

**Service Entrance Rated
Bypass Isolation
Power Frame Type
Open and Delayed**

Power Series Transfer Switch

200-5000 Amps



Bypass Isolation Transfer Switch, 100% Service Entrance Rated
200 – 5000A, up to 600VAC, 50/60 Hz
3 or 4 poles
NEMA 1 or 3R
Open with Inphase or Delayed Transition
UL1008 Listed
CSA C22.2 No. 178 Certified

CODES AND STANDARDS:



UL1008 Listed



NFPA 70, 99, 110, 37



NEC 700, 701, 702, 708



ISO9001, 8528, 3046, 7637, Pluses #2b, 4



NEMA ICS10, MG1, 250, ICS6, AB1



ANSI C62.41



Seismic: IBC 2009, CBC 2010, IBC 2012, ASCE 7-05, ASCE 7-10, ICC-ES AC-156 (2012)



IEC 61000 EMC Testing & Measuring



CSA C22.2 No. 178 Certified

DESCRIPTION:

Generac's Service Entrance Power Series Transfer Switch integrates automatic power switching with required disconnecting, grounding, and bonding for use as service entrance equipment. The integrated service entrance power switch meets all National Electrical Code requirements for service entrance use in a compact package. The switches are rated for full load transfers in critical operating, emergency, legally required, and optional power systems. Designed with integral overcurrent protection and a 100% rated disconnect breaker for unmatched safety, performance, and reliability. The full assembly is listed to UL 1008 with exceptional 3 cycle withstand and close on ratings.

Generac's Bypass, Power Frame Type Transfer Switch has short time ratings for selective coordination and a high speed switching time of < 3 cycles to minimize the effect of power disturbances. The power switching devices are interchangeable between the ATS and Bypass. The switching mechanism is enabled for safe manual transfer under load. With integral contact wear indication, preventative maintenance can be scheduled when convenient for the user ensuring maximum uptime. System parameters can be uploaded with a USB drive in moments, minimizing installation time.

Typical bypass isolation switch controllers only control the ATS contactor. Generac's design allows the switch controller to remain active in both the ATS and bypass modes, thus providing control to either contactor. This ability of the controller to remain active and control the bypass isolation contactor provides "N+1" redundancy of a second fully functioning ATS.

The control's 4.3 inch color display and mimic bus diagram simplifies programming, routine operation, data presentation, and setting adjustments. The intuitive, grouped data screens along with the supervisory and highly customizable data acquisition allow the user to configure to their needs. Standard features include Modbus® RTU, extensive user customizable input/outputs, 450 event log with capture for the most recent 12 events, with 3 phase sensing on both sources, plus load for voltage, frequency, sequencing, loss, and unbalance.

Service Entrance Rated, Bypass Isolation Power Frame Type, Open and Delayed Transition

STANDARD FEATURES:

- Single motion rack-out with doors closed
- Interlocked Mechanism to prevent simultaneous connection to both power sources.
- Front Access
- Entry is Top or Bottom
- Isolated Compartments for improved safety
- Dual ATS capability – Bypass contactor can be controlled by the ATS controller in the bypass mode of operation. The design allows the switch controller to remain active in both the ATS and Bypass modes, thus providing control to either contactor. This ability of the controller to remain active to control the Bypass isolation contactor provides “N+1” redundancy of a second fully functioning ATS.
- 4.3 inch Color Display
- Mimic diagram with Source Available and Connected LED indication
- Field-selectable multi-tap transformer panel permits operation on a wide range of system voltages
- Event logging and recording 450 time-stamped events
- System TEST pushbutton
- Programmable plant exerciser
- Modbus® RTU

VOLTAGE AND FREQUENCY SENSING:

- 3-Phase under and over voltage sensing on normal and emergency sources, plus load
- Under and over frequency sensing on normal, emergency, and load
- 3-Phase sequence sensing for phase sensitive loads
- 3-Phase voltage unbalance and loss sensing

CONTACTS:

- Source available:
 - Source-1 Present, 2-N.O. & 2 N.C.
 - Source-2 Present, 2-N.O. & 2 N.C.
- Switch position:
 - Source-1 Position, 1-N.O. & 1-N.C.
 - Source-2 Position, 1-N.O. & 1 N.C.
- Pre Transfer Contacts: 1-N.O. & 1 N.C.

Standard Control Parameters Available

CONTROL INPUTS (4 STANDARD):

- Monitor Mode
- Bypass Timers
- Lockout
- Manual Retransfer On/Off
- Manual Retransfer
- Slave In
- Remote Engine Test
- Preferred Source Selection
- Go to Emergency
- Emergency Inhibit
- ATS on Bypass
- Go to Neutral

CONTROL OUTPUTS (4 STANDARD):

- Load sequence
- Selective Load shed
- Load bank control
- Pre/post-transfer
- Pre-transfer
- User remote control
- Source 1 available (standard)
- Source 2 available (standard)
- Source 1 connected
- Source 2 connected
- ATS not in automatic
- General alarm
- ATS in test
- Engine test aborted
- Cooldown in process
- Engine start contact status
- Generator 1 start status
- Generator 2 start status
- Emergency inhibit on
- ATS on bypass

Up to 20 available with Expandable Input/Output Modules

OPTIONAL FEATURES:

- Dual Draw Out
- Digital Multi-function Power Quality Metering
- Ethernet Connectivity
- Remote Annunciator Panel with control
- Remote Multi Switch Annunciator Panel with control
- 2 or 4 position selector switch
- TVSS
- Stainless steel cover for controller
- Selectable Retransfer
- Manual Generator Retransfer

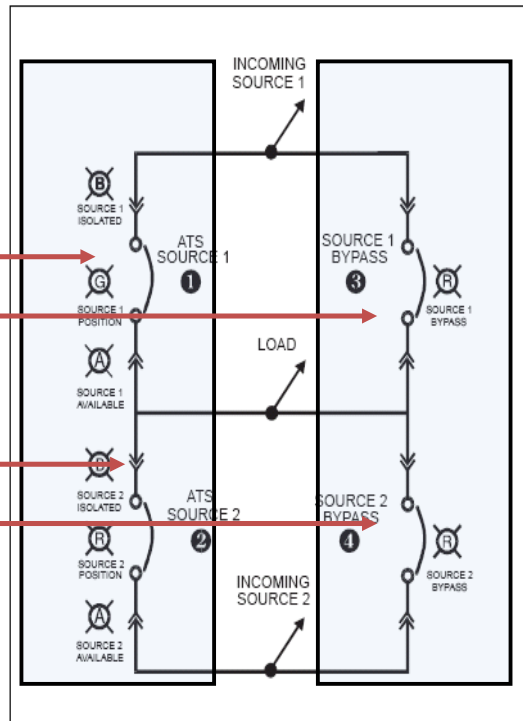
SERVICE ENTRANCE RATED:

For service entrance and other applications, Digitrip solid-state trip units can be integrated into the power switching section. This eliminates the need for separate upstream protective devices, saving cost and space. Available with various combinations of long, short time, instantaneous, ground fault protection and communications. Contact factory for optional trip units.

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Multi Tap Transformer



UL 1008 Withstand and Close-On Ratings as Listed (kA):

Rating When Used with Upstream Circuit Breaker

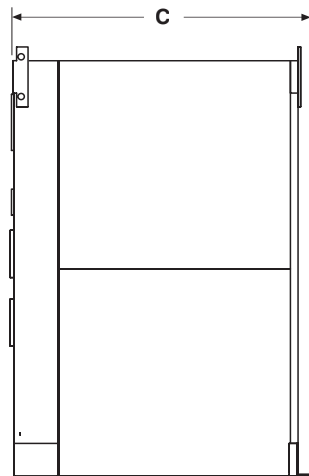
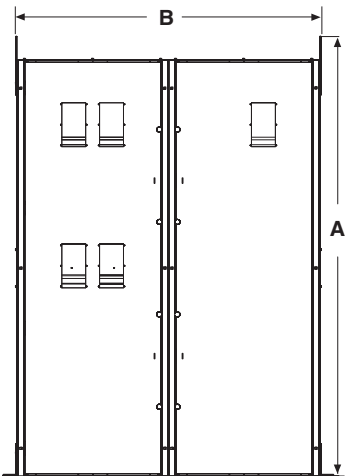
| Transfer Switch Ampere Rating | 3-Cycle 600V (kA) | 30-Cycle 600V (kA) |
|-------------------------------|-------------------|--------------------|
| 200–3200 | 100 | 85 |
| 4000 | 100 | 85 ¹ |
| 5000 | – | 85 ¹ |

1. UL1066 short-time withstand rating.

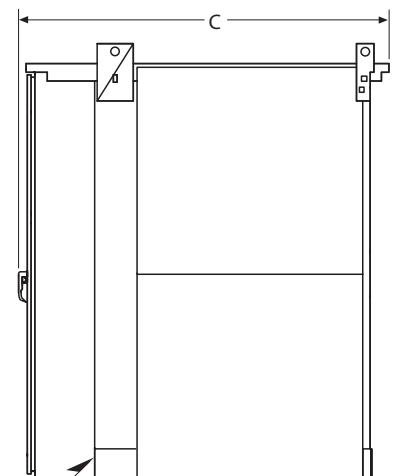
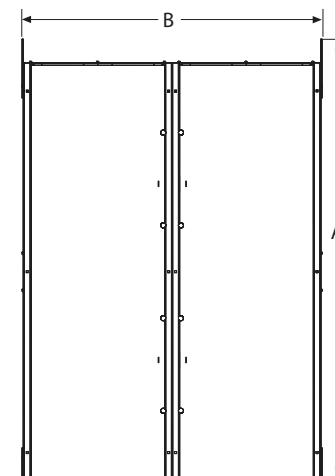
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UNIT DIMENSIONS:

200–3200 Drawout/Single NEMA 1



200–3200 Drawout/Single NEMA 3R



Bypass Isolation, Power Frame Drawout Transfer Switches

Approximate Dimensions in Inches (mm)

| NEMA 1 Enclosed Drawout Transfer Switch | | | | | |
|---|-------|----------------|----------------|----------------|--------------------------|
| Ampere Rating | Poles | Height A | Width B | Depth C | Shipping Weight Lbs (kg) |
| 200–2000 | 3 | 90.00 (2286.0) | 64.00 (1625.6) | 60.00 (1524.0) | 3100 (1409) |
| 200–2000 | 4 | 90.00 (2286.0) | 64.00 (1625.6) | 60.00 (1524.0) | 3700 (1682) |
| 2500–3200 | 3 | 90.00 (2286.0) | 64.00 (1625.6) | 60.00 (1524.0) | 4700 (2136) |
| 2500–3200 | 4 | 90.00 (2286.0) | 64.00 (1625.6) | 60.00 (1524.0) | 5500 (2500) |

| NEMA 3R Enclosed Drawout Transfer Switch | | | | | |
|--|-------|----------------|----------------|----------------|--------------------------|
| Ampere Rating | Poles | Height A | Width B | Depth C | Shipping Weight Lbs (kg) |
| 200–2000 | 3 | 90.00 (2286.0) | 64.00 (1625.6) | 75.00 (1905.0) | 3700 (1682) |
| 200–2000 | 4 | 90.00 (2286.0) | 64.00 (1625.6) | 75.00 (1905.0) | 4300 (1955) |
| 2500–3200 | 3 | 90.00 (2286.0) | 64.00 (1625.6) | 75.00 (1905.0) | 5300 (2410) |
| 2500–3200 | 4 | 90.00 (2286.0) | 64.00 (1625.6) | 75.00 (1905.0) | 6000 (2730) |

Standard Terminals

| Ampere Rating | Normal, Emergency and Load | | Neutral |
|---------------|----------------------------|------------------|---------|
| | 200–2000 | (6) 3/0–750 MCM | |
| 2500 | (9) 3/0–750 MCM | (30) 3/0–500 MCM | |
| 3200 | (9) 3/0–750 MCM | (30) 3/0–500 MCM | |

*For 4000 and 5000A dimensions, please contact factory.