware will not be required to add breakers to the panelboard. Where spaces are called for, panel bus shall be extended behind the space.

Panelboard bus structure and main lugs or main breaker shall have current ratings as shown on the panelboard schedule. Such ratings shall be established by heat rise tests with maximum hot spot temperature on any connector or bus bar. Heat rise test shall be conducted in accordance with UL 67. All bus bar shall be copper. Bus bar shall be rated for 1000 amperes per square inch minimum.

The panelboard assembly shall be enclosed in a steel cabinet. The size of the wiring gutters and gauge of steel shall be in accordance with NEMA Standards Publication No. PB1 and UL Standards No. 67 for panelboards. The box shall be fabricated from galvanized steel or equivalent rust resistant steel. Enclosure to be for indoor or outdoor use as indicated. A ground bar is to be mounted in the enclosure.

Trims to be flat cold roll steel with ANSI 61 painted gray finish. Trims to be fastened to box with cup washers and screws. A circuit directory card with a clear plastic covering shall be provided on the inside of the door.

Quality Assurance

Reference Latest Standards:

- Underwriters Laboratories Inc. (UL)
 - a. Panelboards UL 67
 - b. Cabinets and boxes UL 50

National Electrical Manufacturers Association (NEMA)

a. NEMA -PB1 (latest revision)

Federal Specifications

- a. Panelboards WP-115a
- b. Molded Case Circuit Breakers WP-375b

National Fire Protection

Association (NFPA)

a. NFPA 70, National Electrical Code (NEC)

Requirements of Regulatory Agencies:

- a. State Codes
- b. Local Codes and Ordinances



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CDP • MLB • AMP • VDC • ENC • Branch BKR MB • AMP • VDC • ENC • Branch BKR

Main Lugs	Main Lugs Only					
Ampere Rating	Bus Rat	Space				
	125 V DC	250 V DC	Requirements			
225	50	50	6"			
400	50	50	6"			
600	50	50	6"			
800	50	50	6"			
1200	50	50	6"			
2000	50	50	18"			

Nain Breaker Vertical Mounted						
Interrupting Rating KA SYM		Breaker	Space			
125 V DC	250 V DC	Type	Requirements			
42	42	HFDDC	12"			
42	42	HKDDC	18"			
42	42	HLDDC	18"			
42	42	HMDLDC	18"			
50	50	NBDC	24"			
50	50	PBDC	36"			
	er vertical mouling Ration Interrupting Ration 125 V DC 42 42 42 42 50 50 50	Br Vertical Mounted Interrupting Rating KA SYM 125 V DC 250 V DC 42 42 42 42 42 42 42 42 42 42 50 50 50 50	Interrupting Rating KA SYMBreaker Type125 V DC250 V DCType4242HFDDC4242HKDDC4242HLDDC4242HDDC5050NBDC5050PBDC			

Branch Breaker						
Ampere Rating	Interrupting Rating KA SYM		Breaker	Space		
	125 V DC	250 V DC	Type	Requirements		
*225	42	42	HFDDC	4 1/8"		
*400	42	42	HKDDC	5 1/2"		
*600	42	42	HLDDC	8 1/4"		
**800	50	50	HMD	8 1/4"		
**1200	50	50	NBCD	8 1/4"		

*225A, 400A, 600A, Breakers are double branch, **800A and 1200A breakers are single branch



CDP DC Panelboard

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Enclosure Type

NEMA 1 Indoor 21" deep x 42" wide x 91 3/5" high

NEMA 1A Indoor Gasketed 21" deep x 42" wide x 91 3/8" high

NEMA 3R, Outdoor Raintight 25" deep x 42" wide x 91 3/8" high

Notes

- 1. Enclosures are as follows:
 - A. Front access only
 - B. Welded 12 GA CRS with removable channel base
 - C. Painted ANSI 61 light gray
 - D. Top and bottom are solid, no cutouts
 - E. Four top removable lifting eye bolts
- 2. Bus: Copper, silver plated, rated at 1000A per square inch
- 3. Maximum height of main device and branch breakers is 72 inches
- 4. UL listed and labeled interior
- 5. Ground bus, 1/4 inch x 2 inches copper
- 6. All lugs are AL/CU mechanical

Please contact Filnor for further details.