

GPC Series

30A Low Voltage Disconnect with Alarm output

GALLEY POWER

Digital Battery Power



Recessed Selector



Flushed Selector (Waterproof)

The GPC LVD module is a micro-controller-based solid-state low voltage disconnect load switch. It prevents battery from over-discharge by disconnecting the attached load if the battery voltage drops below a pre-defined threshold. It reconnects the load when the battery is recharged above the threshold.

Features

- Ultra-low pass-through resistance 2.2m Ω
- Ultra-low standby current 0.26mA (12V mode)
- Automatic 12V/24V battery detection
- Optional alarm output for low battery warning/indication
- Rotary switch provides 10 threshold options
- Two rotary switch options
 - Flushed for easy access with waterproof
 - Recessed for better setting protection
- Continuous current up to 30A
- Red-Green dual color LED display for battery monitoring and fault reporting
- Low noise and low interference by solid-state switch
- Complete protections including
 - Input over-voltage, under-voltage protection
 - Over-temperature
 - Over-load detection
 - Reverse polarity (with external inline fuse)
- Extensive options for alarm output, relay drive, remote on/OFF control and temperature sensing/compensation

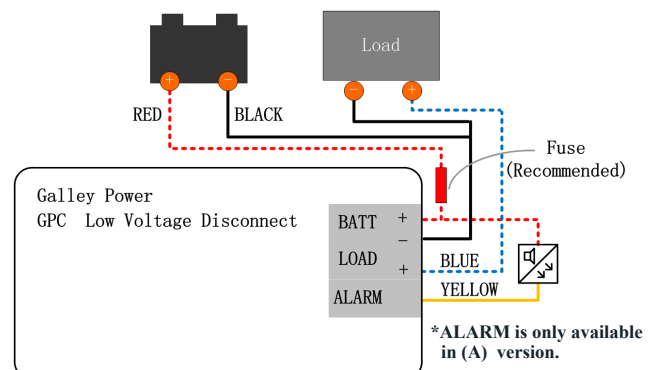
Applications

- Load prioritization
- Excessive discharge protection
- Science equipment

Quick-start Instructions

- Mount LVD unit (in-line fuse recommended)
- Connect the RED wire to battery “+” and BLUE wire to the load
- (Optional) To use Alarm, connect YELLOW wire to alarm device. Connect another side of alarm device to RED wire (battery “+”)
- Connect the BLACK wire to battery “-” and load “-”

Please refer to “Threshold options” for detailed settings.



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Low Voltage Disconnect with
Ultra Low Resistance

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Specifications

Parameters	12V Mode	24V Mode
Maximum continuous load current	30 A	
Peak current	120 A	
Operating voltage	8~35 V	
Current consumption, switch ON (typical)	3.5 mA	5.8 mA
Current consumption, disconnect (typical)	0.26 mA	0.65 mA
Over-voltage shutdown (typical)	16 V	32 V
Pass-through resistance, switch ON (typical)	2.2 mΩ	
Alarm sinking current (max)	80mA	
Weight	2.5 oz (non-potted)	
Dimensions	80 x 40 x 20 (mm)	
Limited Warranty	1 years	
Operating temperature	-40 ~ 55°C	

Threshold Options

Switch Selection	Disconnect voltage (V)		Reconnect voltage (V)		Warning voltage (V)		Disconnect Delay (Sec.)	Reconnect Delay (Sec., Typical)
	12V Mode	24V Mode	12V mode	24V mode	12V mode	24V mode		
2	9.3	18.6	10.8	21.6	9.5	19	3	6
3	9.7	19.4	11.2	22.4	9.9	19.8	3	6
4	10.1	20.2	11.6	23.2	10.3	20.6	5	6
5	10.5	21.0	12	24	10.7	21.4	5	6
6	10.9	21.8	12.4	24.8	11.1	22.2	10	6
7	11.3	22.6	12.8	25.6	11.5	23	10	6
8	11.7	23.4	13	26	11.9	23.8	15	6
9	12.1	24.2	13	26	12.3	24.6	90	6
0	OFF: Disconnect power from the load. (When rotate to position 2~9, the switch will stay off until reconnect threshold is reached.)							
1	ON: Connect power to the load if there is no pending fault. (When rotate to position 2~9, the switch will stay on until cutoff threshold is reached.)							

Order Information

GPC — 1015B — X

R(A): recessed selector (Alarm)

F(A): flushed selector (Alarm)

Note 1: Flushed selector design is potted and waterproof with IP67 rating.

Galley Power LLC

www.galleypower.com

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About Galley Power LLC

Galley Power LLC is dedicated to provide cost-effective high performance battery management solutions. With extensive expertise on power electronics, batteries and renewable energy, Galley Power provides both standard and customized solutions with minimum time-to-market and maximum customer satisfaction.