



ELECTRONIC TUBE REFERENCE

DCG41000

Rectifier - Half Wave electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
RECTIFIER

Philips single-anode mercury-vapor half-wave industrial rectifier for high-voltage power conversion, providing approximately 10 kV inverse-voltage capability and moderate current with low arc drop.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	4
NOMINAL HEATER	2.5 V / 8 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Rectifier	
PEAK INVERSE VOLTAGE	10000 V
NOMINAL OUTPUT CURRENT	250 mA
PEAK FORWARD CURRENT	1 A
FORWARD VOLTAGE DROP	12 V
WARM-UP TIME	30 s
Maximum ratings: 10 kV inverse voltage, 0.25 A continuous rectified current and 1 A peak current.	

DCG41000 is a Rectifier device in the supplied Philips industrial literature. Single-anode mercury-vapour industrial rectifier.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Philips Electron Tubes Handbook V4

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V4

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak inverse voltage	10 kV	HighVoltageCondition
Maximum average current	250 mA	HighVoltageCondition
Maximum peak current	1 A	HighVoltageCondition
Peak inverse voltage	2 kV	HighCurrentCondition
Maximum average current	500 mA	HighCurrentCondition
Maximum peak current	2 A	HighCurrentCondition
Condensed mercury temperature range at 10kV	25–60 degC	—
Ambient temperature range at 10kV	15–40 degC	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Arc voltage drop	12 V	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tesla Tubes

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

1966 TESLA TUBES

Section 1 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Rated rectified output current	250 mA	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum anode current	250 mA	—
Maximum peak anode current	1 A	—
Preconditioning time before first service	15 min	Half rated anode current
AC anode voltage	3500 V	Circuit Fig.1
Rectified output current	500 mA	Circuit Fig.1
DC output voltage	3150 V	Circuit Fig.1
AC anode voltage	7000 V	Circuit Fig.4
Rectified output current	500 mA	Circuit Fig.4
DC output voltage	6300 V	Circuit Fig.4



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1999 Philips 0-D

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

1999 PHILIPS 0-D
Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	2.5 V	—
Heater current	8 A	—
Maximum peak inverse voltage	10000 V	—
Maximum rectified current	250 mA	—
Maximum peak forward current	1 A	—
Minimum warm-up time	30 s	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Forward voltage drop	12 V	—

TUBE TINKER

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