

<b>APPLICATION NOTE</b>	<b>FECA-AN-119B</b>
<b>Internal Braking Unit Ratings</b>	

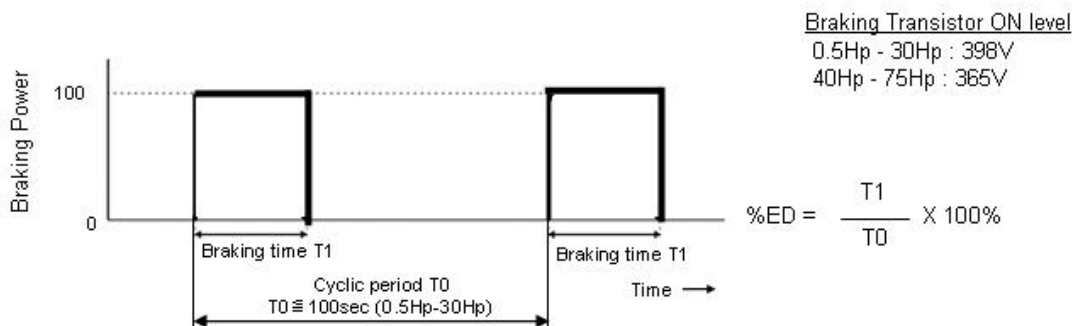
**Inverter type** FRENIC-MEGA series  
**Software version** All versions  
**Required options** None  
**Related documentation** -  
**Author** Terry Webb  
 Shane Spencer  
**Date** 2/1/2012  
**Revision** B

## Introduction

This application note will address the **FRENIC MEGA** inverters' internal braking unit (chopper/transistor) dynamic braking capability. The **FRENIC-MEGA** can be applied in systems that require controlled speed operation (under various 4 quadrant running conditions), where the loads are overhauling, and/or there is a specific stopping time required. These types of applications often require dynamic braking, composed of a braking unit paired with braking resistor. The following table details the brake unit ratings.

### Three-phase 230V series

Inverter Capacity [HP]	0.5	1	2	3	5	7.5	10	15	20	25	30	40					
Allowable minimum resistor [Ω]	100		40		24		16		12		8		6		4		2.5
Maximum braking power	180%	180%										150%					
%ED(100%power)	100%	70%				50%						100%					
maximum braking time T1 (100%power)	*1	70sec				50sec						*1					



**Three-phase 460V series**

Inverter Capacity [HP]	0.5	1	2	3	5	7.5	10	15	20	25	30	40
Allowable minimum resistor [ $\Omega$ ]	200		160		96	64	48	32	24	16		10
Maximum braking power	180%		180%							150%		
%ED(100% power)	100%		70%			50%				100%		
maximum braking time T1 (100% power)	*1		70sec			50sec				*1		

\*1: continuous braking available

Braking Transistor ON level

0.5Hp - 30Hp : 796V

40Hp - 200Hp : 760V

Note 1: Above ratings associated with Light Duty (LD) mode. Drives must be sized appropriately for High Duty (HD) mode applications.

Note 2: Dynamic braking consists of the built-in braking unit, and a braking resistor (included with drives 15Hp LD and lower, 20Hp LD and larger must be purchased separately).

Note 3: Refer to **FRENIC-MEGA Instruction Manual INR-S147-1457-E** for more information.