



ARRAY SPECIFICATIONS

4.80kW
 (16) HYUNDAI 300 WATT
 PV MODULES
 2 STRINGS OF 8 MODULES

MODULE SPECIFICATIONS

MFG: HYUNDAI
 MODEL: HID-S300RG(BK)
 VDC: 40.0 Vdc
 VMP: 32.5 Vdc
 ISC: 9.80 A
 IMP: 9.30 A
 α VDC: -0.31%/°C

INVERTER SPECIFICATIONS

MFG: FRONIUS
 MODEL: PRIMO 5.0-1
 OUTPUT: 5.0 kW
 VOLTAGE: 240 V
 AMPS: 20.8 A
 CONTINUOUS CURRENT: 26.00 A

EQUIPMENT SCHEDULE

- ① (16) HYUNDAI HID-S300RG(BK) SOLAR MODULES.
- ② FRONIUS PRIMO 5.0-1, SINGLE PHASE GRID-TIE INVERTER, 240VAC OUTPUT, WITH INTEGRATED DC DISCONNECT, AND ARC FAULT PROTECTION. UL 1741 AND IEEE 1547 COMPLIANT.
- ③ PROVIDE A 2-POLE 30A, 240VAC OUTDOOR, NEMA 3R SERVICE RATED DISCONNECT. PHOTOVOLTAIC DISCONNECT SHALL BE VISIBLE, READILY ACCESSIBLE, LOCKABLE, LABELED "PHOTOVOLTAIC AC DISCONNECT" AT GROUND MOUNT.
- ④ PROVIDE A 2-POLE 30A, 240VAC OUTDOOR, NEMA 3R SERVICE RATED DISCONNECT. PHOTOVOLTAIC DISCONNECT SHALL BE VISIBLE, READILY ACCESSIBLE, LOCKABLE, LABELED "PHOTOVOLTAIC UTILITY AC DISCONNECT" WITHIN 10 FEET OF ELECTRICAL METER.
- ⑤ PROVIDE A 2-POLE 30A CIRCUIT BREAKER IN EXISTING 240V AC MAIN ELECTRICAL PANEL WITH 200A MAIN BREAKER AND 200A BUSS.

FEEDER SCHEDULE

- ① PROVIDE 2 #10 AWG(+), 2 #10 AWG (-) PV WIRE IN 3/4" C (~30').
- ② PROVIDE A #6 AWG BARE GROUND.
- ③ PROVIDE 3 #10 AWG THWN, 1 #10 AWG (G) IN A 1/2" C (~5').
- ④ PROVIDE 3 #10 AWG THWN, 1 #10 AWG (G) IN A 1/2" PVC C (~75').

POWER SOURCE CALCULATIONS

OPERATING CURRENT:
 $9.30 \text{ A} \times 2 \times 1.25 = 23.25 \text{ A}$
 OPERATING VOLTAGE:
 $32.5 \text{ V} \times 8 \times 1.17 = 304.20 \text{ V}$
 MAXIMUM VOLTAGE:
 $40.0 \text{ V} \times 8 \times 1.17 = 374.40 \text{ V}$
 SHORT CIRCUIT CURRENT:
 $9.60 \text{ A} \times 2 \times 1.25 = 24.00 \text{ A}$

GENERAL NOTES

- (1) MINIMUM PERMANENT SIGNAGE (YELLOW PLACARD, BLACK LETTERING):
 (A) ON COVER OF VISIBLE UTILITY DISCONNECT - "PHOTOVOLTAIC SYSTEM DISCONNECT"
 (B) ON FRONT COVER OF MAIN SERVICE PANEL "WARNING: THIS PANEL ALSO FED BY SOLAR ELECTRIC SOURCE."
- (2) SIGNAGE OTHER THAN THAT GIVEN IN (1) ABOVE MAY BE REQUIRED
- (3) PV MODULES, STRING COMBINERS, GFI, DC DISCONNECT, INVERTER, AC DISCONNECT, AND UTILITY DISCONNECT ARE UL-LISTED.
- (4) ALL GROUND SYSTEMS ARE BONDED TOGETHER.
- (5) INTERCONNECTION WILL BE PER LOCAL UTILITY REQUIREMENTS (DOUBLE-POLE CB OR LINE SIDE TAP).
- (6) SYSTEM CANNOT BE TESTED ON LINE UNTIL APPROVED BY UTILITY.
- (7) THE PHOTOVOLTAIC SYSTEM WILL BE INSTALLED IN COMPLIANCE WITH ARTICLE 690 OF THE 2014 NEC.
- (8) ALL WIRES MUST BE COPPER AND SIZED FOR A MAXIMUM 2.0% VOLTAGE DROP.

461 HWY 63
 SHELLE LAKE, WI
 54871
 715/588-7538
 www.NextEnergySolution.com



DATE	NAME	DATE
8/9	PTH	
	CONTRACT	
	END DATE	
	MFG DATE	
	C.A.	

CONTRACT ADDRESS
 RUTH OPPEDAHL
 29800 WEDAL RD.
 WASHBJRN, WI 54891

JOB NO.

DATE
 8/9/20

SHEET NO.
 E1.0