Enclosed Contact Power Switching Units
- fully enclosed silver alloy contacts provide high withstand rating.
- completely separate utility and generator side power switching units provide superior reliability through redundancy (no common parts), as well as excellent serviceability.
- power switching units incorporate overcurrent protection, allowing cost savings in upstream devices.
- not damaged if manually switched while in service since contacts have inherent spring over center design.

Reliable Motor-Operated Transfer Mechanism
- heavy duty brushless gearmotor and operating mechanism provide mechanical interlocking and extreme long life with minimal maintenance.
- safe manual operation permits easy operation even under adverse conditions.

Superior Serviceability
- all mechanical and control devices are visible and readily accessible.
- all control wires and power busses are front-accessible - there are no wires or connections which require removal of the transfer switch from its enclosure for servicing.

Control Features
- Microprocessor based controllers.
- isolation plug permits disconnecting control circuits from all power sources for safety and convenience.

Quality Assurance
- ISO 9001:2000 Registered
- Complies with IEC 947-3 requirements

Product Data
- Models from 100-3200 Amp continuous
- Available 3 or 4 pole
- All models 50/60Hz rated
- Voltage range 208-480V
- 3 phase, 3 or 4 wire systems*

* Single phase models are also available. Please contact factory.
Thomson Technology TS 830 series of Automatic Transfer Switches employ two mechanically interlocked enclosed contact power switching units and a microprocessor based controller to automatically transfer system load to an alternate supply in the event of a utility supply failure. System load is automatically re-transferred back to the utility supply following restoration of the utility power source to within normal operating limits.

**TS 830** Automatic Transfer Switches are specifically designed for use in emergency power system applications such as commercial, industrial, or government institutions that require automatic standby power.

The standard **TS 830** Automatic Transfer Switch is fully rated. The **TS 830** design includes overcurrent trip elements within the enclosed contact power switching units thus eliminating the need for external, upstream protective devices.

The design of the **TS 830** operating mechanism provides many standard options to fit a wide variety of system applications such as dual utility feeders, dual prime generators and service entrance.

The inherent spring over center mechanism in the power switching devices allows the operator to manually operate the transfer switch without disconnecting the power source or loads.

The **TS 830** series automatic transfer switch base model is supplied with a **TSC 80e** microprocessor based controller as standard, which provides all necessary control functions for fully automatic operation. The **TSC 80e** controller can be mounted on the door of the transfer switch enclosure. Operating status is shown via LED indication lights and LCD display. Refer to separate literature for additional information on the **TSC 80e** transfer controller. Additional models of microprocessor based controllers are available (Refer to Ordering Information).

The **TS 830** power chassis can be supplied without the **TSC 80e** controller for use with controllers supplied by others.

The standard **TS 830** series automatic transfer switch provides an interrupted “break-before-make” transfer system with an adjustable neutral position delay to ensure adequate voltage decay to prevent out of phase transfers.

**POWER CONTROL CENTER PCC (Option)**

The **TS 830** transfer switch is available with a “Power Control Center” (PCC) option which provides a comprehensive set of features in a compact design for standby power applications. The key benefits of utilizing a **TS 830** with **PCC** option is the reduced space and installation costs versus separately purchased system components. The **PCC** option includes a full featured Microprocessor-based Genset controller (Model MEC 310 complete with integral auto-start engine controller, genset power metering and genset protection and auto mains failure (AMF) transfer controls with integral Mains (utility) 3 phase voltage sensing), provision for integral battery charger, and integral generator circuit breaker with overcurrent trip unit. For complete detailed listing of advanced features available in the MEC 310 genset controller, please refer to separate literature.
**STANDARD FEATURES**

- LCD Display for monitoring single or 3 Phase Utility/Generator voltage, system frequency and timer countdown operation
- Front Panel Programming using built-in faceplate mounted pushbuttons & LCD display with password security
- Utility & Generator AC Voltage sensing (true RMS) – 120-480V single or 3 phase
- Generator AC frequency sensing
- Utility under voltage control setpoint 70 - 95% (adjustable)
- Generator under voltage control setpoint 70 - 95% (adjustable)
- Generator under frequency control setpoint 70 - 90% (adjustable)
- Engine warm-up timer 0-60 sec. (adjustable)
- Utility return timer 0-30 min. (adjustable)
- Engine start timer 0-60 sec. (adjustable)
- Engine cooldown timer 0-30 min. (adjustable)
- Neutral position delay timer 0-60 sec. (adjustable)

**ENCLOSURE DIMENSIONS/CABLE TERMINALS**

<table>
<thead>
<tr>
<th>BASIC MODEL</th>
<th>DIMENSIONS Inches (mm)</th>
<th>SHIPPING WEIGHT</th>
<th>TERMINAL RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HEIGHT</td>
<td>WIDTH</td>
<td>DEPTH</td>
</tr>
<tr>
<td>TS 83xA - 0100</td>
<td>31.1 (790)</td>
<td>22.3 (566)</td>
<td>14.0 (356)</td>
</tr>
<tr>
<td>TS 83xA - 0250</td>
<td>31.1 (790)</td>
<td>22.3 (566)</td>
<td>14.0 (356)</td>
</tr>
<tr>
<td>TS 83xA - 0400</td>
<td>35.1 (892)</td>
<td>27.3 (693)</td>
<td>14.0 (356)</td>
</tr>
<tr>
<td>TS 83xA - 0630</td>
<td>48.1 (1222)</td>
<td>37.8 (960)</td>
<td>14.5 (368)</td>
</tr>
<tr>
<td>TS 83xA - 0800</td>
<td>48.1 (1222)</td>
<td>37.8 (960)</td>
<td>14.5 (368)</td>
</tr>
<tr>
<td>TS 83xA - 1000/1200</td>
<td>76 (1930)</td>
<td>34 (864)</td>
<td>13 (330)</td>
</tr>
<tr>
<td>TS 83xA - 1600</td>
<td>87 (2210)</td>
<td>34 (864)</td>
<td>13 (330)</td>
</tr>
</tbody>
</table>

* For MEC 320 Peak Plus ATS’s 800 - 3200 Amp refer to separate literature.

**ELECTRICAL RATINGS (STANDARD MODELS)**

<table>
<thead>
<tr>
<th>MODEL TYPE</th>
<th>100A (S Style)</th>
<th>250A (S Style)</th>
<th>400A (S Style)</th>
<th>630A (S Style)</th>
<th>800A (S Style)</th>
<th>1000/1200A (T Style)</th>
<th>1600 (T Style)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated short circuit breaking capacity (Icu) kA @400V</td>
<td>50</td>
<td>65</td>
<td>65</td>
<td>80</td>
<td>65</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Withstand rating fuse protected (kA)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Rated service short circuit breaking capacity (Ics) kA @400V</td>
<td>42</td>
<td>48</td>
<td>48</td>
<td>60</td>
<td>48</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Mechanical endurance (Number of Operations)</td>
<td>7000</td>
<td>6000</td>
<td>4000</td>
<td>4000</td>
<td>4000</td>
<td>2500</td>
<td>2500</td>
</tr>
</tbody>
</table>

* For MEC 320 Peak Plus ATS’s 800 - 3200 Amp refer to attached sheet.
Specify the following 21 digit ATS MODEL CODE as per the features and applications described below when placing an order.

1-3. SERIES
TS – TRANSFER SWITCH

4 & 5. MODEL
83 – 830 SWITCH

6. POLES
2 – 2 POLE
3 – 3 POLE
4 – 4 POLE

7. CONFIGURATION TYPE
A – ATS
X – SPECIAL

8-11. AMPERAGE
0100
0250
0400
0625
1000
1200
1600
2000
2500
3200

12. APPLICATION
A – STANDARD ATS
C – DUAL SOURCE
P – POWER CONTROL CENTER (PCC)
S – PEAK PLUS
X – SPECIAL

13. OPERATION TYPE
1 – OPEN TRANSITION
2 – MANUAL ELEC. OP.
4 – CLOSED TRANSITION (SOFT LOAD)
X – SPECIAL

14. SAFETY STANDARD
X – NOT APPLICABLE

15. VOLTAGE
10 3 WIRE
D – 120/240
30 4 WIRE (GROUNDED NEUTRAL)
E – 120/208
F – 120/220
G – 120/240 (DELTA)
H – 220/380
J – 240/415
M – 277/480
S – 230/400

16. CONTROLLER
2 – TSC800
3 – TSC88e
6 – PGC4000
7 – NONE (MANUAL)
8 – MEG 310 (PCC)
9 – MEG 320

17. ENCLOSURE TYPE
A – NEMA1, ASA #61 GREY
B – NEMA2, ASA #61 GREY
C – NEMA12, ASA #61 GREY
D – NEMA3R SD, ASA #61 GREY
E – NEMA3R DD, ASA #61 GREY
F – NEMA4X DD, STAINLESS STEEL
G – NONE (OPEN STYLE)
J – NEMA1, BEIGE
X – SPECIAL

18. UTILITY SWITCHING DEVICE
K – MOLDED CASE SWITCH (100-1200A)
M – MOLDED CASE SWITCH C/W THER-MAG TRIP (100-800A)
N – MOLDED CASE SWITCH C/W ELECTRONIC TRIP (250-1200A)
P – INSULATED CASE, DRAW-OUT SWITCH
Q – INSULATED CASE, DRAW-OUT SWITCH C/W ELECTRONIC TRIP (800-3200A)
R – INSULATED CASE, FIX MOUNT SWITCH
S – INSULATED CASE, FIX MOUNT SWITCH C/W ELECTRONIC TRIP (800-3200A)
U – INSULATED CASE, DRAW-OUT SWITCH C/W ELECTRONIC TRIP & GF TRIP (800A - 3200A)
V – INSULATED CASE, DRAW-OUT SWITCH C/W ELECTRONIC TRIP & GF TRIP (800A - 4000A)
W – INSULATED CASE, DRAW-OUT SWITCH C/W ELECTRONIC TRIP & GF TRIP (800A - 3200A)

19. GENERATOR SWITCHING DEVICE
K – MOLDED CASE SWITCH (100-1200A)
M – MOLDED CASE SWITCH C/W THER-MAG TRIP (100-800A)
N – MOLDED CASE SWITCH C/W ELECTRONIC TRIP (250-1200A)

20. POWER CONNECTIONS
A – STANDARD
X – SPECIAL

21. CONNECTION CONFIGURATION
8 3

NOTES
FOR PCC APPLICATION
FOR 50 HZ APPLICATION

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

OPTIONAL FEATURES

<table>
<thead>
<tr>
<th>CODE</th>
<th>DESCRIPTIONS</th>
<th>CODE</th>
<th>DESCRIPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CED</td>
<td>Custom Engineered Drawings - Project Specific</td>
<td>TS-H2</td>
<td>Enclosure Strip Heater c/w Thermostat (Internally powered from ATS load)</td>
</tr>
<tr>
<td>EAP1601</td>
<td>Transfer to Emergency Annunciator, Alarm Horn &amp; Silence Pushbutton</td>
<td>TS-O&amp;M</td>
<td>Additional ATS O &amp; M Manuals (Specify qty.) (Alternatively Download from Web)</td>
</tr>
<tr>
<td>FTS-4</td>
<td>4 Function Test Switch (Auto/Off/Engine Start/Test)</td>
<td>TS-STG</td>
<td>Shunt Trip Generator Switch</td>
</tr>
<tr>
<td>LCK</td>
<td>Lockable Door</td>
<td>TS-STU</td>
<td>Shunt Trip Utility Switch</td>
</tr>
<tr>
<td>TS-H1</td>
<td>Enclosure Strip Heater c/w Thermostat (120VAC External Power Source Required)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Specifications subject to change without notice.

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