



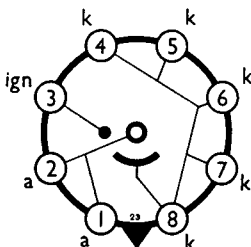
# VOLTAGE STABILISERS

## SINGLE GAP

**QS108/45**  
**QS150/45**  
NOVEMBER, 1954

**QS108/45 is a commercial equivalent of CV442.**  
**QS150/45 is a commercial equivalent of CV395.**

### BASE CONNECTIONS AND TUBE DIMENSIONS



Base : B8G.

Bulb : Tubular.

Overall length : 80 mm.  
Seated length : 66 mm.  
Max. diameter : 30 mm.

### RATINGS

	QS108/45	QS150/45	
$V_{ign}$ (a-k)	†120	††170	V
$V_{stab}$	‡108 ± 5	‡150 ± 5	V
$V_{ign}$ (ign-k)	150	200	V
$R_{ign}$	100	100	kΩ
$I_{tube}$	45 max.	45 max.	mA
$I_{tube}$	5 min.	5 min.	mA
Regulation ( $I_{tube}$ min.-max.)	5	5	V
Stability { (100 hr. period)	± 1	± 1 } }	%
(1000 hr. period)	± 2		

† With ignition electrode connected to 150 V supply via 100 kΩ series resistor.

‡ At 25 mA.

†† With ignition electrode connected to 200 V supply via 100 kΩ series resistor.

*The QS108/45 replaces the QS105/45 which is no longer available.*

### OPERATION

The stabilisers require an ignition voltage greater than the stabilised voltage, and the supply should be not less than one and a half times the stabilised voltage. The ignition voltage must be applied to the tube through a series resistor to absorb the excess voltage after ignition and prevent a heavy discharge current through the tube. When calculating the value of series resistor, an ignition current of approximately 10 mA should be allowed in addition to the load current.

The tubes are fitted with an ignition electrode to facilitate ignition when a heavy load is permanently shunted across the tube. The ignition electrode voltage is applied through a series resistor ( $R_{ign}$ ) from a higher voltage source and suitable values are given in the above ratings. This voltage may be taken from a separate supply if desired.

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**QS108/45**

**QS150/45**