5555
IGNITRON

DATA

General:

Cathode	Pool type
Number of Ignitors •	2
Number of Main Anodes	1
Number of Auxiliary Anodes	1
Peak Voltage Drop:	
At 100 Amp Peak Anode Current	12.6 volts
At 300 Amp Peak Anode Current	14.1 volts
At 600 Amp Peak Anode Current	16.2 volts
At 1200 Amp Peak Anode Current	19.1 volts
Cooling:	
Type	Water
Typical Flow	3 to 5 gal./min.
Pressure Drop at Above Flow	3 to 8 lb./sq.in.
Temp. Rise at Lower Rate of Flow (300 Amp per Anode)	7°C
Mounting Position	Vertical, Flexible Lead Up
Maximum Rigid Length (Approx.)	18-1/2"
Diameter, Including Cooling Couplings	9" ± 1/8"

RECTIFIER SERVICE

For Frequencies from 25 to 60 cycles, Phase Retard = 0

Maximum Ratings, Absolute Values:

PEAK FORWARD ANODE VOLTAGE	900 max.	2100 max.	volts
PEAK INVERSE ANODE VOLTAGE	900 max.	2100 max.	volts
PEAK ANODE CURRENT	1800 max.	1200 max.	amp
AVERAGE CONTINUOUS ANODE CUR.	200 max.	150 max.	amp
2-HOUR AVERAGE ANODE CUR.*	300 max.	225 max.	amp
1-MINUTE AVERAGE ANODE CUR.**	400 max.	300 max.	amp
SURGE ANODE CURRENT for 0.15 sec. max.	12000 max.	9000 max.	amp
OUTLET WATER TEMPERATURE	60 max.	45 max.	°C
INLET WATER TEMPERATURE	6 min.	6 min.	°C
WATER FLOW, AT CONTINUOUS AVERAGE ANODE CUR. RATING	3 min.	3 min.	gpm
WATER FLOW, AT NO LOAD#	1 min.	1 min.	gpm
PEAK INVERSE AUXILIARY ANODE VOLTAGE:			
With anode conducting	25 max.	25 max.	volts
With anode not conducting	150 max.	150 max.	volts
AVERAGE AUXILIARY ANODE CUR.	5 max.	5 max.	amp
PEAK POSITIVE IGNITOR VOLTAGE	900 max.	2100 max.	volts
PEAK NEGATIVE IGNITOR VOLTAGE	5 max.	. .	volts
PEAK IGNITOR CURRENT	100 max.	. .	amp
AVERAGE IGNITOR CURRENT##	2 max.	. .	amp
IGNITION TIME	100 max.	. .	μsec

GENERAL REQUIREMENTS for SELF-EXCITATION and SEPARATE EXCITATION are given on the next page

•, *, **, #, ##: See next page.

5555
IGNITRON

AC WELDER - CONTROL SERVICE

Ratings for 2400 volts rms, 25 to 60 cycles

Maximum Ratings, Absolute Values:

DEMAND	2400 max.	kva
CORRESPONDING AVERAGE ANODE CURRENT	135 max.	amp
AVERAGE ANODE CURRENT	207 max.	amp
CORRESPONGING DEMAND	1105 max.	kva
TIME OF AVERAGING ANODE CURRENT at 2400 volts rms	1.66 max.	sec
SURGE ANODE CURRENT, for 0.15 sec.max.	6000 max.	amp
WATER FLOW	3 min.	gal./min.
OUTLET WATER TEMPERATURE	30 max.	°C
PEAK INVERSE AUXILIARY ANODE VOLTAGE:		
With anode conducting	25 max.	volts
With anode not conducting.	150 max.	volts
AVERAGE AUXILIARY ANODE CURRENT.	5 max.	amp
PEAK POSITIVE IGNITOR VOLTAGE.	2400 max.	volts
PEAK NEGATIVE IGNITOR VOLTAGE.	5 max.	volts
PEAK IGNITOR CURRENT	100 max.	amp
AVERAGE IGNITOR CURRENT##	2 max.	amp
IGNITION TIME.	100 max.	μsec

Demand-ampere requirements are shown on curve 92CM-6710 under type 5554

SELF-EXCITATION (ANODE FIRING)

See Circuit 92CS-6722 under type 5554

PEAK IGNITOR VOLTAGE	150 min.	volts
PEAK IGNITOR CURRENT	40 min.	amp
Ignitor series resistance for anode firing at anode voltages of:		
600 volts or less (Approx.).	4 . .	ohms
601 to 1000 volts (Approx.).	10 . .	ohms
1001 to 1500 volts (Approx.)	20 . .	ohms
1501 to 2000 volts (Approx.)	35 . .	ohms
2001 to 2400 volts (Approx.)	50 . .	ohms

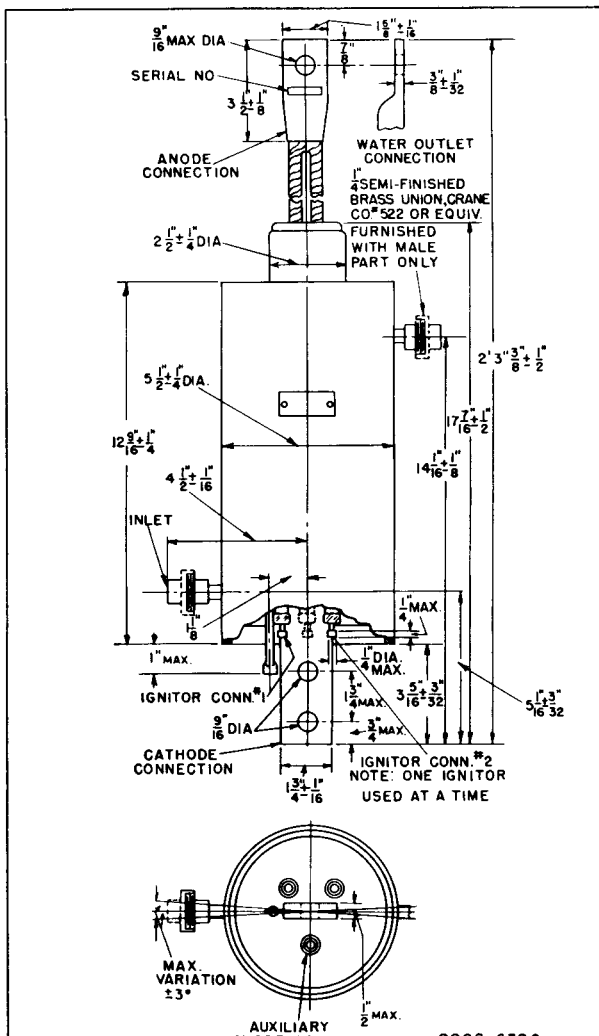
SEPARATE EXCITATION (CAPACITOR FIRING)

See Circuit 92CS-6722 under type 5554

Minimum volt-ampere requirements are shown on curve 92CS-6725 under type 5554

• Use only one ignitor at a time.
* Averaged over any 2-minute interval.
** Averaged over any 1-minute interval.
\# For systems in which the flow of water is controlled by the load.
\#\# Averaged over any 10-second interval.

5555
IGNITRON



TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

5555
IGNITRON