

(A) $\langle N \rangle = \frac{3}{\pi} \sqrt{3} U \cos \alpha - \frac{3}{\pi} X_{cc} I$

(B) $\langle N \rangle = \frac{3}{\pi} U \sqrt{3} \cos \gamma - \frac{3}{\pi} X_{cc} I$

(C) $\alpha + \mu + \gamma = \pi$

$X_{cc} = \alpha \frac{U^2}{S_n}$

POR UN LADO

De (B) imponiendo $-\langle N \rangle = E \Rightarrow I = \frac{\pi}{3 X_{cc}} \left(\frac{3}{\pi} U \sqrt{3} \cos \gamma - E \right)$

\Rightarrow MAXIMA I PARA $\begin{cases} \text{MAXIMA } U & (380 + 10\%) \\ \text{MINIMA } E & (560 - 5\%) \\ \text{MINIMA } \gamma & (5^\circ) \end{cases} \quad \underline{\underline{I_{MAX1} = 880A}}$

POR OTRO LADO

$I_n = \frac{S_n}{\sqrt{3} U} = 912 A$

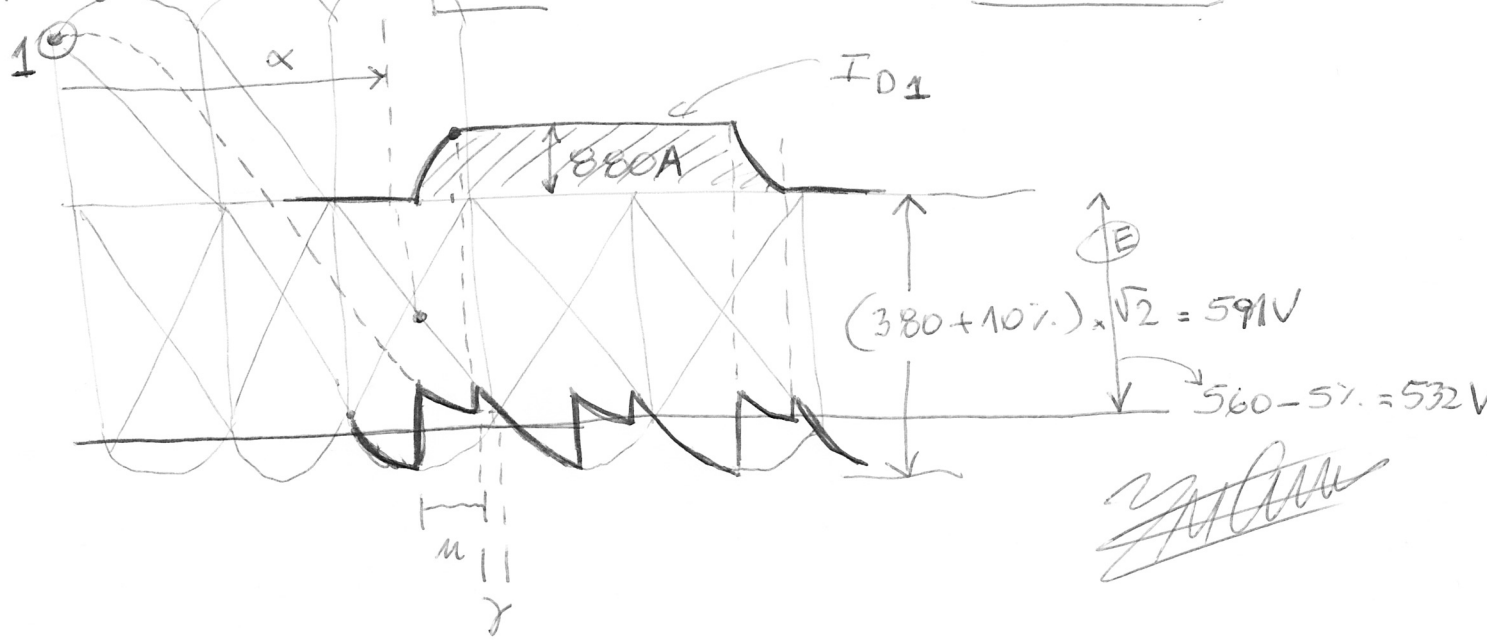
\Rightarrow EL LIMITE LO DA LA FALLA DE CONMUTACION

(HIP) $I_{eff}(I_{MAX1}) = \sqrt{\frac{2}{3}} I_{MAX1} = 719 A$
SE DESPRECIA LA CONMUTACION

$\underline{\underline{I_{MAX} = 880 A}}$

luego de (A) $\alpha = 153^\circ$ y de (C) $\mu = 72^\circ$

Finalmente la $P = E \times I_{MAX} = 468 kW$



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