

PLF SPECIFICATIONS

The '**Partial Load Failure**' (**PLF**) alarm detects an increase in load impedance due to the breakage, the destruction or the disconnection of the heating elements.

The PLF detection is indicated by **red** indicator light (light emitting diode) on front fascia.

Partial load failure detection changes the alarm relay state. The relay is de-energised in the alarm state, or when the **TE10S** is not powered.

Option **PLF** : the contact is open in the alarm state;
option **IPF** : the contact is closed in the alarm state.

Relay contact rating : **0,25 A** (250 Vac or 30 Vdc).

Detection sensitivity of partial load failure :
failure detection of **1** element for **6** identical parallel heater elements (for single-phase applications).

The PLF detection operates under the following conditions:

- firing time ≥ 1 s
- input signal duty cycle must be over **20%**
- the on-time load current must be greater than **5** amps (16 and 25 A nominal) or **8** amps (32 and 40 A nominal).

SETTING UP PLF DETECTION

The 'Partial Load Failure' (PLF) alarm detects an increase in load impedance. In order to carry out PLF adjustment, the current when fully conducting must be greater than **20%** of the nominal unit current.

As a general rule, since the load current is less than the nominal thyristor current, the following **setting** must be carried out:

- Check that the thyristors are conducting (load current on and input **green** indicator light is illuminated)
- If the PLF detection **red** indicator light (identified on front as 'Load fail. / Déf. Charge') is illuminated, turn the 25 turn PLF potentiometer (identified on front as 'Adjust / Régl') anticlockwise until the PLF red indicator light switches off.
- Turn the potentiometer clockwise until the indicator lights comes on.
- Slowly turn back the potentiometer (anticlockwise) until the red indicator light is just extinguished.

The PLF detection control is now set to give **maximum sensitivity**.

If an erratic alarm appears, **rédu**ce the sensitivity by turning the potentiometer anticlockwise (e.g. 1/4 turn or more until the fault disappears).

Resetting the alarm is achieved either by removing power from the unit or by a returning to the previous load current.