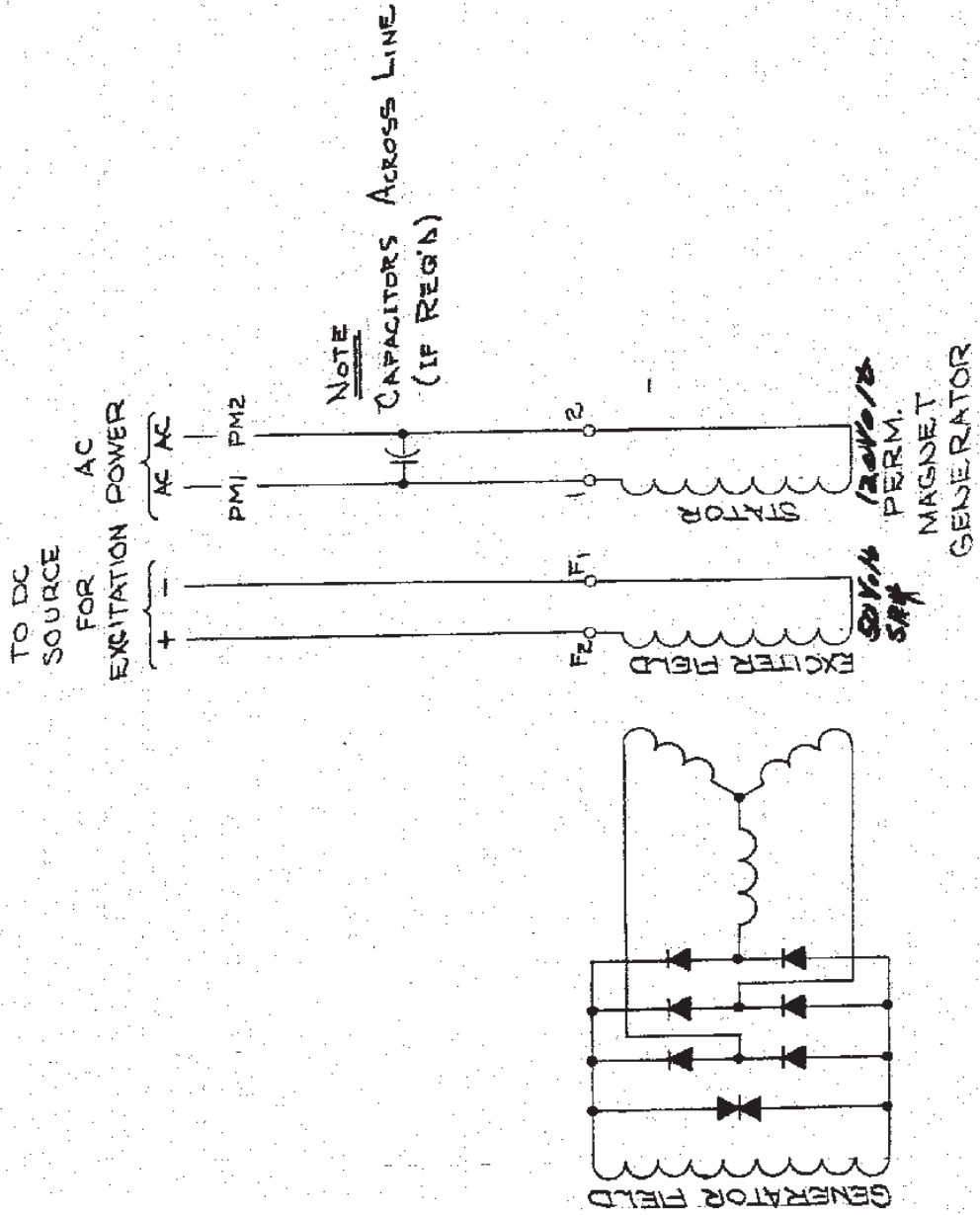


# INSTRUCTION MANUAL

SERIAL NUMBER

89519

DRAWING NO. AR-8873-K



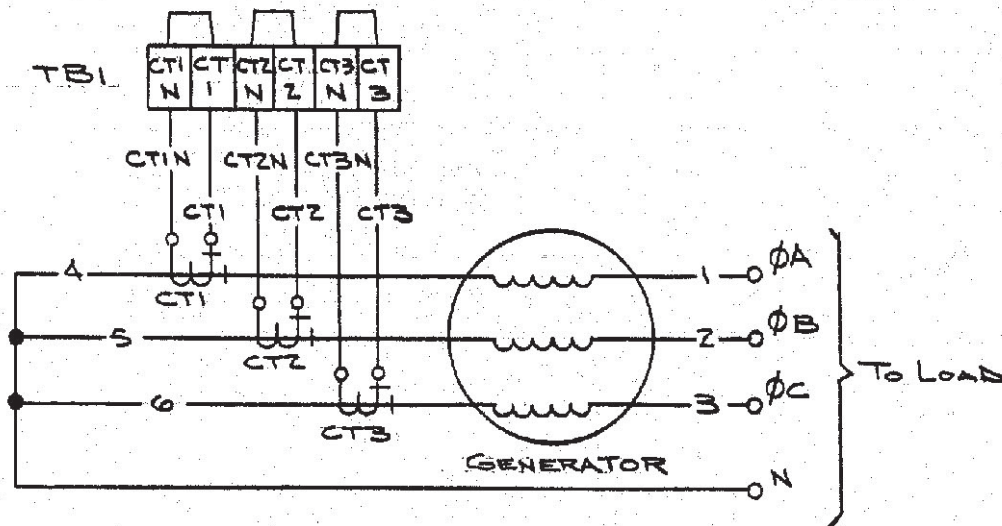
CERTIFIED FOR		<b>KATO ENGINEERING CO.</b>						C
		ELECTRICAL GENERATING EQUIPMENT			14432			B
		MANKATO, MINNESOTA			12366		2-1-77	A
<i>Caroline Larson</i>		PATT.	MATL.		E.C.O.	CK	DATE	REV.
P.O. 13500		ENGR.	DR. <i>[Signature]</i>	CK. <i>[Signature]</i>	1st S/N USED ON			
KATO S/N 19519		DATE 8-23-77		SCALE	DRWG. NO.	SH. 1	OF 1	
DATE 7/14/83	SIGN. <i>[Signature]</i>	TITLE BRUSHLESS EXCITER			AR-8873-K			

00010 013

684-00000-02

CONNECTION OF CUSTOMER SUPPLIED DIFFERENTIAL CT'S FOR A 6 WIRE 3 $\phi$  GENERATOR

JUMPERS TO BE REMOVED ONLY BY CUSTOMER WHEN CONNECTING TO CUSTOMER CONTROLS.

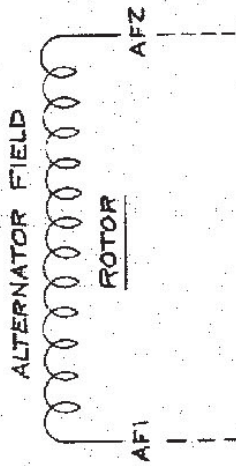
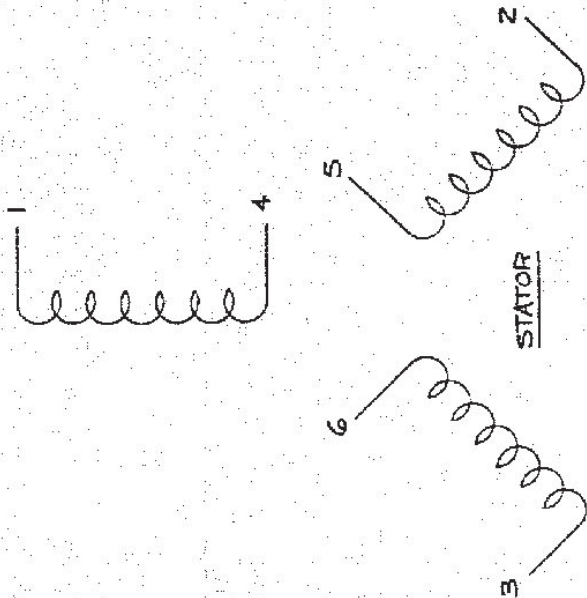


CERTIFIED FOR		<b>KATO ENGINEERING</b> RELIANCE ELECTRIC		C					
<i>Provision Director</i>		DATE 2-16-82		B					
P.O. 135000	SCALE —	MATL —	ORIGINAL	MS	MS	TL	2-18-82		
KATO S/N 89519	PATT. —	1st S/N 87463	REV	ECO	ENGR	DR	OK	DATE	
DATE 10/27/83	SIGN. <i>[Signature]</i>	TITLE GENERATOR CONTROLS	DRAWING NUMBER SH 1 OF 1						
		684-00000-02							

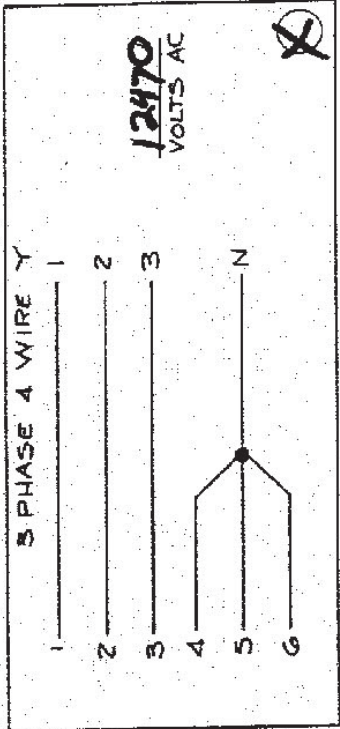
DP800-VA

89519 064

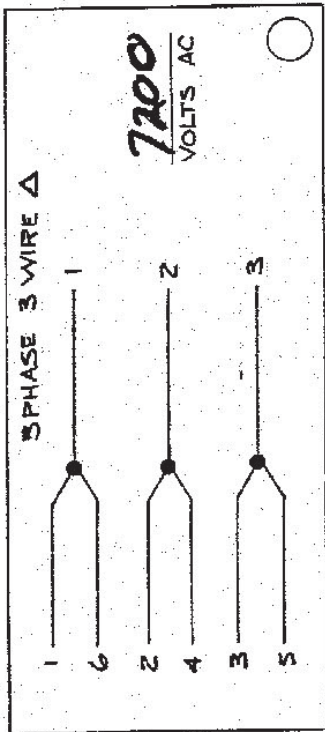
HU-8854



FIELD ON SYNCH & ALTERNATORS ONLY  
 SYNCH. MTR. LEADS MARKED MFI & MFZ



FACTORY HOOK-UP IS MARKED (X)



CERTIFIED FOR

*Charles J. Smith*

P.O. 135 C.C.D.

KATO SIN 25519

DATE 7/11/13

SIG: *[Signature]*

**KATO ENGINEERING**  
 RELIANCE ELECTRIC

DATE 6-15-82

SCALE --

PATT. 1st SN --

MATL --

1st SN --

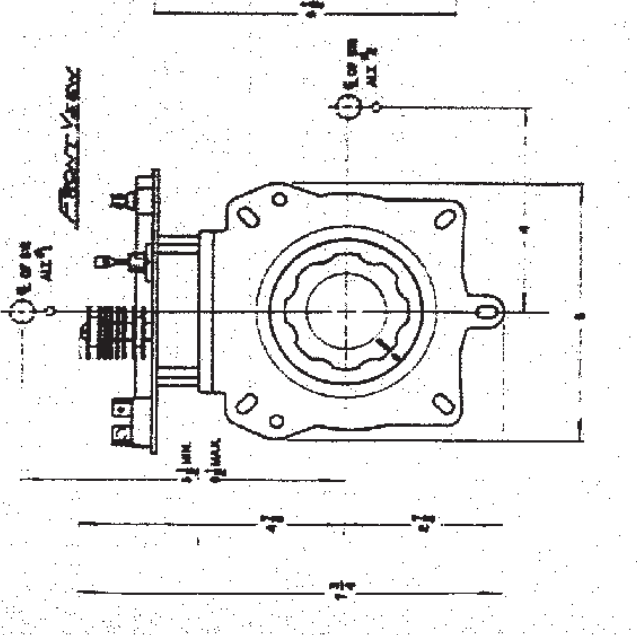
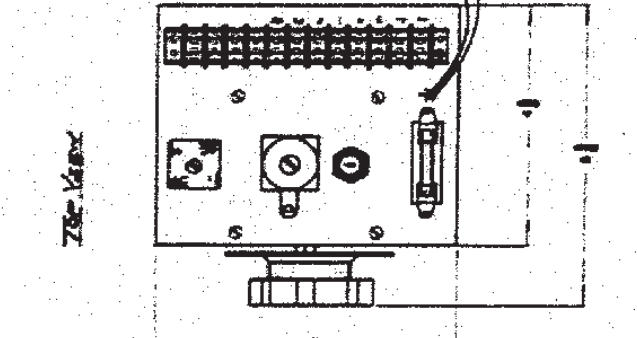
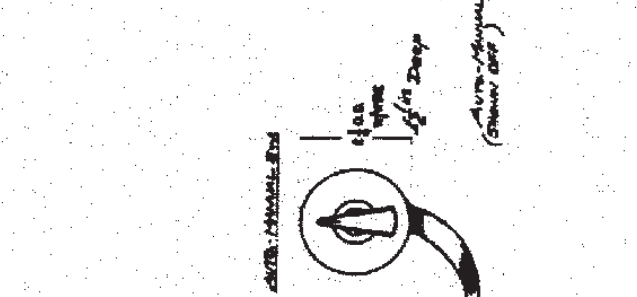
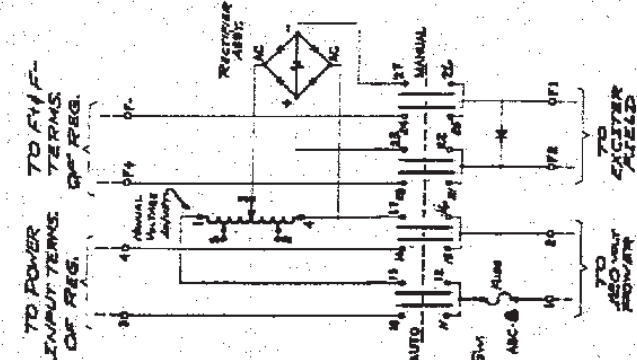
TITLE STATOR HOOK-UP 3PH. - 6 WIRE

C							
B							
A							
ORIGINAL	DRG	DR	CK	DATE			
REV	ECO	ENGR	SH	OF	1		
DRAWING NUMBER							

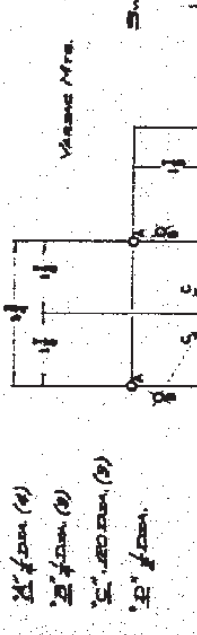
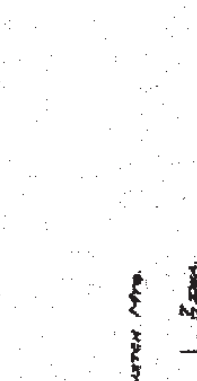
HU-8854

DR00044

89519 065



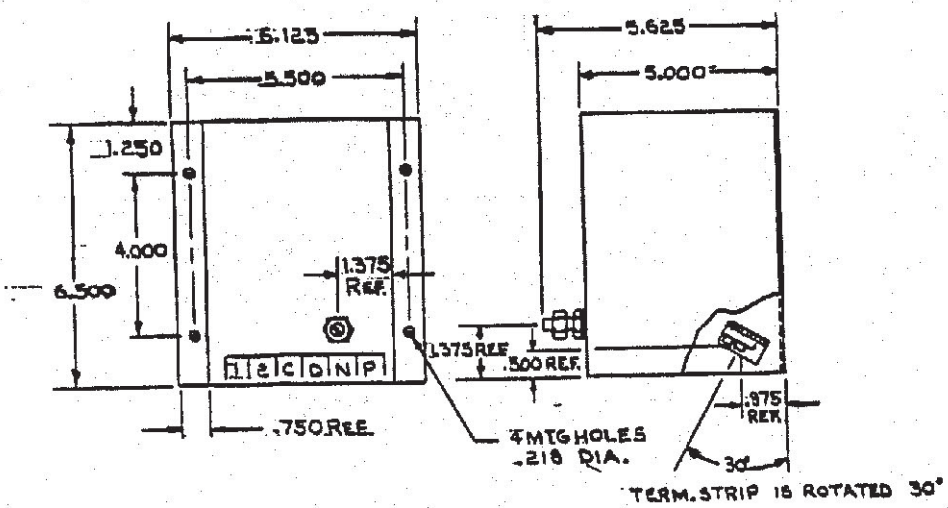
**NOTES:**  
 1. For use with regulators requiring 250 watt input.  
 2. Assembly # JEG-06303-39 used with rotary switch will be sent loose.  
 3. Rotary switch is wired to main assembly 7669 mounted on customer panel.  
 4. Weight: 10 1/2 POUNDS



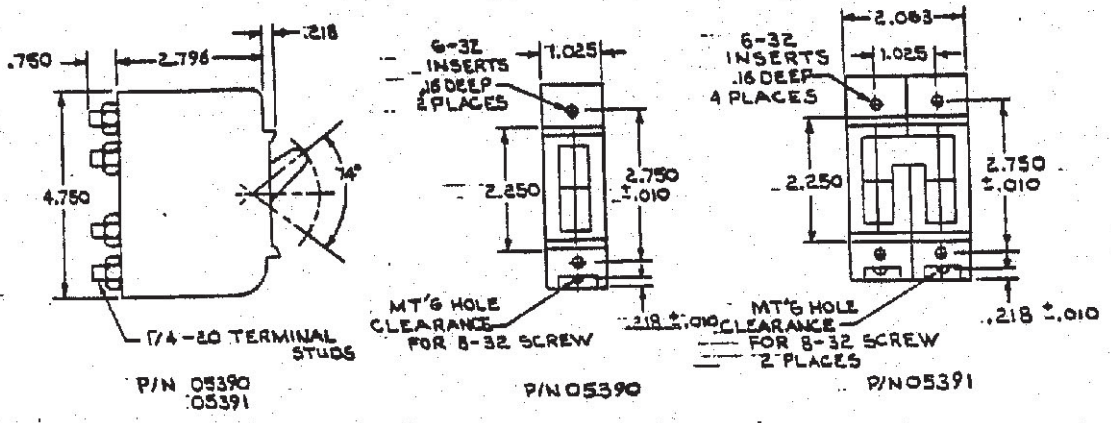
Includes E.C.O. #3: 5289 (67-76), 7725 (68-76), 7729 (68-76)		26326	79	6-198	G	
CERTIFIED FOR		C21304	RR	JF	9-301	F
KATO ENGINEERING CO.		C17910	TL	3-1	4-2-81	B
ELECTRICAL GENERATING EQUIPMENT		73649	JF		4/27/81	D
MANKATO, MINNESOTA			E.C.O.		DATE REV.	
PATT. MARL.						
ENGR. R.L. DR. JS. CK.						
DATE 2-25-77 SCALE 1/2"=1'						
SIGN JLB						
TITLE						
KATO Auto-Manual Module						
DRWG. NO. 508-00106-00						
REV						
G						

FOR MFR. PANEL TO PANEL WITH SELF-TAP SCREWS  
 3 HOLES, 1/8" DIA. 250" SPACED ON 5" DIA.  
 #27 DRILL  
 1/2" DIA. 1" DEEP  
 (ALTERNATE TO (3) 1/4" DIA. HOLES)

DRAWING NO. 412-00042-00



UFOV 250A/260A OUTLINE DRAWING

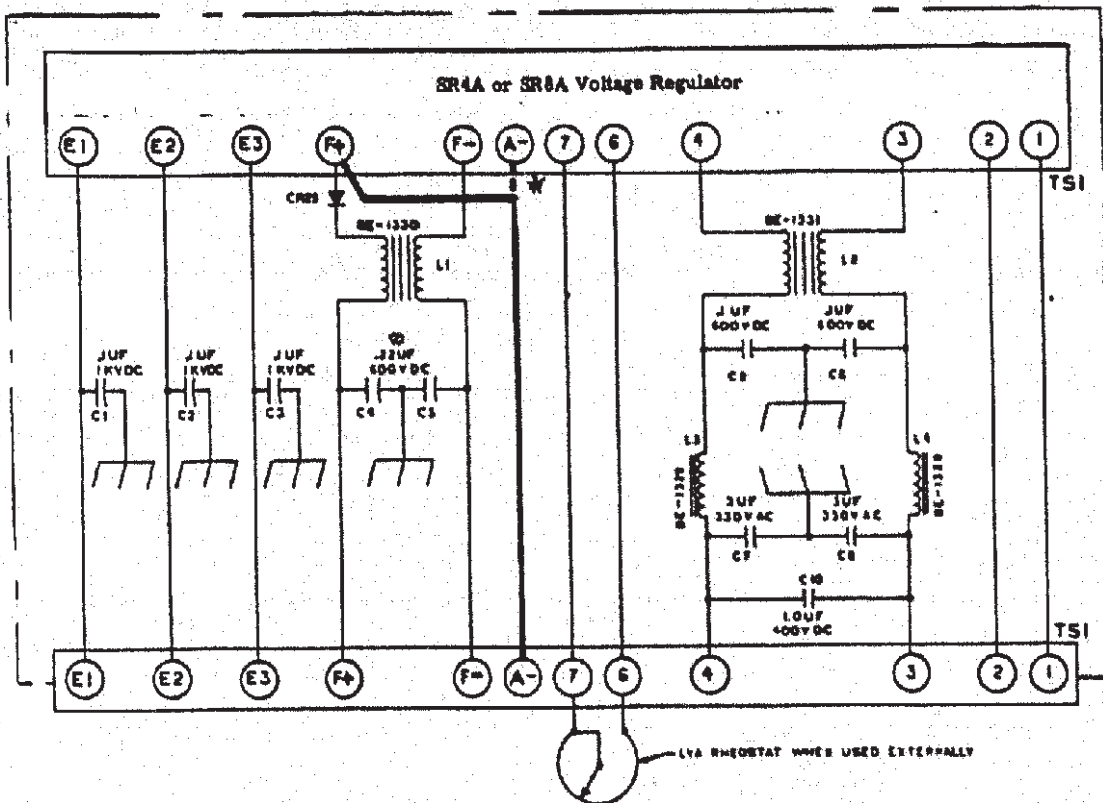


CIRCUIT BREAKER OUTLINE DRAWING

CERTIFIED FOR		<b>KATO ENGINEERING CO.</b>					C
		ELECTRICAL GENERATING EQUIPMENT					B
		MANKATO, MINNESOTA					A
<i>Paulina Luster</i>		PATT.	MATL.		E. C. O.		DATE REV.
P.O. 135 CCD		ENGR. T.B.	DR. M.S.	CK. JJA	1st S/N USED ON		
KATO S/N 19519		DATE 3-11-77		SCALE	DRWG. NO.	SH. 1 OF 1	
DATE 7/1/73	SIGN J/S	TITLE UNDER-FREQUENCY OVER-VOLTAGE RELAY - OUTLINE DWG.			412-00042-00		

11177

412-00168-01



\*When using an SR regulator equipped with an EMI-248 filter, and an accessory which connects to the F+ circuit, it is necessary to make the following change:

The wire from A- on the external terminal strip must be disconnected from A- on the regulator terminal strip (dashed line) and connected to F+ on the regulator terminal strip (bold line).

Also attach Kato P/N tag on the regulator's top.

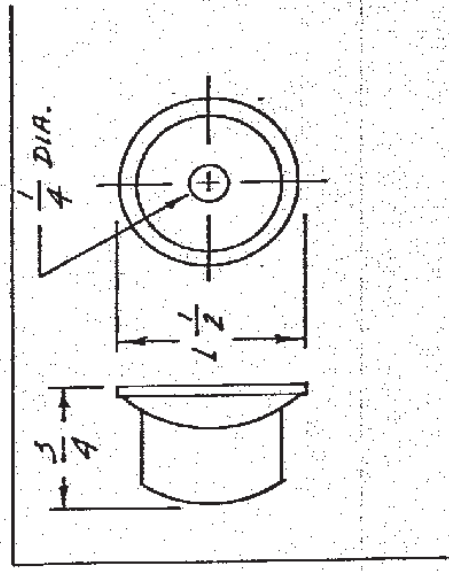
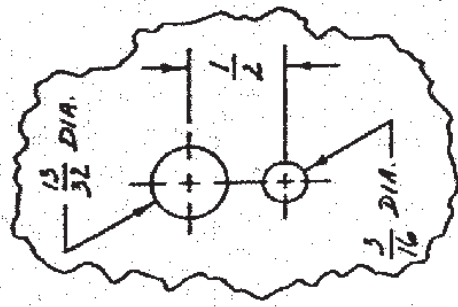
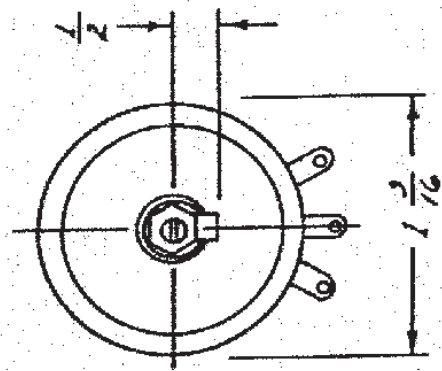
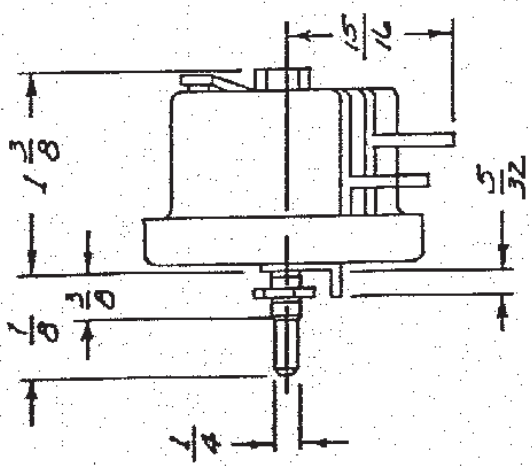
CERTIFIED FOR	KATO ENGINEERING RELIANCE ELECTRIC		C						
			B						
<i>Carolina Tractor</i>	DATE 4-21-82		ORIGINAL	TL	TL	SD	4-21-82		
<i>135 000</i>	SCALE <i>H</i>	MATL <i>H</i>	REV	ECO	ENGR	DR	CK	DATE	
<i>TO S/N 89519</i>	PATT. <i>H</i>	1st S/N	DRAWING NUMBER		SH		OF		
<i>DATE 9/11/82</i>	SIGN <i>AS</i>	TITLE SR REGULATOR WITH EMI-248 FILTER	412-00168-01						

89519 068





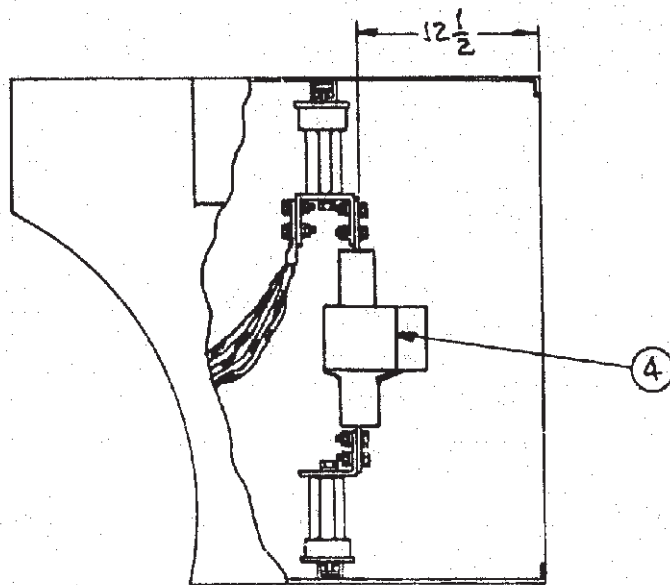
NO. 867-31875-29 'B



25 WATT 175 OHMS  
BASLER P/N 03456

CERTIFIED FOR		<b>KATO ENGINEERING CO.</b> ELECTRICAL GENERATING EQUIPMENT MANKATO, MINNESOTA			C22168 T.L. GD	12-14-81	C
<i>Cardinal Tractor</i>		PATT.	MATL.		# 5544	3/29/75	B
P.O. 135 000	ENGR.	DR.	CK.	E.C.O.	DATE REV.		
KATO S/N 19519	DATE	SCALE —		1st S/N USED ON			
DATE	SIGN. /b	TITLE VOLTAGE ADJUST RHEO		DRWG. NO. 867-31875-29	SH. 1	OF 1	REV. 0





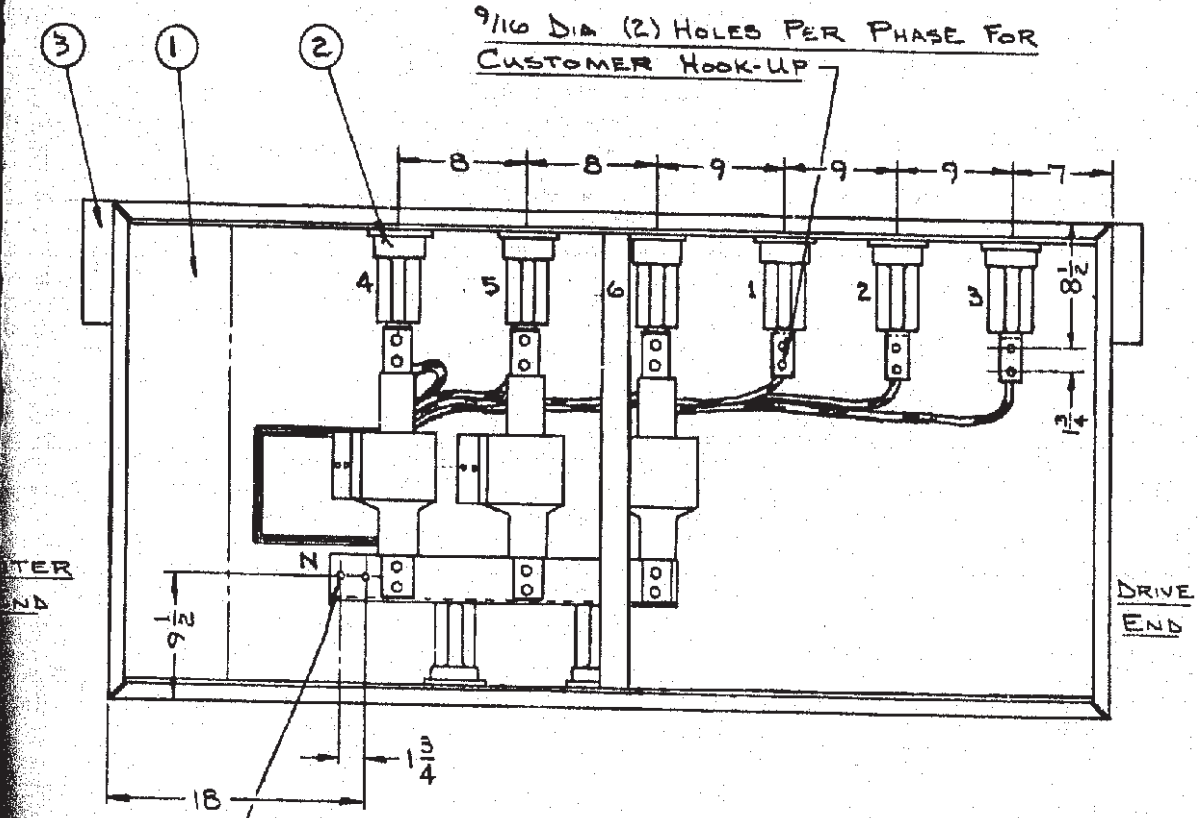
Exc

9/16 DIA (2)  
NEUTRAL


ITEM	QUAN	DESCRIP'N	SIZE	PART NUMBER
4	3	CURRENT TRANSFORMER	TYPE MC-15A1	BY CUSTOMER
3	2	LEAD SEPARATION BOX	2 x 8 x 8	034-90132-00
2	1	TERMINAL ASSEMBLY	SEE DRAWING	148-06551-03
1	1	OUTLET BOX	24 x 33 1/4 x 70	034-60146-00
ITEM	QUAN	DESCRIP'N	SIZE	PART NUMBER

PARTS LIST

107-60055-00



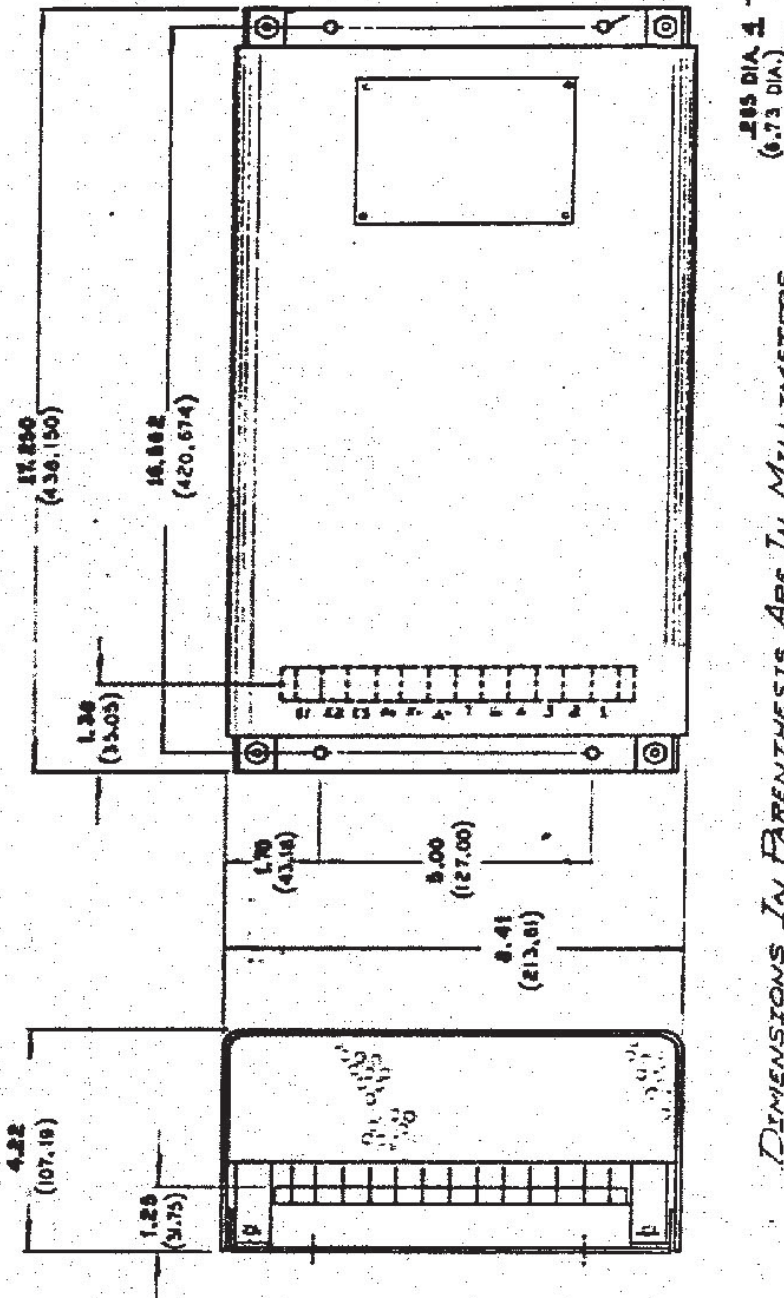
**NOTE:**  
SEE DIMENSIONAL DRAWING FOR SIZE AND LOCATION OF OUTLET BOX ON GENERATOR.

CERTIFIED FOR	<b>KATO ENGINEERING</b> RELIANCE ELECTRIC 		C					
			B					
	DATE	10-19-83	A	30124	DAS	MS	DAS	10-31-83
	SCALE	NONE		ORIGINAL	DAS	MS	DAS	10-18-83
	PATT.	1818/N 89519	REV	ECO	ENGR	DR	CK	DATE
	SIGN	TITLE	DRAWING NUMBER		SH		1 OF 1	
		LEAD TERMINATION DETAIL	107-60055-00					

DP000-8

89519 073

DRAWING NO. 412-00047-00



2.05 DIA. (51.81)

DIMENSIONS IN PARENTHESES ARE IN MILLIMETERS  
OTHERS IN INCHES

TERMINALS ARE #8-32 SLOTTED PAN-HEAD SCREWS IN .40 (10.2) WIDE RECESSES.

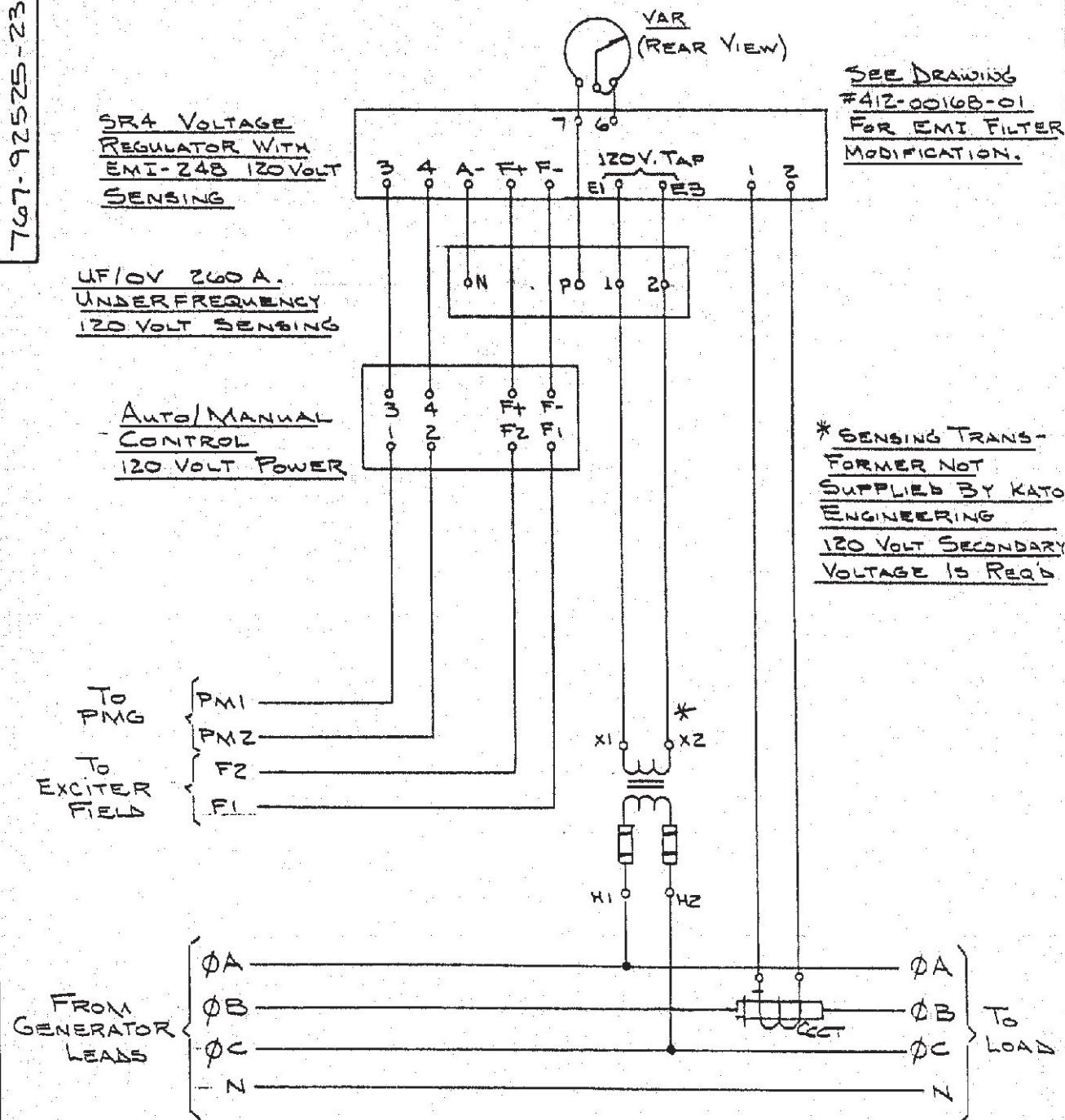
THIS DRAWING IS INTENDED TO SHOW OVERALL DIMENSIONS, MOUNTING DIMENSIONS AND TERMINAL DETAILS ONLY.

APPLIES TO THE FOLLOWING REGULATORS: SR4A, SR6A, SR8A, SR9A, W/COMMERCIAL RFI (END) FILTER

CERTIFIED FOR		<b>KATO ENGINEERING CO.</b>							
		ELECTRICAL GENERATING EQUIPMENT							
		MANKATO, MINNESOTA							
<i>Production Control</i>		PATT.	MATL.	E. C. O.		DATE	REV.		
P.O. 13500		ENGR. =	DR. =	CK. R/S	1st S/N USED ON				
KATO S/N P9519		DATE	SCALE	DRWG. NO.	SH.	OF			
DATE 7/1/83	SIGN JB	TITLE		412-00047-00					
		REGULATOR DIMENSIONS							



767-92525-23



SR4 VOLTAGE REGULATOR WITH EMI-248 120VOLT SENSING

UF/OV 260A. UNDERFREQUENCY 120 VOLT SENSING

AUTO/MANUAL CONTROL 120 VOLT POWER

SEE DRAWING #412-0016B-01 FOR EMI FILTER MODIFICATION.

\* SENSING TRANSFORMER NOT SUPPLIED BY KATO ENGINEERING 120 VOLT SECONDARY VOLTAGE IS REQD

To PMG  
To EXCITER FIELD

FROM GENERATOR LEADS

TO LOAD

CERTIFIED FOR		<b>KATO ENGINEERING</b> RELIANCE ELECTRIC			C					
<i>Carolina Tractor</i>		DATE 6-9-83			B					
P.O. 135 000		SCALE 2	MATL		A	32965	MB	MB	72	9-20-84
KATO S/N 89519		PATT.	1st S/N 89519		ORIGINAL	MB	MS	72		6-10-83
DATE 4/24/84	SIGN JD	TITLE GENERATOR CONTROLS			REV	ECO	ENGR	DR	CK	DATE
					DRAWING NUMBER SH 1 OF 1					
					767-92525-23					

89519 076