

**TEKTELIC**  
c o m m u n i c a t i o n s

## **Kona Gateway Solar Powering Guide**

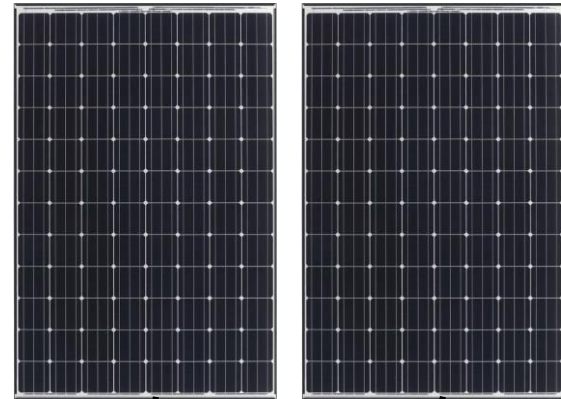
# Kona Gateway DC Power Specifications

Gateway	DC Power Input Specifications
Kona Mega	<p>Operating voltage: 37 – 57 Vdc No damage voltage: +/-60 Vdc Shutdown threshold: 33 V typical, 31 V minimum Start-up threshold: 39 V typical, 42 V maximum Power consumption: 24 W typical, 40 W maximum Ground reference: Positive or negative</p>
Kona Macro	<p>Operating voltage: 37 – 57 Vdc No damage voltage: +/-60 Vdc Shutdown threshold: 32 V typical, 30 V minimum Start-up threshold: 36 V typical, 37 V maximum Power consumption: 15 W typical, 25 W maximum Ground reference: Positive or negative</p>



# Autonomous Solar System

Solar panels  
Qty as per site engineering



Solar charge controller



3.2A fuse



Kona IoT gateway



48V battery strings  
Size & qty per site engineering



# Solar panels

- 48V system
  - Recommend two series 72 cell panels (2x24V)
  - Example part: Canadian Solar CS6U-325P

<https://www.canadiansolar.com/solar-panels/superpower.html>

Many others to choose from:

<https://www.solarelectricsupply.com/solar-panels/72-cell-solar-panels>



# Charge Controller

- 48V system
  - Example part for low cost option:
  - Victron Energy BlueSolar PWM-Light Charge Controller 48V-20A  
<https://www.victronenergy.com/solar-charge-controllers/bluesolar-pwm>



# Battery

- 48V system
  - String of 4x 12V Lead Acid batteries recommended
    - Size battery according to site engineering, parallel strings for increased capacity
  - Example parts:
    - <https://www.bluepacificsolar.com/batteries.html>
    - <https://victronenergy.volts.ca/battery/batteries/agm-deep-cycle-c20-capacity.html>
- Battery Enclosures
  - Size battery enclosure according to site engineering
  - Example parts:
    - <https://www.bluepacificsolar.com/battery-enclosures.html>

