

GRID TIED/ON-GRID SYSTEM
(WITHOUT NET-METERING)

SOLAR PANEL/
PV MODULE

PV SPECS:
Pmax = 445W
Voc = 53.1V
Isc = 10.48A

DC - AC
INVERTER

ON GRID INVERTER SPECS:
Pmax = 5000W
Vac = 230V

SERVICE
ENTRANCE

UNI-DIRECTIONAL
METER

NEMA 3R
ENCLOSURE

SWITCH ON:
1. PV CB
2. Inverter Switch
3. AC IN/OUT CB

SWITCH OFF:
1. AC IN/OUT CB
2. Inverter Switch
3. PV CB

MAIN
DISTRIBUTION
PANEL

PV CB:
 $I_{dc} = I_{sc} \times \text{no. of strings of PV} \times 1.25$
 $I_{dc} = 10.48A \times 1 \times 1.25$
 $I_{dc} = 13.1 A$
USE: 1 - 20AT 2P DC CB
2 - 4.0 mm sq DC Wires

AC IN/OUT CB:
 $I_{ac} = (P_{\text{max of Inverter}}/V_{ac}) \times 1.25$
 $I_{ac} = (5000w/230V) \times 1.25$
 $I_{dc} = 27.17 A$
USE: 1 - 40AT 2P AC CB
2 - 5.5 mm sq THHN Wires

