



GRANITE Chassis

Chassis for GRANITE Data-Acquisition Systems



Easy-to-Deploy, Rugged Housing

For your entire GRANITE™ Data-Acquisition System

Overview

The GRANITE™ Chassis is a platform for housing a complete GRANITE system. The Chassis can hold up to eight modules, which may include the DAQ (GRANITE™10, GRANITE™9, or GRANITE™6), CH400, and additional GRANITE measurement modules. Portability and protection are fundamental to the design, delivering optimal system performance in demanding conditions—especially when heat must be dissipated quickly. Up to five panel faces (four top, one rear) can be customized to mount a wide variety of connectors,

providing rapid connection to the DAQ system, which is ideal for time-sensitive or repetitive testing applications. As a GRANITE system scales to larger arrays of sensors and supporting GRANITE modules, several additional Chassis can be daisy-chained to expand the GRANITE DAQ network. With the optional 38822 Rackmount, Slide-Rail Kit, the Chassis can be easily mounted in a standard four-post server rack cabinet.

Benefits and Features

- › Unique, rugged design for maximum system protection when used in harsh, demanding applications
- › Automated thermal control to quickly dissipate heat generated by GRANITE modules
- › More than 150 cable-tie points for convenient cable management
- › Optional built-in AC/DC converter for powering system using AC power
- › Integrated high-performance 8 Ah battery for portable, uninterrupted operation
- › LED illumination, showing at a glance that the system is powered
- › Integrated battery temperature sensor (connects to CH400) for optimal charging and maximizing battery life
- › Integrated tool bracket to keep supplied screwdrivers readily available
- › Spring-loaded rugged handles to securely grip Chassis and DAQ components while carrying
- › Four anchor points to attach tie-down straps
- › Rack mountable with optional accessory kit (occupies 7U)
- › Rapid, tool-less removal of top cover, facilitating module installation and providing flexibility to quickly move covers between Chassis
- › Customizable, removable connector panels to support quick deployments and repetitive testing

Technical Description

The GRANITE™ Chassis is ideal for high-performance applications such as high-speed DAQ, large-channel-count DAQ, structural health monitoring, distributed data

acquisition, vehicle testing, charging large battery banks, and when using sensors or auxiliary system components that draw significant power. Typically, the CH400 is paired with

the Chassis to deliver reliable power in demanding applications such as these. An automated thermal management system efficiently controls and dissipates heat incrementally to suit a range of dynamic operating conditions.

The GRANITE Chassis provides a very rugged framework that consolidates GRANITE measurement modules and provides physical protection in industrial environments. It includes connections for easy power distribution to measurement modules and/or additional Chassis—whether they are collocated or mounted distantly. The integrated battery temperature sensor provides feedback to a CH400, ensuring the battery is optimally maintained. The onboard battery and the ability to add external battery banks make the GRANITE

family of products perfectly suited for off-grid, solar-powered systems; locations where on-grid systems may be susceptible to frequent downtime; and critical applications that require absolute reliability in monitoring, notification, and/or control capabilities.

Panels designed for customization are made of 5052 aluminum and can be modified as desired. (Note: Modifications should occur while the panel is removed from the Chassis.) Alternatively, custom panels can be designed and fabricated. Contact Campbell Scientific to discuss this customization, as well as installing and terminating the wiring of custom connectors to GRANITE modules for a complete plug-and-play system that is tailored to your specific application.

Specifications

Operating Temperature Range	-40° to +70°C
Storage Temperature Range	-55° to +85°C
Active Cooling	<ul style="list-style-type: none"> › 4 integrated cooling fans, individually thermostat controlled › 21 CFM per fan › 135 W thermal power dissipation (at 70°C)
Battery	12 Vdc, 8 Ah, AGM
Current Drain (Chassis only)	<ul style="list-style-type: none"> › 30 mA for illumination LED, when on › 250 mA (3 W) per fan when running, thermostat controlled
AC Input Connector	IEC C14 (with 36 V and 24 V power options)
Detachable AC Power Cord	<ul style="list-style-type: none"> › NEMA 5-15P to IEC C13 › Included with the 36 V and 24 V options only.
Detachable AC Power Cord Length	203.2 cm (80 in.)
Dimensions	45.4 x 31.0 x 25.3 cm (17.87 x 12.21 x 9.95 in.) external, without power cord
Chassis Weight	10.6 kg (23.3 lb) without battery
Battery Weight	3.0 kg (6.7 lb)

Chassis Weight with GRANITE Modules	20.4 kg (45.0 lb) typical with power supply installed and Chassis fully loaded with GRANITE modules
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Power Options

-NOTE-	<i>The Chassis is available in one of three power configurations determined at the time of order.</i>
36 Volt Option	<ul style="list-style-type: none"> › DC Output: 600 W charging capacity; 36 Vdc, 16.7 A maximum › Battery: 12 Vdc, 8 Ah, AGM (Note: A charge regulator is required.) › AC Input: 100 to 240 Vac, 8 A maximum, 50/60 Hz
24 Volt Option	<ul style="list-style-type: none"> › AC Input: 100 to 240 Vac, 3.5 A maximum, 50/60 Hz › Battery: 12 Vdc, 8 Ah, AGM (Note: A charge regulator is required.) › DC Output: 250 W charging capacity; 24 Vdc, 10.4 A maximum
No AC/DC Supply Option	<ul style="list-style-type: none"> › Battery: 12 Vdc, 8 Ah, AGM (Note: A charge regulator is required.) › DC Output: None › AC Input: None

For comprehensive details, visit: www.campbellsci.eu/granite-chassis 



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