# **TX301 Series Transfer Switch**

100 – 400 Amps

Contactor Type · Open and Delayed Transition · Service Entrance Rated

- Automatic Transfer Switch
- 100 400 A, up to 480 VAC, 60 Hz, 100% Current Rated
- Single or Three Phase
- 2.3. or 4 Poles
- UL Type 1 or Type 3R
- · Open and Inphase or Open with Delayed Transition
- ETL Listed to UL 1008
- High Withstand and Closing Ratings



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# **Codes and Standards**



**ETL** Listed

NFPA 70, 99, 110



NEC 700, 701, 702, 708

OSHPD and Seismic Certified CBC 2019, CBC 2016, IBC 2018, IBC 2015. pd IBC 2012, IBC 2009, ASCE 7-10, ASCE 7-16, ICC-ES AC-156

# Description

Generac's patented\* contactor is featured in the TX contactor type transfer switch, which is a double-throw robust switch construction with inherent interlocks for safe positive transfer between power sources. Featuring a transition time of less than 20 milliseconds, this high speed transfer is ideal for all applications, including motor load applications. The contacts are silver composite for long life, resisting pitting or burning. The switches are rated for full load transfers in mission critical, emergency, legally required, and optional power systems.

The microprocessor based controller provides the customers with the flexibility to program a comprehensive group of set points to match the application needs. The controller has two programmable inputs and one programmable output as standard and is available with optional expansion boards for up to four programmable inputs and outputs. The LCD displays real time and historical information with time-stamped events. The integrated plant exerciser can be configured in off, daily, day of week, biweekly, and monthly intervals with user selectable run time. Standard features of the controller include three phase sensing on both sources, phase unbalance, phase reversal, load shed, emergency inhibit, and communications.

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# **STANDARD FEATURES**

#### GENERAL

- Small Footprint, Results in Easy Mounting and Installation for Reduced Time and Costs
- Cable Entry is Top or Bottom (400A Units are Bottom Only)
- Double-Throw, Stored Energy Transfer Mechanism
- Can be Electrically Isolated while Energized
- Graphical LCD-Based Display for Programming, System Diagnostics and Help Menu Display Mimic
- Diagram with Source Available and Connected LED Indicator
- Method of Transfer: Open with Inphase Transition
- Mechanically Interlocked to Prevent Connection of Both Sources Modbus<sup>®</sup> RTU Communications
- TXC 100 Controller
- Operating Temperature -4 ° to 158 °F (-20 ° to 70 °C)
- Removable Top and Bottom Plates for Ease of Entry Voltage Agnostic\*
- High Withstand and Closing Ratings
- Heater Kit Standard on All 3R Enclosures
- Auxiliary Output Includes: Two Wire Start, Signal Before Transfer, Fault, and a Programmable Relay Output
- Auxiliary Input Includes: Permissive Inputs (24 VDČ)
- **General Alarm Indication**
- 2 Year Standard Warranty
- IBC 2018, 2015, 2012, 2009

- **VOLTAGE AND FREQUENCY SENSING**
- Three Phase Under and Over Voltage Sensing on Normal and Emergency Sources
- Under and Over Frequency Sensing on Normal and Emergency
- Selectable Settings: Single or Three Phase Voltage
- Sensing on Normal, Emergency and Load 60 Hz
- Phase Sequence Sensing for Phase Sensitive Loads

## **Start Circuit**

- 2-Wire Start
- 3-Wire Start From C Contact for Circuit Monitoring

## **Digital Outputs**

- Signal Before Transfer (Elevator)
- General Alarm

## **Digital Inputs**

- Emergency Inhibit (Permissive & Load Shed)
- Go to Emergency (Demand Response)
- Manual Generator Retransfer

## CONTROLS

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- Front Programmable Control Reduces PPE Needs • and Arc Flash Hazard
- Built in Battery Backup Increases Switch Reliability and Reduces Switch Transition Time to Alternate Source
- Battery Backup Able to Power the Controller for up to 60 Minutes in the Event of No Source Availability
- Accessible USB Port for Easy Data Downloads, Firmware Updates without Requiring PPE, Reducing the Risk of Arc Flash
- All Amp Nodes Offered with Delayed Transition
- Heater Programmable through Control for Desired Temperature and Humidity Settings
- Front Accessible Customer Connections
- Time-Stamped Event History Log
- Programmable Exerciser Daily, Weekly, Bi-Weekly, Monthly

\* 480 V 3-Wire Systems Must be Specified at Time of Ordering for Transformer Kit to be Included

# **CONFIGRUABLE OPTIONS**

- Chicago Code Kit
- 3R Padlockable Cover for Controller (Standard on 3R Enclosure)
- 3R Padlockable Cover for Service Entrance Breaker (Standard on 3R Enclosures)
- CTs for Integrated Metering
- Generator Battery Backup for Controller
- Heater Option for Temperature and Humidity Control (Standard on 3R Enclosure)
- Time Delay in Neutral Transition (TDN), or Inphase with a Default to Time Delay in Neutral Transfer
- Expandable Input/Output Board Module Includes: 4 Relay Outputs and 4 Optically Isolated Inputs
- IBC Seismic Certified/Seismic Rated

- 2 Year Extended Limited Warranty
- 5 Year Basic Limited Warranty
- 5 Year Extended Limited Warranty
- 7 Year Extended Limited Warranty
- 10 Year Extended Limited Warranty

#### **Engineered Options**

- Transient Voltage Surge Suppressor (TVSS)
- Manual Generator Retransfer Switch
- Go to Emergency Switch

#### **Conversion Kits**

- 480 V Transformer Kit for 3-Wire Systems
- UL Type 1 to Type 3R Kit

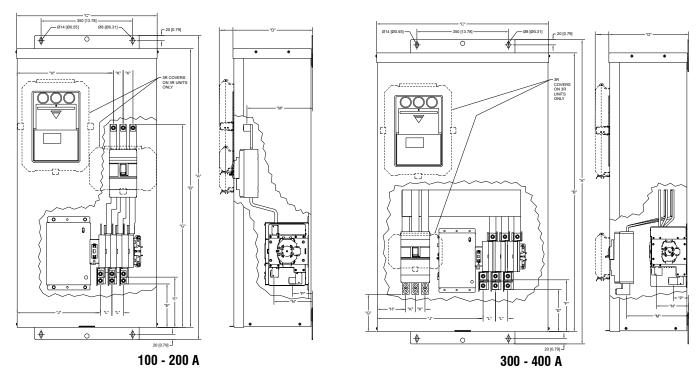
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## **UNIT DIMENSIONS\***



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## Service Entrance Rated, Contactor Type, Open and Delayed Transition, 100 – 400 A

		in (mm)												Cu/Al					lbs (kg)	
Description	A (Height)	B (Height)	C (Width)	D (Depth)	E (Dim)	F (Dim)	G (Dim)	H (Dim)	J (Dim)	K† (Dim)	L (Dim)	M (Dim)	N (Dim)	P (Dim)	Normal 75 °C Wire	Standby Source 75 °C Wire	Load 75 °C Wire	Neutral Connection	Ground Connection	Weight
100A SER TYPE 1	51.3 (1,303)	47.5 (1,206)	21.2 (538)	12.0 (305)	9.5 (242)	10.6 (268)	38.3 (973)	14.5 (369)	12.6 (320)	1.5 (38)	1.7 (44)	10.1 (257)	5.8 (148)	3.1 (79)	(1) 3/0 - 6	(1) 2/0 - 14	(1) 2/0 - 14	(5) 2/0 - 14	(6) 2/0 - 14	154.3 (70)
100A SER TYPE 3R	51.3 (1,303)	47.5 (1,206)	21.2 (538)	13.9 (355)	9.5 (242)	10.6 (268)	38.3 (973)	14.5 (369)	12.6 (320)	1.5 (38)	1.7 (44)	10.1 (257)	5.8 (148)	3.1 (79)	(1) 3/0 - 6	(1) 2/0 - 14	(1) 2/0 - 14	(5) 2/0 - 14	(6) 2/0 - 14	158.7 (72)
150A SER TYPE 1	51.3 (1,303)	47.5 (1,206)	21.2 (538)	12.0 (305)	9.9 (253)	10.9 (279)	38.3 (973)	14.5 (369)	12.6 (320)	1.5 (38)	1.7 (44)	10.1 (257)	5.8 (148)	3.3 (84)	(1) 250 - 6	(1) 250 - 6	(1) 250 - 6	(5) 350 - 6	(5) 350 - 6	165.3 (75)
150A SER TYPE 3R	51.3 (1,303)	47.5 (1,206)	21.2 (58)	13.9 (355)	9.9 (253)	10.9 (279)	38.3 (973)	14.5 (369)	12.6 (320)	1.5 (38)	1.7 (44)	10.1 (257)	5.8 (148)	3.3 (84)	(1) 250 - 6	(1) 250 - 6	(1) 250 - 6	(5) 350 - 6	(5) 350 - 6	169.8 (77)
200A SER TYPE 1	51.3 (1,303)	47.5 (1,206)	21.2 (538)	12.0 (305)	9.9 (253)	10.9 (279)	38.3 (973)	14.5 (369)	12.6 (320)	1.5 (38)	1.7 (44)	10.1 (257)	5.8 (148)	3.3 (84)	(1) 250 - 6	(1) 250 - 6	(1) 250 - 6	(5) 350 - 6	(5) 350 - 6	165.3 (75)
200A SER TYPE 3R	51.3 (1,303)	47.5 (1,206)	21.2 (538)	13.9 (355)	9.9 (253)	10.9 (279)	38.3 (973)	14.5 (369)	12.6 (320)	1.5 (38)	1.7 (44)	10.1 (257)	5.8 (148)	3.3 (84)	(1) 250 - 6	(1) 250 - 6	(1) 250 - 6	(5) 350 - 6	(5) 350 - 6	169.8 (77)
300A SER TYPE 1	51.4 (1,305)	47.5 (1,206)	33.9 (860)	12.0 (305)	9.9 (253)	11.7 (297)	9.0 (228)	7.6 (192)	22.1 (562)	1.8 (46)	2.3 (59)	8.7 (222)	6.5 (166)	3.3 (84)	(2) 600 - 2/0	(1) 600 - 4 or (2) 250 - 1/0	(1) 600 - 4 or (2) 250 - 1/0	(5) 600 MCM - 4 or (10) 250 MCM - 1/0	(5) 350 - 6	260.1 (118)
300A SER TYPE 3R	51.4 (1,305)	47.5 (1,206)	33.9 (860)	13.9 (355)	9.9 (253)	11.7 (297)	9.0 (228)	7.6 (192)	22.1 (562)	1.8 (46)	2.3 (59)	8.7 (222)	6.5 (166)	3.3 (84)	(2) 600 - 2/0	(1) 600 - 4 or (2) 250 - 1/0	(1) 600 - 4 or (2) 250 - 1/0	(5) 600 MCM - 4 or (10) 250 MCM - 1/0	(5) 350 - 6	264.6 (120)
400A SER TYPE 1	51.4 (1,305)	47.5 (1,206)	33.9 (860)	12.0 (305)	9.9 (253)	11.7 (297)	9.0 (228)	7.6 (192)	22.1 (562)	1.8 (46)	2.3 (59)	8.7 (222)	6.5 (166)	3.3 (84)	(2) 600 - 2/0	(1) 600 - 4 or (2) 250 - 1/0	(1) 600 - 4 or (2) 250 - 1/0	(5) 600 MCM - 4 or (10) 250 MCM - 1/0	(5) 350 - 6	260.1 (118)
400A SER TYPE 3R	51.4 (1,305)	47.5 (1,206)	33.9 (860)	13.9 (355)	9.9 (253)	11.7 (297)	9.0 (228)	7.6 (192)	22.1 (562)	1.8 (46)	2.3 (59)	8.7 (222)	6.5 (166)	3.3 (84)	(2) 600 - 2/0	(1) 600 - 4 or (2) 250 - 1/0	(1) 600 - 4 or (2) 250 - 1/0	(5) 600 MCM - 4 or (10) 250 MCM - 1/0	(5) 350 - 6	264.6 (120)

† K Dimension for 100-200A 2-Pole Configuration is 3 (75). K Dimension for 300-400A 2-Pole Configuration is 3.6 (92)

#### UL 1008 Withstand and Closing Ratings

Ampere Rating	Specific Breaker (kA)**	Service Entrance (kA)	Fuse Rating (Class J)	Fuse Size
100	35	35	35 kA	200 A
150	42	42	100 kA	200 A
200	42	42	100 kA	200 A
300	65	65	100 kA	400 A
400	65	65	100 kA	400 A

\* 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. \*\* See Specific Breaker List available on GENconnect.

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