

# Device Modeling Report

COMPONENTS: DC MOTOR  
PART NUMBER: FA-130  
MANUFACTURER: MABUCHI MOTOR



**Bee Technologies Inc.**

## Theory: Auto Balancing Bridge Method

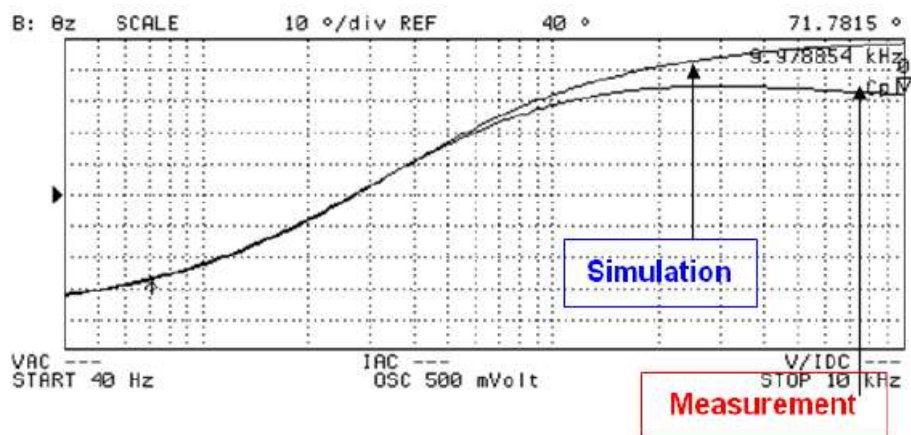
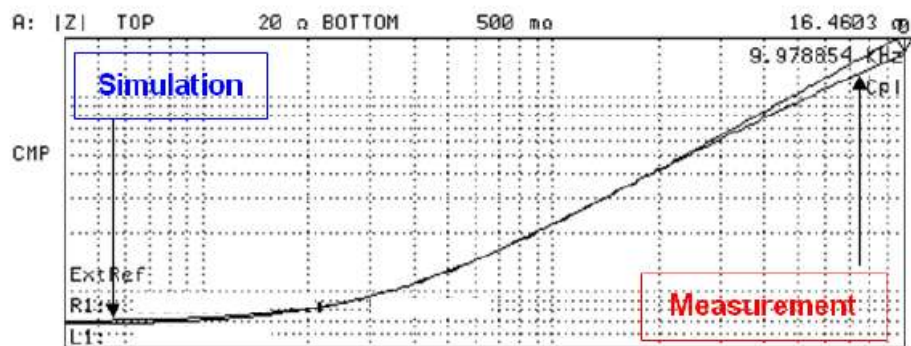
### Optimization of Simulation

Range of adjustment Frequency:40 to10K(Hz)

Frequency vs.  $|Z|$  and Frequency vs.  $\theta z$  Characteristic

Attention)

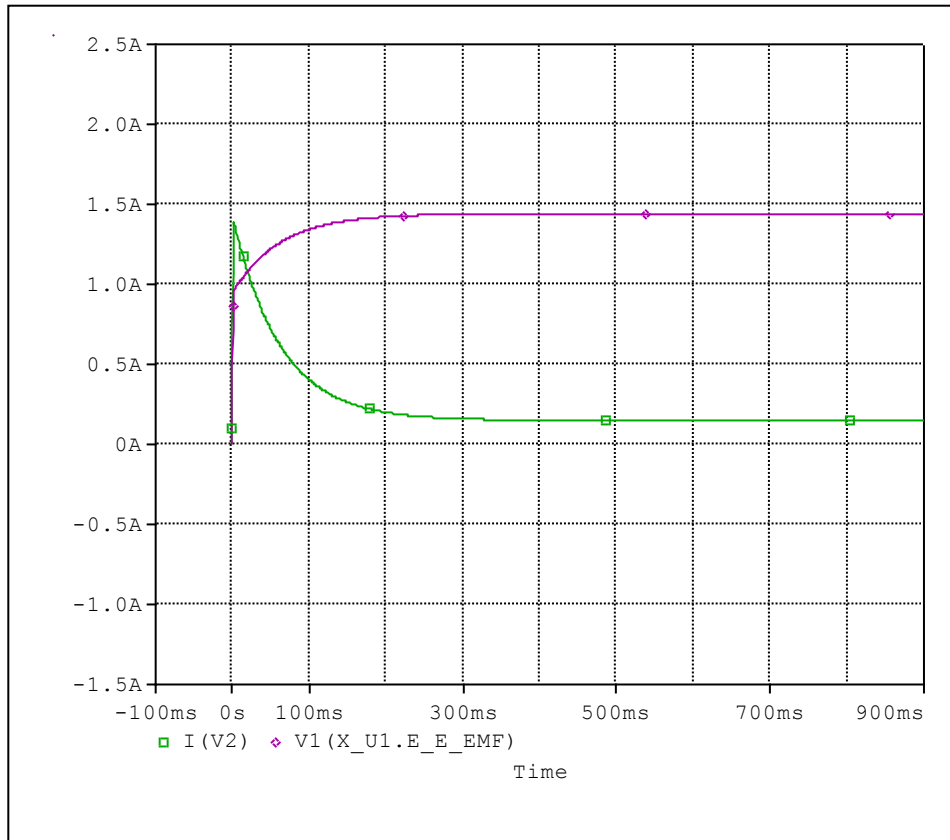
*Please use SPICE MODEL within the range from 40 to 10K(Hz) for best accuracy.*



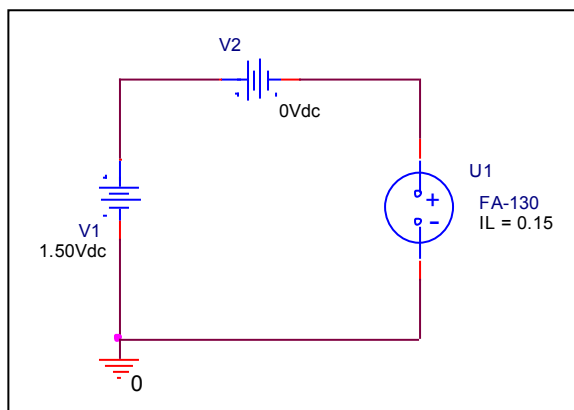
LM	
RS	
CP	

# DC Motor Voltage and Current Characteristics at Noload

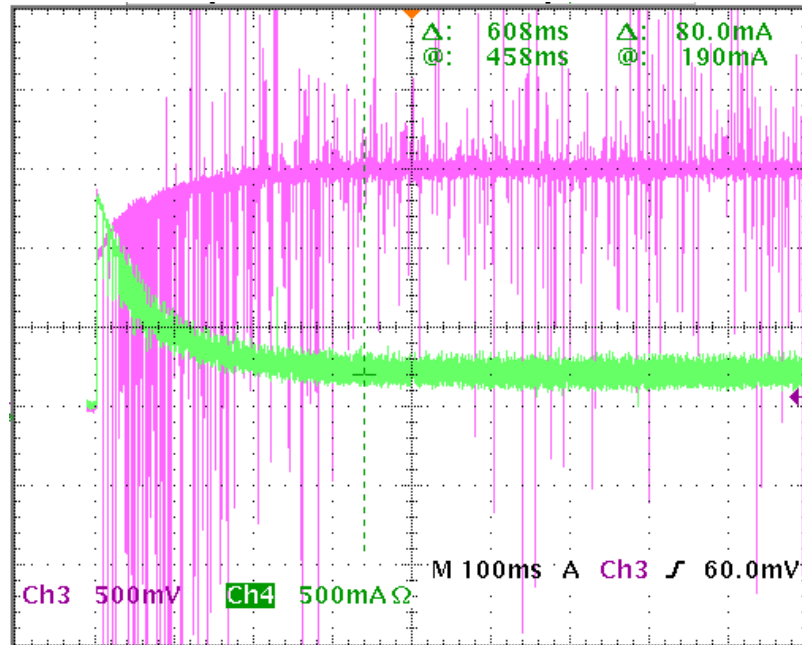
## Circuit simulation result



## Evaluation circuit

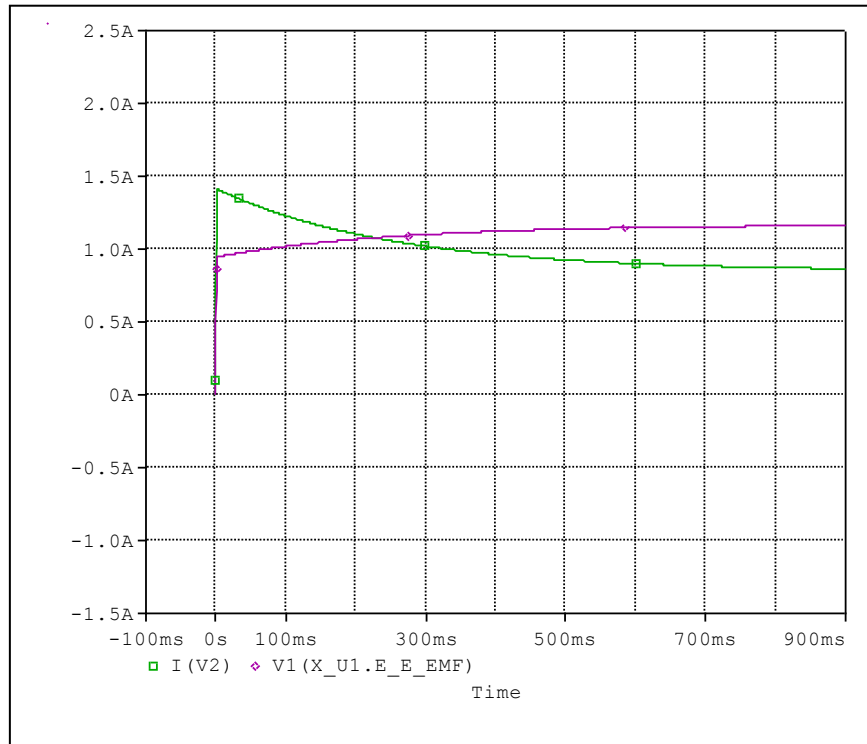


## DC Motor Voltage and Current Characteristics (No load) Reference

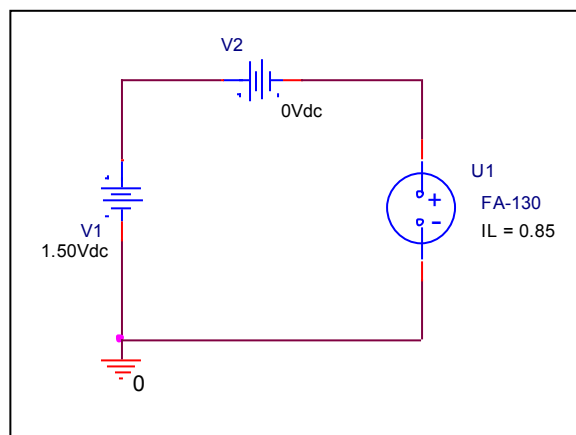


# DC Motor Voltage and Current Characteristics at Fan load

## Circuit simulation result



## Evaluation circuit



## DC Motor Voltage and Current Characteristics (Fan load) Reference

