

2880 kV DC- 3 Line Diagram- As-Built
 DC Rating 9x320= 2880 V
 AC Rating 1x 6800V, 6800 V

3/4" ENT
 (2) #8 AVG THWN-2
 (2) #10 AVG Ground Min

Inverter

Conext XV PRO 6848

Conext System
 Control Panel
 (SCP)

Network
 Termination
 Xarbus Cable

Solar Load Panel
 120/240V, 100A Rated

MPPT Disconnect
 RS 865-1036
 RS Initiator
 Switch

DC Combiner Box
 Fused Combiner
 PV Array
 9 Stringer Block Mono 500 320V Modules
 3 Stringer Block Mono 700 370V Modules
 Total 4 strings, 9 Modules, Output 3990 V
 String 1- Containing 03 Modules & 03 Tigo RS2 Box

String 2- Containing 03 Modules
 & 03 Tigo RS2 Box
 String 3- Containing 03 Modules
 & 03 Tigo RS2 Box
 String 4- Containing 03 Modules
 & 03 Tigo RS2 Box
 3/4" ENT
 (2) #10 AVG THWN-2
 (2) #10 AVG Ground
 SPD

KiloVault Battery
 HAB 7.5 kWh
 150Ah, 48V

1" ENT
 (2) #6 AVG THWN-2
 (2) #8 AVG Ground Min

(2) #4/0 AVG THWN-2
 (2) #8 AVG Ground Min

Mini PDP

(2) #6 AVG
 (2) #8 AVG

12V
 SOLID STATE RELAY
 12V/30mA
 18A, 240V
 Solar Surplus

BOILER
 240V
 4.4kW
 SOLID STATE RELAY
 12V/30mA

RevL- 2026 Aug 22

6AWG upgrade cables MPPT to battery

dump load triggers
 MPPT relay- dump 2kW thru parallel heating elements
 (trigger at 54.5V, reset at 54.1, delay off= 1 min)
 inverter relay: dump 4kW (bypass upper element)
 (trigger at 55.5V, reset at 55.0V, delay off 30 sec)

Abbrev:

AWG: American Wire Gauge
 ENT: Electrical Noted Tube
 THWN: THWN-2
 PDP: Power Distribution Panel
 SPD: Surge Protection Device (lightning to PV/grid/wellpump)
 THWN-2: 90° C/ wet rated