



**CUSTOM SOFTWARE DESCRIPTION**

# EXTERNAL TERMINAL DC INJECTION

<b>Software Numbers:</b> VSP018180 / VSP018210	<b>Base Versions:</b> VSP010025 / VSP010104
<b>Product:</b> V7 Low & High HP	<b>Part Number:</b> CIMR-V7AMXXXX-037
<b>Release Date:</b>	<b>Author:</b> S.Sokuza <input type="checkbox"/> Beta Version
<b>Overview:</b> DC Injection via a multi-function input added. This manual covers both the low HP version VSP018180 and the high HP version VSP01820.	
<b>Revision History:</b>	

## Overview:

This software adds a DC Injection command as a multi-function input selection. The DC Injection command causes DC current to flow in the motor windings, which aligns the motor poles and provides holding torque.

## Additional Multi-function Input Setting:

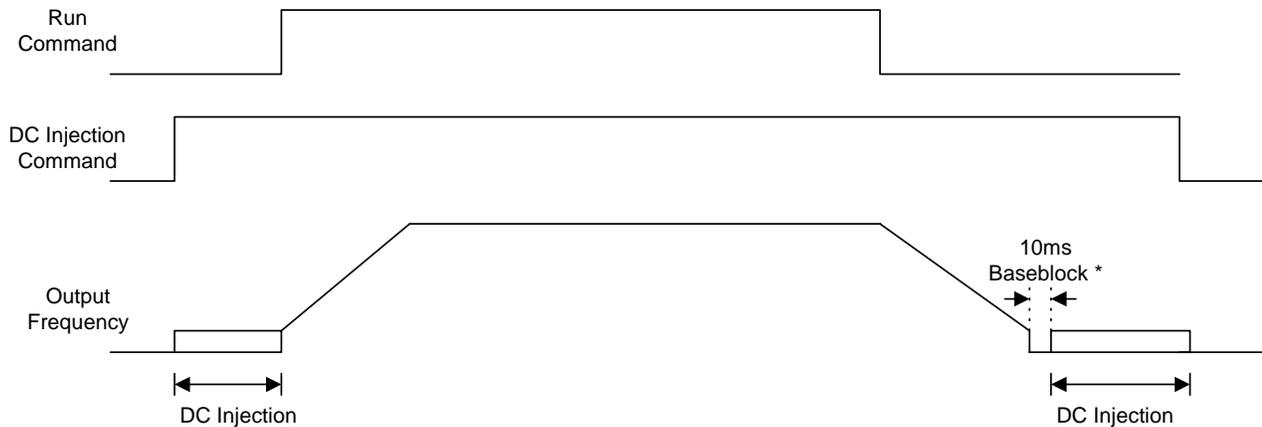
Setting	Description
28	DC Injection Command

When n050 ~ n056 = 28, the corresponding input terminal (S1 ~ S7) is used for commanding DC Injection.

## Description of Functionality:

- The DC Injection command will be active under the following conditions: the inverter is ready (i.e. not in program mode or in a fault state), no run command is present, and the output frequency is less than the Minimum Frequency (n016).
- The DC Injection Current Level is set by the standard parameter n089 (as a percentage of inverter rated current).
- The DC Injection at Start and DC Injection at Stop parameters n090 and n091 have priority over the external DC Injection command.
- The External Baseblock command has priority over the external DC Injection command.

## Timing Chart:



\* To prevent the 10ms Baseblock at the end of deceleration, set DC Injection Time at Stop n090 = 0.1 sec.