

JAN 15 1963

B&L 49

IHR - 116

3/15/62

6 kv Capacitor Charging Supply

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Introduction

In order to perform the various experiments with a bubble chamber, a high intensity flash tube is used. This report briefly describes the power supplies designed and constructed to power these lamps.

Specifications

1. Charge 66 mfd to 6 kv
2. .8 sec. Reprate
3. .2 sec. time constant
4. Similar to IH-47-1-3

Facsimile Price \$	<u>1.10</u>
Microfilm Price \$	<u>.80</u>
Available from the Office of Technical Services Department of Commerce Washington 25, D. C.	

MASTER

Description

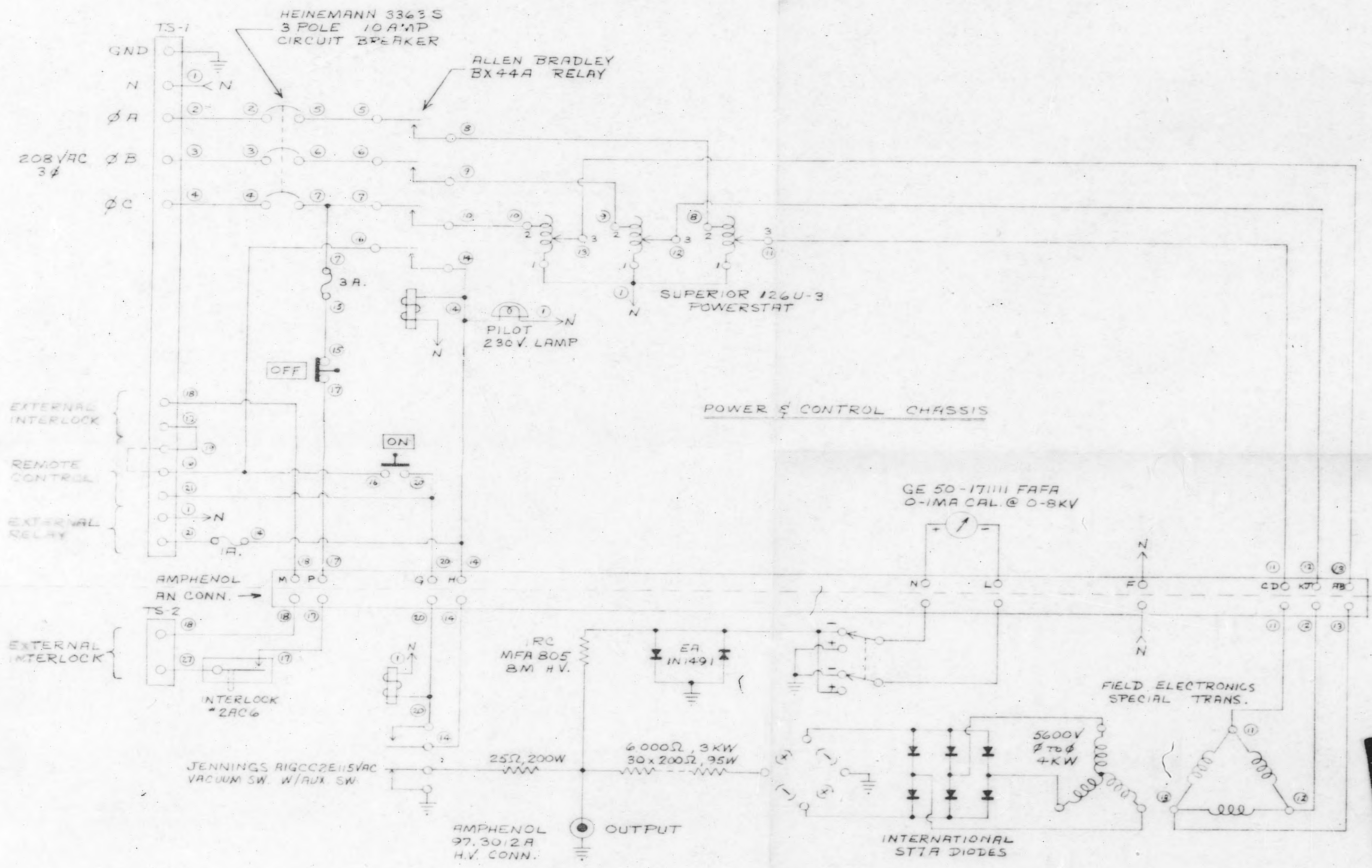
The power supply is constructed in two sections; the smaller containing the power and control components and the larger the H.V. supply, crow bar relay and charging resistors.

The circuit is a simple 3 $\sqrt{2}$ full wave rectifier using silicon rectifiers with a large resistor in series with the reversible output. A vacuum relay crow bars the output and shuts off the supply if any of the interlocks are opened or if the "OFF" button is depressed. A "Powerstat" sets the metered output which is variable from 0 to approximately 7 kv.

The control section is a conventional relay operated circuit with interlock switches inserted in series with the "OFF" button. Provision is made for the use of a remote standard push button station and a fused output is provided to operate external control equipment.

The complete schematic IH-111 follows.

These units were constructed for Account 1407-30 as authorized by IHR 113813.



IH-111-1-3
REV R

REV.	DESCRIPTION	BY	DATE	CHK

FORM NO. 189 DIETZGEN 39M Approval Tracing Paper 2010

TOLERANCE - DECIMAL * .005 FRACTIONAL * 1/64 ANGULAR * 37 BREAK SHARP EDGES .005 .015			
ITEM NO.	USED ON DWS. NO.	NO. REVD.	
CHECKED BY	I. L. R. NO.	ACCOUNT NO.	W. O. NUMBER
MATERIAL SPEC.	SIZE	WEIGHT	FINISH
4-4-62			
DATE	DRAWN BY	CHECKED BY	APPROVED BY
BROOKHAVEN NATIONAL LABORATORY ASSOCIATED UNIVERSITIES, INC. UPTON, N. Y.			
6KV CAPACITOR CHARGING SUPPLY			
SCHEMATIC			
IH-111-1-3 A			
DRAWING NUMBER			REV