

Micro-step Calculation Table of VID78 Driving Signal

Introduce Peak current (For calculation)		22.22
PULSE #	VALUE OF CURRENT [mA]	
P M	$I = \sin(90) * I_{max}$	22.22
P 5	$I = \sin(75) * I_{max}$	21.46
P 4	$I = \sin(60) * I_{max}$	19.24
P 3	$I = \sin(45) * I_{max}$	15.71
P 2	$I = \sin(30) * I_{max}$	11.11
P 1	$I = \sin(15) * I_{max}$	5.75

ATTENTION:

Maximum peak current= 23.81 mA

Minimum peak current= 20.83 mA

Typical peak current=22.22 mA

Coil Resistance : 225 +/- 15 Ohms

Micro-STEP #	ROTOR Angle	Pointer Angle	Designation by PULSE #		Current in Coils [mA]		Voltage on Coil [V]	
					Coil 1	Coil 2	Coil 1	Coil 2
0	-22.50	-0.50	P 3	-P 3	15.71	-15.71	3.54	-3.54
1	-18.75	-0.42	P 4	-P 2	19.24	-11.11	4.33	-2.50
2	-15.00	-0.33	P 5	-P 1	21.46	-5.75	4.83	-1.29
3	-11.25	-0.25	P M	0	22.22	0.00	5.00	0.00
4	-7.50	-0.17	P 5	P 1	21.46	5.75	4.83	1.29
5	-3.75	-0.08	P 4	P 2	19.24	11.11	4.33	2.50
6	0.00	0.00	P 3	P 3	15.71	15.71	3.54	3.54
7	3.75	0.08	P 2	P 4	11.11	19.24	2.50	4.33
8	7.50	0.17	P 1	P 5	5.75	21.46	1.29	4.83
9	11.25	0.25	0	P M	0.00	22.22	0.00	5.00
10	15.00	0.33	-P 1	P 5	-5.75	21.46	-1.29	4.83
11	18.75	0.42	-P 2	P 4	-11.11	19.24	-2.50	4.33
12	22.50	0.50	-P 3	P 3	-15.71	15.71	-3.54	3.54

Designation by PULSE #	Current in Coils [mA]		Voltage on Coil [V]	
	Coil 1	Coil 2	Coil 1	Coil 2
P M 0	22.22	0.00	5.00	0.00
P 5 P 1	21.46	5.75	4.83	1.29
P 4 P 2	19.24	11.11	4.33	2.50
P 3 P 3	15.71	15.71	3.54	3.54
P 2 P 4	11.11	19.24	2.50	4.33
P 1 P 5	5.75	21.46	1.29	4.83
0 P M	0.00	22.22	0.00	5.00
-P 1 P 5	-5.75	21.46	-1.29	4.83
-P 2 P 4	-11.11	19.24	-2.50	4.33
-P 3 P 3	-15.71	15.71	-3.54	3.54
-P 4 P 2	-19.24	11.11	-4.33	2.50
-P 5 P 1	-21.46	5.75	-4.83	1.29
-P M 0	-22.22	0.00	-5.00	0.00
-P 5 -P 1	-21.46	-5.75	-4.83	-1.29
-P 4 -P 2	-19.24	-11.11	-4.33	-2.50
-P 3 -P 3	-15.71	-15.71	-3.54	-3.54
-P 2 -P 4	-11.11	-19.24	-2.50	-4.33
-P 1 -P 5	-5.75	-21.46	-1.29	-4.83
0 -P M	0.00	-22.22	0.00	-5.00
P 1 -P 5	5.75	-21.46	1.29	-4.83
P 2 -P 4	11.11	-19.24	2.50	-4.33
P 3 -P 3	15.71	-15.71	3.54	-3.54
P 4 -P 2	19.24	-11.11	4.33	-2.50
P 5 -P 1	21.46	-5.75	4.83	-1.29

