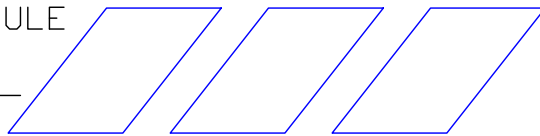


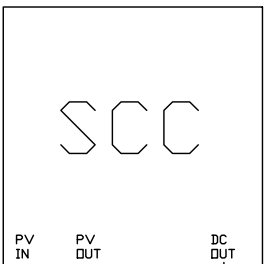
SOLAR PANEL/
PV MODULE



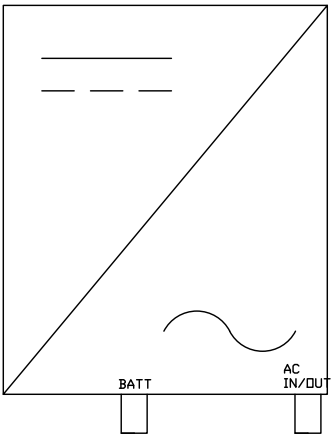
PV SPECS:
 $P_{max} = 360W$
 $V_{oc} = 40.85V$
 $I_{sc} = 9.18A$

OFF-GRID SYSTEM (Single Line Diagram)

SCC SPECS:
 $V_{max} = 150V$
 $I_{max} = 30A$
 $P_{max} = 1200W$



DC - AC
INVERTER



OFF GRID INVERTER SPECS:
 $P_{max} = 2000W$
System Voltage = 24V
 $V_{ac} = 230V$

SWITCH ON:
1. Battery CB
2. PV CB
3. Inverter CB
4. Inverter Switch

SWITCH OFF:
1. Inverter Switch
2. Inverter CB
3. PV CB
4. Battery CB

PV CB:
 $I_{dc} = I_{sc} \times \text{no of strings of PV} \times 1.25$
 $I_{dc} = 9.18A \times 1 \times 1.25$
 $I_{dc} = 11.48A$

USE: 1 - 16AT 2P DC CB
2 - 4.0 mm sq DC Wires

INVERTER CB:
 $I_{dc} = (P_{max} \text{ of Inverter} / \text{System Voltage}) \times 1.25$
 $I_{dc} = (2000W / 24V) \times 1.25$
 $I_{dc} = 104.17A$

USE: 1 - 125AT 2P DC CB
2 - 25 mm sq DC Wires

BATT CB:
 $I_{dc} = I_{max} \text{ of SCC} \times 1.25$
 $I_{dc} = 30A \times 1.25$
 $I_{dc} = 37.5A$

USE: 1 - 50AT 2P DC CB
2 - 4.0 mm sq DC Wires

BATTERY 24V Battery

MAIN
DISTRIBUTION
PANEL

