

Application Note	AN-MEGA-0023-v100EN
Pattern operation with customizable logic	

Inverter type	FRENIC MEGA
Software version	All versions
Required options	-
Related documentation	
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Use	Public, Web
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Version	1.0.0
Languages	English

1. Introduction.

This document shows the ability of FRENIC MEGA working in a pattern operation ($T_{max} = 600$ s per step) only by using Customizable logic. With inverter ROM version 3800 or later, we recommend to use the pattern operation function with 6000s per stage.

2. Description.

2.1 Connection

Because the Customizable logic is working cyclical (especially the timer's) a digital input X1-X7 with [**CLC**]: "Cancel customizable logic" is used. In this case, the customizable logic is only activated when FWD or REV are active.

Initial Parameter list:

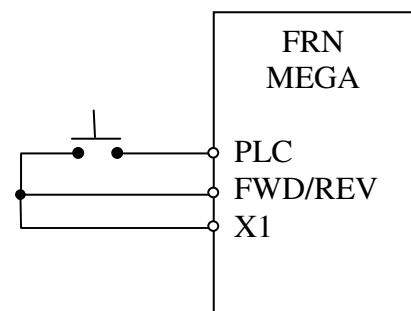
E01= 1080 (Cancel customizable logic [CLC])

Multi-frequency selection for example:

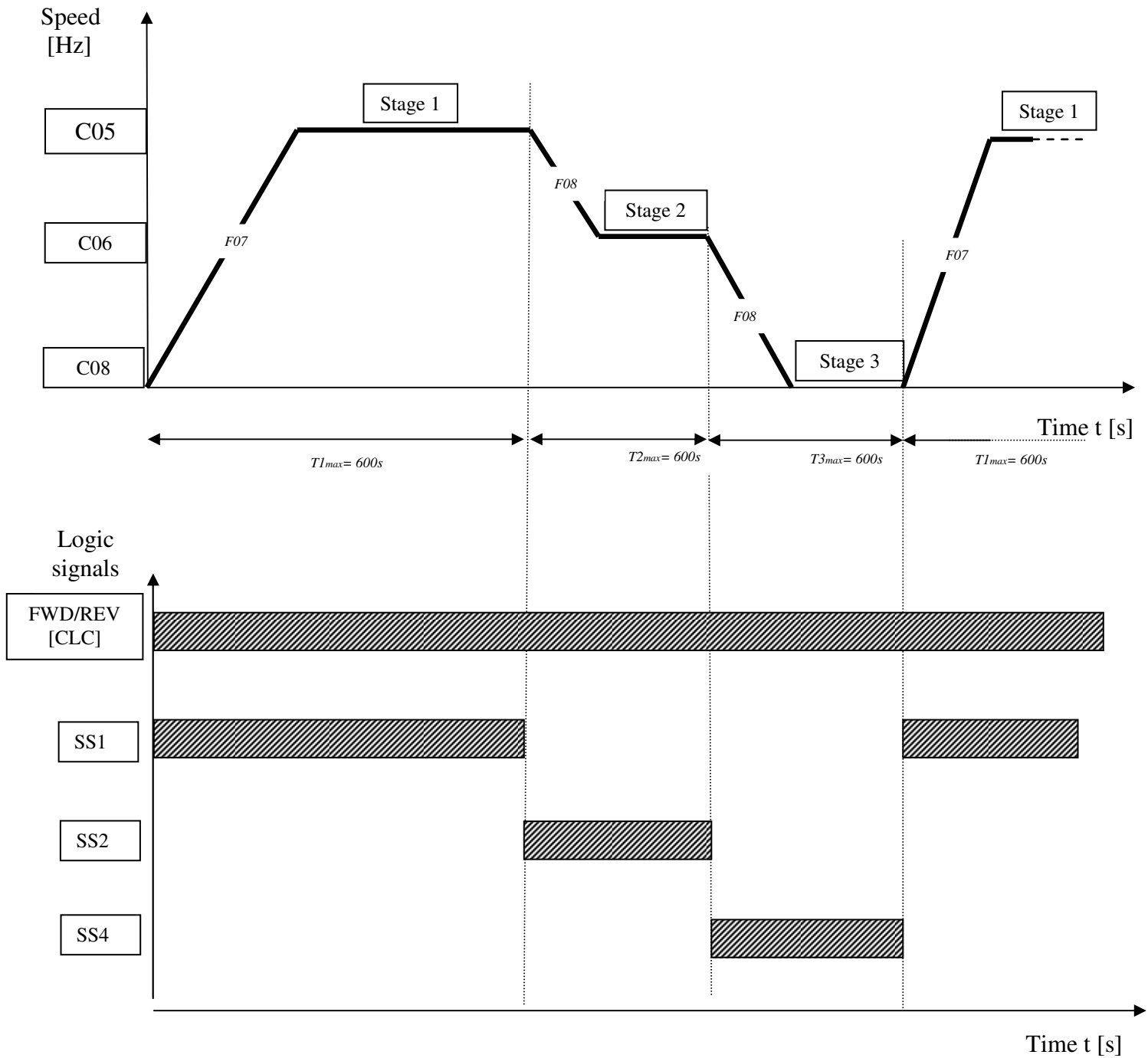
C05= 50 Hz (Stage 1)

C06= 25 Hz (Stage 2)

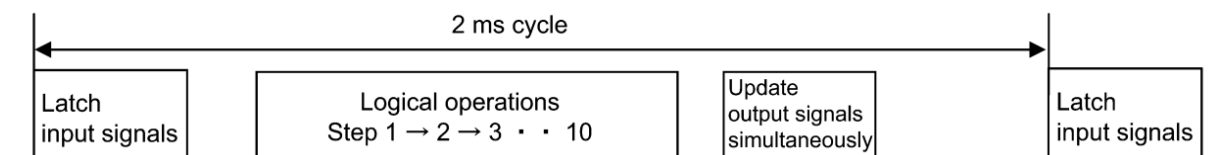
C08= 0 Hz (Stage 3)



2.2 Operation graph (Example)



Note for Customized Logic: If an output of a particular step applies to an input at the next step, the output of the step having processing priority will be used in the same cycle.
 This behavior is used to have the sequence Stage1 > Stage2 > Stage3.



2.3 Customizable Logic Parameters

U00=1 (active)

Step1 { U01=3003 (SO03)
U02=3002 (SO02)
U03=2 (AND + timer)
U04=3 (Timer function: Pulse)
U05=600s

Step2 { U06=3001 (SO01)
U07=3003 (SO03)
U08=2
U09=3
U10=600s

Step3 { U11=3001
U12=3002
U13=2
U14=3
U15=600s

U71=1 Step 1 output (SO01)
U72=2 Step 2 output (SO02)
U73=3 Step 3 output (SO03)
U81=0 Select multi frequency (SS1)
U82=1 Select multi frequency (SS2)
U83=2 Select multi frequency (SS4)

3. Conclusion.

- When the time will be extended, you can activate two or three...etc. timers in succession, so you have the opportunity f.e. 3x 600s = 1800 s (30 min)
- In total FRENIC MEGA has 10 steps.
- In total FRENIC MEGA has 5 outputs, so it's is possible to use maximum 5 stages.
- For higher time setting, for example 6000s per stage, it is needed to use ROM version 3800 or later with Pattern operation.

4. Document history.

Version	Changes applied	Date	Written	Checked	Approved
1.0.0	First	29/01/2013	M. Bennani	M. Fuchs	J. Català