

CONTRACTOR:

STAMP:

ELITE ELECTRIC
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C-10
LICENSE #: CA #418242

Carl Dawson

SHEET TITLE:
AC/DC SINGLE
LINE DIAGRAM
BUILDING 2

PROJECT:
R-12A MONTECITO VILLAGE
APARTMENTS
1625 SANTA VENETIA ST
CHULA VISTA, CA 91913

PROJECT NO. 21-122

DATE 11-23-2021

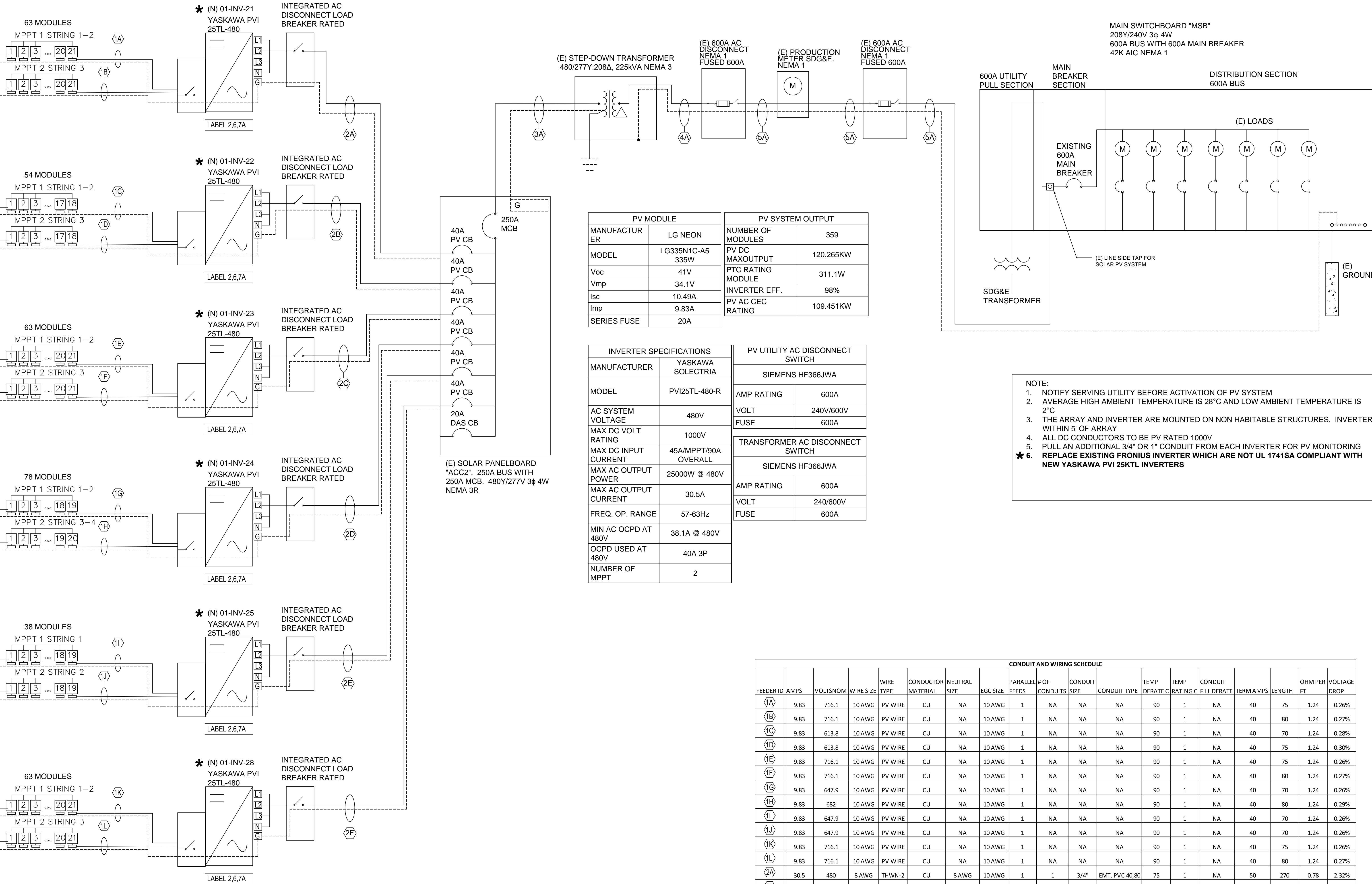
SCALE NTS

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REVISION NO.

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PV MODULE		PV SYSTEM OUTPUT	
MANUFACTURER	LG NEON	NUMBER OF MODULES	359
MODEL	LG335N1C-A5 335W	PV DC MAXOUTPUT	120.265KW
Voc	41V	PTC RATING MODULE	311.1W
Vmp	34.1V	INVERTER EFF.	98%
Isc	10.49A	PV AC CEC RATING	109.451KW
Imp	9.83A		
SERIES FUSE	20A		

INVERTER SPECIFICATIONS		PV UTILITY AC DISCONNECT SWITCH	
MANUFACTURER	YASKAWA SOLECTRIA	SIEMENS HF366JWA	
MODEL	PVI25TL-480-R	AMP RATING	600A
AC SYSTEM VOLTAGE	480V	VOLT	240V/600V
MAX DC VOLT RATING	1000V	FUSE	600A
MAX DC INPUT CURRENT	45A/MPPT/90A OVERALL	TRANSFORMER AC DISCONNECT SWITCH	
MAX AC OUTPUT POWER	25000W @ 480V	SIEMENS HF366JWA	
MAX AC OUTPUT CURRENT	30.5A	AMP RATING	600A
FREQ. OP. RANGE	57-63Hz	VOLT	240/600V
MIN AC OCPD AT 480V	38.1A @ 480V	FUSE	600A
OCPD USED AT 480V	40A 3P		
NUMBER OF MPPT	2		

- NOTE:**
- NOTIFY SERVING UTILITY BEFORE ACTIVATION OF PV SYSTEM
 - AVERAGE HIGH AMBIENT TEMPERATURE IS 28°C AND LOW AMBIENT TEMPERATURE IS 2°C
 - THE ARRAY AND INVERTER ARE MOUNTED ON NON HABITABLE STRUCTURES. INVERTER WITHIN 5' OF ARRAY
 - ALL DC CONDUCTORS TO BE PV RATED 1000V
 - PULL AN ADDITIONAL 3/4" OR 1" CONDUIT FROM EACH INVERTER FOR PV MONITORING
 - * REPLACE EXISTING FRONIUS INVERTER WHICH ARE NOT UL 1741SA COMPLIANT WITH NEW YASKAWA PVI 25KTL INVERTERS**

CONDUIT AND WIRING SCHEDULE																		
FEEDER ID	AMPS	VOLTS/NO	WIRE SIZE	WIRE TYPE	CONDUCTOR MATERIAL	NEUTRAL SIZE	EGG SIZE	PARALLEL FEEDS	# OF CONDUITS	CONDUIT SIZE	CONDUIT TYPE	TEMP DERATE C	TEMP RATING C	CONDUIT FILL DERATE	TERM AMPS	LENGTH FT	OHM PER FT	VOLTAGE DROP
1A	9.83	716.1	10 AWG	PV WIRE	CU	NA	10 AWG	1	NA	NA	NA	90	1	NA	40	75	1.24	0.26%
1B	9.83	716.1	10 AWG	PV WIRE	CU	NA	10 AWG	1	NA	NA	NA	90	1	NA	40	80	1.24	0.27%
1C	9.83	613.8	10 AWG	PV WIRE	CU	NA	10 AWG	1	NA	NA	NA	90	1	NA	40	70	1.24	0.28%
1D	9.83	613.8	10 AWG	PV WIRE	CU	NA	10 AWG	1	NA	NA	NA	90	1	NA	40	75	1.24	0.30%
1E	9.83	716.1	10 AWG	PV WIRE	CU	NA	10 AWG	1	NA	NA	NA	90	1	NA	40	75	1.24	0.26%
1F	9.83	716.1	10 AWG	PV WIRE	CU	NA	10 AWG	1	NA	NA	NA	90	1	NA	40	80	1.24	0.27%
1G	9.83	647.9	10 AWG	PV WIRE	CU	NA	10 AWG	1	NA	NA	NA	90	1	NA	40	70	1.24	0.26%
1H	9.83	682	10 AWG	PV WIRE	CU	NA	10 AWG	1	NA	NA	NA	90	1	NA	40	80	1.24	0.29%
1I	9.83	647.9	10 AWG	PV WIRE	CU	NA	10 AWG	1	NA	NA	NA	90	1	NA	40	70	1.24	0.26%
1J	9.83	647.9	10 AWG	PV WIRE	CU	NA	10 AWG	1	NA	NA	NA	90	1	NA	40	70	1.24	0.26%
1K	9.83	716.1	10 AWG	PV WIRE	CU	NA	10 AWG	1	NA	NA	NA	90	1	NA	40	75	1.24	0.26%
1L	9.83	716.1	10 AWG	PV WIRE	CU	NA	10 AWG	1	NA	NA	NA	90	1	NA	40	80	1.24	0.27%
2A	30.5	480	8 AWG	THWN-2	CU	8 AWG	10 AWG	1	1	3/4"	EMT, PVC 40,80	75	1	NA	50	270	0.78	2.32%
2B	30.5	480	8 AWG	THWN-2	CU	8 AWG	10 AWG	1	1	3/4"	EMT, PVC 40,80	75	1	NA	50	230	0.78	1.97%
2C	30.5	480	8 AWG	THWN-2	CU	8 AWG	10 AWG	1	1	3/4"	EMT, PVC 40,80	75	1	NA	50	190	0.78	1.63%
2D	30.5	480	8 AWG	THWN-2	CU	8 AWG	10 AWG	1	1	3/4"	EMT, PVC 40,80	75	1	NA	50	170	0.78	1.46%
2E	30.5	480	8 AWG	THWN-2	CU	8 AWG	10 AWG	1	1	3/4"	EMT, PVC 40,80	75	1	NA	50	210	0.78	1.80%
2F	30.5	480	8 AWG	THWN-2	CU	8 AWG	10 AWG	1	1	3/4"	EMT, PVC 40,80	75	1	NA	50	80	0.78	0.69%
3A	183	480	250 MCM	THWN-2	CU	250 MCM	2 AWG	1	1	2-1/2"	EMT, PVC 40,80	75	1	NA	255	15	0.054	0.05%
4A	416.4	208	350 MCM	THWN-2	CU	350 MCM	1 AWG	2	2	3"	EMT	75	1	NA	620	60	0.039	0.41%
5A	416.4	208	350 MCM	THWN-2	CU	350 MCM	1 AWG	2	2	3"	EMT	75	1	NA	620	15	0.039	0.10%