



ELECTRONIC TUBE REFERENCE

21KQ6

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Beam-power tube for television horizontal-deflection service, with multi-kilovolt pulse ratings and operating limits explicitly referenced to the horizontal scanning cycle.

GENERAL CHARACTERISTICS

BASE DESIGNATION	40A	BASE PINS	12
NOMINAL HEATER	21.5 V / 450 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
PLATE RESISTANCE	7500 Ω
MAXIMUM PLATE VOLTAGE	650 V
MAXIMUM SCREEN VOLTAGE	275 V
MAXIMUM CATHODE CURRENT	275 mA
<i>Promoted from semantically identified published ratings/characteristics; additional values preserved as section parameters.</i>	

21KQ6 is a beam-power tube for television deflection or power-amplifier service. The supplied RCA manual excerpt was reviewed for heater data, physical sections, maximum ratings, electrical characteristics, capacitances, and stated operating conditions.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1975 RCA RC30

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1975 RCA RC30

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage 21.5	29 V	Heater Voltage 21.5 29 volts
Heater Current 0.45	300 mA	Heater Current 0.45 0.3 ampere
Plate Voltage	275 V	Plate Voltage 275 volts
Peak Positive-Pulse Plate Voltage*	6500 V	Peak Positive-Pulse Plate Voltage* 6500 volts
Peak Negative-Pulse Plate Voltage*	1660 V	Peak Negative-Pulse Plate Voltage* 1660 volts
Grid-No.3 Voltage	70 V	Grid-No.3 Voltage 70 volts
Grid-No.2 Voltage	275 V	Grid-No.2 Voltage 275 volts
Peak Negative-Pulse Grid-No.1 Voltage	330 V	Peak Negative-Pulse Grid-No.1 Voltage 330 volts
Average Cathode Current	275 mA	Average Cathode Current 275 mA
Grid-No.1-Circuit Resistance	0.5 Mohm	Grid-No.1-Circuit Resistance 0.5 megohm
Grid-No.1-Circuit Resistance, for horizontal-deflection circuit	2.2 Mohm	Grid-No.1-Circuit Resistance, for horizontal-deflection circuit 2.2 megohms
# Pulse duration must not exceed 22% of a horizontal scanning cycle (	18 us	# Pulse duration must not exceed 22% of a horizontal scanning cycle (18 microseconds)
DC Plate Supply Voltage	900 V	DC Plate Supply Voltage 900 volts
Peak Positive-Pulse Plate Voltage*	7600 V	Peak Positive-Pulse Plate Voltage* 7600 volts
Peak Negative-Pulse Plate Voltage	100 V	Peak Negative-Pulse Plate Voltage 100 volts
Maximum plate/supply voltage	6500 V	Published section value
Maximum screen-grid voltage	275 V	Published section value

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage 40	50 V	Plate Voltage 40 50 volts
Grid-No.3 (Suppressor-Grid) Voltage 0	0 V	Grid-No.3 (Suppressor-Grid) Voltage 0 0 volts
Grid-No.2 (Screen-Grid) Voltage 135	200 V	Grid-No.2 (Screen-Grid) Voltage 135 200 volts
Plate Voltage 125 6000 50	175 V	Plate Voltage 125 6000 50 175 volts
Grid-No.2 (Screen-Grid) Voltage	125 V	Grid-No.2 (Screen-Grid) Voltage 125 125 125 125 volts
Grid-No.1 (Control-Grid) Voltage -25 0 -	23 V	Grid-No.1 (Control-Grid) Voltage -25 0 -23 volts
Plate Resistance (Approx.)	7500 ohm	Plate Resistance (Approx.) 7500 ohms
Plate Current 600	90 mA	Plate Current 600 90 mA
Grid-No.2 Current 42	1.7 mA	Grid-No.2 Current 42 1.7 mA
current of	1 mA	current of 1 mA -45 volts
Plate resistance	7500 ohm	Published section value

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

[Catalog](#) [Tube types](#) [Full books](#) [Blog](#) [Feedback & corrections](#)

© 2026 Tube Tinker