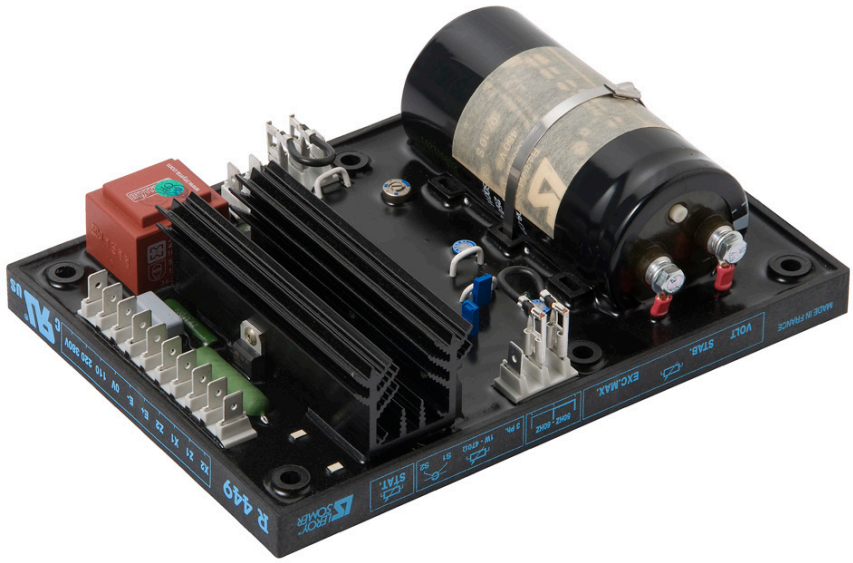
Nidec
All for dreams

LEROY-SOMER™

DATASHEET

# R449 AVR

## FOR AREP or PMG ALTERNATORS



R449 is an analog AVR It is designed for alternators with a AREP or PMG excitation.

R449 controls the excitation current in order to maintain the output voltage of the alternator. R449 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 : ± 0.5 %.
- U/F function (1).
- LAM function (2).
- Response time : 500 ms
- Nominal excitation current : 7 A.
- Maximum excitation current : 15 A during 10 s.
- Supply range and voltage détection : 85 to 520 V (50/60 Hz).
- Protection : fuse 16 A mounted outside.

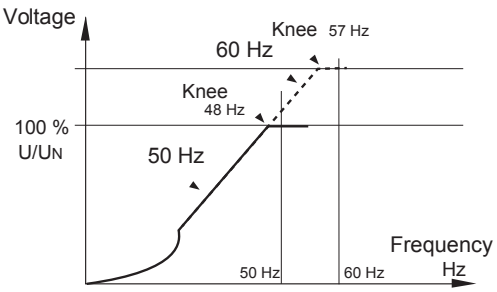
## OPERATION RANGE

| | 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

## MAIN FEATURE

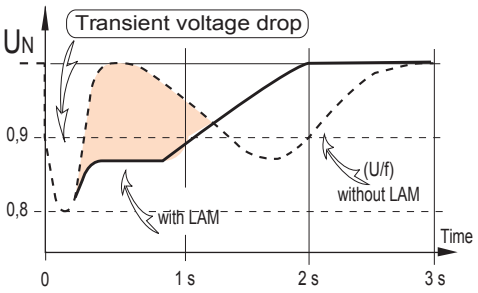
### U/F FONCTION

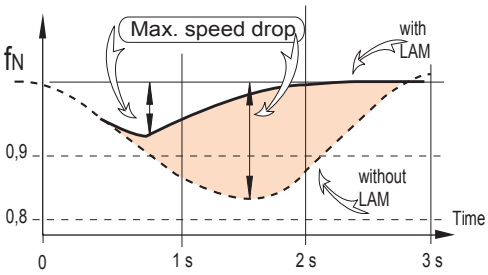


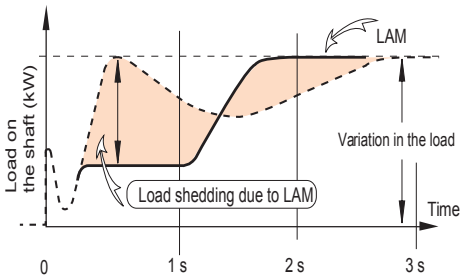

## OPERATION CONDITIONS

- Operating temperature range :
  - 30° C to + 65° 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 100 Hz : 8g.
- Optional modules compatible
  - R731 : three phase voltage sensing.
  - R726 : parallel operation with the main and voltage equlization.
  - R729 : parallel operation with the main, voltage equalization and main P.F. regulation (4-20mA).

### LAM FONCTION




## 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.