

# MVRM03

Small size voltage regulator  
14 V - 22 A

### Description

MVRM03 is a compact lightweight voltage regulator for permanent magnet alternators (advised the used with A45 alternator).

The device has a power box section which provides 4 power outputs controlled by an on board microprocessor.

Internal signals of temperature, voltage and current are sampled and available to the ECU via CAN.

MVRM03 provides a PWM output controlled by software which can be used to reduce the load of the electrical fuel pump MGP01.

### Main Features

- Power box with:
  - 2 high side driver (10 A)
  - 1 high side driver (5 A)
  - 1 PWM output (low side driver):
    - 6 A, 10 kHz, duty cycle from 0 to 100 %
    - 10 A if used as a low side driver (100 %)
- Availability of internal signals: load current, battery current and output/input voltage
- Availability of critical internal temperatures
- Small dimension & weight

### Benefits

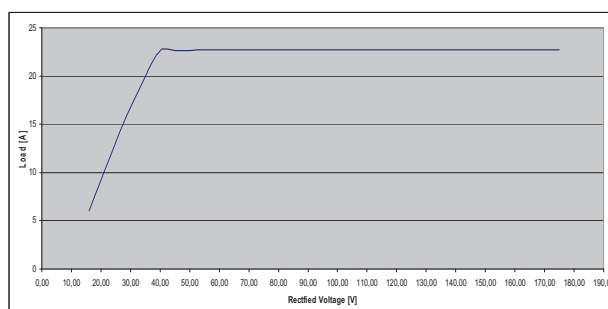
- Output voltage settable from 10 V to 16 V
- Improved efficiency (86 %)
- PWM output usable with the electrical fuel pump MGP01

### Typical Applications

In MotoGP and motorbike coupled with permanent magnet alternator supplying maximum rectified voltage of 180 V



### Typical Performance

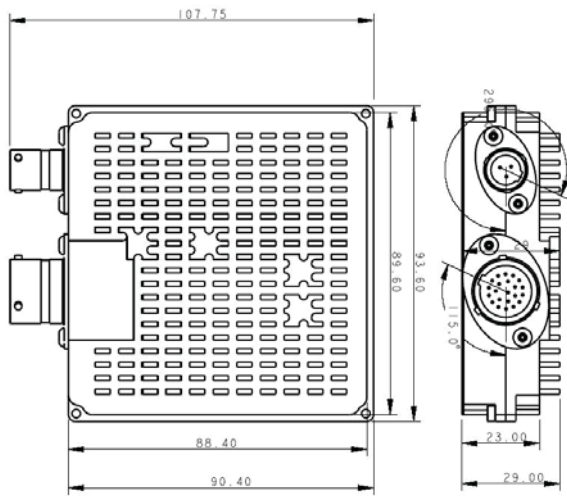


# VOLTAGE REGULATORS

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### Dimensions



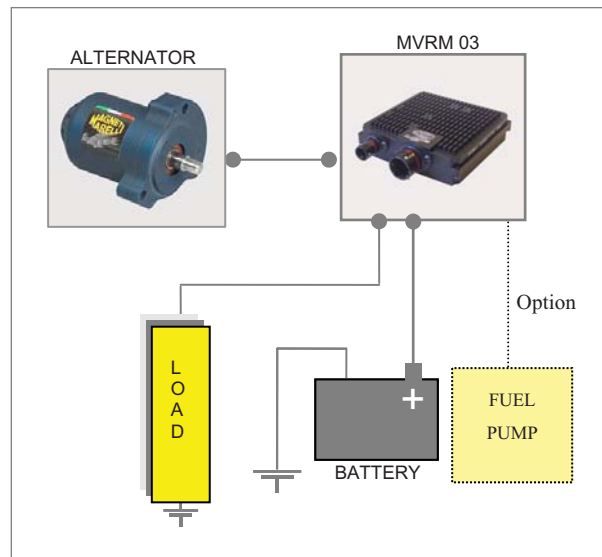
### Technical Characteristics

Maximum continuous output .....	22 A
(Without exceeding operating temperature)	
Maximum repetitive output current .....	25 A*
Nominal output voltage .....	14 V
Output voltage ripple .....	2 %
Pressure sensor input .....	1
PWM .....	1
Protection class .....	IP 54
Operating temperature <sup>(1)</sup> .....	85° C
Protection class .....	IP 54
Connectors	
AS 212-35 PN .....	22 pin
AS 208-98PN .....	3 pin
Weight (approx.) .....	350 g

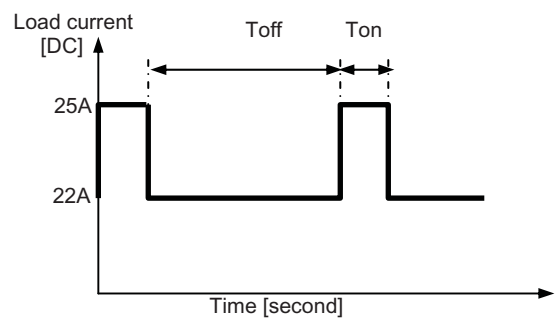
<sup>(1)</sup> Measured on the external case

Note: The relation between the case temperature and the internal temperatures, available via CAN, has been established and provided with the regulator once purchased.

### Application Schematics



\*Tested with 105V rectified input,  
Air cooling 25°C 15m/s  
Temperature: Tcase ≤ 85°C



Maximum Ton 60sec with output current 25 A

Minimum Toff 140sec with output current 22 A

For further information, please contact:

