

720CY / 4J47 - Magnetron, 1 MW



The Western Electric 720AY to EY were very high-power fixed-frequency magnetrons operating around 10 cm. The family appeared as 720A to 720C, probably because its design had started before the introduction of the strapping techniques in the summer 1941 by Sayers. The family was then renamed as AY to CY, the types using double ring strapping listed in the article 'The Magnetron as a Generator of Centimetric Waves' published in April 1946 in The Bell System Technical Journal. According to Ludwell Sybley this magnetron was introduced in July 1942 while the frequency variants DY and EY were added only later.

720AY to CY were modified to generate longer pulses, up to 5 μ s, by using a mesh type cathode surface instead of the plain one. These variants were registered as 4J45, 4J46 and 4J47 respectively, RMA release no. 704, October 25, 1948.

- **External magnet.**
- **Coaxial output** 53.5 ohms
- **Pulsed anode voltage** 21 to 27 kV
- **Anode current** 45 to 65 amps
- **Output power** 550 to 1100 kW
- **Efficiency** 58 to 63 %

720CY was used in SCR-615B