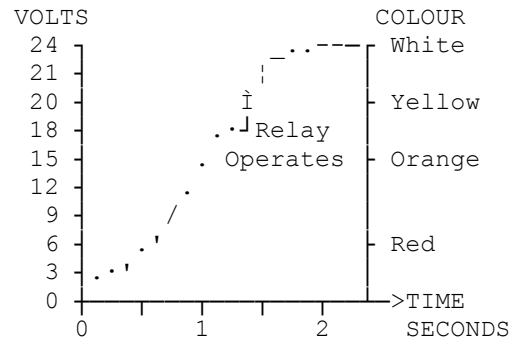
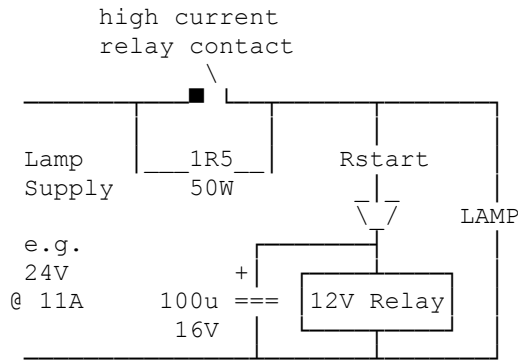


Reducing Lamp surge

By G8MNY

(New Jan 09)

On an Over Head Projector I have used this surge limiter to greatly reduce the chance of lamp failure at turn on. This circuit is suitable for most low voltage lamp systems.



The delay time is really nothing to do with R Start & the 100uF, but the lamp temperature, that determines the lamp resistance & hence the voltage drop across the surge limiting 50W R. This means the turn on delay is reduced if the lamp is already hot.

The 1R5 is made from several wire wound resistors to give the short term power dissipation. The value is chosen to let the lamp get to a good orange to yellow colour temperature before the relay applies full power. Care must be taken for the location of this resistor & near any fanned air flow is useful.

The value of Rstart determines the operating voltage for the relay it may need to be a power resistor if the relay id not sensitive.

The 100uF Cap stops the relay humming @ 50Hz by smoothing the applied voltage.

Why don't U send an interesting bul?

73 De John, G8MNY @ GB7CIP