The NTCII panel provides protection of electronic equipment that requires faster circuit interruption than standard magnetic breakers. This panel provides a switching device and protection by fast acting fuses.

**Services:**

AC and DC Systems - 240 volt maximum

- 3 phase 4 wire with neutral
- 1 phase 3 wire with neutral
- 1 phase 2 wire with neutral
- 3 phase 3 wire

**Interior:**

- Heavy-duty molded case switch, 50 ampere, 1 and 2 pole only
- All bus bar is copper rated 1000 ampere per square inch
- Encased fuse block with blown fuse indicating lights
- Underwriters Laboratories Inc. listed

**Fronts:**

- Doors and trim are flat gauge steel per code
- Flush catch and lock
- Continuous piano hinge
- Fronts bolted to box
- Standard painted finish ASA 61 gray
- Door-in-a-door construction standard (inner door for switch handle access, outer door to expose fuses)
- Directory card with plastic cover on back of inner door

**Boxes:**

- Galvanized sheet steel per code gauge
- 3/4 inch flange for rigidity and fastening trim
- Blank ends
- Wire gutters meet or exceed UL/NEC requirements

**Applications:**

Filnor, Inc. is a leader in switch and fuse power distribution panels for:

- Aerospace
- Banking
- Communications
- Data Processing
- Electronics
- Government
- Medical
- Military
- Petrochemical
- UPS Power/Distribution
- Utilities
- Waste Water/Sanitation
Furnish factory assembled NTCII panelboards complete with enclosing cabinets as manufactured by Filnor, Inc. where indicated on the drawings. Provide panelboards of dead front, molded case switch type, 120/240 volt 1 phase 3 wire, 208Y/120 volt 3 phase 4 wire solid neutral or 120 volt 1 phase 2 wire with main lugs or main switch/breaker as indicated.

The branch circuit switches shall be 50 ampere, molded case switches or two pole with provision for cartridge fuses. Provisions shall be for (NEC, SA, KAA, KAB, Form 101, Class T) fuses with blown fuse indication.

Panelboard interiors shall be factory assembled complete with fusible switches. The interior shall be designed so that any individual switch can be replaced without disturbing adjacent switches or without removing branch circuit connectors or main bus. This design allows the switches to be changed without additional machining, drilling, or tapping. Branch circuits to be connected for sequence phase rate, i.e. circuits 1 and 2 connected to phase “a”, circuits 3 and 4 to phase “b”, etc., to conform to branch circuit numbering systems shown on drawing. The main bus shall be equipped with the copper-aluminum pressure type wire connectors, one for each phase. Panelboard bus structure and main lugs or main switch/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, blank ends and a 3/4 inch flange for rigidity and fastening of the trim. Enclosure to be for indoor or outdoor use as indicated. A ground bar is to be furnished in box.

Fronts shall have a door-in-a-door construction and each door shall have a cylinder tumbler-type lock with catch. The inner door shall be over the switch handles only. The outer door shall also expose the fuse holders. Doors over 48 inches in height shall be equipped with three-point catch and lock with vault handle. All panelboard locks to be keyed alike. A circuit directory frame and card with clear plastic covering shall be provided on the inside of the inner 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

- National Fire Protection Association (NFPA)
  - a. NFPA 70, National Electrical Code (NEC)

**Requirements of Regulatory Agencies:**

- a. State Codes
- b. Local Codes and Ordinances
**NTCII Panel**

**Catalog Number Identification**

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<th>NTCII</th>
<th>XX-</th>
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<td>voltage</td>
<td>number of phases</td>
<td>number of wires</td>
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<td>mounting type</td>
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<td>225</td>
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<td>S = switch</td>
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<td>M = main lugs</td>
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<td>5</td>
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**Dimensional Information**

**32” wide x 6.0” Depth**

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Notes:
1. Base price includes: Ground Bar, Neutral Bar (if required), Fuses, Directory Card and Holder, Door Lock with One Spare Key per box
2. Branch Switches: 1 or 2 Pole 250 V 100A maximum
3. Fuses: Branch Fuses are Gould Shawmut AZOQS30, or equivalent, unless otherwise specified, 30A maximum fuse size. Main fuses are included as required
4. Box Dimensions: 32” wide, 6 deep, side gutter 4”, top or bottom gutter: 100A = 7, 225A = 8, 400A = 14 1/2
5. NEMA 1 & 1A boxes. Galvanized 14GA or 12GA CRS before fabrication, no paint
6. NEMA 3R, 4, & 12 boxes: Painted 14GA or 12GA CRS
7. NEMA 4X boxes: Brush finish aluminum or stainless steel 12GA, no paint
8. NEMA 1 & 1A boxes: Brush finish aluminum or stainless steel 12GA, no paint
9. Trims: Door-in-a-door construction and painted 12GA CRS
10. Paint: ANSI 61, gray
Options:

Main Type: 100A, 225A, 400A  
- B=Breaker  
- S=Switch  
- FS=Fused Switch  
- M=Main Lugs

Add to Box Height  Add to Box Weight
12”  25 lb.  
12”  30 lb.  
18”  45 lb.  
0  0

Enclosure Type:
- NEMA 1, Indoor  
- NEMA 1A, indoor gasketed  
- NEMA 3R, outdoor raintight  
- NEMA 4, outdoor (seam welded)  
- NEMA 4x, outdoor, aluminum or stainless steel  
- NEMA 12, dust tight

Add to Box Depth  Add to Box Weight
0  0  
0  0  
6”  50 lb.  
6”  50 lb.  
6”  75 lb.  
6”  50 lb.

- Switch handle lock provision price each  
- Lamicoid nameplate price each, screwed in place  
- Painted NEMA 1 & 1A galvanized box  
- Gutters

Mains:
- Increase bus capacity to 400 ampere  
- Main breaker to 400 ampere  
- Main fused disconnect switch  
- Compression lugs  
- Sub-feed lugs  
- Asco remote control as main

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

Others:
- Metering  
- Insulated ground bar  
- Ground lug bolted to box  
- Nameplates

Interiors:
- Standard thermal magnetic circuit breakers connected to fuse blocks  
- To fit existing boxes  
- 200% rated neutral

Fronts:
- Trim hinged to box  
- Viewing window over fuses  
- Special locks  
- Metal directory frame  
- Special painting  
- Common trim over two boxes