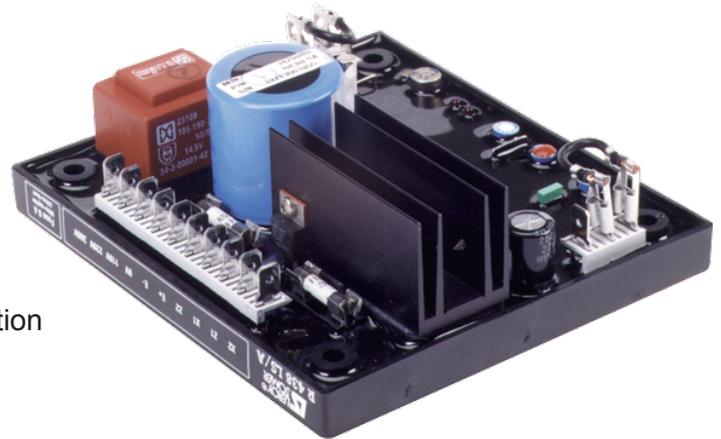


R 438 FOR SHUNT, AREP or PMG ALTERNATORS

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

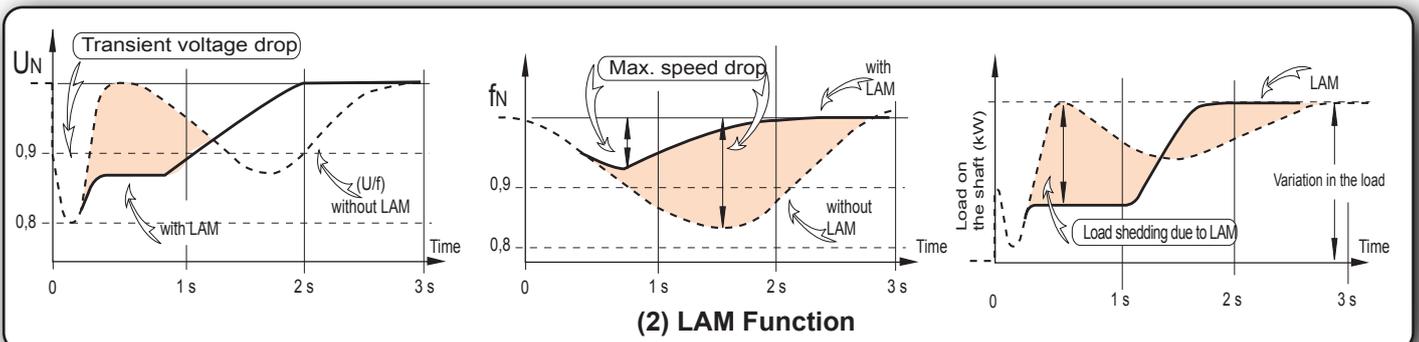
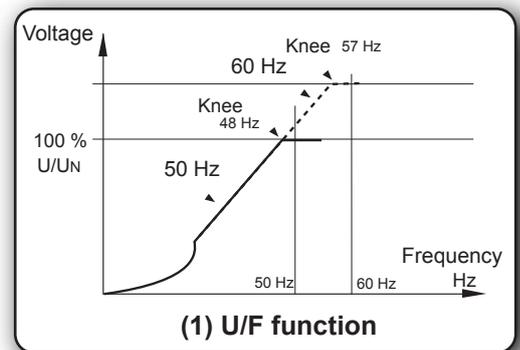
▶ LSA 40 ▶ 42.3 ▶ 44.3 ▶ 46.2 ▶ 47.2 ▶ 49.1 ▶ 50.2 ▶ 51.2 ▶ 53.1 ▶ 54 ▶

Shunt	-	-	-	-	-	-	-	-	-	-
AREP				-	-	-	-	-	-	-
PMG	-			-	-	-	-	-	-	-

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.

