

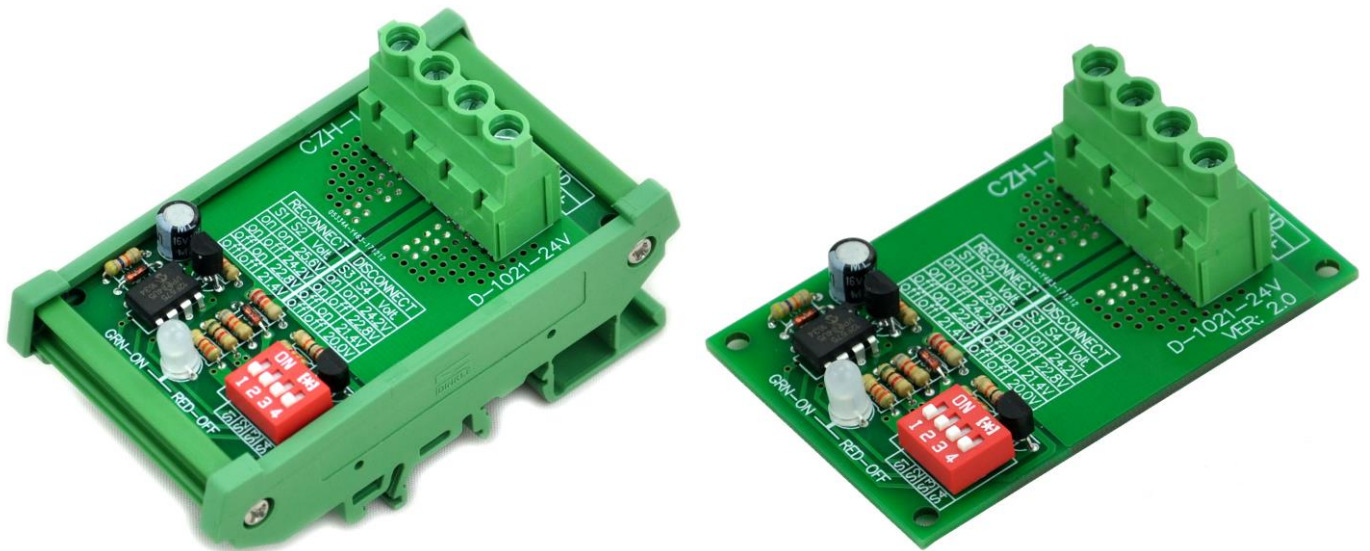
CZH-LABS

Electronics-Salon

30Amp Automatic Low Voltage Disconnect Module (LVD)

Model: D-1021

Version: 2.0 (from December 22, 2017)



To protect electronics from damaging low voltages and prevent a deep discharge of a battery during an extended power outage, the LVD module will automatically disconnect the battery when the voltage falls below the user adjustable cutoff voltage. When power is restored the Smart Switch will automatically reconnect the battery, thereby protecting the battery from total discharge (helping to prolong the life of the battery).

Applications include:

Solar systems,
Alarm systems,
UPS systems,
Mobile systems,

Or any application where you need to protect the battery from total discharge.

Features:

Based on Microcontroller and MOSFET(on status resistance 0.0023 ohm).

Programmable voltage setting for Disconnect and Reconnect.

Red-green LED indication for relay switch ON and OFF.

When the battery voltage drops to \leq Disconnect value and continuously held for 5 seconds, load switch will OFF. when the battery voltage rise to \geq Reconnect value and continuously held for 5 seconds, load switch will return to ON state. this will better prevent malfunction.

Panel mount or DIN rail mount types selectable. DIN rail mount version can support width 35 / 32 / 15mm rails.

Model list:

Version	Mount Type	Suitable Battery	Rated Current
MD-D1021/12V	Panel mount	12V	30A
MD-D1021T/12V	DIN rail mount		
MD-D1021/24V	Panel mount	24V	
MD-D1021T/24V	DIN rail mount		

Specifications:

	12V series	24V series
Operating voltage	6 ~ 18 Vdc	10 ~ 32 Vdc
Rated current	30Amp	
Quiescent current (Load switch off)	1.8 ~ 2.2mA	

Quiescent current (Load switch on)	9.5 ~ 10.5mA	
Disconnect voltage	10.0, 10.7, 11.4, 12.1 Vdc Programmable	20.0, 21.4, 22.8, 24.2 Vdc Programmable
Reconnect voltage	10.7, 11.4, 12.1, 12.8 Vdc Programmable	21.4, 22.8, 24.2, 25.6 Vdc Programmable
Default setting Disconnect/Reconnect	10.0Vdc / 11.4Vdc	20.0Vdc / 22.8Vdc
Disconnect/Reconnect Voltage Tolerance	+/- 0.1Vdc (max.)	+/- 0.1Vdc (max.)
Load Switch ON Status Resistance	2.3 milliohm (0.0023 ohm)	
Disconnect/Reconnect LED state	Red / Green	
Terminal block wire	26~10AWG, 5.26mm ²	
Panel Mount Size	72.5mm x 47.35mm x 25mm (L x W x H)	
DIN Rail Mount Size	87mm x 50mm x 48mm (L x W x H)	

NOTE:

- 1, Setting disconnect and reconnect values, reconnect value must more than disconnect value.
- 2, Do not reverse connect battery polarity, otherwise it will damage battery or the module.

PCB Mount Dimensions and Terminal Block Connect:

