Rectifier Tables: Triphasic Uncontrolled

Diego Trapero

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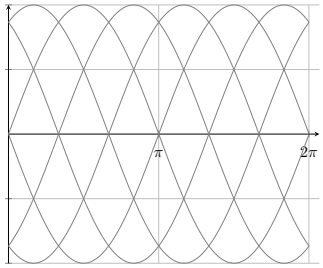
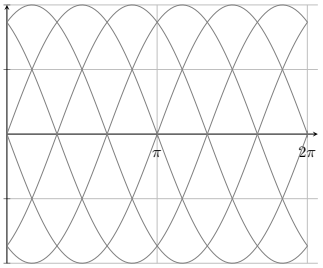
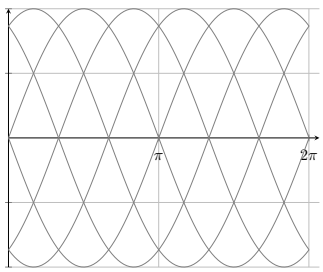
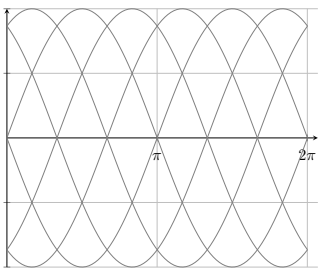
1.1 Triphasic Uncontrolled Rectifiers with R load

What	3Φ Half Wave Rectifier	3Φ Full Wave Rectifier
Circuit Diagram		
v_o		
Peaks/period	3 peaks/period	3 peaks/period
Period	$\frac{2\pi}{3}$	$\frac{2\pi}{6} = \frac{\pi}{3}$
Integration limits	$\frac{\pi}{6}, \frac{5\pi}{6}$	
Load Voltage	Phase Voltage	Line Voltage
$\bar{v_o}$	$\bar{v_o} = \frac{1}{\frac{2\pi}{3}} \int_{\frac{\pi}{6}}^{\frac{5\pi}{6}} V_{PN} \sin(\theta)\, d\theta$ $\bar{v_o} = \frac{3V_{PN}}{2\pi} [-\cos(\theta)]_{\frac{\pi}{6}}^{\frac{5\pi}{6}}$ $\bar{v_o} = \frac{3\sqrt{3}}{2\pi} V_{PN}$	$\bar{v_o} = \frac{1}{\frac{\pi}{3}} \int_{\frac{\pi}{3}}^{\frac{2\pi}{3}} V_{LL} \sin(\theta)\, d\theta$ $\bar{v_o} = \frac{3V_{LL}}{\pi} [-\cos(\theta)]_{\frac{\pi}{3}}^{\frac{2\pi}{3}}$ $\bar{v_o} = \frac{3}{\pi} V_{LL}$
Diode table		
i_o		

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