



SERIES TS 870 • 100 - 1200 AMP MANUAL TRANSFER SWITCHES

COMMERCIAL & INDUSTRIAL

REGAL[®]

THOMSON POWER SYSTEMS TS 870 MANUAL 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 tested allows use of non-series rated upstream protective devices
- Completely separated utility and generator powering switching units provide superior reliability though redundancy

RELIABLE MOTOR-OPERATED TRANSFER MECHANISM

- Heavy duty brushless gear motor and operating mechanism provide mechanical interlocking and extreme long life with minimal maintenance
- Electrical and Mechanical interlocked mechanism prevents simultaneous closure of Utility and Generator sources

SUPERIOR SERVICEABILITY

- All mechanical and control devices are visible and readily accessible.

CONTROL FEATURES

- Source available and load status LED pilot lights
- Source selection control switch for manual operations

PRODUCT DATA

- Models available from 100 - 1200A continuous
- Voltage range 208 - 600VAC
- 2, 3 or 4 pole available, 50/60Hz
- 3 phase, 4 wire systems c/w solid neutral block

SAFETY STANDARDS

- UL 1008 Listed Transfer Switches for use in Emergency Standby Systems

WARRANTY

- 2 year limited warranty included

Thomson Power Systems TS 870 Manual Transfer Switch employs an enclosed contact power switching unit with an electrically operated control mechanism to allow manual selection of desired power source to feed a common load. All manual load transfer sequences are "Open Transition" (i.e. "break-before-make"). All TS 870 Manual Transfer Switch models have been tested in accordance with UL 1008 standards. Molded case circuit breakers or fuses with over current protection are required upstream of the transfer switch. The standard Manual Transfer Switch is rated for 100% system load. Operating status is provided via LED indicators visible on the front of the enclosure.

STANDARD FEATURES

- NEMA 1 Enclosure
- Fully rated Solid Neutral
- Motor Operated Transfer Mechanism
- Multi-Voltage Selectable (208/240/480/600V)
- 2 Position Source Selector Switch
- Load on Utility (source 1) LED pilot light
- Load on Generator (source 2) LED pilot light
- Utility Source Available LED pilot light
- Generator Source Available LED pilot light

OPTIONAL FEATURES (Specify separately from ATS MODEL CODE when ordering)

CODE	DESCRIPTION
AUX-G	Auxiliary Contact – Generator Side (up to Qty 3)
AUX-U	Auxiliary Contact – Utility Side (up to Qty 3)
UPA	Utility Power Available Contact (up to Qty 3)
TS-H1	Enclosure Strip Heater c/w Thermostat (120VAC external Source Required)
TS-H2	Enclosure Strip Heater c/w Thermostat (internally powered from ATS Load)
TCP	Transfer Switch Connection Plate for generator supply



ENCLOSURE DIMENSIONS/CABLE TERMINALS (NEMA 1, ASA #61 GRAY)

AMPERAGE	NUMBER OF POLES	DIMENSIONS INCHES (mm) ¹			SHIPPING WEIGHT lbs (kg)	TERMINAL RATING ²	
		HEIGHT	WIDTH	DEPTH		QTY (PER PHASE)	RANGE ³
100A	2, 3, 4	31.1" (790)	22.3" (566)	14" (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 mcm
400A	4	43.1" (1095)	34.3" (871)	13" (330)	227 lbs (103)	2	2/0 - 500 mcm
600A	2, 3	46.1" (1171)	36.3" (922)	14.5" (368)	248 lbs (113)	2	2/0 - 500 mcm
600A	4	48.1" (1222)	37.8" (960)	14.5" (368)	256 lbs (116)	2	2/0 - 500 mcm
800A	2, 3	48.1" (1222)	37.8" (960)	14.5" (368)	309 lbs (140)	3	2/0 - 500 mcm
800A	4	63.1" (1603)	40.8" (1036)	14.5" (368)	367 lbs (167)	3	2/0 - 500 mcm
1000A	2, 3, 4	70.0" (1780)	34.3" (871)	14" (356)	550 lbs (249)	4	4/0 - 500 mcm
1200A	2, 3, 4	70.0" (1780)	34.3" (871)	14" (356)	550 lbs (249)	4	4/0 - 500 mcm

¹ Enclosure dimensions are for reference. (Not intended for construction purposes)

² All cable connections suitable for copper or aluminum

³ Optional terminal ratings are available in some models – Consult Thomson Power Systems

WITHSTAND CURRENT RATINGS (ALL MODELS)

MODEL	RATED CURRENT (AMPS)	MAX VOLTAGE (VAC)	WITHSTAND CURRENT RATING AMPS (RMS) ¹		
			@240V	@480V	@600V
TS 87xA-0100	100A	600	65,000	25,000	18,000
TS 87xA-0150	150A	600	65,000	25,000	18,000
TS 87xA-0200	200A	240	65,000	N/A	N/A
TS 87xA-0250	250A	600	65,000	65,000	35,000
TS 87xA-0400	400A	600	65,000	50,000	35,000
TS 87xA-0600	600A	600	65,000	50,000	35,000
TS 87xA-0800	800A	600	65,000	50,000	35,000
TS 87xA-1000	1000A	600	200,000	100,000	65,000

Note: kA ratings are for ATS only. For Distribution Breaker options, the overall kA rating is based on the minimum kA rating of the power device.

¹ Note: For power switching devices equipped with optional over current trip units, standard interrupting ratings are identical to withstand ratings shown at 240V and 480V. For interrupting ratings at 600V, contact Thomson Power Systems.

ORDERING INFORMATION

When placing an order, specify the following 21 digit ATS MODEL CODE as per the features and applications described below.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
T	S		8	7																	

1-3. SERIES

TS - TRANSFER SWITCH

4 & 5. MODEL

87 - 870 SWITCH

6. POLES

2 - 2 POLE
3 - 3 POLE
4 - 4 POLE

7. CONFIGURATION TYPE

A - ATS

8 - 11. AMPERAGE

0100
0150
0200⁵
0250
0400
0600
0800
1000
1200

12. APPLICATION

A - STANDARD

13. OPERATION TYPE

2 - MANUAL ELEC. OP.

14. SAFETY STANDARDS

C - UL 1008 / CSA 178

15. VOLTAGE

1Ø 3 WIRE

D - 120/240

3Ø 4 WIRE (GROUNDED NEUTRAL)

E - 120/208¹
F - 127/220
G - 120/240¹ (DELTA)
H - 220/380²
S - 230/400²
J - 240/416
K - 254/440
M - 277/480¹
N - 347/600¹

3Ø 3 WIRE

P - 208
Q - 220
R - 240
U - 416
V - 480
W - 600
X - SPECIAL

16. CONTROLLER

7 - NONE (MANUAL)

17. ENCLOSURE TYPE

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
(304 STAINLESS STEEL)³
G - NONE (OPEN STYLE)
L - NEMA3RX/4X DD
(316 STAINLESS STEEL)³
X - SPECIAL

18. UTILITY SWITCHING DEVICE

K - MOLDED CASE SWITCH (100-1200A)
M - MOLDED CASE SWITCH C/W THER-MAG
TRIP (100-200A)
N - MOLDED CASE SWITCH C/W ELECTRONIC
TRIP (250-1200A)
P - MOLDED CASE SWITCH C/W ELECTRONIC
& GF TRIP (250-1200A)

19. GENERATOR SWITCHING DEVICE

K - MOLDED CASE SWITCH (100 - 1200A)
M - MOLDED CASE SWITCH C/W THER-MAG
TRIP (100-200A)
N - MOLDED CASE SWITCH C/W 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 CONNECTION PLATE 600A-800A
D - ATS CONNECTION PLATE 1000A-1200A
E - ATS CONNECTION PLATE 100A-400A FOR U&G
F - ATS CONNECTION PLATE 600A-800A FOR U&G
G - ATS CONNECTION PLATE 1000A-1200A FOR U&G
X - SPECIAL

21. ATS CONNECTION CONFIGURATION

A - STANDARD

NOTES

¹ MULTI-VOLTAGE CAPABLE
² FOR 50 Hz APPLICATION
³ STANDARD ENCLOSURE RATING IS N3RX
AT 800A, N4X FOR 1000/1200A
AND 600A AND BELOW
⁵ 240V MAX



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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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