

TYPE K OPERATING COILS

AND EXTERNAL RESISTOR REQUIREMENTS

DRN. A. Reid
DATE April 4, 1952

TRC.
DATE

CK'D John Stone
DATE Mar 25, 1952

APP. R. Burns
DATE Mar 31, 1952

SCALE

S.O.

NEXT ASSEM. NO.



I-T-E CIRCUIT BREAKER CO.
PHILADELPHIA, PENNA. U.S.A.

175091
SHEET 1 OF 13

TOOL NUMBERS

REVISIONS

5 REDRAWN 3-27-52 JAR

6

INDEX SHEET

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- Sheet -2. KA- Solenoid Coil (Slate Base)
- Sheet -3. KB-KC-Solenoid Coil (Slate & Metal Base)
- Sheet -4. KA- Relay Holding Coil (Slate Base)
- Sheet -5. KB-KC Relay Holding Coil (Slate & Metal Base).
- Sheet -6. KA- Relay Pickup Coil (Slate Base).
- Sheet -7. KB-KC-Relay Pickup Coil (Slate & Metal Base).
- Sheet -8. KA-KB-KC- Undervoltage Coil (Slate Base) and KB-KC (Metal Base).
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- Sheet -10. KA-Relay Coil (Metal Base).
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- Sheet -12. KA-KB-KC- Reversal Coil (Slate & Metal Base).
- Sheet -13. KA Undervoltage Coil (Metal Base).

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3 Send Revised copies to:

- D. Trasatti - M5-19 -1
- A. Brooks - M5-28 -2 -(1 copy to wiremen).
- R. Burns - M2-12 -1
- A. Reid - M2-22 -1
- G. Perkins - M2-20 -1
- Fire & File - M2-21 -2
- G. McGrory - M2-7 -1
- Eastern Power Devices

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TYPE K OPERATING COILS AND

EXTERNAL RESISTOR REQUIREMENTS

2

DRN. A. Reid
DATE 3-24-1950

TRC.
DATE

CKD
DATE

APP. H. C. H.
DATE 1-31-1952

SCALE

S.O.



I-T-E CIRCUIT BREAKER CO.
PHILADELPHIA, PENNA, U.S.A.

175091

SHEET 2 OF 13

TYPE KA SLATE BASE
SOLENOID COIL 53222-
(NO RESISTOR REQUIRED)

NOTE
(SEE SHEET 9 FOR
KA METAL BASE COILS)

VOLTS	60 CYCLE		50 CYCLE		25 CYCLE		D.C.	
	WITHOUT U/V	WITH U/V	WITHOUT U/V	WITH U/V	WITHOUT U/V	WITH U/V	WITHOUT U/V	WITH U/V
6								
12								
15								
18								
24							B	
30								
32							C	
40								
48								
50								
60								
64								
72							G	
115	A15	B			A16	F		
120	A15	B			A16	F	A11	A1
125							A11	A1
150							A1	A1
208	A16	F		F	A11	J		
220	A16	F		F	A11	J		
230	A16	F		F	A11	J	A3	A3
240	A16	F		F	A11	J	A3	A3
250							A3	A3
300								
380		A17		J				
410	A11							
440	A11	J			A4	A4		
460	A11	J			A4	A4		
480	A1	A11						
500		A11						
550	A13	A1				A6		
600	A2							

NOTE: COIL CHANGES ON 4-POLE BRKRS. 125 V. DC USES 53222-J

TOOL NUMBERS

REVISIONS

7 REVISIONS 3-27-52 1/2

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DRN. A. Reid DATE 10/24/52	TRC. DATE	CKD DATE 10/28/52	APP. REILING DATE 11/15/52	SCALE
S.O.	I-T-E CIRCUIT BREAKER CO. PHILADELPHIA, PENNA. U.S.A.		175091 SHEET 3 OF 13	REV. 12

**TYPE KB & KC SLATE & METAL BASE
SOLENOID - AC & DC
(No Resistor Required)**

[illegible]

TOOL NUMBERS

REVISIONS

21 REVENUE 328-57-4

**TYPE K
OPERATING COILS
AND**

EXTERNAL RESISTOR REQUIREMENTS

4

OWN. A. Reid
DATE

TRC.
DATE

CRD
DATE

APP.
DATE

SCALE

1.0



I.T.E. CIRCUIT BREAKER CO.
PHILADELPHIA, PENNA. U.S.A.

175091

SHEET 4 OF 13

REV

**TYPE KA RELAY SLATE BACK
R-22 HOLDING COIL 53237-
EXTERNAL RESISTOR 53201-**

NOTE
(SEE SHEET 10 FOR KA METAL BACK
COILS) (FLOAT SW. ONLY)

VOLTS	60 CYCLE COIL RESIS.			50 CYCLE COIL RESIS.			25 CYCLE COIL RESIS.			D.C. COIL RESIS.		
	ITEM	ITEM	OHMS	ITEM	ITEM	OHMS	ITEM	ITEM	OHMS	ITEM	ITEM	OHMS
6												
12												
15												
18												
24										P		
30												
32												
40												
48										C		
50												
60										J		
64												
72												
115	Q	-	-	P	-	-	D	-	-			
120	Q	-	-	P	-	-	D	-	-	A	H	100
125										A	H	100
150												
208												
220	D	-	-	Q	-	-	A	-	-			
230	D	-	-	C	-	-	A	-	-	A	A1	30
240	D	-	-	C	-	-	A	-	-	A	A1	30
250										A	A1	30
300												
380	E	A44	2500	C	A1	3000	D	A13	3500			
440	E	A1	3000	C	A13	3500	D	A31	4500			
460	E	A1	3000	C	A13	3500	D	A31	4500			
480	E	A13	3500	C	A22	4000	D	A5	5000			
500												
550	E	A5	5000	C	A5	5000	D	A57	6000			
600												

TOOL NUMBERS

REVISIONS

TYPE K OPERATING COILS AND

EXTERNAL RESISTOR REQUIREMENTS

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DRN. A. Reid DATE 10-12-1950	TRC. DATE	CKD DATE	APP. DATE	SCALE
S.O.	 I-T-E CIRCUIT BREAKER CO. PHILADELPHIA, PENNA. U.S.A.		175091 SHEET 5 OF 28	

TYPE KB OR KC RELAY SLATE & METAL BASE
R-14 HOLDING COIL 53224-
EXTERNAL RESISTOR 53201- (Float Sv. Only)

VOLTS	60 CYCLE			50 CYCLE			25 CYCLE			D.C.		
	COIL ITEM	RESIS. ITEM	OHMS	COIL ITEM	RESIS ITEM	OHMS	COIL ITEM	RESIS ITEM	OHMS	COIL ITEM	RESIS ITEM	OHMS
6												
12												
15												
18												
24										B	-	-
30										C	-	-
32												
40												
48										E	-	-
50												
60												
64										F	-	-
72												
100				B								
115	B	-	-	C	-	-	D	-	-			
120	B	-	-	C	-	-	D	-	-	E	H	1000
125				C	-	-				E	H	1000
150												
208	D	-	-									
220	D	-	-	E	-	-	G	-	-	E	J	2000
230	D	-	-	E	-	-	G	-	-	D	J	2000
240	D	-	-	E	-	-	G	-	-	D	J	2000
250	E	-	-							D	J	2000
300												
380	D	A44	2500	E	A1	3000	G	A24	3500			
400				E	A1	3000						
415				E	A1	3000						
440	D	A1	3000	E	A24	3500	G	A31	4500			
460	D	A1	3000	E	A24	3500	G	A31	4500			
480	D	A24	3500	E	A22	4000	G	A5	5000			
500				E	A4	5500						
550	D	A5	5000	E	A5	5000	G	A57	6000	A1	A31	2250
600	D	A5	5000									

TOOL NUMBERS

REVISIONS

21 SEP 24 1951 13 20 22 1/2

TYPE K OPERATING COILS FOR

8

EXTERNAL RESISTOR REQUIREMENTS

DRN. A. Reid	TRC.	CKD	APP. R. B. DITTEL	SCALE
DATE 10-1-50	DATE	DATE 10-25-52	DATE MAR. 28, 1951	

S.O.	 I-T-E CIRCUIT BREAKER CO. PHILADELPHIA, PENNA. U.S.A.	175091	REV.
			SHEET 8 OF 13

TYPE KA-KB-KC SLATE BASE & KB-KC METAL BASE
 UNDERVOLTAGE COIL 53225- (SEE SHEET 13 FOR KA METAL
 EXTERNAL RESISTOR 53201- BASE COILS)

TOOL NUMBERS

REVISIONS

VOLTS	60 CYCLE			50 CYCLE			25 CYCLE			D.C.		
	COIL	RESIS		COIL	RESIS		COIL	RESIS		COIL	RESIS	
	ITEM	ITEM	OHMS	ITEM	ITEM	OHMS	ITEM	ITEM	OHMS	ITEM	ITEM	OHMS
6										A18	-	-
12										C	-	-
15												
18												
24										E	-	-
30												
32												
40												
48										A14	-	-
50												
60												
64												
72												
75										A1	-	-
100										A2		
115	D	-	-	A16	-	-	A6	-	-			
120	D	-	-	A16	-	-	A6	-	-	A2	-	-
125										A2	-	-
150										A2	A2	700
208	A6	-	-									
220	A6	-	-	A11	-	-	A14	-	-	A2	A35	1500
230	A6	-	-	A11	-	-	A14	-	-	A2	J	2000
240	A6			A11	-	-	A14	-	-	A2	J	2000
250	A11									A2	J	2000
265	A11											
300	A9											
350	A10											
380	A10	-	-	A14	-	-	A7					
400				A17								
410	A12	-	-									
440	A14	-	-	A19	-	-	A2					
460	A14	-	-	A19	-	-	A2					
480	A17	-	-	J	-	-	A21					
500												
515	J			A1								
525							A22					
550	A19	-	-	A1	-	-	A22					
600	J						A20			A2	A56	650
125										J	A3	550
250										A20	B7	220

UNDERVOLTAGE LOCKOUT

9

SCALE

PREV
8

③ REG. N. 3.27-53 4K

TYPE K OPERATING COILS AND

10

EXTERNAL RESISTOR REQUIREMENTS

DRN. A. Reid
DATE 10/15/50

TRC.
DATE

CK'D
DATE

APP. R. B. Smith
DATE

SCALE

S.O.



I-T-E CIRCUIT BREAKER CO.
PHILADELPHIA, PENNA, U.S.A.

175091

SHEET 10 OF 13

RE

E

TYPE KA METAL BASE
R-37 RELAY COIL 53262-
EXTERNAL RESISTOR 53201-

VOLTS	60 CYCLE COIL RESIS.			50 CYCLE COIL RESIS.			25 CYCLE COIL RESIS.			D.C. COIL RESIS.		
	ITEM	ITEM	OHMS	ITEM	ITEM	OHMS	ITEM	ITEM	OHMS	ITEM	ITEM	OHMS
6												
12												
15												
18												
24												
30												
32												
40												
48										A	A78	75
50												
60												
64												
72												
115	H	-	-				A9	-	-			
120	H	-	-				A9	-	-	D	A3	550
125										D	A3	550
150												
208	D	-	-									
220	J	-	-				A10	-	-			
230	J	-	-				A10	-	-	A8	J	200
240	J	-	-				A10	-	-	A8	J	200
250										A8	J	200
300												
380												
415				E	-	-						
440	A1	-	-				B	-	-			
460	A1	-	-				B	-	-			
480	A2	-	-				B	-	-			
500												
550	A	-	-				A4	-	-			
600	A3	-	-				A5	-	-			

TOOL NUMBERS

REVISIONS

81222-10-1-50

TYPE K OPERATING COILS AND

EXTERNAL RESISTOR REQUIREMENTS

DRN. A. Reid
DATE 10/10/52

TRC.
DATE

CKD
DATE 10/28/52

APP. W. B. ...
DATE 10/23/52

SCALE

S.O.



I.T.E. CIRCUIT BREAKER CO.
PHILADELPHIA, PENNA, U.S.A.

175091

REV.

12

SHEET 11 OF 13

**TYPE KA-KB-KC SLATE BASE &
KB-KC METAL BASE (No Res. Req.)
SHUNT TRIP COIL 53232-**

**TYPE KA METAL BASE,
SHUNT TRIP COIL 53261-
(No resistor required)**

	60 CYCLE ITEM	50 CYCLE ITEM	25 CYC. ITEM	D.C. ITEM	60 CYC. ITEM	50 CYC. ITEM	25 CYC. ITEM	D.C. ITEM
6				A3				
12				A8				
15								
18								
24				A1				
30				A1				
32				A1				
40								
48				G				H
50								
60								
64				G				
72								
100				A				
115	H	G	J	A	B		D	H
120	H	G	J	A	B		D	H
125	H	G		A				H
150								
200	J							
208	J				G			
220	J	J	C	A11 *B	D		A3	
230	J	J	C	A10 *C	D		A3	F
240	J	J	C	A10 *C	D		A3	F
250	J			A10 *C				F
300								
380	B	C						
440	C	C	A5		A3		J	
460	C	C	A5		A3		J	
480	C	A7			A3		J	
500		A7						
550	D		A6	A13	E		C	
600	D				E		C	

LATCHED CONTACTS

115				A9			
125				J			A8
230				A10			
24				A12			

NOTE: * Use with Old Style aux.

TOOL NUMBERS

REVISIONS

12 PEDCO-UL-3-2152 V/C

TYPE K OPERATING COILS AND

12

EXTERNAL RESISTOR REQUIREMENTS

DRM. A. Reid
DATE 3/1/52

TRC.
DATE

APP. J. E. H. H.
DATE 2/28/52

SCALE

S.O.



I-T-E CIRCUIT BREAKER CO.
PHILADELPHIA, PENNA. U.S.A.

175091

SHEET 12 OF 13

TYPE KA-KB-KC SLATE BASE & KB-KC
METAL BASE REVERSAL COIL 53209-
EXTERNAL RESISTOR 53201.

TYPE KA METAL BASE
REVERSAL COIL 53265
EXTERNAL RESISTOR 53201.

VOLTS	COIL ITEM	D.C. RESISTOR ITEM	OHMS	COIL ITEM	D.C. RESISTOR ITEM	OHMS
6						
12						
15	A4	A54	10			
18	A4	B1	3			
24	C	-	-			
30				E		
32	D	A14	6			
40	A1	A10	10			
48						
50	A1	A36	20			
60						
64						
72	D	A50	35			
100	J	B5	60	D	-	-
110						
115	J	A90	100			
120	B	-	-	A	-	-
125	B	-	-	A	-	-
150						
208						
220	B	A52	400			
230	B	A3	550	B	-	-
240	B	A3	550	B	-	-
250	B	A3	550	B	-	-
280	B	A2	700			
300	B	A41	750			
375	A	A8	1200			
380	A	A8	1200			
440						
460						
480						
500						
550						
600	* A3	B2	1800			

NOTE * Use 1-1800 Ohm resistor (600 M25) in series, also one 3500 ohm resistor across coil as a discharge resistor.

TOOL NUMBERS

REVISIONS

10 PEDERSON 3-27-52 AC