

Automatic Transfer Switch, 100\% Service Entrance Rated 100 - 1000A, Available to $600 \mathrm{VAC}, 50 / 60 \mathrm{~Hz}$<br>Single \& Three phase<br>2,3 or 4 poles<br>NEMA 1, 3R, or 4x<br>Open and Delayed Transition<br>UL1008 Listed<br>CSA C22.2 No. 178 Certified

CODES AND STANDARDS:
©(UL) Us UL1008 Listed


NEC 700, 701, 702, 708

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


NEMA ICS10, MG1, 250, ICS6, AB1
os $\square_{p d}$
Seismic: IBC 2009, CBC 2010, IBC 2012, ASCE 7-05, ASCE 7-10, ICC-ES AC-156 (2012)

IEC 61000 EMC Testing \& Measuring

## 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 equipment 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 $100 \%$ rated disconnect breaker for unmatched performance, safety, and reliability. The internal dead front cover allows for manual operation under load with a permanently affixed handle. The full assembly is listed to UL 1008 with exceptional withstand and close on ratings.
The microprocessor-based ATS controller offers standard features of Modbus ${ }^{\circledR}$ RTU and pretransfer contacts, with 3-Phase sensing on both sources plus load for voltage, frequency, sequencing, loss and unbalance. The mimic diagram displays source availability and connection, providing "at a glance" indication, further simplifying users interface. The controller is designed beyond industry EMC standards with a time-stamped history log.

## STANDARD FEATURES:

- Double-throw, mechanically interlocked transfer mechanism
- High withstand and closing ratings
- LCD-based display for programming, system diagnostics and Help Menu display
- Mimic diagram with Source Available and Connected LED indication
- Top, bottom and side cable entry
- Time-stamped history log


## 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
- System TEST pushbutton
- Programmable plant exerciser - OFF, daily, 7 day interval selectable run time 0-600 minutes no load/load with failsafe
- Safe manual operation under full load with permanently affixed operating handle
- Modbus ${ }^{\circledR}$ RTU
- Field programmable time delays


## 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.


## OPTIONAL FEATURES:

- ATC-900 Digital Controller
- Space Heater with Thermostat
- Digital Multi-function Power Quality Metering
- Ethernet Connectivity
- Remote Annunciator Panel with controller
- Maintenance Selector Switch
- Remote Multi Switch Annunciator Panel with controller
- TVSS
- Stainless steel cover for controller
- Emergency Inhibit
- General Alarm Indication
- Selectable Retransfer
- Manual Generator Retransfer


## FAST, POWERFUL AND SAFE POWER SWITCHING MECHANISM:

The power panel utilizes a unidirectional gear motor mechanism. The power panel can be operated manually under a full load.

## INTEGRAL OVERCURRENT PROTECTION CAPABILITY:

The Service Entrance Power Transfer Switch trip units are integrated in to the power switching section. This eliminates the need for separate upstream protective devices, saving cost and space.



Components of Automatic Transfer Switches

| UL1008 Withstand and Close on Ratings as Listed (kA) |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Switch | 3-Cycle Rating |  |  |  | Ratings When Used with Upstream Fuse |  |
| Ampere <br> Rating | $\mathbf{2 4 0}$ | $\mathbf{4 8 0}$ | $\mathbf{6 0 0}$ | Maximum |  |  |
| Vac | Vac | Vac | Fuse Rating | Fuse Type | $\mathbf{6 0 0}$ Vac |  |
| 100 | 100 | 65 | 25 | 200 | J, T | 200 |
| 225 | 100 | 65 | 25 | 400 | J, T | 200 |
| 300 | 100 | 65 | 25 | 400 | J, T | 200 |
| 400 | 100 | 65 | 25 | 400 | J, T | 200 |
| 600 | 100 | 651 | 25 | 1200 | J, T | 200 |
| 800 | 65 | $50^{1}$ | 25 | 1600 | L | 200 |
| 1000 | 65 | $50^{1}$ | 25 | 1600 | L | 200 |
| Notes |  |  |  |  |  |  |

Notes
1 Four-pole configuration is 35 kA for 600,800 and 1000A.

## Power Series, Service Entrance Rated, Molded Case Type, Open and Delayed Transition

## UNIT DIMENSIONS:


*Top, bottom and side cable entry

| Standard Terminals Dimensions in Inches (mm) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $\mathrm{Cu} / \mathrm{Al}$ Rated Terminal Lugs (MCM) |  |  |  |  |
| Ampere | Breaker Frame | Normal and <br> Emergency <br> Sources | Load | Neutral ${ }^{1}$ |
| 100 | HFD | (1) \#14-1/0 | (1) \#14-1/0 | (3) \#14-1/0 |
| 225 | HFD | (1) \#6-300 | (1) \#6-300 | (3) \#4-300 |
| 225 | HKD | (1) \#3-350 | (1) \#6-350 | (3) \#4-350 |
| 225 | HKD | (1) \#3-350 | (1) \#6-350 | (3) \#4-350 |
| 300 | HKD | (1) \#3-350 | (1) \#6-350 | (3) \#4-350 |
| 400 | HLD | (1) 4/0-600 | (2) \#1-500 | (6) 250-350 |
| 600 | HLD | (1) 3/0-350 | (2) \#1-500 | (6) 250-350 |
| 600 | HMDL | (2) \#1-500 | (2) \#1-500 | (12) 4/0-500 |
| $\begin{aligned} & 600 \\ & \text { (four-pole) } \end{aligned}$ | NB | (3) $3 / 0-400$ | (3) 3/0-400 | (3) 3/0-500 |
| 800 | HMDL | (3) 3/0-400 | (3) 3/0-400 | (12) 4/0-500 |
| 800 | HNB | (3) $3 / 0-500$ | (4) 4/0-500 | (12) 4/0-500 |
| 1000 | HNB | (3) $3 / 0-500$ | (4) 4/0-500 | (12) 4/0-500 |

## Note

1 Applies to standard two and three pole configurations with solid neutral.

| Molded Case Transfer Switches Dimensions in Inches (mm) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wall Mount Enclosure |  |  |  |  | Bolt Pattern |  |  |
| Ampere |  | $\begin{gathered} \text { Height } \\ \text { A } \end{gathered}$ | $\text { Width }_{\mathbf{R}}$ | $\begin{aligned} & \text { Depth }{ }^{1} \end{aligned}$ | Horizontal G | Vertical H | Weight Lbs (kg) |
| 100 | HFD ${ }^{1}$ | 47.74 (1213.0) | 20.81 (528.6) | 17.22 (437.0) | 10.75 (273.0) | 46.44 (1180.0) | 232 (105) |
| 225 | HFD ${ }^{1}$ | 35.61 (904.0) | 20.06 (509.5) | 13.34 (339.0) | 10.75 (273.0) | 34.31 (904.0) | 150 (68) |
| 225 | HFD | 47.74 (1213.0) | 20.81 (528.6) | 17.22 (437.0) | 10.75 (273.0) | 46.44 (1180.0) | 232 (105) |
| 225 | HKD | 56.00 (1422.4) | 20.81 (528.6) | 18.40 (467.4) | 11.00 (279.4) | 45.50 (1155.7) | 305 (138) |
| 300 | HKD | 53.00 (1346.2) | 25.81 (655.6) | 18.40 (467.4) | 11.00 (279.4) | 53.50 (1358.9) | 295 (134) |
| 400 | HLD | 53.00 (1346.0) | 25.81 (655.6) | 16.65 (422.9) | 16.00 (406.4) | 51.50 (1308.0) | 425 (193) |
| 600 | HLD ${ }^{1}$ | 64.00 (1625.6) | 25.81 (655.6) | 18.40 (467.4) | 16.00 (406.4) | 62.50 (1588.0) | 475 (214) |
| 600 | HMDL | 76.74 (1949.2) | 25.81 (655.6) | 19.50 (495.3) | 16.00 (406.4) | 75.15 (1908.8) | 480 (218) |
| 800 | HMDL ${ }^{1}$ | 76.74 (1949.2) | 25.81 (655.6) | 19.50 (495.3) | 16.00 (406.4) | 75.15 (1908.8) | 510 (231) |
| 800-1000 | HNB | 76.74 (1949.2) | 25.81 (655.6) | 19.50 (499.3) | 16.00 (406.4) | 75.15 (1908.8) | 540 (245) |

## Notes

1 240/120V, single-phase, three-wire or 208V, three-phase, four-wire systems only, without multi-tap transformer

* For all dimensions and terminations confirm with submittal information.

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