

## THOMSON POWER SYSTEMSTS 870 AUTOMATIC TRANSFER SWITCHES OFFER THE FOLLOWING:

## ENCLOSED CONTACT POWER SWITCHING UNITS

- Fully enclosed silver alloy contacts provide high withstand rating \& 100\% continuous current rating
- 3 cycle short circuit current withstand
- 10 cycle 6 X overload current rating
- Completely isolated utility and generator side power switching units
- Power switching units can incorporate over current protection, allowing cost savings in upstream devices
- Not damaged if manually switched while in service


## RELIABLE MOTOR-OPERATED TRANSFER MECHANISM

- Heavy duty brushless gearmotor and operating mechanism provide mechanical interlocking (for open transition ATS) and extreme long life
- Stored Energy: Motor Operators for fast CTTS
- Safe manual operation permits operation under adverse conditions


## SUPERIOR SERVICEABILITY

- All mechanical and control devices are visible and front accessible
- All control wires and power busses are front accessible
- Plug-in TSC 7320 Transfer Switch Controller


## CONTROL FEATURES

- TSC 7320 microprocessor based controller with $2.3^{\prime \prime}$ back-lit LCD display and programmable inputs/outputs
- Isolation plug permits disconnecting control circuits from all power sources


## PRODUCT DATA

- Models from 100-1200A continuous current
- Available 2, 3 or 4 pole
- All models $50 / 60 \mathrm{~Hz}$ rated
- Voltage range 120-600VAC
- 3 phase, 3 or 4 wire systems
- Open Transition or Closed Transition ATS
- 1000/1200A offer fast Open Transition transfer, within-phase monitoring


## QUALITY ASSURANCE

- ISO 9001 Registered


## SEISMIC CERTIFICATION

TS 870 ATS is certified for installation and operation perthe following requirements:

- IBC 2012 - Section 13, Occupancy Category IV
- ASCE7 - 05 Region 3 (minimum $\mathrm{SS}=200 \%$ )


## SAFETY STANDARDS

- UL 1008 Automatic Transfer Switches for use inEmergency Systems
- CSA C22.2 No. 178 Automatic Transfer Switches
- NFPA 110 Standard for Emergency and StandbyPower Systems


## WARRANTY

- 2 year limited warranty included

Thomson Power Systems TS 870 Automatic Transfer Switches employ two mechanically interlocked power switching units with a microprocessor based controller to automatically start a generator and transfer system load to a generator supply in the event of a utility supply failure. System load is then automatically re-transferred back to the utility supply following restoration of the utility power source to within normal operating limits. All load transfer sequences are "Open Transition" (i.e."break-before make") with adjustable neutral position delay to ensure adequate voltage decay for preventing out of phase transfers.

TS 870 Automatic Transfer Switches are certified to UL 1008 \& CSA 178 Standards for use in Emergency Power System applications.

All TS 870 Transfer Switch models have been 3 cycle withstand current tested in accordance with UL 1008 \& CSA 178. Additionally, they can withstand 6 times overload for 10 cycles. The standard TS 870 Automatic Transfer Switch is rated for $100 \%$ system load. The TS 870 design allows optional use of integral over current trip elements within the power switching units. All TS 870 Automatic Transfer Switches use a TSC 7320 microprocessor based controller which provides all necessary control functions for fully automatic operation. The controller is equipped with $2.3^{\prime \prime}$ back-lit LCD display which provides operating status and controls. All parameters andconfigurations are entered without opening the front door.

## CLOSED TRANSITION ATS (MOMENTARY)

Note: TS870 400 to 800A, closed transition ATS is implemented using the TS870 with TSC900 controller. Refer to TS870 Commercial \& Industrial ATS datasheet CL062 for details.

Thomson Power Systems TS 870 Closed Transition Transfer Switch (1000A - 1200A CTTS) employs two stored energy, motor operated electrically interlocked molded case (MCCB/MCS) power switching units and a microprocessor based controller to automatically allow a Closed Transition ("make-before-break") load transfer when both utility and generator sources are available. All Closed Transition transfer sequences ensure both sources of power are in synchronism prior to transfer and load is transferred without power interruption. Automatic control \& protection circuits ensure the generator and utility supplies are only in parallel for a maximum of 100 ms to permit an uninterrupted load transfer.

In the event of a utility supply failure, the TS 870 CTTS will automatically revert to an Open Transition load transfer sequence to transfer system load automatically to the generator supply. System load is then automatically re-transferred back to the utility supply utilizing a Closed Transition transfer sequence following restoration of the utility power source to within normal operating limits. All Closed Transition transfer sequences will be inhibited when only one source of power is available. The Closed Transition feature is a standard option that can be applied to TS 870 model.

TS 870 CTTS are specifically designed and certified to UL 1008 CTTS Standards, for use in Emergency Power System applications such as Healthcare Commercial, Industrial, or Government Institutions that require automatic standby power and minimal power interruptions to the load.

The TS 870 CTTS Transfer Switches use the TSC 7320 controller, with built-in Sync Check relay which contains adjustable voltage differential/slip frequency threshold limits. The paralleling time is less than 100ms. A timer monitors the Closed Transition period, and will isolate, should the Closed Transition time exceed the setting of the timer. If the device fails to open within 100 ms an additional Extended Paralleling Protection is provided to ensure isolation by opening the other source within 500 ms .

Closed Transition Mode can be bypassed to Open Transition Mode within the TSC 7320 Controller. An Auto/ Manual Switch is provided for safe manual operation in Open Transition mode with positive pushbutton controls.


## BYPASS ISOLATION ATS



1000 / 1200A TS870 Bypass, 4 breaker configuration


1000A-1200A Molded Case Bypass/Isolation Automatic Transfer Switch TYPICAL SINGLE LINE DIAGRAM

Note: TS870 400 to 800A 4 Breaker bypass configuration ATS is implemented using the TS870 with TSC900 controller. Refer to the TS870 Commercial \& Industrial ATS datasheet CL062 for details.

Thomson Power Systems TS 870 Bypass / Isolation Automatic Transfer Switches employ an interlock power switching mechanism that provides an easy and safe procedure for system maintenance personnel to manually isolate and bypass an Automatic Transfer Switch. The Bypass/Isolation switch is manually operated and allows either generator or utility source to be bypassed to maintain power to the load, while the Automatic Transfer Switch is tested for maintenance procedures as required. The bypass/isolation procedure allows a fast, simple, and reliable method of isolating and bypassing the Automatic Transfer Switch through a "make-before-break" bypass design. The interlocking mechanism ensures that the utility and generator sources cannot be paralleled under any circumstance and the transfer switch may be bypassed to either source.

The TS 870 Bypass/Isolation Automatic Transfer Switch is supplied as a single complete assembly with all power conductors provided between the bypass mechanism and the transfer switch. Provisions for all external power cabling for the utility, generator and load conductors are provided for in the bypass/isolation compartment of the switch. The Bypass/ Isolation Switch and Transfer Switch are mounted in separate barriered compartments.

For transfer switches rated 1000A through 1200A using molded case power switching devices, the bypass/isolation mechanism consists of two electrically interlocked power switch devices and draw-out transfer power switching devices. Utilizing independent switching units provides a high degree of both reliability and redundancy not available in other switches.

TS 870 Bypass/Isolation Automatic Transfer Switches are specifically designed and certified to UL 1008 and CSA 22.2 No. 178 Safety Standards.

All TS 870 Bypass/Isolation Automatic Transfer Switch models have been 3 cycle withstand current tested in accordance with UL 1008 and CSA 22.2 No. 178.

The standard TS 870 Bypass/Isolation Automatic Transfer Switch is rated for $100 \%$ system load and requires upstream over current protection.

Note: Automatic Transfer Switch units rated 1000A - 1200A utilizing molded case power switching units with a closed transition option may be operated in a "make-before-break" sequence at the operator's direction.

## SERVICE ENTRANCE ATS (For U.S. Market Only)

Thomson Power Systems TS 870 Service Entrance (SE) Automatic Transfer Switches incorporate an isolating mechanism and over current protection on the utility supply thereby removing the need to have a separate, upstream circuit breaker/disconnect switch. This unique Service Entrance Rated Automatic Transfer Switch design is incorporated into a standard sized Automatic Transfer Switch enclosure.

Standard features of the Service Entrance Rated Automatic Transfer Switch include a NEMA 1 rated enclosure, pad-lockable Service Disconnect control switch and status indications.

TS 870 SE Service Disconnect operation ensures a high level of safety for system maintenance personnel. Normal operation and performance of the Automatic Transfer Switch is unaffected by the Service Entrance ATS feature. The TS 870 SE Automatic Transfer Switch is rated for the system load and requires upstream over current protection on the generator supply.

The TS 870 SE Automatic Transfer Switches use a type TSC 7320 microprocessor based controller.


## WITHSTAND CURRENT RATINGS (ALL MODELS)

| MODEL | RATED <br> CURRENT <br> (AMPS) | MAXVOLTAGE <br> (VAC) | WITHSTAND CURRENT RATING AMPS (RMS) <br> @ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TS 87xA-0100 | 100 A | 600 | 65,000 | 25,000 | @600V |
| TS 87xA-0150 | 150 A | 600 | 65,000 | 25,000 | 18,000 |
| TS 87xA-0200 | 200 A | 240 | 65,000 | $\mathrm{~N} / \mathrm{A}$ | 18,000 |
| TS 87xA-02502 | 250 A | 600 | 65,000 | 65,000 | $3 / \mathrm{A}$ |
| TS 87xA-0400 | 400 A | 600 | 65,000 | 50,000 | 35,000 |
| TS 87xA-0600 | 600 A | 600 | 65,000 | 50,000 | 35,000 |
| TS 87xA-0800 | 800 A | 600 | 65,000 | 50,000 | 35,000 |
| TS 87xA-1000 | 1000 A | 600 | 150,000 | 100,000 | 65,000 |
| TS 87xA-1200 | 1200 A | 600 | 150,000 | 100,000 | 65,000 |

${ }^{1}$ Note: For power switching devices equipped with optional over current trip units, standard interrupting ratings are identical to withstand ratings shown at 240 V and 480 V . For interrupting ratings at 600V, contact Thomson Power Systems.
${ }^{2}$ Note: Withstand rating specified is for 250A, 3P. For 250A, 4P, the withstand rating are 65KA@240V, 35KA@480V and 22KA@600V

## ENCLOSURE DIMENSIONS/CABLE TERMINALS (ATS ONLY) (NEMA 1, aSA \#61 GRAY)

| AMPERAGE | $\begin{gathered} \text { \# OF } \\ \text { POLES } \end{gathered}$ | DIMENSIONS INCHES (mm) ${ }^{1}$ |  |  | SHIPPING WEIGHT lbs (kg) | TERMINAL RATING ${ }^{3}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | HEIGHT | WIDTH | DEPTH |  | $\begin{gathered} \text { QTY } \\ \text { (PER PHASE) } \end{gathered}$ | RANGE |
| 100A | 2, 3, 4 | $31.1^{\prime \prime}$ (790) | 22.3" (566) | $14^{\prime \prime}$ (356) | 143 lbs (65) | 1 | \#14-1/0 |
| 150A | 2, 3, 4 | 31.1" (790) | 22.3" (566) | 14" (356) | 143 lbs (65) | 1 | \#2-4/0 |
| 200A | 2, 3, 4 | 31.1" (790) | 22.3" (566) | 14" (356) | 143 lbs (65) | 1 | \#6-350 mcm |
| 250A | 2, 3, 4 | 35.1" (892) | 27.3" (693) | 14" (356) | 172 lbs (78) | 1 | \#6-350 mcm |
| 400A | 2,3 | 43.1" (1095) | 34.3" (871) | 13" (330) | 227 lbs (103) | 2 | $2 / 0-500 \mathrm{mcm}$ |
| 400A | 4 | 48.1" (1222) | 37.8" (960) | 14.5" (368) | 256 lbs (116) | 2 | 2/0-500 mcm |
| 600A | 2,3 | 46.1" (1171) | 36.3" (922) | 14.5" (368) | 248 lbs (113) | 2 | $2 / 0-500 \mathrm{mcm}$ |
| 600A | 4 | 48.1" (1222) | 37.8" (960) | 14.5" (368) | 256 lbs (116) | 2 | $2 / 0-500 \mathrm{mcm}$ |
| 800A | 2,3 | 48.1" (1222) | 37.8" (960) | 14.5" (368) | 309 lbs (140) | 3 | $2 / 0-500 \mathrm{mcm}$ |
| 800A | 4 | 63.1" (1603) | 40.8" ${ }^{\prime \prime}$ (1036) | 14.5" (368) | 367 lbs (167) | 3 | $2 / 0-500 \mathrm{mcm}$ |
| 400A - 800A CTTS | 2, 3, 4 | 64" (1626) | 30" (762) | 13" (356) | 400 lbs (181) | 3 | $2 / 0-500 \mathrm{mcm}$ |
| 1000A/1200A (All) | 2, 3, 4 | 70" (1780) | 34.3" (871) | 14" (356) | 550 lbs (249) | 4 | 4/0-500 mcm |

${ }^{1}$ Enclosure dimensions are for reference (NOT FOR CONSTRUCTION).
${ }^{3}$ All cable connections suitable for copper or aluminum.
${ }^{4}$ Optional terminal ratings are available in some models Consult Thomson Power Systems.

Optional NEMA 3R \& 4X class enclosures available - consult Thomson Power Systems.

For ATS with Distribution Breaker Option contact factory for dimensions.

ENCLOSURE DIMENSIONS/CABLE TERMINATIONS (ATS with Bypass Switch)
NEMA 1 Standard

| AMPERAGE | $\begin{gathered} \text { \# OF } \\ \text { POLES } \end{gathered}$ | NEMA 1 DIMENSIONS INCHES (mm) ${ }^{1}$ |  |  | SHIPPING WEIGHT lbs (kg) | TERMINAL RATING ${ }^{3}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | HEIGHT INCHES (MM) | WIDTH <br> INCHES <br> (MM) | DEPTH <br> INCHES <br> (MM) |  | $\begin{gathered} \text { QTY } \\ \text { (PER } \\ \text { PHASE) } \end{gathered}$ | RANGE |
| 400A | 3 | 80" (2032) | 36" (914) | 24" (610) | 955 lbs | 2 | \#2-500 mcm |
| 400A | 4 | 80" (2032) | 48" (1219) | 22" (559) | 1260 lbs | 2 | \#2-500 mcm |
| 600A | 3 | 80" (2032) | 36" (914) | 24" (610) | 1075 lbs | 2 | \#2-500 mcm |
| 600A | 4 | 80" (2032) | 48" (1219) | 22" (559) | 1340 lbs | 2 | \#2-500 mcm |
| 800A | 3 | 80" (2032) | 36" (914) | 24" (610) | 1075 lbs | 3 | \#2-500 mcm |
| 800A | 4 | 80" (2032) | 48" (1219) | 22" (559) | 1340 lbs | 3 | \#2-500 mcm |
| 1000A | 3 | 80" (2032) | 48" (1219) | 22" (559) | 1415 lbs | 4 | \#4-500 mcm |
| 1000A | 4 | 80" (2032) | 48" (1219) | 22" (559) | 1474 lbs | 4 | \#4-500 mcm |
| 1200A | 3 | 80" (2032) | 48" (1219) | 22" (559) | 1415 lbs | 4 | \#4-500 mcm |
| 1200A | 4 | 80" (2032) | 48" (1219) | 22" (559) | 1474 lbs | 4 | \#4-500 mcm |

## NEMA 3R Option

| AMPERAGE | $\begin{gathered} \text { \# OF } \\ \text { POLES } \end{gathered}$ | NEMA 3R DIMENSIONS INCHES (mm) ${ }^{1}$ |  |  | SHIPPING WEIGHT lbs (kg) | TERMINAL RATING ${ }^{3}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | HEIGHT INCHES (MM) | WIDTH <br> INCHES <br> (MM) | DEPTH INCHES <br> (MM) |  | $\begin{gathered} \text { QTY } \\ \text { (PER } \\ \text { PHASE) } \end{gathered}$ | RANGE |
| 400A | 3 | 80" (2032) | 48" (1219) | 22" (559) | 1500 lbs | 2 | \#2-500 mcm |
| 400A | 4 | 80" (2032) | 48" (1219) | 22" (559) | 1535 lbs | 2 | \#2-500 mcm |
| 600A | 3 | 80" (2032) | 48" (1219) | 22" (559) | 1540 lbs | 2 | \#2-500 mcm |
| 600A | 4 | 80" (2032) | 48" (1219) | 22" (559) | 1584 lbs | 2 | \#2-500 mcm |
| 800A | 3 | 80" (2032) | 48" (1219) | 22" (559) | 1540 lbs | 3 | \#2-500 mcm |
| 800A | 4 | 80" (2032) | 48" (1219) | 22" (559) | 1584 lbs | 3 | \#2-500 mcm |
| 1000A | 3 | 80" (2032) | 48" (1219) | 22" (559) | 1555 lbs | 4 | \#4-500 mcm |
| 1000A | 4 | 80" (2032) | 48" (1219) | 22" (559) | 1614 lbs | 4 | \#4-500 mcm |
| 1200A | 3 | 80" (2032) | 48" (1219) | 22" (559) | 1555 lbs | 5 | \#4-500 mcm |
| 1200A | 4 | 80" (2032) | 48" (1219) | 22" (559) | 1614 lbs | 5 | \#4-500 mcm |

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## STANDARD FEATURES

- 2.3" back-lit LCD text display for monitoring 3 Phase Utility/Generator voltage, system frequency, operation status and alarms
- Five key menu navigation
- Front panel editing with PIN protection
- Customizable status screens
- Load on Utility \& Load on Generator indication
- Utility \& Generator Source available indication
- 3 Phase Voltage sensing on Utility \& Generator Sources
- Generator AC frequency sensing
- Utility under voltage control setpoint 50-95\% (adjustable)
- Generator under voltage control setpoint 50-95\% (adjustable)
- Generator under frequency control setpoint 70-90\% (adjustable)
- Engine warmup timer 0-60 min. (adjustable)
- Utility return timer 0-60 min. (adjustable)
- Engine start (Mains transient) delay timer 0-30 sec. (adjustable)
- Engine cooldown timer 0-60 min. (adjustable)
- Neutral position delay timer 0-120 sec. (adjustable)
- Load Disconnect Contact (LDC) for pre/post transfer control to signal external building systems such as elevators during transfer operations
- Up to 16 different date and time schedules for On-load or Off-load Generator Exercising
- Real-time clock provides accurate event logging
- Data logging
- Ten outputs total. Two programmable outputs are rated at 2A, 24VDC resistive, two user programmable outputs rated 15A, 24VDC resistive, and one programmable relay output rated at 8A, 250VAC resistive. Remaining contacts are for ATS functionality. The user programmable outputs can be changed to 20 different functions including: Load on Utility, Load on Gen, Load Disconnect Contact (LDC), Fail to Transfer (FTT), Utility Power Available (UPA), Generator Power Available (GPA), Utility Power Fail, ATS Not in Auto, and ATS in Auto.
- The Transfer Switch controller is pre-programmed with the following outputs enabled:
- Load on Utility
- Load on Gen
- Load Disconnect Contact (LDC)
- Fail to Transfer (FTT)
- ATS Not in Auto

- Local and Remote utility power fail simulation test
- Engine start contact (8A, 120/250VAC resistive max.)
- Automatic force transfer to alternate supply should load voltage become de-energized
- 24VDC control power
- Remote Load Test/Peak Shave Input
- NEMA 1 Enclosure
- Solid Neutral on 4 Wire Systems
- Configurable System Voltage Type (3 wire delta or 4 wire Wye capable without additional sensing transformers)
- ATS Generator Bus Power Metering Capability (Amp, Volt, Freq, kW, kVA, PF)*
- Under/Over Frequency Protection - Utility and Generator Sources
- 3 Phase Over Voltage Protection - Utility and Generator Sources
- Phase Sequence and Phase Rotation Protection for Utility and Generator Sources
- Voltage Phase Loss/Unbalance Protection
- Programmable Inputs (Quantity 8 Digital Inputvoltage free input)
- Optional Remote Input module DSE2130 (Quantity 8 Digital inputs)
- Optional Remote Output module DSE2157 (Quantity 8 relay contacts)
- RS485 Modbus Remote Communication Port (Modbus ${ }^{T M}$ Serial RTU)
- Optional Ethernet Modbus Remote Communication Port DSE855 (Modbus ${ }^{\text {TM }}$ TCP)
- Optional Remote Annunciator DSE2548
- Support up to Three Remote Display Units DSE2520
- Serviceable Plug-in Connectors

ORDERING INFORMATION
When placing an order, specify the following 20 digit ATS MODEL CODE as per the features and applications described below.


1-3. SERIES
TS - TRANSFERSWITCH

4 \& 5. MODEL
87-870 SWITCH

## 6. POLES

2-2 POLE
3-3POLE
4-4 POLE
7. CONFIGURATIONTYPE

A - ATS
E- DOUBLEBYPASS-4 BRKR ${ }^{9}$
X-SPECIAL

8-11. AMPERAGE
0100
0150
$0200^{5}$
0250
0400
0600
0800
1000
1200
12. APPLICATION

A - Standard
B- SERVICEENTRANCE
C- DUAL UTIIITY CONTROL
D- DUAL STANDBY GEN (Slave ATS)
H- DUAL PRIME GEN CONTROL
X- SPECIAL
13. OPERATION TYPE

1- OPENTRANSITION
2 - MANUAL ELEC. OP.
3- CLOSED TRANSITION (MOMENTARY) ${ }^{7}$
X- SPECIAL
14. SAFETY STANDARDS

A - UL 1008 (Service Entrance)
B - CSA C22.2 NO 178
C- UL 1008 / CSA 178
X - NOT APPLICABLE
15. VOLTAGE $1 \varnothing 3$ WIRE

D-120/240
$3 \varnothing 4$ WIRE (GROUNDED NEUTRAL)
E- 120/208 ${ }^{1}$
F - 127/220
G-120/240 ${ }^{1}$ (DELTA)
H- 220/380 ${ }^{2}$
S - 230/400 ${ }^{2}$
J- 240/416
K- 254/440
M- 277/480 ${ }^{1}$
N-347/600 ${ }^{1}$
Y - MULTI-VOLTAGE(STOCK SWITCHES ONLY) ${ }^{1}$ Customer Configurable
$3 \varnothing 3$ WIRE
P-208
Q-220
R-240
U-416
V-480
W-600
X- SPECIAL
16. CONTROLLER

5 - TSC $900 \mathrm{c} / \mathrm{w}$ GHC Graphic Display
6 - TSC 7320 c/w LCD DISPLAY
7 - NONE (MANUAL)
17. ENCLOSURETYPE

A - NEMA1, ASA \#61 GRAY
B - NEMA2, ASA \#61 GRAY
C- NEMA12, ASA \#61 GRAY
D - NEMA3R SD, ASA \#61 GRAY
E- NEMA3R DD, ASA \#61 GRAY
F - NEMA3RX/4X DD
$\left(304\right.$ STAINLESS STEEL) ${ }^{3}$
G-NONE (OPENSTYLE)
L - NEMA3RXI4X DD
$\left(316\right.$ STAINLESS STEEL) ${ }^{3}$
X- SPECIAL
18. UTILITY SWITCHING DEVICE

D- MOLDED CASE SWITCH DRAWOUT ${ }^{9}$ (400-1200A)
E- MOLDED CASE SWITCH DRAWOUT ${ }^{9}$ C/W ELECTRONIC TRIP (400-1200A)
F- MOLDED CASE SWITCH DRAWOUT ${ }^{9}$ CNW ELECTRONIC TRIP \& GF (400-1200A)
K - MOLDED CASE SWITCH (100-1200A)
M- MOLDED CASE SWITCH C/W THER-MAG TRIP (100-200A)
N-MOLDED CASE SWITCH CMW ELECTRONIC TRIP (250-1200A)
P- MOLDED CASE SWITCH C/W ELECTRONIC \& GF TRIP (250-1200A)
19. GENERATOR SWITCHING DEVICE

D- MOLDED CASESWITCH DRAWOUT ${ }^{9}$ (400-1200A)
E- MOLDED CASE SWITCH DRAWOUT ${ }^{9}$ C/W ELECTRONIC TRIP (400-1200A)
F- MOLDED CASE SWITCH DRAWOUT ${ }^{9}$ CIW ELECTRONIC TRIP \& GF (400-1200A)
K - MOLDED CASE SWITCH (100-1200A)
M- MOLDED CASE SWITCH C/W THER-MAG TRIP (100-200A)
N-MOLDED CASE SWITCH CMW ELECTRONIC TRIP (250-1200A)

P- MOLDED CASE SWITCH C/W ELECTRONIC \& GF TRIP (250-1200A)

## 20. POWER CONNECTIONS

A - STANDARD
B - ATS CONNECTION PLATE 100A-400A
C- ATS CONNECTIONPLATE600A-800A
D - ATS CONNECTION PLATE 1000A-1200A
E- ATS CONNECTION PLATE 100A-400A FOR U\&G
F- ATS CONNECTIONPLATE600A-800A FORU\&G
G - ATS CONNECTION PLATE 1000A-1200A FOR U\&G
X- SPECIAL
21. ATS CONNECTION CONFIGURATION

A - STANDARD
B - ALTERNATE B (400-1200A)
C - ALTERNATE C (400-1200A)
D - ALTERNATE D (400-1200A)

## NOTES

${ }^{1}$ MULTI-VOLTAGE CAPABLE
${ }^{2}$ FOR 50 Hz APPLICATION
${ }^{3}$ STANDARD ENCLOSURE RATING IS N3RX
AT 800A, N4X FOR 1000/1200A
AND 600A ANDBELOW
${ }^{5}$ 240V MAX
${ }^{7}$ CLOSED TRANSITION OPTION 400A - 1200A ONLY
${ }^{9}$ DOUBLEBYPASS OPTION 400A -1200A ONLY

DM <br>

## AVAILABLE IN STOCK

The following standard ATS models are available from stock:

| AMPERAGE | 3 POLE | $\begin{gathered} 2 \text { POLE } \\ \text { OPTION } \\ \text { TS } 872 \end{gathered}$ | SERVICE ENTRANCE RATED ATS | SOLID NEUTRAL | MULTIVOLTAGE (CUSTOMER CONFIGURABLE 208-600V) | $\begin{gathered} \text { TSC } 7320 \\ \text { CONTROLLER } \end{gathered}$ | NEMA 1 ENCLOSURE | NEMA 3R ENCLOSURE OPTION | 4 <br> PROGRAMMABLE OUTPUT CONTACTS (2A,24VDC) | MODBUS ${ }^{\text {m }}$ RTU REMOTE COMMUNICATION PORT (SERIAL RS 485) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 100A |  |  |  |  |  |  |  |  |  |  |
| 150A |  |  |  |  |  |  |  |  |  |  |
| 200A |  |  | - |  | 240V Max |  |  |  |  |  |
| 250A |  |  |  |  |  |  |  |  |  |  |
| 400A |  |  |  |  |  |  |  |  |  |  |
| 600A |  |  |  |  |  |  |  | - |  |  |
| 800A |  |  |  |  |  |  |  |  |  |  |



## OPTIONAL FEATURES

## CODE

AUXILIARIES:
AUX-BG
AUX-BU
KOTS-DSE
RO2157

TS-STG
TS-STU

## COMMUNICATION:

EMB-TCP/IP (DSE855)
RA7320 (DSE2548)
RD7320 (DSE2520)

## ENCLOSURE:

LCK
TS-H1
TS-H2

## FUNCTION:

MTS
TCP
TS-SS
LSC

## METERING:

LPM-DSE
CTKxxxx

MUP

## POWER:

SPD

OTHER:
(Specify separately from ATS MODEL CODE when ordering)

## DESCRIPTION

Generator Bypass Auxiliary Contact
Utility Bypass Auxiliary Contact
Key Operated Test Switch - Auto/Off/Engine Start/Test - includes the DSE2130 module
Programmable Relay Output Expansion Module - Includes QTY 8, 2A Resistive 30VDC rated relays - 4 NO and 4 Form C Contacts.
24Vdc or 120VAC Shunt Trip Generator Switch (external power source required)
24 Vdc or 120VAC Shunt Trip Utility Switch (external power source required)

Ethernet Modbus ${ }^{\top \mathrm{TM}}$ Remote Communication (Modbus ${ }^{\text {TM }}$ TCP)
Remote Annunciator with eight configurable LEDs. Works up to 0.6 miles from the TSC7320. Up to 10 modules can be daisy-chain (Refer to the DSE2548 Datasheet) Remote Display. Up to three display modules can be connected to TSC7320 (Refer to the DSE2510-20 Datasheet)

Enclosure Lockable Door (Single point T-Handle lock)
Enclosure Strip Heater c/w Thermostat (120VAC external power source required)
Enclosure Strip Heater c/w Thermostat (internally powered from ATS load)

Manually Initiated Electrically Operated Transfer Switch c/w Source Selector Switch, Position Indicating Lights, Source Available Lights
Transfer Switch Connection Plate for Generator Supply
Internal Multi-Voltage Selector Switch (208V/240V/480V)
Load Shed, 5 Stage *Requires CTK Option

Transfer Switch Load Power Metering CT Kit (Amp, Volt, Freq, kW, kVA, PF) **Requires CT Kit
Current Transformer Kit (xxxx -Specify CT Size 0100, 0150, 0250, 0400, 0600, 0800, 1200) **Requires GPM Option
Multifunction Utility Protective Relay - Basler ${ }^{\text {TM }}$ BE1-11i (Protection Functions 27, 32,47, 50/51, 67, 810/U

Note: May be required by local utility for Momentary CT applications. Consult factory for other makes and models

Surge Protection Device

Additional 12 Month Parts \& Labour Warranty
Additional 48 Month Parts \& Labour Warranty

## THOMSON <br> pOWER SYSTEMS

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THOMSON
POWER SYSTEM
ISO 9001

NOTE: Specifications subject to change without notice.
APPLICATION CONSIDERATIONS
The proper selection and application of power generation products and components, including the related area of product safety, is the responsibility of the customer. Operating and performance requirements and potential associated issues will vary appreciably depending upon the use and application of such products and components. The scope of the technical and application information included in this publication is necessarily limited. Unusual operating environments and conditions, and other factors can materially affect the application and operating results of the products and components and the customer should carefully review its requirements. Any technical advice or review furnished by Regal Beloit America, Inc. and its affiliates with respect to the use of products and components is given in good faith and without charge, and Regal assumes no obligation or liability for the advice given, or results obtained, all such advice and review being given and accepted at customer's risk
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[^0]:    1 Enclosure dimensions are for reference. (DO NOT USE FOR CONSTRUCTION).
    2 All cable connections suitable for copper or aluminum.
    3 Enclosure depth shown has cable entry/exit location restrictions. Contact Factory for further detailed information.

    * Enclosures painted ASA \#61 Gray.

