

## Chapter 32

## AUTO-TRANSFORMER, ENGLISH ELECTRIC, TYPE AE 5728

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## LEADING PARTICULARS

<i>Auto-transformer</i> ... ..	Ref. No. 5UB/7422
<i>Input</i> ... ..	Voltage: $200 \pm 5$ volts (r.m.s.) line to line
	Phases: 3
	Frequency: $400 \pm 8$ c/s
<i>Output</i> ... ..	$4.26 \text{ kVA}$ at 285 volts
<i>Rating</i> ... ..	Continuous
<i>Cooling</i> ... ..	Natural
<i>Altitude range</i> ... ..	0–60 000 feet
<i>Temperature range</i> ... ..	$-60^{\circ} \text{ C}$ to $+70^{\circ} \text{ C}$
<i>Mounting</i> ... ..	Any attitude
<i>Weight</i> ... ..	7 lb approx.
<i>Overall dimensions</i> ... ..	$5\frac{3}{8} \text{ in.} \times 2\frac{13}{16} \text{ in.} \times 5\frac{5}{16} \text{ in.}$

## Introduction

1. The auto-transformer, English Electric, Type AE 5728 is a 3-phase transformer designed to deliver 4.26 kVA at 285 volts from a 200-volt, 3-phase, 400 c/s supply. The primary windings of the unit are delta connected and the secondary windings are extensions of this connection.

## DESCRIPTION

2. The windings of the unit are wound on

an 'E' core and the assembly is mounted between two frames which are secured together by four bolts, one at each corner. Connections from the windings are made to two terminal blocks which are mounted on a plate secured to the frames by spacer type studs. The primary windings are connected to terminals A2, B2 and C2 of one terminal block and the secondary windings are connected to terminals A1, B1 and C1 of the second terminal block.

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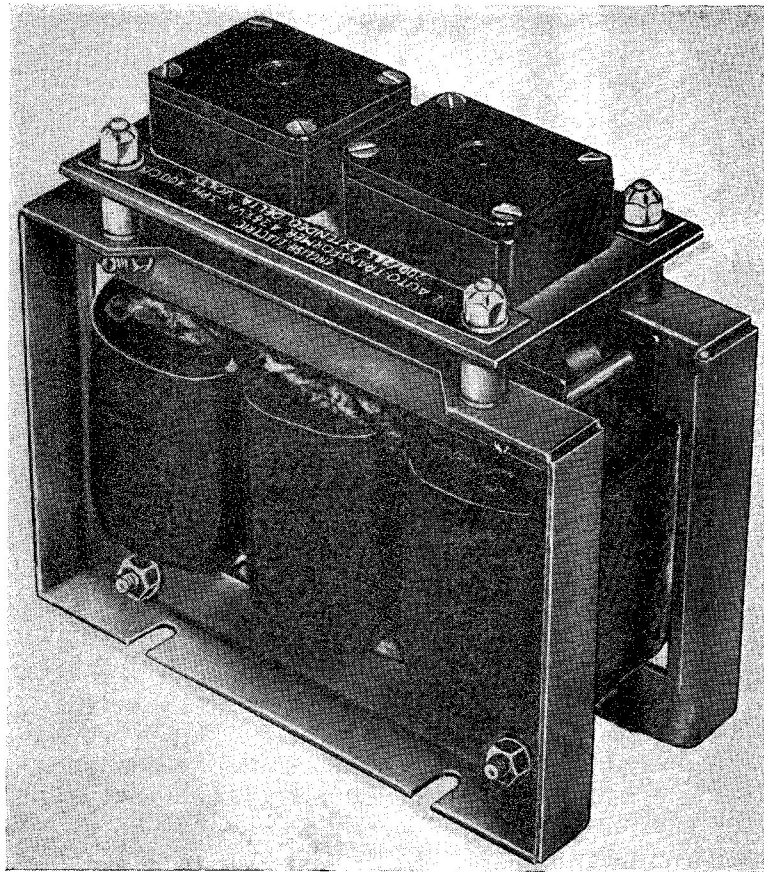
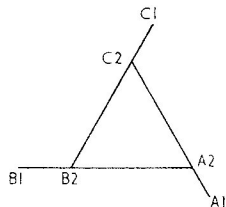
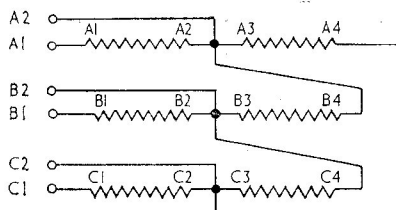


Fig. 1. Auto-transformer, Type AE 5728



PRIMARY			SECONDARY		
A2	B2	C2	A1	B1	C1

Fig. 2. Diagram of connections

### INSTALLATION

3. The unit can be mounted in any attitude by four 2 B.A. bolts which fit in mounting slots cut in the feet of the frames. The input is connected to terminals A2, B2 and C2 of the autotransformer and the output is taken from terminals A1, B1 and C1.

### SERVICING

4. Examine the unit for signs of overheating of the windings, and for the security of the connections and of the mounting bolts.

### Testing

#### Insulation resistance test

5. The insulation resistance between the windings and the frame shall be not less than 5 megohms when measured with a 500-volt insulation resistance tester.

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