

photo\_2017-04-29\_15-24-37.jpg

photo\_2017-04-29\_15-24-47.jpg

photo\_2017-04-29\_15-24-50.jpg

photo\_2017-04-29\_15-24-53.jpg

ما عین و پرسی

$P_{oc} = 1/9 P_N$

$P_{sc} = 1/9 P_N$

$\rightarrow P_{oc} = \frac{K}{9} P_{sc}$

$P_{oc} = K^2 P_{sc}$

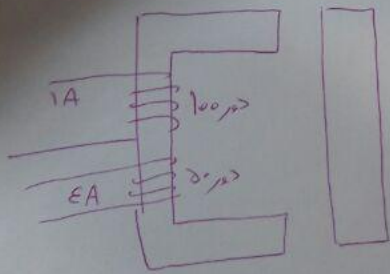
$\Rightarrow K = \frac{3}{3}$

(۷۶)

در صورتی که در آن رابطه مانع از ورود

$\eta = \frac{\frac{1}{3} P_N}{\frac{1}{3} P_N + P_{oc} + P_{sc}} = \frac{\frac{1}{3}}{\frac{1}{3} + 1/9 + 1/9} = \frac{\frac{1}{3}}{\frac{1}{3} + \frac{2}{9}} = \frac{\frac{1}{3}}{\frac{5}{9}} = \frac{3}{5} = \frac{60}{100}$

$\rightarrow \eta = \frac{60}{100} = \frac{60}{100}$

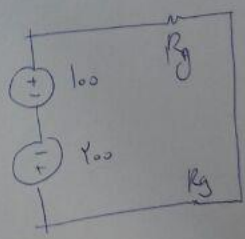


$f = \frac{1}{T} R' \varphi^2$

$f \propto \varphi^2$

(۷۷)

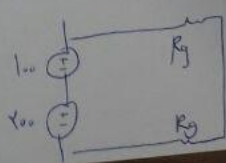
بالت اول



$\varphi \propto 100 \rightarrow f \propto 100^2$

$f = 9f$

بالت دوم



$\varphi \propto 100 \rightarrow f \propto 100^2$

$$\lambda = L I \Rightarrow L = \begin{bmatrix} \frac{1}{\sigma} & \frac{1}{\sigma} & -i\delta \\ \frac{1}{\sigma} & \frac{1}{\sigma} & 0 \\ -i\delta & 0 & +i\delta \end{bmatrix} \quad (v8)$$

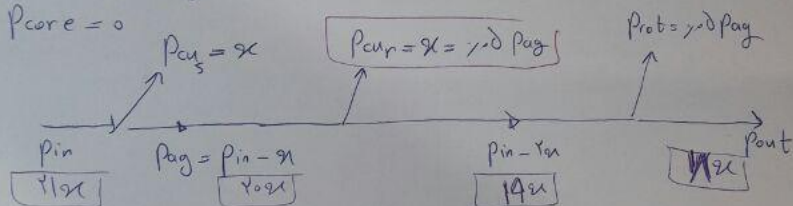
$$W = \frac{1}{\sigma} I^T L I = \frac{1}{\sigma} (1 \ 1 \ 1) \begin{pmatrix} \frac{1}{\sigma} & \frac{1}{\sigma} & -i\delta \\ \frac{1}{\sigma} & \frac{1}{\sigma} & 0 \\ -i\delta & 0 & +i\delta \end{pmatrix} \begin{pmatrix} 1 \\ 1 \\ 1 \end{pmatrix}$$

$$\frac{1}{\sigma} (iV \ iV \ 0) \begin{pmatrix} 1 \\ 1 \\ 1 \end{pmatrix} = \boxed{iV}$$

$$S = i\delta \quad P_{cus} = P_{cur} = \mathcal{X} \quad (v9)$$

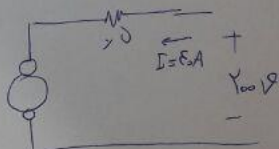
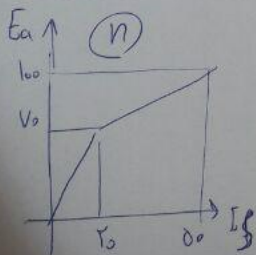
$$P_{rot} = i\delta P_{ag}$$

$$P_{core} = 0$$



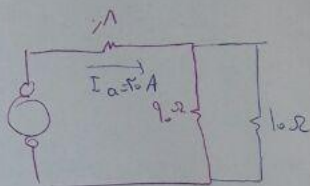
$$\mathcal{X} = i\delta (P_{in} - \mathcal{X}) \Rightarrow P_{in} = 11 \mathcal{X}$$

$$\eta = \frac{P_{out}}{P_{in}} = \frac{11 \mathcal{X}}{11 \mathcal{X}} = \frac{11}{11} = \frac{90}{100}$$



$$E_a = V_0 - i\delta \times X_s = 110 \propto 1000 \text{ rpm}$$

$$E_s = E_s A \xrightarrow{\text{Joules}} E_a = 90 \propto n \Rightarrow \boxed{n = 900}$$



$$E_a = 9,1 \times 10 = 91 \text{ V}$$

$$\frac{I_{st}}{I_N} = 2$$

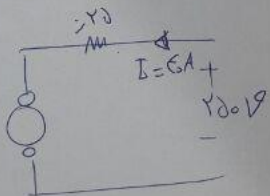
$$\frac{T_{st}}{T_N} = S_N \times \left( \frac{I_{st}}{I_N} \right)^2 \rightarrow \boxed{S_N = \frac{r}{r_0}}$$

$$\frac{T_{st}}{T_N} = r$$

$$\frac{I_{str}}{I_N r} = r \rightarrow \frac{T_{str}}{T_N} = \frac{r}{r_0} \times (r)^2 = \left( \frac{r^3}{r_0} \right)$$

$$\varphi = cte \rightarrow I_a = cte$$

$$\tau = cte$$



$$E_a = 120 - E_{0, r_0} = 160 \propto 1400 \text{ rpm}$$

$$E_a = 120 - E_{0, r_0} = 160 \propto N$$

$$\frac{160}{140} = \frac{N}{1400} \Rightarrow N = 933,3 \text{ rpm}$$

۱۸۴) تعداد قطب مغضوعه با فرض ۴ قطب یوکس ماعین

$$N_s = \frac{120 f_s}{p} = 1000 \text{ rpm} \Rightarrow S = 0.1 = 10\%$$

$$N_r = N_s = 1000 \text{ rpm}$$

سرعت میدان دوار «رولور استاتور» نسبت  
به بدنه استاتور

$$N_r' = 3 N_s = 100 \text{ rpm}$$

سرعت رولور نسبت به بدنه رولور

$$\Rightarrow \left( \frac{1000}{100} = 10 \right)$$