

O, INT, Atuom.
Teoria Aplicado
no pratica

Conhecimento 2.

Chegou
Aqui



Live 1

PONDO NO SEU
Pode

CRESCER

Live 2
Terço
Repouso →
Filtro ←
fonte ←

sorteio

4997.00

CRESCER

Live 3
Alota

IPM Teste

Percent.
Smin.
BOM RUIM

Libera Alota
BOM desconto
Insto VIP

continua

Live 4
Quintofere

Empino e segredo,
Como voce deve
estudar
Instrumento

Dominar sucesso
Axeo

CONTINUAR
CRESCENDO

Toshiba 1980

Tec. 46 Anos Atos

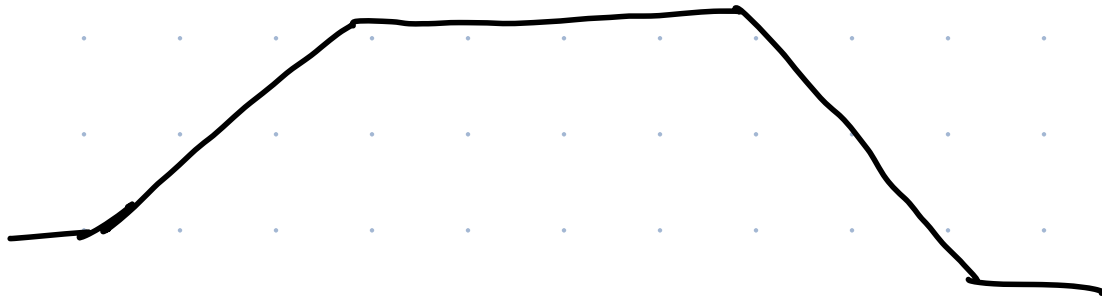
7 anos



Dominos = toshiba criou 1980

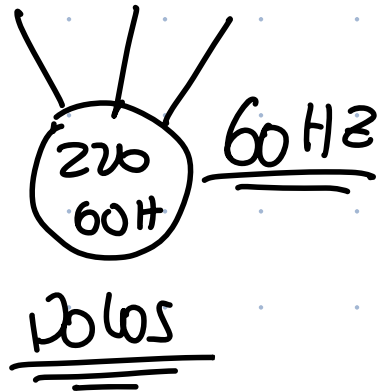
tec. Invertidor

= controler velocidade
de motor



= monofasico =

Trifasico =



velocidade

frequencia

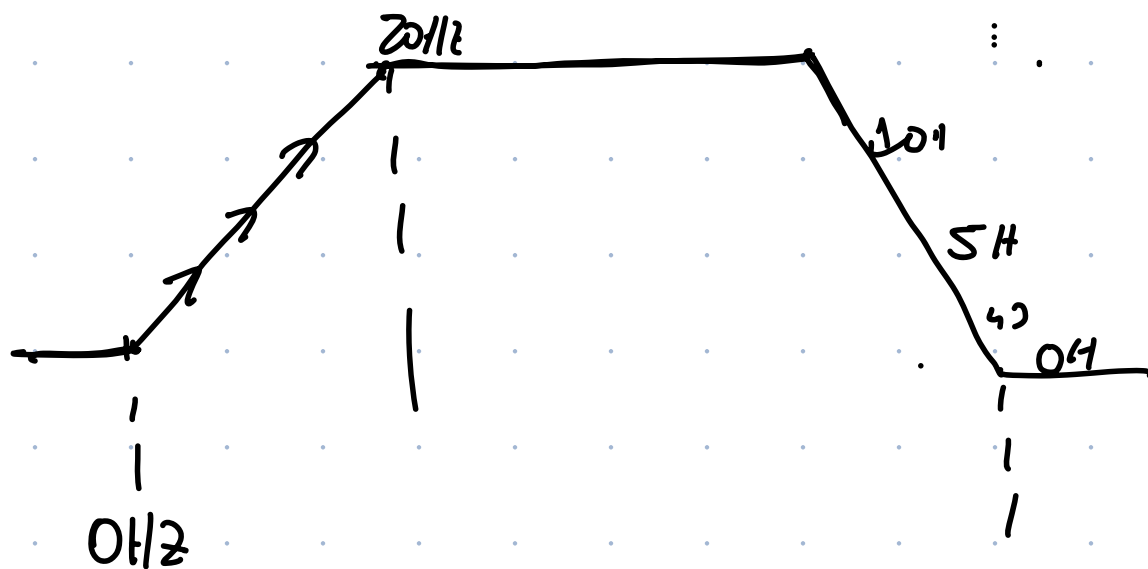
frequencia

360°

1 segundo



3 volts/



Parametrizacja

Δf → Tec. T. Nierówności

kontrola prędkości
obrotu

Tecnología Invertida = motores ..

Inversión solar =

$CC \rightarrow CA$
60Hz

Tecnología Δf velocidad variable

$$\boxed{\Delta F} = \text{Rende elétrica} = \boxed{60 \text{ Hz}}$$

M : velocidade fixa

fixa

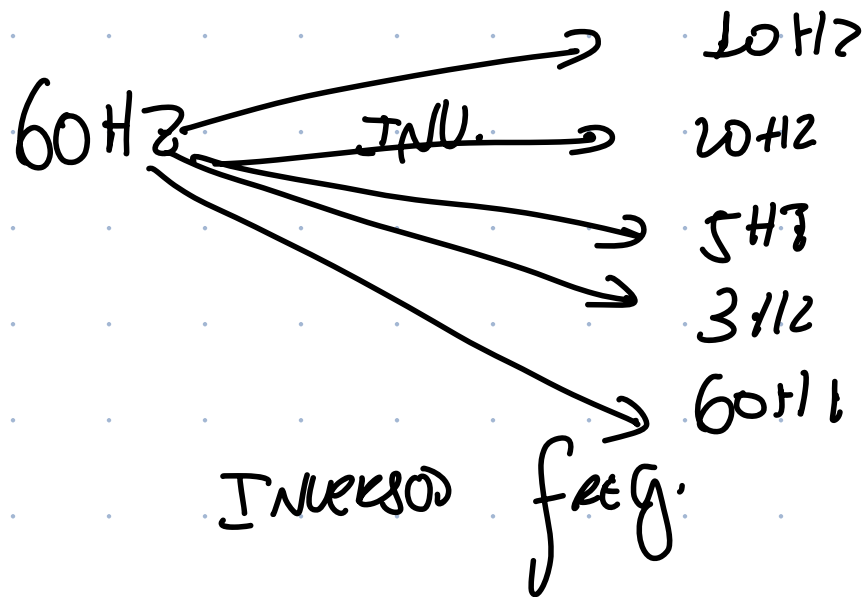
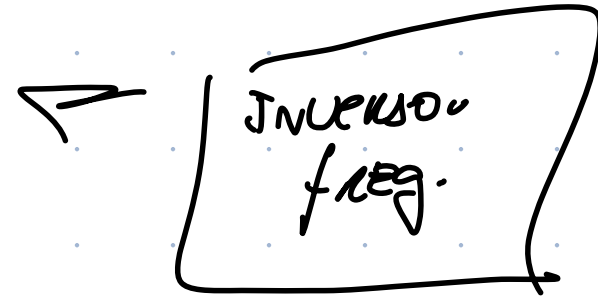
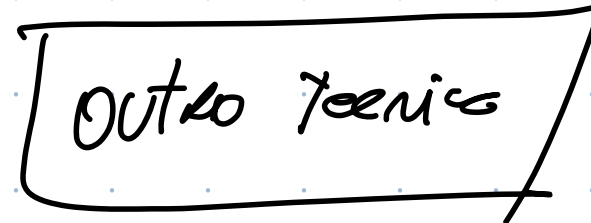
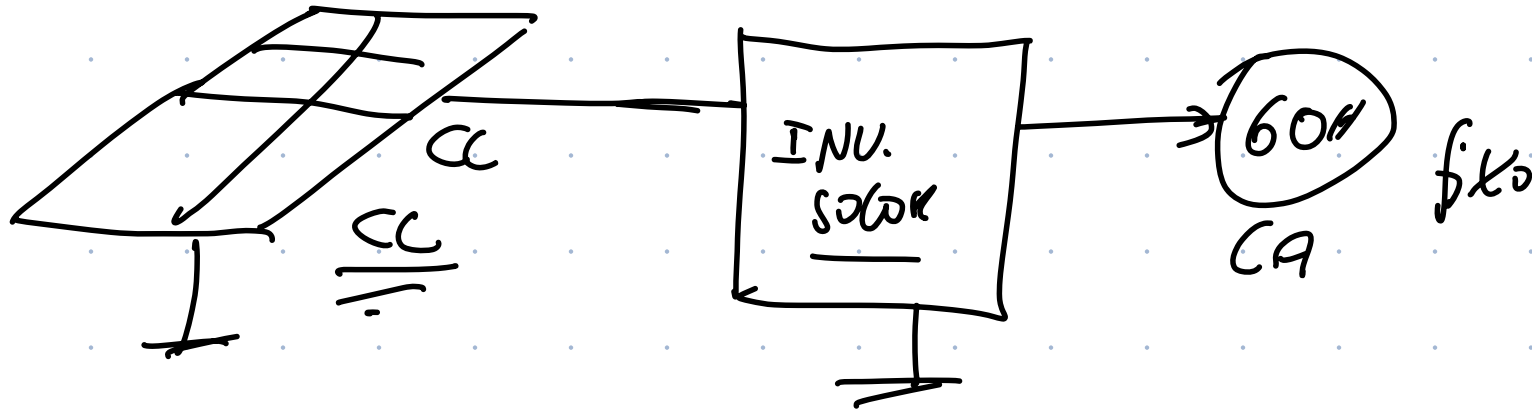
$\Delta F = 60 \text{ Hz}$ não importa tanto

60 Hz rende INVERTER

INVERSORES frequencia

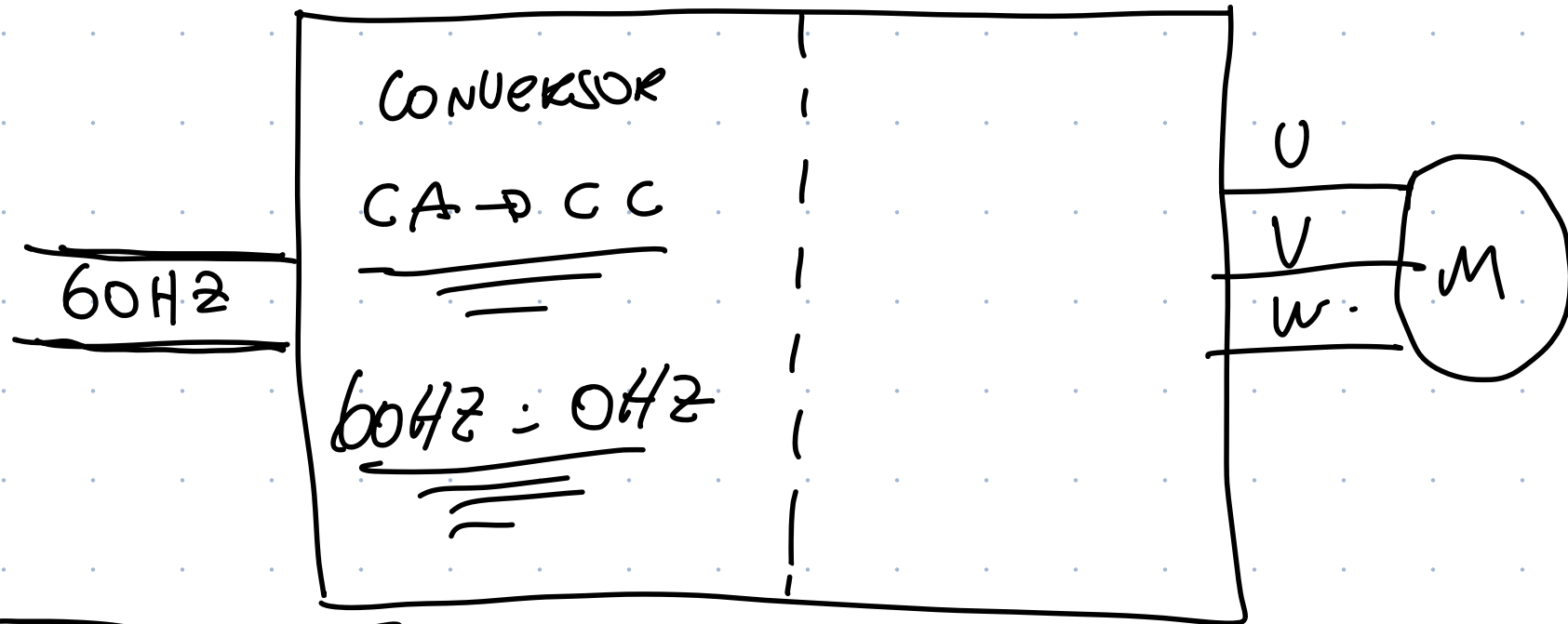
10 Hz
20 Hz
30 Hz
50 Hz
60 Hz
70 Hz

60 Hz INU 5 Hz
60 Hz INU. 60 Hz
60 Hz INU 70 Hz

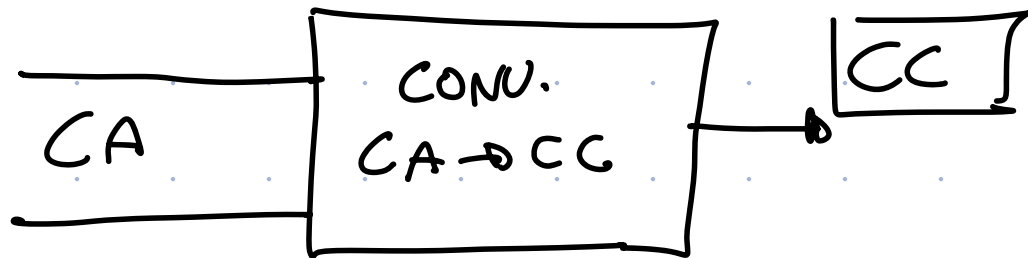


INVERSOR DE TENSÃO

INVERTOR freq.



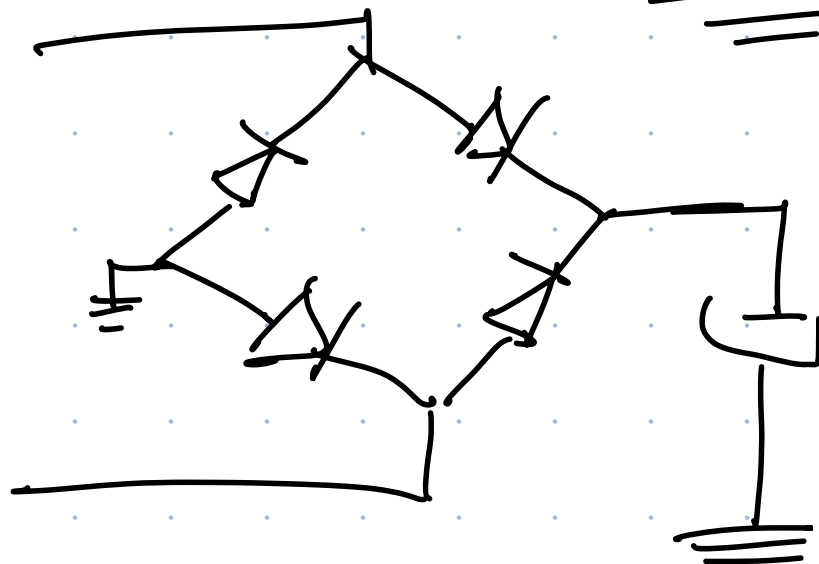
60Hz = 0Hz



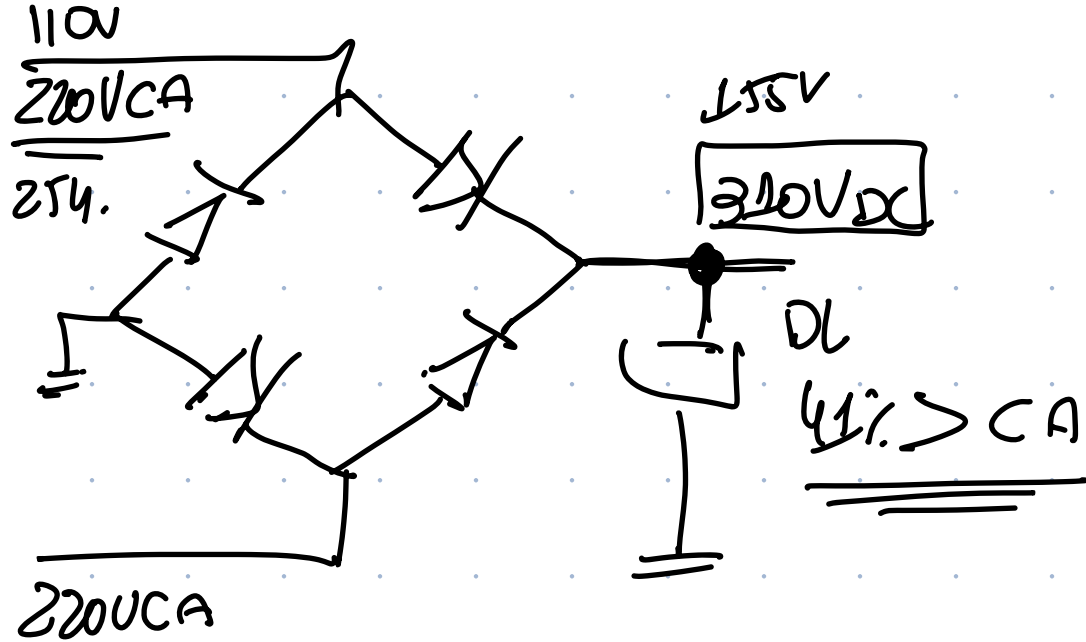
1º Estadio

CONVERSION

CA → CC



Rectificador



$$16A \cdot 1.9 =$$

$$220 \cdot 1.41 = 310V$$

Problemas

Detectores

Pico

155V

310VDC

DL

41.5 CA

MOTOR

1-2-3-4

M

110V

220VCA

254.

220VCA

V

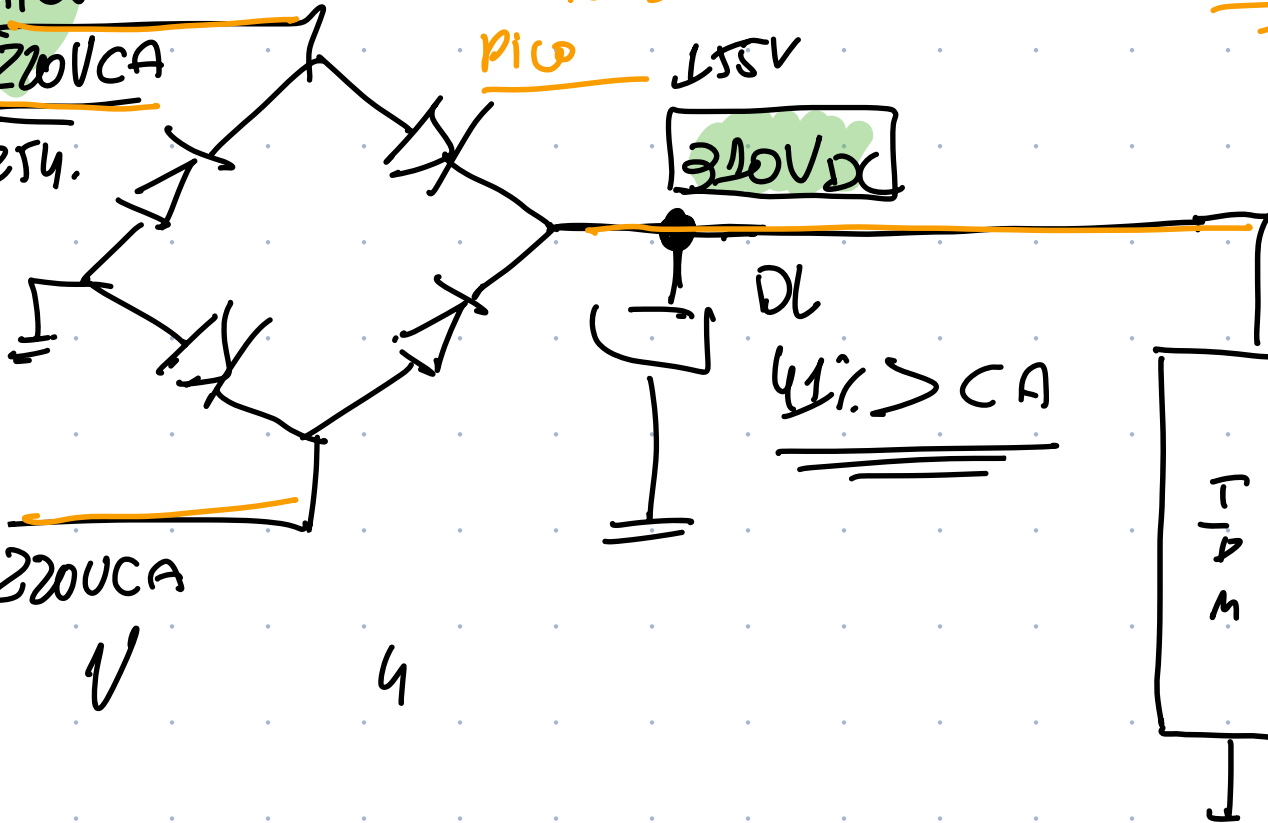
4

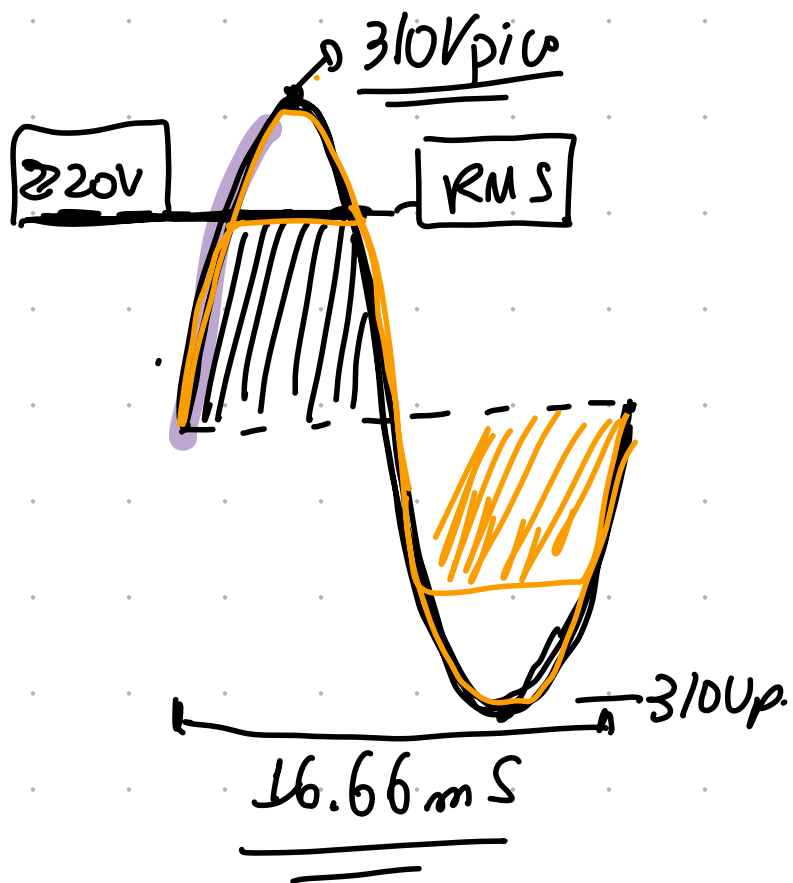
Ejemplo

Rms

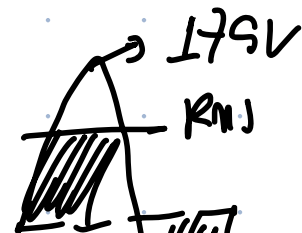
Pico

E





220V Baterio 220V_{ix}



220V_{ix}

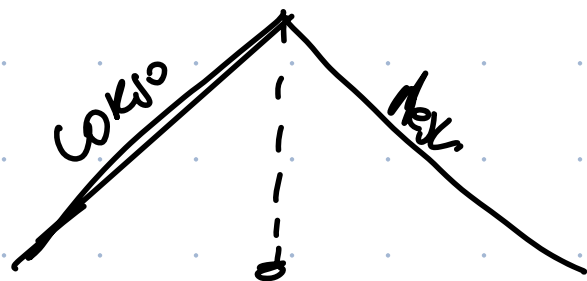
Retificadores

(I)

$$\frac{Q}{T} = \dots$$

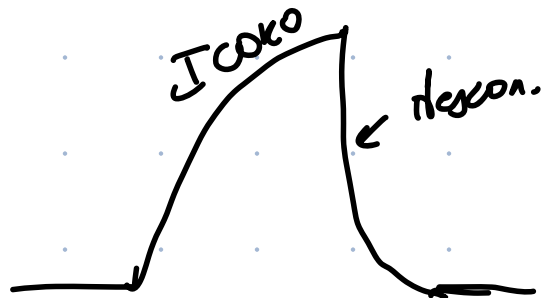
Corrente de

Corrente = 0

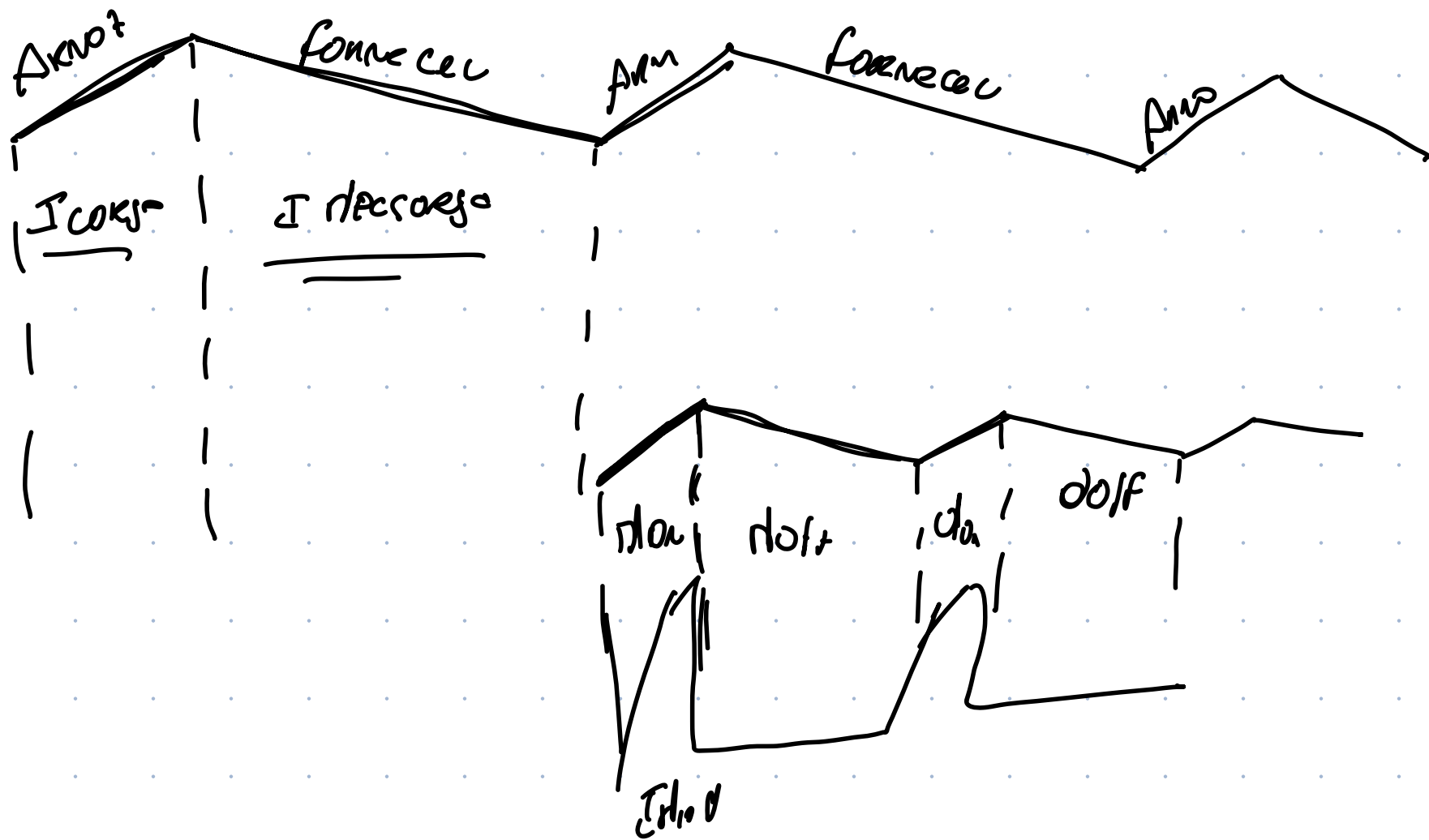


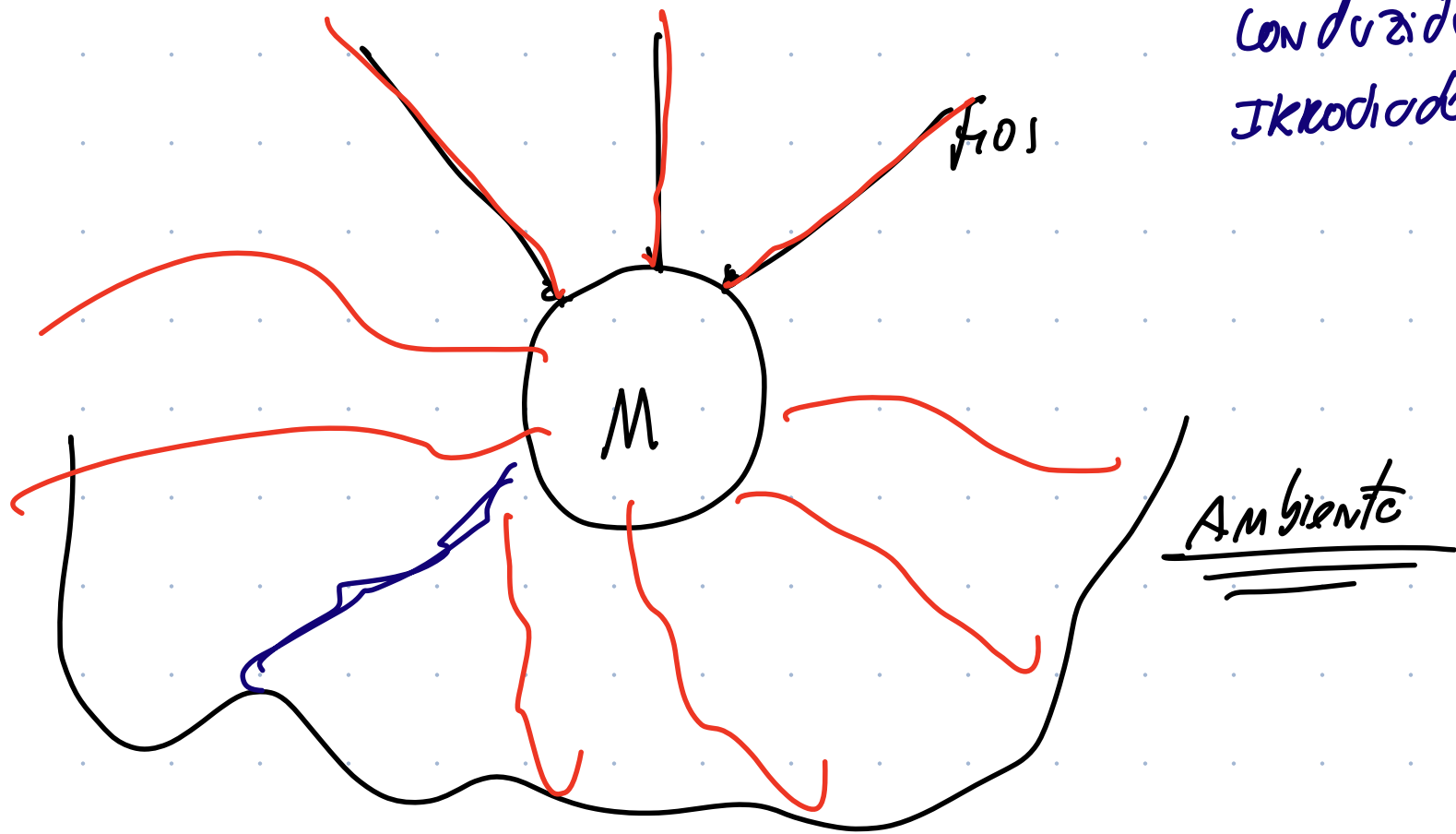
I descompo

Carga = descompo



$$\frac{Q}{T} = I$$

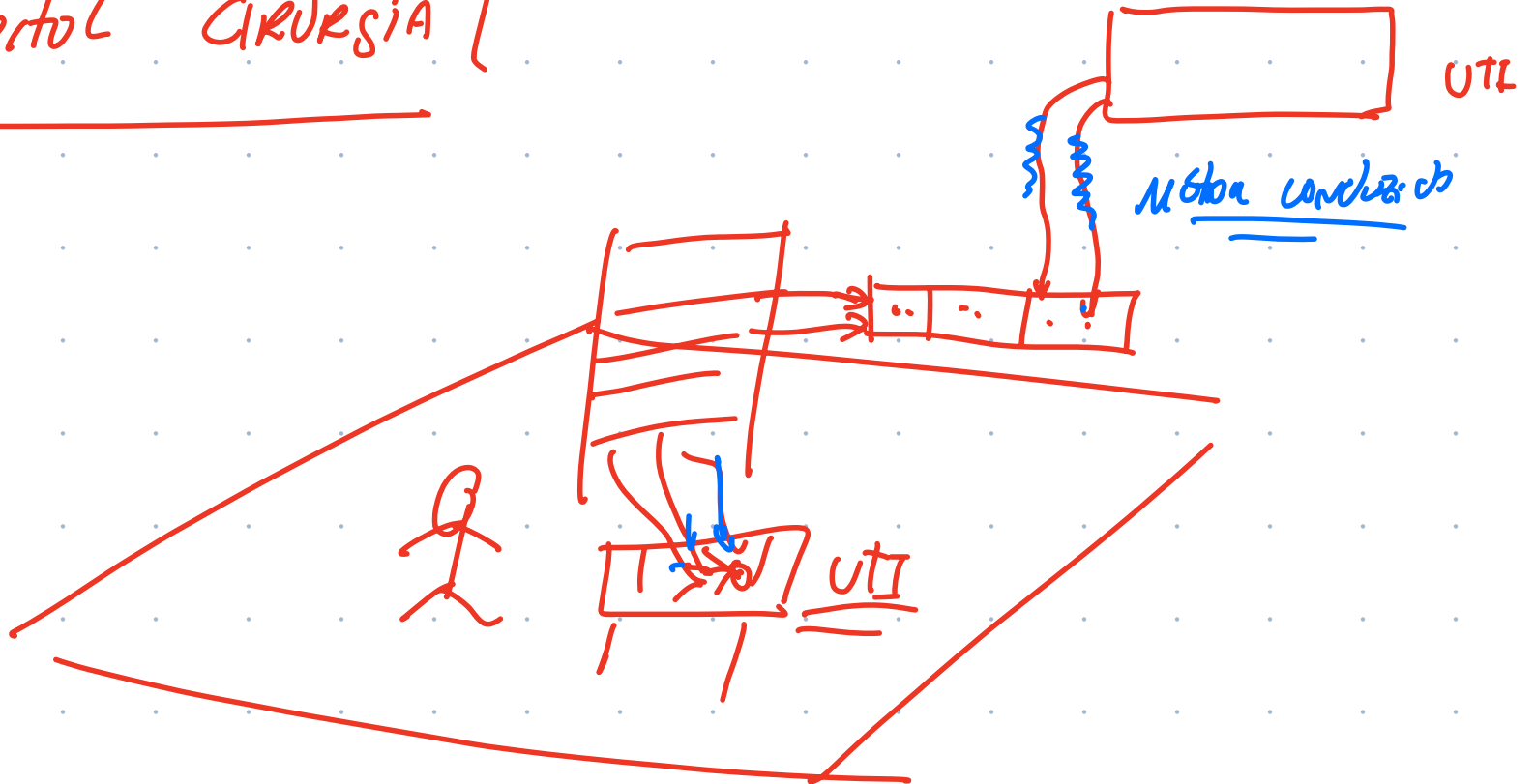




Conduzido
Iknodido

Ambiente

Hospital Cirurgia



normas

Certificação

fonte ou condicionado

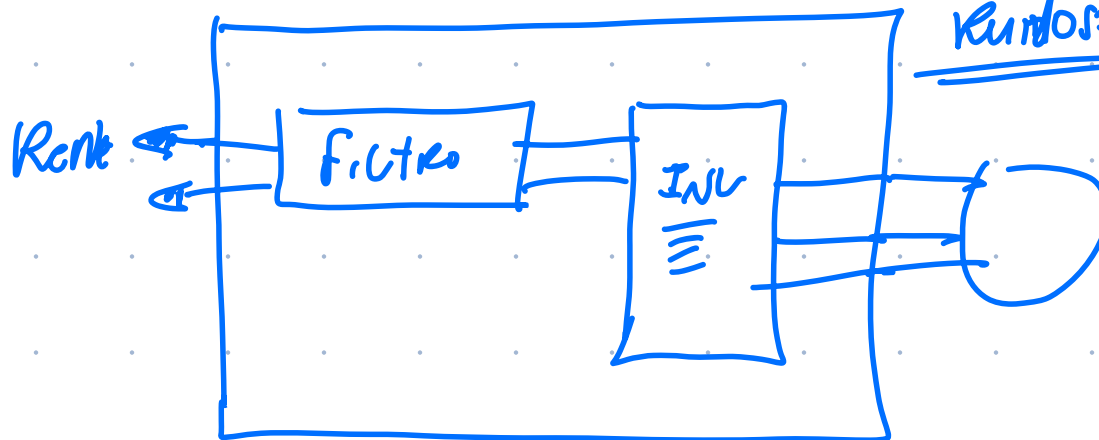
normas

5403/V 500V

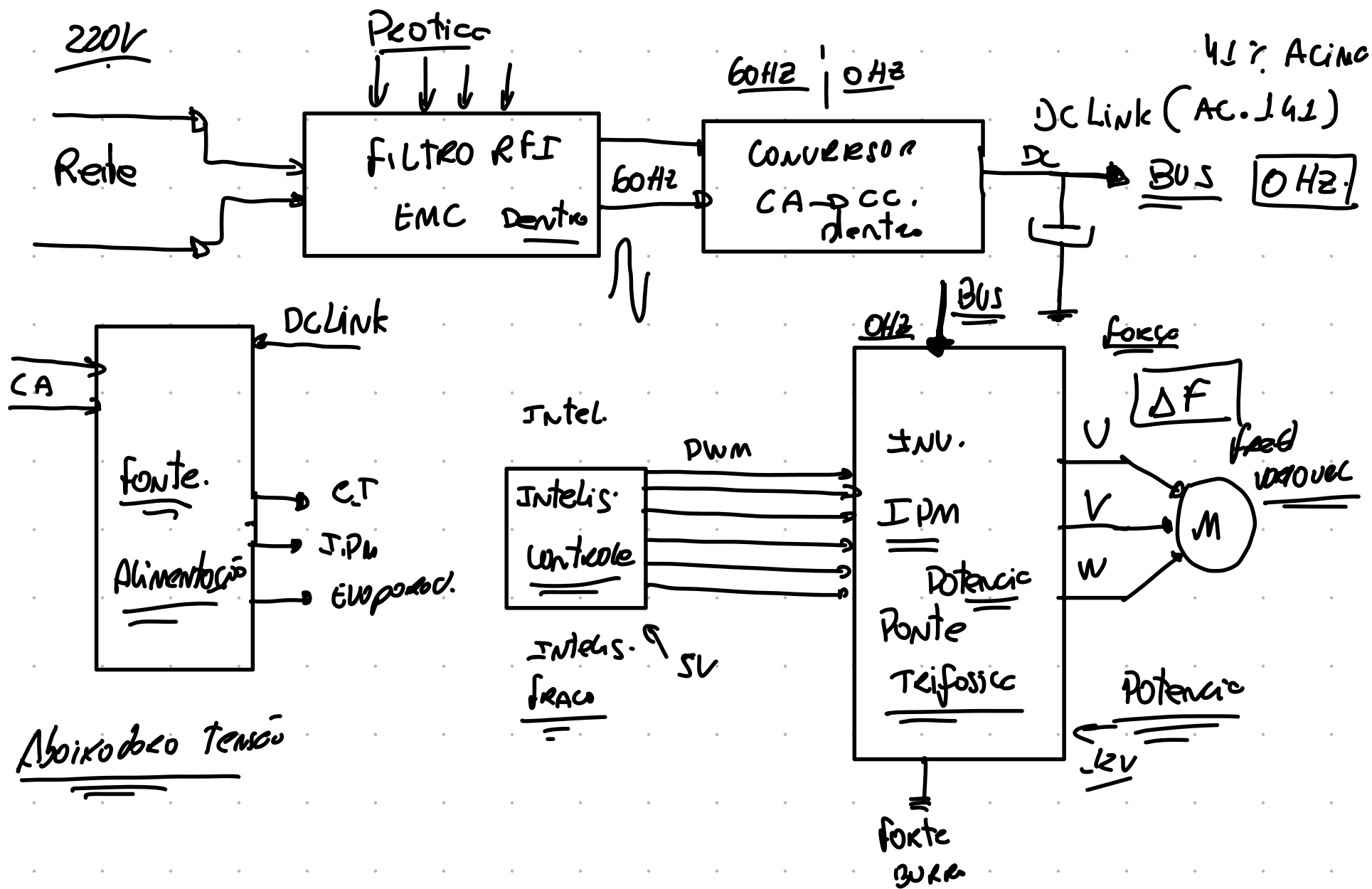
Rundor

6400V

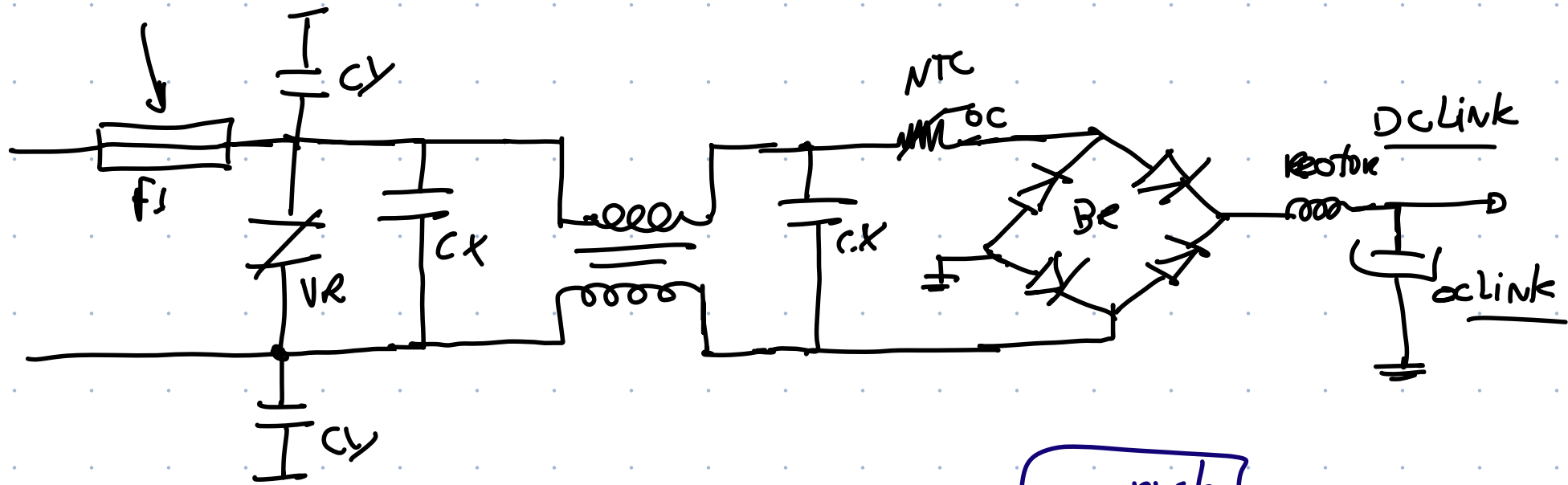
741V0



$f_{\text{cut}} = 30 \text{ kHz} \quad 30 \mu\text{Hz} \quad f_{\text{cutoff}}$



filter RFI



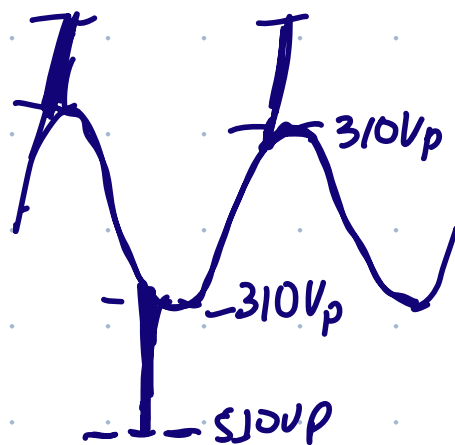
NTC = INrush

corrente INrush
diminuir

F1 = proteção sobre corrente
VRistor = limite de picos sobre tensão
transiente tensão

capacitores CY + CL, LMC = filtro
ruído conduzido 30K a 3MHz

Varistor



< 245



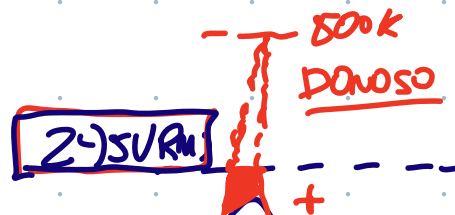
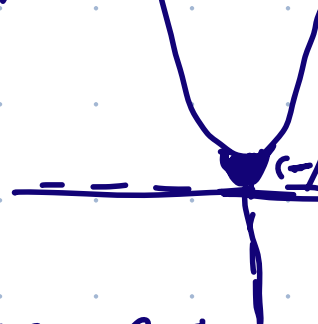
> 245

R_{INT}



efeito zener

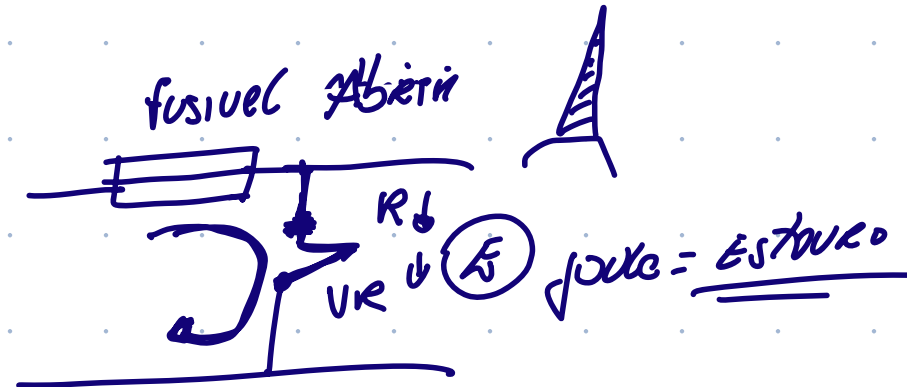
ATU



limite de tensão

$220VAC = 275VAC$
 Redes 220 = $275VAC$ proteção

$U_{MURKOL} \text{ } 05 \rightarrow 254VAC$

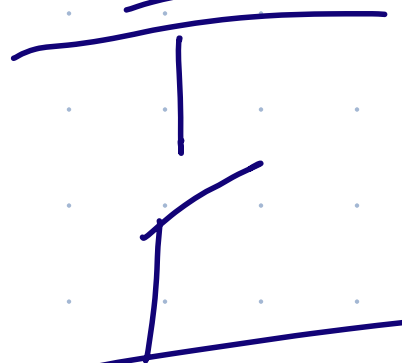


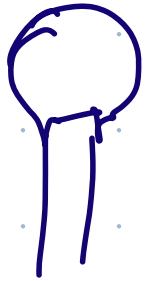
① Não polaridade

② Tensão menor que 275



Vistoria não ativar no
 circuito = $V_{IN} > 275V$





215VAC

marco

modelo

us, ms

marca 245 VAC
Bum

funciona
Testo
fonte
estágio

Volts 215VAC



diámetro

passar Resua

175VAC

110V

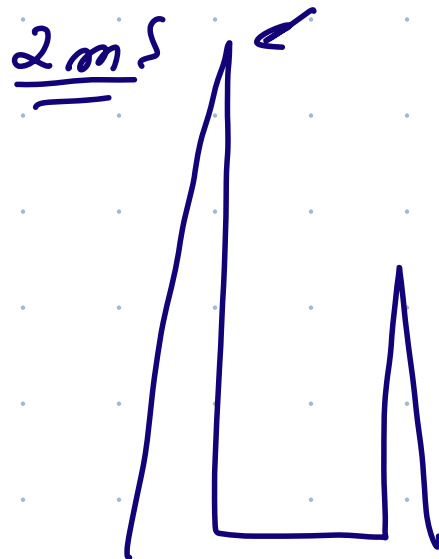
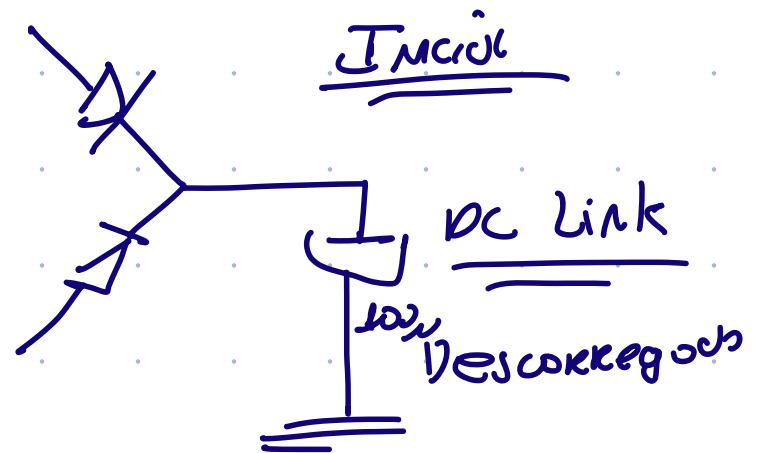
220V - 215VAC

> diámetro > joule > melhor

estouro mais rápido

$$\frac{1000 \mu F \cdot 20V}{\pi \cdot 2ms} \times 2 =$$

$$\frac{1000 \mu F \cdot 20V}{\pi \cdot 2ms} \times 2 = 20A$$



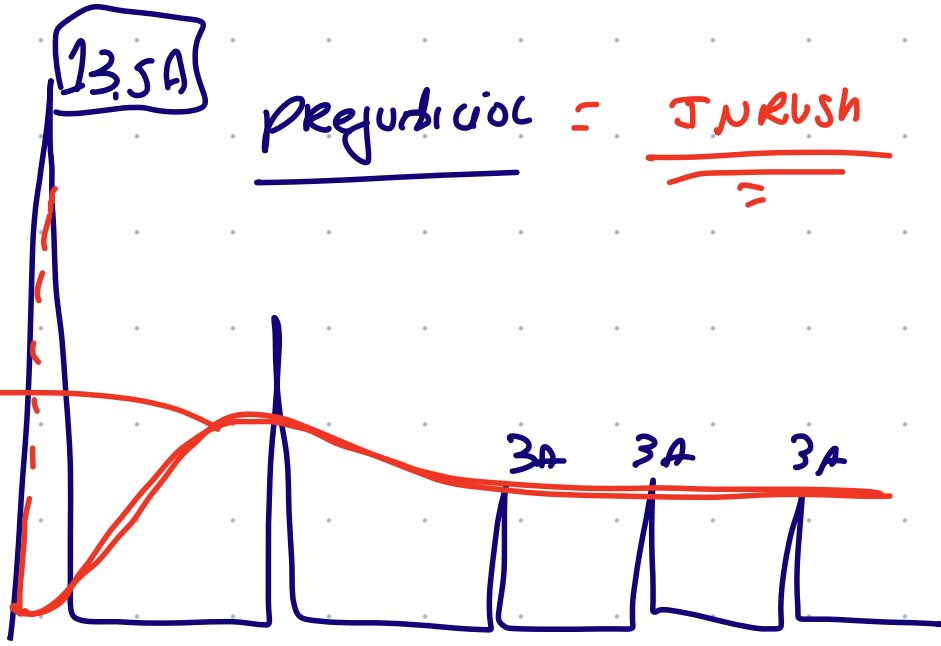
$$\frac{600 \mu F \times 20}{2ms} \times 2 =$$

$$\underline{\underline{136A}}$$

13.5A

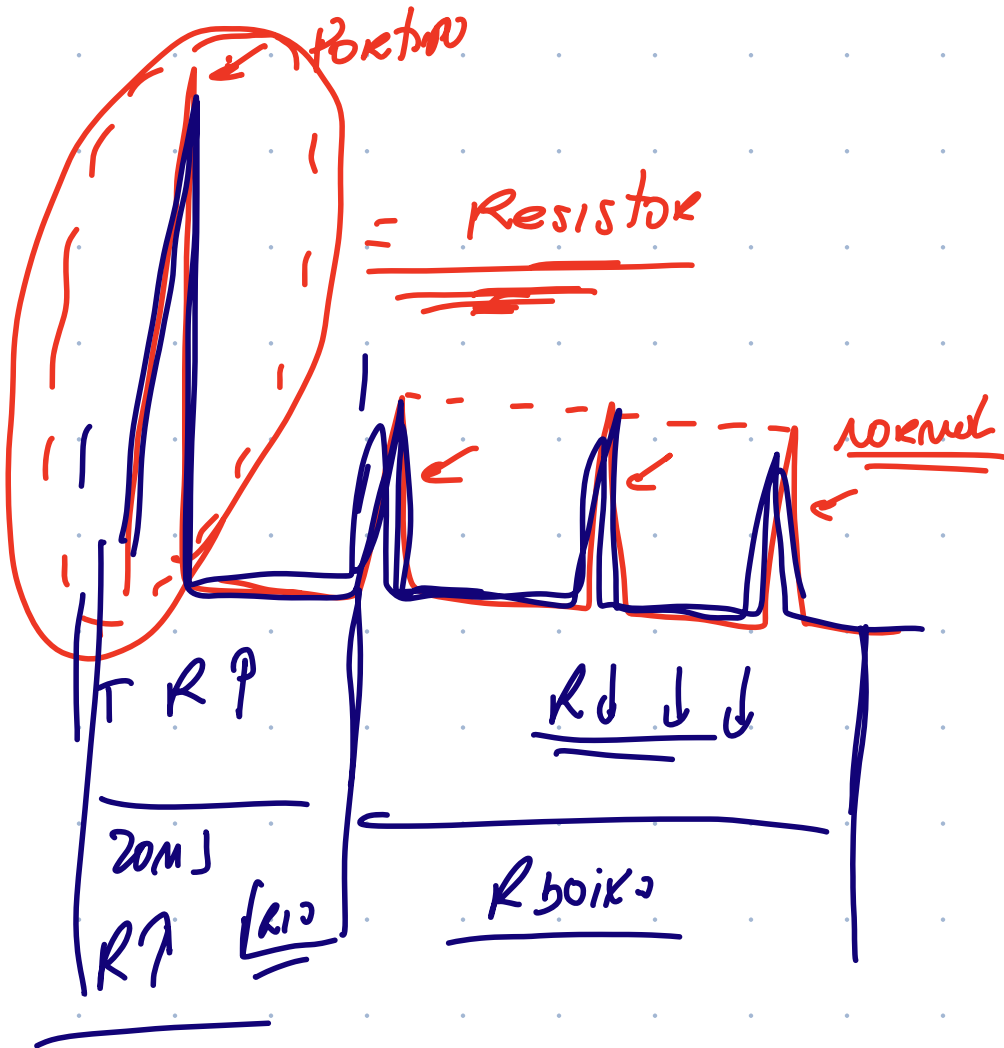
prejudiciol = JNRUSH

NTC

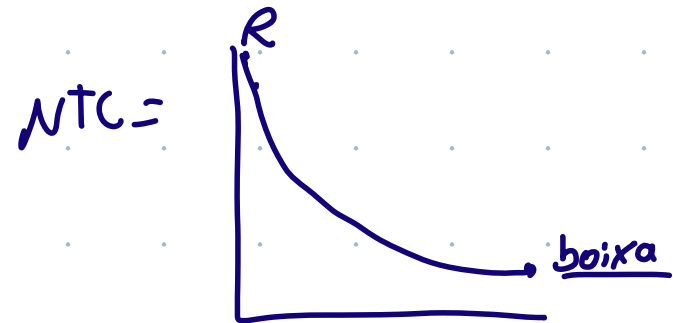
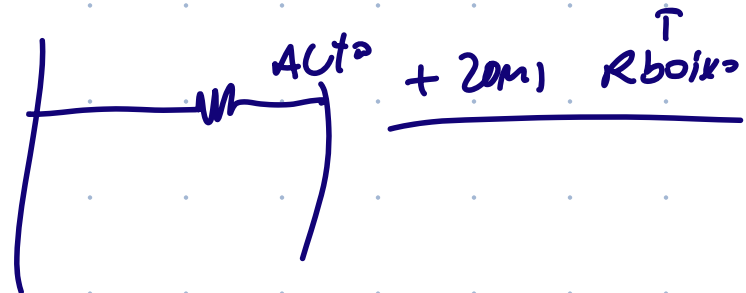


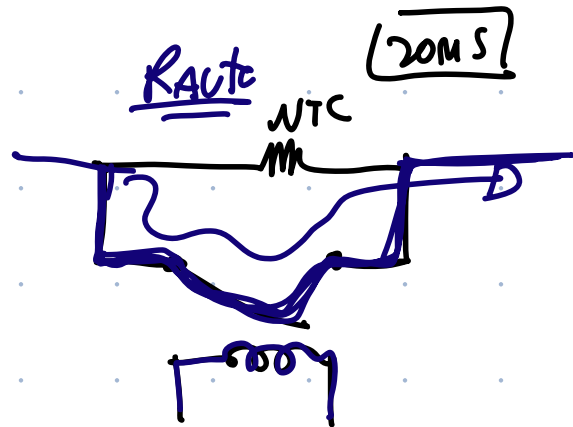
NI

Resistores sou limitadores corrente



R. Inteligente





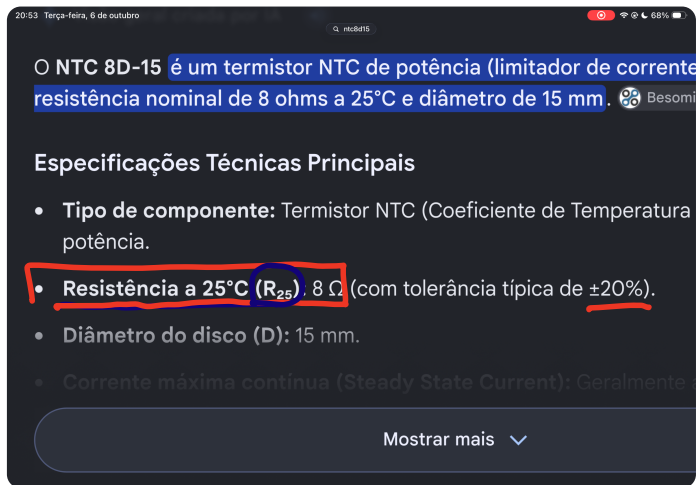
NTC →
↓ ↓ ↓
[T ↑, R ↓]

R variable Temperature

NTC = Resistencia OHms
Multimetro (ohminmetro)

↓
ohm resistencia

BD-15



$< 25^{\circ}\text{C}$ $8\text{K} \downarrow$
 25°C 8K
 $\downarrow$ 25°C $8\text{K} \uparrow$

$T > 25^{\circ}\text{C}$ $R < 8\text{K}$
 $T = 25^{\circ}\text{C}$ $R =$
 $T < 25^{\circ}\text{C}$ $R >$

$\pm 20\%$, 25°C , (8K) , 15mm .
8ohms diâmetro

$R_{25} =$

Resist: 8K 25°C

Resistência : 25°C : 8K
 (8K) :-

NTC < 10R : NTC INrush

$$\frac{C \Delta V}{\tau} \times 2$$

NTC OR 15mm. + 90% problema,

IP Anont. z

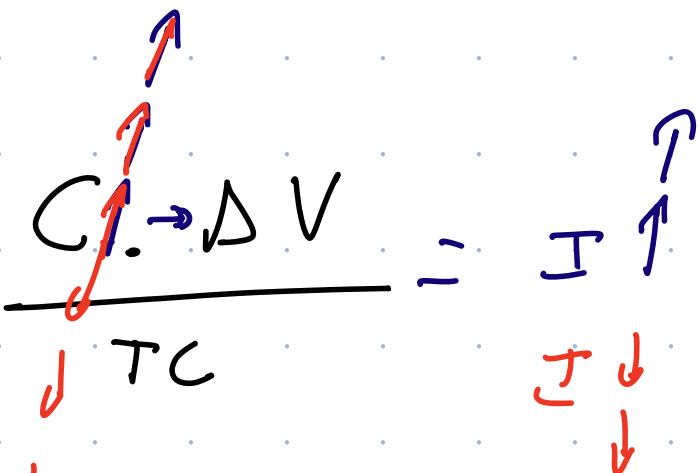


sejo foliz



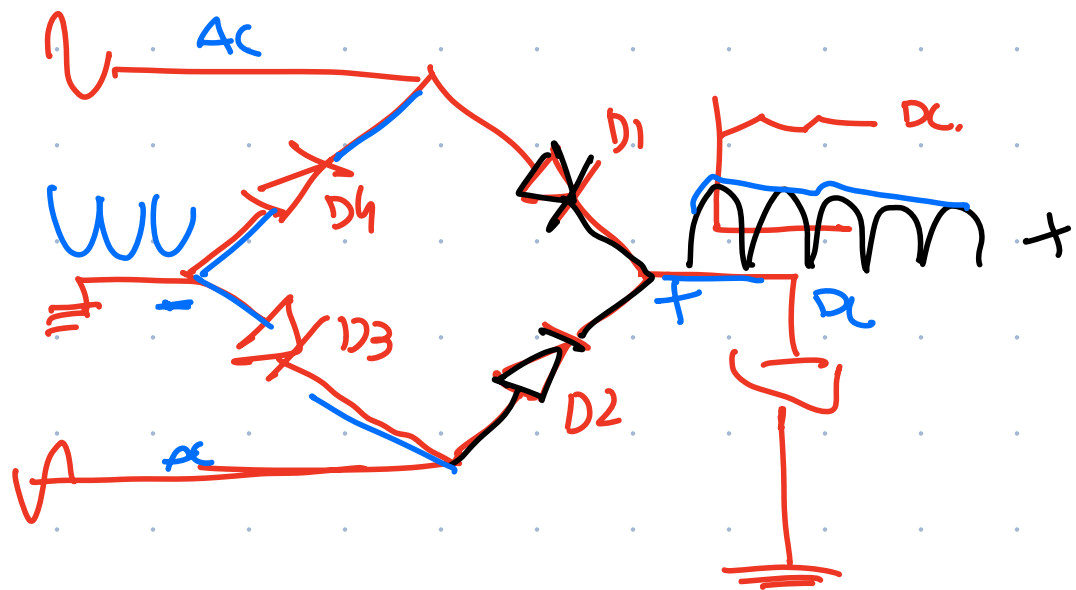
145V sejo foliz

$$2 \times \frac{C \cdot \Delta V}{TC} = I \uparrow = \frac{I_{\text{sueto}}}{I_{\text{pico}}}$$



para os valores dos capacitores

NTC



I ponte retificadora

5A
10A
20A

$$I_P = 2 \times \frac{C \cdot \Delta V}{T_C}$$

$$2 \times \frac{680 \mu F \cdot 20V}{2ms} = \underline{\underline{0.4A_p}}$$

$$\underline{\underline{I_{Def}}} = \frac{I_P \sqrt{\frac{T_C}{T}}}{0.4A \cdot \sqrt{\frac{2ms}{16.66\mu s}}}$$

$$0.4 \times 0.35 = \textcircled{3A}$$

4A - 5A

630 μ F

$$2 \times \frac{C \times V_{\text{out}}}{2\text{ms}} = I_P$$

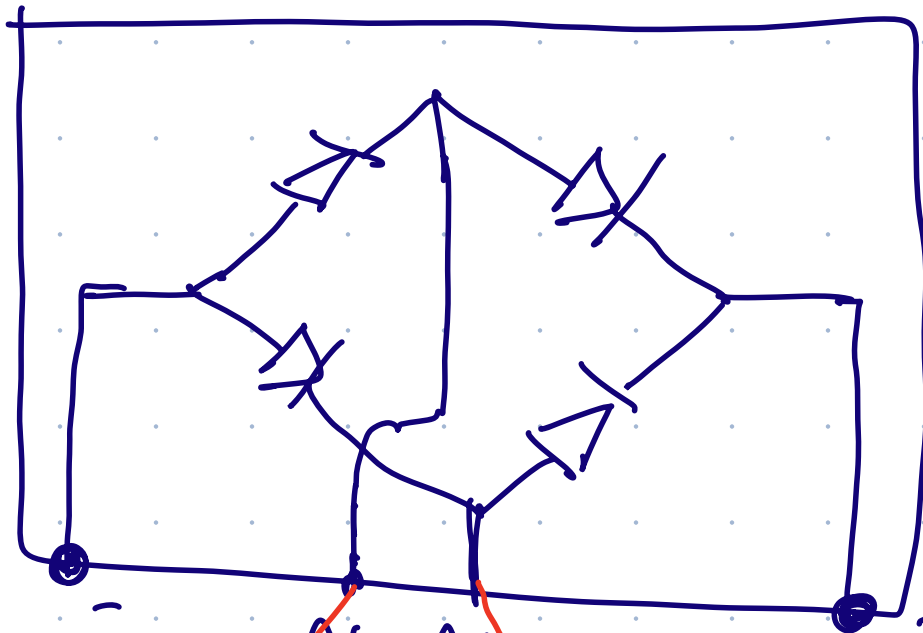
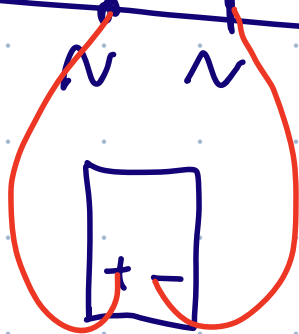
$$I_P \times 0.35$$

$$I_P \times 0.5 = \textcircled{5A}$$



1º Teste

no centro

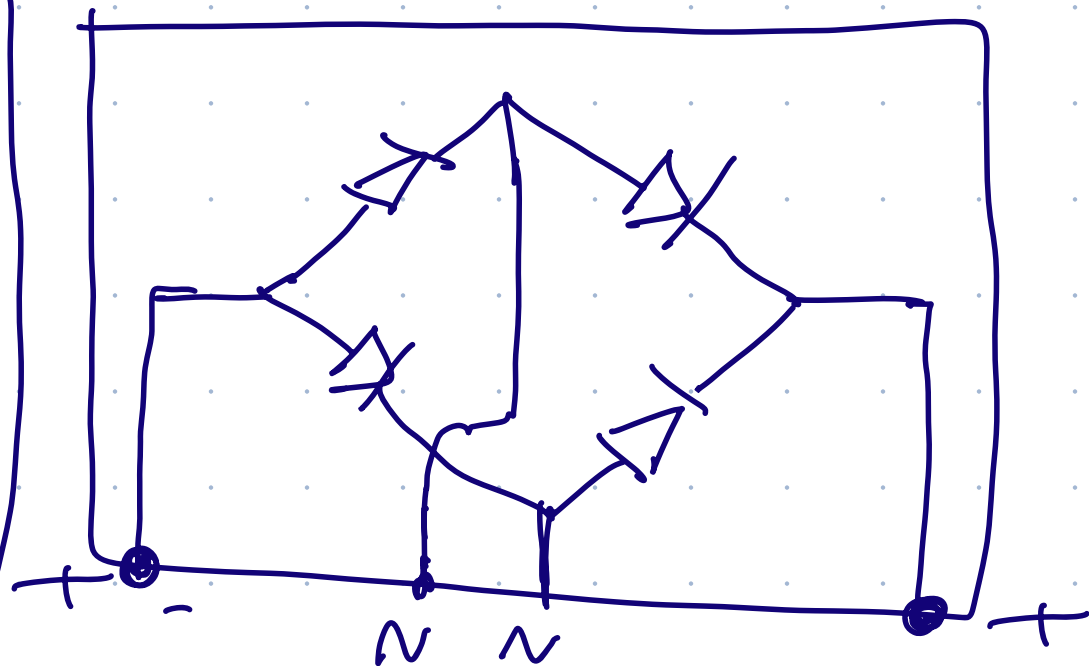


1º Teste

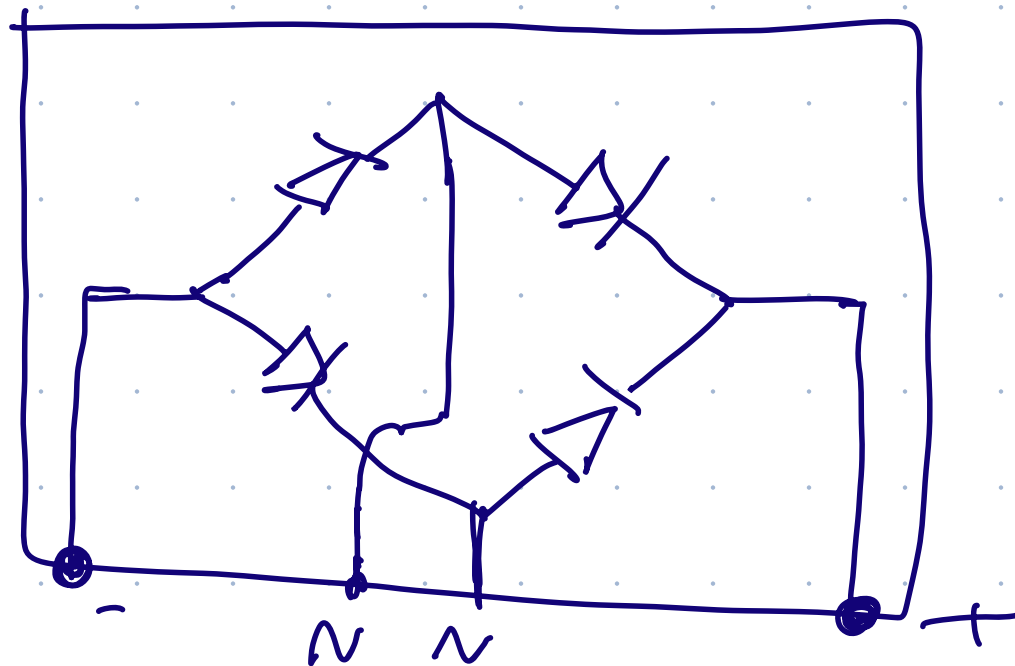
no porte tem
corrente

1º teste

no centro



1 teste no centro



2º Teste dos dois nódos +

$(0,7)$, $(0,7)$

= modo corrente zero

condutor corrente todo
no condutor do outro

