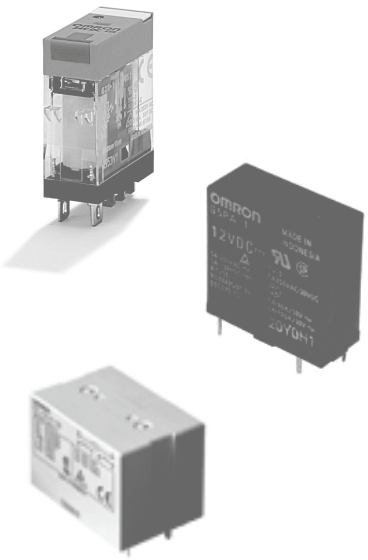
JUNE 2009

# NEWSLETTER
## RELAYS

NO: 010
Focus: TV Rated Relays

# Omron TV Rated Relays



UL TV Ratings were born in 1970 as a means to insure TV Circuitry could withstand the harsh in-rush current encountered when turning on and off televisions. The idea was to prevent the circuitry from sparking. Previous to these ratings, televisions were susceptible to catching on fire.

Typically, a relay being tested for UL TV Rating sees an Inrush Load 10 times that of steady state current at 120VAC. For example, a relay receiving TV-3 Rating sees approx. 30A Inrush for a very short duration @ 120VAC and settles to a steady state current of 3A, 120VAC before cycling off. Relays must operate successfully for 25,000 cycles of TV Load Testing to receive a UL TV Rating.

**Applications** where TV Ratings are important:
Televisions
Audio Equipment
Ballasts

Below is a list of Omron Relay Types that have TV Ratings assigned to them:

| TV Rating | Omron Relay Type having this rating |
|---|---|
| TV-3 | G2R-1, G2R-2, G2R-1-T, G2RS(S) (NO Contact applies for all G2R Types shown above) Bifurcated "Z" type does not have TV-3 Rating |
| TV-4 | G5PA-2 |
| TV-5 | G2R-1(A)(4)-ASI, G2R-1(A)-E-ASI, G4W-2212P, |
| TV-5 | G4W-2214P-US-TV5, G5PA-1, G5RL-HR, |
| TV-5 | G5RL-LN, G6C, G8P-1A4P-TV5 |
| TV-8 | G2R-1(A)-TV8-ASI, G2R-1(A)-E-TV8-ASI, |
| TV-8 | G4W-111(2)(4)P-US-TV8, G5PA-1-M-E, G7L-2A |
| TV-10 | G7L-1A |

**Please note there are some special exceptions that will apply to the list above. Also, it is possible to get TV Ratings for additional Omron Relay Types not shown above.**

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For additional information on TV Rated Relays please contact Mark Boston

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