Littelfuse
Expertise Applied | Answers Delivered

COMPACT LOW VOLTAGE DISCONNECT

100A • 12 or 24V DC • IP67 • **OBSOLETE 2018**

Cole Hersee
A Littelfuse Brand



Description

Unit disconnects non-critical loads when battery voltage falls below threshold, reconnects when battery is recharged.

Unit is auto-ranging: identifies whether system is 12V or 24V, and automatically establishes thresholds. One part number; two voltages.

Eliminates dead battery service calls and lost time by extending battery life and preventing irreversible damage due to excessive discharge.

No action is required by vehicle operator to protect the batteries – unit automatically disconnects and reconnects, giving operator a warning one minute before disconnect. 200mA alarm signal can drive audible or visual systems or any large device via a relay. Optional manual override feature.

Electronics are sealed to IP67, see Installation Instructions IF-162 for mounting and wiring details. Solid state reliability and resistance to vibration – replaces vulnerable conventional solenoids. Unit exceeds one million cycles and is protected from overcurrent, overvoltage, and under-voltage. Minimal draw on battery (only 1mA standby).

Protects vulnerable onboard electronics such as GPS, phone, computer. Solid-state switching creates less electrical noise and interference, and eliminates spikes.

Features and Benefits

- Electronically senses battery level and conserves starting power
- Prolongs battery life by preventing battery damage.
- Unit works with 12V or 24V DC systems

Specifications Overview

Voltage:	12/24V DC (Auto Ranging)
Operating Voltage:	12V DC: 9V Min, 12V Typical, 16V Max 24V DC: 18V Min, 24V Typical, 32V Max
Disconnect & Connect Voltage:	See table on page 2
Overcurrent Protection:	135A
Ingress Protection:	IP67
Operating Temperature:	-40° to +85°C (-40° to +185°F)
Dimensions:	4.27 x 4.50 x 3.11 (108.6 x 114.3 x 79.0)

Web Resources

Download technical resources at:
littelfuse.com/48513

Ordering Information

PART NUMBER	DESCRIPTION
48513	Unit Only
48513-01-BX	Unit with Harness (p/n 12804)
48513-02-BX	Unit with Harness (p/n 12804) & Rocker Switch (p/n 58326-06)
48513-03-BX	Unit with Harness (p/n 12804) & Toggle Switch (p/n 55088)
48713	Programmable Unit Only

Associated Items

PART NUMBER	DESCRIPTION
12804	Plug & Harness
58326-06	Rocker Switch
55088	Toggle Switch



12804



58326-06



55088

Datasheet Replaces Hotfeed Number D-619

© 2019 Littelfuse Commercial Vehicle Products

COMPACT LOW VOLTAGE DISCONNECT

100A • 12 or 24V DC • IP67 • **OBSOLETE 2018**

Electrical Characteristics

CHARACTERISTIC	MIN	TYPICAL	MAX	NOTES
Operating voltage (12V)	9V	12V	16V	If used with 12V DC systems
***Disconnect voltage (+12V)** ***Connect voltage (+12V)**	12.05V 12.95V	12.1V 13.0V	12.15V 13.05V	When voltage drops below 12.1V, system activities the alarm for one minute, then disconnects loads.
Operating Voltage (24V)	18V	24V	32V	If used with 24V DC systems
Quiescent Current		1mA	2mA	Circuit operating current
Maximum Rated Current				
***Overcurrent Protection**		135A		System will disconnect load and sound alarm after 3 seconds of excessive current.
***Key-Off Timer**		15 Mins		Optional feature. After key-off, unit will wait a set time before activating alarm. One minute later, loads are shut off.

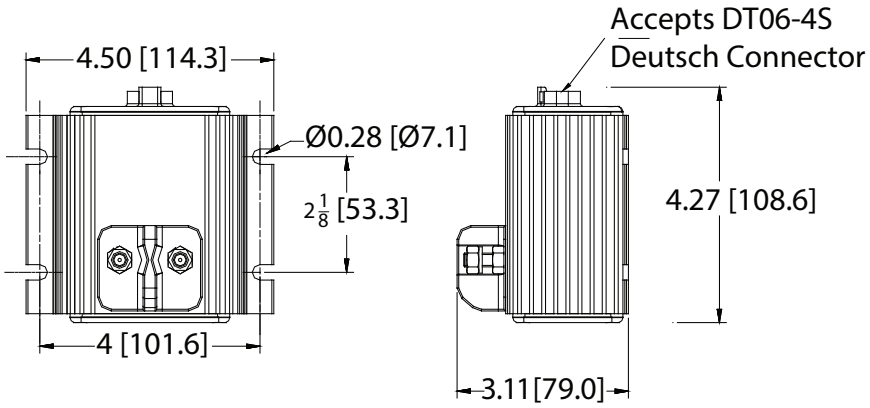
* These characteristics are programmable in 48713 series LVDs.

Environmental Specifications

CHARACTERISTIC	PARAMETER	NOTES
Operating Temperature Range	-40° to +85°C -40° to +185°F	100A at 85°C, 125A at 60°C
Ingress Protection Rating	IP67	Per IEC 529
Humidity	0 to 90%RH	
Vibration	10-500Hz	Per SAE J1455
Shock		Per SAE J1455
Thermal Shock		Per SAE J1455
Inductive Transient	+/- 600V	Per SAE J1455
Load Dump	+150V	Per SAE J1455

CHARACTERISTIC	PARAMETER	NOTES
Battery terminals	(1/4"–20)	50 in -lbs (5.78Nm)

Dimensions



Visit **Littelfuse.com** for the most up-to-date product information. Littelfuse products are designed for specific applications and should not be used for any purpose (including, without limitation, automotive applications) not expressly set forth in applicable Littelfuse product documentation. Warranties granted by Littelfuse shall be deemed void for products used for any purpose not expressly set forth in applicable Littelfuse product documentation. Littelfuse shall not be liable for any claims or damages arising out of products used in applications not expressly intended by Littelfuse as set forth in applicable Littelfuse product documentation.

© 2019 Littelfuse Commercial Vehicle Products