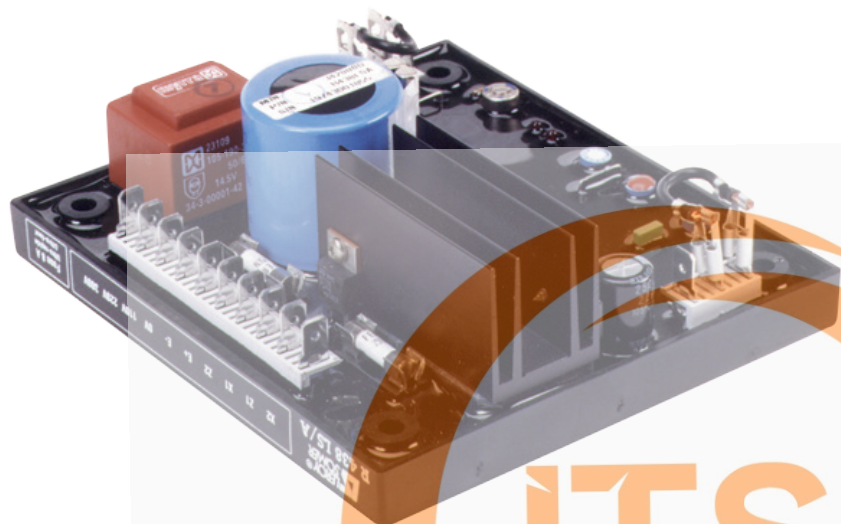


# R438 AVR

FOR SHUNT, AREP or PMG ALTERNATORS

DATASHEET



R438 is an analog AVR. It is designed for alternators with a AREP or PMG excitation.

R438 controls the excitation current in order to maintain the output voltage of the alternator. R438 is performant in terms of voltage regulation, simple to set, to use and is reliable.

It can run without LAM (U/f), or with LAM, selection is done by strap ST5. It is in compliance with I.E.C. 60034-1 standard and U.L. 508 / C.S.A. approved.

## CHARACTERISTICS

- Voltage regulation :  $\pm 0.5\%$ .
- U/F function (1).
- LAM function (2).
- Response time : 500 ms.
- Nominal excitation current : 5A.
- Maximum excitation current : 8A during 10 s.
- Supply range and voltage detection : 95 to 520 V.
- Protection : fuse 8A.

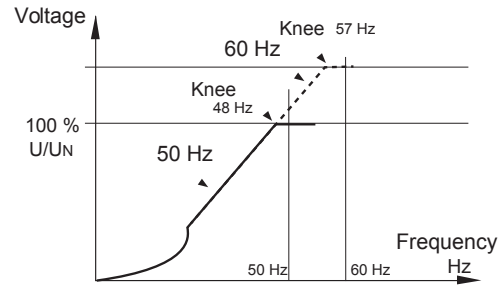
## OPERATION RANGE

	LSA 40	42,3	44,3	46,3	47,2	49,3	50,2	51,2	53,1	54
SHUNT	-	-	-	-	-	-	-	-	-	-
AREP	✓	✓	✓	-	-	-	-	-	-	-
PMG	-	✓	✓	-	-	-	-	-	-	-

Operation mode : Standalone

## MAIN FEATURE

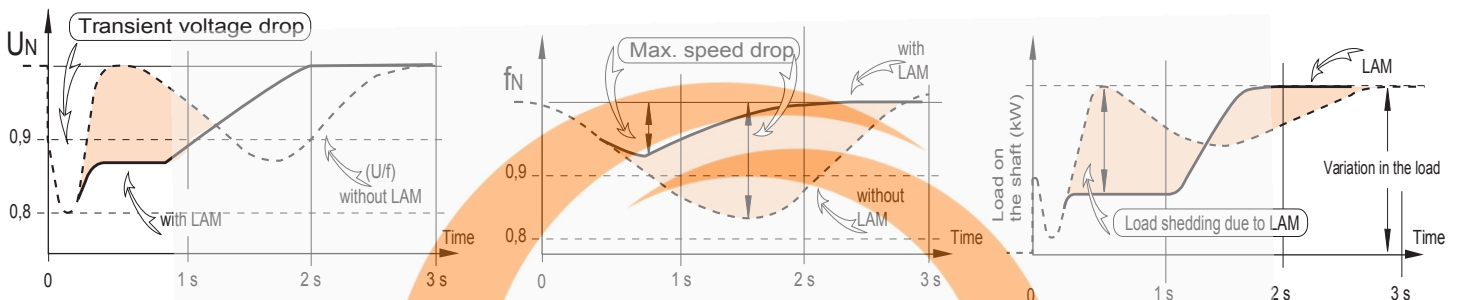
### U/F FUNCTION



## OPERATION CONDITIONS

- Operating temperature range :  
- 40° C to + 70° C.
- Storage temperature range :  
- 55° C to + 85° C.
- Hygrometry : 98%.
- Maximum choc : 9 g on 3 axis.
- Vibrations : less than 10 Hz ,  
2 mm peak magnitude.
- From 10 Hz to 100 Hz : 100 mm/s,  
below 10 Hz : 8g.
- Optional modules compatible :  
R731 : three phase voltage sensing.  
R734 : 3-phase current and voltage  
sensing for parallel operation.  
R726 : regulation system changed to  
"4 - function".

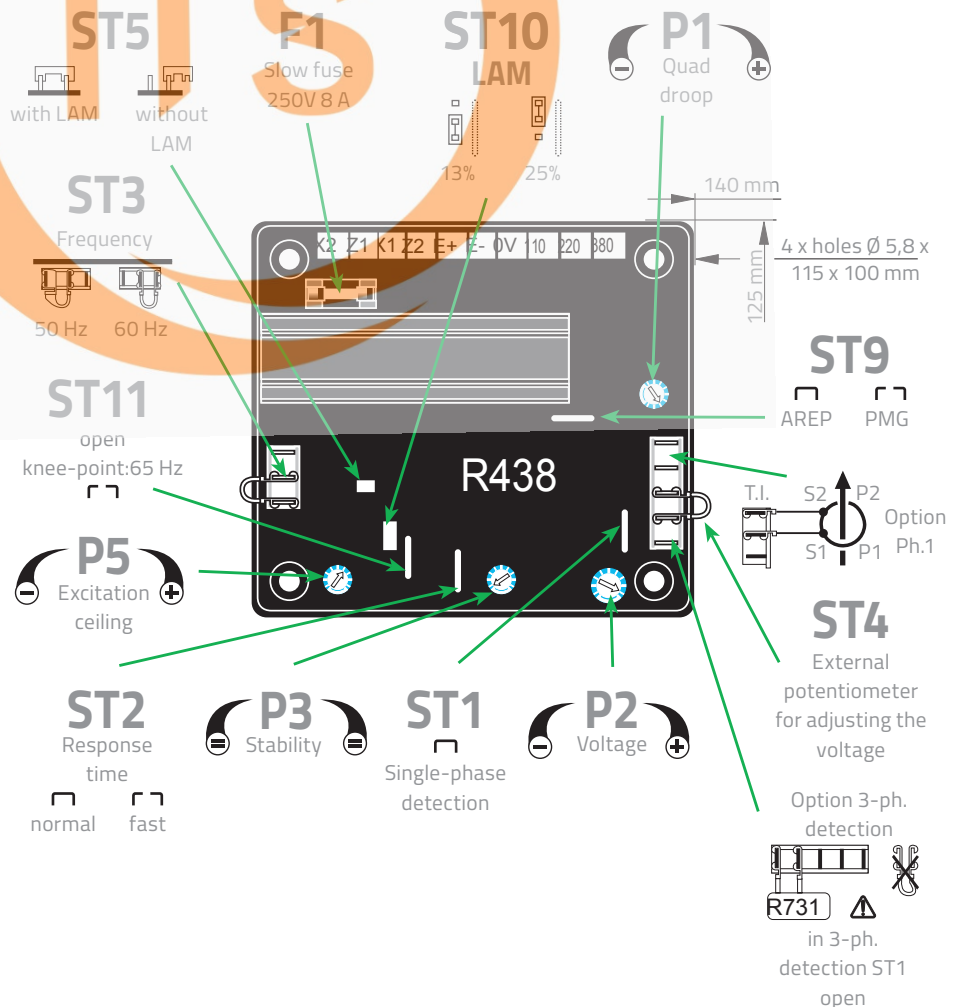
### LAM FUNCTION



## CONNEXION AND SETTING

Settings are done through the AVR.

- Potentiometer P1 : Quadrature droop setting.
- Potentiometer P2 : Voltage setting.
- Potentiometer P3 : Stability setting.
- Potentiometer P5 : Excitation ceiling setting.



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