



ELECTRONIC TUBE REFERENCE

5555

Specialized - Ignitron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

IGNITRONPOWERSWITCH

Water-cooled very-high-current ignitron of the 5555/653B welder-control family. Controlled mercury discharge switches enormous industrial welding 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	
PEAK INVERSE VOLTAGE	2100 V
NOMINAL OUTPUT CURRENT	200 mA
PEAK FORWARD CURRENT	1800 A
<i>Water-cooled ignitron/mercury rectifier represented by the 5555/653-series source row for high-current welder and rectifier service.</i>	

Water-cooled very-high-current ignitron corresponding to the 5555/653B welder-control family.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1958 Amperex Industrial

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

1958 AMPEREX INDUSTRIAL

Section 1 · IgnitronPowerSwitch

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Welder-control RMS voltage range	2400 V	WeldingControl
Maximum KVA demand	2400 kVA	WeldingControl
Corresponding average current	135 A	WeldingControl
Maximum average-current demand	1105 kVA	WeldingControl
Corresponding maximum average current	207 A	WeldingControl
Typical DC output voltage	300 V	ContinuousRectifier; SixPhaseDoubleYSingleWay
Maximum peak inverse and forward voltage	2100 V	ContinuousRectifier; DCOutput=300V
Maximum peak anode current	1800 A	ContinuousRectifier; DCOutput=300V
Maximum continuous average anode current	200 A	ContinuousRectifier; DCOutput=300V
Maximum one-minute average current	400 A	ContinuousRectifier; DCOutput=300V
Typical DC output voltage	600 V	ContinuousRectifier; SixPhaseDoubleYSingleWay
Maximum peak inverse and forward voltage	2100 V	ContinuousRectifier; DCOutput=600V
Maximum peak anode current	1200 A	ContinuousRectifier; DCOutput=600V
Maximum continuous average anode current	150 A	ContinuousRectifier; DCOutput=600V
Maximum one-minute average current	300 A	ContinuousRectifier; DCOutput=600V

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Amperex Condensed

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

1963 AMPEREX CONDENSED

Section 1 · IgnitronPowerSwitch

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RMS voltage range	2400 V	Ignitron;WelderControl
Maximum KVA demand	2400 kVA	Ignitron;WelderControl
Corresponding average current	135 A	Ignitron;WelderControl
Maximum average-current corresponding KVA demand	1105 kVA	Ignitron;WelderControl
Corresponding current	207 A	Ignitron;WelderControl
Cooling	Water	Ignitron