

CliQ M Battery Module (without Battery)

DRN-24V7AAEN



Highlights & Features

- Anti-Corrosion Powder Coated Chassis
- Suitable for 7.2 AH Lead-Acid Battery
- 2 x 12 V battery in series
- Built-in battery voltage LED indicator
- Built-in battery over temperature protection (need to be used with the CliQ M DC-UPS modules)

Safety Standards



Model Number:	DRN-24V7AAEN
Unit Weight:	1.40 kg (3.09 lb)
Dimensions (L x W x D):	211.5 x 148 x 109.2 mm (8.33 x 5.83 x 4.30 inch)

General Description

The CliQ M battery module is designed to support 2 x 12 V 7.2 AH lead-acid battery in series for 24 V system. There is a built-in battery voltage LED indicator to easily monitor the battery status while in operation. When used together with the CliQ M DC-UPS modules, users can also monitor the battery temperature to prevent the lead-acid battery from over charging and overheating to extend battery life.

Model Information

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Model Number	Nominal Voltage	Charging Current	Discharging Current
DRN-24V7AAEN	24 Vdc typ.	2.1 A Max	40 A Max

Model Numbering

DR	N –	24V	□A	A	E	N
DIN Rail	Battery Module (Without Battery)	Input / Output Voltage	Capacity 7A – 7.2 AH	Metal Frame	Lead Acid Battery	Without Class I, Div 2

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Specifications

Battery Characteristics

Nominal Battery Voltage	24 Vdc, SLA Sealed lead acid battery 2 x 12 Vdc, SLA Sealed lead acid battery in series
Battery Capability	7.2 AH lead-acid battery
Recommended Charging Voltage	27.6 Vdc
Expected Float Use Life	3~5 years (Eurobat 20°C)

Battery Current Ratings / Characteristics

Charging Current*1	2.1 A Max
Discharging Current	40 A Max
Battery Fuse	2 pcs in parallel, LITTELFUSE 0257030.PXAPC & BUSSMANN ATC-30 or equivalent

*1: Cannot exceed max charging current limitation of battery specification.

Mechanical

Case Chassis	Metal				
Dimensions (L x W x D)	211.5 x 148 x 109.2 mm (8.33 x 5.83 x 4.30 inch)				
Unit Weight	1.40 kg (3.09 lb)				
Cooling System	Convection				
Terminal	<table> <tr> <td>Battery (CN203)</td><td>2 Pins</td></tr> <tr> <td>Temperature Sensor & Rx/Tx (CN206)</td><td>4 Pins Power Supply Header: CVILUX CP3504P1H00-NH Mating Connector: CVILUX CP3504S0010 Terminal: CVILUX CP35TN21PES</td></tr> </table>	Battery (CN203)	2 Pins	Temperature Sensor & Rx/Tx (CN206)	4 Pins Power Supply Header: CVILUX CP3504P1H00-NH Mating Connector: CVILUX CP3504S0010 Terminal: CVILUX CP35TN21PES
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Wire	<table> <tr> <td>Battery</td><td>AWG 10-6 (Load: 0-20 A) AWG 8-6 (Load: 20-40 A)</td></tr> </table>	Battery	AWG 10-6 (Load: 0-20 A) AWG 8-6 (Load: 20-40 A)		
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Environment

Surrounding Air Temperature	Charging	0°C to +40°C
	Discharging	-10°C to +50°C
	Storage	-15°C to +40°C
Operating Humidity		5 to 95% RH (Non-Condensing)
Operating Altitude		0 to 6000 m
Shock Test	Non-Operating	IEC 60068-2-27, 30 G (300 m/s ²) for a duration of 18 ms, 1 time per direction, 2 times in total
Vibration	Non-Operating	IEC 60068-2-6, 10 Hz to 500 Hz @ 30 m/s ² (3 G peak); 60 min per axis for all X, Y, Z direction
Pollution Degree		2

Protections

Internal Fuse	30 A
Degree of Protection	IP00
Protection Against Shock	Class III

Safety Standards / Directives

CE	In conformance with EMC Directive 2014/30/EU and Low Voltage Directive 2014/35/EU
UKCA	In conformance with Electromagnetic Compatibility Regulations 2016 and Electrical Equipment (Safety) Regulations 2016

EMC

Emissions (CE & RE)	EN 61000-6-4
Immunity	EN 61000-6-2

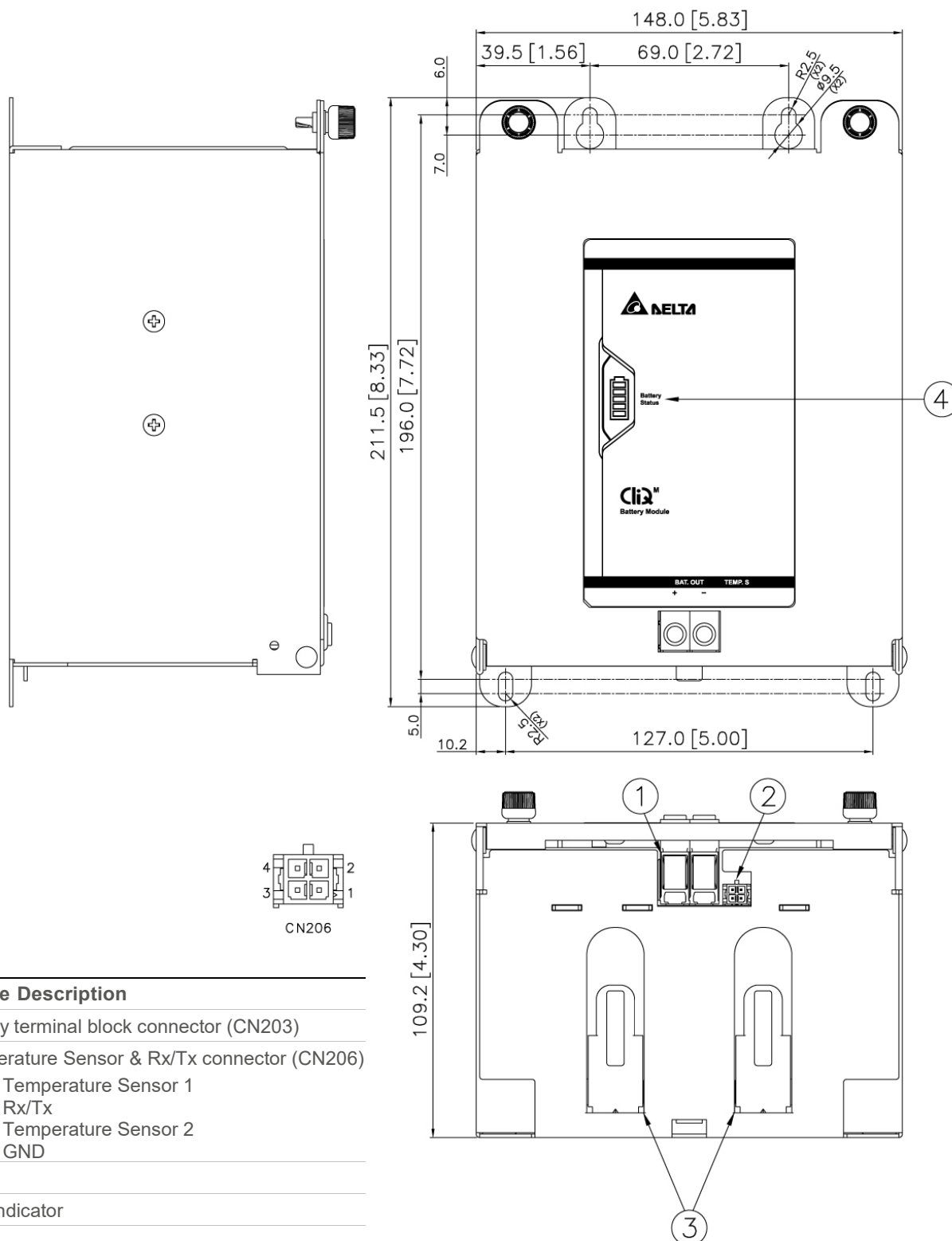
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Dimensions

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L x W x D: 211.5 x 148 x 109.2 mm (8.33 x 5.83 x 4.30 inch)



Item	Device Description
1	Battery terminal block connector (CN203)
2	Temperature Sensor & Rx/Tx connector (CN206) Pin 1: Temperature Sensor 1 Pin 2: Rx/Tx Pin 3: Temperature Sensor 2 Pin 4: GND
3	Hook
4	LED indicator

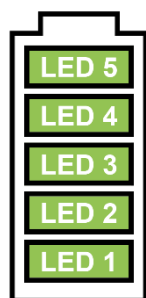
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AWG Wire Table

Current Rating for PVC Wire	
6 AWG	52.5 A
8 AWG	37.5 A
10 AWG	29.0 A
12 AWG	22.5 A
14 AWG	16.5 A
16 AWG	12.0 A
18 AWG	9.0 A
20 AWG	6.5 A
22 AWG	5.0 A
24 AWG	3.5 A
26 AWG	2.5 A
28 AWG	2.0 A
30 AWG	1.5 A

LED Indicator



Battery Status

Battery Capacity	LED 1	LED 2	LED 3	LED 4	LED 5
> 85%	ON	ON	ON	ON	ON
70%-85%	ON	ON	ON	ON	OFF
55%-70%	ON	ON	ON	OFF	OFF
40%-55%	ON	ON	OFF	OFF	OFF
20%-40%	ON	OFF	OFF	OFF	OFF
< 20%	OFF	OFF	OFF	OFF	OFF

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Assembly & Installation

With reference to Fig. 1, the battery module should be mounted on a sturdy surface with minimum of 2 mounting holes using M4 screws. For Vertical Mounting, the device should be installed with Battery terminal block on the bottom.

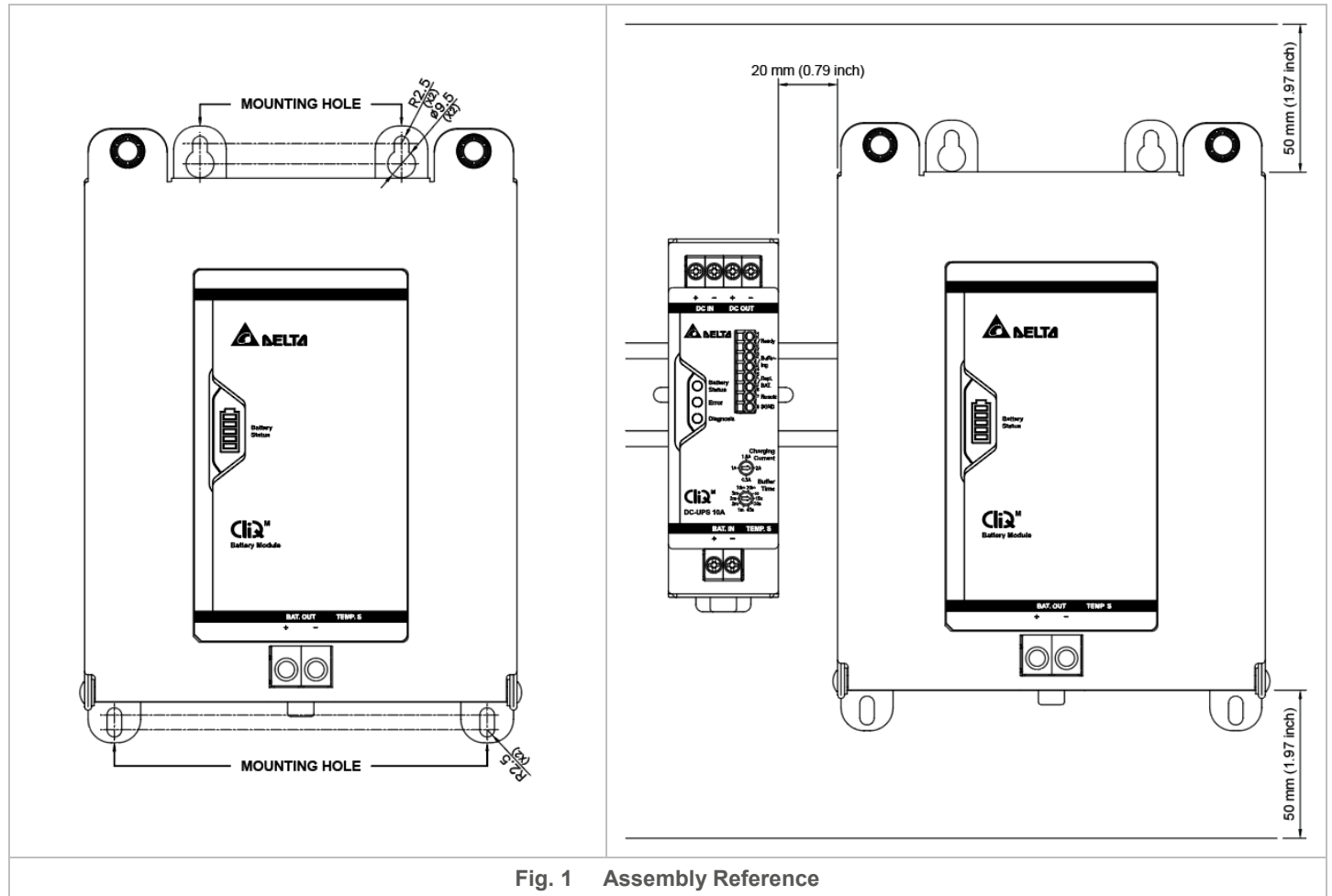


Fig. 1 Assembly Reference

Safety Instructions

- When replacing batteries, only use the same type of batteries listed under the “Battery Characteristics” section on Page 2.
- Proper disposal of batteries is required. Refer to the relevant local codes for disposal requirements.
- ALWAYS switch mains of input power OFF before connecting and disconnecting the input voltage to the unit. If mains are not turned OFF, there is risk of explosion / severe damage.
- **To guarantee sufficient convection cooling, keep a distance of 50 mm (1.97 inch) above and below the device as well as a lateral distance of 20 mm (0.79 inch) to other units.**
- Note that the enclosure of the device can become very hot depending on the surrounding air temperature and load of the power supply. Risk of burns!
- The main power must be turned off before connecting or disconnecting wires to the terminals!
- DO NOT insert any objects into the unit.
- Hazardous voltages may be present for up to 5 minutes after the input mains voltage is disconnected. Do not touch the unit during this time.
- The unit is a built-in unit and must be installed in a cabinet or room (condensation free environment and indoor location) that is relatively free of conductive contaminants.

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Others

Attention

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