о

о

о

п

п

р

с

1
2
3
4

мт

1
2
3

нс

1
2
3

нф

1
2
3

он

он

оо

оп

ó ú ор

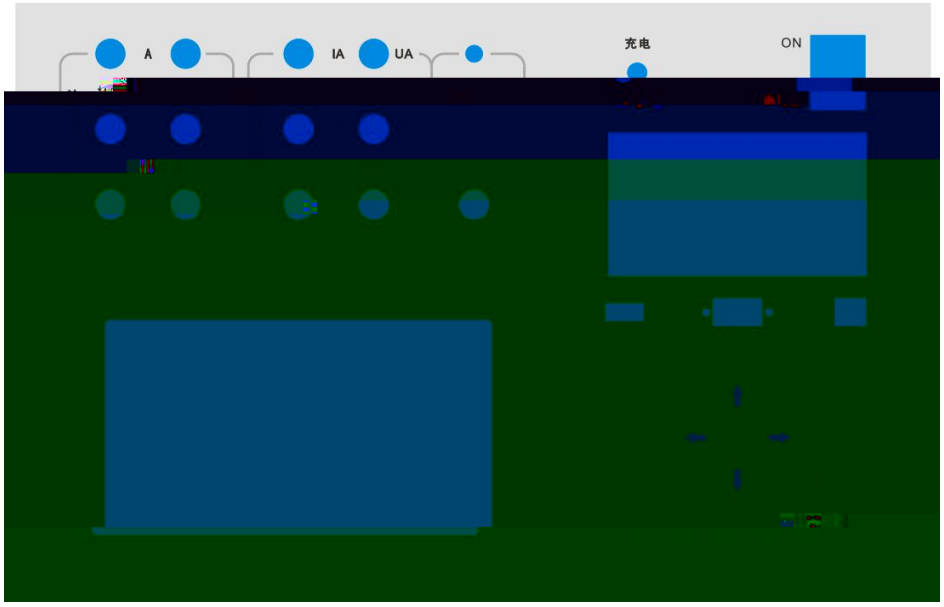
ор

ос

ос

Σ





(1) ( )

(2)

(3)

(4)

(5)

(6)

(7) USB USB

(8) USB U U

(9)

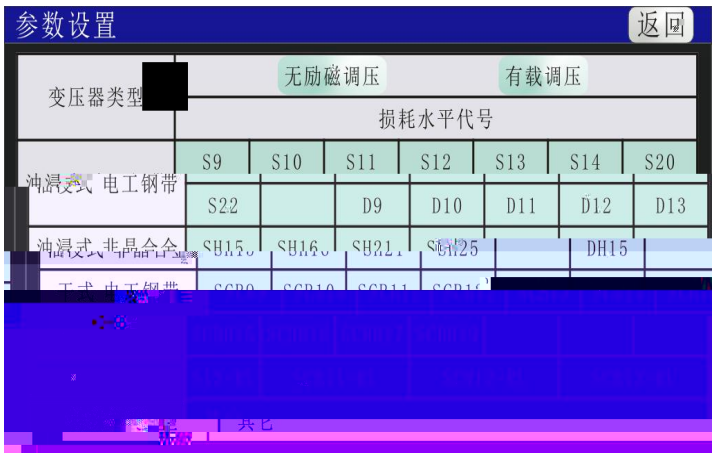
(10)

1



“ ↑ ” “ ↓ ” “ ”

“ ↑ ” “ ↓ ” “ → ” “ ← ”



( ) ” “

GB/T6451

15 30

, 0.2

10kV

10／0.4 , ,

, , , ,

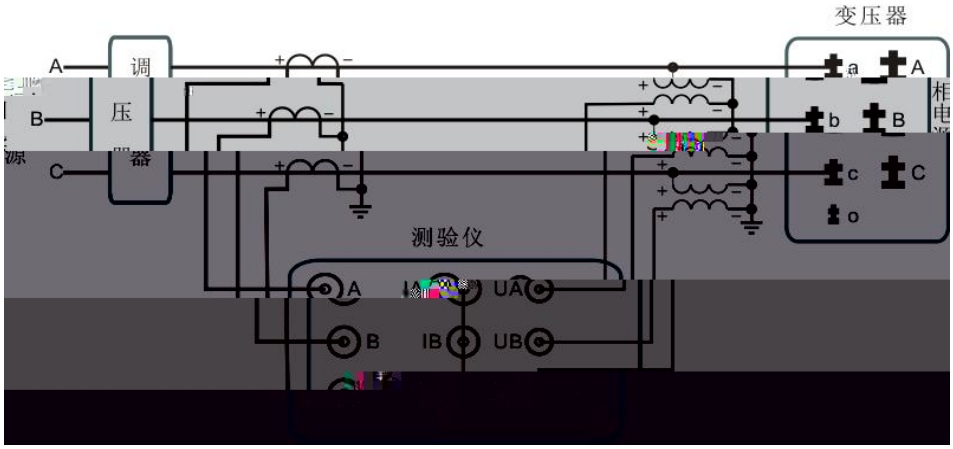
, , ,

1

2

“ Ua ” “ Ub ” “ Uc ” “ A ” “ B ” “ C ” 100A 5A)

“ IA ” “ IB ” “ IC ” “ UA ” “ UB ”



4

“ ” → “ ” 5

(1)
(2)
(3)
(4)

(1) A B C A B C
(2) P
(3)
(4)
(5) ¦ ¦ млд̂ ̂ × ó ¦ ¦π ¦ úк ¦
(1)
(2)
(3)

(1) $\frac{I_a+I_b+I_c}{3I_N} \times$ ó $\frac{U_N}{U'}$ úу × млд̂ ̂

(2)
(3)
(4) $L_{л}$ $L_{л}$ = ó$L_{л}$ π $L_{л}$ úк $L_{л}$

(5) $t_{л}$ Ґ $t_{л}$ Р ó $\frac{U_N}{U'}$ úу

(6)

$$= t_{л} \times \left(1 + \frac{U' - U}{U'}\right) \times \text{ώлфр} \quad \frac{f_n}{f} \quad \text{лфр ó} \frac{f_n}{f} \text{úн}$$

¦

(7)
(8) $t_{л}$ $t_{л}$ = ó $t_{л}$ π $t_{л}$ úк $t_{л}$

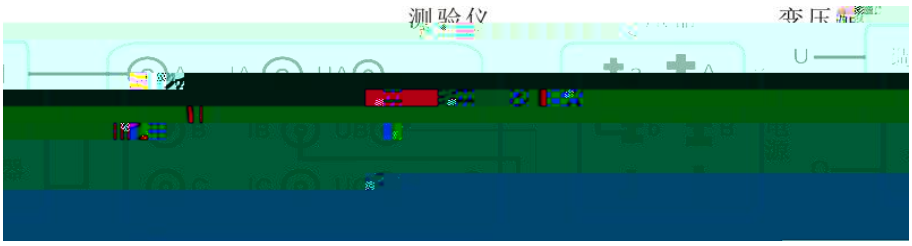
3

a d YN Y D ab bc ca

,

“ U ” “ O ” “ A ” “

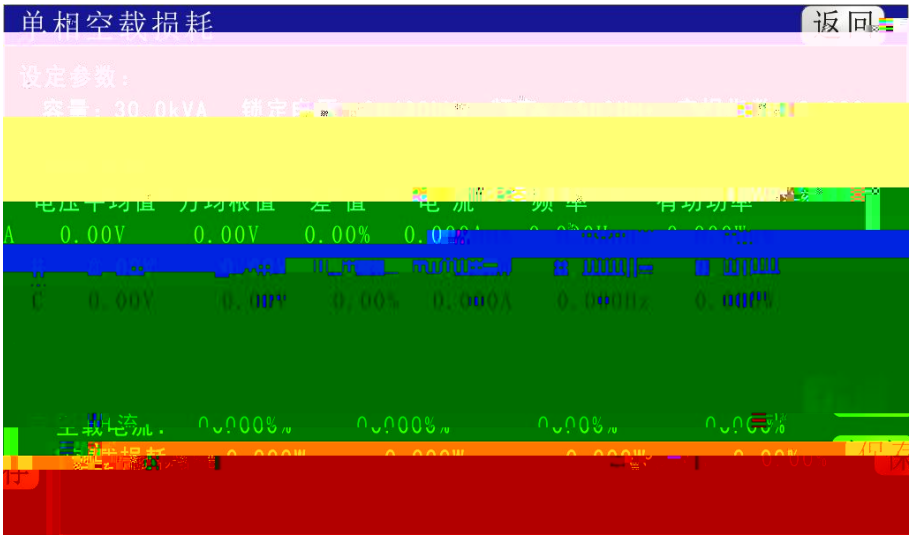
t „!lt#gx



13

ca “ ”

“ ” ca 14



14

“ ” “ ”

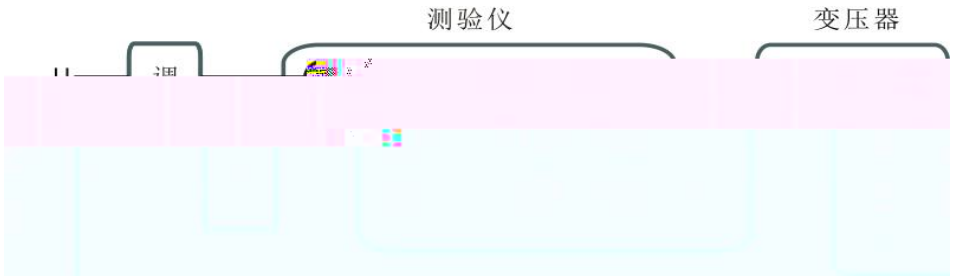
“ ”

b yn y Y D ab bc ca o

“U”“O” “A”“B” 100A 5A)

“IA”“UA” a “IB”“UB” b co BC

15 16

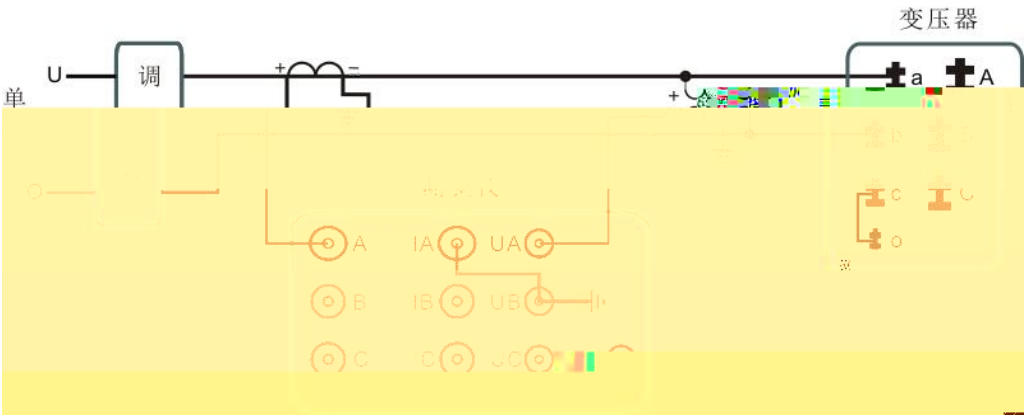


15



16

，17



17

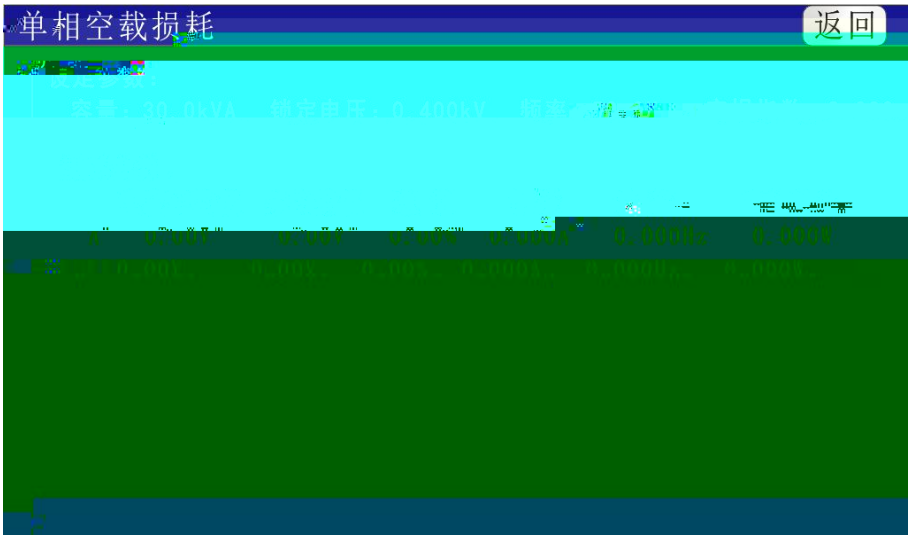
“ ”→“ ” 18



18

2/√

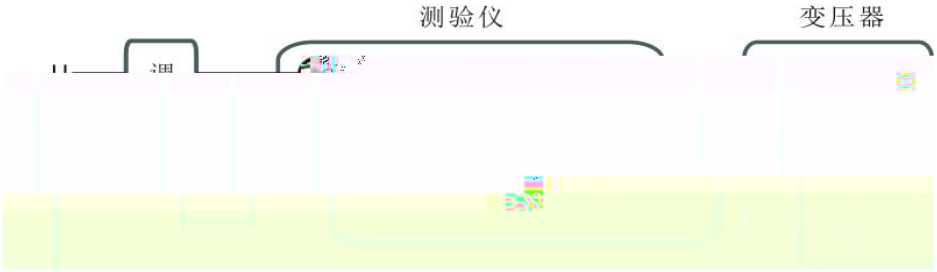
“ ” “ ” 19



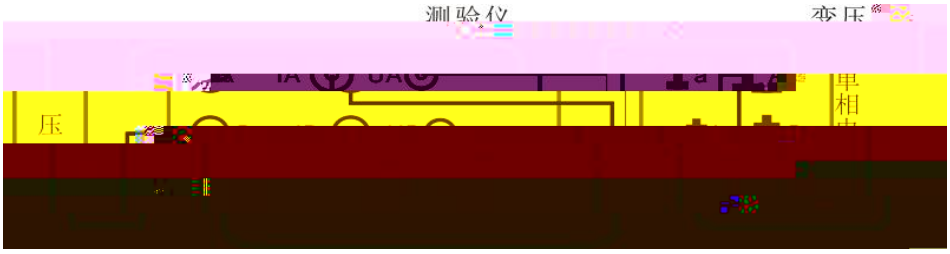
19

bc ao AC 20

21



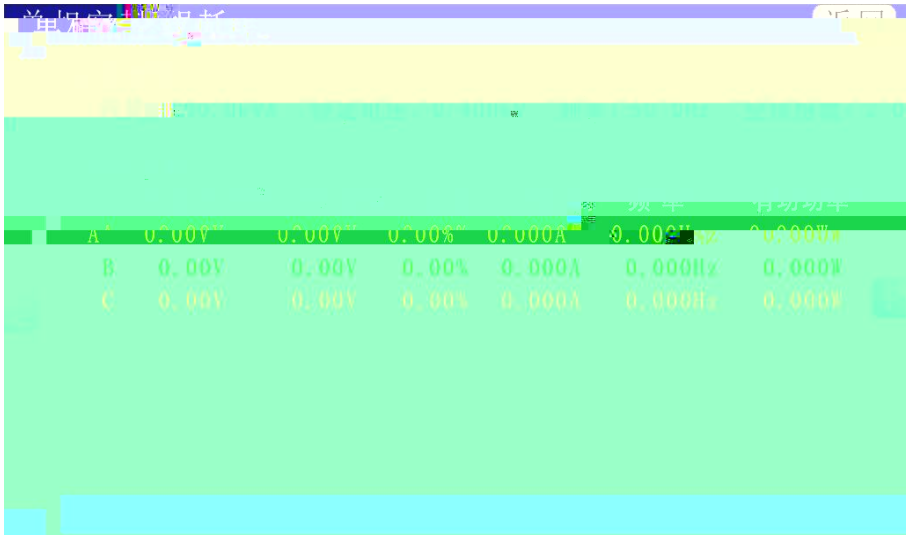
20



21

bc 2/√

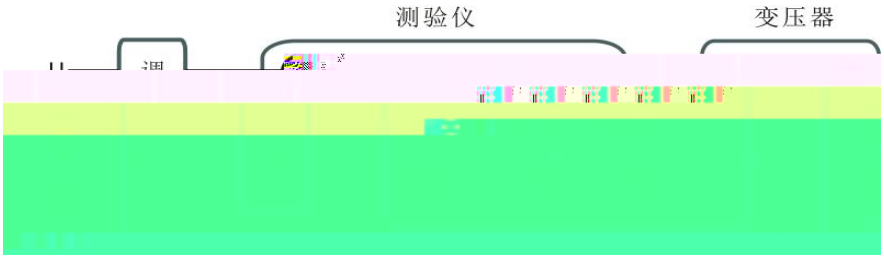
“ ” “ ” bc 22 ca



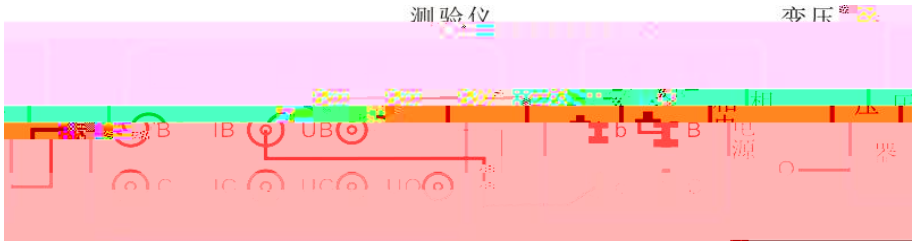
22

ca bo AB 23

24



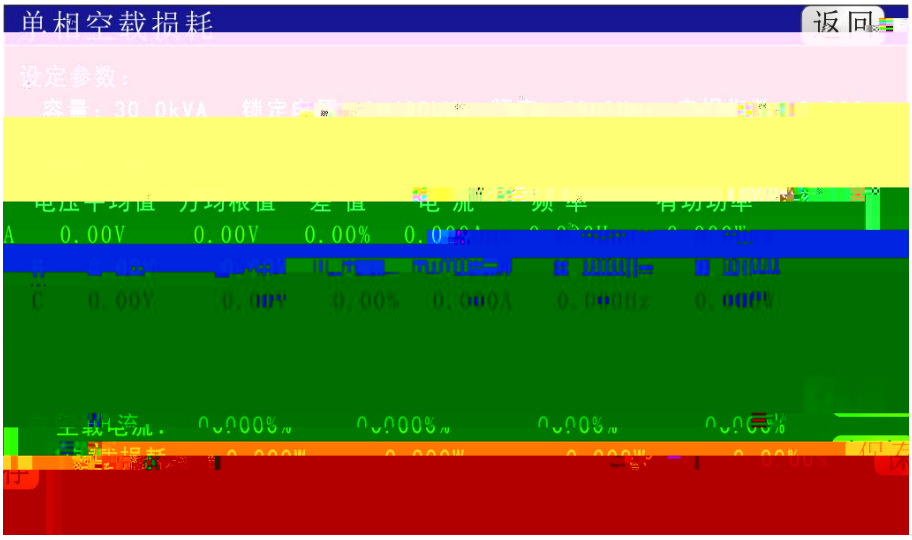
23



24

ca 2/√

“ ” “ ” ca 25



25

“ ” “ ”

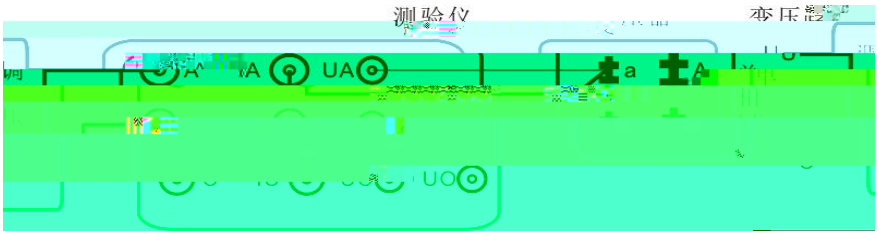
“ ”

4

“U”“0” “A”“B” 100A 5A)

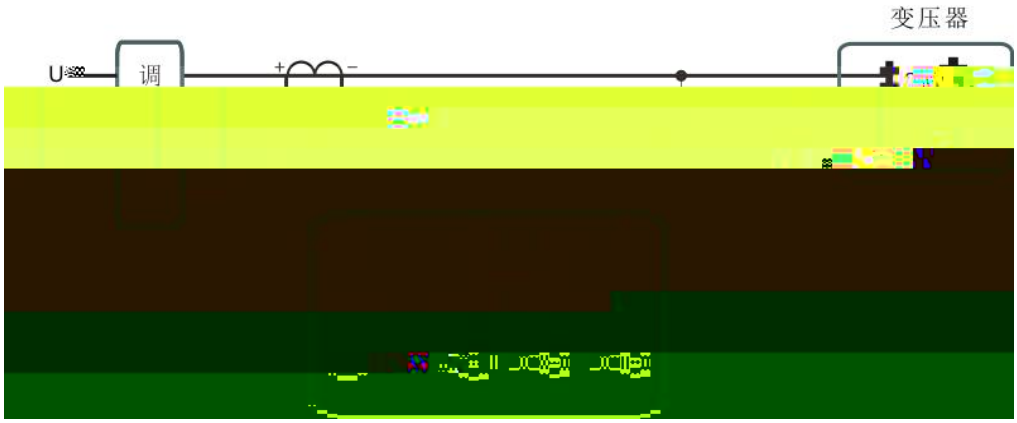
“IA”“UA” a “IB”“UB” x

26



26

, 27



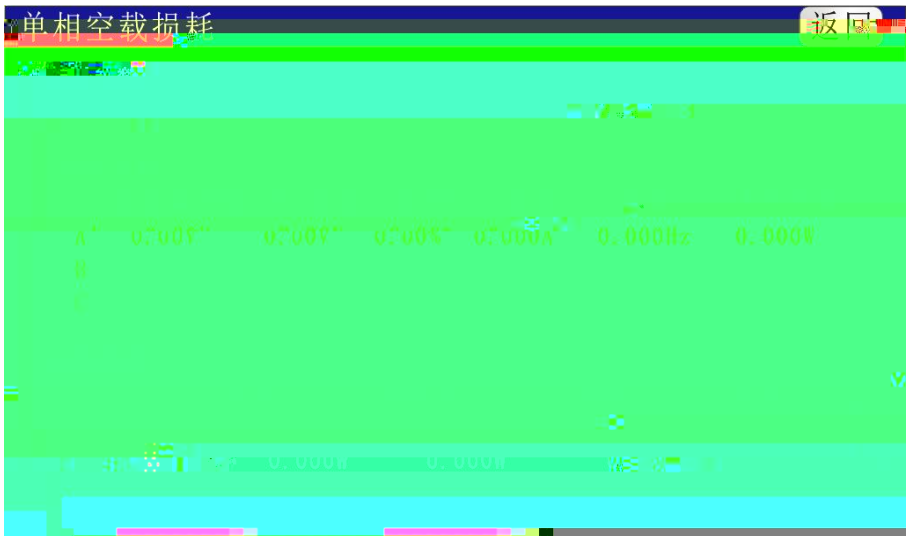
27

“ ” → “ ” 28



28

“ ” “ ” 29



29

“ ” “ ”

“ ”

，　　，

25　50

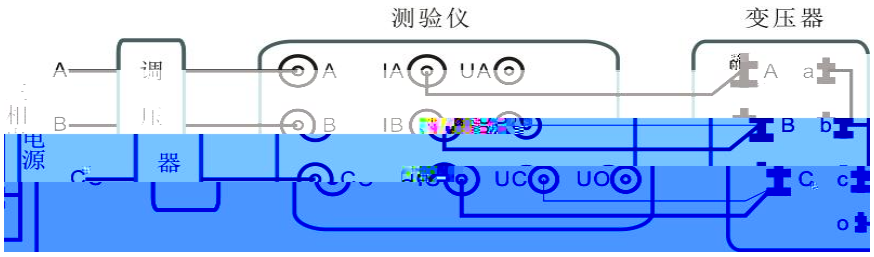
1

“ Ua ” “ Ub ” “ Uc ”　　“ A ” “ B ” “ C ”　100A　5A　)

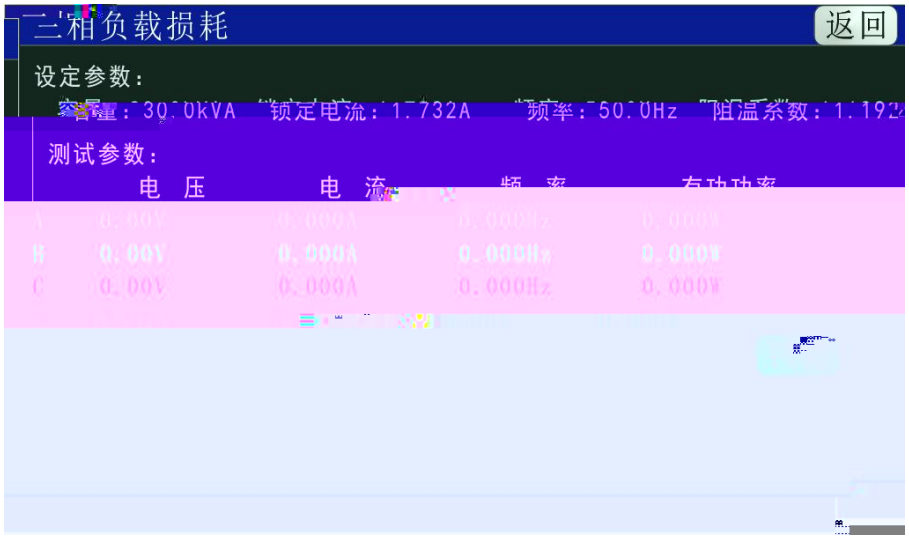
“ IA ” “ IB ” “ IC ”　“ UA ” “ UB ” “ UC ”

“ U0 ”　　“ U0 ”

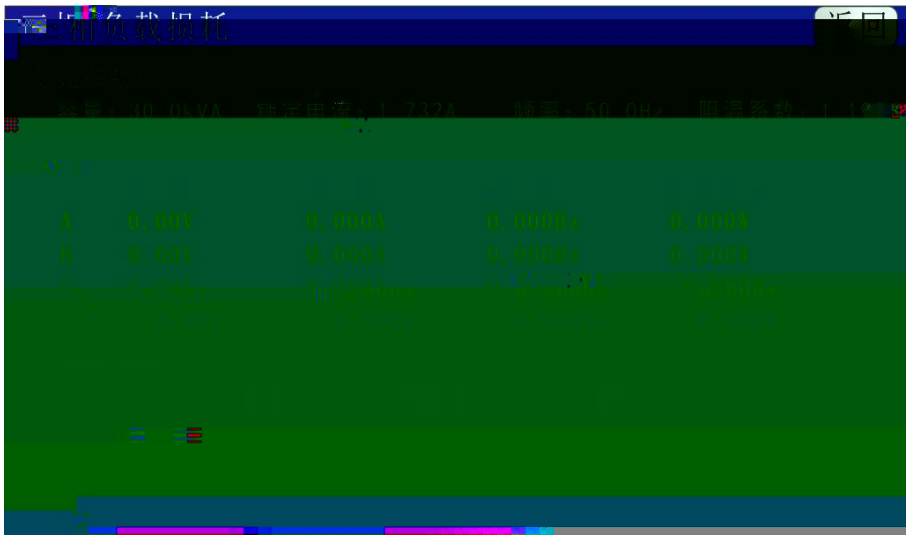
“ Uo ”　　30



“　　” →“　　”　　31



“　　”　“　　”



“ ” “ ”

“ ” (

)

(1)

(2) $\frac{225+T}{225+t}$

(3)

(4) K t T $\frac{235+T}{235+t}$

(1) A B C A B C

(2) P

(3)

(4)

(5)

(6)

(1)

(2)

(3)

(4)

(5)

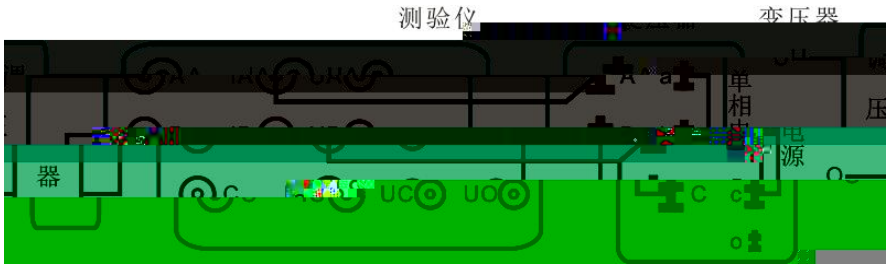
(6)

2

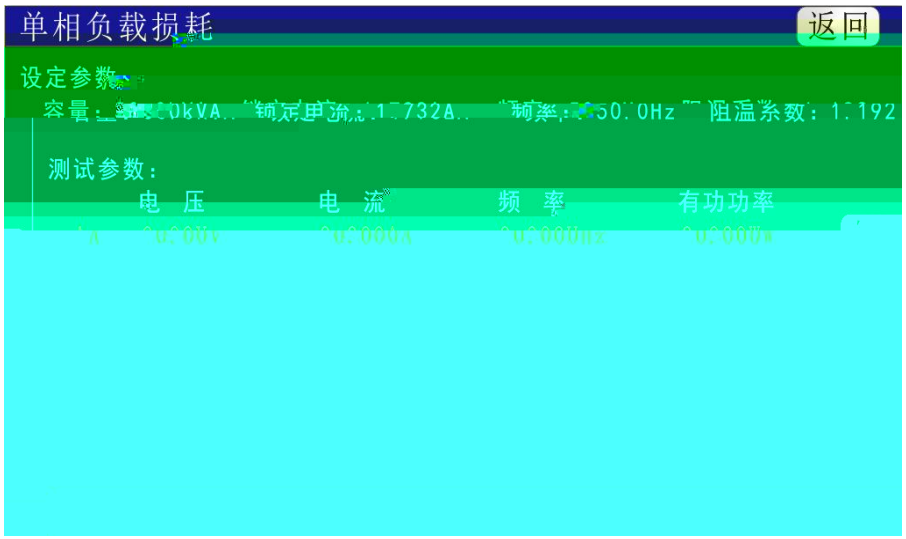
a D yn y d AB BC CA

33 “U”“0” “A”“B” 100A 5A)

“IA”“UA” “IB”“UB” B BC



“ ” →“ ” 34



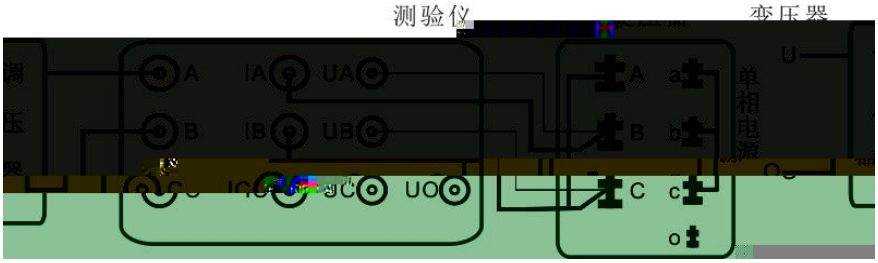
“ ” “ ” AB

35 BC



35

BC CA 36

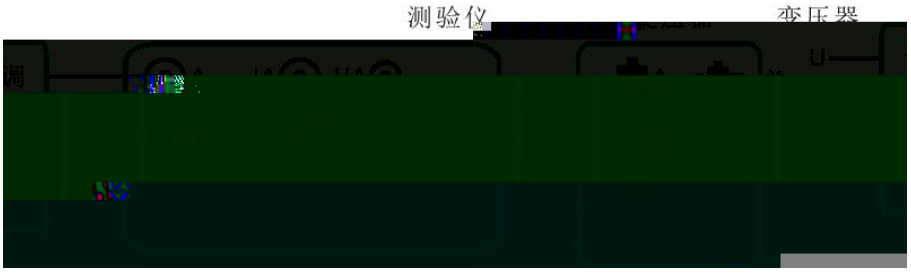


BC “ ” “ ” BC

37 CA



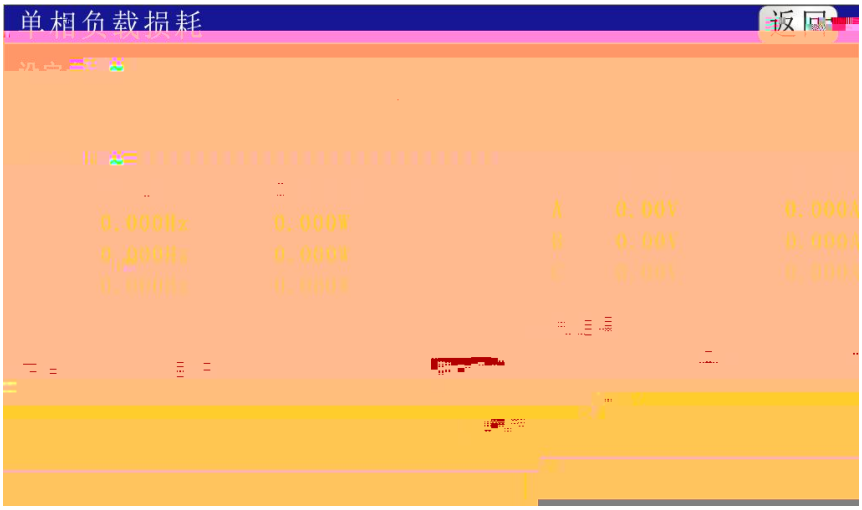
CA AB 38



38

CA “ ” “ ” CA

39



39

“ ” “ ”

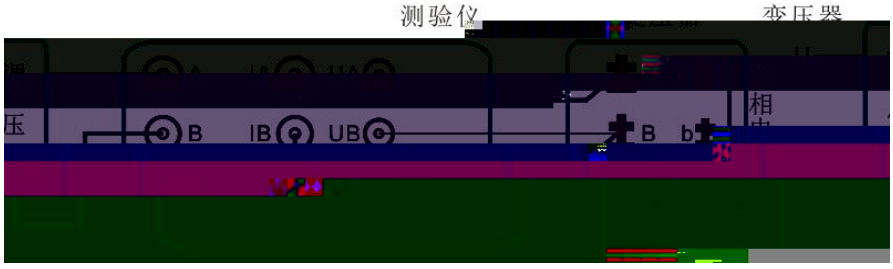
“ ” (

)

b Y yn y d AB BC CA

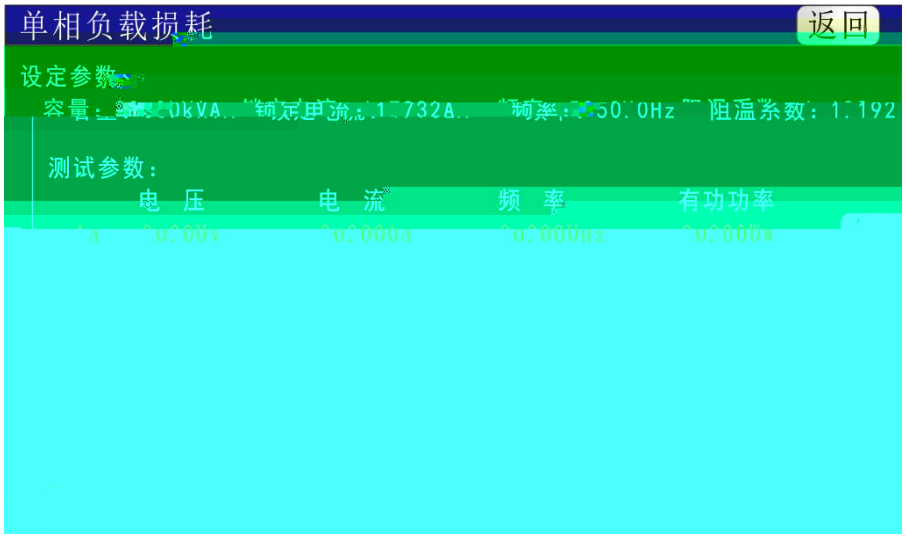
40 “U”“0” “A”“B” 100A 5A)

“IA”“UA” “IB”“UB” B



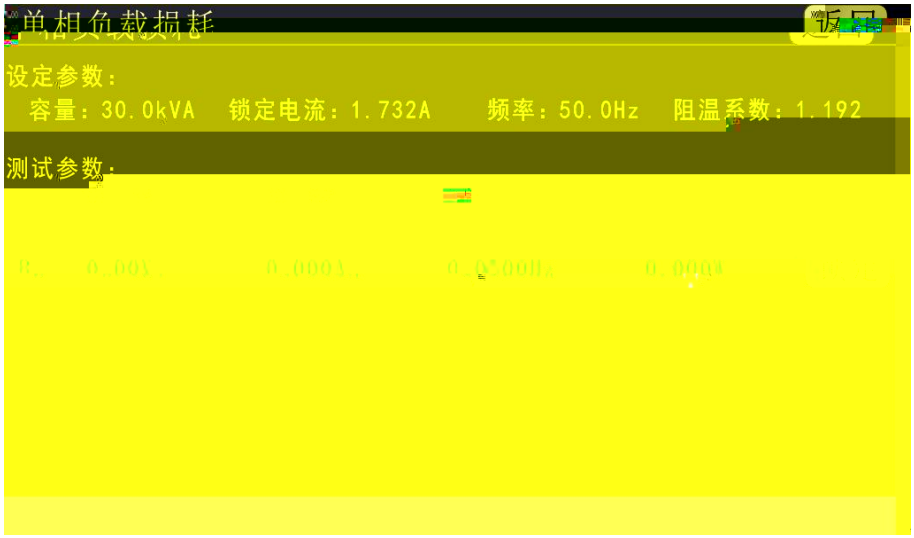
40

“ ” →“ ” 41



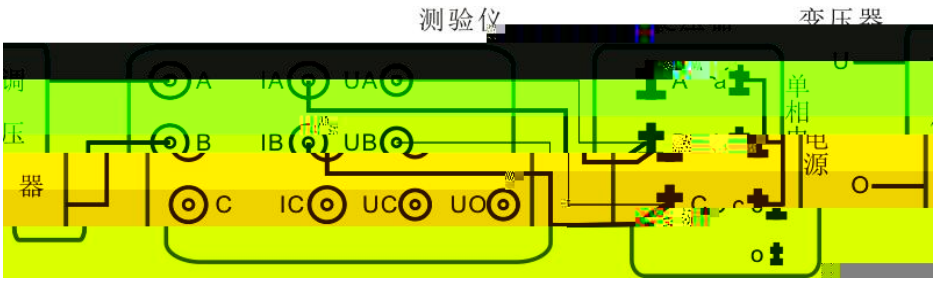
“ ” “ ” AB

42 BC



42

BC 43



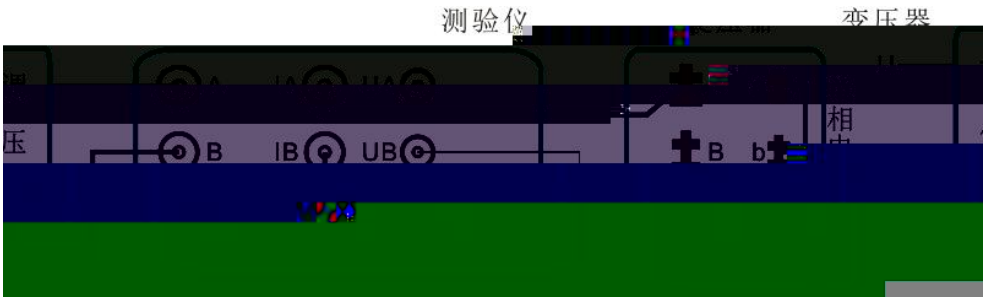
43

BC “ ” “ ” BC

44 CA

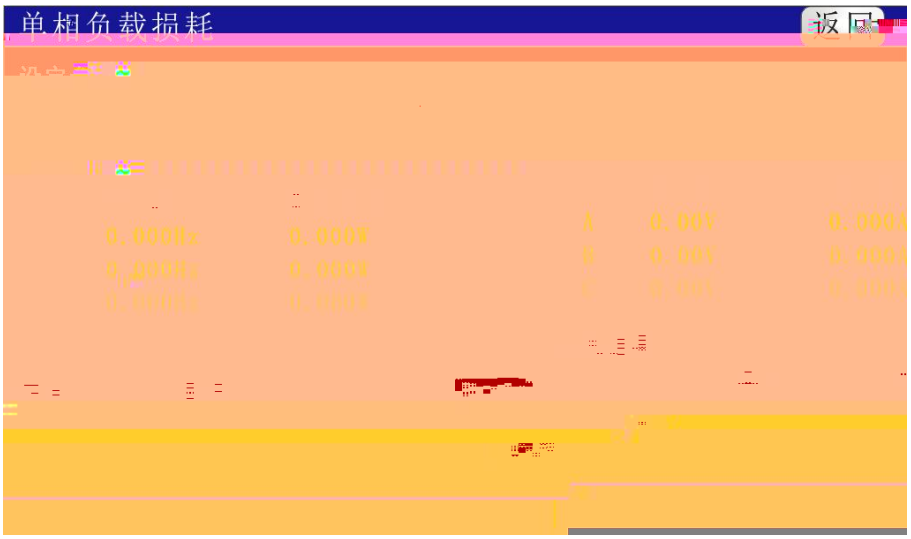


CA 45



CA “ ” “ ” CA

46



46

“ ” “ ”

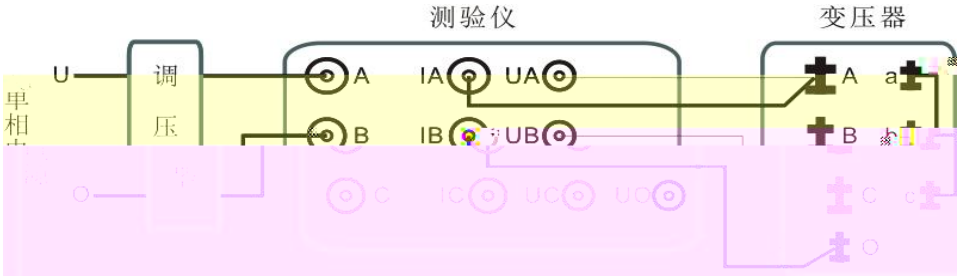
“ ” (

)

c YN yn d A0 B0 C0

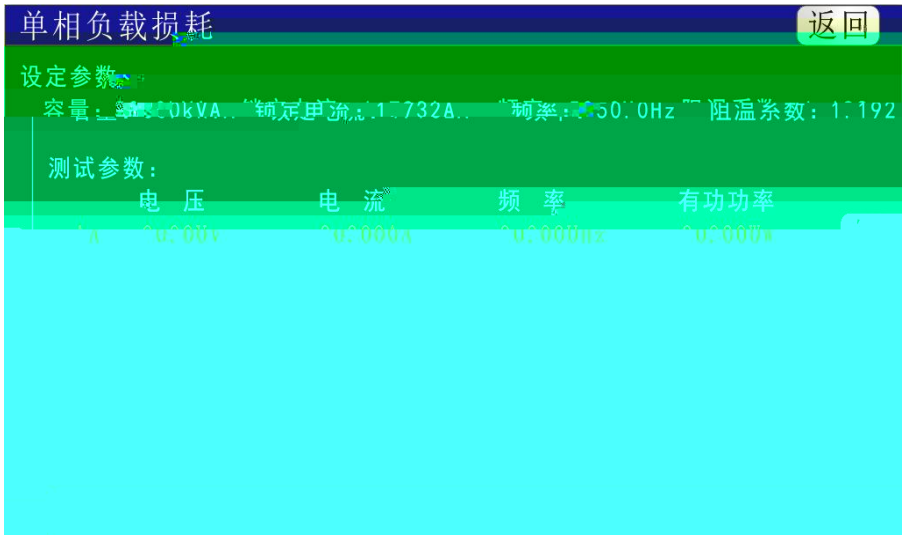
47 “U” “0” “A” “B” 100A 5A)

“IA” “UA” a “IB” “UB” 0



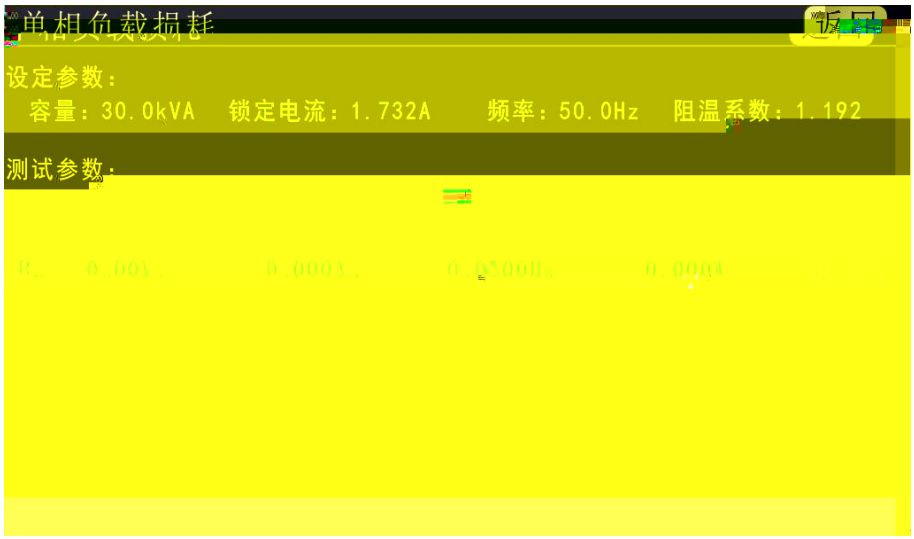
47

“ ” → “ ” 48



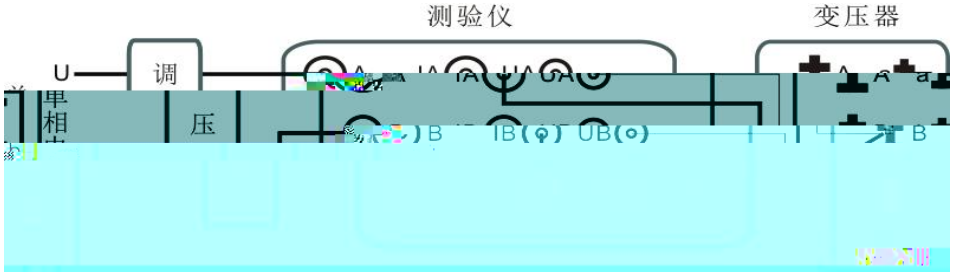
“ ” “ ” A

49 B



49

B0 50



50

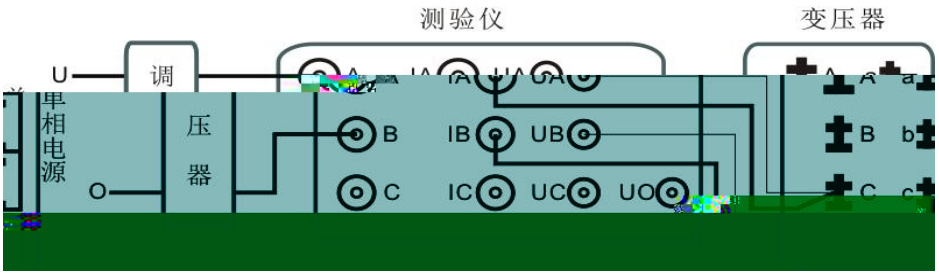
B0 “ ” “ ” B0

51 C0



51

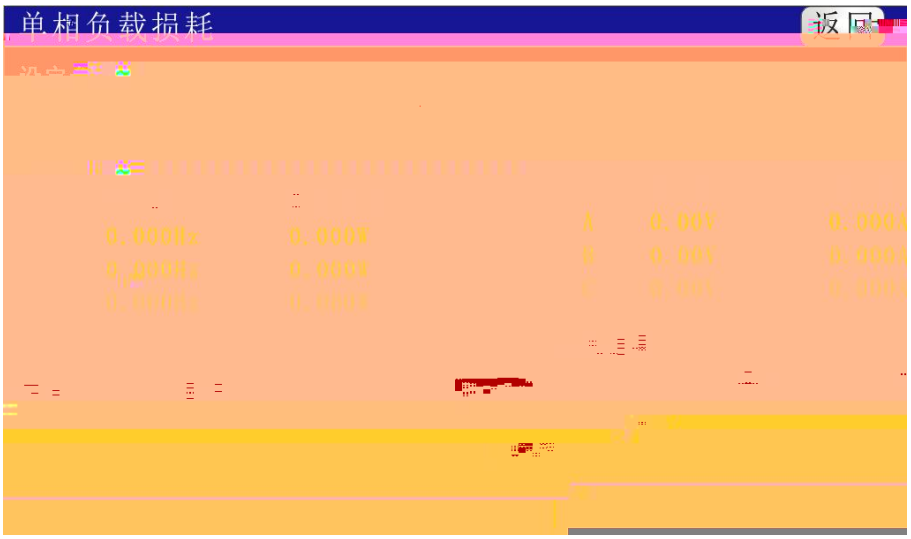
CO 52



52

CO “ ” “ ” CO

53



53

“ ” “ ”

“ ” (

)

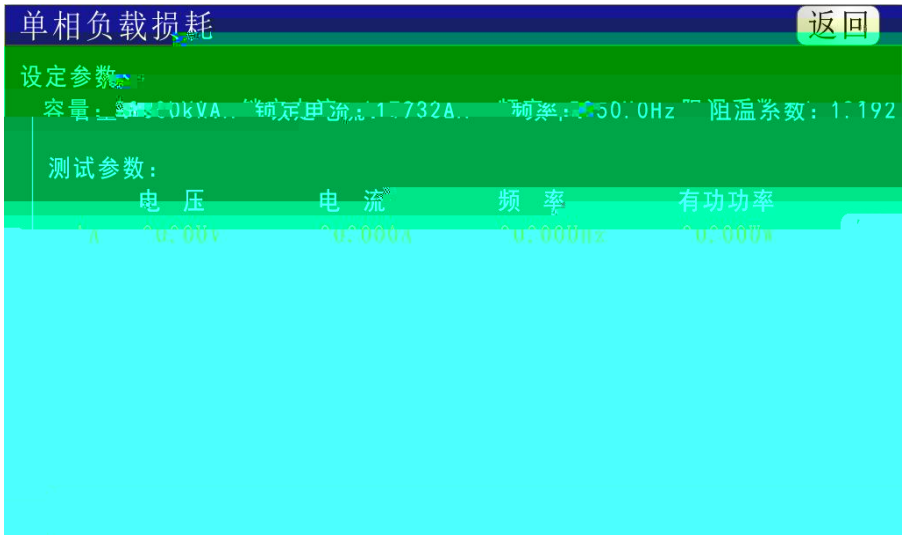
3

“U”“0” “A”“B” 100A 5A)

“IA”“UA” a “IB”“UB” 54

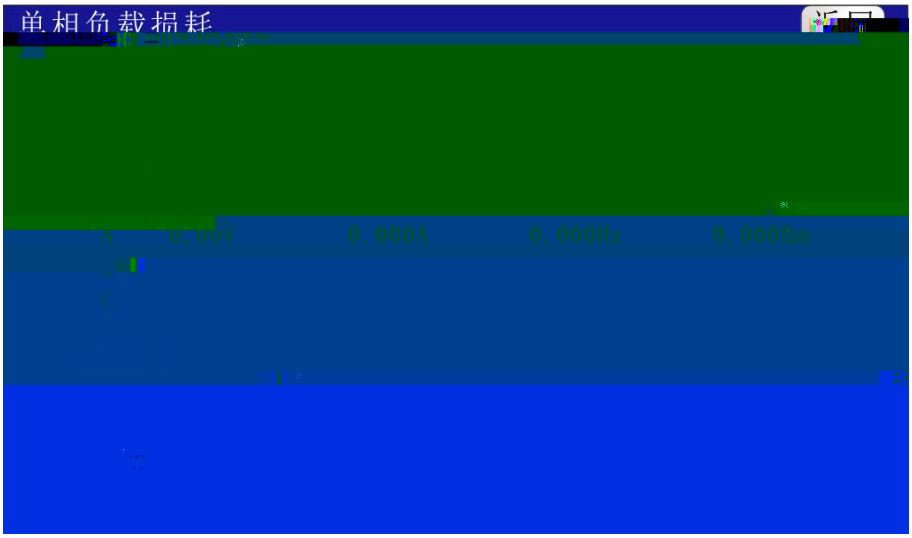


“ ” → “ ” 55



“ ” “ ”

56



56

“ ” “ ”

“ ”

，　　1%　20%

1

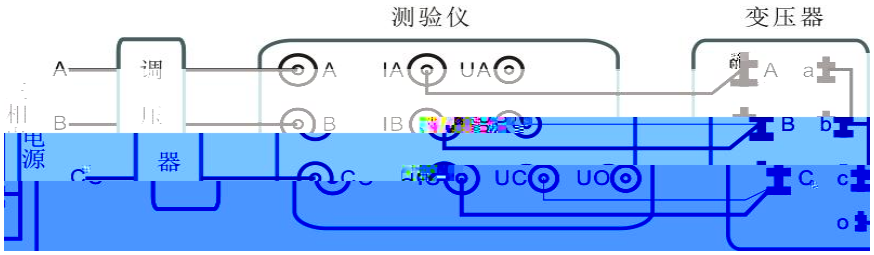
2

a　　“Ua”“Ub”“Uc”　　“A”“B”“C”　100A　5A　)

“IA”“IB”“IC”　“UA”“UB”“UC”

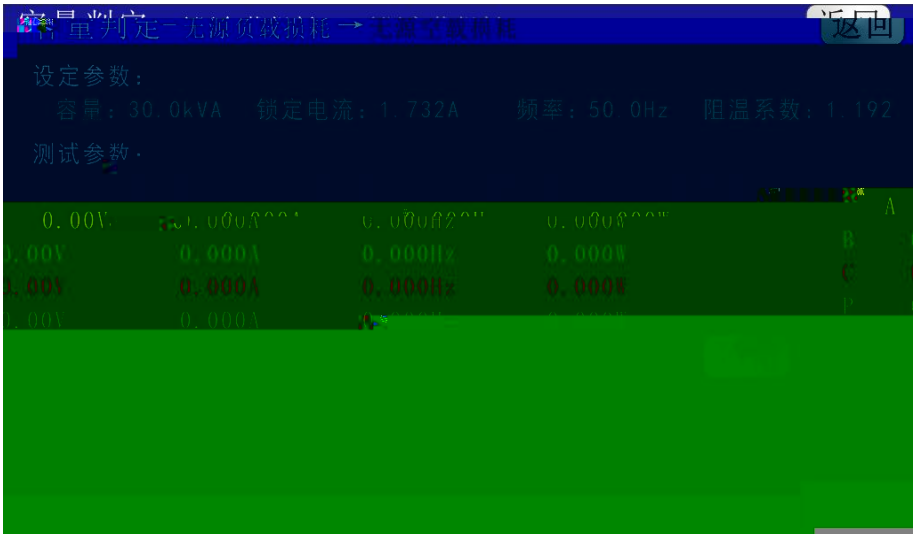
“U0”　　“U0”

“Uo”　　57



57

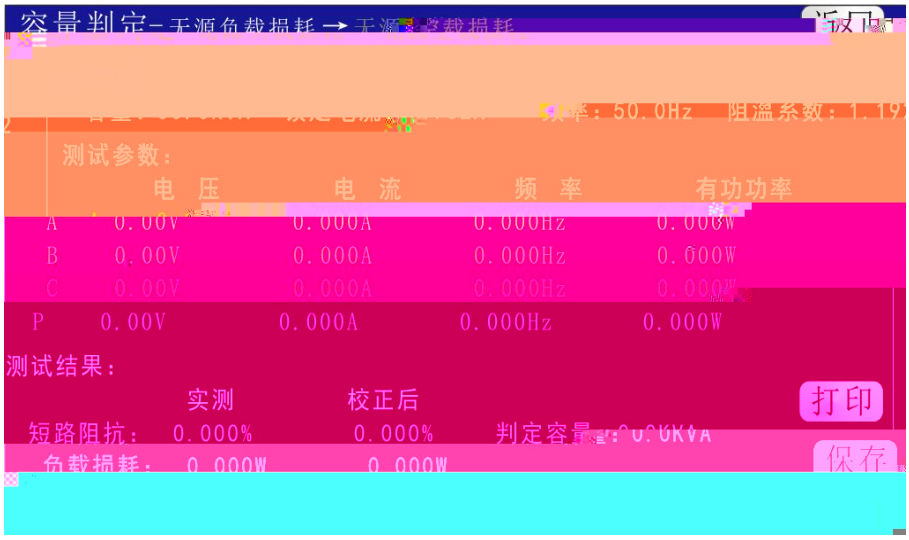
“　　”→“　　”　　58



58

“　　”　“　　”

59

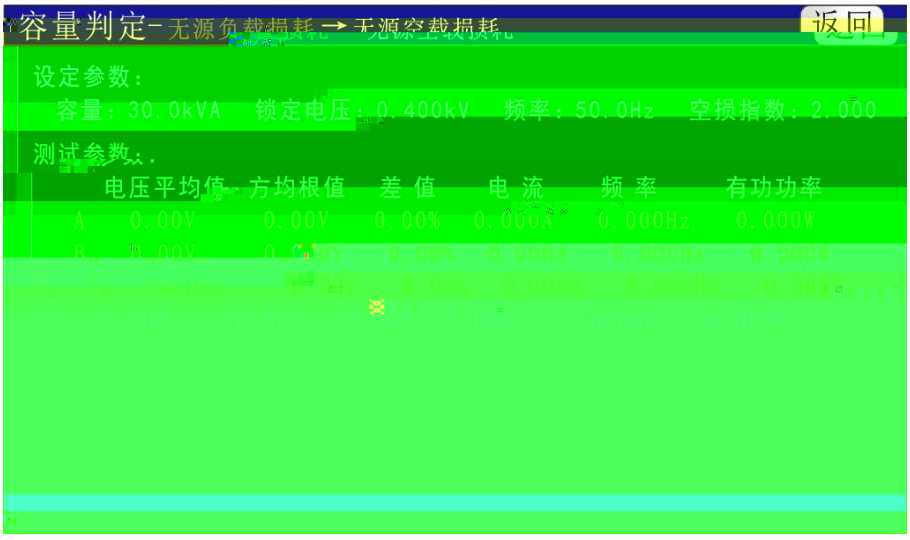


59

“ ” “ ”

“ ”

b “ ” “ ” 60

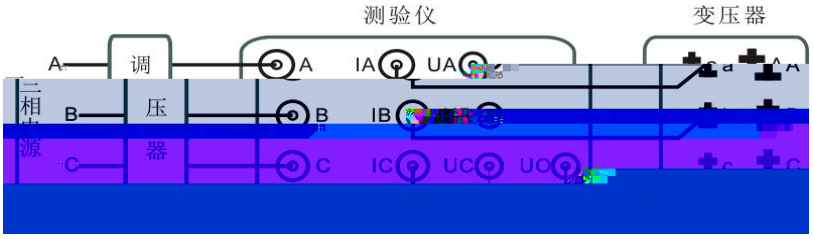


60

“ Ua ” “ Ub ” “ Uc ” “ A ” “ B ” “ C ” 100A 5A)

“ IA ” “ IB ” “ IC ” “ UA ” “ UB ” “ UC ”

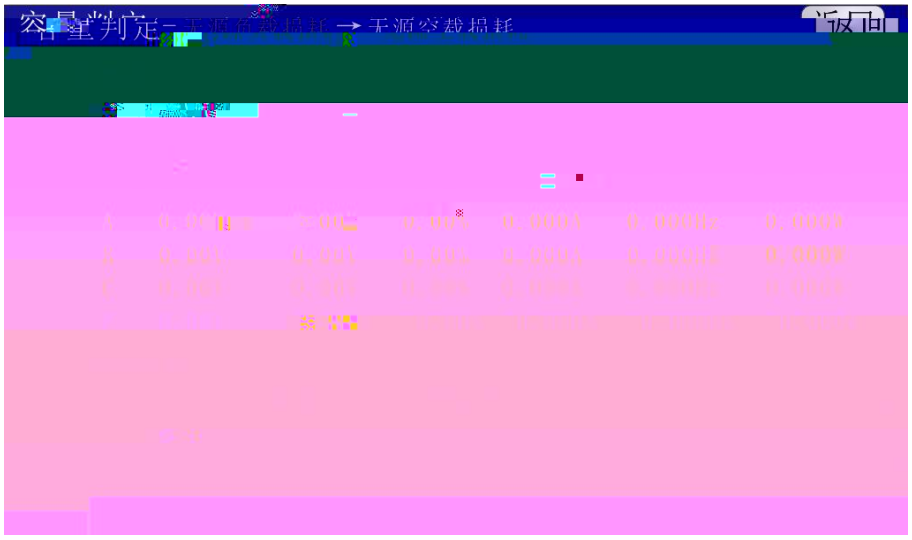
“ UO ” 61



61

“ ” “ ”

62



62

“ ” “ ”

“ ”

3

a “ U ” “ 0 ” “ A ” “ B ” 100A 5A)

• € %E #M° ñA€ð @P u"



67

“ ” “ ”

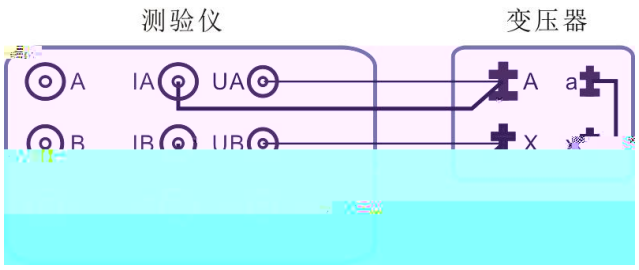
“ ”

“ ” “ ”

3

“IA”“UA” “IB”“UB”

68



“ ”


数据记录
总数：2
返回
序号
设备编号
测试类型
空载电流/短路阻抗
损耗
测试时间
1
HZHV001
空载测试
0.000%
0.000W
2021-02-12
2
HZHV002
空载测试
0.000%
0.000W
2021-02-17

(1) 10 “ ” “ ”

(2) “ ” “ ” “ ”

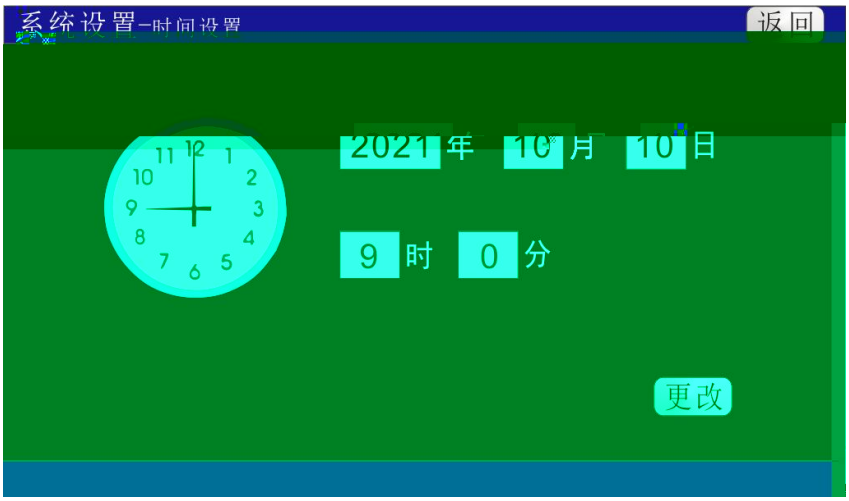
“ ”“ ” “ ”

(3)

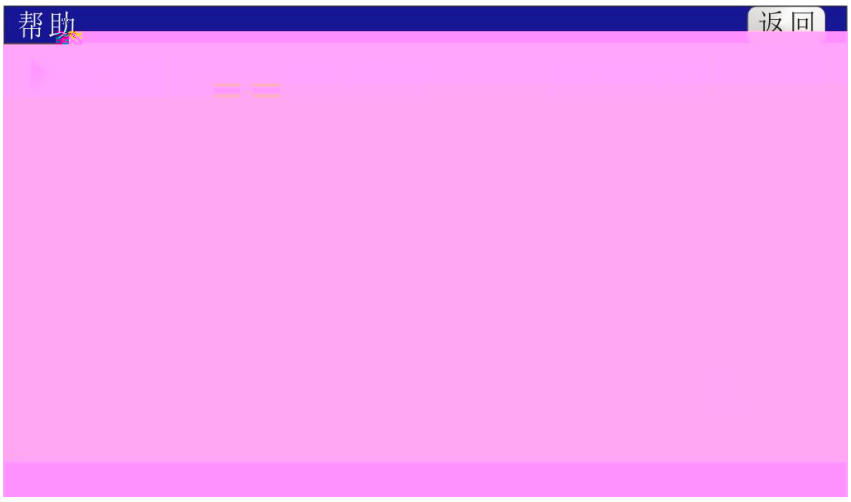
(4)

(5) U U U

(3)

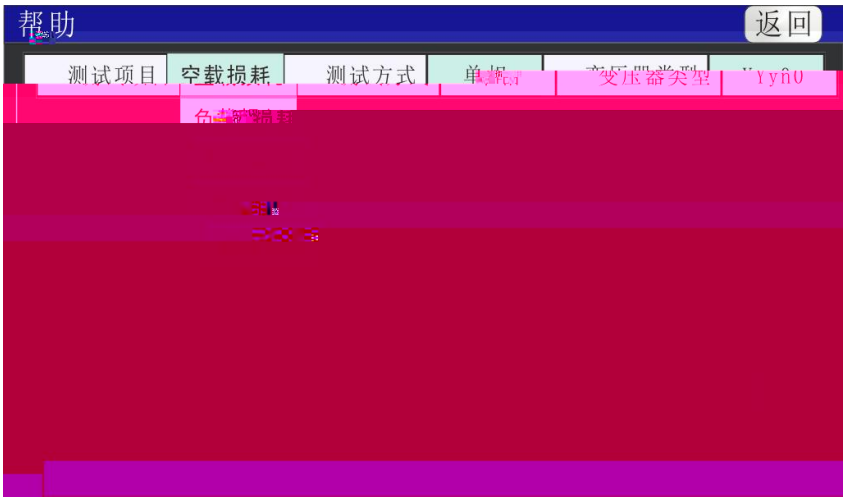


“ ”



(1)

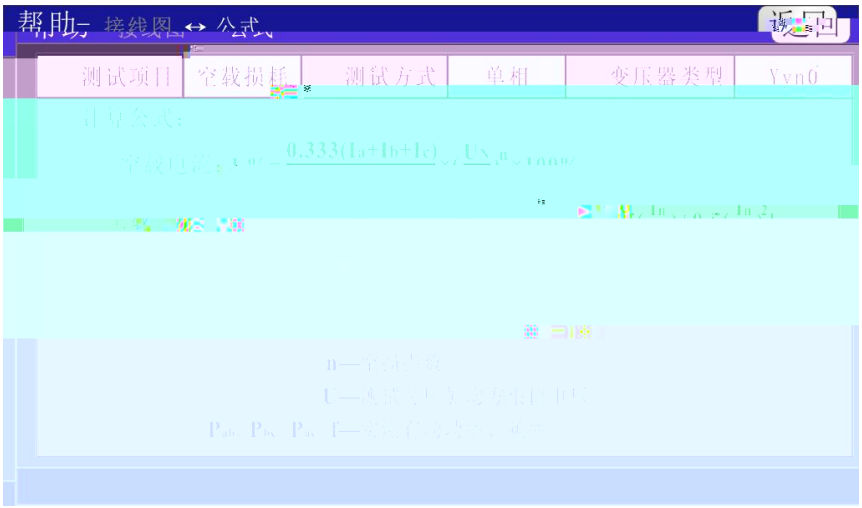
73



(2) “ ” 74


帮助- 接线图 ↔ 公式
返回
测试项目
空载损耗
测试方式
单相
变压器类型
Yyn0
接线图：
测验仪
变压器
单相电源
调压器

(3) 75


帮助- 接线图 ↔ 公式
返回
测试项目
空载损耗
测试方式
单相
变压器类型
Yyn0
计算公式：

	ó	ú	
1			1
2			1
3			1
4			1
5			2
6			1
7		2	1
8			1
9			3

	1) 2)
	1) 2) 3)
	1) 2) 3) ( ) 4

{ ′ ≥ {ь × Lã ̂ × Y кмлл

′

′ ≥ ×

′

∑

{ ≥ {ь × ó ¦ ã ̂ кмллú × óLʅкLьúн

¦ ʅБ ¦ ь × ó ¦ ã ̂ кмллú × óLʅкLьú

ь ×

× ×

6-10KV **30kVA-2500kVA**

kVA	W					W			%		
	S9	S10	S11	S12	S13 S13-RL	S9 S13/S13-RL Dyn11 Yzn11	Yyn0	S10 S13	S9	S13-RL	%
30	130	110	100	90	80	630	600	1.5	2.3	0.3	
50	170	150	130	120	100	910	870	1:0			

4.0

6-10KV **30kVA-2500kVA**

	W					W				
				S14		S20		S22		
kVA	S14	S20	S22	Dyn11 Yzn11	Yyn0	Dyn11 Yzn11	Yyn0	Dyn11 Yzn11	Yyn0	%
30	80	70	65	505	480					

6-10KV 30kVA-2500kVA

kVA	kW				kW				%	%
	SH15	SH16	SH21	SH25	SH15	SH16	SH21	SH25	SH15/ SH16 SH21/ SH25	
30	0.033	0.033	0.033	0.025	0.63/0.6	0.565/0.54	0.535/0.51	0.51/0.48	1.5	4.0
50	0.043	0.043	0.043	0.035	0.91/0.87	0.82/0.785	0.780.745	0.735/0.7	1.2	
63	0.050	0.050	0.050	0.040	1.09/1.04	0.98/0.935	0.93/0.89	0.88/0.84	1.1	
80	0.060	0.060	0.060	0.050	1.31/1.25	1.18/1.12	1.12/1.07	1.06/1.01	1.0	
100	0.075	0.075	0.075	0.060	1.58/1.5	1.42/1.35	1.35/1.285	1.27/1.215	0.9	
125	0.085	0.085	0.085	0.070	1.89/1.8	1.7/1.62	1.615/1.54	1.53/1.45	0.8	
160	0.100	0.100	0.100	0.080	2.31/2.2	2.08/1.98	1.975/1.88	1.87/1.78	0.6	
200	0.120	0.120	0.120	0.095	2.73/2.6	2.45/2.34	2.33/2.25	2.21/2.1	0.6	
250	0.140	0.140	0.140	0.110	3.2/3.05	2.88/2.74	2.735/2.61	2.59/2.47	0.6	
315	0.170	0.170	0.170	0.135	3.83/3.65	3.44/3.28	3.275/3.12	3.1/2.95	0.5	
400	0.200	0.200	0.200	0.160	4.52/4.3	4.07/3.87	3.865/3.675	3.66/3.48	0.5	
500	0.240	0.240	0.240	0.190	5.41/5.15	4.87/4.63	4.625/4.4	4.38/4.17	0.5	
630	0.320	0.320	0.320	0.250	6.2	5.58	5.3	5.02	0.3	4.5
800	0.380	0.380	0.380	0.300	7.5	6.75	6.415	6.075	0.3	
1000	0.450	0.450	0.450	0.360	10.3	9.27	8.8	8.34	0.3	
1250	0.530	0.530	0.530	0.425	12	10.8	10.26	9.72	0.2	
1600	0.630	0.630	0.630	0.500	14.5	13	12.4	11.745	0.2	
2000	0.720	0.750	0.710	0.550	18.3	16.4	14.8	14	0.2	5.0
2500	0.865	0.900	0.860	0.670	21.2	19	16.3	15.45	0.2	

5ѐу́мм ¸ѐу́л

6-10KV

kW					kW				%		%	
S9	S10	S11	S12	S13	S9	S10	S11	S13	S9 S10	S11 S13	S9 S10	S11 S13
630kVA-6300kVA					6kV	3kV						

20KV 30kVA-2500kVA

kVA	W				W		%			
	S11	S12	S13	SH15	S11	S13/SH15	S11 SH15	S13	S11 SH15	S13

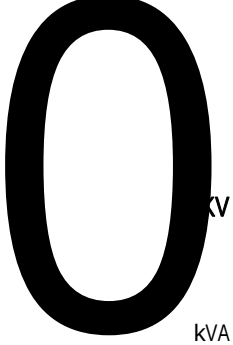
	opY±		рлʅ±!πмсллʅ±!			
		kW		kW	%	%
	S9	S10	S9	S10	S9/S10	S9/S10
50	0.21	0.189	1.27/1.21	1.206/1.15	2.0	
100	0.29	0.261	2.12/2.02	2.014/1.919	1.8	
125	0.34	0.306	2.5/2.38	2.375/2.261	1.7	
160	0.36	0.324	2.97/2.83	2.821/2.688	1.6	
200	0.43	0.387	3.5/3.33	3.325/3.163	1.5	
250	0.51	0.459	4.16/3.96	3.6 خه		
						6.5

рлл˥±!

5ѐу́мм

¸ѐу́л

35KV 630kVA-31500kVA



0

KV		630kVA-31500kVA			
		kW	kW	%	%
kVA	S20	S22	S20/S22	S20/S22	S20/S22
3150kVA-31500kVA				3-10.5kV	
3150	2.0	1.7	20.7	0.45	
4000	2.3	2.0	24.6	0.45	7.0
5000	2.8	2.4	28.2	0.45	
6300	3.4	2.9	31.5	0.45	
8000	4.7	4.0	34.6	0.35	
10000	5.7	4.8	40.8	0.35	8.0
12500	6.5	5.5	48.4	0.30	
16000	7.9	6.7	59.2	0.30	
20000	9.4	7.9	71.6	0.30	
25000	11.1	9.4	84.6	0.25	10.0
31500	13.1	11.1	100.8	0.25	
3150kVA-31500kVA				6.3-10.5kV	
3150	2.1	1.8	22.2	0.55	
4000	2.5	2.1	26.2	0.5	7.0
5000	[illegible]	[illegible]	0		

66KV

kVA	kW					kW				%		%	
	S9	S10	S11	S12	S13	S9	S10	S11 S12	S13	S9 S10	S11 S13	S9	S13
	630kVA-63000kVA					6.3-10.5kV							
630	1.6	1.44	1.2	1.08	0.96	7.5	7.125	7.1	7.1	1.40	1.1		
800	1.9	1.71	1.5	1.35	1.2	9.0	8.55	8.5	8.5	1.35	1.0		
1000	2.2	1.98	1.7	1.53	1.36	10.4	9.88	9.8	9.8	1.30	1.0		
1250	2.6	2.34	2.0	1.8	1.6	12.6	11.97	11.9	11.9	1.30	1.0		
1600	3.1	2.79	2.4										8.0

4.81.2
9.30.2

66KV

kVA	kW		kW	%	%
	S20	S22	S20/S22	S20/S22	S20/S22
3150kVA-63000kVA					6.3-10.5kV
3150	2.6	2.2	20.7	0.84	
4000	3.1	2.6	24.6	0.80	8.0
5000	3.7	3.1	27.6	0.68	
6300	4.7	4.0	30.8	0.60	
8000	5.8	4.9	36.5	0.60	
10000	6.8	5.8	43.0	0.56	
12500	8.1	6.8	51.1	0.56	
16000	9.8	8.3	62.8	0.52	
20000	11.4	9.7	76.1	0.52	9.0
25000	13.5	11.4	90.0	0.48	
31500	16.0	13.5	108.0	0.44	
40000	19.1	16.2	126.9	0.44	
50000	22.9	19.4	150.3	0.40	
63000	27.0	22.9	178.2	0.36	
6300kVA-63000kVA					6.3-10.5kV
3150	5.2	4.4	30.8	0.60	
4000	6.2	5.3	36.5	0.60	
5000	7.3	6.2	43.0	0.56	
6300	8.7	7.4	51.1	0.56	
8000	10.5	8.9	62.8	0.52	
10000	12.5	10.6	76.1	0.52	9.0
12500	14.8	12.5	90.0	0.48	
16000	17.5	14.8	108.0	0.44	
20000	20.9	17.7	126.9	0.44	
25000	24.7	20.9	150.3	0.40	
31500	29.2	24.7	178.2	0.36	

110KV

	kW					kW				%		%
kVA	S9	S10	S11	S12	S13	S9	S10	S11 S12	S13	S9 S10	S11 S13	S9	S- א n

110KV

kVA	kW		kW	%	%
	S20	S22	S20/S22	S20/S22	S20/S22
6300kVA-180000kVA				6.3-21kV	
6300	4.8	4.1	32.0	0.62	
8000	5.8	4.9	38.0	0.62	
10000	6.8	5.8	45.0	0.58	
12500	8.1	6.8	53.0	0.58	
16000	9.8	8.3	65.7	0.54	
20000	11.4	9.7	79.0	0.54	10.5
25000	13.5	11.4	94.0	0.50	
31500	16.0	13.5	111.0	0.48	
40000	19.1	16.2	133.0	0.45	
50000	22.9	19.4	158.0	0.42	
63000	27.0	22.9	187.0	0.38	
75000	30.7	26.0	212.0	0.33	
90000	35.4	29.9	245.0	0.30	
120000	44.1	37.3	303.0	0.27	12 14
150000	52.1	44.1	359.0	0.24	
180000	58.5	49.5	411.0	0.20	
6300kVA-63000kVA				6.3-21kV	
6300	5.2	4.4	32.0	0.64	
8000	6.2	5.3	38.0	0.64	
10000	7.3	6.2	45.0	0.59	
12500	8.7	7.4	53.0	0.59	
16000	10.5	8.9	66.0	0.55	
20000	12.5	10.6	79.0	0.55	10.5
25000	14.8	12.5	94.0	0.51	
31500	17.6	14.9	111.0	0.51	
40000	21.0	17.2	140.0	0.46	
50000	24.8	21.0	175.0	0.46	
63000	29.5	25.0	209.0	0.42	

	110KV			6300kVA-63000kVA					35kV				
			kW					kW			%		%
kVA	S9	S10	S11	S12	S13	S9	S10	S11 S12	S13	S9 S10	S11 S13	S9	S13
6300	10.0	9.0	8.0	7.2	6.4	39.0	37.05	37.0	35.0	0.84	0.67		
8000	12.0	10.8	9.6	8.64	7.7	47.0	44.65	44.0	42.0	0.84	0.67		
10000	14.0	12.6	11.2	10.08	9.0	55.0	52.25	52.0	49.0	0.78	0.62		
12500	16.4	14.76	13.1	11.79	10.5	66.0	62.7	62.0	59.0	0.78	0.62		
16000	19.6	17.64	15.6	14.04	12.5	81.0	76.95	76.0	72.0	0.72	0.57		
20000	23.2	20.88	18.5	16.65	14.8	99.0	94.05	94.0	89.0	0.72	0.57	10.5	
25000	27.4	24.66	21.9	19.71	17.5	116.0	110r26 .5	110.0	105Ů0,ae	0,67	0.52	2 ! 00	┐E
31500													

220KV

kVA	kW					kW				%		%	
	S9	S10	S11	S12	S13	S9	S10	S11 S12	S13	S9 S10	S11 S13	S9	S13
3150kVA-420000kVA						6.3-20kV							
31500	35.0	31.5	28.0	25.2	22.0	135.0	128.25	128	122	0.7	0.56		
40000	41.0	36.9	32.0	28.8	26.0	157.0	149.15	149	142	0.7	0.56		
50000	49.0	44.1	39.0	35.1	31.0	189.0	179.55	179	170	0.65	0.52		
63000	58.0	52.2	46.0	41.4	37.0	220.0	209.0	209	199	0.65	0.52		
75000	67.0	60.3	53.0	47.7	42.0	250.0	237.5	237	225	0.6	0.48		
90000	77.0	69.3	61.0	54.9	49.0	288.0	273.6	273	259	0.55	0.44		
120000	94.0	84.6	75.0	67.5	60.0	345.0	327.75	338	321	0.55	0.44		
150000	112.0	100.8	89.0	80.1	71.0	405.0	384.75	400	380	0.50	0.40		
160000	117.0	105.3	93.0	83.7	74.0	425.0	403.75	420	399	0.49	0.39	12	14
180000	128.0	115.2	102.0	91.8	82.0	459.0	436.05	459	436	0.46	0.36		
240000	160.0	144.0	128.0	115.2	102.0	567.0	538.65	538	511	0.42	0.33		
300000	189.0	170.1	151.0	135.9	121.0	675.0	641.25	641	609	0.38	0.30		
360000	217.0	195.3	173.0	155.7	138.0	774.0	735.3	735	698	0.38	0.30		
370000	221.0	198.9	176.0	158.4	141.0	790.0	750.5	750	713	0.38	0.30		
400000	234.0	210.6	187.0	168.3	150.0	837.0	795.15	795	755	0.35	0.28		
420000	242.0	217.8	193.0	173.7	154.0	868.0	824.6	824	783	0.35	0.28		
31500kVA-240000kVA													
kVA	kW					kW				%		%	
	S9	S10	S11	S12	S13	S9	S10	S11 S12	S13	S9 S10	S11 S13	S9	S13
31500	38	34.2	30	27	24	135	128.25	128	122	0.70	0.57		
40000	45	40.5	36	32.4	29	157	149.15	149	142	0.63	0.57		
50000	54	48.6	43	38.7	34	189	179.55	179	170	0.56	0.53		
63000	63	56.7	50	45.0	40	220	209	209	199	0.56	0.53		
90000	80	72.0	64	57.6	51	288	273.6	273	259	0.49	0.45		
120000	99	89.1	79	71.1	63	346	328.7	338	321	0.49	0.45		
150000	116	104.4	92	82.8	74	405	384.75	400	380	0.42	0.41	12	14
180000	135	121.5	108	97.2	86	468	444.6	459	436	0.42	0.38		
120000	102	91.8	81	72.9	65	355	337.25	337	320	0.49	0.45		
150000	120	108	96	86.4	77	415	394.25	394	374	0.42	0.41		
180000	140	126	112	100.8	90	475	451.25	451	428	0.42	0.38		
240000	—	—	140	126	112	—	—	560	532	—	0.30		

220KV

kVA	kW		kW	%	%
	S20	S22	S20/S22	S20/S22	S20/S22
3150kVA-420000kVA				6.3-20kV	
31500	18	15	115	0.56	12 14
40000	21	18	134	0.56	
50000	25	21	161	0.52	
63000	30	25	188	0.52	
75000	34	29	213	0.48	
90000	40	34	246	0.44	
120000	49	41	304	0.44	
150000	58	49	360	0.40	
160000	60	51	378	0.39	
180000	66	56	413	0.36	
240000	83	70	484	0.33	
300000	98	83	577	0.30	
360000	112	95	662	0.30	
370000	114	97	675	0.30	
400000	122	103	716	0.28	
420000	125	106	742	0.28	
31500kVA-240000kVA					
31500	20	17	115	0.57	12 14
40000	23	20	134	0.57	
50000	28	24	161	0.53	
63000	33	28	188	0.53	
90000	42	35	246	0.45	
120000	51	43	304	0.45	
150000	60	51	360	0.41	
180000	70	59	413	0.38	
120000	53	45	303	0.45	
150000	62	53	355	0.41	
180000	73	62	406	0.38	
240000	91	77	504	0.30	

220KV 31500kVA-240000kVA 66kV

	kW					kW				%		%	
kVA	S9	S10	S11	S12	S13	S9	S10	S11 S12	S13	S9 S10	S11 S13	S9	S13
31500	38	34.2	30	27	24	151	143.45	143	136	0.89	0.71		
40000	45	40.5	36	32.4	29	176	167.2	167	159	0.89	0.71		
50000	53	47.7	42	37.8	34	211	200.45	200	190	0.82	0.65		
63000	63	56.7	50	45	40	247	234.65	234	222	0.82	0.65		
90000	83	74.7	66	59.4	53	323	306.85	306	291	0.75	0.60	12	14
120000	102	91.8	81	72.9	65	387	367.65						

6-10KV 5kVA-160kVA

kVA	W						W			%			%	
	S9	S10	S11	S12	S13	SH15	S9	S10	S11 S13 SH15	S9 S10	S11 S13	SH15	S9/S10 SH15	S11 S13
5	35	31.5	30	27	24	15	145	130.5	130	4.0	1.2	2.0		
10	55	49.5	45	40.5	36	18	260	234	235	3.5	1.1	2.0		
16	65	58.5	55	49.5	44	22	365	328.5	330	3.2	1.0	1.8		3.0
20	80	72	65	58.5	52	25	430	387	385	3.0	0.9	1.8		
30	100	90	80	72	64	30	625	562.5	560	2.8	0.8	1.4		
40	125	112.5	100	90	80	35	775	697.5	700	2.5	0.8	1.4		
50	150	135	120	108	96	40	950	855	855	2.3	0.7	1.0	3.5	
63	180	162	145	130.5	116	50	1135	1021.5	1020	2.1	0.6	1.0		
80	200	180	160	144	128	60	1400	1260	1260	2.0	0.6	0.8		3.5
100	240	216	190	171	152	70	1650	1485	1485	1.9	0.6	0.8		
125	285	256.5	230	207	184	85	1950	1755	1755	1.8	0.5	0.6		
160	365	328.5	290	261	232	100	2365	2128.5	2130	1.7	0.5	0.6		

6-10KV 30kVA-2500kVA

kVA	kW			kW						%		%
	SCB9	SCB10	SCB11	SCB9			SCB10/SCB11			SCB9	SCB10 SCB11	
				100	120	145	100	120	145			
30	0.22	0.19	0.17	0.71	0.75	0.8	0.67	0.71	0.76	2.4	2.0	4.0
50	0.31	0.27	0.24	0.99	1.06	1.13	0.94	1.0	1.07	2.4	2.0	
80	0.42	0.37	0.33	1.37	1.46	1.56	1.29	1.38	1.48	1.8	1.5	
100	0.45	0.4	0.36	1.57	1.67	1.78	1.48	1.57	1.69	1.8	1.5	
125	0.53	0.47	0.42	1.84	1.96	2.1	1.74	1.85	1.98	1.6	1.3	
160	0.61	0.54	0.48	2.12	2.25	2.41	2.0	2.13	2.28	1.6	1.3	
200	0.7	0.62	0.55	2.51	2.68	2.87	2.37	2.53	2.71	1.4	1.1	
250	0.81	0.72	0.64	2.75	2.92	3.12	2.59	2.76	2.96	1.4	1.1	
315	0.99	0.88	0.79	3.46	3.67	3.93	3.27	3.47	3.73	1.2	1.0	
400	1.1	0.98	0.88	3.97	4.22	4.52	3.75	3.99	4.28	1.2	1.0	
500	1.31	1.16	1.04	4.86	5.17	5.53	4.59	4.88	5.23	1.2	1.0	
630	1.51	1.34	1.2	5.85	6.22	6.66	5.53	5.88	6.29	1.0	0.85	
630	1.46	1.3	1.17	5.94	6.31	6.75	5.61	5.96	6.4	1.0	0.85	6.0
800	1.71	1.52	1.36	6.93	7.36	7.88	6.55	6.96	7.46	1.0	0.85	
1000	1.99	1.77	1.59	8.1	8.61	9.21	7.65	8.13	8.76	1.0	0.85	
1250	2.35	2.09	1.88	9.63	10.26	10.98	9.1	9.69	10.3	1.0	0.85	
1600	2.76	2.45	2.2	11.7	12.4	13.27	11.0	11.7	12.5	1.0	0.85	
2000	3.4	3.05	2.74	14.4	15.3	16.37	13.6	14.4	15.5	0.8	0.7	
2500	4.0	3.6	3.24	17.1	18.18	19.46	16.1	17.1	18.4	0.8	0.7	
1600	2.76	2.45	2.2	13.0	13.7	14.66	12.2	12.9	13.9	1.0	0.85	8.0
2000	3.4	3.05	2.74	15.9	16.9	18.0	15.0	15.9	17.1	0.8	0.7	
2500	4.0	3.6	3.24	18.8	20.0	21.4	17.7	18.8	20.2	0.8	0.7	

6-10KV　　30kVA-2500kVA

kVA	kW		kW						%	%
	SCB13	SCBH16	SCB13			SCBH16			SCB13 SCBH16	
			100	120	145	100	120	145		
30	0.135	0.07	0.605	0.64	0.685	0.635	0.675	0.72	2.0	4.0
50	0.195	0.09	0.845	0.9	0.965	0.895	0.95	1.01	2.0	
80	0.265	0.12	1.16	1.24	1.33	1.22	1.31	1.4	1.5	
100	0.29	0.13	1.33	1.41	1.52	1.4	1.49	1.6	1.5	
125	0.34	0.15	1.56	1.66	1.78	1.65	1.76	1.88	1.3	
160	0.385	0.17	1.8	1.91	2.05	1.9	2.02	2.16	1.3	
200	0.445	0.2	2.13	2.27	2.44	2.25	2.4	2.57	1.1	
250	0.515	0.23	2.33	2.48	2.66	2.46	2.62	2.81	1.1	
315	0.635	0.28	2.94	3.12	3.35	3.1	3.29	3.54	1.0	
400	0.705	0.31	3.37	3.59	3.85	3.56	3.79	4.06	1.0	
500	0.835	0.36	4.13	4.39	4.7	4.36	4.63	4.97	1.0	
630	0.965	0.42	4.97	5.29	5.66	5.25	5.58	5.97	0.85	
630	0.935	0.41	5.05	5.36	5.76	5.33	5.66	6.08	0.85	6.0
800	1.09	0.48	5.89	6.26	6.71	6.22	6.61	7.08	0.85	
1000	1.27	0.55	6.88	7.31	7.88	7.26	7.72	8.32	0.85	
1250	1.5	0.65	8.19	8.72	9.33	8.64	9.2	9.85	0.85	
1600	1.76	0.76	9.94	10.5	11.3	10.4	11.1	11.9	0.85	
2000	2.19	1.0	12.2	13.0	14.0	12.9	13.7	14.7	0.7	
2500	2.59	1.2	14.5	15.4	16.6	15.3	16.3	17.5	0.7	
1600	1.76	0.76	11.0	11.5	12.5	11.6	12.3	13.2	0.85	8.0
2000	2.19	1.0	13.5	14.3	15.4	14.2	15.1	16.2	0.7	
2500	2.59	1.2	15.9	17.0	18.2	16.8	17.9	19.2	0.7	

6-10KV 30kVA-2500kVA

kVA	kW SCBH15	kW SCBH17	kW SCBH19	SCBH15	kW SCBH17/SCBH19	% SCBH15	% SCBH17	% SCBH19
100								

6-10KV **30kVA-2500kVA**

kVA	kW						kW			%			%
	SCB11 -RL	SCB12 -RL	SCB13 -RL	SCB11-RL SCB12-RL			SCB13-RL			SCB11-RL SCB12-RL SCB13-RL			
				100	120	145	100	120	145				
30	0.17	0.15	0.135	0.67	0.71	0.76	0.605						

6-10KV 630kVA-6300kVA

kVA	kW				kW						%		
					SCB9			SCB10/SCB11/SCB12				SCB10	
	SCB9	SCB10	SCB11	SCB12	100	120	145	100	120	145	SCB9	SCB11 SCB12	%
630	1.6	1.44	1.296	1.152	6.3	6.7	7.15	6.0	63.6	6.8	1.2	1.0	
800	1.8	1.62	1.458	1.296	7.4	8.0	8.4	7.17	7.6	8.13	1.2	1.0	
1000	2.16	1.94	1.746	1.552	8.73	9.25	9.9	8.28	8.78	9.39	1.0	0.85	
1250	2.6	2.34	2.106	1.872	10.4	11.0	11.7	9.86	10.4	11.1	1.<0		6.0

”^vpÐ”^vpÐ @

35KV 800kVA-25000kVA

kVA	kW				kW						%		%
					SCB9			SCB10/SCB11/SCB12					
	SCB9	SCB10	SCB11	SCB12	100	120	145	100	120	145	SCB9	SCB10 SCB11 SCB12	
800	2.5	2.25	2.025	1.8	9.4	9.9	10.6	8.87	9.4	10.0	1.1	0.95	6.0
1000	2.97	2.67	2.403	2.136	10.8	11.5	12.3	10.3	10.9	11.6	1.1	0.95	
1250	3.48	3.13	2.817	2.504	12.8	13.6	14.5	12.1	12.9	13.8	1.0	0.85	
1600	4.1	3.69	3.321	2.952	15.4	16.3	17.4	14.6	15.4	16.5	1.0	0.85	
2000	4.7	4.23	3.807	3.384	18.1	19.2	20.6	17.2	18.2	19.5	0.9	0.75	7.0
2500	5.4	4.86	4.374	3.888	21.7	23.0	24.6	20.6	21.8	23.3	0.9	0.75	
3150	6.7	6.03	5.427	4.824	24.3	25.8	27.5	23.1	24.5	26.2	0.8	0.7	8.0
4000	7.8	7.02	6.318	5.616	29.4	31.0	33.0	27.7	29.4	31.5	0.8	0.7	
5000	9.3	8.37	7.533	6.696	34.7	36.8	39.3	32.9	34.9	37.4	0.7	0.6	
6300	11.0	9.9	9.801	7.92	40.5	43.0	45.9	38.5	40.8	43.7	0.7	0.6	
8000	12.6	11.3	10.17	9.04	45.7	48.5	51.9	43.4	46.0	49.3	0.6	0.5	9.0
10000	14.4	12.9	11.61	10.32	55.5	58.5	62.6	52.4	55.5	59.4	0.6	0.5	
12500	17.5	15.7	14.13	12.56	64.0	68.0	72.7	60.9	64.6	69.1	0.5	0.4	
16000	21.5	19.3	17.37	15.44	75.5	80.0	84.8	71.7	76.0	81.3	0.5	0.4	
20000	25.5	22.9	20.61	18.32	85.0	90.0	96.3	80.6	85.5	91.5	0.4	0.35	10.0
25000		27.1	24.39	21.68				95.3	101.0	108.0		0.35	

35KV 2000kVA-25000kVA

kVA	kW				kW						%		%
					SCB9			SCB10/SCB11/SCB12					
	SCB9	SCB10	SCB11	SCB12	100	120	145	100	120	145	SCB9	SCB10 SCB11 SCB12	
2000	5.0	4.5	4.05	3.6	18.9	20.0	21.4	17.9	19.0	20.3	0.9	0.75	7.0
2500	5.8	5.22	4.698	4.176	22.5	23.8	25.5	21.3	22.6	24.2	0.9	0.75	
3150	7.0	6.3	5.67	5.04	25.3	26.8	28.7	24.0	25.4	27.2	0.8	0.7	
4000	8.2	7.38	6.642	5.904	30.3	32.1	34.4	28.7	30.4	32.6	0.8	0.7	
5000	9.7	8.73	7.857	6.984	35.8	38.0	40.6	34.0	36.1	38.6	0.7	0.6	8.0
6300	11.5	10.3	9.27	8.24	41.5	44.0	47.0	39.4	41.8	44.7	0.7	0.6	
8000	13.2	11.8	10.62	9.44	47.2	50.0	53.5	44.8	47.5	50.8	0.6	0.5	9.0
10000	15.1	13.5	12.15	10.8	56.8	60.2	64.5	53.9	57.1	61.2	0.6	0.5	
12500	18.3	16.4	14.76	13.12	67.0	70.0	76.0	62.7	66.5	71.1	0.5	0.4	
16000	22.5	20.2	18.18	16.16	77.6	82.4	88.1	73.8	78.2	83.7	0.5	0.4	
20000	26.5	23.8	21.42	19.04	87.5	92.7	99.2	83.0	88.0	94.2	0.4	0.35	10.0
25000		28.1	25.29	22.48				98.2	104.0	111.0		0.35	