

Power Series Transfer Switch

1,000 – 5,000 Amps

Service Entrance Rated · Power Frame Type · Closed Transition

- Automatic Transfer Switch, 100% Service Entrance Rated
- 1,000 – 5,000 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 Service Entrance Power Frame Type 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 over current 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 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 control's color display and mimic bus diagrams 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 customize to their needs. Standard features include Modbus® RTU, extensive user customizable input/outputs, 450 event log with event capture for the most recent 12, with three phase sensing on both sources, plus load for voltage, frequency, sequencing, loss, and unbalance. 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

- High Withstand and Closing Ratings
- Safe Manual Transfer Under Load
- Front Access
- Cable or Bus Entry is Top, Bottom or Both
- Isolated Compartments for Improved Safety
- Mimic Diagram with Source Available and Connected LED Indication
- Event Logging and Recording 450 Time-Stamped Events
- System TEST Pushbutton
- Programmable Plant Exerciser
- Field-Selectable Multi-Tap Transformer Panel Permits Operation on a Wide Range of System Voltages
- 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
- Three Phase Under and Over Voltage Sensing on Load
- Under and Over Frequency Sensing on Normal and Emergency
- Selectable Settings: Single or Three Phase Voltage Sensing on Normal, Emergency and Load 50 or 60Hz
- Phase Sequence Sensing for Phase Sensitive Loads

CONFIGURABLE OPTIONS

GENERAL

- Digital Multi-Function Power Quality Metering
- Ethernet Connectivity
- Draw Out Construction
- Remote Annunciator Panel with Control
- Remote Multi-Switch Annunciator Panel with Control
- Transient Voltage Surge Suppression (TVSS)
- Padlockable Cover for Controller
- Padlockable Cover for Device Panel
- Selectable Retransfer
- Manual Generator Retransfer
- 2 or 4 Position Selector Switch

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, 1-N.O. and 1-N.C.
 - Source-2 Position, 1-N.O. and 1-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

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, including trip units equipped with an Arc Flash Reduction Maintenance System.*

CAM-LOK™ QUICK CONNECT TERMINALS

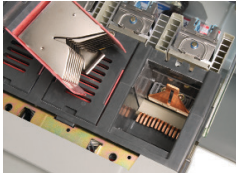
- Male Receptacle, E1016 Series
- Color Coded to Industry Standard
- Hinged Thermoplastic Covers
- 100% Ground Ampacity

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Contact Wear Indication



Drawout Power Case
Switch or Breaker
is Optional



ATC-900
Controller



Source 1

Source 2

Keyed Switch for Service Entrance Option

Multi-Tap Transformer

2,000A Drawout

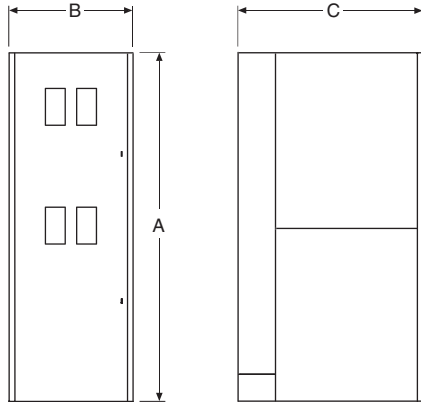
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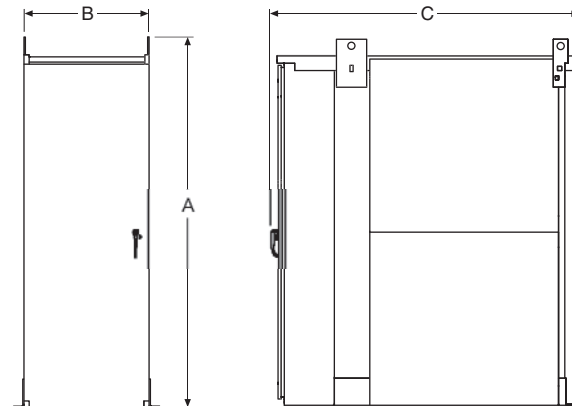
Service Entrance Rated · Power Frame Type · Closed Transition

UNIT DIMENSIONS*

1,200 3,200A Fixed-Mount NEMA 1



1,200 3,200A Fixed-Mount NEMA 3R



For enclosures alternative than NEMA 1 and 3R, contact factory

Service Entrance Rated, Power Frame Type, Closed Transition, 1,200 – 3,200 A, Fixed Mount

Amperes	Poles	Enclosure Type (NEMA)	in (mm)			Cu/Al		lbs (kg)
			A (Height)	B (Width)	C (Depth)	Load Side, Normal and Standby Source	Neutral Connection	Weight
1,600 – 2,000	3	1	90.0 (2,286)	32.0 (813)	48.0 (1,219)	(6) 1/0-750 MCM	(24) 4/0-500 MCM	1,050 (477)
		3R	90.0 (2,286)	32.0 (813)	63.0 (1,600)	(6) 1/0-750 MCM	(24) 4/0-500 MCM	1,600 (727)
	4	1	90.0 (2,286)	32.0 (813)	48.0 (1,219)	(6) 1/0-750 MCM	–	1,250 (568)
		3R	90.0 (2,286)	32.0 (813)	63.0 (1,600)	(6) 1/0-750 MCM	–	1,800 (818)
2,500 – 3,200	3	1	90.0 (2,286)	44.0 (1,118)	48.0 (1,219)	(9) 1/0-750 MCM	(36) 4/0-500 MCM	1,900 (864)
		3R	90.0 (2,286)	44.0 (1,118)	63.0 (1,600)	(9) 1/0-750 MCM	(36) 4/0-500 MCM	2,400 (1,091)
	4	1	90.0 (2,286)	44.0 (1,118)	48.0 (1,219)	(9) 1/0-750 MCM	–	2,000 (909)
		3R	90.0 (2,286)	44.0 (1,118)	63.0 (1,600)	(9) 1/0-750 MCM	–	2,500 (1,136)

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

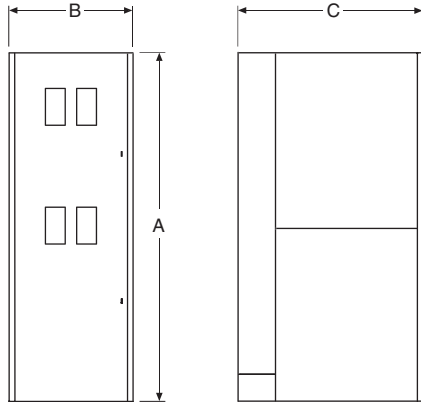
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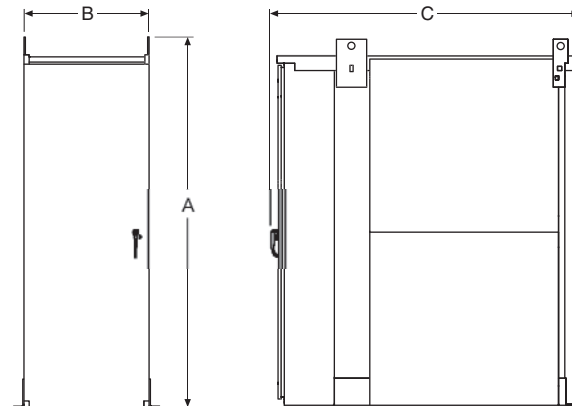
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UNIT DIMENSIONS*

1,000 3,200A Drawout NEMA 1



1,000 3,200A Drawout NEMA 3R



Seismic mounting brace adds an additional 3 inches to each side - front left and front right side and 3 inches additional to rear side

Service Entrance Rated, Power Frame Type, Closed Transition, 1,000 – 3,200 A, Drawout

Amperes	Poles	Enclosure Type (NEMA)	in (mm)			Cu/Al		lbs (kg) Weight
			A (Height)	B (Width)	C (Depth)	Load Side, Normal and Standby Source	Neutral Connection	
1,600 – 2,000	3	1	90.0 (2,286)	32.0 (813)	60.0 (1,524)	(6) 1/0-750 MCM	(24) 4/0-500 MCM	1,600 (727)
		3R	90.0 (2,286)	32.0 (813)	75.0 (1,905)	(6) 1/0-750 MCM	(24) 4/0-500 MCM	2,100 (955)
	4	1	90.0 (2,286)	32.0 (813)	60.0 (1,524)	(6) 1/0-750 MCM	–	1,900 (864)
		3R	90.0 (2,286)	32.0 (813)	75.0 (1,905)	(6) 1/0-750 MCM	–	2,400 (1,091)
2,500 – 3,200	3	1	90.0 (2,286)	44.0 (1,118)	60.0 (1,524)	(9) 1/0-750 MCM	(36) 4/0-500 MCM	2,500 (1,136)
		3R	90.0 (2,286)	44.0 (1,118)	75.0 (1,905)	(9) 1/0-750 MCM	(36) 4/0-500 MCM	3,000 (1,364)
	4	1	90.0 (2,286)	44.0 (1,118)	60.0 (1,524)	(9) 1/0-750 MCM	–	2,800 (1,273)
		3R	90.0 (2,286)	44.0 (1,118)	75.0 (1,905)	(9) 1/0-750 MCM	–	3,300 (1,500)

For 4,000 and 5,000 A dimensions, please contact factory.

UL 1008 Withstand and Closing Ratings

Ampere Rating	Rating When Used with Upstream Circuit Breaker	
	3 Cycle 600 V (kA)	30 Cycle ² 600 V (kA)
1,000	100	85
1,200	100	85
1,600	100	85
2,000	100	85
2,500	100	85
3,000	100	85
3,200	100	85
4,000	100	85
5,000	–	85 ¹

¹ UL 1066 short-time withstand rating

² Ratings used for coordination with upstream breakers with short-time ratings

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