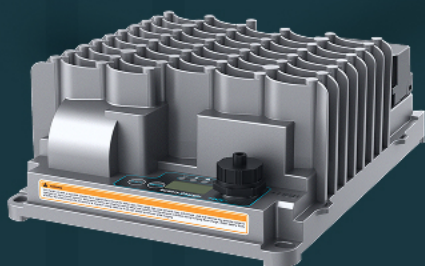


— About NVR

Founded in 2009 in Silicon Valley, North Valley Research is a leading provider of intelligent electronic control systems and IoT solutions. Committed to our mission "Better technology serves more people," we strive to deliver cutting-edge solutions that meet the evolving needs of our customers.



CG1100-2430 Charger

The CG 1100-2430 is a versatile charger that combines the capabilities of both on-board and off-board configurations. It is compatible with lead-acid batteries (Wet / AGM / Gel) as well as lithium batteries, ensuring long-lasting and stable battery performance.

CG1100-2430 is equipped with a USB communication interface, supporting personalized charging curve configuration, making charging management more intelligent and precise. Its unique installation design, combined with the patented USB interface, greatly simplifies the installation and operation process. In addition, the product features multi-level control menus, allowing users to easily adjust charging parameters according to actual needs for an efficient and convenient charging experience.

In terms of heat dissipation and protection, CG1100-2430 adopts a patented heat dissipation design structure, effectively ensuring temperature stability during long periods of charging and extending the service life of the equipment. At the same time, it supports a wide voltage supply of AC 85V-270V, with strong hardware protection to ensure stable operation in various voltage environments. After undergoing multiple rigorous environmental tests, the charger can operate normally in extreme temperature ranges from -40°C - +65°C, and its protection level reaches IP67, with excellent waterproof and dustproof performance, adapting to various harsh working environments.

— Key Highlights

- **High-Efficiency Charging:**30A output shortens charging time while improving energy efficiency. Compatible with any global single-phase grid for flexible deployment.
- **Engineered for Reliability:**Built to endure extreme environments, with EMC and environmental validation ensuring consistent performance over long-term operation.
- **Smart Integration:**USB host port enables quick firmware updates, profile management, and charge cycle diagnostics for easy system integration.

— Features

- Displays charge profile, fault codes, voltage, current, and temperature via three LED indicators and two control buttons.
- The charger can store up to 25 charging curves, and the selection of charging curves can be made through the human-machine interface of three LED digital tubes and two buttons.
- USB drive supports software upgrades, profile uploads, and downloading of cycle logs and diagnostics.
- Logs detailed charge cycle data (voltage, current, temperature, ampere-hours, duration, end-of-charge voltage) and fault events.
- Maintenance mode keeps battery at optimal storage voltage via periodic recharging.
- It supports both vehicle mode and non-vehicle mode (non-vehicle mode is the default at the factory).
- DC output cable resistance (default 20mΩ) configurable via USB for different application needs.
- Built-in temperature sensor adjusts power output in real time to prevent overheating and ensure safety.
- Field-replaceable, OEM-customizable cable design.
- Optional portable handle available.

— Specifications

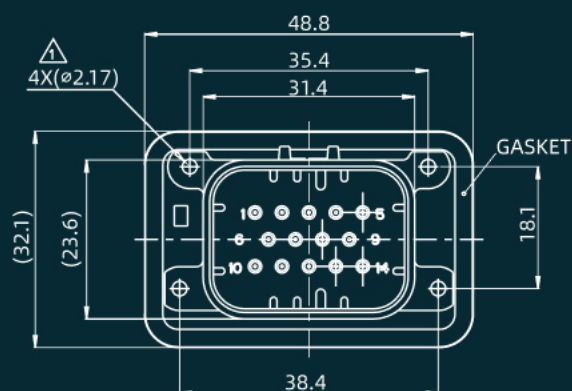
Input Voltage Range	85 - 270 V AC
Input Frequency Range	50 / 60 Hz ± 1 Hz
Efficiency	>93% @ 230 V AC; >90% @ 120 V AC
Power Factor	>0.98 @ 230 V AC; >0.99 @ 120 V AC
Battery Type	Lithium Batteries, Lead-acid Batteries (Fluent / AGM / GEL)
Max Input Current	8.9 A

Max Output Power	750 W
Output Voltage Range	1.2 - 36 V
Max Output Current	30 A
Output Voltage Accuracy	±1%
Output Current Accuracy	±3%
Max Interlock Signal Current	3 A
Bluetooth Communication	Bluetooth 5.0
CAN Communication	1 Channel
USB	USB 2.0 Host Port (Type A) With Dust Cover
AC Input Connector	IEC 60320 C14 Inlet
DC Output Connector	M6 Terminal
Display Type	3-bit LED digital tube
Led Light	4
Button	2
Dimensions	252x186x90 mm
Weight	3 kg ± 0.01 kg
Cooling Method	Passive Cooling (Operable In Any Orientation)
Protection	Anti-polar protection, short circuit protection, overture protection, overtow protection, heat protection
Protection Rating	IP67, IP66
Operating Ambient Temperature	-40°C - +65 °C
Storage Ambient Temperature	-40°C - +85 °C
EMC Testing	FCC Part 15, ICES 001 Class A, EN 55011, EN 61000-6-4, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2
Production Certification	UL1564, CSA C22.2, CB, CE

Connector & PIN Definition

Connector: TE 2437602-1 (Refer to the figure below)

Mating Connector: TE 776273-1



Pin	Function	Descriptions
1	CAN-GND	Isolated reference ground for CAN
2	Interlock1-NC	Dry Contact Interlock relay: Normally closed contact
3	Interlock2-COM	Dry Contact Interlock relay: Common contact
4	Interlock3-NO	Dry Contact Interlock relay: Normally open contact
5	Battery Temperature Sense '+'	Positive pole of battery temperature sensor
6	CAN High	Isolated CAN High
7	Signal Ground	Digital signal reference ground (Do not connect to Battery Negative)
8	For reserve	For reserve
9	For reserve	For reserve
10	CAN Low	Isolated CAN Low
11	Factory port	Factory use only
12	Remote LED Green +ve	Pin 12 goes high with respect to Pin 13 to light the Remote LED green, and vice versa to light the Remote LED red

13	Remote LED Red +ve	Pin 12 goes high with respect to Pin 13 to light the Remote LED green, and vice versa to light the Remote LED red
14	Battery Temperature Sense '-'	Negative pole of battery temperature sensor

— Dimensions

