

TRIODE THYRATRON

XG15-12

Triode mercury vapour thyatron with negative control characteristics. Primarily designed for high voltage industrial applications.

LIMITING VALUES (absolute ratings, not design centre).

It is important that these limits are never exceeded and such variations as mains fluctuations, component tolerances and switching surges must be taken into consideration in arriving at actual valve operating conditions.

Max. peak anode voltage		
Inverse	15	kV
Forward	15	kV
Max. cathode current		
Peak (25c/s and above)	75	A
Peak (below 25c/s)	25	A
Average (max. averaging time 30 secs.)	12.5	A
Surge (Fault protection max. duration 0.1 secs.)	750	A
Max. negative control-grid voltage		
Before conduction	1.0	kV
During conduction	15	V
Max. average positive control-grid current for anode voltage more positive than -10V (averaging time 1 cycle)	1.0	A
Max. control-grid resistor	10	k Ω
(Recommended min. control-grid resistor 5.0 k Ω)		
Heater voltage limits	4.75 to 5.25	V
*Min. cathode heating time	5	mins
Condensed mercury temperature limits	40 to 60	$^{\circ}$ C

*This does not include the heating time required to establish the minimum condensed mercury temperature.

CHARACTERISTICS

Electrical

Heater voltage	5.0	V
Heater current at 5.0V		
Average	20	A
Maximum	21	A
Deionisation time (approx.)	500	μ s
Ionisation time (approx.)	10	μ s
Anode voltage drop	12 to 16	V
**Critical grid voltage ($V_a = 15$ kV)	-2.0 to -10	V
($V_a = 5.0$ kV)	-1.0 to -6.0	V

Mechanical

Equilibrium condensed mercury temperature rise above ambient		
At full load (approx.)	30	$^{\circ}$ C
At no load (approx.)	25	$^{\circ}$ C
Mounting position	Vertical, base down	

**Measured under normal ambient conditions and with the recommended grid circuit impedance.

XG15-12

TRIODE THYRATRON

Triode mercury vapour thyatron with negative control characteristics. Primarily designed for high voltage industrial applications.

