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☐ MULTIPLE UNIT WORK ORDER
☐ RELEASED FOR INFORMATION
AUTH. BY:SH DATE:05-11-17

DRAWING No.	REFERENCE DRAWINGS

No.	REVISIONS	BY	AUTH	DATE
1	REVISE FOR 100-1200A SWITCH	SH	SH	05-05-05
2	PRODUCTION MODS	BM	SH	05-08-10
3	UPDATE LOGO, ADD FUSE TO TS-H2, ADD SHORTING TB TO XCT	BM	SH	05-10-05
4	REMOVE 416V PT	SH	SH	05-11-17

THOMSON TECHNOLOGY®
POWER & CONTROL
A REGAL-BELOIT COMPANY

AUTOMATIC TRANSFER SWITCH
MODEL TS 88 A 1 2 A
SCHEMATIC DIAGRAM
A, V, ø W, H2

CUSTOMER ORDER No.	WORK ORDER No.

DRAWN BY	AUTH BY	DATE	REV
SH	SH	04-11-03	4

DRAWING/FILE No. 880E001 SHEET 1/1

CUSTOMER

TRANSFER SWITCH WIRING OPTIONS

CONTROL TYPE
☐ AUTOMATIC TRANSFER SWITCH
☐ DUAL SOURCE TRANSFER SWITCH C/W PSS PREFERRED SOURCE SELECTOR

☐ PROGRAMMABLE CONTACT LOAD ON GENERATOR ☐ _____
☐ FTS4 TEST SWITCH NOT AVAILABLE ON DUAL SOURCE
☐ AUX-G(SRC2) CONTACTS [QTY 3][MAX. 3]☒
☐ AUX-U(SRC1) CONTACTS [QTY 3][MAX. 3]☒
☐ UTIL(SRC1) PWR AVL CONT'S [QTY][MAX. 3]
☐ GEN(SRC2) PWR AVL CONT'S [QTY][MAX. 3]
☐ UTIL(SRC1) PWR AVL LIGHT
☐ GEN(SRC2) PWR AVL LIGHT
☐ LDC[LOAD DISCONNECT CONTACT]
☐ REMOTE COMMUNICATION OPTION CIM MODULE
☐ ENCLOSURE HEATER EXT. PWR (TS-H1)
☐ ENCLOSURE HEATER INT. PWR (TS-H2)
☐ SHUNT TRIP UTILITY SWITCH [SHUNT VOLTAGE _____]
☐ SHUNT TRIP GENERATOR SWITCH [SHUNT VOLTAGE _____]
☐ DIGITAL METER
☐ REMOTE LOAD DUMP
☐ REMOTE INHIBIT/PERMIT RETRANSFER TO NORMAL
☐ REMOTE INHIBIT/PERMIT TRANSFER TO EMERGENCY

UTILITY SWITCHING DEVICE
☐ MOLDED CASE SWITCH
☐ THERMAL MAGNETIC
☐ ELECTRONIC (U)
☐ ELECTRONIC (LSIG)
POLES:
TRIP RATING: ____A
WITHSTAND RATING: ____KA @ ____V

GENERATOR SWITCHING DEVICE
☐ MOLDED CASE SWITCH
☐ THERMAL MAGNETIC
☐ ELECTRONIC (U)
☐ ELECTRONIC (LSIG)
POLES:
TRIP RATING: ____A
WITHSTAND RATING: ____KA @ ____V

COLOR KEY	
BLACK	BK
BLUE	BE
BROWN	BN
GREEN	GN
ORANGE	OR
GREY	GY
PURPLE	PE
RED	R
WHITE	W
YELLOW	Y

SOLID/TRACER(S)
* DENOTES #14AWG

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MCS, MULTIVOLTAGE

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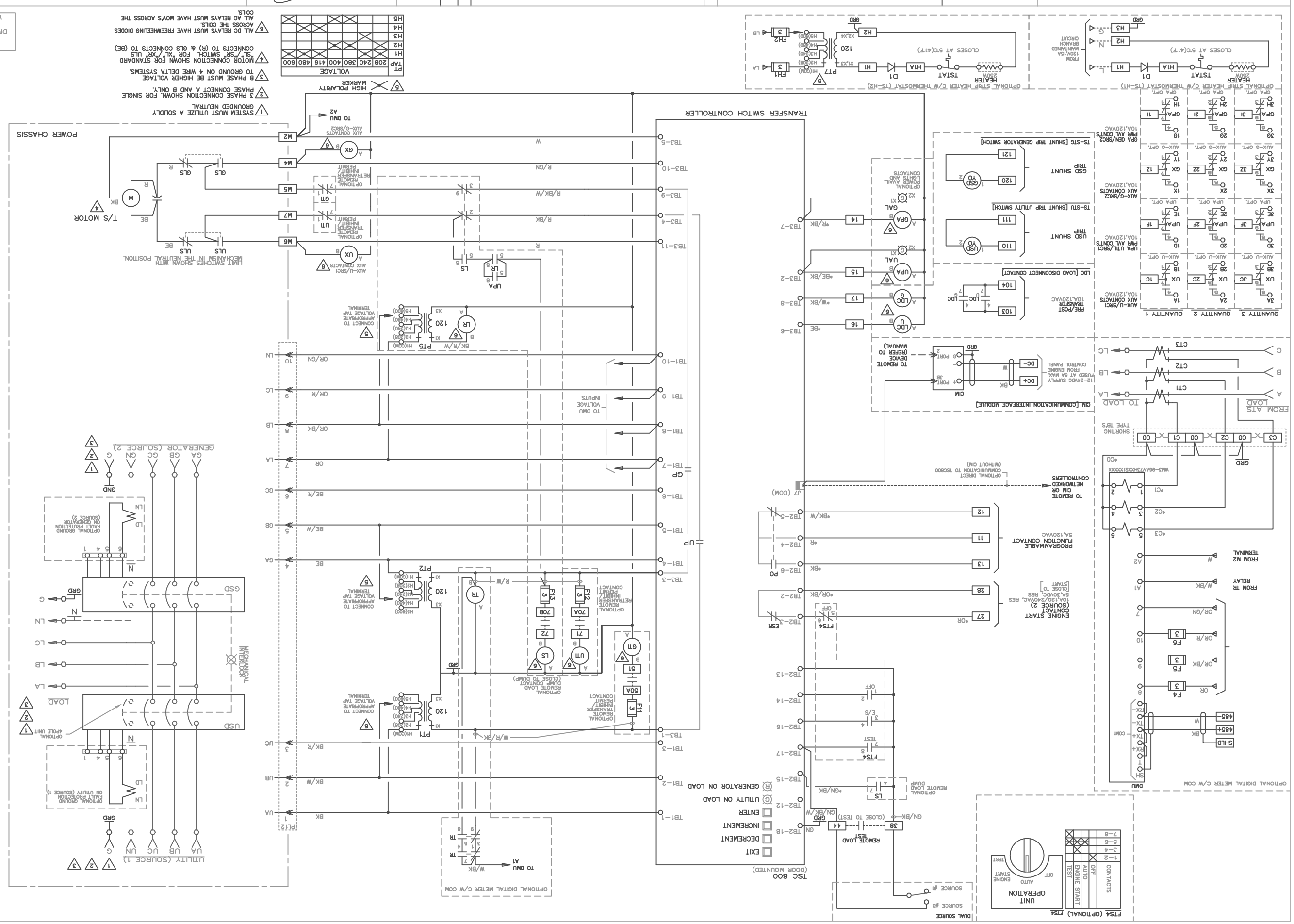
TRANSFER SWITCH CONTROLLER
POWER CHASSIS
TS/S MOTOR
LIMIT SWITCHES SHOWN WITH MECHANISM IN THE NEUTRAL POSITION.
OPTIONAL DIGITAL METER C/W COM
OPTIONAL DIGITAL METER C/W COM
OPTIONAL STRIP HEATER C/W THERMOSTAT (TS-H2)
OPTIONAL STRIP HEATER C/W THERMOSTAT (TS-H1)
CIM [COMMUNICATION INTERFACE MODULE]
TO REMOTE GEN OR NETWORKED CONTROLLERS
PROGRAMMABLE FUNCTION CONTACT 5A,120VAC
ENGINE START CONTACT (SOURCE 2) 5A,30VDC, RES 10A,120/240VAC, RES [CLOSE TO START]
GSD SHUNT TRIP
USD SHUNT TRIP
TS-STU [SHUNT TRIP UTILITY SWITCH]
TS-STG [SHUNT TRIP GENERATOR SWITCH]
LDC [LOAD DISCONNECT CONTACT]
PRE/POST TRANSFER 10A,120VAC
AUX-U/SRC1 AUX CONTACTS PWR AVL CONTS 10A,120VAC
AUX-G/SRC2 AUX CONTACTS
GPA GEN/SRC2 PWR AVL CONTS 10A,120VAC
QUANTITY 1
QUANTITY 2
QUANTITY 3
TO REMOTE DEVICE (REFER TO MANUAL)
REMOTE LOAD TEST
REMOTE LOAD DUMP
OPTIONAL
TO LOAD
FROM ATS LOAD
SHORTING TYPE TB'S
FROM M2 TERMINAL
FROM TR RELAY
485
SHLD
DMU
UNIT OPERATION
FTS4 (OPTIONAL)
DUAL SOURCE
SOURCE #1
SOURCE #2
TSC 800 (DOOR MOUNTED)
UTILITY ON LOAD
GENERATOR ON LOAD
ENTER
INCREMENT
DECREMENT
EXIT
GENERATOR (SOURCE 2)
UTILITY (SOURCE 1)
OPTIONAL GROUND FAULT PROTECTION ON GENERATOR (SOURCE 2)
OPTIONAL GROUND FAULT PROTECTION ON UTILITY (SOURCE 1)
OPTIONAL 4POLE UNIT
GSD
USD
LOAD
MECHANICAL INTERLOCK
VOLTAGE
2DB 240 380 400 416 480 600
PT TAP
H1 H2 H3 H4 H5
ALL DC RELAYS MUST HAVE FREEWHEELING DIODES ACROSS THE COILS.
ALL AC RELAYS MUST HAVE MOVS ACROSS THE COILS.
3 B PHASE MUST BE HIGHER VOLTAGE TO GROUND ON 4 WIRE DELTA SYSTEMS.
3 PHASE CONNECTION SHOWN, FOR SINGLE PHASE CONNECT A AND B ONLY.
SYSTEM MUST UTILIZE A SOULDY GROUNDED NEUTRAL
MOTOR CONNECTION SHOWN FOR STANDARD "SL" SWITCH. FOR "XL" OR "XR" ULS CONNECTS TO (R) & GLS CONNECTS TO (BE)
HIGH POLARITY MARKER
CONNECT TO APPROPRIATE VOLTAGE TAP TERMINAL
OPTIONAL REMOTE TRANSFER/ INHIBIT/ PERMIT
OPTIONAL REMOTE LOAD DUMP CONTACT (CLOSE TO DUMP)
OPTIONAL REMOTE TRANSFER/ INHIBIT/ PERMIT CONTACT
OPTIONAL REMOTE TRANSFER/ INHIBIT/ PERMIT CONTACTS
OPTIONAL COMMUNICATION TO TSC800 (WITHOUT CIM)
W/BK
R/GN
R/BK/W
R/BK
R
W/R/BK
OR/GN
OR/R
OR/BK
OR
BK/R/W
BK/W
BK/R
BK
W
R/W
GN/BK/W
GN/BK
OR/BK
W/BK
TO DMU A1
TO DMU A2
TO DMU INPUTS
TO VOLTAGE
TB3-5
TB3-10
TB3-9
TB3-4
TB3-11
TB3-7
TB3-2
TB3-8
TB3-6
TB1-10
TB1-9
TB1-8
TB1-7
TB1-6
TB1-5
TB1-4
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TB2-18
TB2-15
TB2-17
TB2-16
TB2-14
TB2-13
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TB2-7
M2
M4
M5
M7
M6
GX
UX
UPA
LS
UJAL
GAL
LDC
GSD
USD
GTI
UTI
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UJAL
GAL
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