

System mounted to standing seam metal roof with S-5-U clamps and Unirac Solarmount i Clicksys system.

Ground wire #6 attached to rails. Rail sections are grounded with the splice kit Unirac 003001S. Panels are grounded to rails with the grounding cips Unirac SM-I 008005S UGC-2, SS. Inverters are grounded with #8 wire.

(2) rows of (7) modules each = 14 modules  
Modules are Sharp ND-240QCJ, 240W  
3.36kW total

ENGAGE CABLE  
BLACK - L1  
RED - L2  
WHITE - NEUTRAL  
GREEN - GROUND

Typical #10 AWG THHN run  
in 3/4" metal conduit

Ground wire #8

JUNCTION BOX

sub-meter

Enphase M215 Microinverters  
with SMK connectors  
connected with Enphase Engage cable  
215W / 240V \* 14 ea = 12.54 Amps/branch  
Overcurrent protection = 12.54 x 1.25 = 15.7 A

TERMINATOR CAP  
INSTALLED ON  
END OF CABLE

UP TO 17 M215s  
PER BRANCH CIRCUIT

TO METER  
OR AC DISTRIBUTION  
PANEL

ONE 2-POLE 20 AMP  
CIRCUIT BREAKER  
PER BRANCH CIRCUIT

NEUTRAL GROUND  
AC DISTRIBUTION PANEL  
OR SUBPANEL

ENVOY COMMUNICATIONS GATEWAY

ETHERNET CONNECTION  
TO BROADBAND ROUTER

120 Vac POWER CABLE

Existing sub-panel breaker #6 & #7  
(existing wind turbine on #2 & #3)  
Panel is lockable to serve as means  
of disconnect

IMPORTANT: Make sure to measure the line-to-line and the line-to-neutral voltage of all service entrance conductors prior to installing any solar equipment. The voltages for the 240Vac rated microinverters should be within the following ranges:  
line to line - 211 to 264 Vac, line to neutral - 106 to 132 Vac.

Dec 07, 2012

FIELD WIRING DIAGRAM  
240 VAC SINGLE PHASE  
Westbrook House Solar PV Installation  
440 Lakewood Dr, Fairview, TX 75069