General:

Peak Voltage Drop ........................................ 12 volts

Cooling:

Type ......................................................... Water
Minimum Flow ............................................. 3 gal./min.
Pressure Drop per tube, at Minimum Flow .............. 5.1 lb./sq. in.
Maximum Outlet Water Temperature ...................... 40 °C
Minimum Inlet Water Temperature ....................... 10 °C
Temp. Rise at Min. Flow (Average current 200 amp/anode), Approx. ........ 5 °C
Mounting Position ....................................... Vertical, Flexible Lead Up
Maximum Rigid Length (Approx.) ......................... 20"
Maximum Diameter, including Cooling Connections .. 9-3/8"

AC WELDER-CONTROL SERVICE ®

Ratings are for any voltage from 250 to 600 volts rms
at frequencies from 25 to 60 cycles

Maximum Ratings, Absolute Values:

DEMAND ................................................. 2400 max. kva
CORRESPONDING AVERAGE ANODE CUR. .................. 192 max. amp
AVERAGE ANODE CURRENT ............................. 355 max. amp
CORRESPONDING DEMAND ................................ 800 max. kva
TIME OF AVERAGING ANODE CURRENT:
At 500 volts RMS ........................................ 5.6 max. sec
At 250 volts RMS ........................................ 11 max. sec
SURGE ANODE CURRENT ................................ peak amp
PEAK POSITIVE IGNITOR VOLTAGE § .................. 900 max. volts
PEAK NEGATIVE IGNITOR VOLTAGE § .................... 200 min. volts
PEAK IGNITOR CURRENT§ ................................ 5 max. volts
AVERAGE IGNITOR CURRENT* .......................... 100 max. amp
IGNITION TIME§ ........................................ 100 max. μsec

CURVES FOR THE 5553 IN THIS CLASS OF SERVICE
ARE SHOWN UNDER TYPE 5550

* Averaged over any 5-second interval.
* Must be held to 280% of maximum demand rms current.
§ RMS demand-voltage, current, and kva are on the basis of
full-cycle conduction (no phase delay) regardless of whether
or not phase-control is used. Use the 250-volt rating for
voltages below 250 volts.
§ Ignition will occur if either minimum peak positive ignitor
potential is applied, or minimum peak ignitor current flows,
for the rated maximum ignitor ignition time.

MAY 1, 1946
TENTATIVE DATA
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY