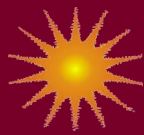


SYSTEM OPERATING TABLES AND OTHER USEFUL INFORMATION

The following tables list Transformer sizes and the amperage/wattage values that they will operate at using varying lengths of Tuff Cable or ZMesh element. These tables may be used as a general guide in selecting the proper voltage tap for use with the specific length of heating element that your particular installation requires. It is important to note that the System Operating Tables DO NOT include any resistance for Cold Leads. As a result, it is recommended by Heatizon Systems that the helpful formulas (on the “Useful Information” page) be used to more accurately estimate the total resistance you have, the Transformer tap you should use, and the amperage and watts you will experience. Refer to supplier for additional information.

NOTE: THE LENGTH OF THE COLD LEAD MAY DECREASE THE LENGTH OF THE ZMESH OR TUFF CABLE THAT IS ACCEPTABLE TO USE. THE LENGTH OF THE COLD LEAD HAS A MORE SIGNIFICANT IMPACT ON SMALLER SIZED TRANSFORMERS.



HEATIZON SYSTEMS

SYSTEM OPERATING TABLES 12" ZMesh

Length of Element: 50 Feet or Less
(SCRKIT50)

Transformer Size	Tap	Tap Voltage	15 feet		20 feet		25 feet		30 feet		33 feet		36 feet		39 feet		42 feet		45 feet		48 feet		
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps
.25kVA	1	1.68	89	10	67	6																	
.25kVA	2	2.51					80	8	66	6													
.50kVA	1	3.40							90	10	82	8	75	7	69	6	64	5	60	5			
.50kVA	2	4.10											90	10	83	9	77	7	72	7	68	6	
.50kVA	3	5.00															94	11	88	10	83	9	

Length of Element: 55 to 100 Feet
(SCRKIT75 or SCRKIT100)

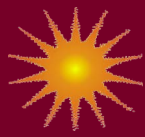
Transformer Size	Tap	Tap Voltage	55 feet		60 feet		65 feet		70 feet		75 feet		80 feet		85 feet		90 feet		95 feet		100 feet		
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps
.50kVA	3	5.00	72	7	66	6	61	5															
1kVA	1	6.60	95	11	87	10	80	8	75	7	70	6	65	5	62	5							
1kVA	2	7.70					94	11	87	10	81	8	76	7	72	7	68	6	64	5	61	5	
1kVA	3	8.80									93	11	87	10	82	8	77	8	73	7	70	6	
1kVA	4	10.00													93	11	88	10	83	9	79	8	
2kVA	1	11.90																				94	11

Note: Wattage values are given in watts per linear foot of element.

To calculate watts per square foot, multiply watts per linear foot by the following factors:

2" spacing x .857; 4" spacing x .750; 6" spacing x .666

Wattage on these System Operating Tables are calculated using 0 feet of Cold Lead and 120 or 240 VAC.
Please use formulas in "Useful Information" section to determine exact wattage.



HEATIZON SYSTEMS

SYSTEM OPERATING TABLES 12" ZMesh

Length of Element: 110 to 200 Feet
(SCRKIT150 or SCRKIT200)

Transformer Size	Tap	Tap Voltage	110 feet		120 feet		130 feet		140 feet		150 feet		160 feet		170 feet		180 feet		190 feet		200 feet		
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps
1kVA	4	10.00	75	7	71	6	66	5															
2kVA	1	11.90	86	9	79	8	73	7	67	6	63	5											
2kVA	2	13.40			88	10	82	8	76	7	71	6	66	6	62	5							
2kVA	3	14.80					90	10	84	9	78	8	73	7	69	6	65	5	62	5			
2kVA	4	16.30							92	11	86	9	81	8	76	7	72	6	68	6	65	5	
2kVA	5	17.80									94	11	88	10	83	9	78	8	74	7	71	6	
2kVA	6	19.30											96	12	90	10	85	9	80	8	76	7	
3kVA	1	21.40															94	11	89	10	85	9	
3kVA	2	23.20																				92	11

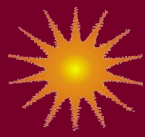
Length of Element: 210 to 375 Feet
(SCRKIT250, SCRKIT300, SCRKIT350+)

Transformer Size	Tap	Tap Voltage	210 feet		225 feet		240 feet		255 feet		270 feet		285 feet		300 feet		330 feet		350 feet		375 feet		
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps
2kVA	5	17.80	65	5																			
2kVA	6	19.30	70	6	65	5																	
3kVA	1	21.40	81	8	75	7	71	6	66	6	63	5											
3kVA	2	23.20	88	10	82	8	77	7	72	7	68	6	65	5	61	5							
3kVA	3	25.00	94	11	88	10	83	9	78	8	73	7	70	6	66	6	60	5					
3kVA	4	26.80			94	11	88	10	83	9	79	8	75	7	71	6	64	5	61	5			
3kVA	5	28.60					94	11	89	10	84	9	80	8	76	7	69	6	65	5	60	5	
3kVA	6	30.30							94	11	89	10	84	9	80	8	73	7	69	6	64	5	

Note: Wattage values are given in watts per linear foot of element.

To calculate watts per square foot, multiply watts per linear foot by the following factors:
2" spacing x .857; 4" spacing x .750; 6" spacing x .666

Wattage on these System Operating Tables are calculated using 0 feet of Cold Lead and 120 or 240 VAC.
Please use formulas in "Useful Information" section to determine exact wattage.



HEATIZON SYSTEMS

SYSTEM OPERATING TABLES 12" ZMesh

Length of Element on **Each** Side of Double Sided Transformer: 120 to 250 Feet
(SCRKIT150, SCRKIT200, SCRKIT250)

Transformer Size	Tap	Tap Voltage	120 feet		130 feet		140 feet		150 feet		160 feet		170 feet		180 feet		210 feet		230 feet		250 feet		
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps
2x2kVA	1	14.8			90	10	84	9	78	8	73	7	69	6	65	6							
2x2kVA	2	16.6					94	11	88	10	82	9	77	8	73	7	63	5					
2x2kVA	3	18.5									92	11	86	9	81	8	70	6	64	5			
2x2kVA	4	20.3											95	11	89	10	77	7	70	6	64	5	

Length of Element on **Each** side of Double Sides Transformer: 190 to 400 Feet
(SCRKIT200, SCRKIT250, SCRKIT300, SCRKIT350)

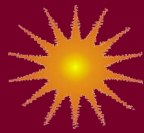
Transformer Size	Tap	Tap Voltage	190 feet		210 feet		220 feet		235 feet		250 feet		270 feet		295 feet		325 feet		360 feet		400 feet		
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps
2x3kVA	1	23.2	95	11	88	10	84	9	78	8	74	7	68	6	62	5							
2x3kVA	2	26.2					94	11	88	10	83	9	77	7	70	6	64	5					
2x3kVA	3	29.1									92	11	85	9	78	8	71	6	64	5			
2x3kVA	4	32.0											94	11	86	9	78	8	70	6	63	5	

Note: Wattage values are given in watts per linear foot of element.

To calculate watts per square foot, multiply watts per linear foot by the following factors:

2" spacing x .857; 4" spacing x .750; 6" spacing x .666

Wattage on these System Operating Tables are calculated using 0 feet of Cold Lead and 120 or 240 VAC.
Please use formulas in "Useful Information" section to determine exact wattage.



HEATIZON SYSTEMS

SYSTEM OPERATING TABLES 9" ZMesh

Length of Element: 15 to 60 Feet
(SCRKIT50-9, SCRKIT 100-9)

Transformer Size	Tap	Tap Voltage	15 feet		20 feet		25 feet		30 feet		35 feet		40 feet		45 feet		50 feet		55 feet		60 feet		
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps
.25kVA	1	1.68	82	9	61	5																	
.25kVA	2	2.51			92	12	79	7	61	5													
.50kVA	1	3.40							83	9	71	7	62	5									
.50kVA	2	4.10									86	10	75	8	67	6	60	5					
.50kVA	3	5.00											91	11	81	9	73	7	66	6	61	5	
1kVA	1	6.60																	88	11	80	9	
1kVA	2	7.70																				94	12

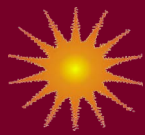
Length of Element: 65 to 100 Feet
(SCRKIT100-9, SCRKIT 250-9)

Transformer Size	Tap	Tap Voltage	65 feet		70 feet		75 feet		80 feet		85 feet		90 feet		95 feet		100 feet		105 feet		110 feet		
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps
1kVA	1	6.60	74	8	69	7	64	6	60	5													
1kVA	2	7.70	87	10	80	9	75	8	70	7	66	6	63	5	59	5							
1kVA	3	8.80			92	12	86	10	80	9	76	8	72	7	68	6	64	6	61	6	58	5	
1kVA	4	10.00							91	11	86	10	81	9	77	8	73	7	70	7	66	6	
2kVA	1	11.90													91	11	87	10	82	9	79	9	
2kVA	2	13.40																				89	11

Note: Wattage values are given in watts per linear foot of element.

To calculate watts per square foot, multiply watts per linear foot by the following factors:
2" spacing x 1.09; 4" spacing x .923; 6" spacing x .800

Wattage on these System Operating Tables are calculated using 0 feet of Cold Lead and 120 or 240 VAC.
Please use formulas in "Useful Information" section to determine exact wattage.



HEATIZON SYSTEMS

SYSTEM OPERATING TABLES 9" ZMesh

Length of Element: 120 to 210 Feet
(SCRKIT250-9)

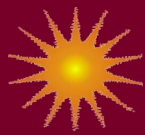
Transformer Size	Tap	Tap Voltage	120 feet		130 feet		140 feet		150 feet		160 feet		170 feet		180 feet		190 feet		200 feet		210 feet		
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps
1kVA	4	10.00	60	5																			
2kVA	1	11.90	73	7	67	6	62	5	58	5													
2kVA	2	13.40	82	9	75	8	70	7	65	6	61	5	58	5									
2kVA	3	14.80	90	11	83	9	77	8	72	7	68	6	64	6	60	5							
2kVA	4	16.30			92	11	85	10	79	9	75	8	70	7	66	6	63	5	60	5			
2kVA	5	17.80					93	12	87	10	81	9	77	8	72	7	69	6	65	6	62	5	
2kVA	6	19.30						94	12	88	11	83	9	78	8	74	8	71	7	67	6		
3kVA	1	21.40											91	12	84	10	82	9	78	8	75	8	
3kVA	2	23.20												94	12	85	11	84	10	81	9		
3kVA	3	25.00																91	11	87	10		
3kVA	4	26.80																		93	12		

Length of Element: 225 to 400 Feet
(SCRKIT250-9, SCRKIT400-9)

Transformer Size	Tap	Tap Voltage	225 feet		240 feet		255 feet		270 feet		285 feet		300 feet		335 feet		360 feet		385 feet		400 feet		
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps
2kVA	6	19.30	62	5	58	5																	
3kVA	1	21.40	70	7	65	6	61	5	58	5													
3kVA	2	23.20	75	8	71	7	67	6	63	5	60	5											
3kVA	3	25.00	81	9	76	8	72	7	68	6	64	6	61	5	59	5							
3kVA	4	26.80	87	10	81	9	77	8	73	7	68	6	65	6	63	5							
3kVA	5	28.60	93	12	87	10	82	9	77	8	73	7	67	6	58	5							
3kVA	6	30.30			92	12	87	10	82	9	77	8	74	7	71	7	61	5					

Note: Wattage values are given in watts per linear foot of element.
To calculate watts per square foot, multiply watts per linear foot by the following factors:
2" spacing x 1.09; 4" spacing x .923; 6" spacing x .800

Wattage on these System Operating Tables are calculated using 0 feet of Cold Lead and 120 or 240 VAC.
Please use formulas in "Useful Information" section to determine exact wattage.



HEATIZON SYSTEMS

SYSTEM OPERATING TABLES 9" ZMesh

Length of Element on EACH side of Double Sided Transformer: 115 to 235 Feet
(SCRKIT250-9)

Transformer Size	Tap	Tap Voltage	115 feet		130 feet		140 feet		150 feet		160 feet		170 feet		180 feet		190 feet		210 feet		235 feet	
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
2x2kVA	1	14.80	95	12	83	9	77	8	72	7	67	6	63	6	60	5						
2x2kVA	2	16.60			93	12	86	10	80	9	75	8	71	7	67	7	63	6	57	5		
2x2kVA	3	18.50							92	11	84	10	79	9	75	8	71	7	64	6	57	5
2x2kVA	4	20.30									92	12	87	10	82	9	78	8	70	7	63	5

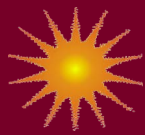
Length of Element on EACH side of Double Sided Transformer: 177 to 380 Feet
(SCRKIT250-9)

Transformer Size	Tap	Tap Voltage	177 feet		195 feet		210 feet		225 feet		240 feet		255 feet		270 feet		290 feet		350 feet		380 feet	
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
2x3kVA	1	23.20	95	12	86	10	80	9	75	8	70	7	66	6	62	5	58	5				
2x3kVA	2	26.20					91	11	85	10	79	9	75	8	71	7	66	6				
2x3kVA	3	29.10							94	12	88	11	83	9	78	8	73	7	60	5		
2x3kVA	4	32.00											91	11	86	10	80	9	66	6	61	5

Note: Wattage values are given in watts per linear foot of element.

To calculate watts per square foot, multiply watts per linear foot by the following factors:
2" spacing x 1.09; 4" spacing x .923; 6" spacing x .800

Wattage on these System Operating Tables are calculated using 0 feet of Cold Lead and 120 or 240 VAC.
Please use formulas in "Useful Information" section to determine exact wattage.



HEATIZON SYSTEMS

SYSTEM OPERATING TABLES Tuff Cable

Length of Element: 15 to 60 Feet
(CABKIT100)

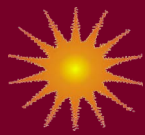
Transformer Size	Tap	Tap Voltage	15 feet		20 feet		25 feet		30 feet		35 feet		40 feet		45 feet		50 feet		55 feet		60 feet	
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
.25kVA	1	1.68	95	11	71	6	57	4	47	3												
.25kVA	2	2.51					85	9	71	6	61	4	53	3	47	3	43	2				
.50kVA	1	3.40							96	11	82	8	72	6	64	5	58	4	52	3	48	3
.50kVA	2	4.10											87	9	77	7	69	6	63	5	58	4
.50kVA	3	5.00													94	10	85	8	77	7	71	6

Length of Element: 65 to 110 Feet
(CABKIT100, CABKIT200)

Transformer Size	Tap	Tap Voltage	65 feet		70 feet		75 feet		80 feet		85 feet		90 feet		95 feet		100 feet		105 feet		110 feet		
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	
.50kVA	3	5.00	65	5																			
1kVA	1	6.60	86	9	80	8	75	7	70	6	66	5	62	5	59	4	56	4	53	3			
1kVA	2	7.70			93	10	87	9	82	8	77	7	73	6	69	6	65	5	62	5	59	5	
1kVA	3	8.80							93	10	88	9	83	8	79	7	75	7	71	6	68	5	
1kVA	4	10.00											94	10	89	9	85	8	81	8	77	7	
2kVA	1	11.90																				92	10

Note: Wattage values are given in watts per linear foot of element.
To calculate watts per square foot, multiply watts per linear foot by the following factors:
2" spacing x 6; 4" spacing x 3; 6" spacing x 2;

Wattage on these System Operating Tables are calculated using 0 feet of Cold Lead and 120 or 240 VAC.
Please use formulas in "Useful Information" section to determine exact wattage.



HEATIZON SYSTEMS

SYSTEM OPERATING TABLES Tuff Cable

Length of Element: 120 to 210 Feet
(CABKIT200, CABKIT300)

Transformer Size	Tap	Tap Voltage	120 feet		130 feet		140 feet		150 feet		160 feet		170 feet		180 feet		190 feet		200 feet		210 feet	
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
2kVA	1	11.90	84	8	78	7	72	6	67	5	63	5	59	4	56	4	53	3	50	3	48	3
2kVA	2	13.40	95	11	87	9	81	8	76	7	71	6	67	5	63	5	60	4	57	4	54	3
2kVA	3	14.80			96	11	90	9	84	8	78	7	74	6	70	6	66	5	63	5	60	4
2kVA	4	16.30							92	10	86	9	81	8	77	7	73	6	69	6	66	5
2kVA	5	17.80									94	10	89	9	84	8	79	7	75	7	72	6
2kVA	6	19.30											96	11	91	10	86	9	82	8	78	7
3kVA	1	21.40															95	11	91	10	86	9
3kVA	2	23.20																			94	10

Length of Element: 225 to 365 Feet
(CABKIT300, CABKIT400)

Transformer Size	Tap	Tap Voltage	225 feet		240 feet		255 feet		270 feet		285 feet		300 feet		320 feet		335 feet		350 feet		365 feet	
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
3kVA	1	21.40	81	8	76	7	71	6	67	5	64	5	60	4	57	4	54	3	52	3		
3kVA	2	23.20	87	9	82	8	77	7	73	6	69	6	66	5	61	4	59	4	56	4	54	3
3kVA	3	25.00	94	10	88	9	83	8	78	7	74	7	71	6	66	5	63	5	61	4	58	4
3kVA	4	26.80			95	11	89	9	84	8	80	8	76	7	71	6	68	5	65	5	62	5
3kVA	5	28.60					95	11	90	10	85	9	81	8	76	7	72	6	69	6	66	5
3kVA	6	30.30						95	11	90	10	86	9	80	8	77	7	73	6	70	6	
4kVA	1	32.80											93	10	87	9	83	8	79	7	76	7
4kVA	2	35.00												93	10	89	9	85	8	81	8	
4kVA	3	37.20														94	10	90	10	86	9	
4kVA	4	39.40																95	11	91	10	

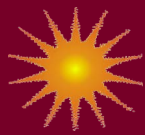
Note: Wattage values are given in watts per linear foot of element.

To calculate watts per square foot, multiply watts per linear foot by the following factors:

2" spacing x 6; 4" spacing x 3; 6" spacing x 2;

Wattage on these System Operating Tables are calculated using 0 feet of Cold Lead and 120 or 240 VAC.

Please use formulas in "Useful Information" section to determine exact wattage.



HEATIZON SYSTEMS

SYSTEM OPERATING TABLES Tuff Cable

Length of Element: 380 to 510 Feet
(CABKIT400, CABKIT500, CABKIT600)

Transformer Size	Tap	Tap Voltage	380 feet		395 feet		410 feet		425 feet		435 feet		450 feet		465 feet		480 feet		495 feet		510 feet	
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
4kVA	1	32.80	73	6	70	6	68	5	65	5	64	5	62	5	60	4	58	4	56	4	55	4
4kVA	2	35.00	78	7	75	7	72	6	70	6	68	5	66	5	64	5	62	4	60	4	58	4
4kVA	3	37.20	83	8	80	8	77	7	74	6	72	6	70	6	68	5	66	5	64	5	62	5
4kVA	4	39.40	88	9	85	8	81	8	79	7	77	7	74	6	72	6	70	5	67	5	65	5
5kVA	1	39.40	88	9	85	8	81	8	79	7	77	7	74	6	72	6	70	6	67	5	65	5
5kVA	2	42.70	95	11	92	10	88	9	85	9	83	8	80	8	78	7	75	7	73	6	71	6
5kVA	3	46.00					95	11	92	10	90	9	87	9	84	8	81	8	79	7	76	7
5kVA	4	49.30									96	11	93	10	90	10	87	9	84	8	82	8
6kVA	1	52.60													96	11	93	10	90	10	87	9
6kVA	2	55.80																	96	11	93	10

Length of Element: 525 to 800 Feet
(CABKIT600, CABKIT700, CABKIT800)

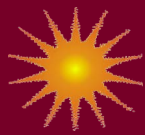
Transformer Size	Tap	Tap Voltage	525 feet		540 feet		555 feet		570 feet		585 feet		600 feet		650 feet		700 feet		750 feet		800 feet	
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
5kVA	2	42.70	65	5																		
5kVA	3	46.00	71	6																		
5kVA	4	49.30	76	7																		
6kVA	1	52.60	85	9	83	8	80	8	78	7	76	7	74	7	69	6	64	5	59	4	56	4
6kVA	2	55.80	90	10	88	9	85	9	83	8	81	8	79	7	73	6	68	5	63	5	59	4
6kVA	3	59.10	95	11	93	10	90	10	88	9	86	9	83	8	77	7	72	6	67	5	63	5
6kVA	4	62.30					95	11	93	10	90	10	88	9	81	8	75	7	70	6	66	5
6kVA	5	65.50									95	11	93	10	85	9	79	7	74	6	69	6

Note: Wattage values are given in watts per linear foot of element.

To calculate watts per square foot, multiply watts per linear foot by the following factors:

2" spacing x 6; 4" spacing x 3; 6" spacing x 2;

Wattage on these System Operating Tables are calculated using 0 feet of Cold Lead and 120 or 240 VAC.
Please use formulas in "Useful Information" section to determine exact wattage.



HEATIZON SYSTEMS

SYSTEM OPERATING TABLES Tuff Cable

Length of Element: 850 to 1300 Feet

Transformer Size	Tap	Tap Voltage	850 feet		900 feet		950 feet		1000 feet		1050 feet		1100 feet		1150 feet		1200 feet		1250 feet		1300 feet		
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps
6kVA	1	52.60	52	3	50	3	47	3															
6kVA	2	55.80	56	4	53	3	50	3	47	3													
6kVA	3	59.10	59	4	56	4	53	3	50	3	48	3											
6kVA	4	62.30	62	5	59	4	56	4	53	3	50	3	48	3									
6kVA	5	65.50	65	5	62	4	58	4	56	4	53	3	50	3	48	3	46	3					

Length of Element on EACH side of Double Sided Transformer: 130 to 350 Feet
(CABKIT200, CABKIT300, CABKIT400)

Transformer Size	Tap	Tap Voltage	132 feet		140 feet		150 feet		165 feet		180 feet		200 feet		225 feet		250 feet		300 feet		350 feet		
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps
2x2kVA	1	14.80	95	11	90	9	84	8	76	7	70	6	63	5	56	4	50	3					
2x2kVA	2	16.60					94	10	85	9	78	7	70	6	63	5	56	4	47	3			
2x2kVA	3	18.50							95	11	87	9	87	7	70	6	63	5	52	3			
2x2kVA	4	20.30									98	11	88	9	78	7	61	5	59	4	51	3	

Length of Element on EACH side of Double Sided Transformer: 200 to 550 Feet
(CABKIT200, CABKIT300, CABKIT400, CABKIT500, CABKIT600)

Transformer Size	Tap	Tap Voltage	206 feet		225 feet		250 feet		275 feet		300 feet		350 feet		400 feet		450 feet		500 feet		550 feet		
			Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps
2x3kVA	1	23.20	95	11	87	9	79	7	71	6	66	5	56	4	49	3							
2x3kVA	2	26.20			95	11	89	9	81	8	74	7	63	5	56	4	49	3					
2x3kVA	3	29.10					95	11	90	9	82	8	70	6	62	5	55	4	49	3			
2x3kVA	4	32.00							95	11	90	10	77	7	68	5	60	4	54	4			

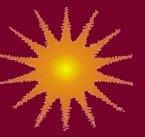
Note: Wattage values are given in watts per linear foot of element.

To calculate watts per square foot, multiply watts per linear foot by the following factors:

2" spacing x 6; 4" spacing x 3; 6" spacing x 2;

Wattage on these System Operating Tables are calculated using 0 feet of Cold Lead and 120 or 240 VAC.

Please use formulas in "Useful Information" section to determine exact wattage.



Resistance of Heating Element

9" Z Mesh Resistance = 0.001367 ohms / l.f.

12" Z Mesh Resistance = 0.001262 ohms / l.f.

Tuff Cable Resistance = 0.00118 ohms/ l.f.

Cold Lead Resistance = 0.000129 ohms / l.f.

Helpful Formulas

V = Volts C = Cold Lead, Total Feet
 I = Amps Z = ZMesh Element, Total Feet
 T = Tuff Cable Element, Total Feet
 R = Resistance - (C x 0.000129)
 RZ = Resistance of Z Mesh
 RT = Resistance of Tuff Cable

TR = Total Resistance = (Heating Element x ohms/l.f.)
 + (Cold lead x ohms/l.f.)

V = I x R: Volts (V) = Amps (I) x Resistance (R)
 W = V x I: Watts (W) = Volts(V) x Amps (I)
 I = V ÷ R: Amps (I) = Volts(V) ÷ Resistance (R)
 R = V ÷ I: Resistance (R) = Volts(V) ÷ Amps (I)

Determining Length of 12" Z Mesh Used:

(When Volts and Amps are known)

Total Resistance (TR) = Volts (V) ÷ Amps (I)
 RZ = R - (C x 0.000129)
 Z = RZ ÷ 0.001262

Example: 3kVA Transformer on Tap #6

V = 30.3
 I = 94
 C = 50 feet
 R = 30.3 ÷ 94
 RZ = 0.32234 - (50 x 0.000129)
 Z = 0.31589 ÷ 0.001262 = 250 l.f. 12" Z Mesh

Determining Operating Amperage of ZMesh or Tuff Cable Heating Element:

(When Volts and lineal footage of Heating Element are known)

Amps (I) = Volts (V) ÷ Resistance (R)
 R = Z or T x R per linear foot of ZMesh or Tuff Cable element

Example: 3kVA Transformer on Tap #6, 12" ZMesh

V = 30.3
 Z = 250 l.f. of 12" ZMesh
 C = 50 feet
 I = 30.3 ÷ (250 x 0.001262 + 50 x 0.000129)
 I = 94

Determining Operating Costs

Watts = Volts (V) x Amps (I)
 Kilowatts/hour (KWH) = W ÷ 1000
 Operating Cost/hour = KWH x Cost per KWH

Example: 3kVA Transformer on tap #6

V = 30.3
 I = 94
 Cost Per Kilowatt Hour = \$0.06

W = 30.3 x 94
 KWH = 2848 ÷ 1000
 Operating Cost/hour = 2.85 x \$0.06 =
 \$0.17 per continuous hour of operation

Determining Length of Tuff Cable Used:

(When Volts and Amps are known)

RT = R - (C x 0.000129)
 T = RT ÷ 0.00118

Example: 6kVA Transformer on Tap #3

V = 59.1
 I = 90
 C = 50 feet
 R = 59.1 ÷ 90
 RT = 0.656666 - (50 x 0.000129) = 0.65021
 T = 0.65021 ÷ 0.00118 = 551 l.f. Tuff Cable

Determining Watts Per Square Foot

(When Volts and Amps are known)

W = V x I
 Watts/ft² = Watts ÷ Square feet

Example: 6kVA Transformer on Tap #3

V = 59.1
 I = 90
 Feet² = 278
 W = 59.1 x 90
 Watts/ft² = 5319 ÷ 278
 Watts per Square Foot = 19.13

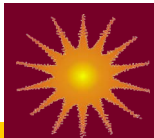
Conversions

BTU's = Watts x 3.412
 Calorie/hour = BTU/hour x 252
 Degree F = Degree C x 1.8 + 32
 Degree C = (Degree F - 32) x 0.556
 Meters = Feet x 3.281
 Feet = Meters x 0.3048

Note: Volts and amps readings should be taken on secondary taps on the transformer

Operating Capacity Table

Not recommended to exceed 96 Secondary Amps



9" ZMesh

Sec. Amps	Watts/ Ln.Ft.	Watts/ Sq.Ft. *	% of Full Capacity
100	13.67	14.91	109%
99	13.40	14.62	106%
98	13.13	14.32	104%
97	12.86	14.03	102%
96	12.60	13.74	100%
95	12.34	13.46	98%
94	12.08	13.18	96%
93	11.82	12.90	94%
92	11.57	12.62	92%
91	11.32	12.35	90%
90	11.07	12.08	88%
89	10.83	11.81	86%
88	10.59	11.55	84%
87	10.35	11.29	82%
86	10.11	11.03	80%
85	9.88	10.77	78%
84	9.65	10.52	77%
83	9.42	10.27	75%
82	9.19	10.03	73%
81	8.97	9.78	71%
80	8.75	9.54	69%
79	8.53	9.31	68%
78	8.32	9.07	66%
77	8.10	8.84	64%
76	7.90	8.61	63%
75	7.69	8.39	61%
74	7.49	8.17	59%
73	7.28	7.95	58%
72	7.09	7.73	56%
71	6.89	7.52	55%
70	6.70	7.31	53%
69	6.51	7.10	52%
68	6.32	6.90	50%
67	6.14	6.69	49%
66	5.95	6.50	47%
65	5.78	6.30	46%
64	5.60	6.11	44%
63	5.43	5.92	43%
62	5.25	5.73	42%
61	5.09	5.55	40%
60	4.92	5.37	39%
59	4.76	5.19	38%
58	4.60	5.02	37%
57	4.44	4.85	35%
56	4.29	4.68	34%
55	4.14	4.51	33%
54	3.99	4.35	32%

12" ZMesh

Sec. Amps	Watts/ Ln.Ft.	Watts/ Sq.Ft.*	% of Full Melting
100	12.62	13.77	109%
99	12.37	13.49	106%
98	12.12	13.22	104%
97	11.87	12.95	102%
96	11.63	12.69	100%
95	11.39	12.42	98%
94	11.15	12.16	96%
93	10.92	11.91	94%
92	10.68	11.65	92%
91	10.45	11.40	90%
90	10.22	11.15	88%
89	10.00	10.91	86%
88	9.77	10.66	84%
87	9.55	10.42	82%
86	9.33	10.18	80%
85	9.12	9.95	78%
84	8.90	9.71	77%
83	8.69	9.48	75%
82	8.49	9.26	73%
81	8.28	9.03	71%
80	8.08	8.81	69%
79	7.88	8.59	68%
78	7.68	8.38	66%
77	7.48	8.16	64%
76	7.29	7.95	63%
75	7.10	7.74	61%
74	6.91	7.54	59%
73	6.73	7.34	58%
72	6.54	7.14	56%
71	6.36	6.94	55%
70	6.18	6.75	53%
69	6.01	6.55	52%
68	5.84	6.37	50%
67	5.67	6.18	49%
66	5.50	6.00	47%
65	5.33	5.82	46%
64	5.17	5.64	44%
63	5.01	5.46	43%
62	4.85	5.29	42%
61	4.70	5.12	40%
60	4.54	4.96	39%
59	4.39	4.79	38%
58	4.25	4.63	37%
57	4.10	4.47	35%
56	3.96	4.32	34%
55	3.82	4.16	33%
54	3.68	4.01	32%

Tuff Cable

Sec. Amps	Watts/ Ln.Ft.	Watts/ Sq.Ft.**	% of Full Melting
100	11.80	12.87	109%
99	11.57	12.62	106%
98	11.33	12.36	104%
97	11.10	12.11	102%
96	10.87	11.86	100%
95	10.65	11.62	98%
94	10.43	11.37	96%
93	10.21	11.13	94%
92	9.99	10.90	92%
91	9.77	10.66	90%
90	9.56	10.43	88%
89	9.35	10.20	86%
88	9.14	9.97	84%
87	8.93	9.74	82%
86	8.73	9.52	80%
85	8.53	9.30	78%
84	8.33	9.08	77%
83	8.13	8.87	75%
82	7.93	8.66	73%
81	7.74	8.45	71%
80	7.55	8.24	69%
79	7.36	8.03	68%
78	7.18	7.83	66%
77	7.00	7.63	64%
76	6.82	7.44	63%
75	6.64	7.24	61%
74	6.46	7.05	59%
73	6.29	6.86	58%
72	6.12	6.67	56%
71	5.95	6.49	55%
70	5.78	6.31	53%
69	5.62	6.13	52%
68	5.46	5.95	50%
67	5.30	5.78	49%
66	5.14	5.61	47%
65	4.99	5.44	46%
64	4.83	5.27	44%
63	4.68	5.11	43%
62	4.54	4.95	42%
61	4.39	4.79	40%
60	4.25	4.63	39%
59	4.11	4.48	38%
58	3.97	4.33	37%
57	3.83	4.18	35%
56	3.70	4.04	34%
55	3.57	3.89	33%
54	3.44	3.75	32%

* Assumes 2" spacing between ZMesh runs

** Assumes 6" spacing between Tuff Cable runs

