



ELECTRONIC TUBE REFERENCE

NL730

Specialized - Thyatron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Quick-heating gas-and-mercury thyatron for motor-speed control and regulated rectifiers. Its heavy cathode supports substantial industrial controlled current.

GENERAL CHARACTERISTICS

BASE DESIGNATION	DOWN	BASE PINS	—
NOMINAL HEATER	2.5 V / 12 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
MAXIMUM PLATE VOLTAGE	1500 V
MAXIMUM CATHODE CURRENT	3.2 A
NOMINAL OUTPUT CURRENT	3.2 A
PEAK FORWARD CURRENT	40 A
<i>Published ratings and characteristics promoted where canonical fields apply.</i>	

NATIONAL POWER TUBE NL-730 is a quick heating thyatron especially designed for motor speed control and regulated rectifier applications. It is gas and mercury filled to give quick starting, long life, and wide temperature limits. NL-734 THYRATRON TUBE TECHNICAL INFORMATION do Amperes output (maximum) 3.2 Maximum negative grid voltage before conduction (volts) 500 Instantaneous Amperes output (maximum) 40 Maximum negative grid voltage during conduction Maximum time of averaging anod

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1956 National Electronics Industrial Tubes

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

1956 NATIONAL ELECTRONICS INDUSTRIAL TUBES

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
3.2 Amperes do —	40 Amperes Peak A	Source technical-information table; wording preserved from datasheet.
do Amperes output (maximum)	3.2 Maximum negative grid voltage before conduction A	Source technical-information table; wording preserved from datasheet.
(volts)	500 V	Source technical-information table; wording preserved from datasheet.
Instantaneous Amperes output (maximum)	40 A	Source technical-information table; wording preserved from datasheet.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum time of averaging anode current (seconds) _...15	(volts) 10 A	Source technical-information table; wording preserved from datasheet.
Maximum peak inverse volts	1500 Maximum critical grid current (microamps) 10 V	Source technical-information table; wording preserved from datasheet.
Maximum peak forward volts	1500 Ionization time (approx., microseconds) 10 V	Source technical-information table; wording preserved from datasheet.
Condensed mercury temperature limits (°C)* – 40 to	80 C	Source technical-information table; wording preserved from datasheet.
Filament volts	2.5 V	Source technical-information table; wording preserved from datasheet.
Maximum ac short circuit current (amperes)	560 A	Source technical-information table; wording preserved from datasheet.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament amperes	12 ± 1.5 A	Source technical-information table; wording preserved from datasheet.
Approx. temp. rise, cond. mercury above ambient (°C)	30	Source technical-information table; wording preserved from datasheet.
Filament heating time (seconds)	30 Mounting position Vertical, base down s	Source technical-information table; wording preserved from datasheet.
Grid control characteristic	See Curve Approx. shipping weight (lbs.) 4	Source technical-information table; wording preserved from datasheet.
*The tube may be started and satisfactory operation will result between -40 and	+80°C. For maximum life the condensed	Source technical-information table; wording preserved from datasheet.
mercury temperature after warm-up should run between	+40 and +80°C which corresponds to approximately +10 to +50°C C	Source technical-information table; wording preserved from datasheet.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
a00	0	Source technical-information table; wording preserved from datasheet.
12 -e	-4 14 iD	Source technical-information table; wording preserved from datasheet.
DC	SAID VOLTA44 AT -TART OF DISONAM4-	Source technical-information table; wording preserved from datasheet.
Printed	In USDA-10 -II -G. I:,	Source technical-information table; wording preserved from datasheet.

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Deionization time (approx., microseconds)	1000 us	Source technical-information table; wording preserved from datasheet.
Anode to grid capacitance (uuf)	4 pF	Source technical-information table; wording preserved from datasheet.
Typical arc drop at 12 amperes peak (volts)	12 Net weight (ounces) 7 V	Source technical-information table; wording preserved from datasheet.



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1957 NATIONAL ELECTRONICS

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum peak forward voltage	1000 V	—
Maximum peak output current	40 A	—
Maximum dc output current	3.2 A	—