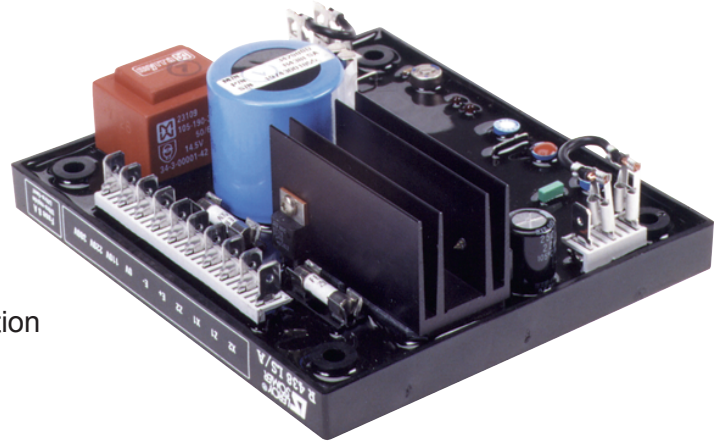


## R 438 FOR SHUNT, AREP or PMG ALTERNATORS

### 1 - Description

R 438 is an analog A.V.R.  
It is designed for alternators with a AREP or PMG excitation .  
R 438 controls the excitation current in order to maintain the output voltage of the alternator.  
R 438 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

### 2 - Operation range

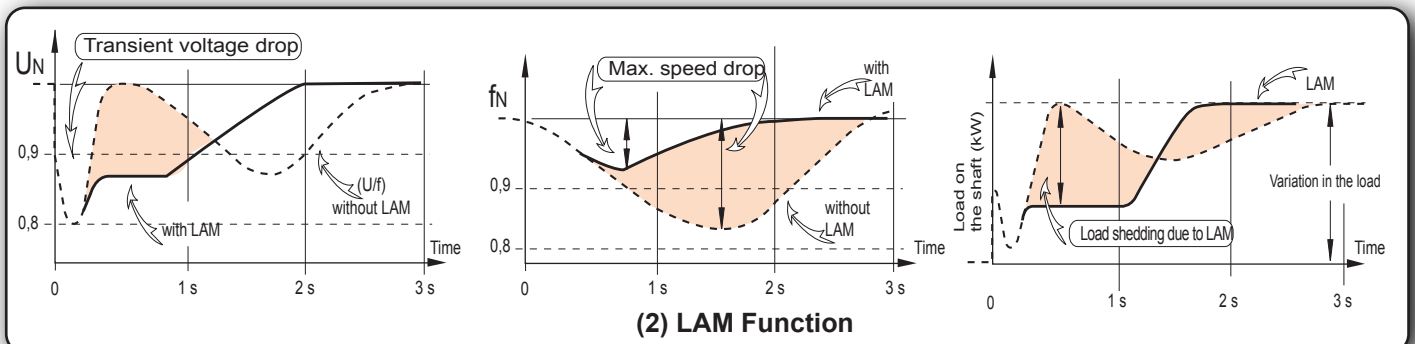
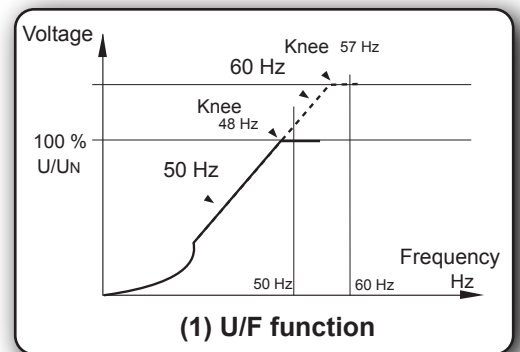
► LSA 40 ► 42.3 ► 43.2 ► 44.2 ► 46.2 ► 47.2 ► 49.1 ► 50.2 ► 51.2 ► 53.1 ► 54

<b>Shunt</b>	-	-	-	-	-	-	-	-	-	-
<b>AREP</b>					-	-	-	-	-	-
<b>PMG</b>	-				-	-	-	-	-	-

Operation mode : Standalone

### 3 - Main feature and 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 détection : 95 to 520 V.
- Protection : fuse 8A.



## 4 - Opération conditions

- Operating temperature range : - 40° C à + 70° C.
- Storage temperature range : - 55° C à + 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 100 Hz : 8g.

Optional modules compatible

- R 731 : three phase voltage sensing.
- R 734 : 3-phase current and voltage sensing for parallel operation
- R 726 : regulation system changed to "4 - function"

## 5 - Connexion and setting

Settings are done through the A.V.R.

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

