

## Configuração do ServoMotor com o ServoDrive

Informação 01 (internet): Tabela configuração drive + motor

### TSTA30C Series

dn-08 Display Cn-030 Setting	Motor Model (Nameplate)	Motor Standards		Encoder Specification
		Watt (KW)	Speed (rpm)	
H0310	8CC751G-3DEBEAS 8CC751G-3DGBEAS(Brake)	0.75	3000	2000
Notel H1310	8CC751G-3DEBWAS 8CC751G-3DGBWAS(Brake)			2500
H1311	TSC08751C-3NT3 TSC08751C-3BT3(Brake)			
H0312	TSC08751C-3NL3 TSC08751C-3BL3(Brake)			8192

Notel:CC Series encoder resolution to 2500P/R (2009/12 Start provide)

Informação 02 (internet): Outra Tabela configuração drive + motor

### TSTA30C / TSTE30C Series

Series	dn-08 Display Cn-030 Setting	Motor Model (Nameplate)	Motor Standards		Encoder Specification
			Watt (KW)	Speed (rpm)	
TSTA / <u>TSTE</u>	H0310	8CC751G-3DEBEAS 8CC751G-3DGBEAS(Brake)	0.75	3000	2000
TSTA / <u>TSTE</u>	▲ <sup>2</sup> H1310	8CC751G-3DEBWAS 8CC751G-3DGBWAS(Brake)			2500

~PS. Use dn-04 to view the current software version of the Servo drive.

▲<sup>1</sup> Version of Software :TSTA -V2.69 or up , TSTE ; V1.38 or up.

▲<sup>2</sup> Version of Software :TSTA -V2.68 or up , TSTE ; V1.35 or up.

Informações 03:

1-) Meu Drive = TSTA30C

2-) Servo Motor que eu quero ligar com o drive = 8CC751G-3DEBWAS

3-) Utilizado dois valores para o parâmetro Cn030  
H0310 (referente motor 8CC751G-3DEBEAS)  
H1310 (referente motor 8CC751G-3DEBWAS)

4-) Utilizei também os dois valores (2000 e 2500) para o parâmetro CN 005 (escala de saída de pulso do encoder)

## Testes executados:

### TESTE 01: Utilizando Cn030=H1310 e Cn005 = 2500

Ligado o Drive (status no display ALM05)

Alterado Cn030 = H1310

Liga/Desliga Drive para o valor do parâmetro entrar

Status no Display (ALM05)

Alterado Cn029 = 0001 (reset fabrica)

Liga/Desliga Drive para o valor do parâmetro entrar

Status no Display (ALM12)

Verificado: Cn030 = H1310 e Cn005 = 2000

Alterado para Cn005 = 2500

Liga/Desliga Drive para o valor do parâmetro entrar

Status no Display (ALM12)

Alarm Code	Alarm Name and Description	Corrective Actions	Reset Method	Alarm Status Digital Output			
				CN1-25 BB/A3	CN1-24 ST/A2	CN1-23 PC/A1	CN1-22 LM/A0
12	<b>Motor over speed</b>	1. Reduce the speed command.	Turn ALRS (DI) ON	0	0	1	1
	Motor's speed is 1.5 times more than motor's rated speed.	2. Electronic gear ratio is incorrect check and set correctly. 3. Adjust speed loop gains ( <b>Sn211</b> & <b>Sn213</b> ) for a better motor response.					

### 5-3-8 Speed Loop Gain

In speed mode there are two speed controller loops,

with separate Gain (P) and Integral (I) functions.

Speed controllers 1 or 2 can be selected by setting one of the multi- function input terminals,

to selection G-SEL or by setting one of the parameters Cn20-Cn24 as required.

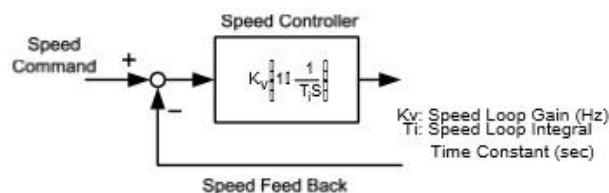
Please refer to section 5-3-11 section B for more details.

Parameter	Name	Default	Unit	Setting range	Control mode
Sn211	Speed loop gain 1	40	Hz	10~450	Pe/Pi/S
Sn212	Speed loop integral time constant 1	100	x0.2 ms	1~500	Pe/Pi/S
Sn213	Speed loop gain 2	40	Hz	10~450	Pe/Pi/S
Sn214	Speed loop integral time constant 2	100	x0.2 ms	1~500	Pe/Pi/S

Diagram below shows the speed controller.

Setting a high speed loop gain or a lower speed loop integral time provides a faster speed control response time.

For more details refer to section 5-5.



Ligado o Drive (status no display ALM12)  
Alterado Cn030 = H0310 e Cn005 = 2000  
Liga/Desliga Drive para o valor dos parâmetros entrar  
Status no Display (ALM05)

Ligado o Drive (status no display ALM05)  
 Alterado Cn030 = H0310 e Cn005 = 2500  
 Liga/Desliga Drive para o valor dos parâmetros entrar  
 Status no Display (ALM05)

Alarm Code	Alarm Name and Description	Corrective Actions	Reset Method	Alarm Status Digital Output			
				CN1-25 BB/A3	CN1-24 ST/A2	CN1-23 PC/A1	CN1-22 LM/A0
05	<b>Encoder ABZ phase signal error</b>	1.Check the motor's encoder connections. 2.Check the encoder if short circuit, poor solder joints or break. 3.Check the encoder signal terminals CN2-1 and CN2-2. ( power cable 5v)	Reset Power Supply				
	Motor's encoder failure or encoder connection problem.			1	0	1	0
06	<b>Encoder UVW phase signal error</b>		Reset Power Supply				
	Motor's encoder failure or encoder connection problem.			1	0	0	1

Ligado o Drive (status no display ALM05)  
Alterado Cn030 = H1310 e Cn005 = 2000  
Liga/Desliga Drive para o valor dos parâmetros entrar  
Status no Display (ALM05)

Ligado o Drive (status no display ALM05)  
 Alterado Cn030 = H1313 e Cn005 = 2500  
 Liga/Desliga Drive para o valor dos parâmetros entrar  
 Status no Display (NOT POT)  
 Alterado Cn002 = H0010 (objetivo: resetar o NOT POT)  
 Liga/Desliga Drive para o valor do parâmetro entrar  
 Status no Display (\_ RUN) motor energizado  
 Alterado Cn001 = 0001 (objetivo: pulso interno pelo drive)  
 Liga/Desliga Drive para o valor do parâmetro entrar  
 Entro no parâmetro Dn05 (objetivo: enviar pulso para o servo motor através do drive)  
 Resultado: Quando envia pulso para o servo motor, o motor tenta girar e fica energizado como estivesse travado e depois resulta em ALM03

03	<b>Motor Over-load</b>	1. Check connection for Motor terminal s (U,V,W) and Encoder.	Turn ALRS(DI) ON	1	1	0	0
	The drive has exceeded its rated load during continuous operation. When the loading is equal to 2 times of rated loading, alarm occurs within 10sec.	2. Adjust the Drive gain, If gain is not correctly adjusted, it would cause motor vibration and large current will lead to motor over load. 3. Extend acc/deceleration time or reduce load ratio in the permitted range.					

**Versão do Software:**

Conferido versão do software no parâmetro Dn04 = 2.60

Observado que para o servo motor 8CC751G-3DEBWAS é preciso a versão 2.68 ou maior

**Conclusão:**

Observei que o servo motor 8CC751G-3DEBWAS possui um encoder diferente e também de fabricantes diferentes, provavelmente não sendo compatível com meu drive TSTA30C versão do software 2.60.

Para instalar o servo motor 8CC751G-3DEBWAS com o drive TSTA30C (software 2.60) é preciso uma versão de software mais atualizada 2.68 ou maior.

Observe que até mesmo as informações coletadas da internet mostram uma nota para o servo motor 8CC751G-3DEBWAS especificando uma versão de software acima de 2.68.