

IM483H Plus/ IM805H Plus Specification Changes and Feature Additions

Test Parameters: $T_A = 25^\circ\text{C}$, $+V = 48\text{V}$,
 Input Voltage Specification Includes Motor Back EMF

		IM483H Plus/IM805H Plus Specifications			
SPECIFICATION	TEST CONDITION / NOTES	MIN	TYP	MAX	UNITS
Input Voltage (IM483H Plus)		+12	–	+48	V
Input Voltage (IM805H Plus)		+12		+75	V
Phase Output Current (IM483H Plus)	RMS	–	–	3	A
	Peak	0.5	–	4.2	A
Phase Output Current (IM805H Plus)	RMS	–	–	5	A
	Peak	1	–	7.1	A
Quiescent Current (+5V, pin 14)	Inputs/Outputs Floating	–	140	225	mA
Active Power Dissipation	$I_{OUT} = 3\text{A RMS}$ (IM483H Plus)	–	7	9	W
	$I_{OUT} = 5\text{A RMS}$ (IM805H Plus)	–	9	12	
Low Level Input Voltage	All Inputs	–	–	1.2	V
High Level Input Voltage	All Inputs Except RESET	–	–	2.0	V
	RESET	–	2.3	–	V
Input Pull-Up Resistance	RES SEL 0-3, ENABLE	–	20	–	k Ω
	STEP CLOCK DIRECTION	–	2.0	2.2	k Ω
	RESET	0.9	1.0	1.1	k Ω
	FAULT IN	–	4.7	–	k Ω
Low Level Output Current	FAULT, FULLSTEP, Inactive	–	–	- 2	mA
High Level Output Current	FAULT, FULLSTEP, Active	–	–	2	mA
Low Level Output Voltage, V_{OL}	$I_{OL} = 1.4\text{ mA}$	–	–	0.5	V
High Level Output Voltage, V_{OH}	$I_{OH} = -1.7\text{ mA}$	2.3	–	–	V
Step Clock	Rate	–	–	2.5	MHz
	Width	200	–	–	nS
	Response	–	650	–	nS
Direction Setup/Hold		–	50/100	–	nS
MSEL Setup		–	4	–	mS
Full Step (zero cross)	Response	–	650	–	nS
Reset Pulse Width		1	–	–	μS
Enable	Response	–	4	–	mS

IM483H/IM805H Specifications			
MIN	TYP	MAX	UNITS
+12	–	+48	V
+24	–	+75	V
0.4	–	3	A
0.6	–	4	A
1	–	5	A
1.4	–	7	A
–	100	–	mA
–	–	12	W
–	–	25	
–	–	0.8	V
–	2.0	–	V
–	2.3	–	V
4.94	4.99	5.03	k Ω
2.19	2.21	2.23	k Ω
0.9	1.0	1.1	k Ω
–	–	–	k Ω
–	–	-6	mA
–	–	3	mA
–	–	0.4	V
4.5	–	–	V
–	–	10	MHz
50	–	–	nS
–	100	–	nS
–	100	–	nS
–	100	–	mS
–	75	–	nS
1	–	–	μS
–	–	–	mS

New Microstep Resolution (MSEL) Settings					
RESOLUTION (Microsteps/Step)	STEPS/REV (1.8° Step Motors)	MSEL 0 (P1:5)	MSEL 1 (P1:6)	MSEL 2 (P1:7)	MSEL 3 (P1:8)
FULL STEP					
1	200	LOW	HIGH	HIGH	HIGH
DEGREES					
180	36,000	HIGH	HIGH	HIGH	HIGH