



## CONSTANTS and RATINGS

### ENGINEERING CONSTANTS

1728 Cu. In. = 1 Cu. Ft. = 7.48 Gal.  
 1" = 2.54 Cm.  
 3412 Btu = 1Kwh = 1.34 Hp Hour

$$491 \text{ Btu / Ft.}^2 = 1 \frac{\text{Watt Hour}}{\text{In.}^2} = \text{Heat Density}$$

1 Btu / Lb. °F = 1 Gram-Cal. / Gram °C = Specific Heat

231 Cu. In. = 1 Gal.

1 Ampere = 1000 Milliamperes

1 Btu = 252 Calories = .293 Watt-Hours

1 Btu / Lb. = 1.8 Calories / Gram

1 Hp = 745.2 Watts

1 Kw = 1000 Watts

1 Megohm = 1,000,000 Ohms

1 Gal. Water = 8.3 lb.

1 Kw-Hr. will evaporate 3.5 lb. of water from and at 212°F

1 Kw-Hr. will raise 22.75 lb. of water from 62°F to 212°F

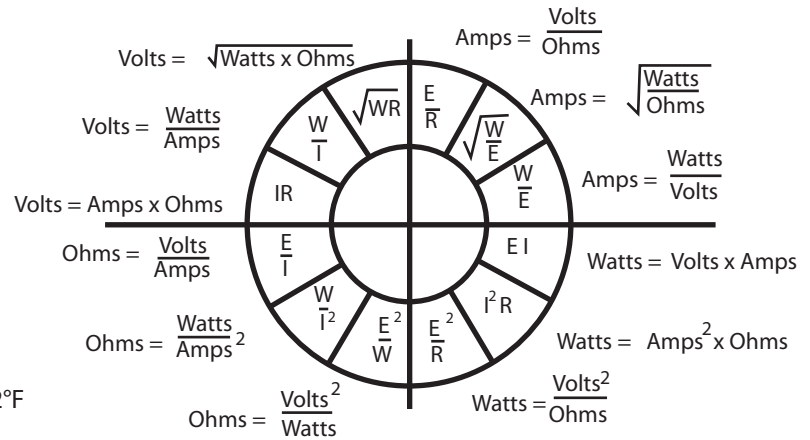
1 Gal. = 231 Cu. In. = 3.785 Litres = .1337 Cu. Ft.

1 Cu. Ft. = 1728 Cu. In. = .03704 Cu. Yd. = 7.481 Gal.

Wattage varies directly as ratio of voltages squared

$$W_2 = W_1 \times \left( \frac{E_2}{E_1} \right)^2$$

### OHM'S LAW



### RATINGS OF LISTED HEATERS ON OTHER VOLTAGES

Kw Rating of Heater	120 Volts		240 Volts			480 Volts	
	Output Kw of Heater When Operated On:						
	110 Volts	115 Volts	208 Volts	220 Volts	230 Volts	440 Volts	460 Volts
1	0.84	0.92	0.75	0.84	0.92	0.84	0.92
2	1.69	1.84	1.50	1.69	1.84	1.69	1.84
3	2.53	2.76	2.25	2.53	2.76	2.53	2.76
4	3.36	3.67	3.00	3.36	3.68	3.36	3.68
4.5	3.78	4.13	3.38	3.78	4.14	3.78	4.14
5	4.20	4.59	3.5	4.2	4.6	4.2	4.6
7.5	6.30	6.89	5.6	6.3	6.9	6.3	6.9
10	-----	-----	7.5	8.4	9.2	8.4	9.2
12.5	-----	-----	9.4	10.5	11.5	10.5	11.5
15	-----	-----	11.3	12.6	13.8	12.6	13.8
20	-----	-----	15.0	16.9	18.4	16.9	18.4
25	-----	-----	18.8	21.0	23.0	21.0	23.0
50	-----	-----	37.6	42.0	46.0	42.0	46.0
75	-----	-----	56.3	63.0	69.0	63.0	69.0
100	-----	-----	75.1	84.0	92.0	84.0	92.0