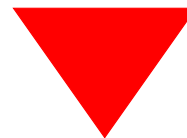


”Multi-Switch”



- BATTERY SEPARATOR
- UNDER VOLTAGE SWITCH
- STARTER RELAY
- ELECTRONIC FUSE
- NO CURRENT DIRECTION
- AUTO/MANUAL ON/OFF
- ADJUSTABLE TRIGG. VOLTAGE
- OVERTEMP./PROTECTION
- 500A CURRENT PROTECTION

EMT 2198

Electronic Separator/Switch
for Battery Systems



Description:

EMT 2198 is developed with the latest SMD technology, High frequency stabilizers, and is designed to operate as a Battery Separator or High Current Switch, and can be used in a large number of applications with nearly no limits.

The unit is fully electronic with no mechanical contacts, this give you no sparks and no noise generation. This means, that the unit can be used even in critical environments.

By connecting two or more Battery Systems with this switch, it allows you to charge all batteries with nearly no voltage drop.

The EMT 2198 will work in Auto Mode, in Manual Mode or in a combination and is very easy to install.

With its capability of switching up to 500A, nearly any Load can be connected.

Use it as a Battery Separator, to separate into one or more power systems. This will remove the Voltage drop problem known from diode separation, and your separated batteries will always stay charged to the possible maximum.

Used in car, truck, boat, emergency vehicles, military etc. it can be connected to an emergency battery, running as a starter relay supplied from the emergency battery.

Use it as Under Voltage switch to protect battery against deep discharge, as power relay for heavy duty loads or as a 500A Fuse with Auto restart.

EMTECH
POWER

EMT 2198 Specifications

GENERAL @ 25 °C

CONTINUOUS CURRENT CURRENT FOR 5 MIN. MAX. CURRENT PEAK CURRENT CURRENT LIMIT CURRENT LIMIT TIME SWITCH IMPEDANCE MANUAL TURN ON TURN ON DELAY TURN OFF DELAY MAX. OPERATING MIN. OPERATING CONNECT. POWER	150A 250A – Then Overtemp. < 500A in max. 30 sec. 2200A in max. 10 µSec. > 500A < 100 µSec. < 0,001 Ohm (0,001V/A) < 0,005A < 0,030 Sec. > 0,300 Sec. 33V 6,0V M6 x 16	CONNECT. BATT. CONNECT REMOTE STANDBY SUPPLY RUNNING SUPPLY OVERTEMP. OVERTEMP.RESTART MTBF COOLING HOUSING OUTLINE WEIGHT OPERATING STORAGE	FASTON 6,35 Terminal Block > 0,005A @ 12V > 0,080A @ 12V PROTECTED > 85°C AUTO (Delta 20°C) > 530.000 hours Convection ALU – Black Painted 180 x 100 x 18 mm 390 g. 0 – 55 °C -40 – +85°C
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TURN ON / OFF

	12 V - ON	12 V - OFF	24 V - ON	24 V - OFF
VOLTAGE MIN.	10,20V	9,70V	19,5V	18,35V
VOLTAGE MAX.	14,85V	14,35V	30,15V	29,00V
VOLTAGE FACT. SET	13,5V	13,00V		

LED INDICATORS

ON (GREEN)	Unit is switched ON	TEMP (RED)	Temp. Protection mode
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REMOTE CONNECTIONS

ON TEMP. 5V	Manual ON / OFF Remote Control 5V output	AUX -	Remote Control Battery Negative Battery Negative
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ON / OFF MANUAL CONTROL CONNECTIONS

1 TO 3 NONE 1 TO 5	ON to 5V Leave 1 open ON to Battery Negative	Unit is turned ON Unit in Auto Mode (Table 1) Unit is turned OFF
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Table 1. : ON/OFF

X = ON					F = ON (12V)		F = OFF (24V)	
A	B	C	D	E	VON	VOFF	VON	VOFF
					10,20V	9,70V	19,50V	18,35V
X					10,35V	9,85V	19,85V	18,70V
	X				10,50V	10,00V	20,20V	19,05V
X	X				10,65V	10,15V	20,55V	19,40V
		X			10,80V	10,30V	20,90V	19,75V
X	X	X			10,95V	10,45V	21,25V	20,10V
	X	X			11,10V	10,60V	21,55V	20,45V
X	X	X			11,25V	10,75V	21,90V	20,75V
			X		11,40V	10,90V	22,25V	21,10V
X		X	X		11,55V	11,05V	22,60V	21,45V
	X	X			11,70V	11,20V	22,95V	21,80V
X	X	X	X		11,85V	11,35V	23,30V	22,15V
		X	X		12,00V	11,50V	23,65V	22,50V
X	X	X			12,15V	11,65V	23,95V	22,80V
	X	X	X		12,30V	11,80V	24,30V	23,15V
X	X	X	X		12,45V	11,95V	24,65V	23,50V
			X		12,60V	12,10V	25,00V	23,85V
X			X		12,75V	12,25V	25,35V	24,20V
	X		X		12,90V	12,40V	25,70V	24,55V
X	X		X		13,05V	12,55V	26,00V	24,90V
		X	X		13,20V	12,70V	26,40V	25,25V
X	X	X	X		13,35V	12,85V	26,75V	25,60V
	X	X	X		13,50V	13,00V	27,05V	25,90V
X	X	X	X		13,65V	13,15V	27,40V	26,25V
		X	X		13,80V	13,30V	27,75V	26,60V
X		X	X		13,95V	13,45V	28,10V	26,95V
	X	X	X		14,10V	13,60V	28,45V	27,30V
X	X	X	X		14,25V	13,75V	28,75V	27,60V
		X	X	X	14,40V	13,90V	29,10V	27,95V
X	X	X	X	X	14,55V	14,05V	29,45V	28,30V
	X	X	X	X	14,70V	14,20V	29,80V	28,65V
X	X	X	X	X	14,85V	14,35V	30,15V	29,00V

Bold = FACTORY SETTING

!! To obtain best performance use: **15 - 25 mm² Wire**

In the following please refer to table 1.

Unit is factory set to connect batteries at 13,50V (ON), and separate batteries at 13,00V (OFF).

If you switch the F-switch into the OFF position, unit will be set to operate on a 24V system, with a switch ON: 27,05V and a switch OFF: 25,90V.

Used as a separator, these settings are the values for standard battery systems. - ...Others, please contact your battery supplier for further information.

Please remember that a fully charged battery, will have a very slow falling voltage after charge, so that it can take some time, from minutes to hours depending on load, before the EMT 2198 turns OFF.

Using the EMT 2198 as an under voltage switch, to protect battery systems against deep discharge,...set switches to the needed TurnOFF voltage using the VOFF-column.

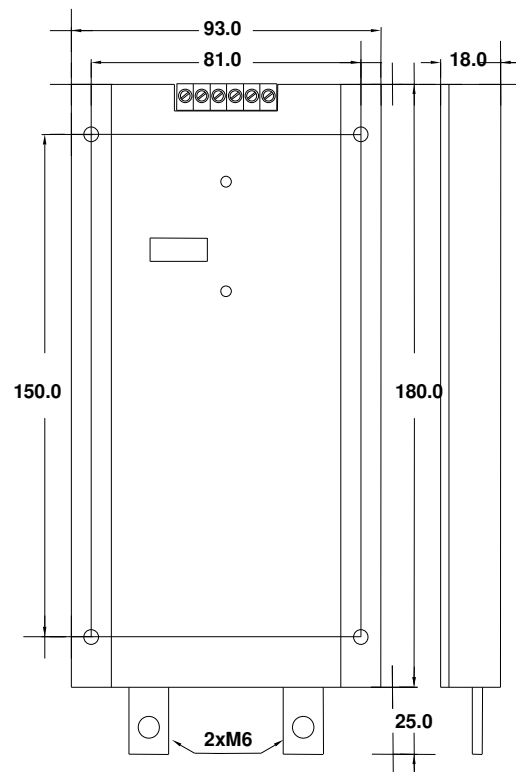
X = ON

F = ON (12V system)

F = OFF (24V system)

NOTE: Remote Indicator/Control under development

EMT 2198 Dimensions:



Note: Dimensions in millimeters: