

Eimac grid-controlled mercury-vapor rectifier for high-voltage supplies. Its control grid permits electronic switching of substantial rectified current, including use in paired full-wave circuits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	2.5 V / 10 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Rectifier	
PEAK INVERSE VOLTAGE	11000 V
NOMINAL OUTPUT CURRENT	750 mA
PEAK FORWARD CURRENT	3 A
FORWARD VOLTAGE DROP	15 V
WARM-UP TIME	30 s
Promoted fields populated only where the published value maps directly to the schema; device-specific values retained as parameters.	

EITEL-McCULLOUGH, INC. Erour SA,NL?B;RUNO, CALIFORNIA RECTIFIER The Eimac KY2IA is a grid-controlled mercury vapor rectifier. A pair of KY21A's in a conventional single phase full wave circuit will supply a d-c power output of 5 kilowatts (3500 volts at 1.5 amperes) with a choke input filter. Voltage - - - - - 2.5 volts Current - - - - - 10 amperes

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1962 Eimac

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

1962 EIMAC

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
KY2	1	KY21A's in a conventional single phase full wave circuit will supply a d-c power
output of [1]	5 V	output of 5 kilowatts (3500 volts at 1.5 amperes) with a choke input filter.
output of [2]	3500 V	output of 5 kilowatts (3500 volts at 1.5 amperes) with a choke input filter.
output of [3]	1.5 V	output of 5 kilowatts (3500 volts at 1.5 amperes) with a choke input filter.
Voltage	2.5 V	Voltage - - - - - 2.5 volts
Current	10 A	Current - - - - - 10 amperes
Filament Heating Time (minimum)	30 s	Filament Heating Time (minimum) - - - - 30 seconds
Peak Inverse Anode Voltage	11000 V	Peak Inverse Anode Voltage - - - - 11,000 max. volts
Peak Anode Current	3 A	Peak Anode Current - - - - - 3 max. amperes
Average Anode Current	75 A	Average Anode Current - - - - - .75 max. amperes
Supply Frequency	150	Supply Frequency - - - - - 150 max. C.P.S.
Temperature Limits, Condensed Mercury [1]	20	Temperature Limits, Condensed Mercury - - - - - 20° to 60° Centigrade
Temperature Limits, Condensed Mercury [2]	60	Temperature Limits, Condensed Mercury - - - - - 20° to 60° Centigrade
should be held at the rated value of	2.5 V	should be held at the rated value of 2.5 volts. Variations in filament voltage must be kept within the range

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
of [1]	2.4 V	of 2.4 to 2.6 volts. The filament of the KY21A should be allowed to reach operating temperature before
of [2]	2.6 V	of 2.4 to 2.6 volts. The filament of the KY21A should be allowed to reach operating temperature before
the plate voltage is applied. Under normal conditions, a delay of approximately	30 s	the plate voltage is applied. Under normal conditions, a delay of approximately 30 seconds will be re-
When a KY2	1	When a KY21A is first installed, the filament should be operated at rated voltage for approximately
The ratio of d-c plate voltage to control voltage varies from about [1]	87 V	The ratio of d-c plate voltage to control voltage varies from about 87:1 at 1000 volts to 130:1 at 3500 volts.
The ratio of d-c plate voltage to control voltage varies from about [2]	1 V	The ratio of d-c plate voltage to control voltage varies from about 87:1 at 1000 volts to 130:1 at 3500 volts.
The ratio of d-c plate voltage to control voltage varies from about [3]	1000 V	The ratio of d-c plate voltage to control voltage varies from about 87:1 at 1000 volts to 130:1 at 3500 volts.
The ratio of d-c plate voltage to control voltage varies from about [4]	130 V	The ratio of d-c plate voltage to control voltage varies from about 87:1 at 1000 volts to 130:1 at 3500 volts.
The ratio of d-c plate voltage to control voltage varies from about [5]	1 V	The ratio of d-c plate voltage to control voltage varies from about 87:1 at 1000 volts to 130:1 at 3500 volts.
The ratio of d-c plate voltage to control voltage varies from about [6]	3500 V	The ratio of d-c plate voltage to control voltage varies from about 87:1 at 1000 volts to 130:1 at 3500 volts.
supply [1]	100 V	supply 100 to 150 volts of bias from a small pack. This grid voltage is satisfactory for all normal plate
supply [2]	150 V	supply 100 to 150 volts of bias from a small pack. This grid voltage is satisfactory for all normal plate
voltages. It will usually be advisable to protect the grid of the KY2	1	voltages. It will usually be advisable to protect the grid of the KY21A by means of a current limiting

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