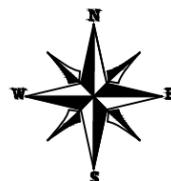
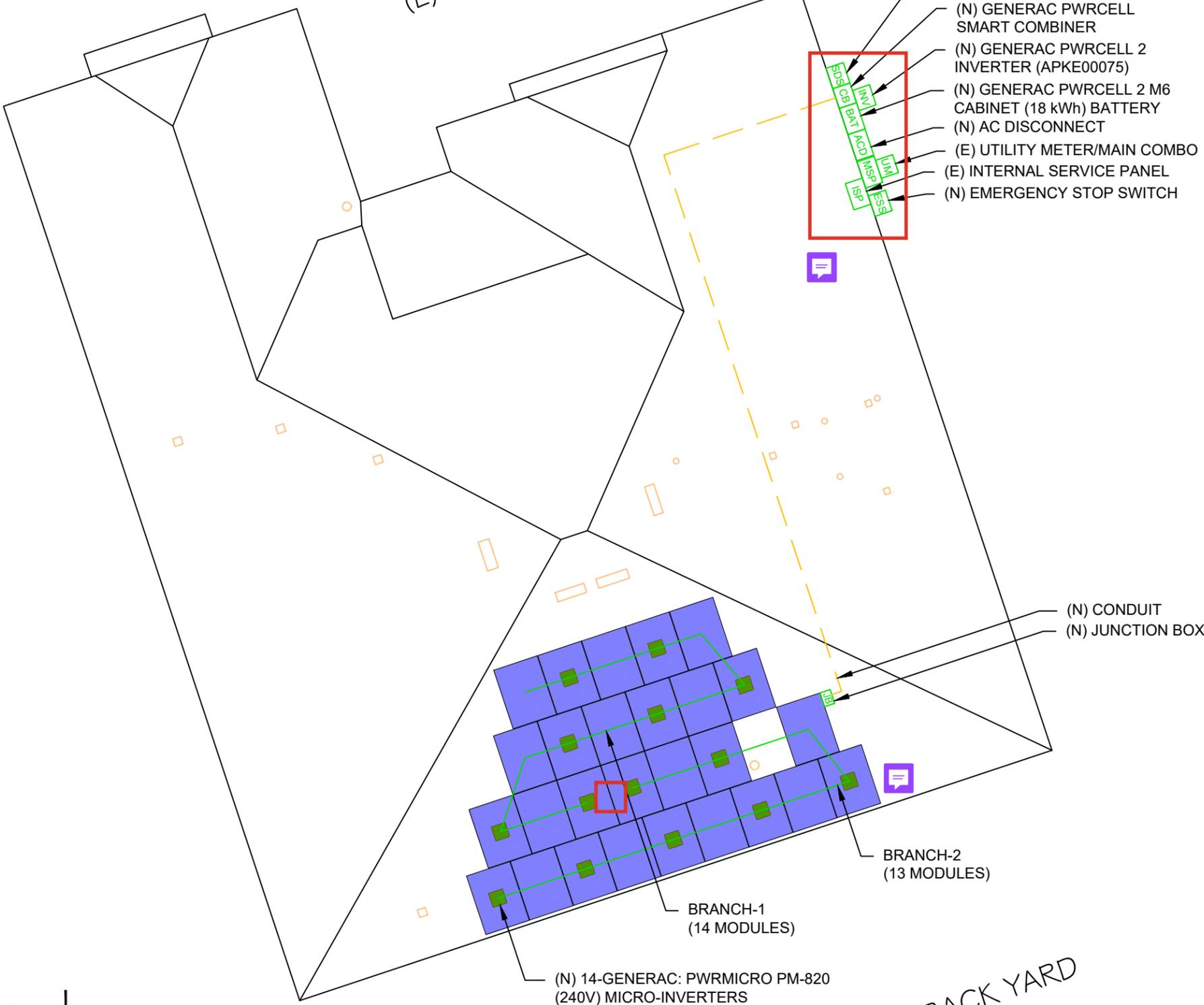


DC SYSTEM SIZE: 11.745 kW DC STC  
 AC SYSTEM SIZE: 11.480 kW AC  
 (27) HYUNDAI SOLAR: HIN-T435NF(BK) (435W) MODULES

(01) BRANCH OF 14 MODULES &  
 (01) BRANCH OF 13 MODULES



SUNSTAR WAY  
 (E) FRONT YARD



- (N) GENERAC SMART DISCONNECT SWITCH (APKE00067)
- (N) GENERAC PWRCELL SMART COMBINER
- (N) GENERAC PWRCELL 2 INVERTER (APKE00075)
- (N) GENERAC PWRCELL 2 M6 CABINET (18 kWh) BATTERY
- (N) AC DISCONNECT
- (E) UTILITY METER/MAIN COMBO
- (E) INTERNAL SERVICE PANEL
- (N) EMERGENCY STOP SWITCH

BILL OF MATERIALS		
EQUIPMENT	QTY	DESCRIPTION
SOLAR PV MODULE	27	HYUNDAI SOLAR: HIN-T435NF(BK) (435W) MODULES
MICRO-INVERTER	14	GENERAC: PWRMICRO PM-820 (240V) MICRO-INVERTERS
JUNCTION BOX	1	JUNCTION BOX 600V, NEMA 3R UL LISTED
SMART COMBINER	1	GENERAC PWRCELL SMART COMBINER (APKEAC100)
SMART DISCONNECT SWITCH	1	GENERAC SMART DISCONNECT SWITCH (APKE00067)
INVERTER	1	GENERAC PWRCELL 2 INVERTER (APKE00075)
BATTERY	1	GENERAC PWRCELL 2 M6 CABINET (18 kWh) BATTERY
E-STOP SWITCH	1	E-STOP SWITCH
BREAKER	2	30A/2P BREAKER
BREAKER	2	60A/2P BREAKER
BREAKER	1	200A/2P BREAKER
BREAKER	1	15A/2P BREAKER
AC DISCONNECT	1	200A RATED NON-FUSED AC DISCONNECT
RAIL	15	SNAPRACK UR-40 RAIL, 168"
SPLICE	10	SPLICE KIT
GROUNDING LUG	10	GROUNDING LUG
ATTACHMENT	60	SUNMODO TOP TILE PV ROOF ATTACHMENT
MID CLAMPS	44	MID CLAMPS
END CLAMPS	20	END CLAMPS

ELECTRICAL CERTIFICATION STATEMENT:  
 THE SUBJECT PV SYSTEM HAS BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE 2020 NEC AND/OR THOSE SET FORTH BY THE FSEC CERTIFICATION, INCLUDING (AS APPLICABLE): THE MAXIMUM NUMBER OF MODULE STRINGS, THE MAXIMUM NUMBER OF MODULES PER STRING, MAXIMUM OUTPUT, MODULE MANUFACTURER AND MODEL NUMBER, AND INVERTER MANUFACTURER AND MODEL NUMBER. HB1021, WHICH AMENDED F.S. 377.705 IN 2017, REMOVED THE REQUIREMENT FOR DESIGNERS TO HAVE THEIR SYSTEM DESIGNS CERTIFIED BY FSEC. THE LANGUAGE: "... UNLESS OTHERWISE CERTIFIED BY AN ENGINEER LICENSED PURSUANT TO CHAPTER 471 USING THE STANDARDS CONTAINED IN THE MOST RECENT VERSION OF THE FLORIDA BUILDING CODE," ALLOWS LICENSED ENGINEERS TO DESIGN PV SYSTEMS INDEPENDENTLY, AS THEY DO IN ALL OTHER TRADES

LEGEND	
ESS	- EMERGENCY STOP SWITCH
SDS	- SMART DISCONNECT SWITCH
INV	- INVERTER
BAT	- BATTERY
ISP	- INTERNAL SERVICE PANEL
UM	- UTILITY METER/MAIN COMBO
MSP	- UTILITY METER/MAIN COMBO
CB	- GENERAC SMART COMBINER
JB	- JUNCTION BOX
ACD	- AC DISCONNECT
■	- MICRO INVERTER
○ □	- ROOF OBSTRUCTION
- - -	- CONDUIT

**BOB HEINMILLER**  
 SOLAR SOLUTIONS, LLC.  
 SOLAR • AIR CONDITIONING • ELECTRICAL • GENERATORS

**BOB HEINMILLER SOLAR SOLUTIONS LLC**  
 1537 W SMITH STR.,  
 ORLANDO, FL 32804  
 EMAIL: MIKELANE@SUNPWRD.COM  
 PHONE NO. : (407) 310-7910

REVISIONS		
DESCRIPTION	DATE	REV

DATE: 01/20/2026

PROJECT NAME

**DAVE JONES**

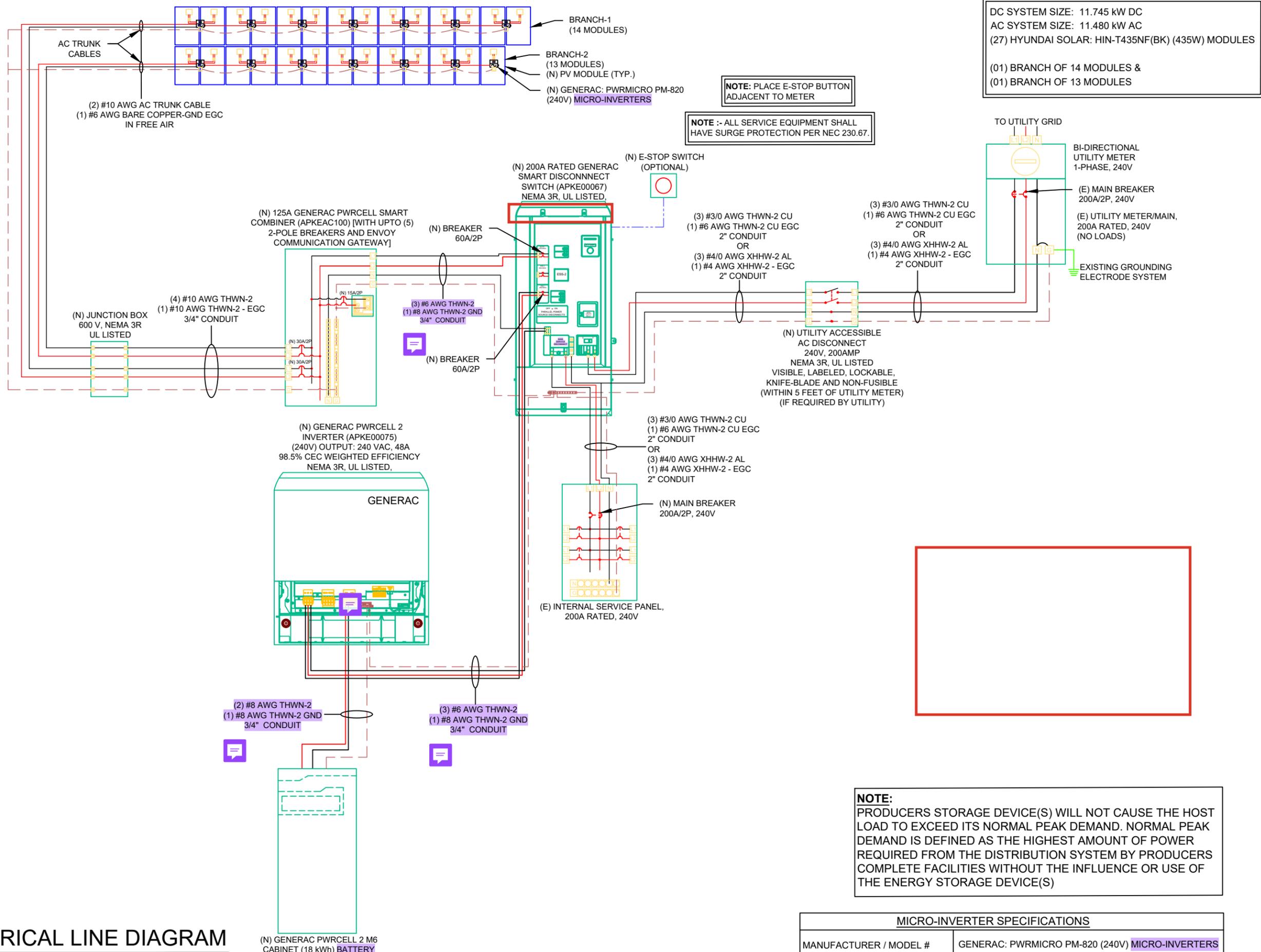
15020 SUNSTAR WAY,  
 WINTER GARDEN, FL 34787

SHEET NAME  
**ELECTRICAL SITE PLAN & BOM**

SHEET SIZE  
**ANSI B  
 11" X 17"**

SHEET NUMBER  
**E-01**

Signature with Seal



DC SYSTEM SIZE: 11.745 kW DC  
AC SYSTEM SIZE: 11.480 kW AC  
(27) HYUNDAI SOLAR: HIN-T435NF(BK) (435W) MODULES

(01) BRANCH OF 14 MODULES &  
(01) BRANCH OF 13 MODULES

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EMAIL: MIKELANE@SUNPWRD.COM  
PHONE NO.: (407) 310-7910

REVISIONS

DESCRIPTION	DATE	REV

DATE: 01/20/2026

PROJECT NAME

**DAVE JONES**

15020 SUNSTAR WAY,  
WINTER GARDEN, FL 34787

SHEET NAME  
**ELECTRICAL LINE DIAGRAM**

SHEET SIZE  
**ANSI B  
11" X 17"**

SHEET NUMBER  
**E-02**

Signature with Seal

**NOTE:**  
PRODUCERS STORAGE DEVICE(S) WILL NOT CAUSE THE HOST LOAD TO EXCEED ITS NORMAL PEAK DEMAND. NORMAL PEAK DEMAND IS DEFINED AS THE HIGHEST AMOUNT OF POWER REQUIRED FROM THE DISTRIBUTION SYSTEM BY PRODUCERS COMPLETE FACILITIES WITHOUT THE INFLUENCE OR USE OF THE ENERGY STORAGE DEVICE(S)

MICRO-INVERTER SPECIFICATIONS	
MANUFACTURER / MODEL #	GENERAC: PWRMICRO PM-820 (240V) MICRO-INVERTERS
MAX OUTPUT POWER	820W

SOLAR MODULE SPECIFICATIONS	
MANUFACTURER / MODEL #	HYUNDAI SOLAR: HIN-T435NF(BK) (435W) MODULES
VMP	32.1V
IMP	13.56A
VOC	38.6V
ISC	14.32A
MODULE DIMENSION	67.8"L x 44.6"W x 1.2"D (In Inch)

MICRO-INVERTER SPECIFICATIONS	
MANUFACTURER / MODEL #	GENERAC: PWRMICRO PM-820 (240V) MICRO-INVERTERS
MAXIMUM OUTPUT POWER	820W
MAXIMUM UNIT PER BRANCH	7
MAXIMUM OUTPUT CURRENT	3.42A
CEC WEIGHTED EFFICIENCY	97%

AMBIENT TEMPERATURE SPECS	
RECORD LOW TEMP	0°
AMBIENT TEMP (HIGH TEMP 2%)	30°
CONDUIT MINIMUM HEIGHT FROM ROOF	0.5"
CONDUCTOR TEMPERATURE RATING	90°
MODULE TEMPERATURE COEFFICIENT OF Voc	-0.25%/K

### AC CONDUCTOR AMPACITY CALCULATIONS: ARRAY TO JUNCTION BOX

EXPECTED WIRE TEMP (In Celsius)	30°
TEMP. CORRECTION PER TABLE (310.15)(B)(1)	1.00
# OF CURRENT CARRYING CONDUCTORS	N/A
# OF C.C. CONDUCTORS CORRECTION PER NEC 310.15(C)(1)	1.00
CIRCUIT CONDUCTOR SIZE	10AWG
CIRCUIT CONDUCTOR AMPACITY	35A
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(A) & (B)	
1.25 x MAX AC OUTPUT x MAX # OF MICRO INVERTERS/CIRCUIT	29.93A
DERATED CIRCUIT CONDUCTOR AMPACITY	40.00A
Result should be greater than (29.93A)	

### AC CONDUCTOR AMPACITY CALCULATIONS: FROM JUNCTION BOX TO GENERAC COMBINER BOX

EXPECTED WIRE TEMP (In Celsius)	30°
TEMP. CORRECTION PER TABLE (310.15)(B)(1)	1.00
# OF CURRENT CARRYING CONDUCTORS	4
# OF C.C. CONDUCTORS CORRECTION PER NEC 310.15(C)(1)	0.80
CIRCUIT CONDUCTOR SIZE	10 AWG
CIRCUIT CONDUCTOR AMPACITY	35A
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(A) & (B)	
1.25 x MAX AC OUTPUT x MAX # OF MICROINVERTERS/CIRCUIT	29.93A
DERATED CIRCUIT CONDUCTOR AMPACITY	28.00A
Result should be greater than (29.93A)	

### AC CONDUCTOR AMPACITY CALCULATIONS: FROM GENERAC COMBINER BOX TO GENERAC SMART DISCONNECT SWITCH

EXPECTED WIRE TEMP (In Celsius)	30°
TEMP. CORRECTION PER TABLE (310.15)(B)(1)	1.00
# OF CURRENT CARRYING CONDUCTORS	3
# OF C.C. CONDUCTORS CORRECTION PER NEC 310.15(C)(1)	1.00
CIRCUIT CONDUCTOR SIZE	6 AWG
CIRCUIT CONDUCTOR AMPACITY	65A
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(A) & (B)	
1.25 x MAX AC OUTPUT x TOTAL # OF MICROINVERTERS	59.85A
DERATED CIRCUIT CONDUCTOR AMPACITY	75.00A
Result should be greater than (59.85A)	

### AC CONDUCTOR AMPACITY CALCULATIONS: FROM GENERAC INVERTER TO GENERAC SMART DISCONNECT SWITCH

EXPECTED WIRE TEMP (In Celsius)	30°
TEMP. CORRECTION PER TABLE (310.15)(B)(1)	1.00
# OF CURRENT CARRYING CONDUCTORS	3
# OF C.C. CONDUCTORS CORRECTION PER NEC 310.15(C)(1)	1.00
CIRCUIT CONDUCTOR SIZE	6 AWG
CIRCUIT CONDUCTOR AMPACITY	65A
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(A) & (B)	
1.25 x OUTPUT CURRENT OF INVERTER	60.00A
DERATED CIRCUIT CONDUCTOR AMPACITY	75.00A
Result should be greater than (60.00A)	

### AC CONDUCTOR AMPACITY CALCULATIONS: FROM GENERAC INVERTER TO BATTERY

EXPECTED WIRE TEMP (In Celsius)	30°
TEMP. CORRECTION PER TABLE (310.15)(B)(1)	1.00
# OF CURRENT CARRYING CONDUCTORS	3
# OF C.C. CONDUCTORS CORRECTION PER NEC 310.15(C)(1)	1.00
CIRCUIT CONDUCTOR SIZE	8 AWG
CIRCUIT CONDUCTOR AMPACITY	50A
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(A) & (B)	
1.25 x OUTPUT CURRENT OF BATTERY	36.45A
DERATED CIRCUIT CONDUCTOR AMPACITY	55.00A
Result should be greater than (36.45A)	

### ELECTRICAL NOTES

- 1.) ALL EQUIPMENT SHALL BE LISTED BY UL OR OTHER NRTL, AND LABELED FOR ITS APPLICATION.
- 2.) ALL CONDUCTORS SHALL BE COPPER, RATED FOR 600 V AND 90°C WET ENVIRONMENT.
- 3.) WIRING, CONDUIT, AND RACEWAYS MOUNTED ON ROOFTOPS SHALL BE ROUTED DIRECTLY TO, AND LOCATED AS CLOSE AS POSSIBLE TO THE NEAREST RIDGE, HIP, OR VALLEY.
- 4.) WORKING CLEARANCES AROUND ALL NEW AND EXISTING ELECTRICAL EQUIPMENT SHALL COMPLY WITH NEC 110.26.
- 5.) DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF SYSTEM. CONTRACTOR SHALL FURNISH ALL NECESSARY OUTLETS, SUPPORTS, FITTINGS, AND ACCESSORIES TO MEET APPLICABLE CODES AND STANDARDS.
- 6.) WHERE SIZES OF JUNCTION BOXES, RACEWAYS, AND CONDUITS ARE NOT SPECIFIED, THE CONTRACTOR SHALL SIZE THEM ACCORDINGLY.
- 7.) ALL WIRE TERMINATIONS SHALL BE APPROPRIATELY LABELED AND ACCESSIBLE.
- 8.) INSTALL MODULE AND RACKING GROUNDING HARDWARE PER MANUFACTURER'S INSTRUCTION.



REVISIONS		
DESCRIPTION	DATE	REV

DATE: 01/20/2026  
PROJECT NAME

DAVE JONES  
15020 SUNSTAR WAY,  
WINTER GARDEN, FL 34787

SHEET NAME  
**WIRING  
CALCULATIONS**

SHEET SIZE  
**ANSI B  
11" X 17"**

SHEET NUMBER  
**E-03**

Signature with Seal