

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 1/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.01
Actual Power:	0.00999976
Actual Amplitude:	0.0999976
Distortion 2H-22H:	0.247264%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 7.2153	end: 7.4093	delta: 0.194
P2 start: 22.193	end: 22.7646	delta: 0.5716
P3 start: 37.0205	end: 37.933	delta: 0.9125
P4 start: 51.8852	end: 53.0757	delta: 1.1904
P5 start: 66.7927	end: 68.1797	delta: 1.387
P6 start: 81.7503	end: 83.2391	delta: 1.4888

H3: -0.00097497	H21: 0.000967525	H21f: 4.60726e-05
H5: -0.00107631	H23: 0.996707	H23f: 0.0433351
H7: -0.00083417	H25: -0.978603	H25f: -0.0391441
H9: -0.000619454	H27: -0.00513302	H27f: -0.000190112
H11: -0.000207808	H29: 0.00326281	H29f: 0.000112511
H13: 0.000192768	H31: 0.00263776	H31f: 8.50892e-05
H15: 0.000598541	H33: 0.00207512	H33f: 6.28823e-05
H17: 0.000761294	H35: 0.000874567	H35f: 2.49876e-05
H19: 0.000985448	H37: -0.000327242	H37f: -8.84437e-06

c2sd = -0.0169
c3ed = -0.0285
c4sd = -0.0133
c4ed = -0.0257
c5sd = -0.007
c5ed = -0.0207
c6sd = 0.0019
c6ed = -0.0125
varx = 5.83969%.

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Desired Power: 0.02  
 Actual Power: 0.0199925  
 Actual Amplitude: 0.141395  
 Distortion 2H-22H: 0.128747%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 7.1205	end: 7.3958	delta: 0.2753
P2 start: 22.0264	end: 22.8354	delta: 0.809
P3 start: 36.7989	end: 38.0889	delta: 1.2901
P4 start: 51.6128	end: 53.2961	delta: 1.6833
P5 start: 66.489	end: 68.4509	delta: 1.9619
P6 start: 81.4359	end: 83.5423	delta: 2.1065

H3: -0.000493971	H21: 0.000478048	H21f: 2.27642e-05
H5: -0.000547251	H23: 0.99347	H23f: 0.0431943
H7: -0.000465959	H25: -0.957196	H25f: -0.0382878
H9: -0.000309753	H27: -0.014352	H27f: -0.000531557
H11: -9.45622e-05	H29: 0.00179383	H29f: 6.18562e-05
H13: 2.86532e-05	H31: 0.00169217	H31f: 5.45863e-05
H15: 0.000304505	H33: 0.00129209	H33f: 3.91542e-05
H17: 0.000431942	H35: 0.000612149	H35f: 1.749e-05
H19: 0.000532381	H37: 0.000235088	H37f: 6.35373e-06

c2sd = -0.0554  
 c3ed = -0.0763  
 c4sd = -0.0203  
 c4ed = -0.0709  
 c5sd = -0.0013  
 c5ed = -0.0587  
 c6sd = 0.0193  
 c6ed = -0.0411  
 varx = 5.7721%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.03  
 Actual Power: 0.029996  
 Actual Amplitude: 0.173194  
 Distortion 2H-22H: 0.0266837%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 7.1364 end: 7.4743 delta: 0.3379  
 P2 start: 21.9206 end: 22.9119 delta: 0.9913  
 P3 start: 36.6389 end: 38.2184 delta: 1.5795  
 P4 start: 51.4092 end: 53.4708 delta: 2.0615  
 P5 start: 66.2573 end: 68.6609 delta: 2.4036  
 P6 start: 81.1945 end: 83.7758 delta: 2.5812

H3: -0.000101659	H21: 9.7945e-05	H21f: 4.66405e-06
H5: -0.000139255	<b>H23: 0.984598</b>	<b>H23f: 0.0428086</b>
H7: -7.19877e-05	<b>H25: -0.941679</b>	<b>H25f: -0.0376672</b>
H9: -6.10052e-05	H27: -0.0233635	H27f: -0.000865316
H11: 7.17031e-07	H29: 0.000348358	H29f: 1.20123e-05
H13: 6.06719e-07	H31: 0.000406749	H31f: 1.3121e-05
H15: 7.35568e-05	H33: 0.000403556	H33f: 1.2229e-05
H17: 5.54434e-05	H35: 0.000219043	H35f: 6.25837e-06
H19: 0.000120386	H37: 0.000211336	H37f: 5.71178e-06

c2sd = -0.0661  
 c3ed = -0.0982  
 c4sd = -0.0266  
 c4ed = -0.0934  
 c5sd = -0.0035  
 c5ed = -0.0784  
 c6sd = 0.0244  
 c6ed = -0.0542  
 varx = 5.7021%.

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Desired Power: 0.04  
 Actual Power: 0.0399972  
 Actual Amplitude: 0.199993  
 Distortion 2H-22H: 0.0126138%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 7.081 end: 7.471 delta: 0.39  
 P2 start: 21.8235 end: 22.9675 delta: 1.144  
 P3 start: 36.4969 end: 38.32 delta: 1.823  
 P4 start: 51.2319 end: 53.6122 delta: 2.3804  
 P5 start: 66.0583 end: 68.8349 delta: 2.7766  
 P6 start: 80.9894 end: 83.972 delta: 2.9826

H3: -4.99633e-05	H21: 3.75673e-05	H21f: 1.78892e-06
H5: -5.563e-05	<b>H23: 0.977963</b>	<b>H23f: 0.0425201</b>
H7: -3.85973e-05	<b>H25: -0.923948</b>	<b>H25f: -0.0369579</b>
H9: -4.30485e-05	H27: -0.0310897	H27f: -0.00115147
H11: 2.03533e-06	H29: 2.09362e-07	H29f: 7.21937e-09
H13: -8.6402e-06	H31: 0.000364534	H31f: 1.17592e-05
H15: 3.78203e-05	H33: 0.000389047	H33f: 1.17893e-05
H17: 2.60494e-05	H35: 0.000265844	H35f: 7.59556e-06
H19: 5.81185e-05	H37: 0.000288744	H37f: 7.8039e-06

c2sd = -0.0857  
 c3ed = -0.1198  
 c4sd = -0.0434  
 c4ed = -0.1125  
 c5sd = -0.0155  
 c5ed = -0.0913  
 c6sd = 0.02  
 c6ed = -0.0585  
 varx = 5.63369%.

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Desired Power:	0.05
Actual Power:	0.0499972
Actual Amplitude:	0.223601
Distortion 2H-22H:	0.00583722%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 7.0288	end: 7.4646	delta: 0.4358
P2 start: 21.7369	end: 23.0149	delta: 1.278
P3 start: 36.3705	end: 38.4077	delta: 2.0373
P4 start: 51.0737	end: 53.735	delta: 2.6613
P5 start: 65.8813	end: 68.9869	delta: 3.1056
P6 start: 80.8079	end: 84.1447	delta: 3.3368

H3: -1.96855e-05	H21: 1.70349e-05	H21f: 8.11184e-07
H5: -2.65414e-05	H23: 0.971178	H23f: 0.0422251
H7: -2.40977e-05	H25: -0.906485	H25f: -0.0362594
H9: -1.31613e-05	H27: -0.0385728	H27f: -0.00142862
H11: 9.28734e-06	H29: -0.000253406	H29f: -8.73815e-06
H13: -4.98663e-06	H31: 0.000384414	H31f: 1.24004e-05
H15: 1.37798e-05	H33: 0.000371833	H33f: 1.12677e-05
H17: 1.54529e-05	H35: 0.000319312	H35f: 9.12319e-06
H19: 2.70452e-05	H37: 0.00035654	H37f: 9.63621e-06

c2sd = -0.0986
c3ed = -0.1493
c4sd = -0.0488
c4ed = -0.1425
c5sd = -0.0145
c5ed = -0.1173
c6sd = 0.0294
c6ed = -0.0767
varx = 5.5657%.

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Desired Power:	0.06
Actual Power:	0.0599999
Actual Amplitude:	0.244949
Distortion 2H-22H:	0.00487724%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 6.9827	end: 7.4596	delta: 0.477
P2 start: 21.6592	end: 23.058	delta: 1.3987
P3 start: 36.2553	end: 38.4859	delta: 2.2306
P4 start: 50.9296	end: 53.8448	delta: 2.9153
P5 start: 65.7201	end: 69.1235	delta: 3.4035
P6 start: 80.6431	end: 84.3008	delta: 3.6578

H3: -1.4665e-05	H21: 1.06225e-05	H21f: 5.05835e-07
H5: -2.22454e-05	H23: 0.964093	H23f: 0.0419171
H7: -2.23958e-05	H25: -0.889445	H25f: -0.0355778
H9: -1.11881e-05	H27: -0.0458681	H27f: -0.00169882
H11: -1.12663e-06	H29: -0.000491765	H29f: -1.69574e-05
H13: 6.53014e-06	H31: 0.000442099	H31f: 1.42613e-05
H15: 1.09678e-05	H33: 0.000431162	H33f: 1.30655e-05
H17: 1.90633e-05	H35: 0.00041365	H35f: 1.18186e-05
H19: 2.00407e-05	H37: 0.000394774	H37f: 1.06696e-05

c2sd = -0.1095
c3ed = -0.1773
c4sd = -0.0545
c4ed = -0.1711
c5sd = -0.0146
c5ed = -0.1418
c6sd = 0.0375
c6ed = -0.0936
varx = 5.49802%.

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Desired Power:	0.07
Actual Power:	0.0699987
Actual Amplitude:	0.264573
Distortion 2H-22H:	0.00341996%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	6.9479	end:	7.4625	delta:	0.5146
P2 start:	21.5892	end:	23.0986	delta:	1.5094
P3 start:	36.1496	end:	38.5576	delta:	2.408
P4 start:	50.7966	end:	53.9452	delta:	3.1486
P5 start:	65.5712	end:	69.2487	delta:	3.6775
P6 start:	80.4909	end:	84.4443	delta:	3.9534

H3: -1.31948e-05	H21: 8.05894e-06	H21f: 3.83759e-07
H5: -1.08427e-05	H23: 0.956546	H23f: 0.041589
H7: -1.53256e-05	H25: -0.873027	H25f: -0.0349211
H9: -9.30648e-06	H27: -0.0530513	H27f: -0.00196486
H11: -3.25959e-06	H29: -0.000813508	H29f: -2.8052e-05
H13: 4.85428e-06	H31: 0.000451936	H31f: 1.45786e-05
H15: 9.73356e-06	H33: 0.000462948	H33f: 1.40287e-05
H17: 1.2098e-05	H35: 0.000452918	H35f: 1.29405e-05
H19: 1.47045e-05	H37: 0.000435568	H37f: 1.17721e-05

c2sd = -0.1166
c3ed = -0.2058
c4sd = -0.057
c4ed = -0.2013
c5sd = -0.0115
c5ed = -0.1687
c6sd = 0.0484
c6ed = -0.1133
varx = 5.43058%.

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Desired Power: 0.08  
 Actual Power: 0.0799997  
 Actual Amplitude: 0.282842  
 Distortion 2H-22H: 0.00301751%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 6.8996 end: 7.4493 delta: 0.5497  
 P2 start: 21.519 end: 23.1311 delta: 1.6121  
 P3 start: 36.0478 end: 38.6207 delta: 2.5729  
 P4 start: 50.6701 end: 54.036 delta: 3.3659  
 P5 start: 65.4306 end: 69.3636 delta: 3.9331  
 P6 start: 80.3483 end: 84.5775 delta: 4.2292

H3: -1.06432e-05	H21: 8.61165e-06	H21f: 4.10079e-07
H5: -1.31475e-05	H23: 0.949709	H23f: 0.0412917
H7: -1.19975e-05	H25: -0.855949	H25f: -0.034238
H9: -8.22834e-06	H27: -0.0599983	H27f: -0.00222216
H11: -1.80503e-06	H29: -0.00110544	H29f: -3.81187e-05
H13: 1.91949e-06	H31: 0.000524237	H31f: 1.69109e-05
H15: 8.85442e-06	H33: 0.000549681	H33f: 1.6657e-05
H17: 9.50153e-06	H35: 0.000540234	H35f: 1.54353e-05
H19: 1.27662e-05	H37: 0.000535319	H37f: 1.44681e-05

c2sd = -0.1276  
 c3ed = -0.2369  
 c4sd = -0.0607  
 c4ed = -0.2333  
 c5sd = -0.0091  
 c5ed = -0.1967  
 c6sd = 0.0593  
 c6ed = -0.1335  
 varx = 5.364%.



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Desired Power:	0.09
Actual Power:	0.0900002
Actual Amplitude:	0.3
Distortion 2H-22H:	0.00205596%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 6.8605	end: 7.443	delta: 0.5825
P2 start: 21.4542	end: 23.1626	delta: 1.7084
P3 start: 35.9523	end: 38.6797	delta: 2.7275
P4 start: 50.5508	end: 54.1206	delta: 3.5699
P5 start: 65.298	end: 69.4712	delta: 4.1733
P6 start: 80.2139	end: 84.7027	delta: 4.4887

H3: -6.49289e-06	H21: 7.08315e-06	H21f: 3.37293e-07
H5: -6.93137e-06	H23: 0.942499	H23f: 0.0409782
H7: -6.57721e-06	H25: -0.839393	H25f: -0.0335757
H9: -7.87017e-06	H27: -0.0668484	H27f: -0.00247587
H11: -1.90877e-06	H29: -0.00148328	H29f: -5.11474e-05
H13: -2.41294e-06	H31: 0.000569606	H31f: 1.83744e-05
H15: 6.22306e-06	H33: 0.00061303	H33f: 1.85767e-05
H17: 8.1992e-06	H35: 0.000605732	H35f: 1.73066e-05
H19: 7.85538e-06	H37: 0.00061352	H37f: 1.65816e-05

c2sd = -0.1353
c3ed = -0.2688
c4sd = -0.0615
c4ed = -0.2671
c5sd = -0.0038
c5ed = -0.227
c6sd = 0.073
c6ed = -0.1563
varx = 5.29768%.

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Desired Power: 0.1  
 Actual Power: 0.0999998  
 Actual Amplitude: 0.316228  
 Distortion 2H-22H: 0.00150877%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 6.8352	end: 7.4485	delta: 0.6133
P2 start: 21.3961	end: 23.1951	delta: 1.799
P3 start: 35.8631	end: 38.7364	delta: 2.8733
P4 start: 50.4382	end: 54.2008	delta: 3.7626
P5 start: 65.1723	end: 69.5729	delta: 4.4006
P6 start: 80.0866	end: 84.8212	delta: 4.7346

H3: -6.55969e-06	H21: 5.32546e-06	H21f: 2.53593e-07
H5: -5.37574e-06	H23: 0.934678	H23f: 0.0406382
H7: -6.6854e-06	H25: -0.823641	H25f: -0.0329456
H9: -3.73316e-06	H27: -0.0736432	H27f: -0.00272753
H11: -6.54514e-07	H29: -0.00194295	H29f: -6.69982e-05
H13: 1.34763e-06	H31: 0.000573929	H31f: 1.85138e-05
H15: 4.2078e-06	H33: 0.000625985	H33f: 1.89692e-05
H17: 5.09623e-06	H35: 0.000627831	H35f: 1.7938e-05
H19: 4.77451e-06	H37: 0.000632415	H37f: 1.70923e-05

c2sd = -0.1389  
 c3ed = -0.2987  
 c4sd = -0.0612  
 c4ed = -0.2998  
 c5sd = 0.002  
 c5ed = -0.2568  
 c6sd = 0.0867  
 c6ed = -0.1789  
 varx = 5.23152%.

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Desired Power:	0.11
Actual Power:	0.11
Actual Amplitude:	0.331662
Distortion 2H-22H:	0.00115251%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	6.7992	end:	7.4419	delta:	0.6427
P2 start:	21.3369	end:	23.2219	delta:	1.885
P3 start:	35.7756	end:	38.7875	delta:	3.0118
P4 start:	50.329	end:	54.275	delta:	3.946
P5 start:	65.0512	end:	69.6685	delta:	4.6172
P6 start:	79.9647	end:	84.9338	delta:	4.9691

H3: -4.04249e-06	H21: 1.32933e-06	H21f: 6.33017e-08
H5: -3.79841e-06	H23: 0.927409	H23f: 0.0403221
H7: -6.40696e-06	H25: -0.807389	H25f: -0.0322956
H9: -3.48315e-06	H27: -0.0802193	H27f: -0.00297109
H11: -8.11271e-07	H29: -0.00240199	H29f: -8.28274e-05
H13: -2.11218e-07	H31: 0.000622804	H31f: 2.00904e-05
H15: 3.11195e-06	H33: 0.000691411	H33f: 2.09518e-05
H17: 3.51306e-06	H35: 0.000696548	H35f: 1.99014e-05
H19: 4.93769e-06	H37: 0.000705687	H37f: 1.90726e-05

c2sd = -0.1489
c3ed = -0.326
c4sd = -0.0683
c4ed = -0.3277
c5sd = -0.0002
c5ed = -0.2802
c6sd = 0.0924
c6ed = -0.1939
varx = 5.16612%.

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 12/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.12
Actual Power:	0.12
Actual Amplitude:	0.346411
Distortion 2H-22H:	0.000700945%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 6.7636	end: 7.4342	delta: 0.6706
P2 start: 21.2796	end: 23.2465	delta: 1.9669
P3 start: 35.6912	end: 38.8352	delta: 3.144
P4 start: 50.2238	end: 54.3449	delta: 4.1211
P5 start: 64.9347	end: 69.7592	delta: 4.8245
P6 start: 79.8477	end: 85.0413	delta: 5.1936

H3: -1.6796e-06	H21: 1.2936e-06	H21f: 6.16002e-08
H5: -3.41762e-06	H23: 0.920162	H23f: 0.0400071
H7: -2.66023e-06	H25: -0.79123	H25f: -0.0316492
H9: -1.55789e-06	H27: -0.0866425	H27f: -0.00320898
H11: -6.17402e-07	H29: -0.00290328	H29f: -0.000100113
H13: 1.5841e-06	H31: 0.000668556	H31f: 2.15663e-05
H15: 2.30762e-06	H33: 0.000757864	H33f: 2.29656e-05
H17: 3.07998e-06	H35: 0.000771074	H35f: 2.20307e-05
H19: 2.39833e-06	H37: 0.000779231	H37f: 2.10603e-05

c2sd = -0.1559
c3ed = -0.3582
c4sd = -0.0693
c4ed = -0.3619
c5sd = 0.0046
c5ed = -0.3108
c6sd = 0.1056
c6ed = -0.2166
varx = 5.10121%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 13/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.13
Actual Power:	0.13
Actual Amplitude:	0.360555
Distortion 2H-22H:	0.000612935%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 6.7419	end: 7.4391	delta: 0.6972
P2 start: 21.228	end: 23.2732	delta: 2.0452
P3 start: 35.6117	end: 38.882	delta: 3.2703
P4 start: 50.1233	end: 54.4123	delta: 4.2889
P5 start: 64.8229	end: 69.8462	delta: 5.0233
P6 start: 79.7352	end: 85.1445	delta: 5.4093

H3: -1.33307e-06	H21: 1.44332e-06	H21f: 6.87295e-08
H5: -2.86258e-06	H23: 0.912314	H23f: 0.0396658
H7: -2.10484e-06	H25: -0.77588	H25f: -0.0310352
H9: -1.98791e-06	H27: -0.0930417	H27f: -0.00344599
H11: -1.05242e-06	H29: -0.00349877	H29f: -0.000120647
H13: 9.87656e-07	H31: 0.000663147	H31f: 2.13918e-05
H15: 1.88032e-06	H33: 0.000776329	H33f: 2.35251e-05
H17: 2.2658e-06	H35: 0.00079062	H35f: 2.25892e-05
H19: 2.52581e-06	H37: 0.000798998	H37f: 2.15945e-05

c2sd = -0.1604
c3ed = -0.3863
c4sd = -0.0721
c4ed = -0.3923
c5sd = 0.0065
c5ed = -0.3375
c6sd = 0.1152
c6ed = -0.2354
varx = 5.03643%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.14
Actual Power:	0.14
Actual Amplitude:	0.374166
Distortion 2H-22H:	0.000258465%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	6.7714	end:	7.4935	delta:	0.7221
P2 start:	21.1928	end:	23.3128	delta:	2.12
P3 start:	35.5427	end:	38.934	delta:	3.3913
P4 start:	50.0308	end:	54.4807	delta:	4.4499
P5 start:	64.7173	end:	69.9317	delta:	5.2143
P6 start:	79.6277	end:	85.2444	delta:	5.6167

H3: -9.46527e-07	H21: 9.2721e-07	H21f: 4.41529e-08
H5: -9.73571e-07	H23: 0.902196	H23f: 0.0392259
H7: -1.18799e-06	H25: -0.763281	H25f: -0.0305313
H9: -6.76091e-07	H27: -0.0997781	H27f: -0.00369548
H11: -5.16288e-07	H29: -0.00434828	H29f: -0.000149941
H13: 3.27644e-07	H31: 0.000454961	H31f: 1.46762e-05
H15: 7.84265e-07	H33: 0.000587621	H33f: 1.78067e-05
H17: 3.93723e-07	H35: 0.000598833	H35f: 1.71095e-05
H19: 9.82111e-07	H37: 0.000605807	H37f: 1.63732e-05

c2sd = -0.1518
c3ed = -0.4041
c4sd = -0.0738
c4ed = -0.4147
c5sd = 0.0068
c5ed = -0.3578
c6sd = 0.1212
c6ed = -0.2491
varx = 4.97075%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.15
Actual Power:	0.149999
Actual Amplitude:	0.387298
Distortion 2H-22H:	0.000359592%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 6.8445	end: 7.5902	delta: 0.7458
P2 start: 21.1722	end: 23.364	delta: 2.1917
P3 start: 35.483	end: 38.9905	delta: 3.5075
P4 start: 49.9454	end: 54.55	delta: 4.6046
P5 start: 64.6175	end: 70.0158	delta: 5.3983
P6 start: 79.5245	end: 85.3411	delta: 5.8167

H3: -7.18484e-07	H21: 1.60492e-06	H21f: 7.6425e-08
H5: -1.52841e-06	H23: 0.890142	H23f: 0.0387018
H7: -1.45563e-06	H25: -0.753084	H25f: -0.0301234
H9: -9.57978e-07	H27: -0.106788	H27f: -0.00395509
H11: -3.20646e-07	H29: -0.00535219	H29f: -0.000184558
H13: -3.16535e-07	H31: 0.000146533	H31f: 4.72686e-06
H15: 7.57674e-07	H33: 0.000301989	H33f: 9.15118e-06
H17: 5.64797e-07	H35: 0.000306544	H35f: 8.75841e-06
H19: 1.83574e-06	H37: 0.000308801	H37f: 8.34599e-06

c2sd = -0.1305
c3ed = -0.4142
c4sd = -0.0724
c4ed = -0.4322
c5sd = 0.0081
c5ed = -0.3748
c6sd = 0.1265
c6ed = -0.2609
varx = 4.90433%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.16
Actual Power:	0.159999
Actual Amplitude:	0.399999
Distortion 2H-22H:	0.000290918%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 6.9119	end: 7.6806	delta: 0.7687
P2 start: 21.1516	end: 23.4125	delta: 2.2609
P3 start: 35.4246	end: 39.0442	delta: 3.6195
P4 start: 49.862	end: 54.6161	delta: 4.7541
P5 start: 64.5201	end: 70.0965	delta: 5.5764
P6 start: 79.4242	end: 85.4347	delta: 6.0105

H3: -1.26485e-07	H21: 1.26485e-06	H21f: 6.02311e-08
H5: -1.06248e-06	H23: 0.878387	H23f: 0.0381907
H7: -1.40941e-06	H25: -0.742706	H25f: -0.0297082
H9: -4.42698e-07	H27: -0.113624	H27f: -0.00420829
H11: -2.5872e-07	H29: -0.00631096	H29f: -0.000217619
H13: -4.08645e-07	H31: -6.59641e-05	H31f: -2.12787e-06
H15: 1.02453e-06	H33: 0.000119494	H33f: 3.62103e-06
H17: 8.48195e-07	H35: 0.000121372	H35f: 3.46776e-06
H19: 1.23822e-06	H37: 0.000121421	H37f: 3.28164e-06

c2sd = -0.1159
c3ed = -0.4166
c4sd = -0.0827
c4ed = -0.4391
c5sd = -0.0042
c5ed = -0.3792
c6sd = 0.1175
c6ed = -0.2586
varx = 4.8385%.



**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.17
Actual Power:	0.17
Actual Amplitude:	0.412311
Distortion 2H-22H:	0.000319828%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	6.9777	end:	7.7687	delta:	0.791
P2 start:	21.132	end:	23.4596	delta:	2.3276
P3 start:	35.3679	end:	39.0958	delta:	3.7279
P4 start:	49.7809	end:	54.6797	delta:	4.8989
P5 start:	64.4253	end:	70.1744	delta:	5.7491
P6 start:	79.3267	end:	85.5254	delta:	6.1986

H3: -9.81667e-07	H21: 7.01191e-08	H21f: 3.33901e-09
H5: -1.21481e-06	H23: 0.866741	H23f: 0.0376844
H7: -1.52509e-06	H25: -0.732365	H25f: -0.0292946
H9: -9.20313e-07	H27: -0.120327	H27f: -0.00445654
H11: -2.50995e-07	H29: -0.00724033	H29f: -0.000249666
H13: 4.38919e-07	H31: -0.000201804	H31f: -6.5098e-06
H15: 1.41115e-06	H33: 2.13234e-05	H33f: 6.46163e-07
H17: 9.09486e-07	H35: 2.38598e-05	H35f: 6.81708e-07
H19: 1.24e-06	H37: 2.05702e-05	H37f: 5.55953e-07

c2sd =	-0.0981
c3ed =	-0.4243
c4sd =	-0.0865
c4ed =	-0.4529
c5sd =	-0.0089
c5ed =	-0.3914
c6sd =	0.1167
c6ed =	-0.2646
varx =	4.77314%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.18
Actual Power:	0.18
Actual Amplitude:	0.424264
Distortion 2H-22H:	0.000146734%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	7.0492	end:	7.8619	delta:	0.8127
P2 start:	21.1157	end:	23.5078	delta:	2.3921
P3 start:	35.3141	end:	39.1468	delta:	3.8327
P4 start:	49.7025	end:	54.7416	delta:	5.0392
P5 start:	64.3332	end:	70.25	delta:	5.9168
P6 start:	79.2319	end:	85.6135	delta:	6.3816

H3: -2.98128e-07	H21: 4.42933e-07	H21f: 2.1092e-08
H5: -4.29304e-07	H23: 0.85487	H23f: 0.0371683
H7: -6.38846e-07	H25: -0.72245	H25f: -0.028898
H9: -3.37878e-07	H27: -0.126951	H27f: -0.00470189
H11: -8.13076e-08	H29: -0.00814732	H29f: -0.000280942
H13: -2.47676e-07	H31: -0.00026513	H31f: -8.55258e-06
H15: 6.20106e-07	H33: 8.13076e-08	H33f: 2.46387e-09
H17: 5.68197e-07	H35: 4.06306e-06	H35f: 1.16087e-07
H19: 6.21361e-07	H37: 4.08032e-06	H37f: 1.10279e-07

c2sd = -0.0837
c3ed = -0.4222
c4sd = -0.1011
c4ed = -0.4548
c5sd = -0.0268
c5ed = -0.39
c6sd = 0.1016
c6ed = -0.2562
varx = 4.70805%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.19
Actual Power:	0.19
Actual Amplitude:	0.435889
Distortion 2H-22H:	0.000177948%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 7.1191	end: 7.9531	delta: 0.834
P2 start: 21.1003	end: 23.555	delta: 2.4546
P3 start: 35.2618	end: 39.1961	delta: 3.9343
P4 start: 49.6259	end: 54.8014	delta: 5.1755
P5 start: 64.2432	end: 70.3232	delta: 6.08
P6 start: 79.1394	end: 85.6992	delta: 6.5598

H3: 1.74106e-07	H21: 3.31631e-07	H21f: 1.57919e-08
H5: -9.05352e-07	<b>H23: 0.8431</b>	<b>H23f: 0.0366565</b>
H7: -1.04464e-06	<b>H25: -0.712585</b>	<b>H25f: -0.0285034</b>
H9: -2.70832e-07	H27: -0.133441	H27f: -0.00494226
H11: -3.16557e-08	H29: -0.00901401	H29f: -0.000310828
H13: 2.27677e-07	H31: -0.000240963	H31f: -7.773e-06
H15: 2.20534e-07	H33: 7.00751e-05	H33f: 2.12349e-06
H17: 6.55458e-07	H35: 7.48706e-05	H35f: 2.13916e-06
H19: 7.14751e-07	H37: 7.40375e-05	H37f: 2.00101e-06

c2sd = -0.0671
c3ed = -0.4237
c4sd = -0.1115
c4ed = -0.4612
c5sd = -0.0397
c5ed = -0.3939
c6sd = 0.0917
c6ed = -0.2532
varx = 4.64343%.

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 20/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.2
Actual Power:	0.2
Actual Amplitude:	0.447213
Distortion 2H-22H:	7.24651e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 7.1855	end: 8.0403	delta: 0.8548
P2 start: 21.0851	end: 23.6004	delta: 2.5153
P3 start: 35.2104	end: 39.2435	delta: 4.033
P4 start: 49.5508	end: 54.8589	delta: 5.3081
P5 start: 64.155	end: 70.3941	delta: 6.2391
P6 start: 79.0488	end: 85.7826	delta: 6.7338

H3: 2.26263e-07	H21: 4.8485e-08	H21f: 2.30881e-09
H5: -3.73335e-07	<b>H23: 0.831533</b>	<b>H23f: 0.0361536</b>
H7: 2.42425e-08	<b>H25: -0.702645</b>	<b>H25f: -0.0281058</b>
H9: -3.77106e-07	H27: -0.139785	H27f: -0.00517722
H11: -4.62812e-08	H29: -0.00985334	H29f: -0.00033977
H13: 1.69698e-07	H31: -0.000145217	H31f: -4.68443e-06
H15: 2.82829e-07	H33: 0.000218776	H33f: 6.62958e-06
H17: 1.99644e-07	H35: 0.000224389	H35f: 6.4111e-06
H19: 1.96492e-07	H37: 0.000220313	H37f: 5.95441e-06

c2sd = -0.0523
c3ed = -0.424
c4sd = -0.1245
c4ed = -0.4659
c5sd = -0.0555
c5ed = -0.3954
c6sd = 0.0789
c6ed = -0.2474
varx = 4.57932%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.21
Actual Power:	0.21
Actual Amplitude:	0.458258
Distortion 2H-22H:	8.75165e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	7.3437	end:	8.2197	delta:	0.876
P2 start:	21.1033	end:	23.6769	delta:	2.5737
P3 start:	35.1784	end:	39.3065	delta:	4.1281
P4 start:	49.4883	end:	54.9243	delta:	5.436
P5 start:	64.0749	end:	70.4678	delta:	6.3928
P6 start:	78.9628	end:	85.865	delta:	6.9022

H3: -2.76013e-07	H21: 1.57722e-08	H21f: 7.51055e-10
H5: -2.98094e-07	H23: 0.815459	H23f: 0.0354547
H7: -3.07557e-07	H25: -0.69805	H25f: -0.027922
H9: -2.02409e-07	H27: -0.146556	H27f: -0.00542802
H11: 3.01105e-07	H29: -0.0103411	H29f: -0.00035659
H13: -1.2739e-08	H31: 0.000400279	H31f: 1.29122e-05
H15: 4.85782e-07	H33: 0.000810609	H33f: 2.45639e-05
H17: 3.70182e-07	H35: 0.000802619	H35f: 2.2932e-05
H19: 3.48648e-08	H37: 0.000784608	H37f: 2.12056e-05

c2sd = -0.0028
c3ed = -0.4109
c4sd = -0.1219
c4ed = -0.4655
c5sd = -0.0598
c5ed = -0.3975
c6sd = 0.0742
c6ed = -0.2464
varx = 4.51296%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.22
Actual Power:	0.22
Actual Amplitude:	0.469042
Distortion 2H-22H:	7.82472e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 7.4101	end: 8.3065	delta: 0.8963
P2 start: 21.0913	end: 23.7222	delta: 2.6309
P3 start: 35.1304	end: 39.3519	delta: 4.2215
P4 start: 49.4168	end: 54.9787	delta: 5.5619
P5 start: 63.9904	end: 70.5348	delta: 6.5444
P6 start: 78.8761	end: 85.9445	delta: 7.0684

H3: -1.618e-07	H21: 3.08191e-08	H21f: 1.46757e-09
H5: -4.5304e-07	H23: 0.803909	H23f: 0.0349526
H7: -1.618e-07	H25: -0.688414	H25f: -0.0275366
H9: -1.43822e-07	H27: -0.15262	H27f: -0.0056526
H11: 2.94182e-08	H29: -0.0110145	H29f: -0.000379812
H13: 1.36908e-07	H31: 0.000752443	H31f: 2.42724e-05
H15: 3.5596e-07	H33: 0.00121305	H33f: 3.67592e-05
H17: 3.80706e-07	H35: 0.00119341	H35f: 3.40974e-05
H19: 2.04379e-07	H37: 0.00116059	H37f: 3.13673e-05

c2sd = 0.0122
c3ed = -0.4084
c4sd = -0.1374
c4ed = -0.4671
c5sd = -0.0792
c5ed = -0.3956
c6sd = 0.0574
c6ed = -0.2368
varx = 4.44966%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.23  
 Actual Power: 0.23  
 Actual Amplitude: 0.479583  
 Distortion 2H-22H: 0.000109122%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 7.5486 end: 8.4662 delta: 0.9176  
 P2 start: 21.1073 end: 23.7936 delta: 2.6862  
 P3 start: 35.0989 end: 39.4106 delta: 4.3117  
 P4 start: 49.3561 end: 55.0397 delta: 5.6836  
 P5 start: 63.9129 end: 70.6042 delta: 6.6913  
 P6 start: 78.7933 end: 86.023 delta: 7.2297

H3: -2.63739e-07	H21: 6.17904e-07	H21f: 2.9424e-08
H5: -1.89892e-07	<b>H23: 0.788683</b>	<b>H23f: 0.0342906</b>
H7: -3.84306e-07	<b>H25: -0.683129</b>	<b>H25f: -0.0273252</b>
H9: 1.75826e-08	H27: -0.158856	H27f: -0.00588356
H11: -5.75432e-08	H29: -0.0111564	H29f: -0.000384702
H13: -1.46071e-07	H31: 0.00171586	H31f: 5.53504e-05
H15: 3.58686e-07	H33: 0.00220221	H33f: 6.67335e-05
H17: 3.72338e-08	H35: 0.00213848	H35f: 6.10994e-05
H19: 6.32975e-07	H37: 0.00206102	H37f: 5.57032e-05

c2sd = 0.0496  
 c3ed = -0.3838  
 c4sd = -0.1539  
 c4ed = -0.4504  
 c5sd = -0.1051  
 c5ed = -0.3778  
 c6sd = 0.03  
 c6ed = -0.2136  
 varx = 4.38465%.

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 24/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.24
Actual Power:	0.24
Actual Amplitude:	0.489898
Distortion 2H-22H:	4.10815e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 7.6978	end: 8.6372	delta: 0.9394
P2 start: 21.1304	end: 23.8704	delta: 2.7401
P3 start: 35.072	end: 39.4714	delta: 4.3994
P4 start: 49.2988	end: 55.1011	delta: 5.8022
P5 start: 63.8381	end: 70.6728	delta: 6.8347
P6 start: 78.7126	end: 86.1001	delta: 7.3875

H3: 0.0	H21: -5.9014e-08	H21f: -2.81019e-09
H5: 9.29471e-08	H23: 0.772773	H23f: 0.0335988
H7: -2.43433e-07	H25: -0.678734	H25f: -0.0271494
H9: -3.44248e-08	H27: -0.164851	H27f: -0.00610559
H11: 9.85802e-08	H29: -0.010901	H29f: -0.000375896
H13: -2.85991e-07	H31: 0.00310975	H31f: 0.000100315
H15: 1.03275e-08	H33: 0.00358782	H33f: 0.000108722
H17: 1.82249e-08	H35: 0.00344012	H35f: 9.82892e-05
H19: 6.5226e-08	H37: 0.00328093	H37f: 8.86737e-05

c2sd = 0.0967
c3ed = -0.3611
c4sd = -0.1613
c4ed = -0.4388
c5sd = -0.122
c5ed = -0.3671
c6sd = 0.0115
c6ed = -0.1988
varx = 4.31971%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 25/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.25
Actual Power:	0.25
Actual Amplitude:	0.5
Distortion 2H-22H:	5.23357e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 7.8504	end: 8.8124	delta: 0.962
P2 start: 21.1581	end: 23.9507	delta: 2.7925
P3 start: 35.0486	end: 39.5335	delta: 4.4849
P4 start: 49.2444	end: 55.1623	delta: 5.918
P5 start: 63.7655	end: 70.7405	delta: 6.975
P6 start: 78.6337	end: 86.1756	delta: 7.5419

H3: -2.02376e-07	H21: 1.30099e-07	H21f: 6.19519e-09
H5: -1.82139e-07	H23: 0.756516	H23f: 0.032892
H7: 0.0	H25: -0.67483	H25f: -0.0269932
H9: -1.51782e-07	H27: -0.170524	H27f: -0.00631572
H11: 1.51782e-07	H29: -0.0102304	H29f: -0.000352771
H13: -9.34044e-08	H31: 0.00493236	H31f: 0.000159108
H15: 2.83327e-07	H33: 0.0053506	H33f: 0.00016214
H17: 1.96424e-07	H35: 0.00506547	H35f: 0.000144728
H19: 9.58624e-08	H37: 0.00477425	H37f: 0.000129034

c2sd = 0.1506
c3ed = -0.3407
c4sd = -0.1616
c4ed = -0.4317
c5sd = -0.1314
c5ed = -0.3627
c6sd = 0.0004
c6ed = -0.191
varx = 4.25507%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.26
Actual Power:	0.26
Actual Amplitude:	0.509902
Distortion 2H-22H:	2.93617e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	7.9832	end:	8.9677	delta:	0.9845
P2 start:	21.181	end:	24.0248	delta:	2.8439
P3 start:	35.0232	end:	39.5916	delta:	4.5685
P4 start:	49.1892	end:	55.2206	delta:	6.0314
P5 start:	63.6931	end:	70.8057	delta:	7.1126
P6 start:	78.5557	end:	86.2496	delta:	7.6938

H3: 0.0	H21: -8.50483e-08	H21f: -4.04992e-09
H5: 8.93007e-08	H23: 0.741208	H23f: 0.0322264
H7: 4.25241e-08	H25: -0.669971	H25f: -0.0267988
H9: 6.61487e-08	H27: -0.175878	H27f: -0.00651398
H11: -1.08243e-07	H29: -0.00944903	H29f: -0.000325829
H13: -1.60283e-07	H31: 0.0068678	H31f: 0.000221542
H15: 1.58757e-07	H33: 0.00719169	H33f: 0.00021793
H17: -3.50199e-08	H35: 0.00673108	H35f: 0.000192317
H19: 3.13336e-08	H37: 0.00627491	H37f: 0.000169592

c2sd =	0.1991
c3ed =	-0.3234
c4sd =	-0.1634
c4ed =	-0.4268
c5sd =	-0.1417
c5ed =	-0.3595
c6sd =	-0.011
c6ed =	-0.1837
varx =	4.19143%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.27
Actual Power:	0.27
Actual Amplitude:	0.519615
Distortion 2H-22H:	5.24809e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	8.126	end:	9.1339	delta:	1.0079
P2 start:	21.2111	end:	24.1051	delta:	2.894
P3 start:	35.0027	end:	39.6526	delta:	4.6499
P4 start:	49.1376	end:	55.2796	delta:	6.142
P5 start:	63.6233	end:	70.8706	delta:	7.2473
P6 start:	78.4796	end:	86.3223	delta:	7.8426

H3: -4.86841e-08	H21: 2.78195e-08	H21f: 1.32474e-09
H5: -5.84209e-08	H23: 0.725192	H23f: 0.0315301
H7: 1.87782e-07	H25: -0.665992	H25f: -0.0266397
H9: -3.40789e-07	H27: -0.180888	H27f: -0.00669957
H11: 2.92105e-07	H29: -0.00815344	H29f: -0.000281153
H13: 0.0	H31: 0.00930596	H31f: 0.000300192
H15: 4.86841e-08	H33: 0.00945238	H33f: 0.000286436
H17: -1.03096e-07	H35: 0.00873671	H35f: 0.00024962
H19: 1.38365e-07	H37: 0.00804608	H37f: 0.000217462

c2sd =	0.2534
c3ed =	-0.3008
c4sd =	-0.1651
c4ed =	-0.4177
c5sd =	-0.1533
c5ed =	-0.3527
c6sd =	-0.0247
c6ed =	-0.1734
varx =	4.12791%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.28  
 Actual Power: 0.28  
 Actual Amplitude: 0.52915  
 Distortion 2H-22H: 3.6362e-05%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 8.275 end: 9.3073 delta: 1.0323  
 P2 start: 21.2476 end: 24.1905 delta: 2.9429  
 P3 start: 34.9865 end: 39.7158 delta: 4.7294  
 P4 start: 49.0892 end: 55.3393 delta: 6.2501  
 P5 start: 63.5559 end: 70.935 delta: 7.3791  
 P6 start: 78.4053 end: 86.3938 delta: 7.9885

H3: -9.56137e-08	H21: -1.36591e-07	H21f: -6.50434e-09
H5: -1.14736e-07	<b>H23: 0.708638</b>	<b>H23f: 0.0308103</b>
H7: -4.09773e-08	<b>H25: -0.662681</b>	<b>H25f: -0.0265072</b>
H9: 7.96781e-08	H27: -0.185492	H27f: -0.00687008
H11: -3.91147e-08	H29: -0.00630906	H29f: -0.000217554
H13: 4.41294e-08	H31: 0.0122539	H31f: 0.000395287
H15: 0.0	H33: 0.0121177	H33f: 0.000367202
H17: -1.6873e-07	H35: 0.0110477	H35f: 0.00031565
H19: 2.26454e-07	H37: 0.0100386	H37f: 0.000271313

c2sd = 0.3137  
 c3ed = -0.2755  
 c4sd = -0.1639  
 c4ed = -0.4075  
 c5sd = -0.163  
 c5ed = -0.346  
 c6sd = -0.0372  
 c6ed = -0.1637  
 varx = 4.06466%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.29
Actual Power:	0.29
Actual Amplitude:	0.538517
Distortion 2H-22H:	4.96231e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	8.4044	end:	9.4608	delta:	1.0565
P2 start:	21.2783	end:	24.2693	delta:	2.991
P3 start:	34.9677	end:	39.775	delta:	4.8073
P4 start:	49.0398	end:	55.396	delta:	6.3562
P5 start:	63.4884	end:	70.9972	delta:	7.5088
P6 start:	78.3315	end:	86.4639	delta:	8.1324

H3: -4.69753e-08	H21: 3.22117e-07	H21f: 1.53389e-08
H5: -8.45556e-08	H23: 0.693093	H23f: 0.0301345
H7: 1.20794e-07	H25: -0.658362	H25f: -0.0263345
H9: 6.26338e-08	H27: -0.189839	H27f: -0.00703107
H11: -1.15303e-07	H29: -0.00446354	H29f: -0.000153915
H13: 9.75642e-08	H31: 0.0151862	H31f: 0.000489876
H15: -4.69753e-08	H33: 0.0147184	H33f: 0.000446011
H17: 1.82375e-07	H35: 0.0132519	H35f: 0.000378625
H19: -2.37349e-07	H37: 0.0118918	H37f: 0.0003214

c2sd = 0.3623
c3ed = -0.2447
c4sd = -0.1765
c4ed = -0.3878
c5sd = -0.1876
c5ed = -0.3269
c6sd = -0.0648
c6ed = -0.1398
varx = 4.00242%.

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 30/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.3
Actual Power:	0.3
Actual Amplitude:	0.547722
Distortion 2H-22H:	6.67656e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 8.4034	end: 9.4772	delta: 1.0738
P2 start: 21.2479	end: 24.2866	delta: 3.0386
P3 start: 34.9139	end: 39.7994	delta: 4.8855
P4 start: 48.9687	end: 55.4319	delta: 6.4631
P5 start: 63.4085	end: 71.0483	delta: 7.6398
P6 start: 78.2531	end: 86.5311	delta: 8.278

H3: -4.61858e-08	H21: -2.63919e-08	H21f: -1.25676e-09
H5: -2.77115e-08	H23: 0.685602	H23f: 0.0298088
H7: -9.89696e-08	H25: -0.645602	H25f: -0.0258241
H9: -2.46324e-07	H27: -0.195076	H27f: -0.00722503
H11: 2.01538e-07	H29: -0.00565979	H29f: -0.000195165
H13: -2.34482e-07	H31: 0.0153408	H31f: 0.000494863
H15: 4.61858e-07	H33: 0.0149564	H33f: 0.000453225
H17: 1.7931e-07	H35: 0.0134555	H35f: 0.000384442
H19: 1.7502e-07	H37: 0.0120615	H37f: 0.000325986

c2sd = 0.3625
c3ed = -0.269
c4sd = -0.1841
c4ed = -0.4153
c5sd = -0.1936
c5ed = -0.3496
c6sd = -0.0639
c6ed = -0.1518
varx = 3.94436%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.31
Actual Power:	0.31
Actual Amplitude:	0.556776
Distortion 2H-22H:	3.79962e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 8.5402	end: 9.6392	delta: 1.099
P2 start: 21.2862	end: 24.3709	delta: 3.0847
P3 start: 34.9007	end: 39.8607	delta: 4.96
P4 start: 48.9235	end: 55.4884	delta: 6.5649
P5 start: 63.3442	end: 71.109	delta: 7.7648
P6 start: 78.182	end: 86.5991	delta: 8.4171

H3: 4.54348e-08	H21: 3.89441e-08	H21f: 1.85448e-09
H5: -1.90826e-07	H23: 0.669527	H23f: 0.0291099
H7: 5.84161e-08	H25: -0.642123	H25f: -0.0256849
H9: -4.54348e-08	H27: -0.198939	H27f: -0.00736809
H11: 2.60217e-07	H29: -0.00324092	H29f: -0.000111756
H13: -1.04849e-08	H31: 0.018819	H31f: 0.000607065
H15: -1.63565e-07	H33: 0.0179643	H33f: 0.000544372
H17: 3.20716e-08	H35: 0.0159382	H35f: 0.000455379
H19: -5.73913e-08	H37: 0.0140903	H37f: 0.000380818

c2sd = 0.4217
c3ed = -0.241
c4sd = -0.1859
c4ed = -0.4022
c5sd = -0.2074
c5ed = -0.3394
c6sd = -0.0808
c6ed = -0.1381
varx = 3.88279%.

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 32/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.32
Actual Power:	0.32
Actual Amplitude:	0.565686
Distortion 2H-22H:	6.24328e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 8.6443	end: 9.767	delta: 1.1227
P2 start: 21.3108	end: 24.4409	delta: 3.1301
P3 start: 34.8801	end: 39.9135	delta: 5.0334
P4 start: 48.8741	end: 55.5394	delta: 6.6654
P5 start: 63.2778	end: 71.1663	delta: 7.8885
P6 start: 78.1105	end: 86.6656	delta: 8.5552

H3: 4.47192e-08	H21: -1.78877e-07	H21f: -8.51794e-09
H5: 1.60989e-07	H23: 0.655407	H23f: 0.028496
H7: 7.66614e-08	H25: -0.636669	H25f: -0.0254668
H9: 1.6397e-07	H27: -0.202812	H27f: -0.00751157
H11: 1.21961e-07	H29: -0.00138398	H29f: -4.77234e-05
H13: -4.33432e-07	H31: 0.0217721	H31f: 0.000702324
H15: -8.04945e-08	H33: 0.0204887	H33f: 0.00062087
H17: -2.84098e-07	H35: 0.0179724	H35f: 0.000513497
H19: -8.4731e-08	H37: 0.0157085	H37f: 0.000424554

c2sd = 0.4651
c3ed = -0.218
c4sd = -0.1964
c4ed = -0.3901
c5sd = -0.2284
c5ed = -0.3274
c6sd = -0.1037
c6ed = -0.1202
varx = 3.8226%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.33
Actual Power:	0.33
Actual Amplitude:	0.574457
Distortion 2H-22H:	4.68364e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	8.6657	end:	9.8067	delta:	1.141
P2 start:	21.2937	end:	24.4686	delta:	3.1749
P3 start:	34.8353	end:	39.942	delta:	5.1067
P4 start:	48.8097	end:	55.5758	delta:	6.7661
P5 start:	63.2028	end:	71.2157	delta:	8.0129
P6 start:	78.0357	end:	86.73	delta:	8.6943

H3: -4.40364e-08	H21: 5.03273e-08	H21f: 2.39654e-09
H5: 3.43484e-07	H23: 0.646665	H23f: 0.0281159
H7: -1.13236e-07	H25: -0.625713	H25f: -0.0250285
H9: -1.02752e-07	H27: -0.207566	H27f: -0.00768762
H11: 7.20596e-08	H29: -0.00196994	H29f: -6.7929e-05
H13: 2.03245e-08	H31: 0.0225821	H31f: 0.000728454
H15: -3.52291e-08	H33: 0.021267	H33f: 0.000644454
H17: 2.17592e-07	H35: 0.0185969	H35f: 0.00053134
H19: 1.39062e-07	H37: 0.0161969	H37f: 0.000437754

c2sd = 0.4763
c3ed = -0.2346
c4sd = -0.202
c4ed = -0.4125
c5sd = -0.235
c5ed = -0.3465
c6sd = -0.105
c6ed = -0.1293
varx = 3.76514%.

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 34/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.34
Actual Power:	0.34
Actual Amplitude:	0.583095
Distortion 2H-22H:	3.32342e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 8.7036	end: 9.8639	delta: 1.1604
P2 start: 21.2859	end: 24.5046	delta: 3.2187
P3 start: 34.7964	end: 39.9748	delta: 5.1784
P4 start: 48.7492	end: 55.614	delta: 6.8647
P5 start: 63.1305	end: 71.2654	delta: 8.135
P6 start: 77.9626	end: 86.7937	delta: 8.831

H3: 4.3384e-08	H21: -7.43726e-08	H21f: -3.54155e-09
H5: 1.30152e-07	H23: 0.636887	H23f: 0.0276908
H7: 1.85931e-08	H25: -0.615986	H25f: -0.0246394
H9: -2.31381e-07	H27: -0.212007	H27f: -0.0078521
H11: 5.916e-08	H29: -0.00203892	H29f: -7.03075e-05
H13: 1.50175e-07	H31: 0.0238785	H31f: 0.000770274
H15: 1.73536e-08	H33: 0.0224352	H33f: 0.000679853
H17: 7.656e-08	H35: 0.0195234	H35f: 0.00055781
H19: 0.0	H37: 0.0169148	H37f: 0.000457158

c2sd = 0.4921
c3ed = -0.2394
c4sd = -0.2136
c4ed = -0.4232
c5sd = -0.2504
c5ed = -0.3537
c6sd = -0.117
c6ed = -0.1267
varx = 3.70763%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 35/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.35  
Actual Power: 0.35  
Actual Amplitude: 0.591608  
Distortion 2H-22H: 6.84804e-05%  
First strong harmonics: 23 and 25  
Pulses per sine cycle: 24  
Total switching events: 48  
Delta Friendly: No

P1 start: 8.743	end: 9.9227	delta: 1.1797
P2 start: 21.2796	end: 24.5414	delta: 3.2618
P3 start: 34.7587	end: 40.0074	delta: 5.2487
P4 start: 48.6899	end: 55.6515	delta: 6.9616
P5 start: 63.059	end: 71.3142	delta: 8.2552
P6 start: 77.8903	end: 86.8564	delta: 8.9661

H3: 2.13799e-07	H21: 2.19907e-07	H21f: 1.04718e-08
H5: 2.56558e-08	H23: 0.627043	H23f: 0.0272627
H7: -3.66512e-08	H25: -0.606471	H25f: -0.0242588
H9: -2.13799e-07	H27: -0.216322	H27f: -0.00801191
H11: 1.9825e-07	H29: -0.00204474	H29f: -7.05084e-05
H13: -4.93382e-08	H31: 0.0252594	H31f: 0.00081482
H15: 2.90766e-07	H33: 0.0236685	H33f: 0.000717227
H17: 3.47108e-07	H35: 0.0204902	H35f: 0.000585433
H19: 2.83565e-07	H37: 0.017655	H37f: 0.000477163

c2sd = 0.5095  
c3ed = -0.2445  
c4sd = -0.2238  
c4ed = -0.4348  
c5sd = -0.2647  
c5ed = -0.3621  
c6sd = -0.1279  
c6ed = -0.1254  
varx = 3.65049%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 36/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.36
Actual Power:	0.36
Actual Amplitude:	0.6
Distortion 2H-22H:	8.77723e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 8.7823	end: 9.9812	delta: 1.1989
P2 start: 21.2739	end: 24.578	delta: 3.3041
P3 start: 34.7216	end: 40.0394	delta: 5.3178
P4 start: 48.6311	end: 55.6881	delta: 7.0569
P5 start: 62.9881	end: 71.362	delta: 8.3739
P6 start: 77.8186	end: 86.9183	delta: 9.0997

H3: -2.5297e-07	H21: 4.69801e-07	H21f: 2.23715e-08
H5: 1.01188e-07	H23: 0.617251	H23f: 0.026837
H7: -7.22771e-08	H25: -0.597042	H25f: -0.0238817
H9: -1.96754e-07	H27: -0.220536	H27f: -0.00816798
H11: -4.59945e-08	H29: -0.00204496	H29f: -7.05158e-05
H13: 3.98914e-07	H31: 0.0266724	H31f: 0.000860401
H15: 3.11996e-07	H33: 0.0249235	H33f: 0.000755258
H17: 3.57134e-07	H35: 0.0214645	H35f: 0.000613271
H19: 2.13027e-07	H37: 0.018391	H37f: 0.000497054

c2sd = 0.5269
c3ed = -0.2491
c4sd = -0.2348
c4ed = -0.446
c5sd = -0.28
c5ed = -0.3699
c6sd = -0.14
c6ed = -0.1231
varx = 3.59375%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.37  
 Actual Power: 0.37  
 Actual Amplitude: 0.608276  
 Distortion 2H-22H: 3.81703e-05%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 8.8895 end: 10.1134 delta: 1.2239  
 P2 start: 21.3074 end: 24.653 delta: 3.3455  
 P3 start: 34.7086 end: 40.0928 delta: 5.3842  
 P4 start: 48.5879 end: 55.7365 delta: 7.1486  
 P5 start: 62.9268 end: 71.415 delta: 8.4883  
 P6 start: 77.7515 end: 86.9804 delta: 9.2289

H3: -2.0794e-07	H21: 1.5447e-07	H21f: 7.3557e-09
H5: 2.49528e-08	<b>H23: 0.602925</b>	<b>H23f: 0.0262141</b>
H7: 1.78234e-08	<b>H25: -0.592521</b>	<b>H25f: -0.0237008</b>
H9: 0.0	H27: -0.223552	H27f: -0.0082797
H11: 5.67109e-08	H29: 0.000540056	H29f: 1.86226e-05
H13: -1.0557e-07	H31: 0.030329	H31f: 0.000978353
H15: 1.58034e-07	H33: 0.0278928	H33f: 0.000845238
H17: -1.32103e-07	H35: 0.0237092	H35f: 0.000677405
H19: -1.44464e-07	H37: 0.0200487	H37f: 0.000541858

c2sd = 0.5794  
 c3ed = -0.226  
 c4sd = -0.2385  
 c4ed = -0.4371  
 c5sd = -0.2952  
 c5ed = -0.363  
 c6sd = -0.1576  
 c6ed = -0.1105  
 varx = 3.53565%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.38
Actual Power:	0.38
Actual Amplitude:	0.616442
Distortion 2H-22H:	9.01372e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 8.9808	end: 10.2289	delta: 1.2481
P2 start: 21.3342	end: 24.7207	delta: 3.3864
P3 start: 34.692	end: 40.1418	delta: 5.4497
P4 start: 48.5427	end: 55.7818	delta: 7.2391
P5 start: 62.8644	end: 71.466	delta: 8.6016
P6 start: 77.6843	end: 87.0414	delta: 9.3571

H3: 1.23111e-07	H21: 3.63472e-07	H21f: 1.73082e-08
H5: 4.92446e-08	H23: 0.589592	H23f: 0.0256344
H7: 3.34159e-07	H25: -0.587067	H25f: -0.0234827
H9: -5.47162e-08	H27: -0.226551	H27f: -0.00839078
H11: 7.83436e-08	H29: 0.00279665	H29f: 9.64362e-05
H13: -4.07215e-07	H31: 0.0336835	H31f: 0.00108657
H15: -1.96978e-07	H33: 0.0305751	H33f: 0.00092652
H17: -2.02772e-07	H35: 0.0256844	H35f: 0.00073384
H19: -5.44282e-07	H37: 0.0214596	H37f: 0.000579991

c2sd = 0.6282
c3ed = -0.212
c4sd = -0.2382
c4ed = -0.4373
c5sd = -0.3045
c5ed = -0.365
c6sd = -0.1679
c6ed = -0.1064
varx = 3.47844%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.39  
 Actual Power: 0.39  
 Actual Amplitude: 0.6245  
 Distortion 2H-22H: 3.92354e-05%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 8.9856      end: 10.2499      delta: 1.2643  
 P2 start: 21.3112      end: 24.7378      delta: 3.4266  
 P3 start: 34.6455      end: 40.1613      delta: 5.5158  
 P4 start: 48.4785      end: 55.8095      delta: 7.3309  
 P5 start: 62.7908      end: 71.5077      delta: 8.7168  
 P6 start: 77.6125      end: 87.1004      delta: 9.4879

H3: 0.0	H21: -1.2731e-07	H21f: -6.06236e-09
H5: 1.21523e-07	H23: 0.582251	H23f: 0.0253152
H7: -6.94416e-08	H25: -0.575517	H25f: -0.0230207
H9: 1.21523e-07	H27: -0.231046	H27f: -0.00855725
H11: -1.10475e-08	H29: 0.00154371	H29f: 5.32313e-05
H13: -1.40219e-07	H31: 0.0341105	H31f: 0.00110034
H15: -4.05076e-08	H33: 0.0310649	H33f: 0.00094136
H17: -2.00155e-07	H35: 0.0260536	H35f: 0.000744389
H19: 2.0467e-07	H37: 0.0217203	H37f: 0.000587034

c2sd = 0.6292  
 c3ed = -0.2308  
 c4sd = -0.2524  
 c4ed = -0.4596  
 c5sd = -0.32  
 c5ed = -0.3815  
 c6sd = -0.1774  
 c6ed = -0.1097  
 varx = 3.42382%.

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 40/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.4
Actual Power:	0.4
Actual Amplitude:	0.632455
Distortion 2H-22H:	4.26306e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 9.0782	end: 10.3673	delta: 1.2891
P2 start: 21.3415	end: 24.8077	delta: 3.4662
P3 start: 34.6319	end: 40.2108	delta: 5.5789
P4 start: 48.4356	end: 55.854	delta: 7.4184
P5 start: 62.7302	end: 71.5572	delta: 8.827
P6 start: 77.5467	end: 87.16	delta: 9.6133

H3: 0.0	H21: 1.02852e-07	H21f: 4.89772e-09
H5: -4.79977e-08	H23: 0.568827	H23f: 0.0247316
H7: -1.7142e-07	H25: -0.570432	H25f: -0.0228173
H9: 2.26656e-07	H27: -0.233694	H27f: -0.00865533
H11: 1.09086e-07	H29: 0.00410265	H29f: 0.000141471
H13: -9.23032e-09	H31: 0.0377314	H31f: 0.00121714
H15: 2.0799e-07	H33: 0.0338897	H33f: 0.00102696
H17: -1.4117e-07	H35: 0.0280666	H35f: 0.000801901
H19: 1.13679e-07	H37: 0.0231002	H37f: 0.000624329

c2sd = 0.6768
c3ed = -0.2087
c4sd = -0.2596
c4ed = -0.4508
c5sd = -0.339
c5ed = -0.3736
c6sd = -0.1985
c6ed = -0.0948
varx = 3.36746%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.41  
 Actual Power: 0.41  
 Actual Amplitude: 0.640312  
 Distortion 2H-22H: 3.2775e-05%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 9.1081 end: 10.4158 delta: 1.3077  
 P2 start: 21.3347 end: 24.8399 delta: 3.5051  
 P3 start: 34.5958 end: 40.2381 delta: 5.6423  
 P4 start: 48.3786 end: 55.8851 delta: 7.5065  
 P5 start: 62.6612 end: 71.5995 delta: 8.9384  
 P6 start: 77.4774 end: 87.2179 delta: 9.7405

H3: -1.18522e-07	H21: 2.25756e-08	H21f: 1.07503e-09
H5: 2.37044e-08	H23: 0.559815	H23f: 0.0243398
H7: 5.07951e-08	H25: -0.5609	H25f: -0.022436
H9: -1.05353e-07	H27: -0.237496	H27f: -0.00879616
H11: 1.18522e-07	H29: 0.00395603	H29f: 0.000136415
H13: -3.64683e-08	H31: 0.0391301	H31f: 0.00126226
H15: 1.58029e-08	H33: 0.0350828	H33f: 0.00106311
H17: -2.50987e-07	H35: 0.0289125	H35f: 0.000826071
H19: 0.0	H37: 0.0236669	H37f: 0.000639647

c2sd = 0.6944  
 c3ed = -0.2202  
 c4sd = -0.2661  
 c4ed = -0.4703  
 c5sd = -0.3492  
 c5ed = -0.3901  
 c6sd = -0.2046  
 c6ed = -0.1001  
 varx = 3.31302%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.42  
 Actual Power: 0.42  
 Actual Amplitude: 0.648074  
 Distortion 2H-22H: 4.49077e-05%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 9.1496 end: 10.4772 delta: 1.3276  
 P2 start: 21.3359 end: 24.8793 delta: 3.5434  
 P3 start: 34.5649 end: 40.2692 delta: 5.7043  
 P4 start: 48.3249 end: 55.9179 delta: 7.5929  
 P5 start: 62.5943 end: 71.6422 delta: 9.0479  
 P6 start: 77.4094 end: 87.2754 delta: 9.866

H3: 3.90341e-08	H21: 3.79189e-07	H21f: 1.80566e-08
H5: -1.17102e-07	<b>H23: 0.55001</b>	<b>H23f: 0.0239135</b>
H7: 1.00373e-07	<b>H25: -0.552328</b>	<b>H25f: -0.0220931</b>
H9: -1.30114e-08	H27: -0.240941	H27f: -0.00892374
H11: 1.59685e-07	H29: 0.00436739	H29f: 0.0001506
H13: 3.60315e-08	H31: 0.0410084	H31f: 0.00132285
H15: -5.46478e-08	H33: 0.0366121	H33f: 0.00110946
H17: -1.37768e-08	H35: 0.0299757	H35f: 0.000856449
H19: -4.93063e-08	H37: 0.0243645	H37f: 0.0006585

c2sd = 0.7172  
 c3ed = -0.2235  
 c4sd = -0.2749  
 c4ed = -0.4823  
 c5sd = -0.3639  
 c5ed = -0.3997  
 c6sd = -0.2166  
 c6ed = -0.0986  
 varx = 3.25872%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.43  
 Actual Power: 0.43  
 Actual Amplitude: 0.655744  
 Distortion 2H-22H: 3.12779e-05%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 9.2009 end: 10.5495 delta: 1.3486  
 P2 start: 21.3441 end: 24.9253 delta: 3.5812  
 P3 start: 34.5387 end: 40.3037 delta: 5.765  
 P4 start: 48.2744 end: 55.9521 delta: 7.6776  
 P5 start: 62.5294 end: 71.6851 delta: 9.1557  
 P6 start: 77.3424 end: 87.3323 delta: 9.9899

H3: -3.85776e-08	H21: -1.65332e-07	H21f: -7.87297e-09
H5: 4.62931e-08	<b>H23: 0.53953</b>	<b>H23f: 0.0234578</b>
H7: -1.32266e-07	<b>H25: -0.54459</b>	<b>H25f: -0.0217836</b>
H9: 1.41451e-07	H27: -0.244046	H27f: -0.00903873
H11: -7.36481e-08	H29: 0.0053014	H29f: 0.000182807
H13: 3.56101e-08	H31: 0.0433272	H31f: 0.00139765
H15: -1.5431e-08	H33: 0.0384379	H33f: 0.00116479
H17: -1.49772e-07	H35: 0.0312186	H35f: 0.00089196
H19: 0.0	H37: 0.0251588	H37f: 0.000679968

c2sd = 0.7462  
 c3ed = -0.222  
 c4sd = -0.2824  
 c4ed = -0.4911  
 c5sd = -0.3787  
 c5ed = -0.4068  
 c6sd = -0.2299  
 c6ed = -0.0954  
 varx = 3.2046%.

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 44/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.44
Actual Power:	0.44
Actual Amplitude:	0.663325
Distortion 2H-22H:	4.15136e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 9.2551	end: 10.6251	delta: 1.3701
P2 start: 21.3552	end: 24.9737	delta: 3.6185
P3 start: 34.5146	end: 40.3393	delta: 5.8247
P4 start: 48.2254	end: 55.9864	delta: 7.7609
P5 start: 62.4655	end: 71.7275	delta: 9.262
P6 start: 77.2761	end: 87.3887	delta: 10.1126

H3: 1.52547e-07	H21: 2.17924e-08	H21f: 1.03773e-09
H5: -2.2882e-08	H23: 0.528858	H23f: 0.0229938
H7: 1.63443e-08	H25: -0.537184	H25f: -0.0214874
H9: 1.27122e-08	H27: -0.246946	H27f: -0.00914614
H11: 5.20045e-08	H29: 0.00645613	H29f: 0.000222625
H13: -1.76015e-07	H31: 0.0458342	H31f: 0.00147852
H15: -2.51702e-07	H33: 0.0403724	H33f: 0.00122341
H17: -1.6152e-07	H35: 0.0325071	H35f: 0.000928775
H19: -1.56561e-07	H37: 0.0259579	H37f: 0.000701565

c2sd = 0.7774
c3ed = -0.2185
c4sd = -0.2896
c4ed = -0.4986
c5sd = -0.3939
c5ed = -0.4131
c6sd = -0.2439
c6ed = -0.0913
varx = 3.15085%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 45/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.45
Actual Power:	0.45
Actual Amplitude:	0.67082
Distortion 2H-22H:	7.19002e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 9.3113	end: 10.7033	delta: 1.392
P2 start: 21.3687	end: 25.0241	delta: 3.6553
P3 start: 34.4924	end: 40.3756	delta: 5.8833
P4 start: 48.1778	end: 56.0207	delta: 7.8429
P5 start: 62.4025	end: 71.7694	delta: 9.3669
P6 start: 77.2104	end: 87.4445	delta: 10.2341

H3: -1.13132e-07	H21: 2.80135e-07	H21f: 1.33398e-08
H5: -4.52527e-08	H23: 0.51804	H23f: 0.0225235
H7: 3.23233e-08	H25: -0.530061	H25f: -0.0212024
H9: -1.25702e-08	H27: -0.249647	H27f: -0.0092462
H11: -1.85124e-07	H29: 0.00781323	H29f: 0.000269422
H13: 3.2199e-07	H31: 0.0485083	H31f: 0.00156479
H15: 3.24311e-07	H33: 0.0423946	H33f: 0.00128468
H17: 4.12598e-07	H35: 0.0338208	H35f: 0.000966308
H19: -9.52687e-08	H37: 0.0267424	H37f: 0.000722768

c2sd = 0.8115
c3ed = -0.2149
c4sd = -0.2945
c4ed = -0.507
c5sd = -0.4072
c5ed = -0.4209
c6sd = -0.2563
c6ed = -0.0888
varx = 3.09747%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 46/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.46
Actual Power:	0.46
Actual Amplitude:	0.678233
Distortion 2H-22H:	2.04976e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	9.3717	end:	10.7864	delta:	1.4147
P2 start:	21.3863	end:	25.0781	delta:	3.6917
P3 start:	34.4731	end:	40.4138	delta:	5.9408
P4 start:	48.1322	end:	56.0555	delta:	7.9233
P5 start:	62.3407	end:	71.8111	delta:	9.4703
P6 start:	77.1454	end:	87.4998	delta:	10.3544

H3: -3.72984e-08	H21: -6.39401e-08	H21f: -3.04477e-09
H5: 2.2379e-08	H23: 0.506911	H23f: 0.0220396
H7: -1.5985e-08	H25: -0.523386	H25f: -0.0209354
H9: -3.72984e-08	H27: -0.252079	H27f: -0.00933626
H11: 6.10337e-08	H29: 0.00951308	H29f: 0.000328037
H13: -4.30366e-08	H31: 0.0514513	H31f: 0.00165972
H15: 1.49194e-07	H33: 0.0445651	H33f: 0.00135046
H17: 6.58207e-08	H35: 0.035192	H35f: 0.00100549
H19: -4.71138e-08	H37: 0.0275293	H37f: 0.000744035

c2sd = 0.8482
c3ed = -0.207
c4sd = -0.3006
c4ed = -0.5117
c5sd = -0.4229
c5ed = -0.4253
c6sd = -0.2719
c6ed = -0.0829
varx = 3.04446%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.47  
 Actual Power: 0.47  
 Actual Amplitude: 0.685565  
 Distortion 2H-22H: 3.9313e-05%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 9.4315      end: 10.8691      delta: 1.4376  
 P2 start: 21.4048      end: 25.1325      delta: 3.7277  
 P3 start: 34.4547      end: 40.452      delta: 5.9973  
 P4 start: 48.0873      end: 56.0898      delta: 8.0025  
 P5 start: 62.2795      end: 71.852      delta: 9.5725  
 P6 start: 77.0808      end: 87.5545      delta: 10.4737

H3: 1.10698e-07	H21: -7.37989e-08	H21f: -3.51423e-09
H5: -6.6419e-08	<b>H23: 0.495827</b>	<b>H23f: 0.0215577</b>
H7: 6.32562e-08	<b>H25: -0.51679</b>	<b>H25f: -0.0206716</b>
H9: 2.45996e-08	H27: -0.254363	H27f: -0.00942086
H11: -2.51587e-07	H29: 0.0112994	H29f: 0.000389635
H13: 1.70305e-07	H31: 0.0544574	H31f: 0.00175669
H15: 1.47598e-07	H33: 0.0467393	H33f: 0.00141634
H17: -1.30233e-08	H35: 0.0365258	H35f: 0.0010436
H19: 1.16525e-07	H37: 0.0282582	H37f: 0.000763736

c2sd = 0.8866  
 c3ed = -0.2007  
 c4sd = -0.304  
 c4ed = -0.5189  
 c5sd = -0.4359  
 c5ed = -0.4327  
 c6sd = -0.2846  
 c6ed = -0.0801  
 varx = 2.9919%.

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 48/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.48
Actual Power:	0.479999
Actual Amplitude:	0.69282
Distortion 2H-22H:	5.03434e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 9.4834	end: 10.9431	delta: 1.4597
P2 start: 21.4189	end: 25.182	delta: 3.7631
P3 start: 34.4338	end: 40.487	delta: 6.0531
P4 start: 48.0409	end: 56.1217	delta: 8.0808
P5 start: 62.2173	end: 71.8913	delta: 9.674
P6 start: 77.0159	end: 87.6085	delta: 10.5926

H3: -2.92105e-07	H21: -5.21616e-08	H21f: -2.48388e-09
H5: 6.57236e-08	H23: 0.485337	H23f: 0.0211016
H7: -1.87782e-07	H25: -0.509712	H25f: -0.0203885
H9: 2.43421e-07	H27: -0.256728	H27f: -0.00950846
H11: -2.38995e-07	H29: 0.0127292	H29f: 0.000438939
H13: 8.4261e-08	H31: 0.0571898	H31f: 0.00184483
H15: 7.30262e-09	H33: 0.0487066	H33f: 0.00147596
H17: -1.2887e-08	H35: 0.0377012	H35f: 0.00107718
H19: -4.61218e-08	H37: 0.0288699	H37f: 0.000780267

c2sd = 0.9208
c3ed = -0.1975
c4sd = -0.309
c4ed = -0.5284
c5sd = -0.4498
c5ed = -0.4416
c6sd = -0.2978
c6ed = -0.0778
varx = 2.93991%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.49  
 Actual Power: 0.49  
 Actual Amplitude: 0.7  
 Distortion 2H-22H: 2.69268e-05%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 9.5442      end: 11.0275      delta: 1.4833  
 P2 start: 21.4407      end: 25.239      delta: 3.7983  
 P3 start: 34.4183      end: 40.5261      delta: 6.1078  
 P4 start: 47.9981      end: 56.1556      delta: 8.1575  
 P5 start: 62.1573      end: 71.931      delta: 9.7737  
 P6 start: 76.9521      end: 87.6622      delta: 10.7101

H3: 3.61386e-08	H21: 1.23904e-07	H21f: 5.90018e-09
H5: 2.16831e-08	H23: 0.474158	H23f: 0.0206156
H7: -1.70368e-07	H25: -0.50346	H25f: -0.0201384
H9: 7.22772e-08	H27: -0.258646	H27f: -0.00957947
H11: 0.0	H29: 0.0148298	H29f: 0.000511373
H13: 7.5057e-08	H31: 0.0604226	H31f: 0.00194911
H15: 8.67326e-08	H33: 0.0509471	H33f: 0.00154385
H17: -8.92835e-08	H35: 0.0389899	H35f: 0.001114
H19: 0.0	H37: 0.0294979	H37f: 0.00079724

c2sd = 0.9603  
 c3ed = -0.1867  
 c4sd = -0.3149  
 c4ed = -0.5314  
 c5sd = -0.4668  
 c5ed = -0.4449  
 c6sd = -0.3155  
 c6ed = -0.0703  
 varx = 2.88822%.

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 50/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.5  
Actual Power: 0.5  
Actual Amplitude: 0.707107  
Distortion 2H-22H: 4.09261e-05%  
First strong harmonics: 23 and 25  
Pulses per sine cycle: 24  
Total switching events: 48  
Delta Friendly: No

P1 start: 9.5569 end: 11.0569 delta: 1.5  
P2 start: 21.4279 end: 25.2602 delta: 3.8323  
P3 start: 34.3805 end: 40.5433 delta: 6.1628  
P4 start: 47.9406 end: 56.1759 delta: 8.2353  
P5 start: 62.0883 end: 71.9636 delta: 9.8753  
P6 start: 76.8842 end: 87.7145 delta: 10.8304

H3: 1.43101e-07	H21: -1.43101e-07	H21f: -6.81436e-09
H5: -1.71722e-07	H23: 0.466745	H23f: 0.0202933
H7: 1.53323e-08	H25: -0.493503	H25f: -0.0197401
H9: -3.57754e-08	H27: -0.262076	H27f: -0.00970651
H11: -4.87846e-08	H29: 0.0138636	H29f: 0.000478056
H13: 1.65117e-08	H31: 0.0613908	H31f: 0.00198035
H15: 8.58609e-08	H33: 0.0518014	H33f: 0.00156974
H17: -7.57596e-08	H35: 0.0395053	H35f: 0.00112872
H19: 2.82437e-07	H37: 0.0297528	H37f: 0.00080413

c2sd = 0.969  
c3ed = -0.2037  
c4sd = -0.3278  
c4ed = -0.5556  
c5sd = -0.484  
c5ed = -0.4641  
c6sd = -0.3278  
c6ed = -0.0735  
varx = 2.83765%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.51
Actual Power:	0.51
Actual Amplitude:	0.714143
Distortion 2H-22H:	4.50232e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	9.6062	end:	11.1284	delta:	1.5222
P2 start:	21.443	end:	25.3094	delta:	3.8664
P3 start:	34.3611	end:	40.5771	delta:	6.216
P4 start:	47.8954	end:	56.2055	delta:	8.3101
P5 start:	62.0267	end:	72.0002	delta:	9.9735
P6 start:	76.8197	end:	87.767	delta:	10.9473

H3: -1.06269e-07	H21: -5.06041e-08	H21f: -2.40972e-09
H5: 3.18806e-07	H23: 0.456499	H23f: 0.0198478
H7: -1.2145e-07	H25: -0.486558	H25f: -0.0194623
H9: -9.4461e-08	H27: -0.264144	H27f: -0.0097831
H11: -9.66079e-08	H29: 0.0153374	H29f: 0.000528877
H13: -1.47141e-07	H31: 0.0641768	H31f: 0.00207022
H15: 7.08458e-08	H33: 0.0537304	H33f: 0.00162819
H17: -1.62529e-07	H35: 0.0405719	H35f: 0.0011592
H19: -3.35585e-08	H37: 0.0302268	H37f: 0.00081694

c2sd =	1.0038
c3ed =	-0.2013
c4sd =	-0.3322
c4ed =	-0.5669
c5sd =	-0.4979
c5ed =	-0.4752
c6sd =	-0.3411
c6ed =	-0.0722
varx =	2.78695%.

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 52/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.52  
Actual Power: 0.520001  
Actual Amplitude: 0.721111  
Distortion 2H-22H: 2.57695e-05%  
First strong harmonics: 23 and 25  
Pulses per sine cycle: 24  
Total switching events: 48  
Delta Friendly: No

P1 start: 9.66	end: 11.2054	delta: 1.5453
P2 start: 21.4625	end: 25.3629	delta: 3.9004
P3 start: 34.345	end: 40.6132	delta: 6.2682
P4 start: 47.8524	end: 56.2361	delta: 8.3836
P5 start: 61.9665	end: 72.0368	delta: 10.0703
P6 start: 76.756	end: 87.8191	delta: 11.0631

H3: -3.50806e-08	H21: -9.02073e-08	H21f: -4.29558e-09
H5: 6.31451e-08	H23: 0.445903	H23f: 0.0193871
H7: 1.20276e-07	H25: -0.480092	H25f: -0.0192037
H9: 0.0	H27: -0.265901	H27f: -0.00984817
H11: -1.33944e-07	H29: 0.0172203	H29f: 0.000593804
H13: 1.6191e-08	H31: 0.0672588	H31f: 0.00216964
H15: -7.01612e-08	H33: 0.0557945	H33f: 0.00169074
H17: -7.42883e-08	H35: 0.0416669	H35f: 0.00119048
H19: -9.97028e-08	H37: 0.0306717	H37f: 0.000828964

c2sd = 1.0427  
c3ed = -0.1957  
c4sd = -0.3352  
c4ed = -0.5763  
c5sd = -0.5117  
c5ed = -0.4851  
c6sd = -0.3549  
c6ed = -0.07  
varx = 2.73663%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 53/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.53
Actual Power:	0.53
Actual Amplitude:	0.728011
Distortion 2H-22H:	4.03626e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 9.7182	end: 11.2877	delta: 1.5695
P2 start: 21.4868	end: 25.421	delta: 3.9342
P3 start: 34.3324	end: 40.6519	delta: 6.3195
P4 start: 47.8119	end: 56.2676	delta: 8.4557
P5 start: 61.9077	end: 72.0733	delta: 10.1657
P6 start: 76.6929	end: 87.8708	delta: 11.1779

H3: -6.94962e-08	H21: -1.88633e-07	H21f: -8.9825e-09
H5: 1.25093e-07	H23: 0.434946	H23f: 0.0189107
H7: -2.97841e-08	H25: -0.474112	H25f: -0.0189645
H9: 1.15827e-08	H27: -0.267319	H27f: -0.0099007
H11: -1.89535e-07	H29: 0.0195487	H29f: 0.000674092
H13: -1.12263e-07	H31: 0.0706464	H31f: 0.00227891
H15: -2.36287e-07	H33: 0.0579845	H33f: 0.00175711
H17: -3.67921e-08	H35: 0.0427728	H35f: 0.00122208
H19: -1.09731e-08	H37: 0.0310696	H37f: 0.000839719

c2sd = 1.0842
c3ed = -0.1845
c4sd = -0.34
c4ed = -0.5806
c5sd = -0.5288
c5ed = -0.4902
c6sd = -0.3733
c6ed = -0.063
varx = 2.68672%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 54/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.54
Actual Power:	0.540001
Actual Amplitude:	0.734847
Distortion 2H-22H:	5.95464e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 9.7167	end: 11.3006	delta: 1.5839
P2 start: 21.4647	end: 25.4306	delta: 3.9659
P3 start: 34.2889	end: 40.6604	delta: 6.3715
P4 start: 47.7507	end: 56.2805	delta: 8.5299
P5 start: 61.8359	end: 72.1002	delta: 10.2644
P6 start: 76.6237	end: 87.921	delta: 11.2974

H3: -1.03275e-07	H21: 2.65563e-07	H21f: 1.26459e-08
H5: -2.27204e-07	H23: 0.428825	H23f: 0.0186446
H7: 5.9014e-08	H25: -0.463347	H25f: -0.0185339
H9: 1.03275e-07	H27: -0.270984	H27f: -0.0100364
H11: -6.57201e-08	H29: 0.0175194	H29f: 0.000604118
H13: 1.03275e-07	H31: 0.0709578	H31f: 0.00228896
H15: 1.72124e-07	H33: 0.0584705	H33f: 0.00177183
H17: 3.40198e-07	H35: 0.0430784	H35f: 0.00123081
H19: 2.1742e-07	H37: 0.0312081	H37f: 0.000843463

c2sd = 1.0811
c3ed = -0.2063
c4sd = -0.3618
c4ed = -0.607
c5sd = -0.5548
c5ed = -0.5092
c6sd = -0.3933
c6ed = -0.062
varx = 2.63776%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 55/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.55
Actual Power:	0.55
Actual Amplitude:	0.74162
Distortion 2H-22H:	2.47304e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 9.7175	end: 11.316	delta: 1.5985
P2 start: 21.4446	end: 25.4418	delta: 3.9973
P3 start: 34.2468	end: 40.6694	delta: 6.4226
P4 start: 47.6903	end: 56.2932	delta: 8.6029
P5 start: 61.7644	end: 72.1264	delta: 10.362
P6 start: 76.5546	end: 87.9709	delta: 11.4163

H3: 0.0	H21: -1.07204e-07	H21f: -5.10497e-09
H5: 1.22798e-07	H23: 0.422542	H23f: 0.0183714
H7: -8.77126e-08	H25: -0.45284	H25f: -0.0181136
H9: -3.41105e-08	H27: -0.274464	H27f: -0.0101653
H11: -9.30286e-08	H29: 0.015615	H29f: 0.000538448
H13: 8.65881e-08	H31: 0.0713814	H31f: 0.00230263
H15: 1.36442e-08	H33: 0.0590282	H33f: 0.00178873
H17: 9.63119e-08	H35: 0.0434193	H35f: 0.00124055
H19: 1.07717e-08	H37: 0.031356	H37f: 0.000847459

c2sd = 1.0804
c3ed = -0.2282
c4sd = -0.3818
c4ed = -0.6347
c5sd = -0.5792
c5ed = -0.53
c6sd = -0.4119
c6ed = -0.0626
varx = 2.58911%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 56/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.56  
Actual Power: 0.56  
Actual Amplitude: 0.748331  
Distortion 2H-22H: 3.40504e-05%  
First strong harmonics: 23 and 25  
Pulses per sine cycle: 24  
Total switching events: 48  
Delta Friendly: No

P1 start: 9.7156	end: 11.3281	delta: 1.6125
P2 start: 21.4224	end: 25.4504	delta: 4.028
P3 start: 34.2033	end: 40.6764	delta: 6.473
P4 start: 47.629	end: 56.304	delta: 8.675
P5 start: 61.6922	end: 72.1512	delta: 10.459
P6 start: 76.485	end: 88.0203	delta: 11.5353

H3: 3.38045e-08	H21: -1.93169e-07	H21f: -9.19851e-09
H5: 8.11309e-08	<b>H23: 0.416502</b>	<b>H23f: 0.0181088</b>
H7: 1.01414e-07	<b>H25: -0.442167</b>	<b>H25f: -0.0176867</b>
H9: -2.02827e-07	H27: -0.277957	H27f: -0.0102947
H11: 7.37554e-08	H29: 0.013453	H29f: 0.000463898
H13: -7.80105e-09	H31: 0.0716462	H31f: 0.00231117
H15: -1.08175e-07	H33: 0.0595902	H33f: 0.00180331
H17: -4.77241e-08	H35: 0.0437274	H35f: 0.00124935
H19: 0.0	H37: 0.031492	H37f: 0.000851134

c2sd = 1.0784  
c3ed = -0.2534  
c4sd = -0.4012  
c4ed = -0.6657  
c5sd = -0.6027  
c5ed = -0.5539  
c6sd = -0.4292  
c6ed = -0.0655  
varx = 2.54079%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 57/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.57
Actual Power:	0.57
Actual Amplitude:	0.754983
Distortion 2H-22H:	3.14401e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 9.7714	end: 11.408	delta: 1.6366
P2 start: 21.4471	end: 25.5073	delta: 4.0602
P3 start: 34.1918	end: 40.7129	delta: 6.5211
P4 start: 47.5891	end: 56.332	delta: 8.7429
P5 start: 61.6332	end: 72.1838	delta: 10.5506
P6 start: 76.4216	end: 88.0702	delta: 11.6486

H3: -3.35067e-08	H21: 1.1488e-07	H21f: 5.47048e-09
H5: 1.80936e-07	H23: 0.405884	H23f: 0.0176471
H7: -7.18001e-08	H25: -0.436366	H25f: -0.0174547
H9: 2.23378e-08	H27: -0.279145	H27f: -0.0103387
H11: 6.39673e-08	H29: 0.0156679	H29f: 0.000540272
H13: 7.73231e-09	H31: 0.0750416	H31f: 0.0024207
H15: -2.0104e-07	H33: 0.0616659	H33f: 0.00186866
H17: -2.36518e-08	H35: 0.0447487	H35f: 0.00127854
H19: 3.17432e-08	H37: 0.0317823	H37f: 0.000858982

c2sd = 1.1223
c3ed = -0.2474
c4sd = -0.4013
c4ed = -0.6776
c5sd = -0.6153
c5ed = -0.5677
c6sd = -0.4428
c6ed = -0.0654
varx = 2.49241%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 58/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.58
Actual Power:	0.58
Actual Amplitude:	0.761577
Distortion 2H-22H:	1.36112e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 9.8173	end: 11.4765	delta: 1.6592
P2 start: 21.4649	end: 25.5568	delta: 4.0919
P3 start: 34.1759	end: 40.7445	delta: 6.5686
P4 start: 47.5462	end: 56.3564	delta: 8.8102
P5 start: 61.5722	end: 72.2142	delta: 10.6419
P6 start: 76.3571	end: 88.1196	delta: 11.7625

H3: 0.0	H21: 1.89809e-08	H21f: 9.03853e-10
H5: 3.98599e-08	H23: 0.396056	H23f: 0.0172198
H7: -1.42357e-08	H25: -0.429862	H25f: -0.0171945
H9: 3.32166e-08	H27: -0.28057	H27f: -0.0103915
H11: 2.71772e-08	H29: 0.0172309	H29f: 0.00059417
H13: -1.07315e-07	H31: 0.0779693	H31f: 0.00251514
H15: -2.65733e-08	H33: 0.0635329	H33f: 0.00192524
H17: 2.3447e-08	H35: 0.0456013	H35f: 0.00130289
H19: -4.19578e-08	H37: 0.0319829	H37f: 0.000864402

c2sd = 1.159
c3ed = -0.2457
c4sd = -0.4053
c4ed = -0.6921
c5sd = -0.6309
c5ed = -0.5827
c6sd = -0.4587
c6ed = -0.0647
varx = 2.44454%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 59/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.59
Actual Power:	0.589999
Actual Amplitude:	0.768114
Distortion 2H-22H:	2.71643e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 9.8609	end: 11.5425	delta: 1.6817
P2 start: 21.4818	end: 25.6051	delta: 4.1232
P3 start: 34.1596	end: 40.7751	delta: 6.6155
P4 start: 47.5031	end: 56.3796	delta: 8.8765
P5 start: 61.5109	end: 72.2433	delta: 10.7324
P6 start: 76.2922	end: 88.1685	delta: 11.8763

H3: -6.58678e-08	H21: -7.52775e-08	H21f: -3.58464e-09
H5: 3.95207e-08	H23: 0.386424	H23f: 0.0168011
H7: 1.12916e-07	H25: -0.423272	H25f: -0.0169309
H9: -5.48899e-08	H27: -0.281956	H27f: -0.0104428
H11: 1.7964e-08	H29: 0.0186943	H29f: 0.000644632
H13: -1.44403e-07	H31: 0.0808257	H31f: 0.00260728
H15: 9.2215e-08	H33: 0.0653269	H33f: 0.0019796
H17: -1.27861e-07	H35: 0.0463838	H35f: 0.00132525
H19: 2.08004e-08	H37: 0.0321238	H37f: 0.000868212

c2sd = 1.1948
c3ed = -0.2452
c4sd = -0.4091
c4ed = -0.7082
c5sd = -0.6466
c5ed = -0.5993
c6sd = -0.4744
c6ed = -0.0648
varx = 2.39709%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 60/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.6  
Actual Power: 0.600001  
Actual Amplitude: 0.774597  
Distortion 2H-22H: 4.4576e-05%  
First strong harmonics: 23 and 25  
Pulses per sine cycle: 24  
Total switching events: 48  
Delta Friendly: No

P1 start: 9.9111	end: 11.6168	delta: 1.7057
P2 start: 21.5055	end: 25.6602	delta: 4.1547
P3 start: 34.1484	end: 40.8098	delta: 6.6614
P4 start: 47.4634	end: 56.4047	delta: 8.9413
P5 start: 61.4514	end: 72.2727	delta: 10.8213
P6 start: 76.2282	end: 88.2172	delta: 11.989

H3: 1.30633e-07	H21: 2.79928e-08	H21f: 1.33299e-09
H5: -1.37165e-07	<b>H23: 0.376243</b>	<b>H23f: 0.0163584</b>
H7: -5.59856e-08	<b>H25: -0.417362</b>	<b>H25f: -0.0166945</b>
H9: -1.9595e-07	H27: -0.282907	H27f: -0.010478
H11: 8.9068e-08	H29: 0.0208164	H29f: 0.000717807
H13: -1.43194e-07	H31: 0.0841236	H31f: 0.00271367
H15: -4.57216e-08	H33: 0.0672928	H33f: 0.00203917
H17: 2.30529e-08	H35: 0.0471767	H35f: 0.00134791
H19: -2.99081e-07	H37: 0.0322002	H37f: 0.000870276

c2sd = 1.2349  
c3ed = -0.2367  
c4sd = -0.4147  
c4ed = -0.7172  
c5sd = -0.6662  
c5ed = -0.6096  
c6sd = -0.4959  
c6ed = -0.0588  
varx = 2.35006%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 61/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.61
Actual Power:	0.610001
Actual Amplitude:	0.781025
Distortion 2H-22H:	3.56013e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 9.9628	end: 11.6931	delta: 1.7303
P2 start: 21.5317	end: 25.7177	delta: 4.186
P3 start: 34.1393	end: 40.8459	delta: 6.7065
P4 start: 47.4252	end: 56.43	delta: 9.0048
P5 start: 61.3927	end: 72.3017	delta: 10.9089
P6 start: 76.1642	end: 88.2655	delta: 12.1013

H3: 9.71684e-08	H21: 2.77624e-08	H21f: 1.32202e-09
H5: 9.71684e-08	H23: 0.365928	H23f: 0.0159099
H7: -1.38812e-07	H25: -0.411702	H25f: -0.0164681
H9: 2.48319e-07	H27: -0.283624	H27f: -0.0105046
H11: -1.32502e-07	H29: 0.0232012	H29f: 0.000800043
H13: 4.4847e-08	H31: 0.0875757	H31f: 0.00282502
H15: 7.77347e-08	H33: 0.0692755	H33f: 0.00209926
H17: 1.14316e-08	H35: 0.0479127	H35f: 0.00136893
H19: -2.04565e-08	H37: 0.0321951	H37f: 0.000870139

c2sd = 1.28
c3ed = -0.2306
c4sd = -0.4139
c4ed = -0.7308
c5sd = -0.6796
c5ed = -0.626
c6sd = -0.5112
c6ed = -0.0591
varx = 2.30349%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.62  
 Actual Power: 0.62  
 Actual Amplitude: 0.787401  
 Distortion 2H-22H: 3.90701e-05%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 10.0086 end: 11.7626 delta: 1.7541  
 P2 start: 21.554 end: 25.7709 delta: 4.2169  
 P3 start: 34.1278 end: 40.8789 delta: 6.751  
 P4 start: 47.3853 end: 56.4529 delta: 9.0676  
 P5 start: 61.3327 end: 72.3287 delta: 10.996  
 P6 start: 76.0994 end: 88.3134 delta: 12.214

H3: 0.0	H21: -3.67168e-08	H21f: -1.74842e-09
H5: -5.7829e-08	<b>H23: 0.356104</b>	<b>H23f: 0.0154828</b>
H7: 4.13064e-08	<b>H25: -0.405651</b>	<b>H25f: -0.016226</b>
H9: 0.0	H27: -0.28446	H27f: -0.0105356
H11: 2.01525e-07	H29: 0.0251843	H29f: 0.000868423
H13: -8.89677e-08	H31: 0.0907481	H31f: 0.00292736
H15: 1.47785e-07	H33: 0.0710756	H33f: 0.00215381
H17: 7.93731e-08	H35: 0.0485381	H35f: 0.0013868
H19: 2.63781e-07	H37: 0.0321306	H37f: 0.000868396

c2sd = 1.3208  
 c3ed = -0.2271  
 c4sd = -0.4153  
 c4ed = -0.7465  
 c5sd = -0.6947  
 c5ed = -0.6439  
 c6sd = -0.5278  
 c6ed = -0.0594  
 varx = 2.25735%.

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 63/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.63
Actual Power:	0.63
Actual Amplitude:	0.793725
Distortion 2H-22H:	2.80201e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	10.0459	end:	11.8222	delta:	1.7763
P2 start:	21.5695	end:	25.8167	delta:	4.2472
P3 start:	34.1118	end:	40.9069	delta:	6.7951
P4 start:	47.3423	end:	56.4721	delta:	9.1298
P5 start:	61.2704	end:	72.3533	delta:	11.0829
P6 start:	76.0332	end:	88.3608	delta:	12.3277

H3: 6.37425e-08	H21: 1.00167e-07	H21f: 4.76984e-09
H5: -1.33859e-07	H23: 0.347009	H23f: 0.0150874
H7: 6.82955e-08	H25: -0.398962	H25f: -0.0159585
H9: 7.43662e-08	H27: -0.285587	H27f: -0.0105773
H11: 1.73843e-08	H29: 0.02647	H29f: 0.000912757
H13: 1.47098e-08	H31: 0.0934648	H31f: 0.00301499
H15: -5.73682e-08	H33: 0.0726402	H33f: 0.00220122
H17: 1.79979e-07	H35: 0.0490613	H35f: 0.00140175
H19: 1.00646e-08	H37: 0.0320382	H37f: 0.000865896

c2sd = 1.3546
c3ed = -0.2282
c4sd = -0.4203
c4ed = -0.7653
c5sd = -0.7128
c5ed = -0.6635
c6sd = -0.5466
c6ed = -0.0595
varx = 2.21159%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 64/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.64
Actual Power:	0.64
Actual Amplitude:	0.8
Distortion 2H-22H:	2.85309e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.0953	end: 11.8968	delta: 1.8014
P2 start: 21.5973	end: 25.8754	delta: 4.2781
P3 start: 34.1051	end: 40.9431	delta: 6.8381
P4 start: 47.3055	end: 56.4956	delta: 9.1901
P5 start: 61.2118	end: 72.3793	delta: 11.1675
P6 start: 75.9684	end: 88.4081	delta: 12.4397

H3: 9.48638e-08	H21: -9.03464e-08	H21f: -4.30221e-09
H5: 5.69183e-08	H23: 0.336863	H23f: 0.0146462
H7: -4.06559e-08	H25: -0.393458	H25f: -0.0157383
H9: 4.21617e-08	H27: -0.285935	H27f: -0.0105902
H11: -1.03488e-07	H29: 0.0290168	H29f: 0.00100058
H13: 7.29721e-09	H31: 0.0969701	H31f: 0.00312807
H15: -1.96052e-07	H33: 0.0744768	H33f: 0.00225687
H17: 8.92835e-08	H35: 0.0495733	H35f: 0.00141638
H19: -1.99713e-08	H37: 0.0318161	H37f: 0.000859894

c2sd = 1.4003
c3ed = -0.2205
c4sd = -0.4199
c4ed = -0.7789
c5sd = -0.7281
c5ed = -0.6808
c6sd = -0.5649
c6ed = -0.0586
varx = 2.16635%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 65/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.65
Actual Power:	0.65
Actual Amplitude:	0.806226
Distortion 2H-22H:	3.16186e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.1418	end: 11.9681	delta: 1.8262
P2 start: 21.6236	end: 25.9324	delta: 4.3088
P3 start: 34.0976	end: 40.978	delta: 6.8804
P4 start: 47.2683	end: 56.5177	delta: 9.2493
P5 start: 61.1526	end: 72.4038	delta: 11.2512
P6 start: 75.903	end: 88.455	delta: 12.552

H3: -1.88262e-07	H21: -2.68946e-08	H21f: -1.2807e-09
H5: 9.41312e-08	H23: 0.32696	H23f: 0.0142157
H7: -1.07578e-07	H25: -0.387809	H25f: -0.0155124
H9: 4.18361e-08	H27: -0.286273	H27f: -0.0106027
H11: -1.36918e-07	H29: 0.0314107	H29f: 0.00108313
H13: 1.37576e-07	H31: 0.100355	H31f: 0.00323724
H15: 0.0	H33: 0.0762005	H33f: 0.00230911
H17: -5.53713e-08	H35: 0.0499943	H35f: 0.00142841
H19: 2.97256e-08	H37: 0.0315304	H37f: 0.000852173

c2sd = 1.4435
c3ed = -0.2125
c4sd = -0.4222
c4ed = -0.7918
c5sd = -0.7466
c5ed = -0.697
c6sd = -0.5866
c6ed = -0.0554
varx = 2.12153%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.66
Actual Power:	0.66
Actual Amplitude:	0.812404
Distortion 2H-22H:	0.000115412%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	10.187	end:	12.0381	delta:	1.8511
P2 start:	21.6498	end:	25.9892	delta:	4.3394
P3 start:	34.0905	end:	41.0126	delta:	6.9221
P4 start:	47.2313	end:	56.5389	delta:	9.3075
P5 start:	61.0932	end:	72.4271	delta:	11.3339
P6 start:	75.8371	end:	88.5016	delta:	12.6645

H3: -1.55692e-07	H21: -5.07112e-07	H21f: -2.41482e-08
H5: 7.47323e-08	H23: 0.317166	H23f: 0.0137898
H7: 6.67253e-08	H25: -0.382155	H25f: -0.0152862
H9: -3.32143e-07	H27: -0.286522	H27f: -0.0106119
H11: -4.24615e-07	H29: 0.0337962	H29f: 0.00116539
H13: -5.17377e-07	H31: 0.103712	H31f: 0.00334554
H15: -4.35938e-07	H33: 0.0778503	H33f: 0.0023591
H17: -5.27522e-07	H35: 0.0503339	H35f: 0.00143811
H19: -1.17998e-07	H37: 0.0311769	H37f: 0.00084262

c2sd =	1.4863
c3ed =	-0.2042
c4sd =	-0.4248
c4ed =	-0.805
c5sd =	-0.766
c5ed =	-0.7137
c6sd =	-0.6095
c6ed =	-0.0518
varx =	2.07716%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.67
Actual Power:	0.669999
Actual Amplitude:	0.818535
Distortion 2H-22H:	8.26037e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.2115	end: 12.0828	delta: 1.8713
P2 start: 21.6566	end: 26.0248	delta: 4.3681
P3 start: 34.0692	end: 41.0328	delta: 6.9636
P4 start: 47.1843	end: 56.5504	delta: 9.3662
P5 start: 61.0268	end: 72.4448	delta: 11.418
P6 start: 75.7673	end: 88.5475	delta: 12.7802

H3: -2.16337e-07	H21: -4.23843e-07	H21f: -2.0183e-08
H5: -7.41725e-08	<b>H23: 0.309243</b>	<b>H23f: 0.0134453</b>
H7: -1.32451e-08	<b>H25: -0.374712</b>	<b>H25f: -0.0149885</b>
H9: -1.23621e-07	H27: -0.28788	H27f: -0.0106622
H11: -3.37148e-07	H29: 0.0340711	H29f: 0.00117487
H13: -3.85127e-07	H31: 0.105808	H31f: 0.00341316
H15: -1.54526e-07	H33: 0.0790322	H33f: 0.00239492
H17: -3.70863e-07	H35: 0.0506309	H35f: 0.0014466
H19: -1.07355e-07	H37: 0.0309573	H37f: 0.000836683

c2sd = 1.5089
c3ed = -0.2091
c4sd = -0.4392
c4ed = -0.8261
c5sd = -0.7944
c5ed = -0.734
c6sd = -0.6386
c6ed = -0.0467
varx = 2.03288%.

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 68/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.68
Actual Power:	0.679999
Actual Amplitude:	0.82462
Distortion 2H-22H:	2.07502e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.2536	end: 12.1496	delta: 1.8959
P2 start: 21.6819	end: 26.0802	delta: 4.3983
P3 start: 34.062	end: 41.0659	delta: 7.0039
P4 start: 47.1471	end: 56.5693	delta: 9.4222
P5 start: 60.9664	end: 72.4652	delta: 11.4988
P6 start: 75.6999	end: 88.5933	delta: 12.8934

H3: 0.0	H21: -1.40238e-07	H21f: -6.67802e-09
H5: -1.10438e-07	H23: 0.299722	H23f: 0.0130314
H7: -6.57367e-08	H25: -0.368992	H25f: -0.0147597
H9: 1.02257e-08	H27: -0.288038	H27f: -0.0106681
H11: -5.85655e-08	H29: 0.0363157	H29f: 0.00125226
H13: -4.95554e-08	H31: 0.109065	H31f: 0.00351821
H15: 6.13543e-09	H33: 0.0805485	H33f: 0.00244086
H17: 0.0	H35: 0.0508449	H35f: 0.00145271
H19: -2.90626e-08	H37: 0.0305057	H37f: 0.000824478

c2sd = 1.5519
c3ed = -0.2042
c4sd = -0.4395
c4ed = -0.8441
c5sd = -0.8118
c5ed = -0.7565
c6sd = -0.6599
c6ed = -0.0468
varx = 1.98931%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 69/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.69
Actual Power:	0.69
Actual Amplitude:	0.830662
Distortion 2H-22H:	4.53483e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	10.2979	end:	12.2194	delta:	1.9215
P2 start:	21.7105	end:	26.1392	delta:	4.4287
P3 start:	34.0578	end:	41.1014	delta:	7.0436
P4 start:	47.1119	end:	56.5888	delta:	9.4769
P5 start:	60.907	end:	72.4851	delta:	11.5781
P6 start:	75.6324	end:	88.639	delta:	13.0066

H3: 0.0	H21: -1.74023e-07	H21f: -8.2868e-09
H5: -2.74086e-07	H23: 0.289993	H23f: 0.0126084
H7: -1.04414e-07	H25: -0.363579	H25f: -0.0145432
H9: -2.43632e-07	H27: -0.287898	H27f: -0.0106629
H11: 7.47507e-08	H29: 0.0389218	H29f: 0.00134213
H13: 3.51392e-08	H31: 0.112506	H31f: 0.00362924
H15: 9.1362e-08	H33: 0.0820501	H33f: 0.00248637
H17: -1.18233e-07	H35: 0.0509664	H35f: 0.00145618
H19: 2.88512e-08	H37: 0.0299524	H37f: 0.000809524

c2sd = 1.5978
c3ed = -0.1963
c4sd = -0.4388
c4ed = -0.8604
c5sd = -0.8295
c5ed = -0.7784
c6sd = -0.6826
c6ed = -0.046
varx = 1.94622%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 70/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.7
Actual Power:	0.7
Actual Amplitude:	0.83666
Distortion 2H-22H:	2.21462e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.3388	end: 12.2852	delta: 1.9464
P2 start: 21.7367	end: 26.1954	delta: 4.4587
P3 start: 34.0522	end: 41.1348	delta: 7.0827
P4 start: 47.0757	end: 56.6063	delta: 9.5306
P5 start: 60.8463	end: 72.5029	delta: 11.6566
P6 start: 75.5637	end: 88.6843	delta: 13.1206

H3: 0.0	H21: 1.72775e-08	H21f: 8.2274e-10
H5: 1.2699e-07	H23: 0.280573	H23f: 0.0121988
H7: -5.18326e-08	H25: -0.357953	H25f: -0.0143181
H9: -3.02357e-08	H27: -0.287824	H27f: -0.0106601
H11: -4.94766e-08	H29: 0.0412573	H29f: 0.00142267
H13: 2.09324e-08	H31: 0.115769	H31f: 0.00373449
H15: 1.20943e-08	H33: 0.0834309	H33f: 0.00252821
H17: -1.60071e-07	H35: 0.0510184	H35f: 0.00145767
H19: 1.90962e-08	H37: 0.0293667	H37f: 0.000793696

c2sd = 1.6375
c3ed = -0.1843
c4sd = -0.4471
c4ed = -0.8709
c5sd = -0.8576
c5ed = -0.7932
c6sd = -0.7163
c6ed = -0.0356
varx = 1.90352%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 71/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.71
Actual Power:	0.71
Actual Amplitude:	0.842615
Distortion 2H-22H:	4.40929e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.3486	end: 12.312	delta: 1.9634
P2 start: 21.7308	end: 26.2162	delta: 4.4854
P3 start: 34.0219	end: 41.1434	delta: 7.1216
P4 start: 47.0216	end: 56.6074	delta: 9.5858
P5 start: 60.7733	end: 72.5115	delta: 11.7381
P6 start: 75.488	end: 88.7288	delta: 13.2407

H3: -1.20088e-07	H21: 8.57772e-09	H21f: 4.08463e-10
H5: 1.26092e-07	H23: 0.274085	H23f: 0.0119167
H7: -2.95931e-07	H25: -0.349468	H25f: -0.0139787
H9: 9.00661e-08	H27: -0.289774	H27f: -0.0107324
H11: -8.18782e-08	H29: 0.0399638	H29f: 0.00137806
H13: 7.62097e-08	H31: 0.117045	H31f: 0.00377565
H15: -2.16159e-07	H33: 0.0842977	H33f: 0.00255448
H17: 1.0596e-08	H35: 0.0512566	H35f: 0.00146447
H19: -9.48064e-08	H37: 0.0291753	H37f: 0.000788521

c2sd = 1.6487
c3ed = -0.2029
c4sd = -0.4658
c4ed = -0.9053
c5sd = -0.8894
c5ed = -0.8259
c6sd = -0.7478
c6ed = -0.0354
varx = 1.86033%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 72/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.72
Actual Power:	0.72
Actual Amplitude:	0.848528
Distortion 2H-22H:	3.42645e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.3552	end: 12.3346	delta: 1.9794
P2 start: 21.7216	end: 26.2329	delta: 4.5113
P3 start: 33.9889	end: 41.1486	delta: 7.1597
P4 start: 46.9653	end: 56.6053	delta: 9.6401
P5 start: 60.6982	end: 72.5173	delta: 11.8191
P6 start: 75.4104	end: 88.7729	delta: 13.3625

H3: -5.96256e-08	H21: -1.19251e-07	H21f: -5.67863e-09
H5: 0.0	H23: 0.267928	H23f: 0.011649
H7: 3.83307e-08	H25: -0.340714	H25f: -0.0136286
H9: -1.68939e-07	H27: -0.29188	H27f: -0.0108104
H11: 8.94384e-08	H29: 0.0382241	H29f: 0.00131807
H13: -1.37598e-07	H31: 0.118111	H31f: 0.00381004
H15: -7.75133e-08	H33: 0.0851211	H33f: 0.00257943
H17: -1.4731e-07	H35: 0.0515224	H35f: 0.00147207
H19: -1.22389e-07	H37: 0.0290178	H37f: 0.000784265

c2sd = 1.6563
c3ed = -0.2244
c4sd = -0.4872
c4ed = -0.9421
c5sd = -0.9239
c5ed = -0.8606
c6sd = -0.7818
c6ed = -0.0349
varx = 1.8173%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 73/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.73  
Actual Power: 0.73  
Actual Amplitude: 0.8544  
Distortion 2H-22H: 4.12394e-05%  
First strong harmonics: 23 and 25  
Pulses per sine cycle: 24  
Total switching events: 48  
Delta Friendly: No

P1 start: 10.3563 end: 12.3502 delta: 1.9938  
P2 start: 21.7065 end: 26.2428 delta: 4.5362  
P3 start: 33.9513 end: 41.1486 delta: 7.1972  
P4 start: 46.9054 end: 56.599 delta: 9.6936  
P5 start: 60.62 end: 72.5197 delta: 11.8997  
P6 start: 75.3303 end: 88.8167 delta: 13.4864

H3: 2.36863e-07	H21: -1.18432e-07	H21f: -5.6396e-09
H5: -5.32942e-08	H23: 0.262296	H23f: 0.0114042
H7: -1.26891e-07	H25: -0.33148	H25f: -0.0132592
H9: -1.3817e-07	H27: -0.294278	H27f: -0.0108992
H11: 0.0	H29: 0.0357623	H29f: 0.00123318
H13: 1.36652e-08	H31: 0.118816	H31f: 0.00383276
H15: -2.96079e-08	H33: 0.0858727	H33f: 0.0026022
H17: -4.17994e-08	H35: 0.0518412	H35f: 0.00148118
H19: 2.43096e-07	H37: 0.0289306	H37f: 0.000781908

c2sd = 1.6594  
c3ed = -0.2534  
c4sd = -0.5094  
c4ed = -0.9862  
c5sd = -0.9581  
c5ed = -0.9022  
c6sd = -0.8148  
c6ed = -0.0382  
varx = 1.77434%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 74/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.74
Actual Power:	0.739999
Actual Amplitude:	0.860232
Distortion 2H-22H:	4.47153e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.3987	end: 12.4185	delta: 2.0198
P2 start: 21.7368	end: 26.3028	delta: 4.5659
P3 start: 33.9497	end: 41.1831	delta: 7.2334
P4 start: 46.8712	end: 56.6134	delta: 9.7422
P5 start: 60.5583	end: 72.5312	delta: 11.9729
P6 start: 75.2575	end: 88.8609	delta: 13.6034

H3: 2.94072e-08	H21: -1.00825e-07	H21f: -4.80117e-09
H5: 7.05772e-08	H23: 0.252815	H23f: 0.0109919
H7: -6.30154e-08	H25: -0.326318	H25f: -0.0130527
H9: -1.07826e-07	H27: -0.293758	H27f: -0.0108799
H11: -2.40604e-08	H29: 0.0383801	H29f: 0.00132345
H13: -2.57878e-07	H31: 0.122318	H31f: 0.00394575
H15: 2.23495e-07	H33: 0.0872091	H33f: 0.0026427
H17: -1.97201e-07	H35: 0.0517378	H35f: 0.00147822
H19: 1.11438e-07	H37: 0.0281569	H37f: 0.000760997

c2sd = 1.7109
c3ed = -0.2526
c4sd = -0.4998
c4ed = -1.0156
c5sd = -0.9689
c5ed = -0.9416
c6sd = -0.8329
c6ed = -0.0487
varx = 1.73311%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 75/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.75
Actual Power:	0.75
Actual Amplitude:	0.866025
Distortion 2H-22H:	3.37852e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	10.4213	end:	12.4617	delta:	2.0404
P2 start:	21.7462	end:	26.3393	delta:	4.5931
P3 start:	33.9316	end:	41.2007	delta:	7.2691
P4 start:	46.8248	end:	56.6161	delta:	9.7913
P5 start:	60.4877	end:	72.5354	delta:	12.0477
P6 start:	75.1791	end:	88.9046	delta:	13.7255

H3: -2.92105e-08	H21: -1.75263e-07	H21f: -8.34584e-09
H5: 1.75263e-08	<b>H23: 0.245198</b>	<b>H23f: 0.0106608</b>
H7: -7.51126e-08	<b>H25: -0.319306</b>	<b>H25f: -0.0127722</b>
H9: -3.89473e-08	H27: -0.294507	H27f: -0.0109077
H11: -7.96649e-08	H29: 0.0385722	H29f: 0.00133008
H13: -8.08905e-08	H31: 0.124524	H31f: 0.00401689
H15: 2.33684e-08	H33: 0.088244	H33f: 0.00267406
H17: -2.3712e-07	H35: 0.0517938	H35f: 0.00147982
H19: -7.37948e-08	H37: 0.0276576	H37f: 0.000747503

c2sd = 1.737
c3ed = -0.2616
c4sd = -0.5114
c4ed = -1.0476
c5sd = -0.999
c5ed = -0.9779
c6sd = -0.8679
c6ed = -0.0485
varx = 1.69152%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 76/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.76  
Actual Power: 0.759999  
Actual Amplitude: 0.871779  
Distortion 2H-22H: 4.4467e-05%  
First strong harmonics: 23 and 25  
Pulses per sine cycle: 24  
Total switching events: 48  
Delta Friendly: No

P1 start: 10.4459	end: 12.5076	delta: 2.0617
P2 start: 21.7584	end: 26.3788	delta: 4.6204
P3 start: 33.9159	end: 41.22	delta: 7.3041
P4 start: 46.78	end: 56.6188	delta: 9.8388
P5 start: 60.4173	end: 72.538	delta: 12.1207
P6 start: 75.0995	end: 88.948	delta: 13.8485

H3: 1.45088e-07	H21: -2.73595e-07	H21f: -1.30283e-08
H5: -1.74106e-07	H23: 0.2374	H23f: 0.0103217
H7: 2.48723e-08	H25: -0.312565	H25f: -0.0125026
H9: -1.74106e-07	H27: -0.295019	H27f: -0.0109266
H11: -3.95695e-08	H29: 0.0390403	H29f: 0.00134622
H13: 6.69638e-09	H31: 0.1269	H31f: 0.00409355
H15: -1.21874e-07	H33: 0.0892825	H33f: 0.00270553
H17: -5.12076e-08	H35: 0.0517893	H35f: 0.00147969
H19: 1.46616e-07	H37: 0.0270808	H37f: 0.000731915

c2sd = 1.7657  
c3ed = -0.2685  
c4sd = -0.522  
c4ed = -1.0792  
c5sd = -1.0295  
c5ed = -1.0152  
c6sd = -0.9046  
c6ed = -0.0478  
varx = 1.65034%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 77/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.77
Actual Power:	0.77
Actual Amplitude:	0.877496
Distortion 2H-22H:	2.40283e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.4774	end: 12.5626	delta: 2.0852
P2 start: 21.779	end: 26.4276	delta: 4.6486
P3 start: 33.9074	end: 41.2457	delta: 7.3383
P4 start: 46.7401	end: 56.6244	delta: 9.8843
P5 start: 60.3494	end: 72.5403	delta: 12.1909
P6 start: 75.0198	end: 88.9914	delta: 13.9716

H3: 2.88286e-08	H21: -5.76572e-08	H21f: -2.74558e-09
H5: -1.72972e-07	<b>H23: 0.228955</b>	<b>H23f: 0.00995458</b>
H7: 7.41307e-08	<b>H25: -0.306577</b>	<b>H25f: -0.0122631</b>
H9: 8.64858e-08	H27: -0.294926	H27f: -0.0109232
H11: 7.86235e-09	H29: 0.0404454	H29f: 0.00139467
H13: -5.3222e-08	H31: 0.129781	H31f: 0.00418649
H15: -2.88286e-08	H33: 0.0903559	H33f: 0.00273806
H17: 4.06992e-08	H35: 0.0516381	H35f: 0.00147538
H19: -7.28302e-08	H37: 0.0263254	H37f: 0.000711498

c2sd = 1.8066
c3ed = -0.2751
c4sd = -0.5199
c4ed = -1.1156
c5sd = -1.0485
c5ed = -1.0618
c6sd = -0.9318
c6ed = -0.057
varx = 1.60982%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.78
Actual Power:	0.78
Actual Amplitude:	0.883176
Distortion 2H-22H:	7.36468e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start:	10.4907	end:	12.5941	delta:	2.1034
P2 start:	21.7792	end:	26.4532	delta:	4.6739
P3 start:	33.8822	end:	41.254	delta:	7.3719
P4 start:	46.6876	end:	56.6176	delta:	9.93
P5 start:	60.2719	end:	72.5344	delta:	12.2625
P6 start:	74.9336	end:	89.0342	delta:	14.1006

H3: -2.00502e-07	H21: -2.70065e-07	H21f: -1.28602e-08
H5: -3.43718e-08	H23: 0.222268	H23f: 0.00966385
H7: -6.13783e-08	H25: -0.298814	H25f: -0.0119526
H9: -3.34171e-07	H27: -0.296111	H27f: -0.0109671
H11: -2.49977e-07	H29: 0.0393982	H29f: 0.00135856
H13: -2.11519e-07	H31: 0.13144	H31f: 0.00423999
H15: -1.83317e-07	H33: 0.0912525	H33f: 0.00276523
H17: -4.14484e-07	H35: 0.0517486	H35f: 0.00147853
H19: 0.0	H37: 0.025887	H37f: 0.000699649

c2sd = 1.8242
c3ed = -0.2945
c4sd = -0.5364
c4ed = -1.1585
c5sd = -1.0839
c5ed = -1.1097
c6sd = -0.9729
c6ed = -0.0593
varx = 1.56871%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.79  
 Actual Power: 0.790001  
 Actual Amplitude: 0.88882  
 Distortion 2H-22H: 6.09192e-05%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 10.5048 end: 12.6266 delta: 2.1218  
 P2 start: 21.7807 end: 26.4799 delta: 4.6992  
 P3 start: 33.858 end: 41.2626 delta: 7.4046  
 P4 start: 46.6354 end: 56.6096 delta: 9.9742  
 P5 start: 60.1937 end: 72.5259 delta: 12.3322  
 P6 start: 74.8452 end: 89.0768 delta: 14.2316

H3: 8.5384e-08	H21: 2.23625e-07	H21f: 1.06488e-08
H5: -2.04922e-07	<b>H23: 0.215512</b>	<b>H23f: 0.00937007</b>
H7: 2.07361e-07	<b>H25: -0.29118</b>	<b>H25f: -0.0116472</b>
H9: -1.99229e-07	H27: -0.297157	H27f: -0.0110058
H11: 1.47481e-07	H29: 0.0384212	H29f: 0.00132487
H13: 1.3136e-08	H31: 0.133183	H31f: 0.00429621
H15: 1.13845e-08	H33: 0.0921547	H33f: 0.00279257
H17: 2.81265e-07	H35: 0.0518343	H35f: 0.00148098
H19: -2.96597e-07	H37: 0.0254027	H37f: 0.000686558

c2sd = 1.8397  
 c3ed = -0.3081  
 c4sd = -0.5596  
 c4ed = -1.1954  
 c5sd = -1.1285  
 c5ed = -1.1519  
 c6sd = -1.0252  
 c6ed = -0.0528  
 varx = 1.5279%.

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 80/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.8
Actual Power:	0.799999
Actual Amplitude:	0.894427
Distortion 2H-22H:	2.39466e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.5364	end: 12.6822	delta: 2.1458
P2 start: 21.8034	end: 26.5306	delta: 4.7272
P3 start: 33.8516	end: 41.2882	delta: 7.4366
P4 start: 46.5962	end: 56.6112	delta: 10.015
P5 start: 60.1233	end: 72.52	delta: 12.3967
P6 start: 74.759	end: 89.1195	delta: 14.3605

H3: 0.0	H21: 7.27275e-08	H21f: 3.46321e-09
H5: 0.0	H23: 0.207073	H23f: 0.00900316
H7: 9.697e-08	H25: -0.285403	H25f: -0.0114161
H9: 2.82829e-08	H27: -0.296775	H27f: -0.0109917
H11: -7.71352e-09	H29: 0.0399032	H29f: 0.00137597
H13: 1.30537e-07	H31: 0.136192	H31f: 0.0043933
H15: 5.65658e-08	H33: 0.0931394	H33f: 0.00282241
H17: 8.98399e-08	H35: 0.0515559	H35f: 0.00147303
H19: 1.16109e-07	H37: 0.0245013	H37f: 0.000662198

c2sd = 1.8793
c3ed = -0.3095
c4sd = -0.5637
c4ed = -1.229
c5sd = -1.1579
c5ed = -1.1987
c6sd = -1.0675
c6ed = -0.0541
varx = 1.48836%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 81/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.81
Actual Power:	0.81
Actual Amplitude:	0.9
Distortion 2H-22H:	2.20309e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.5624	end: 12.7307	delta: 2.1683
P2 start: 21.8202	end: 26.5745	delta: 4.7542
P3 start: 33.8406	end: 41.3083	delta: 7.4678
P4 start: 46.553	end: 56.6078	delta: 10.0548
P5 start: 60.049	end: 72.509	delta: 12.46
P6 start: 74.6685	end: 89.1619	delta: 14.4934

H3: -2.81078e-08	H21: 9.63695e-08	H21f: 4.58903e-09
H5: 3.37293e-08	H23: 0.19917	H23f: 0.00865958
H7: 1.08416e-07	H25: -0.279112	H25f: -0.0111645
H9: -7.49541e-08	H27: -0.296719	H27f: -0.0109896
H11: 5.36603e-08	H29: 0.0406241	H29f: 0.00140083
H13: 2.59456e-08	H31: 0.138854	H31f: 0.00447917
H15: 1.18053e-07	H33: 0.0940506	H33f: 0.00285002
H17: -4.9602e-08	H35: 0.0513352	H35f: 0.00146672
H19: 0.0	H37: 0.0236673	H37f: 0.000639657

c2sd = 1.9117
c3ed = -0.314
c4sd = -0.5746
c4ed = -1.2646
c5sd = -1.1947
c5ed = -1.2473
c6sd = -1.1177
c6ed = -0.052
varx = 1.44882%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 82/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.82
Actual Power:	0.82
Actual Amplitude:	0.905539
Distortion 2H-22H:	2.97328e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.5861	end: 12.7763	delta: 2.1902
P2 start: 21.8348	end: 26.6156	delta: 4.7808
P3 start: 33.8277	end: 41.3259	delta: 7.4982
P4 start: 46.5081	end: 56.6011	delta: 10.093
P5 start: 59.9723	end: 72.4936	delta: 12.5213
P6 start: 74.5742	end: 89.204	delta: 14.6298

H3: 2.79359e-08	H21: 0.0	H21f: 0.0
H5: -1.34092e-07	H23: 0.1915	H23f: 0.00832608
H7: 1.4367e-07	H25: -0.272624	H25f: -0.0109049
H9: -1.21055e-07	H27: -0.296758	H27f: -0.010991
H11: 8.38076e-08	H29: 0.0410049	H29f: 0.00141396
H13: -1.93402e-08	H31: 0.141393	H31f: 0.00456106
H15: 1.22918e-07	H33: 0.0949188	H33f: 0.00287633
H17: 1.08457e-07	H35: 0.0511244	H35f: 0.0014607
H19: 8.82185e-09	H37: 0.022838	H37f: 0.000617244

c2sd = 1.9415
c3ed = -0.3208
c4sd = -0.5878
c4ed = -1.303
c5sd = -1.2345
c5ed = -1.2997
c6sd = -1.1723
c6ed = -0.0495
varx = 1.40943%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 83/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.83
Actual Power:	0.83
Actual Amplitude:	0.911043
Distortion 2H-22H:	3.78385e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.6115	end: 12.8243	delta: 2.2128
P2 start: 21.8521	end: 26.6598	delta: 4.8077
P3 start: 33.8175	end: 41.3453	delta: 7.5278
P4 start: 46.4647	end: 56.5939	delta: 10.1292
P5 start: 59.8952	end: 72.4747	delta: 12.5795
P6 start: 74.477	end: 89.246	delta: 14.769

H3: 5.55341e-08	H21: 7.1401e-08	H21f: 3.40005e-09
H5: 1.66602e-08	H23: 0.183653	H23f: 0.00798492
H7: 3.57005e-08	H25: -0.266373	H25f: -0.0106549
H9: 5.55341e-08	H27: -0.296558	H27f: -0.0109836
H11: -6.05827e-08	H29: 0.0416576	H29f: 0.00143647
H13: 2.11457e-07	H31: 0.144105	H31f: 0.00464856
H15: -2.1103e-07	H33: 0.0957477	H33f: 0.00290145
H17: 1.86203e-07	H35: 0.0508267	H35f: 0.00145219
H19: -5.26113e-08	H37: 0.0219163	H37f: 0.000592333

c2sd = 1.9736
c3ed = -0.325
c4sd = -0.6005
c4ed = -1.3409
c5sd = -1.2758
c5ed = -1.3542
c6sd = -1.2312
c6ed = -0.0458
varx = 1.37045%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 84/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.84
Actual Power:	0.840001
Actual Amplitude:	0.916516
Distortion 2H-22H:	7.09738e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.6288	end: 12.8615	delta: 2.2328
P2 start: 21.8597	end: 26.6926	delta: 4.8328
P3 start: 33.7988	end: 41.3552	delta: 7.5564
P4 start: 46.4143	end: 56.5787	delta: 10.1644
P5 start: 59.8118	end: 72.4482	delta: 12.6364
P6 start: 74.3731	end: 89.2877	delta: 14.9145

H3: 5.52025e-08	H21: 2.32639e-07	H21f: 1.10781e-08
H5: -2.81533e-07	H23: 0.176607	H23f: 0.00767859
H7: 2.12924e-07	H25: -0.259277	H25f: -0.0103711
H9: 2.76013e-08	H27: -0.296951	H27f: -0.0109982
H11: 1.65608e-07	H29: 0.0410297	H29f: 0.00141482
H13: 2.92998e-07	H31: 0.146285	H31f: 0.00471888
H15: -2.2633e-07	H33: 0.0965609	H33f: 0.00292609
H17: 3.89665e-07	H35: 0.0507124	H35f: 0.00144893
H19: -6.97295e-08	H37: 0.0211496	H37f: 0.00057161

c2sd = 1.9988
c3ed = -0.343
c4sd = -0.6145
c4ed = -1.3925
c5sd = -1.3169
c5ed = -1.4231
c6sd = -1.2896
c6ed = -0.0496
varx = 1.33109%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 85/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.85  
Actual Power: 0.849983  
Actual Amplitude: 0.921945  
Distortion 2H-22H: 8.15049e-05%  
First strong harmonics: 23 and 25  
Pulses per sine cycle: 24  
Total switching events: 48  
Delta Friendly: No

P1 start: 10.5911	end: 12.8248	delta: 2.2337
P2 start: 21.7975	end: 26.6432	delta: 4.8457
P3 start: 33.7185	end: 41.3012	delta: 7.5827
P4 start: 46.3156	end: 56.519	delta: 10.2034
P5 start: 59.6929	end: 72.3942	delta: 12.7013
P6 start: 74.2462	end: 89.3283	delta: 15.082

H3: 5.48774e-08	H21: 1.88151e-07	H21f: 8.95958e-09
H5: -1.48169e-07	H23: 0.17493	H23f: 0.00760566
H7: 4.11581e-07	H25: -0.246171	H25f: -0.00984683
H9: -1.00609e-07	H27: -0.301749	H27f: -0.0111759
H11: 6.73496e-08	H29: 0.0316375	H29f: 0.00109095
H13: 4.55905e-07	H31: 0.144459	H31f: 0.00465996
H15: -2.63412e-07	H33: 0.097527	H33f: 0.00295537
H17: 3.77686e-07	H35: 0.0521473	H35f: 0.00148992
H19: 0.0	H37: 0.0217519	H37f: 0.000587889

c2sd = 2.0051  
c3ed = -0.506  
c4sd = -0.5712  
c4ed = -1.5942  
c5sd = -1.2704  
c5ed = -1.6425  
c6sd = -1.239  
c6ed = -0.1865  
varx = 1.28748%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 86/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.86
Actual Power:	0.86
Actual Amplitude:	0.927362
Distortion 2H-22H:	9.31084e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.6381	end: 12.9022	delta: 2.264
P2 start: 21.8433	end: 26.72	delta: 4.8767
P3 start: 33.7331	end: 41.343	delta: 7.6099
P4 start: 46.2893	end: 56.5205	delta: 10.2312
P5 start: 59.6226	end: 72.3679	delta: 12.7452
P6 start: 74.1417	end: 89.3701	delta: 15.2284

H3: 3.00063e-07	H21: 3.89692e-08	H21f: 1.85568e-09
H5: -4.41911e-07	H23: 0.164979	H23f: 0.00717302
H7: 3.0396e-07	H25: -0.242329	H25f: -0.00969316
H9: -1.90949e-07	H27: -0.299625	H27f: -0.0110972
H11: 1.11594e-07	H29: 0.0354867	H29f: 0.00122368
H13: 3.46227e-07	H31: 0.148951	H31f: 0.00480486
H15: -1.96405e-07	H33: 0.0982938	H33f: 0.0029786
H17: 5.0064e-07	H35: 0.0512132	H35f: 0.00146323
H19: -1.72285e-07	H37: 0.020157	H37f: 0.000544784

c2sd = 2.0414
c3ed = -0.449
c4sd = -0.6172
c4ed = -1.573
c5sd = -1.3636
c5ed = -1.6459
c6sd = -1.3681
c6ed = -0.12
varx = 1.25069%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.87  
 Actual Power: 0.869998  
 Actual Amplitude: 0.932737  
 Distortion 2H-22H: 4.92806e-05%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 10.6961 end: 12.995 delta: 2.2989  
 P2 start: 21.9055 end: 26.8166 delta: 4.9111  
 P3 start: 33.7634 end: 41.4005 delta: 7.637  
 P4 start: 46.2753 end: 56.5304 delta: 10.2551  
 P5 start: 59.5593 end: 72.3411 delta: 12.7818  
 P6 start: 74.0367 end: 89.412 delta: 15.3753

H3: 1.35606e-07	H21: 1.93723e-08	H21f: 9.22492e-10
H5: -9.76365e-08	H23: 0.153871	H23f: 0.00669006
H7: 2.55715e-07	H25: -0.239836	H25f: -0.00959345
H9: -2.2601e-07	H27: -0.296292	H27f: -0.0109738
H11: 1.84918e-07	H29: 0.0414014	H29f: 0.00142764
H13: 5.007e-08	H31: 0.154304	H31f: 0.00497754
H15: -1.95273e-07	H33: 0.0987414	H33f: 0.00299216
H17: 1.43583e-07	H35: 0.049733	H35f: 0.00142094
H19: -5.13876e-08	H37: 0.0181633	H37f: 0.000490901

c2sd = 2.1391  
 c3ed = -0.4481  
 c4sd = -0.5576  
 c4ed = -1.6368  
 c5sd = -1.3411  
 c5ed = -1.7585  
 c6sd = -1.3811  
 c6ed = -0.1702  
 varx = 1.21558%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.88
Actual Power:	0.88
Actual Amplitude:	0.938083
Distortion 2H-22H:	0.000121128%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.6617	end: 12.9619	delta: 2.3003
P2 start: 21.8457	end: 26.768	delta: 4.9223
P3 start: 33.683	end: 41.3424	delta: 7.6594
P4 start: 46.173	end: 56.46	delta: 10.287
P5 start: 59.4312	end: 72.2654	delta: 12.8342
P6 start: 73.8897	end: 89.4523	delta: 15.5625

H3: 4.045e-07	H21: 4.62286e-07	H21f: 2.20136e-08
H5: -4.3686e-07	<b>H23: 0.151887</b>	<b>H23f: 0.00660377</b>
H7: 3.92943e-07	<b>H25: -0.226862</b>	<b>H25f: -0.00907447</b>
H9: 3.59556e-08	H27: -0.300808	H27f: -0.011141
H11: 7.35455e-08	H29: 0.0317027	H29f: 0.0010932
H13: 5.28962e-07	H31: 0.15287	H31f: 0.00493128
H15: -2.9124e-07	H33: 0.0999893	H33f: 0.00302998
H17: 5.42506e-07	H35: 0.0513274	H35f: 0.0014665
H19: -2.81021e-07	H37: 0.0186554	H37f: 0.000504201

c2sd = 2.0702
c3ed = -0.4917
c4sd = -0.6786
c4ed = -1.6884
c5sd = -1.4911
c5ed = -1.8122
c6sd = -1.5516
c6ed = -0.1065
varx = 1.1717%.



# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 89/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.89
Actual Power:	0.889998
Actual Amplitude:	0.943397
Distortion 2H-22H:	4.34855e-05%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.6783	end: 12.9985	delta: 2.3202
P2 start: 21.8536	end: 26.7995	delta: 4.9459
P3 start: 33.6637	end: 41.3463	delta: 7.6826
P4 start: 46.1178	end: 56.4281	delta: 10.3103
P5 start: 59.334	end: 72.2035	delta: 12.8696
P6 start: 73.7537	end: 89.4932	delta: 15.7395

H3: 5.36296e-08	H21: -7.66137e-09	H21f: -3.64827e-10
H5: -1.28711e-07	H23: 0.144831	H23f: 0.00629698
H7: 1.60889e-07	H25: -0.219633	H25f: -0.00878531
H9: -1.07259e-07	H27: -0.300879	H27f: -0.0111437
H11: 6.58181e-08	H29: 0.0304229	H29f: 0.00104907
H13: 1.11385e-07	H31: 0.155312	H31f: 0.00501007
H15: -1.71615e-07	H33: 0.100794	H33f: 0.00305436
H17: 2.55529e-07	H35: 0.0512202	H35f: 0.00146344
H19: -1.43953e-07	H37: 0.0177103	H37f: 0.000478657

c2sd = 2.111
c3ed = -0.5402
c4sd = -0.6656
c4ed = -1.7884
c5sd = -1.509
c5ed = -1.9535
c6sd = -1.6024
c6ed = -0.1507
varx = 1.13272%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 90/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.9
Actual Power:	0.899954
Actual Amplitude:	0.948659
Distortion 2H-22H:	0.000919375%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.6822	end: 13.0176	delta: 2.3354
P2 start: 21.8448	end: 26.8105	delta: 4.9657
P3 start: 33.6288	end: 41.3324	delta: 7.7036
P4 start: 46.0493	end: 56.3811	delta: 10.3318
P5 start: 59.2244	end: 72.1263	delta: 12.9019
P6 start: 73.6042	end: 89.5336	delta: 15.9294

H3: 1.30664e-06	H21: -2.78089e-07	H21f: -1.32423e-08
H5: -3.58392e-06	<b>H23: 0.13898</b>	<b>H23f: 0.00604262</b>
H7: 4.28562e-06	<b>H25: -0.210931</b>	<b>H25f: -0.00843724</b>
H9: -2.87993e-06	H27: -0.301883	H27f: -0.0111808
H11: 4.07264e-07	H29: 0.0267976	H29f: 0.000924056
H13: 3.59376e-06	H31: 0.156864	H31f: 0.00506013
H15: -3.57325e-06	H33: 0.101728	H33f: 0.00308267
H17: 3.83991e-06	H35: 0.0515531	H35f: 0.00147295
H19: -1.62523e-06	H37: 0.0171004	H37f: 0.000462174

c2sd = 2.1046
c3ed = -0.5578
c4sd = -0.7293
c4ed = -1.8403
c5sd = -1.6129
c5ed = -2.0365
c6sd = -1.7458
c6ed = -0.1164
varx = 1.09258%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.91  
 Actual Power: 0.908666  
 Actual Amplitude: 0.95324  
 Distortion 2H-22H: 0.00105254%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 10.6532 end: 12.9894 delta: 2.3362  
 P2 start: 21.7926 end: 26.7662 delta: 4.9736  
 P3 start: 33.5566 end: 41.2756 delta: 7.7191  
 P4 start: 45.9547 end: 56.3065 delta: 10.3518  
 P5 start: 59.1012 end: 72.0309 delta: 12.9297  
 P6 start: 73.4486 end: 89.5686 delta: 16.12

H3: -2.97225e-06	H21: -2.95708e-07	H21f: -1.40813e-08
H5: 2.73871e-06	<b>H23: 0.136881</b>	<b>H23f: 0.00595133</b>
H7: -3.93519e-06	<b>H25: -0.19935</b>	<b>H25f: -0.00797399</b>
H9: 3.05186e-06	H27: -0.305223	H27f: -0.0113046
H11: -7.67187e-07	H29: 0.0177177	H29f: 0.000610954
H13: -4.50124e-06	H31: 0.155636	H31f: 0.00502051
H15: 2.77056e-06	H33: 0.10289	H33f: 0.00311787
H17: -6.38783e-06	H35: 0.0531098	H35f: 0.00151742
H19: 4.81873e-07	H37: 0.0174507	H37f: 0.00047164

c2sd = 2.1526  
 c3ed = -0.774  
 c4sd = -0.6162  
 c4ed = -2.1227  
 c5sd = -1.4941  
 c5ed = -2.3737  
 c6sd = -1.6418  
 c6ed = -0.341  
 varx = 1.05369%.

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 92/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.92
Actual Power:	0.919784
Actual Amplitude:	0.959054
Distortion 2H-22H:	0.00124513%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.6924	end: 13.0586	delta: 2.3662
P2 start: 21.8297	end: 26.8338	delta: 5.0041
P3 start: 33.5597	end: 41.3006	delta: 7.741
P4 start: 45.9084	end: 56.2727	delta: 10.3642
P5 start: 58.9931	end: 71.9341	delta: 12.941
P6 start: 73.2705	end: 89.614	delta: 16.3435

H3: 2.05741e-06	H21: -9.38269e-07	H21f: -4.46795e-08
H5: -3.82995e-06	H23: 0.126928	H23f: 0.0055186
H7: 4.78178e-06	H25: -0.193495	H25f: -0.0077398
H9: -4.7127e-06	H27: -0.303396	H27f: -0.0112369
H11: -1.39559e-06	H29: 0.0191481	H29f: 0.000660281
H13: 3.66438e-06	H31: 0.160375	H31f: 0.00517339
H15: -6.86858e-06	H33: 0.103654	H33f: 0.00314104
H17: 4.10551e-06	H35: 0.0522394	H35f: 0.00149255
H19: -3.28186e-06	H37: 0.0157355	H37f: 0.000425284

c2sd = 2.2124
c3ed = -0.7851
c4sd = -0.6153
c4ed = -2.2036
c5sd = -1.5474
c5ed = -2.5255
c6sd = -1.761
c6ed = -0.3545
varx = 1.01219%.

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# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 93/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.93
Actual Power:	0.928386
Actual Amplitude:	0.963528
Distortion 2H-22H:	0.00489296%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.6505	end: 13.0119	delta: 2.3614
P2 start: 21.7588	end: 26.7652	delta: 5.0063
P3 start: 33.4683	end: 41.2203	delta: 7.752
P4 start: 45.7955	end: 56.174	delta: 10.3785
P5 start: 58.8499	end: 71.8097	delta: 12.9598
P6 start: 73.089	end: 89.6481	delta: 16.5591

H3: 6.87869e-06	H21: -7.37378e-06	H21f: -3.51132e-07
H5: -1.90766e-05	H23: 0.125881	H23f: 0.00547307
H7: 1.82394e-05	H25: -0.180161	H25f: -0.00720646
H9: -1.7573e-05	H27: -0.307231	H27f: -0.0113789
H11: -4.53965e-06	H29: 0.0070129	H29f: 0.000241824
H13: 1.27537e-05	H31: 0.1581	H31f: 0.0051
H15: -2.80399e-05	H33: 0.105097	H33f: 0.00318475
H17: 1.37975e-05	H35: 0.0543573	H35f: 0.00155307
H19: -1.12756e-05	H37: 0.016563	H37f: 0.000447648

c2sd = 2.2636
c3ed = -1.0596
c4sd = -0.4752
c4ed = -2.5553
c5sd = -1.396
c5ed = -2.9444
c6sd = -1.6264
c6ed = -0.6366
varx = 0.971813%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.94  
 Actual Power: 0.938514  
 Actual Amplitude: 0.968769  
 Distortion 2H-22H: 0.0019538%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 10.72 end: 13.1221 delta: 2.4021  
 P2 start: 21.8399 end: 26.8834 delta: 5.0435  
 P3 start: 33.5148 end: 41.2853 delta: 7.7706  
 P4 start: 45.785 end: 56.1623 delta: 10.3773  
 P5 start: 58.7657 end: 71.7007 delta: 12.935  
 P6 start: 72.9057 end: 89.6899 delta: 16.7842

H3: 3.08128e-06	H21: -3.25287e-06	H21f: -1.54899e-07
H5: -7.95909e-06	<b>H23: 0.113547</b>	<b>H23f: 0.00493682</b>
H7: 3.77139e-06	<b>H25: -0.178616</b>	<b>H25f: -0.00714465</b>
H9: -8.08617e-06	H27: -0.302982	H27f: -0.0112216
H11: -4.65752e-06	H29: 0.0139468	H29f: 0.000480924
H13: 1.45828e-06	H31: 0.165647	H31f: 0.00534344
H15: -1.32025e-05	H33: 0.105348	H33f: 0.00319236
H17: 2.85702e-07	H35: 0.0522034	H35f: 0.00149153
H19: -4.52708e-06	H37: 0.0138693	H37f: 0.000374845

c2sd = 2.4817  
 c3ed = -1.2126  
 c4sd = -0.2016  
 c4ed = -2.8511  
 c5sd = -1.1493  
 c5ed = -3.3843  
 c6sd = -1.4546  
 c6ed = -0.9497  
 varx = 0.937198%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.95  
 Actual Power: 0.946726  
 Actual Amplitude: 0.972998  
 Distortion 2H-22H: 0.0215851%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 10.6893 end: 13.0892 delta: 2.3999  
 P2 start: 21.7825 end: 26.8286 delta: 5.0461  
 P3 start: 33.4344 end: 41.2122 delta: 7.7778  
 P4 start: 45.6789 end: 56.0602 delta: 10.3813  
 P5 start: 58.6204 end: 71.5662 delta: 12.9458  
 P6 start: 72.7178 end: 89.722 delta: 17.0042

H3: 3.41107e-05	H21: -4.05585e-05	H21f: -1.93136e-06
H5: -8.00718e-05	<b>H23: 0.111665</b>	<b>H23f: 0.00485501</b>
H7: 7.55791e-05	<b>H25: -0.166626</b>	<b>H25f: -0.00666504</b>
H9: -7.49032e-05	H27: -0.305586	H27f: -0.011318
H11: -3.65806e-05	H29: 0.00283144	H29f: 9.7636e-05
H13: 7.45232e-05	H31: 0.164365	H31f: 0.0053021
H15: -0.000120739	H33: 0.107047	H33f: 0.00324385
H17: 5.78371e-05	H35: 0.0538122	H35f: 0.00153749
H19: -3.51274e-05	H37: 0.0146811	H37f: 0.000396785

c2sd = 2.5851  
 c3ed = -1.5414  
 c4sd = 0.0256  
 c4ed = -3.2865  
 c5sd = -0.9064  
 c5ed = -3.9069  
 c6sd = -1.226  
 c6ed = -1.3342  
 varx = 0.899335%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.96
Actual Power:	0.957303
Actual Amplitude:	0.978419
Distortion 2H-22H:	0.0236455%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 10.8193	end: 13.2873	delta: 2.468
P2 start: 21.9549	end: 27.0621	delta: 5.1072
P3 start: 33.5708	end: 41.3712	delta: 7.8004
P4 start: 45.738	end: 56.0997	delta: 10.3617
P5 start: 58.5729	end: 71.4491	delta: 12.8762
P6 start: 72.5209	end: 89.766	delta: 17.2451

H3: 5.85098e-05	H21: -3.91223e-05	H21f: -1.86297e-06
H5: -7.409e-05	<b>H23: 0.0930967</b>	<b>H23f: 0.00404768</b>
H7: 8.90224e-05	<b>H25: -0.17235</b>	<b>H25f: -0.00689401</b>
H9: -7.23078e-05	H27: -0.296001	H27f: -0.010963
H11: -4.24139e-05	H29: 0.0215204	H29f: 0.000742084
H13: 9.01364e-05	H31: 0.177685	H31f: 0.00573178
H15: -0.000128489	H33: 0.105474	H33f: 0.00319619
H17: 6.73081e-05	H35: 0.0481471	H35f: 0.00137563
H19: -3.67535e-05	H37: 0.0100532	H37f: 0.000271709

c2sd = 2.9619
c3ed = -1.7078
c4sd = 0.5086
c4ed = -3.6709
c5sd = -0.4603
c5ed = -4.5177
c6sd = -0.8931
c6ed = -1.82
varx = 0.87189%.



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Desired Power: 0.97  
 Actual Power: 0.966462  
 Actual Amplitude: 0.983088  
 Distortion 2H-22H: 0.0190077%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 11.0856 end: 13.6831 delta: 2.5975  
 P2 start: 22.3575 end: 27.5972 delta: 5.2397  
 P3 start: 33.9714 end: 41.8269 delta: 7.8555  
 P4 start: 46.0444 end: 56.3677 delta: 10.3233  
 P5 start: 58.7248 end: 71.4545 delta: 12.7297  
 P6 start: 72.4413 end: 89.8066 delta: 17.3653

H3: 8.92907e-06	H21: -4.37815e-05	H21f: -2.08483e-06
H5: -5.8515e-05	<b>H23: 0.0593916</b>	<b>H23f: 0.00258224</b>
H7: 6.04559e-05	<b>H25: -0.19817</b>	<b>H25f: -0.00792682</b>
H9: -7.603e-05	H27: -0.266918	H27f: -0.00988585
H11: -3.86334e-05	H29: 0.075674	H29f: 0.00260945
H13: 4.93286e-05	H31: 0.197875	H31f: 0.00638305
H15: -0.00011458	H33: 0.0923682	H33f: 0.00279904
H17: 4.41383e-05	H35: 0.0327121	H35f: 0.000934631
H19: -4.76506e-05	H37: 0.00171642	H37f: 4.63897e-05

c2sd = 3.5654  
 c3ed = -1.5716  
 c4sd = 1.2315  
 c4ed = -3.8193  
 c5sd = 0.1765  
 c5ed = -4.9972  
 c6sd = -0.4523  
 c6ed = -2.2998  
 varx = 0.884367%.

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 0.98  
 Actual Power: 0.97516  
 Actual Amplitude: 0.987502  
 Distortion 2H-22H: 0.021438%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 11.3853 end: 14.1414 delta: 2.756  
 P2 start: 22.867 end: 28.3109 delta: 5.4439  
 P3 start: 34.561 end: 42.544 delta: 7.983  
 P4 start: 46.5842 end: 56.8875 delta: 10.3033  
 P5 start: 59.0959 end: 71.623 delta: 12.5272  
 P6 start: 72.5119 end: 89.8466 delta: 17.3347

H3: 1.6728e-05	H21: -4.61036e-05	H21f: -2.19541e-06
H5: -6.58002e-05	<b>H23: 0.0143514</b>	<b>H23f: 0.000623974</b>
H7: 5.02499e-05	<b>H25: -0.231039</b>	<b>H25f: -0.00924157</b>
H9: -9.64742e-05	H27: -0.211147	H27f: -0.00782026
H11: -4.59013e-05	H29: 0.149647	H29f: 0.00516023
H13: 4.08968e-05	H31: 0.202533	H31f: 0.00653333
H15: -0.000133804	H33: 0.0622613	H33f: 0.00188671
H17: 4.74761e-05	H35: 0.0143272	H35f: 0.000409349
H19: -5.87752e-05	H37: -0.00339047	H37f: -9.16344e-05

c2sd = 4.3486  
 c3ed = -1.2899  
 c4sd = 2.3387  
 c4ed = -3.867  
 c5sd = 1.2084  
 c5ed = -5.4895  
 c6sd = 0.3274  
 c6ed = -2.9689  
 varx = 0.946167%.

# STEP-LOCKED MAGIC SINEWAVE

# NFD24 - 99/100

**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power:	0.99
Actual Power:	0.985655
Actual Amplitude:	0.992802
Distortion 2H-22H:	0.0320483%
First strong harmonics:	23 and 25
Pulses per sine cycle:	24
Total switching events:	48
Delta Friendly:	No

P1 start: 11.8778	end: 14.9232	delta: 3.0453
P2 start: 23.8293	end: 29.7719	delta: 5.9426
P3 start: 35.9288	end: 44.4593	delta: 8.5305
P4 start: 48.2304	end: 58.8706	delta: 10.6402
P5 start: 60.7683	end: 73.0405	delta: 12.2722
P6 start: 73.7111	end: 89.908	delta: 16.1969

H3: 7.28995e-05	H21: -1.3905e-05	H21f: -6.62144e-07
H5: -0.000132029	H23: -0.0949135	H23f: -0.00412667
H7: 0.000128257	H25: -0.271878	H25f: -0.0108751
H9: -9.13388e-05	H27: -0.0205766	H27f: -0.000762095
H11: -2.60595e-05	H29: 0.253279	H29f: 0.00873375
H13: 7.71292e-05	H31: 0.121168	H31f: 0.00390864
H15: -0.000157836	H33: 0.00912535	H33f: 0.000276526
H17: 0.000127414	H35: 0.00526767	H35f: 0.000150505
H19: -8.48699e-05	H37: -0.00252479	H37f: -6.82376e-05

c2sd = 5.3716
c3ed = 0.529
c4sd = 4.1105
c4ed = -2.0095
c5sd = 3.0271
c5ed = -4.2183
c6sd = 1.6836
c6ed = -3.0645
varx = 1.1636%.

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**SUMMARY:** This steplock-24 "constant power increments" magic sinewave is not delta friendly. Harmonics 2 through 22 are virtually zero. The first major harmonics are the 23rd and 25th. Harmonic amplitudes are relative to the fundamental. Filtered "f" harmonics assume a filter of an "integrating" or 1/H or 1/f response. An 0.001 degree or better timing accuracy is required.

Desired Power: 1.0  
 Actual Power: 0.999321  
 Actual Amplitude: 0.999661  
 Distortion 2H-22H: 0.0265883%  
 First strong harmonics: 23 and 25  
 Pulses per sine cycle: 24  
 Total switching events: 48  
 Delta Friendly: No

P1 start: 12.0685	end: 15.2566	delta: 3.1881
P2 start: 24.2369	end: 30.4732	delta: 6.2363
P3 start: 36.5972	end: 45.5919	delta: 8.9947
P4 start: 49.2391	end: 60.5211	delta: 11.282
P5 start: 62.2258	end: 75.1212	delta: 12.8954
P6 start: 75.5763	end: 89.9893	delta: 14.413

H3: 4.80553e-05	H21: 7.20089e-05	H21f: 3.42899e-06
H5: -6.45141e-05	H23: -0.168005	H23f: -0.00730458
H7: 0.000120285	H25: -0.245999	H25f: -0.00983997
H9: -7.77303e-05	H27: 0.0937084	H27f: 0.00347068
H11: 6.68827e-05	H29: 0.234809	H29f: 0.00809688
H13: 2.56599e-05	H31: 0.0736906	H31f: 0.00237712
H15: -7.21715e-05	H33: 0.0103004	H33f: 0.000312132
H17: 0.000136753	H35: 0.0014506	H35f: 4.14458e-05
H19: -9.73892e-05	H37: -0.000126648	H37f: -3.42291e-06

c2sd = 5.7022  
 c3ed = 1.7839  
 c4sd = 4.9598  
 c4ed = -0.1997  
 c5sd = 4.2991  
 c5ed = -1.952  
 c6sd = 3.3496  
 c6ed = -2.7841  
 varx = 1.22589%.