



ELECTRONIC TUBE REFERENCE

ESU107

Rectifier - Half Wave electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
RECTIFIER

Indirectly heated mercury-vapor half-wave rectifier for high-current supplies. Its massive heater and low arc voltage provide several amperes at high voltage.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	5 V / 12 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Rectifier	
PEAK INVERSE VOLTAGE	20000 V
NOMINAL OUTPUT CURRENT	6 A
PEAK FORWARD CURRENT	25 A
FORWARD VOLTAGE DROP	15 V
WARM-UP TIME	180 s

Indirectly heated half-wave mercury-vapour rectifier; two valves in a full-wave circuit can deliver 6 A at 6.3 kV, with ratings dependent on condensed-mercury temperature.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 AEI Industrial Valves

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

1961 AEI INDUSTRIAL VALVES

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
CondensedMercuryTemperatureRange	25–70 C	—
MaximumOperatingFrequency	150 Hz	—
MaximumBiphaseOutputVoltage	6.3 kV	TwoTubes
MaximumBiphaseOutputCurrent	6 A	TwoTubes
MaximumSurgeCathodeCurrent	150 A	0.1s max
Peak Cathode Current	15 A	PIV=20kV;MercuryTemp=25-55C
Average Cathode Current	3 A	PIV=20kV;MercuryTemp=25-55C;MaxAverageTime=10s
Peak Cathode Current	18 A	PIV=15kV;MercuryTemp=25-60C
Average Cathode Current	4 A	PIV=15kV;MercuryTemp=25-60C;MaxAverageTime=10s
Peak Cathode Current	20 A	PIV=10kV;MercuryTemp=25-65C
Average Cathode Current	5 A	PIV=10kV;MercuryTemp=25-65C;MaxAverageTime=10s
Peak Cathode Current	25 A	PIV=5kV;MercuryTemp=25-70C
Average Cathode Current	6 A	PIV=5kV;MercuryTemp=25-70C;MaxAverageTime=10s

1961 Associated Electrical Industries

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

1961 ASSOCIATED ELECTRICAL INDUSTRIES

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum operating frequency	150 Hz	—