

Xenon-filled three-electrode thyatron designed for reliable wide-temperature control service, providing stable grid-triggered switching across demanding environmental conditions.

GENERAL CHARACTERISTICS

BASE DESIGNATION	4CF	BASE PINS	4
NOMINAL HEATER	2.5 V / 9 A	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Thyatron	
MAXIMUM PLATE VOLTAGE	1000 V
MAXIMUM CATHODE CURRENT	2.5 A
PEAK FORWARD CURRENT	30 A
FORWARD VOLTAGE DROP	14 V
WARM-UP TIME	0 s
Thyatron section; published switching/rating data retained below.	

Xenon-filled three-electrode thyatron for reliable wide-temperature control service.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1956 National Electronics Industrial Tubes

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

1956 NATIONAL ELECTRONICS INDUSTRIAL TUBES

Section 1 · Thyatron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum peak inverse voltage	1250 V	Published datasheet value
Maximum peak forward voltage	1000 V	Published datasheet value
Maximum DC output current	2.5 A	Published datasheet value
Maximum instantaneous output current	30 A	Published datasheet value
Maximum AC short-circuit current	300 A	Published datasheet value

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heating time	30 s	Published datasheet value
Typical arc drop	10 V	At stated peak current
Ionization time	10 us	Approximate
Deionization time	1000 us	Approximate
Anode-grid capacitance	2 pF	Published capacitance

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater or filament voltage	2.5 V	Section1
Heater or filament current	8.5 A	Section1
Peak forward voltage maximum	1000 V	Thyratron
Peak inverse voltage maximum	1250 V	Thyratron
Peak anode current maximum	30 A	Thyratron
Average anode current maximum	2.5 A	Thyratron
Maximum grid voltage	-300 V	Thyratron

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament heating time	60 s	Thyratron
Tube voltage drop	10 V	Thyratron
Ionization time	10 μs	Thyratron
Deionization time	1000 μs	Thyratron



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1963 Philips Electron Tubes Handbook V3

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V3

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Chauffage: direct If	9 A	Chauffage: direct If = 9.0 A

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacitances Cag	3 pF	Capacitances Capacitances Cag = 3 pF

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacites Cgk	14 pF	Capacitances Capacites Cgk = 14 pF

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Caracteristiques types Varc	10 V	Typical characteristics Caracteristiques types Varc = 10 V
Tdion	1000 µsec	Typical characteristics Tdion 1000 µsec
Peak anode voltage	1000 V	Limiting values Vap = max. 1000 V
Grid voltage	300 v	Limiting values -Vg = max. 300 v3)
Peak cathode current	30 A	Limiting values Ikp = max. 30A
Cathode current	5 s	Limiting values Ik (Tav = 5 sec.) = max. 2.5 A
Cathode current	2.5 A	Limiting values Ik (Tav = 5 sec.) = max. 2.5 A
Surge current	0.1 s	Limiting values Isurge (max. 0.1 sec.)= max. 300 A5)
Surge current	300 A	Limiting values Isurge (max. 0.1 sec.)= max. 300 A5)
Grid current	100 mA	Limiting values Ig (Tav = 1 Periods) = max. 0.1 A
Published electrical value	400 V	Limiting values 400 V may be tolerated up to Va = 900 V and Rg = 50-100 k4
Published electrical value	900 V	Limiting values 400 V may be tolerated up to Va = 900 V and Rg = 50-100 k4
tine valeur de	400 V	Limiting values tine valeur de 400 V eat admissible jusqu'a Va = 900 V et
tine valeur de	900 V	Limiting values tine valeur de 400 V eat admissible jusqu'a Va = 900 V et
Ein Wert von	400 V	Limiting values Ein Wert von 400 V 1st zulässig his Va = 900 V and
Ein Wert von	1 s	Limiting values Ein Wert von 400 V 1st zulässig his Va = 900 V and
Ein Wert von	900 V	Limiting values Ein Wert von 400 V 1st zulässig his Va = 900 V and



SOURCE DATA APPENDIX

1971 RCA HB3 Binder 2 of 7

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

1971 RCA HB3 BINDER 2 OF 7
Section 1 · Thyatron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament voltage	2.5 V	Nominal
Filament current	9 A	Nominal
Maximum deionization time	1000 us	—
Maximum critical grid current	10 uA	—
Maximum anode voltage drop at end of life	14 V	—
Maximum commutation factor	0.66 VA/us^2	—
Peak forward anode voltage	1000 V	—
Peak inverse anode voltage	1250 V	—
Peak negative grid voltage before conduction	100 V	—
Peak anode/cathode current	30 A	—
Average anode/cathode current	2.5 A	—
Fault current	300 A	Short-duration fault rating
Ambient or condensed-mercury operating temperature range	-55 to +75 C	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum heating time prior to tube conduction	30 s	—
Anode voltage drop at beginning of life	10 V	—
Grid control ratio	200	Approximate; stated grid-resistor and DC conditions

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-anode capacitance	2 pF	Approximate
Grid-to-cathode capacitance	14 pF	Approximate

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