



Power and Memory Calculations Form

Results

- Sensor type: L-22 (Passive Sensor)
 - Datalogger type: Q330
 - No telemetry is being used.
 - Battery Capacity in Amp-Hours: 34
 - Solar Panel Wattage: 20
 - Equivalent Solar Panel Wattage for 50% of daily sunlight: 10 watts.
 - DAS Memory: 4 (GB)
 - Three-Channel Sample Rate: 200 samples/second
 - Data Format: 32 Bit
 - Number of Channels In Use: 3
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- **Required Power: 1.90 watts; Required Current: 158.33 ma**
 - **With the specified 34-AH battery, the Station will last approximately 8.95 days without any sun.**
 - **Battery *is* being recharged sufficiently by the solar panel (20 W, at 50% Daily Sun, for an effective value of 10 W).**
 - **The user-specified Battery (34 AH), with 12 hours of direct sun per day, and a 20-Watt solar panel, should be fully charged in ~ 2.10 days.**
 - **For the user-specified Battery (34 AH) to fully charge in one day, you will need a solar panel with capacity of 37.80 Watts.**
 - **For the user-specified Battery (34 AH) to fully charge in 8.95 days, you will need a solar panel with capacity of 7.60 Watts.**
 - **At 8.24 MB/hour, or 197.75 MB/day, the DAS will take data for 20.71 days.**

Three-Channel Dataloggers with Sensors

To use this form, first select values for Sensor Type (the type automatically includes whether sensors are Passive or Active), DAS Type (Quanterra or Reftek), and use of Telemetry. Then, specify the Battery capacity in Amp-Hours, and the Solar Panel Wattage (watts), and then click the 'Estimate' button.

If you simply want to check memory usage, ignore the sensor, datalogger, telemetry, and battery/solar power options - just enter DAS memory, sample rate, data format, and number of channels, then click 'Estimate' to go.

Sensor Type: L-22 **Data Logger Type:** Q330 **Telemetry:** No Yes

Select Yes if you are using Telemetry to monitor this station remotely.

Battery Capacity in Amp-Hours: **Solar Panel Wattage:** **Percentage of Sunlight during One Day:**

Enter the percentage of daily sunlight, ranging from 0 (no sun) thru 100; 12 hours of sun is 50%.

DAS Memory (GB): **Sample Rate (samples per second):** **Data Format:** 32 Bit **Number of Channels in Use:**

*not for older hard-drive
is,
which will hold many GBs*

[Estimate Three-channel Memory/Power Usage](#)