



ELECTRONIC TUBE REFERENCE

PL5822A

Specialized - Ignitron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

IGNITRONPOWERSWITCH

Water-cooled ignitron for frequency-changer resistance-welding service with thermostatic-control provisions. Controlled mercury-discharge conduction handles extremely high industrial switching currents.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	— / —	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 IgnitronPowerSwitch

No fixed ratings recorded.

Water-cooled ignitron for frequency-changer resistance-welding service with thermostatic-control provisions.

Water-cooled ignitron for frequency-changer resistance-welding service with thermostatic-control provisions.

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

Section 1 · IgnitronPowerSwitch

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Frequence de la tension d'alimentation	-60 Hz	Welding service Frequence de la tension d'alimentation 50-60 c/s
to-ti (q	4 degC	Typical characteristics to-ti (q = 6 1/min.) = max. 4 °C
Iap (max)(Tav = max	0.2 s	Welding service Iap (max)(Tav = max. 0.2 sec) 0.166 0.166
Surge current	0.15 s	Welding service Iap T(Isurge) = max.0.15 sec
Tension d'amorçage = max	200 V	Ignitor characteristics Tension d'amorçage = max. 200 V
Courant d'amorçage = max	12 A	Ignitor characteristics Courant d'amorçage = max. 12A
ou au courant sus-mentionnes = max	100 µsec	Ignitor characteristics ou au courant sus-mentionnes = max. 100 µsec
pour	200 V	Ignitor characteristics pour 1'amorçage = min. 200 V
Ignition time	100 µsec	Ignitor characteristics ignition time of max.100 µsec. di/at = min.0.25 A/µsec)
Ignition time	250 mA	Ignitor characteristics ignition time of max.100 µsec. di/at = min.0.25 A/µsec)

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Firing current	-8 A	Ignitor characteristics Firing current = 6-8A
requis (p.e. pour un temps d'amorçage de	100 µsec	Ignitor characteristics requis (p.e. pour un temps d'amorçage de 100 µsec au

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

Section 1 · IgnitronPowerSwitch

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
IGNITRON a refroidissement par l'eau pour service de soudure	1 a	IGNITRON a refroidissement par l'eau pour service de soudure
1) In usual frequency-changer resistance welding service	1 s	1) In usual frequency-changer resistance welding service
A With thermostatic control 3	3 A	A With thermostatic control 3
welding service using six tubes it is recommended to cool	1 w	welding service using six tubes it is recommended to cool
the continuous maximum average current and 1.5 1 at no	1 s	the continuous maximum average current and 1.5 1 at no
phase control is used	1 a	phase control is used
1) Max. average current at max. peak current	1 Ma	1) Max. average current at max. peak current
2) Max. peak current at max. average current	2 Ma	2) Max. peak current at max. average current
ignition time of max.100 usec, di/dt	0.25 ma	ignition time of max.100 usec, di/dt = min.0.25 A/usec)

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Température de fermeture 35°C Temperature d'ouverture 25°C	25 a	Température de fermeture 35°C Temperature d'ouverture 25°C
2) When a number of tubes is cooled in series, ti p is	2 W	2) When a number of tubes is cooled in series, ti p is

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
3) t_m	3 a	3) t_m = temperature of thermostat mount
Ignitor connector. Unfolded length 330 mm	330 nf	Ignitor connector. Unfolded length 330 mm
3) When the cooling systems of & number of tubes are con	3 W	3) When the cooling systems of & number of tubes are con-
water can be determined by interpolation between 6 l at	1 w	water can be determined by interpolation between 6 l at
Firing current	-8 A	Firing current = 6-8 A
l'amorgage de l'anode principale	1 a	l'amorgage de l'anode principale =min. 254)
1) The rate of rise of the ignitor current must be suffi	1 a	1) The rate of rise of the ignitor current must be suffi-
Ohmic resistance of series inductance (1 mH)	1 Ohm	Ohmic resistance of series inductance (1 mH)
Ohmic resistance of 60 pH inductance	60 Ohm	Ohmic resistance of 60 pH inductance

TUBE TINKER

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

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