

Table 1. STEVAL-IHM038V1 motor control workbench parameters

Parameter	STEVAL-IHM038V1	Unit
<b>Power stage parameters</b>		
ICL shutout	Disabled	
Dissipative brake	Disabled	
Bus voltage sensing	Enabled	
Bus voltage divider	1/... 139	
Min. rated voltage	140	V
Max. rated voltage	375	V
Nominal voltage	325	V
Temperature sensing	Enabled	
V0	1055	mV
T0	25	°C
$\Delta V/\Delta T$	29	mV/°C
Max. working temperature on sensor	90	°C
Overcurrent protection	Enabled	
Comparator threshold	0.50	V
Overcurrent network gain	0.30	V/A
Expected overcurrent threshold	1.66	A
Overcurrent feedback signal polarity	Active-low	
Overcurrent protection disabling network	Disabled	
Current sensing	Enabled	
Current reading topology	One shunt resistor	
Shunt resistor(s) value	0.30	$\Omega$
Amplifying network gain	3.10	
T-rise	2000	Ns
Power switches - minimal deadtime	1500	Ns
Power switches - max. switching frequency	25	kHz
U, V, W driver - high side driving signal Active	Active-high	
U, V, W driver - low side driving signal complemented from high side	Disabled	
U, V, W driver - low side driving signal polarity	Active-low	
<b>Control stage – Digital I/O</b>		
Timer	TIM1	
TIM1 remapping	No remap	

Table 1. STEVAL-IHM038V1 motor control workbench parameters (continued)

Parameter	STEVAL-IHM038V1	Unit
<b>Control stage – analog input</b>		
Analog input - ADC channel for current reading	ADC12_IN3	
Analog input - bus voltage feedback	ADC12_IN6	
<b>Control stage – MCU and clock frequency</b>		
MCU selection- STM32 subfamily	Value line medium density	
Clock settings – CPU frequency	24MHz	
Supply voltage- Nominal MCU supply voltage	3.3V	
<b>Drive management</b>		
Drive management - user interface - joystick, LCD, button	Disabled	