



INDUSTRIAL TIJUANA

PREDICTIVO

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Servicios de Mantenimiento Predictivo

Conversion Charts

Temperature

°C	°F
-50	-58
-40	-40
0	32
25	77
80	176
120	248
200	392
260	500

$$^{\circ}\text{F} = ^{\circ}\text{C} \times 9/5 + 32$$

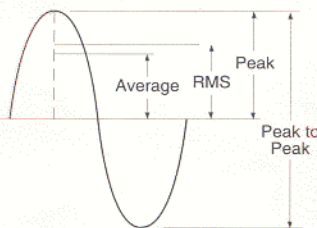
$$^{\circ}\text{C} = 5/9 (^{\circ}\text{F} - 32)$$

Decibel Scale

dB	Gain
60	1000
40	100
20	10
10	3.16
6	2.00
3	1.41
1	1.12
0	1.0
-1	0.891
-3	0.708
-6	0.501
-10	0.316
-20	0.1
-40	0.01
-60	0.001

$$\text{dB} = 20 \log (V_{\text{out}} / V_{\text{ref}})$$

$$V_{\text{out}} / V_{\text{ref}} = \log^{-1}(\text{dB}/20)$$



Average Value = 0.637 x Peak Value
 RMS Value = 0.707 x Peak Value
 Peak Value = 1.414 x RMS Value
 Peak to Peak Value = 2 x Peak Value
 Peak to Peak Value = 2.828 x RMS Value

Acceleration

1 g = 32.174 ft/sec²
 1 g = 9.807 m/sec²
 in/sec² = 0.0254 m/sec²

Displacement

1 mil = 0.001 in
 1 mil = 0.0254 mm
 1 in = 25.4 mm
 1 cm = 10 mm

Frequency

1 Hz = 1 cps
 1 Hz = 0.159 rad/sec
 1 Hz = 60 rpm
 1 rpm = 0.0167 Hz
 1 rpm = 1 cpm

Weight

1 ounce = 28.35 grams
 1 kilogram = 2.205 lbs
 1 Newton = 0.2245 lbs

Sinusoidal Motion (zero-peak)

	Displacement (D) (in)	Velocity (V) (in/sec)	Acceleration (A) (g)
Displacement (D) (in)	—————	$D = 0.159 V/f$	$D = 9.78 A/f^2$
Velocity (V) (in/sec)	$V = 6.28 fD$	—————	$V = 61.4 A/f$
Acceleration (A) (g)	$A = .102 f^2D$	$A = 0.0163 fV$	—————

f=frequency, Hz

Sinusoidal Wave Forms

Multiplier x (A=xB)

B

	Peak	Peak-to-Peak	RMS	Average
Peak	1	0.5	1.414	1.570
Peak-to-Peak	2	1	2.828	3.140
RMS	0.707	0.354	1	1.110
Average	0.637	0.319	0.901	1

A

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