

IGNITRON

Water-cooled ignitron primarily intended for resistance welding purposes.

5822A

Note: The 5822A may be used for three phase (frequency changing) welding control and similar applications. It has provision for mounting a thermostat which may be used for overload/overheating protection or water economy control.

LIMITING VALUES (absolute ratings)

All the limiting values given in this data are based on full cycle conduction without phase delay, regardless of whether or not phase control is used.

Three phase frequency changing duty

The limiting values for this duty are shown on page C2.

Ignitor ratings

Maximum peak ignitor voltage

Inverse	5.0	V
Forward	maximum positive anode voltage	

Maximum ignitor current

Peak	100	A
R.M.S.	10	A
Average (maximum averaging time = 5s)	1.0	A

IGNITOR CHARACTERISTICS

Ignitor voltage required to fire	200	V
Ignitor current required to fire	30	A
Starting time at required voltage and current	≤ 100	μs

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RECOMMENDED CIRCUITS

Anode excitation

7137

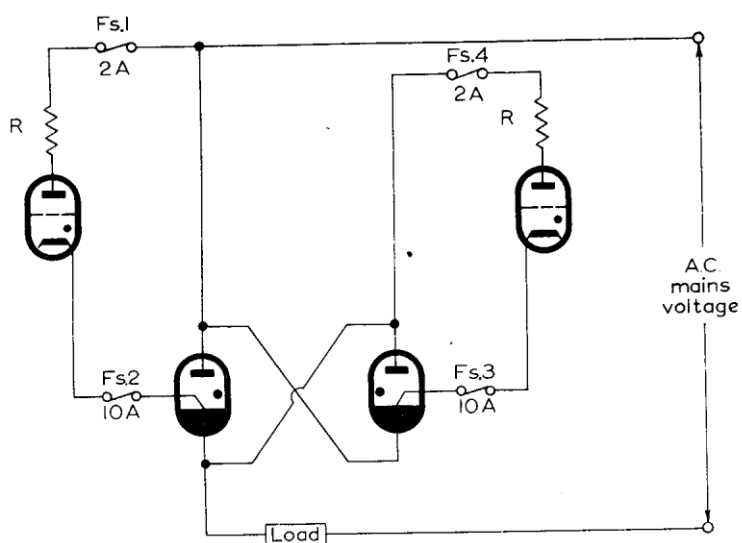


Fig. 1

Mains voltage (V _{r.m.s.})	Resistance (Ω)
220	2
250	2
380	4
500	5
600	6

Separate excitation

6717

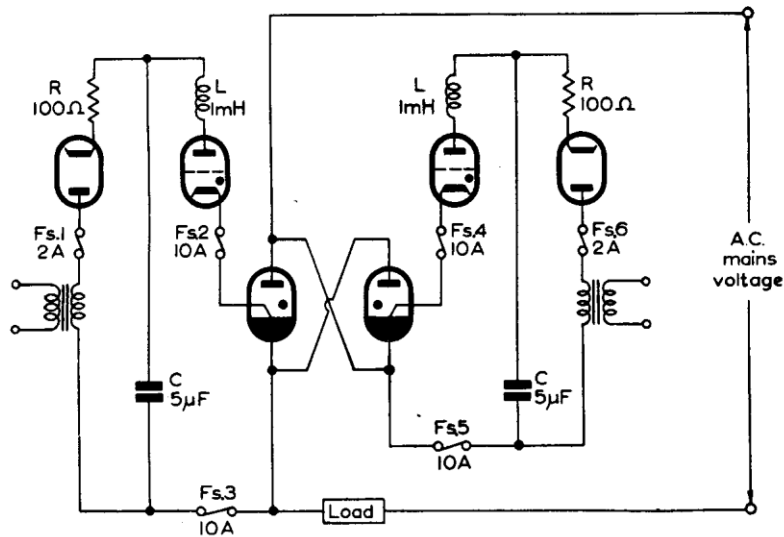


Fig. 2

Peak closed circuit current	40 to 50	A
Capacitor operating voltage	650 ± 50	V
Maximum ohmic resistance of series inductance	2	Ω

MOUNTING POSITION

vertical with anode up

The ignitron should be mounted and supported by the cathode lug only.

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COOLING

Water-cooled

Minimum flow at maximum load	{ 1.32 gal/min 6 l/min
Maximum pressure drop at minimum flow	5 lb/in ²
Maximum temperature rise at minimum flow	4.0 °C
Inlet temperature	
Minimum	10 °C
Maximum (3 phase welder service)	35 °C
*Maximum temperature at thermostat mount 3 phase welder service	45 °C

***WARNING:** The thermostat mount is at the full line voltage.

Note:

In the cooling system when two or more tubes are connected in series, the maximum input temperature must not be exceeded on the hottest tube and the minimum must be met on the coldest tube.

In general the water control thermostat should be mounted on the last but one tube and the protective thermostat on the last tube.

In three phase welder service using six tubes, not more than three tubes should be cooled in series.

ACCESSORIES

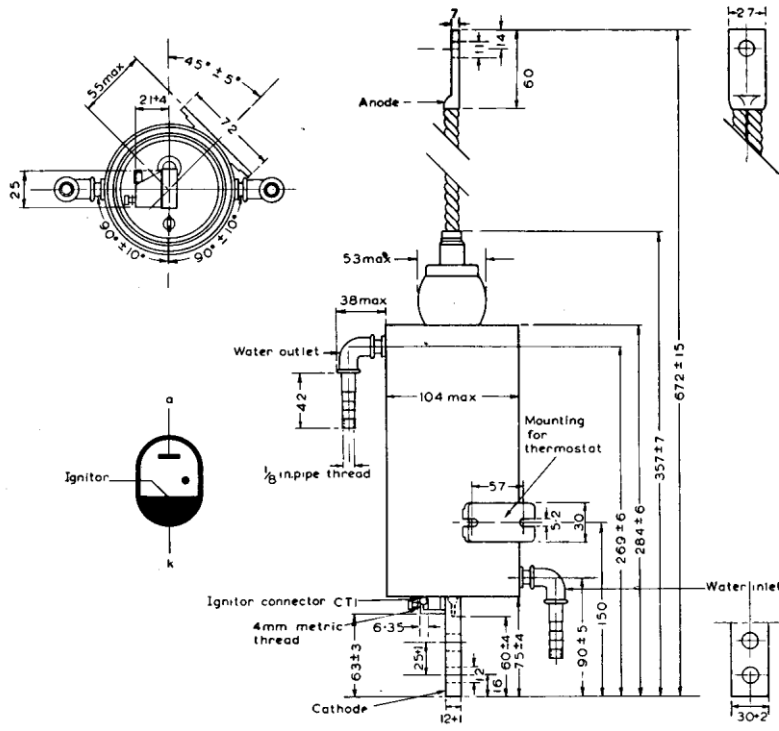
Cooling water thermostat	55305
Overload protection thermostat	55306
Ignitor connector lead	55351

WEIGHT

Net weight	{ 8 lb 3 oz 3.7 kg
Shipping weight	{ 11 lb 5 kg

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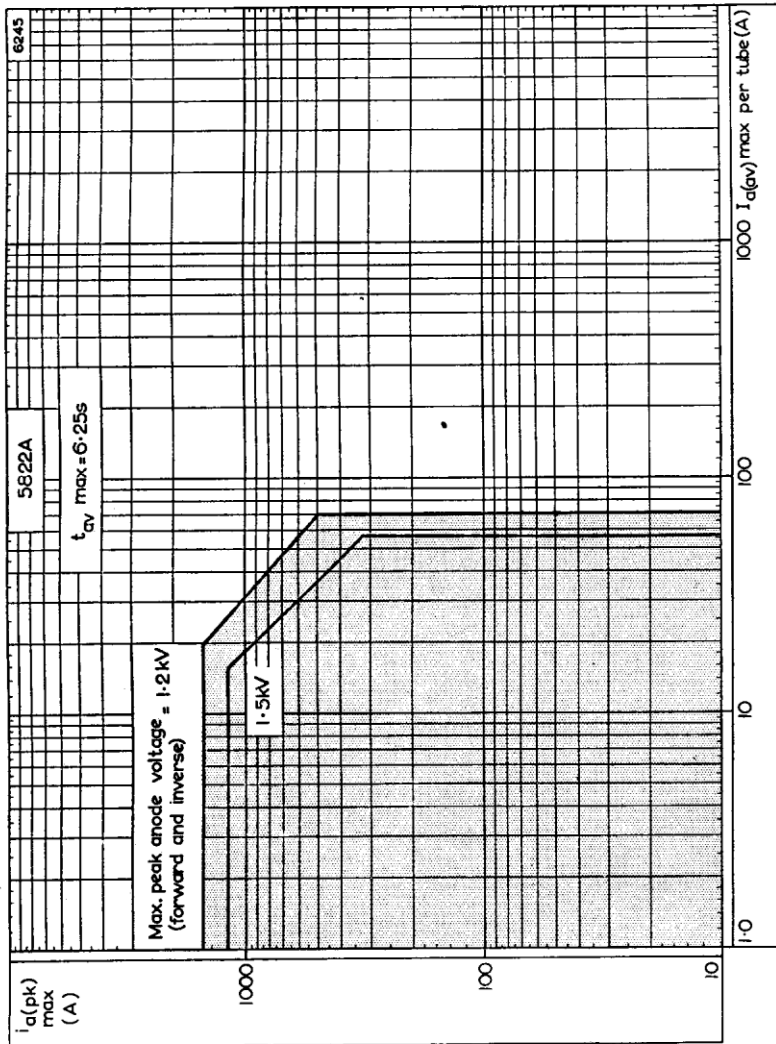


6238

All dimensions in mm unless otherwise shown

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THREE PHASE FREQUENCY CHANGING DUTY