

# Power Series Transfer Switch

100 – 1,200 Amps

Contacteur Type · Closed Transition

- Automatic Transfer Switch
- 100 – 1,200 A, Up to 600 VAC, 50/60 Hz
- 3 or 4 Poles
- NEMA 1 or 3R
- Closed Transition
- UL1008 Listed
- CSA C22.2 No. 178 Certified



Image used for illustration purposes only

## Codes and Standards

Not all codes and standards apply to all configurations. Contact factory for details.



UL 1008 Listed



CSA C22.2 No. 178 Certified



NFPA 37, 70, 99, 110



NEC 700, 701, 702, 708



NEMA ICS10, MG1, 250, ICS6, AB1



ANSI C62.41



IEC 61000 EMC Testing and Measuring



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

## Description

Generac's Contactor Type Transfer Switches are double-throw and with an over center design to ensure safe, positive transfer between power sources. The switches are 3-cycle rated to ease breaker selection and coordination. The mechanism is field proven and operated via a reliable, compact solenoid for high speed transfer of loads between power sources. The contacts are silver composite for long life, resisting pitting or burning. The switches are rated for full load transfers in critical operating, emergency, legally required, and optional power systems.

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, plus phase unbalance and three phase sensing on both sources.

An automatic closed transition transfer switch (make-before-break) requires the normal and emergency sources to be synchronized. The controller monitors the voltage and frequency of both power sources with an anticipatory algorithm; phase angles must be within 8 electrical degrees. A synchronization timer is initiated (TSCT, 1-60 min adjustable) to complete the transfer and parallels 100ms or less. The switch will operate in open transition mode if there is a fail to transfer in closed transition, and a Closed Transition Fail error will be displayed.

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## STANDARD FEATURES

### GENERAL

- Double-Throw and Solenoid Operated with Overcenter Designed Mechanism
- Front Access
- Cable Entry can be Top and/or Bottom
- 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
- ATC-900 Controller
- Operating Temperature -4 ° to 158 °F (-20 ° to 70 °C)

### VOLTAGE AND FREQUENCY SENSING

- Three Phase Under and Over Voltage Sensing on Normal and Emergency Sources, Plus Load
- Under and Over Frequency Sensing on Normal, Emergency, and Load
- Three Phase Sequence Sensing for Phase Sensitive Loads
- Three Phase Voltage Unbalance and Loss Sensing

### CONTACTS

- Source Available:
  - Source-1 Present, 1-N.O. and 1-N.C.
  - Source-2 Present, 1-N.O. and 1-N.C.
- Switch Position:
  - Source-1 Position, 3-N.O. and 3-N.C.
  - Source-2 Position, 3-N.O. and 3-N.C.

### STANDARD CONTROL PARAMETERS

- Up to 20 Parameters Available with Expandable Input/Output Modules

### 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
- 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

## CONFIGURABLE OPTIONS

### GENERAL

- 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
- Transient Voltage Surge Suppression (TVSS)
- Padlockable Cover for Controller
- Padlockable Cover for Device Panel
- Selectable Retransfer
- Manual Generator Retransfer

### CAM-LOK™ QUICK CONNECT TERMINALS

- Male Receptacle, E1016 Series
- Color Coded to Industry Standard
- Hinged Thermoplastic Covers
- 100% Ground Ampacity

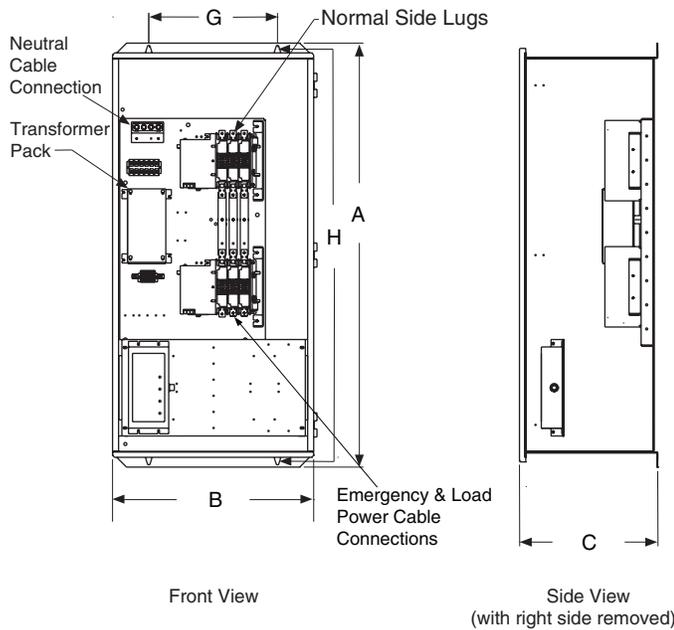
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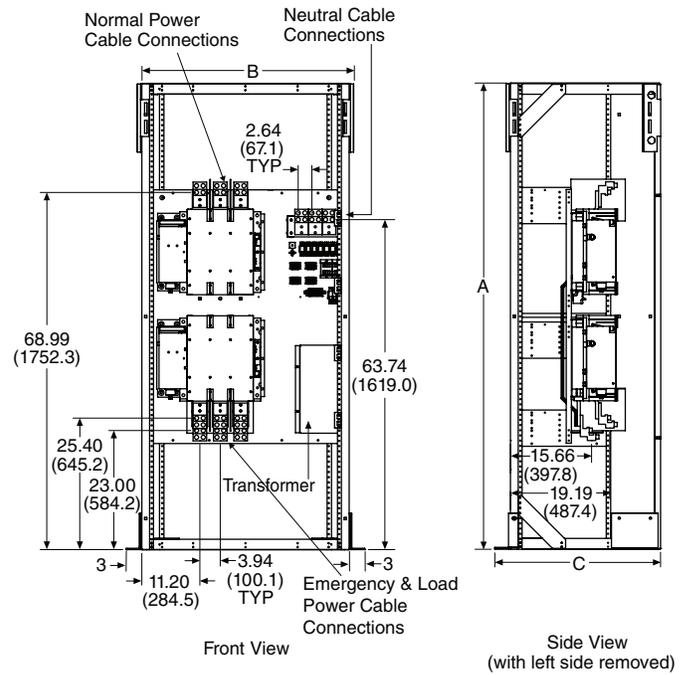
Contactor Type · Closed Transition

## UNIT DIMENSIONS\*

Automatic Up to 400 A Wallmount



Automatic 600 – 1,200 A Floor Standing



NOTE: For switched neutral applications, connect to terminals marked 'NN', 'EN' and 'LN'. Neutral assembly will not be provided. Transformer pack is not included with 240/120V, single-phase or 208/120V, three-phase systems.

### Contactor Type, Closed Transition, 100 – 1,200 A

| Voltage       | Amperes     | Transition | Enclosure Type (NEMA) | in (mm)      |              |              | G (Horizontal) | H (Vertical)    | Cu/Al                                |                                      | lbs (kg)                             |
|---------------|-------------|------------|-----------------------|--------------|--------------|--------------|----------------|-----------------|--------------------------------------|--------------------------------------|--------------------------------------|
|               |             |            |                       | A (Height)   | B (Width)    | C (Depth)    |                |                 | Load Side, Normal and Standby Source | Neutral Connection                   |                                      |
| 480 and Below | 100         | Closed     | 1, 3R                 | 52.7 (1,340) | 25.0 (635)   | 17.2 (436)   | 16.0 (406)     | 37.4 (950)      | (1) #14-2/0                          | (3) #14-2/0                          | 190 (86) 3-pole<br>200 (91) 4-pole   |
|               | 150 - 200   | Closed     | 1, 3R                 | 52.7 (1,340) | 25.0 (635)   | 17.2 (436)   | 16.0 (406)     | 37.4 (950)      | (1) #6-250 MCM                       | (3) 1/0-250 MCM                      | 210 (95) 3-pole<br>220 (100) 4-pole  |
|               | 225 - 400   | Closed     | 1, 3R                 | 71.0 (1,804) | 31.1 (790)   | 14.7 (374)   | 13.0 (330)     | 69.4 (1,764)    | (2) 1/0-250 MCM or (1) 1/0-750 MCM   | (6) 250-500 MCM                      | 420 (191) 3-pole<br>440 (200) 4-pole |
|               | 600 - 1,200 | Closed     | 1, 3R                 | 90.0 (2,286) | 46.0 (1,168) | 32.0 (813)   | –              | –               | (4) 1/0-750 MCM                      | (12) 1/0-750 MCM                     | 800 (363) 3-pole<br>900 (409) 4-pole |
| 600           | 100         | Closed     | 1, 3R                 | 52.7 (1,340) | 25.0 (635)   | 17.2 (436)   | 16.0 (406)     | 37.4 (950)      | (1) #6-250 MCM                       | (3) #14-1/0                          | 210 (95) 3-pole<br>220 (100) 4-pole  |
|               | 150 - 200   | Closed     | 1, 3R                 | 71.0 (1,804) | 31.1 (790)   | 14.7 (374)   | 13.0 (330)     | 69.4 (1,764)    | (1) #6-250 MCM                       | (3) 1/0-250 MCM                      | 420 (191) 3-pole<br>440 (200) 4-pole |
|               | 225 - 400   | Closed     | 1                     | 90.0 (2,286) | 46.0 (1,168) | 32.0 (813)   | –              | –               | (2) 1/0-250 MCM or (1) 1/0-750 MCM   | (6) 250-500 MCM                      | 800 (363) 3-pole<br>900 (409) 4-pole |
|               |             |            | 1, 3R                 | 90.0 (2,286) | 46.0 (1,168) | 49.7 (1,261) | –              | –               | (2) 1/0-250 MCM or (1) 1/0-750 MCM   | (6) 250-500 MCM                      | 850 (386) 3-pole<br>950 (431) 4-pole |
|               | 600-1,200   | Closed     | 1                     | 90.0 (2,286) | 46.0 (1,168) | 32.0 (813)   | –              | –               | (4) 1/0-750 MCM                      | (12) 1/0-750 MCM                     | 800 (363) 3-pole<br>900 (409) 4-pole |
| 1, 3R         |             |            | 90.0 (2,286)          | 46.0 (1,168) | 49.7 (1,261) | –            | –              | (4) 1/0-750 MCM | (12) 1/0-750 MCM                     | 850 (386) 3-pole<br>950 (431) 4-pole |                                      |

\* All measurements are approximate and for estimation purposes only. Specification characteristics may change without notice. Contact a Generac Power Systems Industrial Dealer for detailed installation drawings. Contact factory for dimensions on Cam-Lok™ option switches.

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## SPECIFICATIONS

### UL 1008 Withstand and Closing Ratings

| Ampere Rating | Any Breaker<br>(0.05 sec)      |                   | Specific Breaker <sup>1</sup>  |                   | Specific Fuse                  |                        |          |                   |                        |          |
|---------------|--------------------------------|-------------------|--------------------------------|-------------------|--------------------------------|------------------------|----------|-------------------|------------------------|----------|
|               | 480 V<br>and Below<br>Max (kA) | 600 V<br>Max (kA) | 480 V<br>and Below<br>Max (kA) | 600 V<br>Max (kA) | 480 V<br>and Below<br>Max (kA) | Fuse Class             | Max Fuse | 600 V<br>Max (kA) | Fuse Class             | Max Fuse |
| 100           | 10                             | 10                | 30                             | 22                | 100                            | K5, RK5                | 200      | 100               | K5, RK5                | 200      |
|               |                                |                   |                                |                   |                                | K1, RK1                | 400      |                   | K1, RK1                | 400      |
|               |                                |                   |                                |                   |                                | J, T                   | 450      |                   | J, T                   | 450      |
| 150 - 200     | 10                             | 22                | 30                             | 35                | 100                            | K5, RK5                | 400      | 200               | RK1, RK5, J, C, K1, K5 | 600      |
|               |                                |                   |                                |                   |                                | J, K1, RK1             | 600      |                   | L                      | 800      |
|               |                                |                   |                                |                   |                                | T                      | 800      |                   | T                      | 1,200    |
| 225 - 400     | 30                             | -                 | 50                             | -                 | 200                            | RK1, RK5, J, C, K1, K5 | 600      | 200               | J, T, L, RK5           | 600      |
|               |                                |                   |                                |                   |                                | L                      | 800      |                   | L                      | 1,600    |
|               |                                |                   |                                |                   |                                | T                      | 1,200    |                   |                        |          |
| 600 - 1,200   | 50                             | 50                | 65                             | 65                | 200                            | J, T, L, RK5           | 600      | 200               | J, T, L, RK5           | 600      |
|               |                                |                   |                                |                   |                                | L                      | 1,600    |                   | L                      | 1,600    |

<sup>1</sup> See specific breaker list available on GenConnect