

Switch and Fuse Power Distribution Panel

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 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



NTCII Panel open (with front and doors removed)

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



Specifications

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

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 copperaluminum 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



Catalog Numbers & Options

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

NTCII Panel Catalog Number Identification

NTCII	XX-	X-	X-	X-	XXX-	X-	X-	XX-	
panel type	number of circuits	voltage	number of phases	number of wires	main bus ampere	mounting type	main type	enclosure nema type	OPTIONS next page
NTCII	12 24 36 42	1=120V AC 2 = 240 V AC 3 = 120/240V AC 4 = 120/208V AC 5 = 125V DC 6 = 250V DC	1 3	2 3 4	100 225 400	S = surface F = flush	B = breaker S = switch FS = fused switch M = main lugs same ampere as main bus main lugs included in base price	1 1A 3R 4 4X NEMA 1 included in base price	

Dimensional Information 32" wide x 6.0" Depth

120/240V AC 1 phase 3 wire 10KAIC 120V AC or 125V DC 1 Phase 2 Wire 10KAIC 240V AC or 250V DC 1 Phase 2 Wire 10KAIC 120/208V AC 3 Phase 4 Wire 10KAIC

number of circuits	main size	cabinet height	weight in pounds	number of circuits	main size	cabinet height	weight in pounds
12	100	27	75	12	100	27	80
24	100	36	95	24	100	36	100
36	100	48	125	36	100	48	135
42	100	54	140	42	100	54	155
24	225	48	135	24	225	48	145
36	225	54	150	36	225	54	160
42	225	60	165	42	225	60	175
36	400	72	190	36	400	72	200
42	400	72	200	42	400	72	210

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 Shawmunt 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 = 141/2
- 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 Flush mount trims: 1" larger on all sides than box
- 9. Trims: Door-in-a-door construction and painted 12GA CRS
- 10. Paint: ANSI 61, gray



Catalog Numbers & Options

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

Options:

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

En

nclosure Type:	Add to Box Depth	Add to Box Weight	
• NEMA 1, Indoor	О	0	
NEMA 1A, indoor gasketed	O	0	
 NEMA 3R, outdoor raintight 	6"	50 lb.	
 NEMA 4, outdoor (seam welded) 	6"	50 lb.	
 NEMA 4x, outdoor, aluminum or stainless steel 	6"	75 lb.	
NEMA 12, dust tight	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

Interiors:

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

Boxes:

- Aluminum
- Stainless steel
- Nema 3R Nema 4X

- Nema 12 Special drilling
- Special knockouts Increase gauge
- Increase gauge
- Increase gutters Painted

Fronts:

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

Others:

- · Metering
- · Insulated ground bar
- · Ground lug bolted to box
- Nameplates