

## R 450 FOR SHUNT, AREP or PMG ALTERNATORS

### 1 - Description

R 450 is an analog A.V.R..  
It is designed for alternators with a SHUNT, AREP or PMG excitation .  
R 250 controls the excitation current in order to maintain the output voltage of the alternator.  
R 250 is performant in terms of voltage regulation, simple to set , to use and is reliable.  
Rotating switch for U/f, LAM, excitation type and voltage sensing are available.



It is in compliance with I.E.C. 60034-1 standard and U.L. 508 / C.S.A. approved

### 2 - Operation range

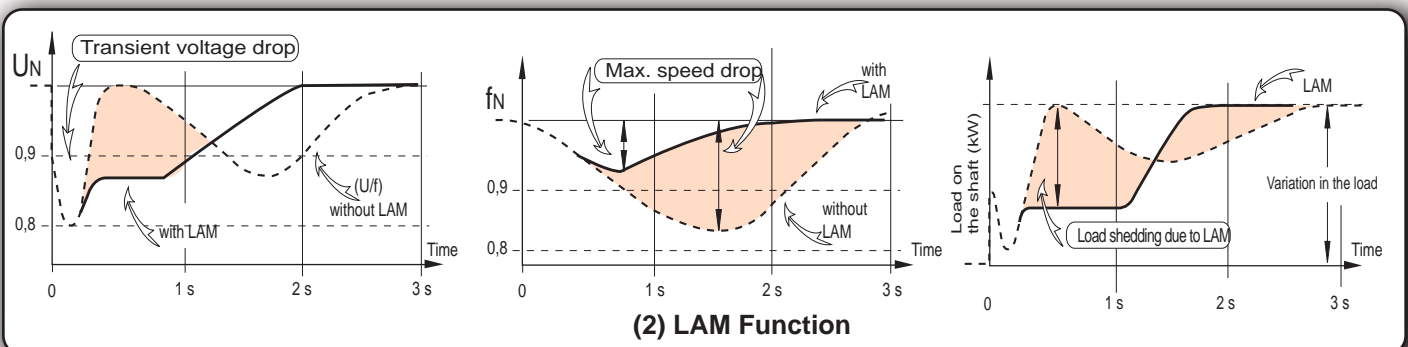
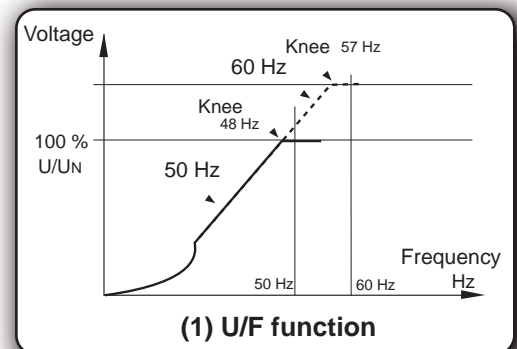
► LSA 40 ► 42.2 ► 43.2 ► 44.2 ► 46.2 ► 47.2 ► 49.1 ► 50.2 ► 51.2

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

Operation mode : Standalone

### 3 - Main feature and characteristics

- Voltage regulation :  $\pm 0.5 \%$ .
- Under-speed protection by function :
  - 1 U/f (LAM : OFF).
  - 2 U/f (LAM : MODE1).
  - Auto-adapting LAM + 2 U/f (LAM : MODE 2).
- Nominal excitation current : 6A.
- Maximum excitation current : 10A during 10 s.
- Supply range 150V (50Hz/60Hz).
- Voltage détection :  $\leq 530$  V.
- Protection : fuse fast 10A.
- Protection on load, short-circuit and voltage reference loss.



## 4 - Opération conditions

- Operating temperature range : - 40° C à + 65° 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 : voltage setting.
- Potentiometer P2 : stability setting.
- Potentiometer P3 : excitation.
- Rotating switch selection 1 : frequency, U/F function, LAM function
- Rotating switch selection 2 : alternator type and voltage sensing (1 ph. ou 3 ph.).
- Rotating switch selection 3 : excitation type (AREP or PMG) and time response.
- Potentiometer P4 : quadrature droop.

