



RLH Industries, Inc.

USER GUIDE

The leader in rugged fiber optic technology.

U-051 2025A-0218

24VDC UPS BATTERY CHARGE CONTROLLER

DIN MOUNTED UPS MODULE

Description

RLH 24VDC UPS Battery Charge Controller is a compact DIN rail module designed to provide uninterruptible power in the event of a power outage.

The module continuously maintains the correct charge level on the battery pack, and ensures a seamless power transition to battery power when needed for a complete UPS power supply solution. The power supply, alarm contact and battery connect using convenient front panel connectors.

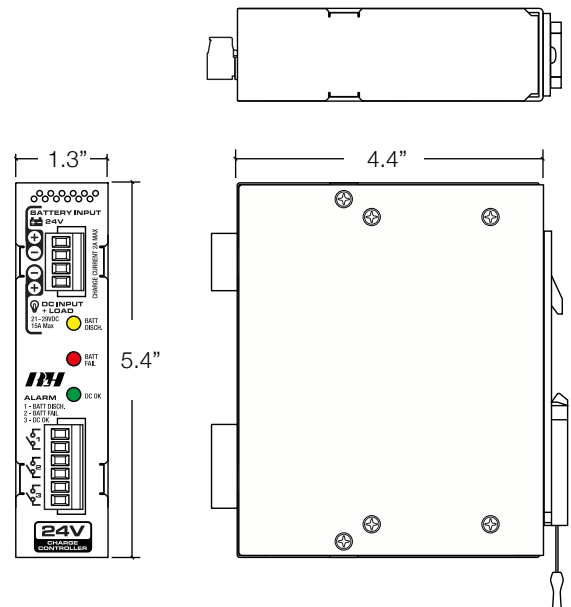
Key Features

- Suitable for 24VDC systems
- Relay contact signal output and LED indicator for DC BUS OK, Battery Fail, and Battery Discharge.
- Battery polarity protection
- Cooling by free air convection
- Convenient screw down terminals



RLH 24VDC UPS Battery Charge Controller

Dimensional Information



Front Panel

Battery Input 24V

Connect the copper pair from the battery to the corresponding positive (+) and negative (-) terminals labeled **BATTERY INPUT**.

DC Input + Load

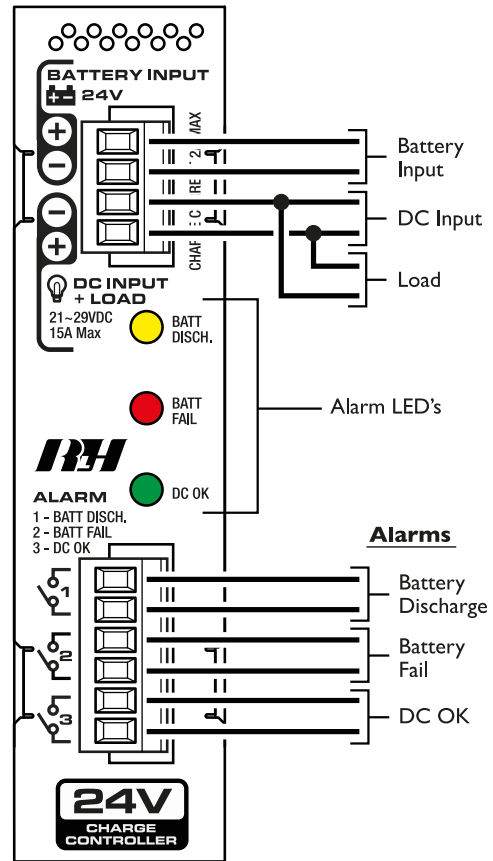
Connect the copper pairs from both the power supply and the load to the corresponding positive (+) and negative (-) terminals labeled **DC INPUT + LOAD**.

Note: The power source must be greater than the voltage across the battery terminals, and should be set to the charging voltage recommended by the battery manufacturer. Typically in a 24VDC system 27VDC should be the power source voltage.

Alarm

Connect monitoring equipment copper pairs to the bottom terminal block. Each alarm is identified with a number

- (1) **Battery Discharge** - Indicates if battery is discharging.
- (2) **Battery Fail** - battery over-discharge warning or Indicates when battery failure is observed through the battery test function.
- (3) **DC OK** - Indicates that DC voltage is between 24~29V.



Front Panel

LED Indicators

Connect monitoring equipment copper pairs to the bottom terminal block. Each alarm is identified with a number.

Label	Name	Color	Status	Description
BATT DISCH.	Battery Discharge	Yellow	ON	Battery discharging
			OFF	Battery is not discharging or discharging current <400mA
BATT FAIL	Battery Fail	Red	ON	Battery over-discharge warning or battery malfunction
			OFF	Battery OK
DC OK	DC Input Voltage OK	Green	ON	DC BUS OK
			OFF	DC BUS failure

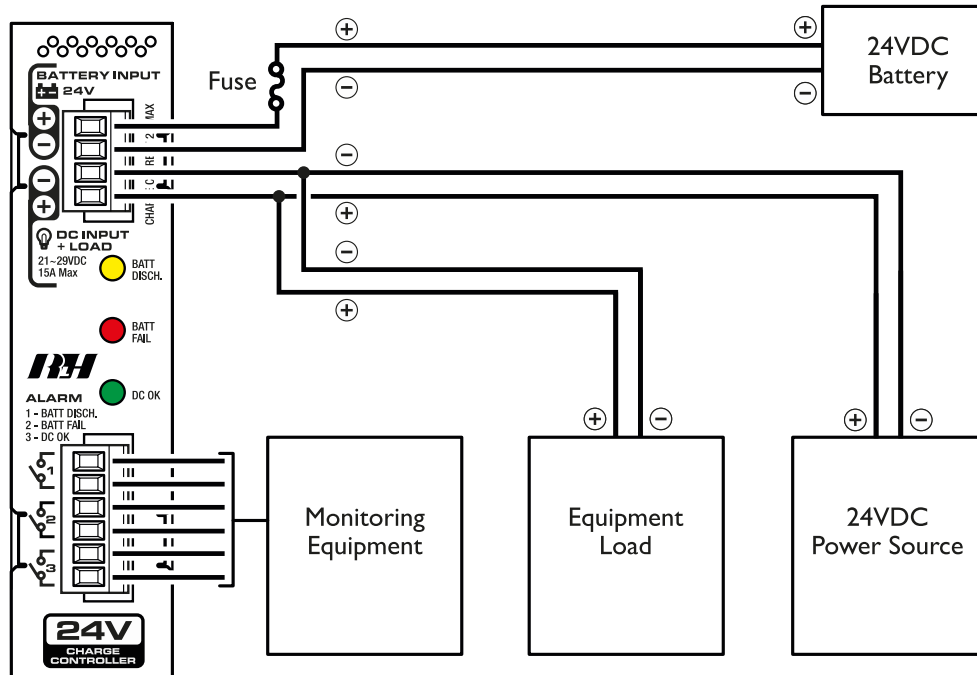
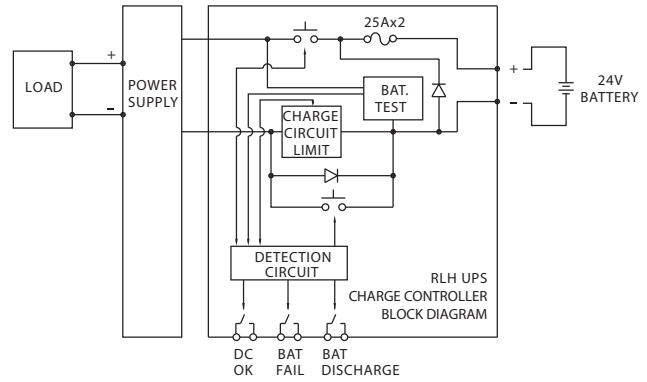
Applications

UPS Systems

The 24V Battery Charge Controller is the perfect solution for uninterrupted power to critical applications that must be in service 24/7/365. The following diagrams are examples of how systems work and should be installed for optimum service.

Note: The power source must be greater than the voltage across the battery terminals, and should be set to the charging voltage recommended by the battery manufacturer. Typically in a 24VDC system 27VDC should be the power source voltage.

UPS Block Diagram



Connection Diagram

Ordering Information

Description	Input Voltage	Charge Current	Part Number
24V UPS Battery Charge Controller	24 ~ 29VDC	2A	RLH-UPS-24-15-01

▶ Please contact your RLH sales representative for pricing and delivery information

General Specifications

DC INPUT	VOLTAGE RANGE (Typ.)	24 ~ 29VDC	* The power source must be greater than the voltage across the battery terminals, and should be set to the charging voltage recommended by the battery manufacturer. Typically in a 24VDC system 27VDC should be the power source voltage.
	CURRENT RANGE	0 ~ 15A	
BATTERY OUTPUT	VOLTAGE RANGE (Typ.)	24 ~ 29VDC	
	CURRENT RANGE	0 ~ 15A	
	CHARGE CURRENT (Max.)	2A	
	EXTERNAL BATTERY (Typ.)	4 / 7 / 12 / 20AH / 24V	
FUNCTION	RELAY CONTACT RATING	30VDC, 10A (max.)	
	BATTERY DISCHARGE	Relay contact : Short when battery in discharge condition, relay contacts LED (Yellow) ON : Battery discharging LED (Yellow) OFF : Battery is not discharging or discharging current <400mA	
	BATTERY FAIL	Relay contact : Short when battery failure is observed through the battery test function, relay contacts LED (Red) ON : Battery over-discharge warning or battery malfunction LED (Red) OFF : Battery OK	
	DC BUS OK	Relay contact : Short when DC voltage between 24~29V(3%), relay contacts LED (Green) ON : DC BUS OK; LED (Green) OFF : DC BUS failure	
ENVIRONMENT	WORKING TEMP.	-40°C~ +70°C	
	WORKING HUMIDITY	20 ~ 90% RH non-condensing	
CONSTRUCTION	Durable Powder Coated Aluminum Alloy		
DIMENSIONS	H 5.4in. x W 1.3in. x D 4.4 (H 137mm x W 33mm x D 112mm) (Housing only)		
MOUNTING	DIN Rail T35 per IEC 60715		
WEIGHT	1.0lbs. (0.45kg)		



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Specifications subject to change without notice.