



ELECTRONIC TUBE REFERENCE

DCG575

Rectifier - Half Wave electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

RECTIFIER

Indirectly heated mercury-vapor half-wave industrial rectifier for high-power transmitter installations, providing approximately 10 A average output and 50 A peak-current capability.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	50 V / 40 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Rectifier	
PEAK INVERSE VOLTAGE	12000 V
NOMINAL OUTPUT CURRENT	10 A
PEAK FORWARD CURRENT	50 A
FORWARD VOLTAGE DROP	16 V
Mercury-vapour rectifier; published average and peak anode-current limits promoted.	

Indirectly heated mercury-vapour industrial rectifier for high-power transmitter installations. The supplied Philips sheet was read for heater/filament data, ratings, characteristics, capacitances, and operating conditions where published.

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

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filling	Mercury vapour	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum RMS anode voltage	8400 V	CircuitDependent
Maximum peak inverse voltage	12000 V	—
Maximum average anode current	10 A	—
Maximum peak anode current	50 A	—
Auxiliary-anode voltage	75-200 V	—
DC output voltage	3800 V	PublishedCircuit;RMSAnodeVoltage=4200V
DC output current	20 A	PublishedCircuit;RMSAnodeVoltage=4200V
Output power	76 kW	PublishedCircuit;RMSAnodeVoltage=4200V
DC output voltage	5800 V	PublishedCircuit;RMSAnodeVoltage=4900V
DC output current	30 A	PublishedCircuit;RMSAnodeVoltage=4900V
Output power	174 kW	PublishedCircuit;RMSAnodeVoltage=4900V
DC output voltage	5400 V	PublishedCircuit;RMSAnodeVoltage=4200V
DC output current	40 A	PublishedCircuit;RMSAnodeVoltage=4200V
Output power	216 kW	PublishedCircuit;RMSAnodeVoltage=4200V
DC output voltage	7600 V	PublishedCircuit;RMSAnodeVoltage=8400V
DC output current	20 A	PublishedCircuit;RMSAnodeVoltage=8400V
Output power	152 kW	PublishedCircuit;RMSAnodeVoltage=8400V
DC output voltage	11600 V	PublishedCircuit;RMSAnodeVoltage=8400V
DC output current	30 A	PublishedCircuit;RMSAnodeVoltage=8400V

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Output power	348 kW	PublishedCircuit;RMSAnodeVoltage=8400V
DC output voltage	10800 V	PublishedCircuit;RMSAnodeVoltage=8400V
DC output current	40 A	PublishedCircuit;RMSAnodeVoltage=8400V
Output power	432 kW	PublishedCircuit;RMSAnodeVoltage=8400V

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Forward voltage drop	16 V	—