

1.2 kW Solar PV Array
 (12) of 100 W modules (type 36 cell)
 6 parallel strings of 2 modules in series
EACH MODULE
 $V_{mp} = 18V, I_{mp} = 5.5A$
 $V_{max} = 22V, I_{max} = 5.8A$
For the ARRAY to each Charge Controller
 $V_{mp} = 36V, I_{mp} = 11A$
 $V_{max} = 45V, I_{max} = 21.7A$

Inverter Options
 -Magnum MS4024
 -Outback VFX3024
 -Schneider SW4024-230-50
 -Tripp-Lite
 -Victron
 -Samlex

Charge Controller Options
 -Morningstar
 -Other 24V, 20A, PWM

Off-Grid Inverter
 2500 W continuous
 5000 W peak
 24Vdc, 230Vac, 50Hz

PWM CC
 24V, 20A

PWM CC
 24V, 20A

DC Breaker
 125A, 100+V

Inverter
 DC (+)(-) (G)
 Loads (G)(N)(L)


AC Breaker
 15A, 230V

Breaker Box

Wires to building loads
 1.5 mm2 house wire

Battery Bank
 24V, 19.2 kWh
 4 strings of 2 batteries in series
EACH BATTERY
 12V, 200Ah @20hr

Note:
 One 70mm2 wire equals
 two parallel 35mm2 wire

 Rial Baai Project	Off Grid Systems			
	Sheet Title: 3 kW, 24Vdc Output Electrical Drawing			
Project No:	SIZE	FSCM NO	DWG NO	REV
Revisions: CCB 31-Oct-14	SCALE	NTS	SHEET	3 OF 6