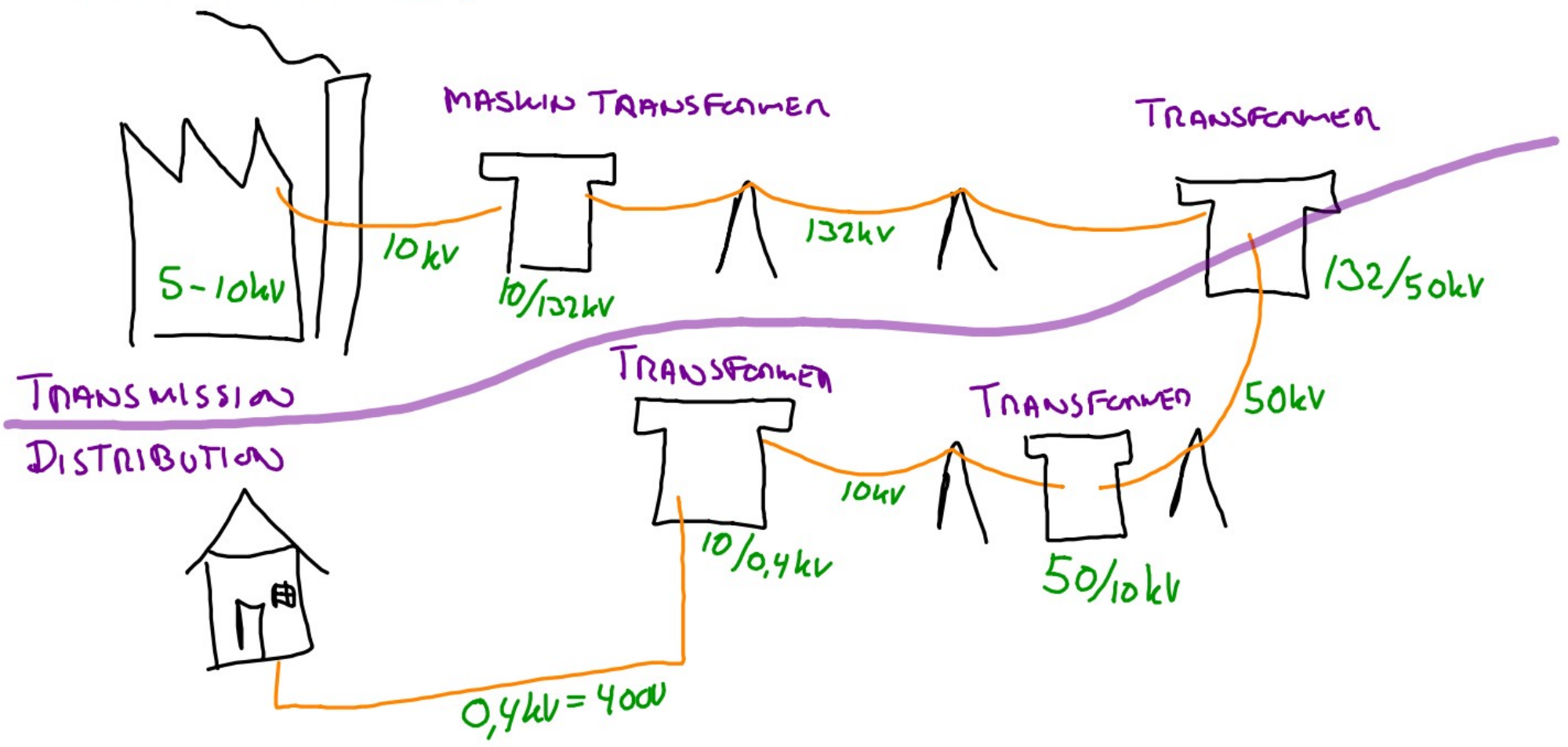


TRANSFORMATION

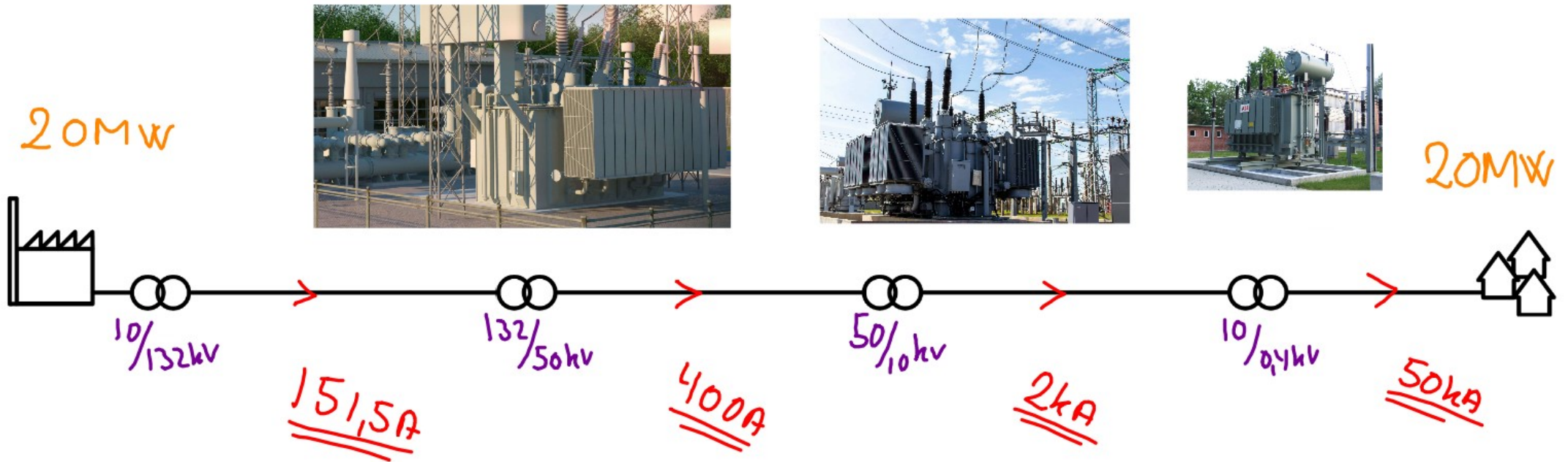
$$I_{\text{DAGLIC TAILE}} = \underline{\underline{T_{\text{NAP0}}}}$$

TRANS FORMER



TRANSFORMATION

20MW

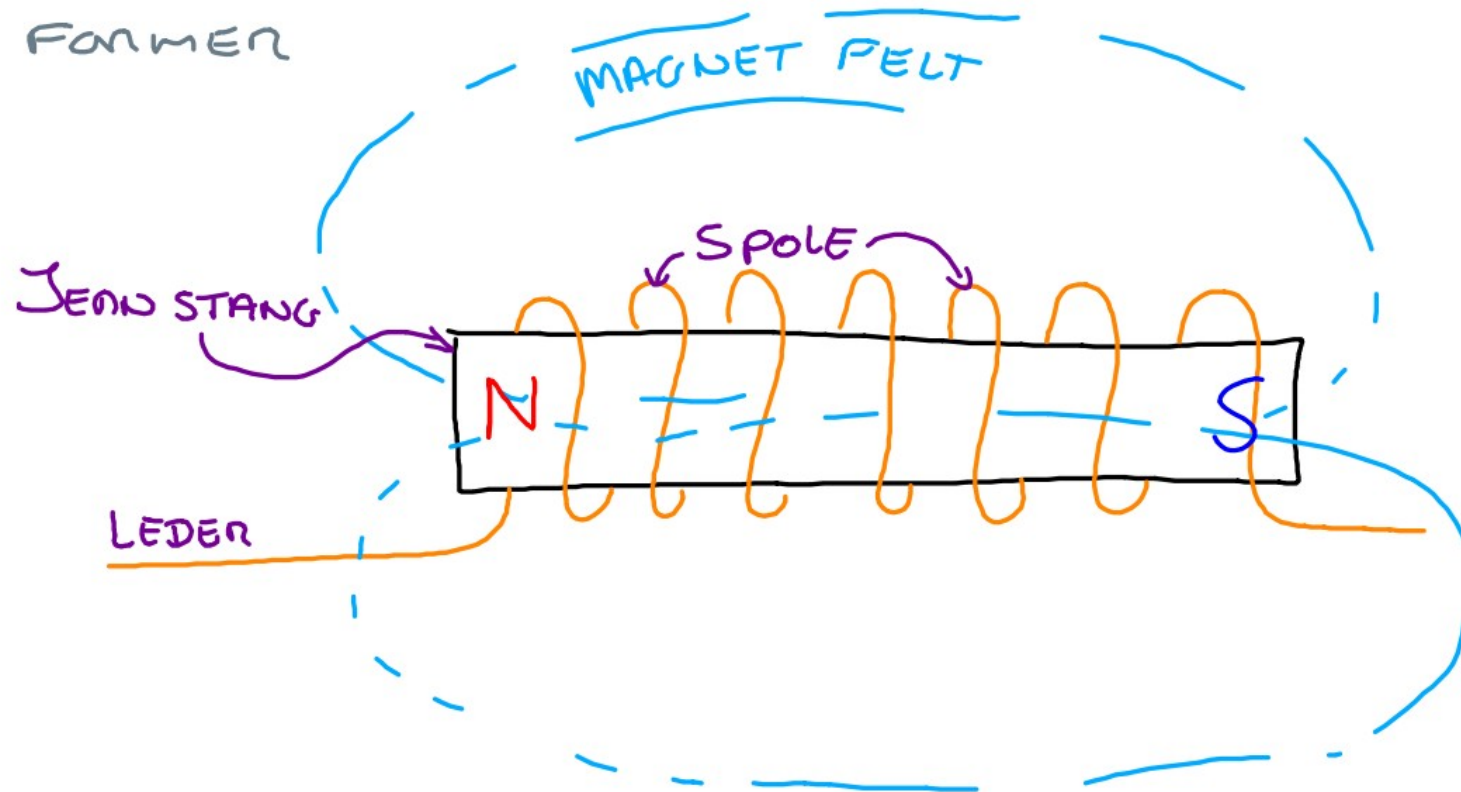


20MW

$$I = \frac{P}{U}$$

TRANSFORMATION

TRANSFORMER



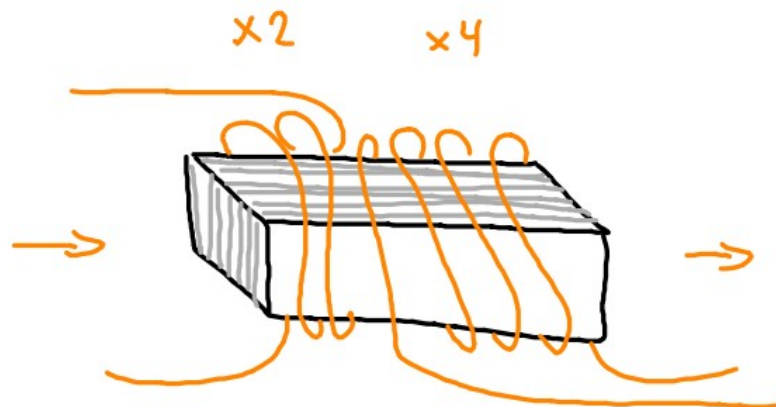
VED D_c = ELEKTRO MAGNET

VED A_c = TRANSFORMER EFFERT

TRANSFORMATION

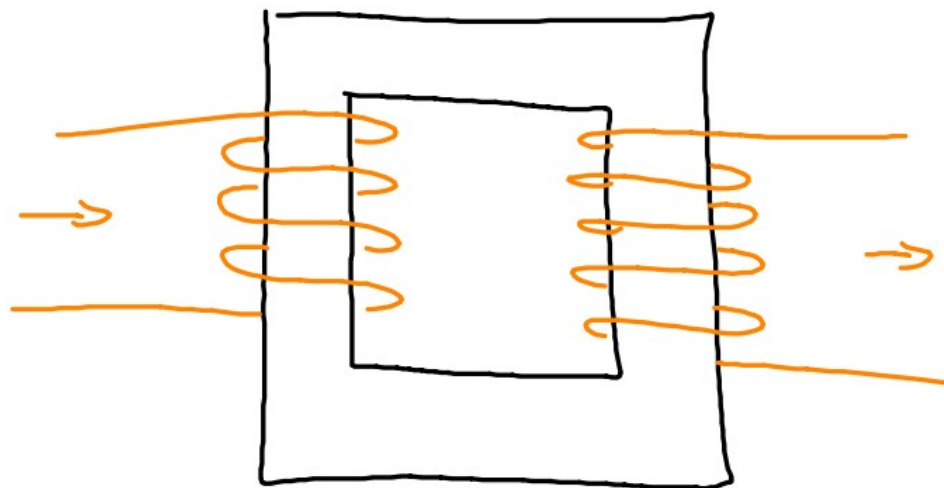
OPBYGNING

JERNSTANG
AF LAMELLER



IN EFFEKTIV TRØDS
LAMELLERNE IFT.
JERNKERNEN!

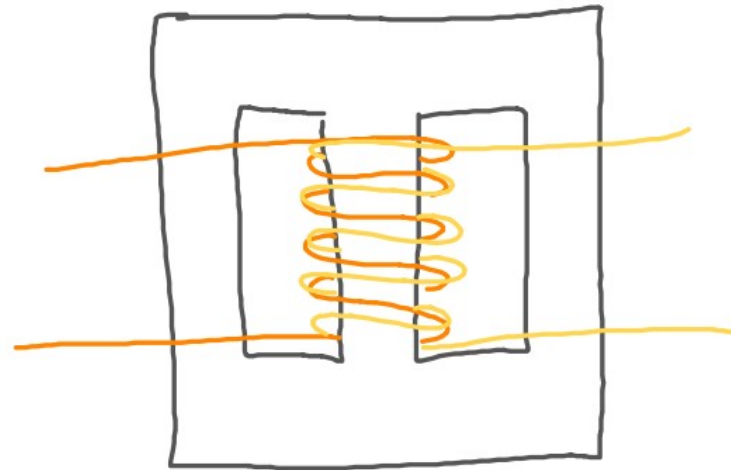
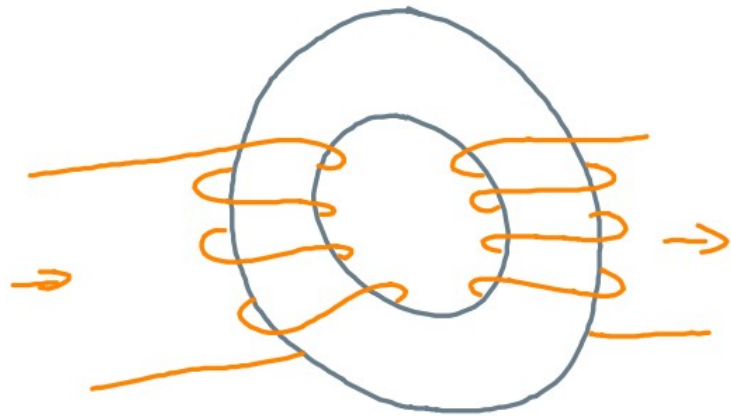
JERN KERN
AF LAMELLER



OGSE AF LAMELLER
MEN MED BEDRE
NYTTEVIRKNING!

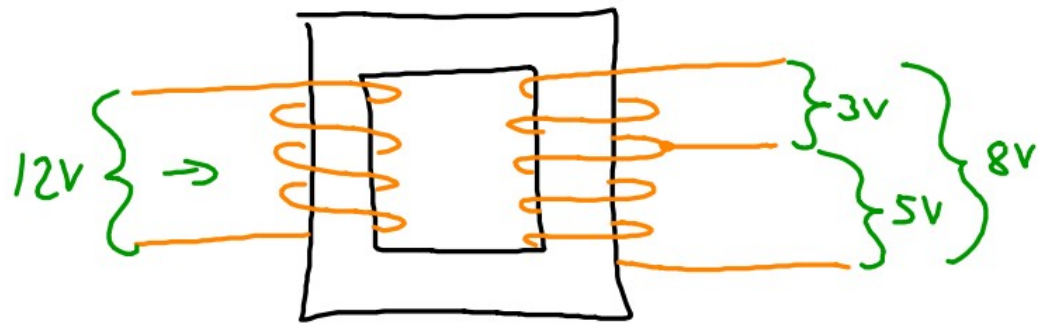
TRANSFORMER

ANDRE FORMER

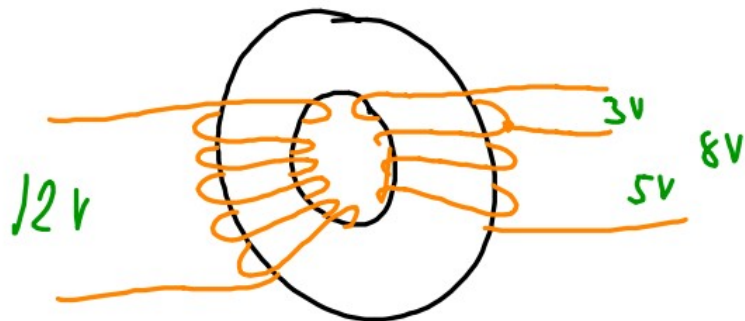


TRANSFORMER

FØRSKÆLIGE SPÆNDINGS NIVEAU'ER

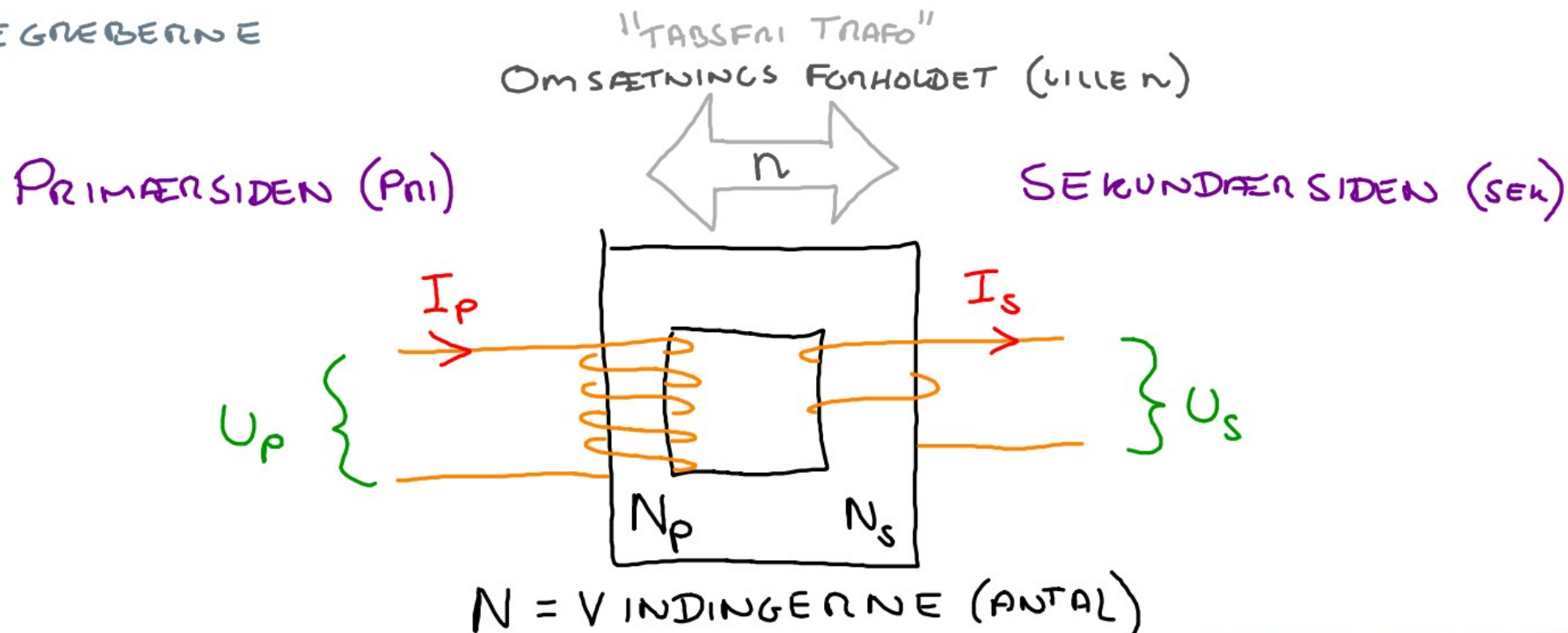


"RINGE TRANSFORMER"



TRANSFORMER

BEGREBERNE

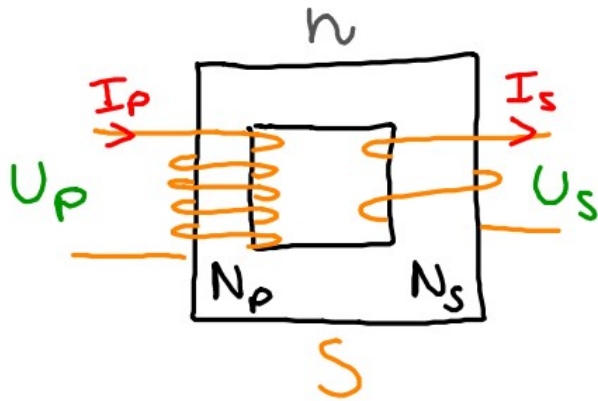


EFFEKTEN = S [VA]
MÅLES I "VOLT AMPER"
(I STEDET FOR P)

P_{ri} OG S_{ek}
KAN OGSE BENÆVNES
1 OG 2 ($U_1 = U_p$)

TRANSFORMER

OVERSICHT



n = OMBÆTNINGS FORHØDET

S = EFFEKTEN (STØRRELSEN) [VA]
DER KUN EN GRUNDET TABSFRI

U_p = PRI. SPÆNDING [V]

U_s = SEK. SPÆNDING [V]

I_p = PRI. STRØM (STRØMFORBRUG) [A]

I_s = SEK. STRØM (YDDÆLVNEN) [A]

N_p = PRI. VINDINGER [VIN]

N_s = SEK VINDINGER [VIN]

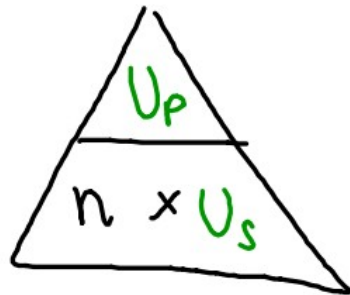
N/V = VINDINGER PR. VOLT [VIN/V]

V/N = VOLT PR. VINDING [V/VIN]

TRANSFORMER

TRANSFORMER LIGNINGEN

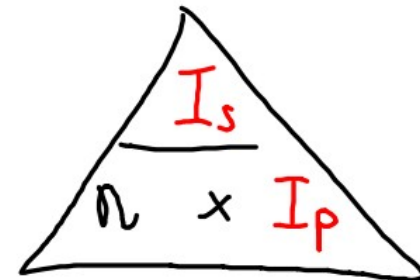
$$n = \frac{U_p}{U_s} = \frac{N_p}{N_s} = \frac{I_s}{I_p}$$



SPÆNDING [V]



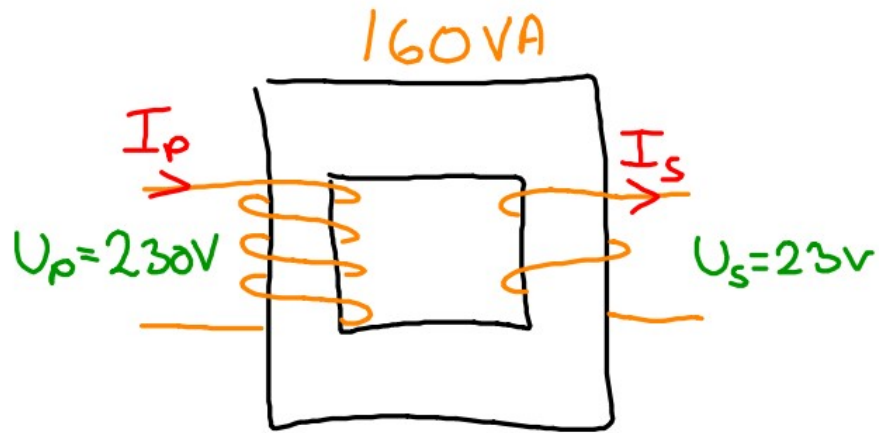
VINDINGER [VIN]



STRØM [A]

TRANSFORMER

BEISPIEL



$$n = \frac{U_p}{U_s} = \frac{230}{23} = \underline{\underline{10}}$$

$$I_p = \frac{S}{U_p} = \frac{160}{230} = \underline{\underline{695,65mA}}$$

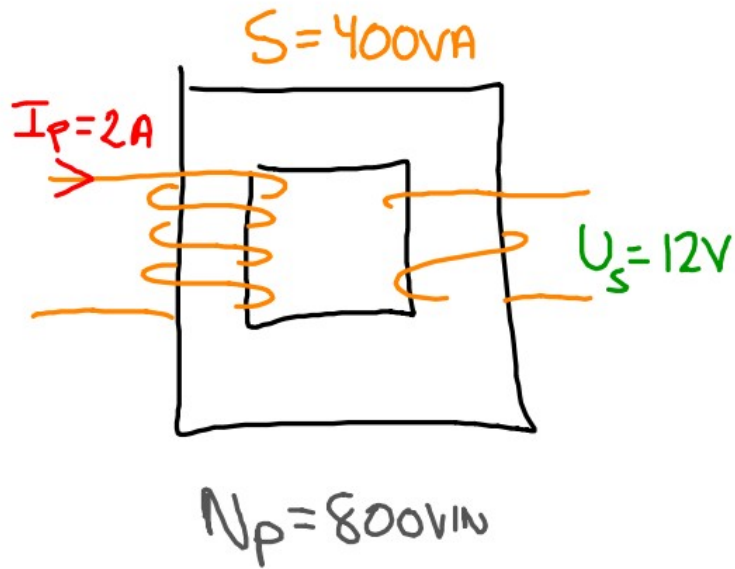
$$I_s = \frac{S}{U_s} = \frac{160}{23} = \underline{\underline{6,96A}}$$

ODER

$$I_s = I_p \times n = 0,69565 \times 10 = \underline{\underline{6,96A}}$$

TRANSFORMER

EXEMPEL



$$U_p = n \times U_s = 16,67 \times 12 = \underline{\underline{200V}}$$

$$n = \frac{I_s}{I_p} = \frac{33,33}{2} = \underline{\underline{16,67}}$$

$$I_s = \frac{S}{U_s} = \frac{400}{12} = \underline{\underline{33,33A}}$$

$$N_s = \frac{N_p}{n} = \frac{800}{16,67} = \underline{\underline{48V/V}}$$

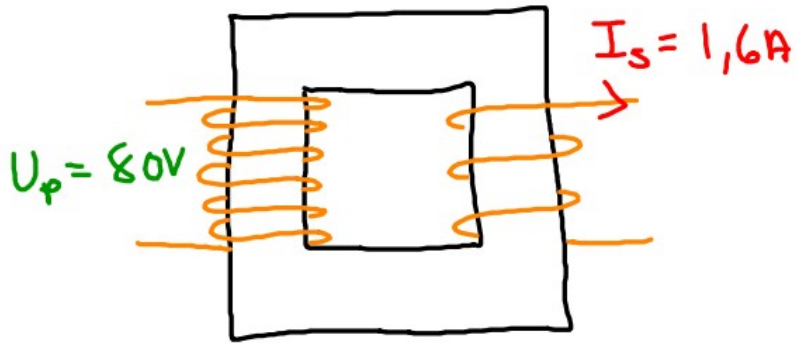
$$V/V = \frac{U_p}{N_p} = \frac{200}{800} = \underline{\underline{250mV/V}}$$

$$N/V = \frac{N_p}{U_p} = \frac{800}{200} = \underline{\underline{4V/V}}$$

TRANSFORMER

EXEMPEL

$$n = 7,5$$



$$N_s = 40 \text{ V/N}$$

FIND: I_p , U_s , S , N_p , $\frac{V}{N}$, $\frac{N}{V}$

$$I_p = \frac{I_s}{n} = \frac{1,6}{7,5} = \underline{\underline{213,33 \text{ mA}}}$$

$$U_s = \frac{U_p}{n} = \frac{80}{7,5} = \underline{\underline{10,67 \text{ V}}}$$

$$S = U_s \times I_s = 10,67 \times 1,6 = \underline{\underline{17,07 \text{ VA}}}$$

$$N_p = n \times N_s = 7,5 \times 40 = \underline{\underline{300 \text{ V/N}}}$$

$$\frac{V}{N} = \frac{U_p}{N_p} = \frac{80}{300} = \underline{\underline{266,67 \text{ mV/VN}}}$$

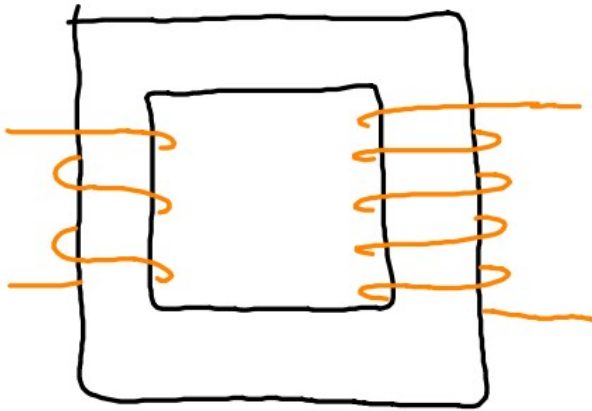
$$\frac{N}{V} = \frac{N_p}{U_p} = \frac{300}{80} = \underline{\underline{3,75 \text{ V/N/V}}}$$

TRANSFORMER

EXEMPEL

$$S = 350 \text{ VA}$$

$$n = 0,05$$



$$N_s = 2500 \text{ vln}$$

$$V/N = 3,2 \text{ V/vln}$$

FIND $U_p, U_s, I_p, I_s, N/V, N_p$

$$N_p = n \times N_s = 0,05 \times 2500 = \underline{\underline{125 \text{ vln}}}$$

$$U_p = V/N \times N_p = 3,2 \times 125 = \underline{\underline{400 \text{ V}}}$$

$$U_s = V/N \times N_s = 3,2 \times 2500 = \underline{\underline{8 \text{ kV}}}$$

$$I_p = \frac{S}{U_p} = \frac{350}{400} = \underline{\underline{875 \text{ mA}}}$$

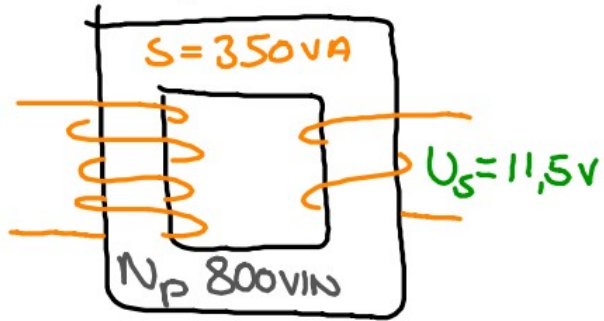
$$I_s = \frac{S}{U_s} = \frac{350}{8000} = \underline{\underline{43,75 \text{ mA}}}$$

$$N/V = \frac{N_p}{U_p} = \frac{125}{400} = \underline{\underline{0,3125 \text{ vln/V}}}$$

TRANSFORMER

GULDKORN

$$n=20$$



- ① START MED DE GRATIS OPLYSNINGER
- ② FIND S ELLER n
- ③ BEREKN TREKANTER $\triangle$

$$U_p = U_s \times n = 11,5 \times 20 = \underline{230V}$$

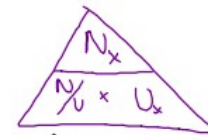
$$I_s = \frac{S}{U_s} = \frac{350}{11,5} = \underline{30,43A}$$

$$\frac{N}{V} = \frac{N_p}{U_p} = \frac{800}{230} = \underline{3,48V/V}$$

$$I_p = \frac{S}{U_p} = \frac{350}{230} = \underline{1,52A}$$

$$N_s = \frac{N_p}{n} = \frac{800}{20} = \underline{40V/V}$$

$$\frac{V}{N} = \frac{U_p}{N_p} = \frac{230}{800} = \underline{287,5mV/V/V}$$



	U	I	N	S	n	$\frac{N}{V}$	$\frac{V}{N}$
P	230V	1,52A	800V/V	350VA	20	3,48V/V	287,5mV/V/V
S	11,5V	30,43A	40V/V				