

ELECTRONIC TUBE REFERENCE

EL500

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Magnoval beam-power tube designed for television horizontal-deflection amplification, providing repetitive current capability for later-generation line-output transformer drive.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9NH	BASE PINS	9
NOMINAL HEATER	6.3 V / 1.3 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9NH - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	–	G1 – Control Grid	CONNECTED
PIN2	–	G1 – Control Grid	CONNECTED
PIN3	–	G3 – Suppressor Grid	CONNECTED
PIN3	–	K – Cathode	CONNECTED
PIN4	–	H – Heater	CONNECTED
PIN5	–	H – Heater	CONNECTED
PIN6	–	G2 – Screen Grid	CONNECTED
PIN7	–	G2 – Screen Grid	CONNECTED
PIN8	–	G3 – Suppressor Grid	CONNECTED
PIN8	–	K – Cathode	CONNECTED
PIN9	–	–	IC
CAP1	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Beam Power	
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	12 W
MAXIMUM SCREEN DISSIPATION	4 W
MAXIMUM CATHODE CURRENT	250 mA
Promoted ratings and characteristics are taken from the printed target-tube entry in the approved PDF.	

Magnoval beam-power tube used as a horizontal-deflection amplifier in television receivers.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Amperex Condensed

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

1963 AMPEREX CONDENSED

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	75 V	HorizontalDeflection
Screen voltage	200 V	HorizontalDeflection
Control-grid voltage	-10 V	HorizontalDeflection
Plate current	440 mA	HorizontalDeflection
Screen current	37 mA	HorizontalDeflection
Peak plate voltage maximum	7000 V	HorizontalDeflection
Application	Horizontal-deflection output stage in television receivers Section1	



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Philips Electron Tubes Handbook V1a

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V1A

Section 1 · Beam Power

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published heater rating
Heater current	1.4 A	Published heater rating

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	75 V	HorizontalDeflection
Screen voltage	200 V	HorizontalDeflection
Grid bias	-10 V	HorizontalDeflection
Peak plate current	440 mA	HorizontalDeflection
Peak screen current	30 mA	HorizontalDeflection
Peak plate voltage	7000 V	HorizontalDeflection



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1972 Philips Receiving Tubes

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

1972 PHILIPS RECEIVING TUBES

Section 1 · Beam Power

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal value
Heater current	1.38 A	Published nominal value



SOURCE DATA APPENDIX

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
75; g;rid-No	2 V	Published in approved XL500 target datasheet entry; Section1
mA, 440; grid-No	2 mA	Published in approved XL500 target datasheet entry; Section1
Heater Voltage (ac/dc) 6.3 13.3 18	27 V	Published in approved XL500 target datasheet entry; Section1
Heater Current 1.38 0.6 0.45	300 mA	Published in approved XL500 target datasheet entry; Section1
Peak Positive-Pulse Plate Voltage*	7700 V	Published in approved XL500 target datasheet entry; Section1
DC Giid-No.2 (Screen-Grid) Voltage	275 V	Published in approved XL500 target datasheet entry; Section1
Average Cathode Current	275 mA	Published in approved XL500 target datasheet entry; Section1
Plate Dissipation 4	17 W	Published in approved XL500 target datasheet entry; Section1
Grid-No.2 Input"	5 W	Published in approved XL500 target datasheet entry; Section1
Without grid current	0.5 MΩ	Published in approved XL500 target datasheet entry; Section1
With grid current (horizontal-output service only)	2.2 MΩ	Published in approved XL500 target datasheet entry; Section1
# Pulse duration must not exceed 15% of a horizontal scanning cycle (	10 microseconds	Published in approved XL500 target datasheet entry; Section1
Grid-No.2 input may reach	6 W	Published in approved XL500 target datasheet entry; Section1
Grid-No.2 input may reach 6 watts for plate-dissipation values below	11 W	Published in approved XL500 target datasheet entry; Section1

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1981 Russian Tubes Katsnelson and Larionov

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

1981 RUSSIAN TUBES KATSNELSON AND LARIONOV

Section 1 · Beam Power

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal/basic-parameter heater condition.
Heater current	1300 mA	Published heater current.
Pulse plate current	440 mA	Published in the filename-designated tube entry.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	300 V	Published limiting operating value.
Maximum screen voltage	300 V	Published limiting operating value.
Maximum cathode current	250 mA	Published limiting cathode-current value.
Maximum plate dissipation	12 W	Published limiting plate-dissipation value.
Maximum screen dissipation	4 W	Published limiting screen-dissipation value.
Pulse plate voltage	7000 V	Published in the filename-designated tube entry.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1999 Philips E-Z

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

1999 PHILIPS E-Z

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum cathode-heater voltage, cathode positive	200 V	—
Maximum cathode-heater voltage, cathode negative	200 V	—

TUBE TINKER

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

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