SHEET	4	3	2	1
REV	D0	D0	C0	D0

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REVISIONS

REV	DESCRIPTION		DATE	APPROVED
D0	SOURCE COMPOSITE = 149482_32			
A0	INITIAL RELEASE	ERCO	08-15 2000	B. HOLT
B0	AS SHIPPED	ERCO	12-18 2000	D.L.
C0	CUSTOMER REQUEST	ERCO	06-18 2001	R.T.
D0	AS INSTALLED	ERCO	11-26 2001	M.C.C.

ACTUAL WIRE COUNTS (10)

RUN	QUANTITY	SIZE	CONDUCTOR TYPE
AF	4	16GA	SINGLE CONDUCTOR
BC1	4	12GA	SINGLE CONDUCTOR
BC3	2	6GA	SINGLE CONDUCTOR
BC3	7	12GA	SINGLE CONDUCTOR
CC1	3	18GA	2 CONDUCTOR SHIELDED
CC1	1	16GA	3 CONDUCTOR SHIELDED
CC1	2	16GA	SINGLE CONDUCTOR
CC3	2	8GA	SINGLE CONDUCTOR
CC4	1	16GA	2 CONDUCTOR SHIELDED
CC4	1	20GA	2 CONDUCTOR SHIELDED
CC4	7	16GA	SINGLE CONDUCTOR
CT1	2	12GA	SINGLE CONDUCTOR
FC1	4	12GA	SINGLE CONDUCTOR
MC1	2	18GA	COAX
MC1	1	18GA	2 CONDUCTOR SHIELDED
MC1	8	12GA	SINGLE CONDUCTOR
MC1	1	14GA	SINGLE CONDUCTOR
MC1	2	20GA	SINGLE CONDUCTOR
MC2	7	2GA	SINGLE CONDUCTOR
MC2	2	10GA	SINGLE CONDUCTOR
MC2	8	12GA	SINGLE CONDUCTOR
MC2	8	16GA	SINGLE CONDUCTOR
MC3	3	12GA	SINGLE CONDUCTOR
MC5	4	8GA	SINGLE CONDUCTOR
MC5	4	12GA	SINGLE CONDUCTOR
MC5	1	14GA	SINGLE CONDUCTOR
MC5	2	16GA	SINGLE CONDUCTOR
MC6	1	14GA	SINGLE CONDUCTOR
MC7	1	22GA	2 CONDUCTOR SHIELDED
MC7	2	12GA	SINGLE CONDUCTOR
MC7	2	16GA	SINGLE CONDUCTOR
SG1	8	12GA	SINGLE CONDUCTOR
SG1	4	BUS	SINGLE CONDUCTOR
SG2	23	12GA	SINGLE CONDUCTOR

ACTUAL WIRE COUNTS (10)

RUN	QUANTITY	SIZE	CONDUCTOR TYPE

STANDARD AMERICAN/METRIC WIRE AND CABLE COMPARISON TABLE

AMERICAN SIZES AND EQUIVALENT AREA		STANDARD METRIC SIZE MM^2	EQUIVALENT METRIC SIZE MM^2
AWG	MCM		
-	.81	.5	-
20	-	-	.52
-	1.29	.75	-
18	-	-	.83
-	2.05	1.0	-
16	-	-	1.32
-	3.04	1.5	-
14	-	-	2.08
-	5.02	2.5	-
12	-	-	3.30
-	7.7	4	-
10	-	-	5.26
-	11.5	6	-
8	-	-	8.36
-	19.4	10	-
6	-	-	13.30
-	30.8	16	-
4	-	-	21.15
-	48.9	25	-
2	-	-	33.63
-	67.7	35	-
1	-	-	42.41
-	91.6	50	-
1/0	-	-	53.48
-	132	70	-
2/0	-	-	67.43
3/0	-	-	85.03
-	184	95	-
4/0	-	-	107.20
-	232	120	-
-	250	-	126.60
-	285	150	-

REFERENCE DRAWINGS

PROJECT NUMBER: 59111

SOFTWARE LADDER LOGIC	-149742
ELECTRICAL SCHEMATIC	-149480
WIRING DIAGRAM	-149481
INTERFACE/INTERCONNECT DIAGRAM	-149482
LOGIC DIAGRAM	-149730
MECHANICAL INSTALLATION	-149776

NOTES:

1. AC AND DC ELECTRICAL COMPONENTS ARE SHOWN IN THE DE-ENERGIZED POSITIONS, ALL POWER OFF (SHELF STATUS).

2. SOLAR BRANDED WIRE NUMBERS ARE IN DEDICATED GROUPS. PRIMARY REFERENCE IS THE CONTROL CONSOLE TERMINAL STRIP, EXAMPLE: TS213-12 = CIRCUIT NUMBER 21312 WHICH IS BRANDED ON THE WIRE TERMINATED AT THAT LOCATION AND CONTINUES TO AN END FUNCTIONAL DEVICE. WIRES CONNECTED BETWEEN FUNCTIONAL DEVICES SUCH AS RELAY TO RELAY, OR STARTER TO MOTOR, ARE GIVEN ARBITRARY NUMBERS THAT ARE NOT RELATED TO TERMINATION POINTS.

3. CONTROL NET COAXIAL CABLES ARE QUAD SHIELDED RG6U PER SOLAR P/N 1024574 OR EQUIVALENT.

4. WIRE SHIELDING GROUNDS ARE PER SOLAR SPEC. 9-83 & 9-88. SHIELD CONTINUITY MUST BE MAINTAINED FOR TOTAL LENGTH OF SHIELD AND GROUNDED AT ONE POINT ONLY.

5. INTERCONNECT WIRING BY CUSTOMER IS IDENTIFIED WITH A WIRE RUN LETTER CODE AND IS 16 AWG UNLESS OTHERWISE NOTED.
EXAMPLE: O——— (TS302-2 16GA #31)-->AA IS IN WIRE RUN AA.

(7) NOTE NOT USED.

(8) NOTE NOT USED.

(9) NOTE NOT USED.

(10) SEE SHEET: 1
IMPORTANT!!
QUANTITIES OF WIRES SHOWN ARE ACTUAL AND DO NOT INCLUDE SPARES. THE INITIAL RELEASE OF THIS DRAWING INVARIABLY CHANGES AS PROJECT DEFINITION EVOLVES. FOR CONDUIT SIZING PURPOSES, A 20% SPARE COUNT ON ALL WIRE TYPES IS ADVISABLE.

(11) NOTE NOT USED.

(12) NOTE NOT USED.

(13) SEE SHEET: 2
AREA NUMBERS SHOWN CORRESPOND TO WIRING DIAGRAM SHEET/PANEL NAMES.

CUSTOMER
NETWORK-C

☒ SUBMITTED FOR REVIEW — DATE 08-15-00
☐ CERTIFIED AS NOTED WITH — DATE
☒ CERTIFIED FOR CONSTRUCTION — DATE 12-18-00

SYMBOLS
(2) INDICATES REFERENCE TO NOTE
(A) DENOTES REVISION

FSCM NO. 66195

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APPROVED	DATE
PROJECT J.PLESCIA	08-15-00
DESIGN B.HOLT	08-15-00
CHECK B.NIX	08-15-00
DRAFT B.HOLT	08-15-00

SOLAR PROJECT ITEM NO. 2-59111

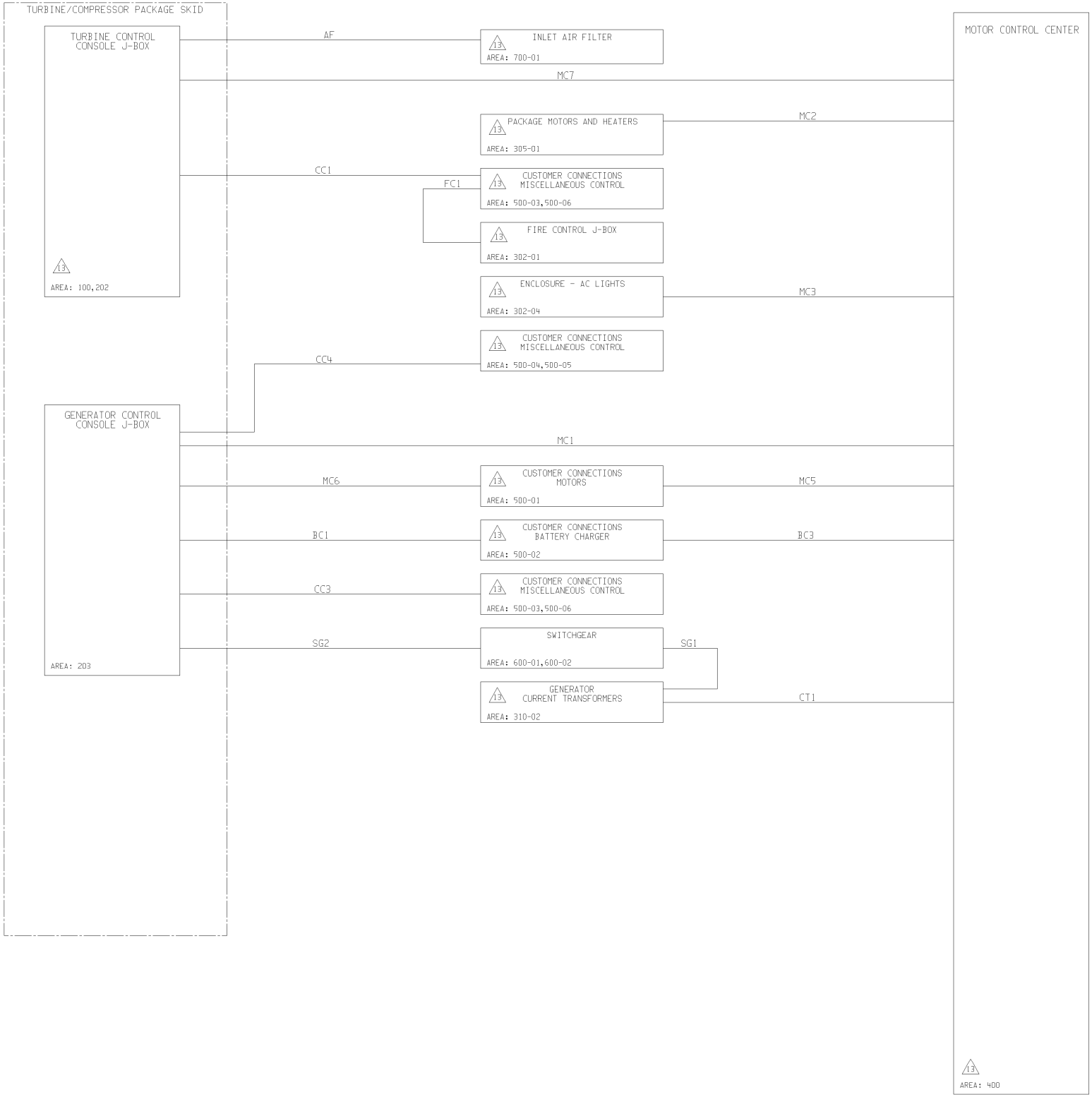
CUSTOMER IDENT. NO.

CUSTOMER SEE ABOVE

DRAWING TITLE
TAURUS 60
GENERATOR
INTERFACE/INTERCONNECT

Solar Turbines
A Caterpillar Company

DRAWING NO. 59111-149482 — REV D0 — SHEET 1 OF 4



13 AREA NUMBERS SHOWN CORRESPOND TO WIRING DIAGRAM SHEET/PANEL NAMES.

Solar® Turbines
A Caterpillar Company

DRAWING NO. 59111-149482
REV C0
SHEET 2 OF 4

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RUN	SIZE	TYPE	COLOR	WIRE NUMBER	FROM	TO	END DEVICE
AF	16GA	SC	WHT	S799A	ZF2031/10	TSF1-3	S799A
AF	16GA	SC	WHT	S799B	ZF2031/11	TSF1-6	S799B
AF	16GA	SC	WHT	S799AP	ZF2031/V45	TSF1-2	S799A
AF	16GA	SC	WHT	S799BP	ZF2031/V46	TSF1-5	S799B
BC1	12GA	SC	WHT	52001	TS240-1	TB520-1	CB521
BC1	12GA	SC	WHT	52002	TS240-2	TB520-2	CB521
BC1	12GA	SC	BLU	BC5013	ZF2051/12	BC520	
BC1	12GA	SC	BLU	BC5012	ZF2051/V47	BC520	
BC3	12GA	SC	WHT	52005	CUST201	TB520-5	CB523
BC3	12GA	SC	WHT	52006	CUST201	TB520-6	CB523
BC3	12GA	SC	WHT	52007	CUST202	TB520-7	CB524
BC3	12GA	SC	WHT	52008	CUST202	TB520-8	CB524
BC3	6GA	SC	BLU	BC520P	K422	TB521-3	VARIOUS
BC3	6GA	SC	BLU	BC520N	K422	TB521-4	VARIOUS
BC3	12GA	SC	WHT	GND-BC520	MCC-520	BC520	
BC3	12GA	SC	RED	L1-BC520	MCC-520	BC520	
BC3	12GA	SC	RED	L2-BC520	MCC-520	BC520	
CC1	16GA	SC	WHT	24V2	TS260-61	S512A	
CC1	16GA	SC	WHT	K213A1	TS260-62	S512A	
CC1	16GA	3CS	WHT	TF586P	ZF2043/02	TS532-7	TF586
CC1	16GA	3CS	BLK	TF586N	ZF2043/COM19	TS532-8	TF586
CC1	16GA	3CS	RED	TF586	ZF2043/V37	TS532-9	TF586
CC1	SHLD	3CS	SHLD	SHLD	FLOATING	FLOATING	
CC1WS5321	18GA	2CS	BLK	S5321	ZF2031/12	TS532-2	S532-1
CC1WS5321	18GA	2CS	WHT	S5321P	ZF2031/V47	TS532-1	S532-1
CC1WS5321	SHLD	2CS	SHLD	SHLD	FLOATING	FLOATING	
CC1WS5322	18GA	2CS	BLK	S5322	ZF2031/13	TS532-4	S532-2
CC1WS5322	18GA	2CS	WHT	S5322P	ZF2031/V48	TS532-3	S532-2
CC1WS5322	SHLD	2CS	SHLD	SHLD	FLOATING	FLOATING	
CC1WTPD532	18GA	2CS	BLK	TPD532N	ZF2043/04	TS532-6	TPD532
CC1WTPD532	18GA	2CS	WHT	TPD532P	ZF2043/V39	TS532-5	TPD532
CC1WTPD532	SHLD	2CS	SHLD	SHLD	FLOATING	FLOATING	
CC3	8GA	SC	WHT	GYIE	IE201-0	GND-IE201	
CC3	8GA	SC	GRN/YEL	GYPE	PE201-00	GND-PE201	
CC4	16GA	2CS	WHT	8850	TS232-16	GEN-LOAD	
CC4	16GA	2CS	BLK	8851	TS232-17	GEN-LOAD	
CC4	SHLD	2CS	SHLD	SHLD	TS232-18	FLOATING	
CC4	16GA	SC	BRN	BR1	TS234-1	GEN-507	
CC4	16GA	SC	BRN	BR2	TS234-2	GEN-507	
CC4	16GA	SC	BRN	BR3	TS234-3	GEN-506	
CC4	16GA	SC	BRN	BR4	TS234-4	GEN-506	
CC4	16GA	SC	WHT	9267	TS236-4	GEN-502	
CC4	16GA	SC	WHT	9268	TS236-5	GEN-502	
CC4	16GA	SC	WHT	9269	TS236-6	GEN-502	
CC4	20GA	2CS	CLR	U20101	U2010	CUST-2010	
CC4	20GA	2CS	BLU	U20102	U2010	CUST-2010	
CC4	SHLD	2CS	SHLD	SHLD	U2010	FLOATING	
CT1	12GA	SC	RED	R361H1	SH-1	K461	
CT1	12GA	SC	RED	R361H2	SH-4	K461	
FC1	12GA	SC	WHT	L59820	Z298	L598-20	
FC1	12GA	SC	WHT	L59820P	Z298	L598-20	
FC1	12GA	SC	WHT	L59821	Z298	L598-21	
FC1	12GA	SC	WHT	L59821P	Z298	L598-21	
MC1	18GA	NA	COAX	WHY2080A	HY2050A	HY430A	
MC1	18GA	NA	COAX	WHY2080B	HY2050B	HY430B	
MC1	12GA	SC	WHT	4212	K220-1/3	K421	
MC1	12GA	SC	WHT	4211	K220-1/4	K421	
MC1	12GA	SC	WHT	4612	K261-1/2	K461	
MC1	12GA	SC	WHT	4611	K261-1/4	K461	
MC1	14GA	SC	RED	R28012	K280-1/4	CUST-H5981	
MC1	20GA	SC	WHT	K280108	K280-1/6	VFD498-1	
MC1	20GA	SC	WHT	K280112	K280-1/8	VFD498-1	

RUN	SIZE	TYPE	COLOR	WIRE NUMBER	FROM	TO	END DEVICE
MC1	12GA	SC	WHT	49012	K290-1/3	K490-1	
MC1	12GA	SC	WHT	49011	K290-1/4	K490-1	
MC1	12GA	SC	WHT	49612	K296-1/3	K496-1	
MC1	12GA	SC	WHT	49611	K296-1/4	K496-1	
MC1	18GA	2CS	BLK	S330P1	TS235-23	VFD430	B330/H330
MC1	18GA	2CS	WHT	S3222NO2	TS235-24	VFD430	
MC1	SHLD	2CS	SHLD	SHLD	FLOATING	FLOATING	
MC2	12GA	SC	WHT	G321	B321/H321	K421	
MC2	12GA	SC	RED	R3211	B321/H321	K421	
MC2	12GA	SC	RED	R3212	B321/H321	K421	
MC2	12GA	SC	RED	R3213	B321/H321	K421	
MC2	16GA	SC	RED	R321H1	B321/H321	K421	
MC2	16GA	SC	RED	R321H2	B321/H321	K421	
MC2	10GA	SC	BLU	B322A1	B322	K422	
MC2	10GA	SC	BLU	B322S2	B322	K422	
MC2	16GA	SC	RED	H2-430	B330/H330	VFD430	MCC-430H
MC2	16GA	SC	RED	R330H1	B330/H330	VFD430	
MC2	16GA	SC	WHT	S330P1	B330/H330	VFD430	S322-2
MC2	16GA	SC	WHT	S330P2	B330/H330	VFD430	
MC2	2GA	SC	WHT	G330	B330/H330	VFD430	
MC2	2GA	SC	RED	R3301	B330/H330	VFD430	
MC2	2GA	SC	RED	R3301	B330/H330	VFD430	
MC2	2GA	SC	RED	R3302	B330/H330	VFD430	
MC2	2GA	SC	RED	R3302	B330/H330	VFD430	
MC2	2GA	SC	RED	R3303	B330/H330	VFD430	
MC2	2GA	SC	RED	R3303	B330/H330	VFD430	
MC2	12GA	SC	WHT	G3901	H390-1	K490-1	
MC2	12GA	SC	RED	R39011	H390-1	K490-1	
MC2	12GA	SC	RED	R39012	H390-1	K490-1	
MC2	12GA	SC	RED	R39013	H390-1	K490-1	
MC2	16GA	SC	WHT	49013	H390-1	K490-1	
MC2	16GA	SC	RED	R3901T	H390-1	K490-1	
MC3	12GA	SC	WHT	S301H	TS300-1	MCC-301-AC	
MC3	12GA	SC	WHT	S301G	TS300-3	MCC-301-AC	
MC3	12GA	SC	WHT	S301N	TS300-5	MCC-301-AC	
MC5	14GA	SC	RED	RH5981	CUST-H5981	B598-1/H598-1	
MC5	16GA	SC	RED	R5961H1	K496-1	B596-1/H596-1	
MC5	16GA	SC	RED	R5961H2	K496-1	B596-1/H596-1	
MC5	8GA	SC	WHT	G5961	K496-1	B596-1/H596-1	
MC5	8GA	SC	RED	R59611	K496-1	B596-1/H596-1	
MC5	8GA	SC	RED	R59612	K496-1	B596-1/H596-1	
MC5	8GA	SC	RED	R59613	K496-1	B596-1/H596-1	
MC5	12GA	SC	GRN/YEL	GND-5981	VFD498-1	B598-1/H598-1	
MC5	12GA	SC	RED	R59811	VFD498-1	B598-1/H598-1	
MC5	12GA	SC	RED	R59812	VFD498-1	B598-1/H598-1	
MC5	12GA	SC	RED	R59813	VFD498-1	B598-1/H598-1	
MC6	14GA	SC	RED	R28014	K280-1/1	B598-1/H598-1	
MC7	12GA	SC	WHT	OV2	TS260-23	K422	
MC7	12GA	SC	WHT	K4221	TS260-24	K422	
MC7	22GA	2CS	RED	VFD49812	ZF2034/08	VFD498-1	
MC7	22GA	2CS	BLK	VFD49813	ZF2034/09	VFD498-1	
MC7	SHLD	2CS	SHLD	SHLD	ZF2034/G43	FLOATING	
MC7	16GA	SC	WHT	VFD49815	ZF2061/05	VFD498-1	
MC7	16GA	SC	WHT	VFD49814	ZF2061/V40	VFD498-1	
SG1	BUS	SC	RED	N1	CT303	R661	
SG1	BUS	SC	RED	PH-A	G361	CT601	
SG1	BUS	SC	RED	PH-B1	G361	CT602	
SG1	BUS	SC	RED	PH-C	G361	CT603	
SG1	12GA	SC	RED	PH-A	G361	F663PA	
SG1	12GA	SC	RED	PH-C	G361	F663PC	
SG1	12GA	SC	BLU	B851	TS362-1	SG-601	
SG1	12GA	SC	BLU	B850	TS362-2	SG-601	
SG1	12GA	SC	BLU	B853	TS362-3	SG-602	
SG1	12GA	SC	BLU	B852	TS362-4	SG-602	
SG1	12GA	SC	BLU	B855	TS362-5	SG-603	
SG1	12GA	SC	BLU	B854	TS362-6	SG-603	
SG2	12GA	SC	RED	R331	TS232-1	F601SA	
SG2	12GA	SC	RED	R332	TS232-3	F602SB	
SG2	12GA	SC	RED	R333	TS232-5	F602SC	
SG2	12GA	SC	RED	R300	TS232-7	F604SA	

INTERFACE WIRE LIST

Solar® Turbines
A Caterpillar Company

DRAWING NO. 59111-149482
REV D0
SHEET 3 OF 4

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RUN	SIZE	TYPE	COLOR	WIRE NUMBER	FROM	TO	END DEVICE
SG2	12GA	SC	RED	R301	TS232-9	F605SB	
SG2	12GA	SC	RED	R302	TS232-12	F605SC	
SG2	12GA	SC	RED	R312	TS232-14	PT663	
SG2	12GA	SC	RED	R313	TS232-15	PT663	
SG2	12GA	SC	BLU	B306	TS233-1	CT603	
SG2	12GA	SC	BLU	B305	TS233-2	CT602	
SG2	12GA	SC	BLU	B352	TS233-3	CT601	SG-CTGND
SG2	12GA	SC	BLU	B304	TS233-4	CT601	
SG2	12GA	SC	BLU	B310	TS233-7	TG4	
SG2	12GA	SC	BLU	B311	TS233-8	TG2	
SG2	12GA	SC	WHT	24V3	TS235-1	CB653A-1	
SG2	12GA	SC	WHT	24V3	TS235-5	CB652B-1	CB652A-1
SG2	12GA	SC	WHT	8861	TS235-8	CB652A-1	
SG2	12GA	SC	WHT	8860	TS235-9	CB652B-1	
SG2	12GA	SC	WHT	8862	TS235-10	CB653A-1	
SG2	12GA	SC	WHT	SGM600	ZF2051/03	SGM600	
SG2	12GA	SC	WHT	SDF600	ZF2051/04	SDF600	
SG2	12GA	SC	WHT	SGM600P	ZF2051/V38	SGM600	
SG2	12GA	SC	WHT	SDF600P	ZF2051/V39	SDF600	

RUN	SIZE	TYPE	COLOR	WIRE NUMBER	FROM	TO	END DEVICE

INTERFACE WIRE LIST

Solar® Turbines
A Caterpillar Company

DRAWING NO. 59111-149482
REV D0
SHEET 4 OF 4

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