SELECTING THE BEST SCR OPERATION MODE FOR OPTIMIZED PERFORMANCE AND ENERGY SAVINGS

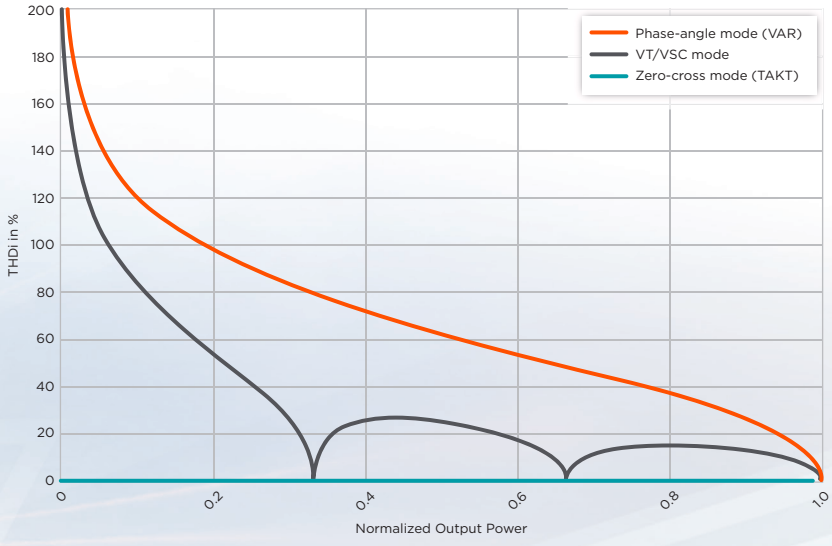
Modern SCR power controllers offer multiple operation modes, enabling you to select the best control method for your application, whether your priority is to minimize THDi or maximize power resolution.

VAR **Phase Angle**	Fast-responding transformer-coupled or inductive loads	High control resolution, but low power factor and excessive harmonics that can interfere with other equipment
TAKT **Zero Cross**	Loads with high thermal inertia and switching speeds as fast as once per second	Full-wave switching: virtually no harmonics, drives transformer-coupled loads while minimizing inrush current, supports power manager or mains load optimization (dASM) for multiple-zone applications
VSC **Voltage Sequence Control**	Applications with single or multiple transformer-coupled heating zones	"Autotap" mode: phase-angle mode's fast response, high control dynamic, and high control resolution per cycle—with harmonics and noise optimization
QTM or VT **Half-Wave Firing or Zero Cross + Phase Angle**	Non-transformer-coupled loads with low thermal inertia, such as in infrared and single-phase applications	The advantages of both zero-cross and phase-angle modes —plus mains load optimization (SVT or internal mains load optimization) for multiple-zone applications
MOSI	Heating resistors with very low cold resistance and high thermal inertia	The advantages of zero-cross mode for applications requiring pre-heating in phase-angle firing for each production cycle: automatic temperature ramp-up in phase-angle mode, followed by automatic switching to zero-cross mode to maintain temperature set point

For multiple-zone applications operating in zero-cross mode, automatic digital mains load optimization (dASM) reduces peak load demand and THDi, which reduces energy usage.

Optimize your heating application with the ideal operation mode.

Click to learn more.



THDi reduction with VT, VSC, and TAKT firing modes

For international contact information, visit advanced-energy.com.

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