

**Power Frame Type
Open and Delayed Transition**

Power Series Transfer Switch

2000-5000 Amps



Automatic Transfer Switch
2000 – 5000A, up to 600VAC, 50/60 Hz
3 or 4 poles
NEMA 1 or 3R
Open with Inphase and 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:

The Power Frame Type Transfer Switch has exceptional 3 cycle withstand and close on ratings along with high speed switching time of < 3 cycles to minimize the effect of power disturbances. The switching mechanism is enabled for safe manual transfer under load. The Power Frame Switch has a standard offering of open transition with inphase or delayed transition with numerous programmable transition timings for transfer and retransfer. With a fully rated 4th pole operating on a common crossbar, the Power Frame switch eliminates the typical problems with a 3 pole overlapping neutral design.

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.

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.

Power Series, Power Frame Type, Open and Delayed Transition

STANDARD FEATURES:

- High Withstand and Close on Ratings
- Safe manual transfer under load
- Front Access
- Cable or bus entry is Top, Bottom or Both
- Isolated Compartments for improved safety
- 4.3 inch Color Display
- 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

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

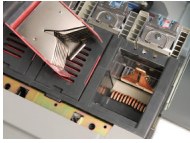
Up to 20 available with Expandable Input/Output Modules

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

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Contact Wear Indication



Drawout Power Case Switch or Breaker is Optional



ATC-900 Controller



2000A Drawout

Source 2

Keyed Switch for Service Entrance Option

TRANSFER SWITCH WITHSTAND RATINGS:

Systems Coordination Information—Withstand, Closing and Interrupting Ratings

Rating When Used with Upstream Circuit Breaker

Transfer Switch Ampere Rating	3 Cycle 600V (kA)	30 Cycle ² 600V (kA)
2000	100	85
2500	100	85
3000	100	85
3200	100	85
4000	100	85 ¹
5000	—	85 ¹

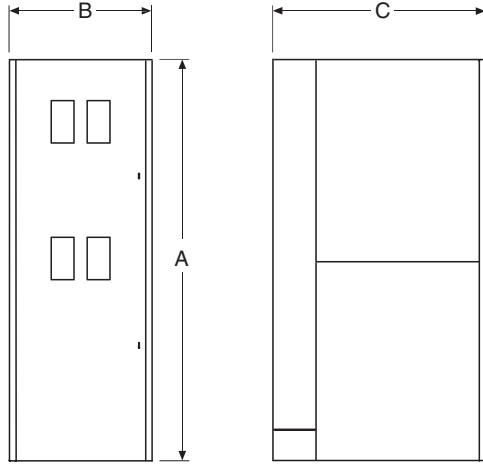
1. UL 1066 short-time rating

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

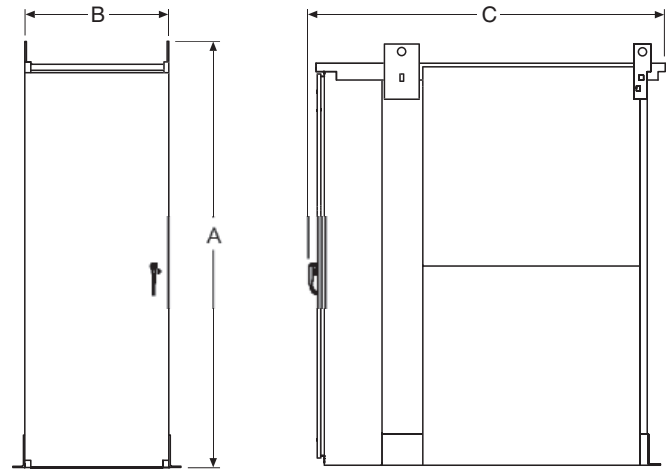
Power Series, Power Frame Type, Open and Delayed Transition

UNIT DIMENSIONS:

1600–3200A Fixed-Mount NEMA 1



1600–3200A Fixed-Mount NEMA 3R



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

Power Frame Fixed-Mount Transfer Switches

Approximate Dimensions in Inches (mm)

NEMA 1 Enclosed Fixed-Mount Transfer Switch					
Ampere Rating	Poles	Height A	Width B	Depth C	Shipping Weight Lbs (kg)
2000	3	90.00(2286.0)	32.00 (812.8)	48.00 (1219.2)	1050 (476)
2000	4	90.00(2286.0)	32.00 (812.8)	48.00 (1219.2)	1250 (567)
2500-3200	3	90.00(2286.0)	44.00 (1117.6)	48.00 (1219.2)	1900 (863)
2500-3200	4	90.00(2286.0)	44.00 (1117.6)	48.00 (1219.2)	2000 (907)

NEMA 3R Enclosed Fixed-Mount Transfer Switch					
Ampere Rating	Poles	Height A	Width B	Depth C	Shipping Weight Lbs (kg)
2000	3	90.00(2286.0)	32.00 (812.8)	48.00 (1219.2)	1600 (726)
2000	4	90.00(2286.0)	32.00 (812.8)	48.00 (1219.2)	1800 (817)
2500-3200	3	90.00(2286.0)	44.00 (1117.6)	63.00 (1600.2)	2400 (1090)
2500-3200	4	90.00(2286.0)	44.00(1117.6)	63.00 (1600.2)	2500 (1135)

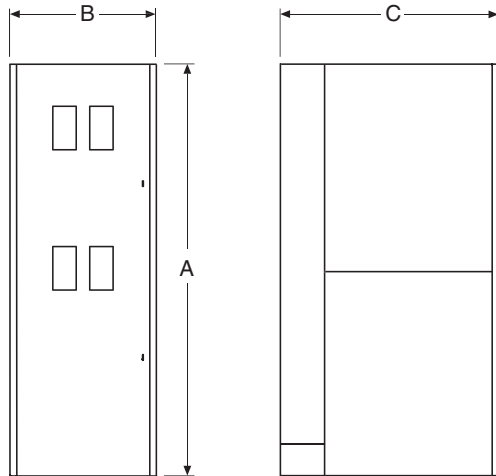
Standard Terminals

Ampere Rating	Normal, Emergency, and Load	Neutral
2000	(6) 3/0-750 MCM	(24) 4/0-500 MCM
2500-3200	(9) 3/0-750 MCM	(36) 4/0-500 MCM

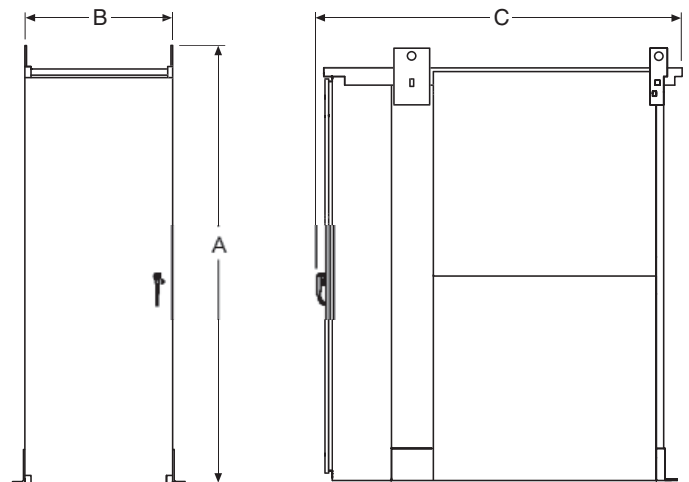
Power Series, Power Frame Type, Open and Delayed Transition

UNIT DIMENSIONS:

1600–3200A Drawout NEMA 1



1600–3200A 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.

Power Frame Drawout Transfer Switches

Approximate Dimensions in Inches (mm)

NEMA 1 Enclosed Drawout Transfer Switch						NEMA 3R Enclosed Drawout Transfer Switch					
Ampere Rating	Poles	Height A	Width B	Depth C	Shipping Weight Lbs (kg)	Ampere Rating	Poles	Height A	Width B	Depth C	Shipping Weight Lbs (kg)
2000	3	90.00(2286.0)	32.00 (812.8)	60.00 (1524.0)	1600 (727)	2000	3	90.00 (2286.0)	32.00 (812.8)	75.00 (1905.0)	2100 (953)
2000	4	90.00(2286.0)	32.00 (812.8)	60.00 (1524.0)	1900 (864)	2000	4	90.00(2286.0)	32.00 (812.8)	75.00 (1905.0)	2400 (1089)
2500-3200	3	90.00(2286.0)	44.00 (1117.6)	60.00 (1524.0)	2500 (1134)	2500-3200	3	90.00 (2286.0)	44.00 (1117.6)	75.00 (1905.0)	3000 (1362)
2500-3200	4	90.00(2286.0)	44.00 (1117.6)	60.00 (1524.0)	2800 (1270)	2500-3200	4	90.00 (2286.0)	44.00 (1117.6)	75.00 (1905.0)	3300 (1499)

Standard Terminals

Ampere Rating	Normal, Emergency, and Load	Neutral
2000	(6) 3/0-750 MCM	(24) 4/0-500 MCM
2500-3200	(9) 3/0-750 MCM	(36) 4/0-500 MCM

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