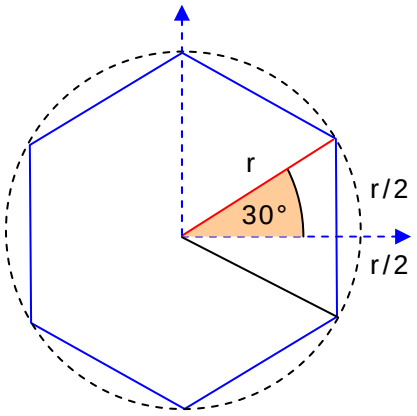
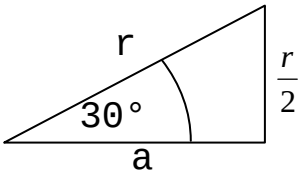
cos30°

Winkelfunktion aus der Sechseckkonstruktion





$$r^2 = \left(\frac{r}{2}\right)^2 + a^2 \Rightarrow a = \sqrt{r^2 - \frac{r^2}{4}}$$

$$a = \sqrt{\frac{4r^2}{4} - \frac{r^2}{4}}$$

$$a = \sqrt{\frac{3r^2}{4}}$$

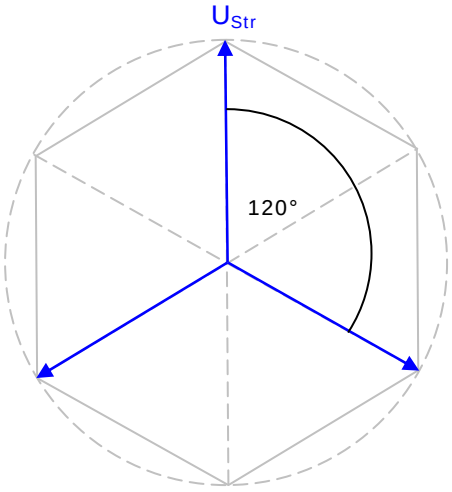
$$a = \frac{\sqrt{3}}{2} \cdot r$$

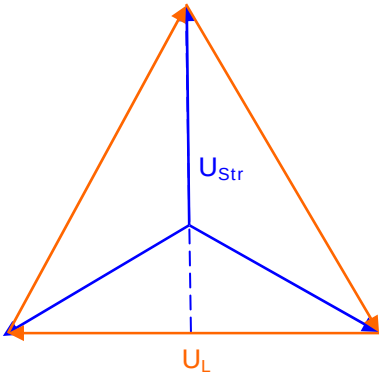
$$\cos 30° = \frac{a}{r}$$

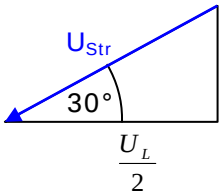
$$\cos 30° = \frac{\sqrt{3}}{2} \cdot \frac{r}{r}$$

$$\boxed{\cos 30° = \frac{\sqrt{3}}{2}}$$

Verkettungsfaktor aus dem Drehstromsystem







$$\cos 30° = \frac{U_L}{2U_{Str}}$$

$$\frac{\sqrt{3}}{2} = \frac{U_L}{2U_{Str}}$$

$$\boxed{\sqrt{3} = \frac{U_L}{U_{Str}}}$$